

Atari ST
Amiga
CBM 64/128
Spectrum
Amstrad
IBM + more

ISSUE TEN • JULY 1988 • £1.50

ACE

ADVANCED • COMPUTER • ENTERTAINMENT

MUSCLE UP!



Sports sites to get you in shape for the Summer

HOW do they crack those games?

WHY are they breeding viruses?

WHAT will they think of next?

HACKERS

Spindizzy
Cassette
(Not for export)

FREE!

SPINDIZZY

The incredible fun plus
Electric Dreams
file complete

AMSTRAD
SPECTRUM
COMMODORE

ATARI ST +
AMIGA owners
claim your FREE DISK
see page 71

If your cassette is missing
see page 26

Full game instructions on page 58

ACES HIGH

Interceptor wins the flight
sim dogfight



NEW MUSIC MICRO!



The year is 1987; Robin, an 11 year old boy with phenomenal psychic powers is in a trance. His mind has left his body and travelled through time, taking him to a post-holocaust Southampton ruled by Fascist forces — The System. Everywhere is bare, scorched and desolate. He is totally alone!

The friends he left behind are powerless to help him as they stand over his inert body, watching transfixed as his fluorescent green eyes reveal like a TV screen the horror and devastation of his surroundings.

Will Robin survive?

Can he blow up the enemy generator, defeat The System, free the prisoners and return to the present?

He has just 24 hours to save the world!

NEW FEATURES

- Icon driven
- Intelligent interactive characters
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Atari ST	24.99
Amstrad PCW	24.99
Amiga	24.99
MS DOS	29.99

A flight into a nightmare— **MINDFIGHTER**



Mindfighter storyline and artwork ©
1987 George Oberholzer. Mindfighter
computer game © 1988 Activision, Inc.
All rights reserved. Distributed by Activision
US Corp. Adult supervision required.

ACTIVISION
OF ACT-PAKED ADVENTURE GAMES.



**ABSTRACT
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News & Analysis It's just one of over 10 recommended sports titles.

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This month's incredible free cover content!

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Across universal dominion. Con: 10.

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Pick up your phone, dial a number, visit other worlds, meet real people, and MUG them. ACE presents the definitive guide to Multi-User Games including MUD, MUD, and Tron.

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Every month we **split** out our hundreds of titles, with our **special ACE card**, check out the wrong numbers, and get **saved**.

14 Competition

From Family One, Ten Ones, Deluxe Pent Interceptor – just some of the recent blockbusters from **Electronic Arts**, ACE gives you the unique opportunity to win **EVERY** Electronic Arts release for a whole year, a prize worth at least **£500** to each winner and a lot more in **street cred**.

16 Special Offers

OK, you don't **have** to buy the stuff, you know. After all, we're only offering some of the **best games available**, with **rapid delivery** AND a **price** that's **spot on**. So just close your eyes, turn the page, and at **everybody else's** price the **best multi-order bargains** around.

18 Subscription

What's a stack of exciting US **EA** games – that's right! Plus the **authoritative** ACE drooping through your letterbox **every month**? Turn to page 22 and make your **wildest dreams** come true...

ACE YOUR PAGES

102 Buyer's Guide

Just for complete in your collection? Over 100 **ACE** recommended games complete with **mini reviews** and **price details** so you can buy with confidence and get the games you **really** want to play. And if you need a new computer to play them on, check out our **hardware upgrade guide**.

124 Random Access

You've read the magazine, now **enter** the puzzles and win a prize.

127 Readers' Pages

That means you, all your **opinion** and **fantasy** – in or on **email**, plus help for **stranded** adventures in the ACE magazine.

THE ACE CARD

It's an ACE Card!

Turn to page 12 for details of your chance to win one of two ACE 27s we're giving away – and check the **letter** first to see if you're even in. Amiga at any of the staggering 24 software prices we offered last month.

ARE YOU A WEIRDO?

Of course you are. Everybody who plays computer games is a weirdo. You're one of those people who actually enjoys that mindless rubbish, aren't you? Shooting aliens... all that hideous racket... waste of money... I expect you probably pulled the wings off flies when you were little and watched TV ten hours a day. What a moron!

Well, that's what a large proportion of the population still seem to think. Here at ACE we get sick and tired of concealing our true identities at cocktail parties, pretending to be accountants or ad executives, while at the same time we're secretly conducting a slow-motion mental replay of the last ship-down in Japan...

"Yes, thank you Mrs Codwallop-Smythe, the salmon mousse was delicious... Damn! a quick swerve to the left would have had that last damp might have saved me... must try that one out next time... Oh yes, and how is little Jimmy? ... just wait till I get him in my sights... Computers??? Good gracious no, horrible things, never touch them... because I'm too busy gripping the joystick, dodging – get back to the console before I unleash a smart bomb and... Of course I would just love to hear Jimmie play Auld Lang Syne on the harmonium..."

...and so on and so on. You know how it is...

But it needn't be like that. Soon even the Codwallop-Smythes will succumb. Guess which machine the software houses are currently getting all worked up about – the PC, that's what. Millions have been sold and now even PC owners are getting fed up with spreadsheets and loading up Elite, or *Altavengers' Guide*...

Of course, the Codwallopers have probably got a PC in their drawing room. It may even have a modem. You might have a modem too. You could log on and...

...smart bombs away!

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ATARI ST

EXPLORE THE

OF



You or plane has climbed on a mountainous plateau somewhere in elegant Tibet. You and your companions are alive but recovery from the impact is short-lived — a large dragon is moving towards you, so it gets closer you rub your eyes in disbelief or disbelief — where are you... and what? Now you learn to survive in a world untouched by modern life — a world frozen in time. Stunning graphics and superb animation may fill this epic adventure game.



ARMY MOVES

You are one of the elite — a heavily armed crack brigade in battle against a formidable enemy. You'll need all your skill to take advantage of every situation, star tactics to keep on going where others would fail and courage to face the countless bombardment by enemy tanks, helicopters and artillery. If you survive Army Moves you'll have some great tales to tell.



AND BEAT
HIGHEST
YOUR



£19.95
EACH



THE TREASURES

FIVE

Ocean



The Award-winning film by Oliver Stone has been shrewdly transcribed to the software world to reward readers creating a film. No other Computer Game. Rated as the "Best Film Tie-in to date" — the program has received 17 million reviews on all formats. Special boxed pack contains a FREE first-class game picture and a diskette consisting of Ernie's movie's classic song "Break of My Heart".



BEYOND THE HEIGHTS OCEAN

ADVANCE

the name
the game



Coins have passed... yet elusive opponents and action in the original ARKANOID game. Dimension controlling force "DOH" has come back to life and occupying the huge space-craft ZARD, has entered our Universe. ARKANOID type space-fighter "MATEO" runs through long forgotten coin after data until it finds the answer to the threat. "VALIS" is launched and speeds towards the threatening alien presence, before it can extract its revenge. "The Revenge of Doh".



MUSIC MICRO, PLEASE



THE BIG MATCH

If you're going to produce a soccer game from a launch at the same time as the European Championships kick-off seems like a good time to do it. Even better if — in the tradition of Stan Healy, Gary Lineker, Peter Shilton, Bryan Robson and Michel Platini — you can get a soccer star to endorse the product.

Grandstand have got both. They're bringing us Peter Beardsley's European Football around the turn of June — just when things get going over in West Germany.

The game is essentially an arcade-style soccer game, but with a 'tournament' mode and allowing you to play other European teams up to the finals of the competition.



The arcade part is in the usual mode of control passing to the player nearest the ball. A Grandstand spokesman commented that the game should feature "some of the most animation you will have seen."

The game should appear first on the Atari ST, then the Amiga, at around £20. A CD32 version will follow at the end of June (£5.95 retail), £14.95 (bulk) with Amstrad, Spectrum and MSX appearing towards late summer. Peter Beardsley is expected to make a number of personal appearances to support the game's launch.

The industry has, at least, been kept in suspense about the machine from Amstrad. Following our suggestion that the company might release a games console,

industry commentator Guy Keenlyvy recently reported that Alan Sugar's next venture would be a Spectrum +4 with musical capabilities.

As usual, there's a lot of can't-tell information behind all this. Amstrad are quite adamant that they have nothing scheduled at the moment* — but that that doesn't really mean anything. However, ACE can reveal at least part of the truth behind the rumors: there IS a musical mode in the making, but it won't necessarily be Amstrad's — check out page 92 for the full story.

Meanwhile, the Amstrad rumors continue: "They've got two releases coming up," declares Code Masters' Bruce Everett, "one pitched just above the current Spectrum, and one just below... Other magazines have joined in the chip, speculating that the Spectrum +4 will be a 12.5M machine with a high-speed 286, ST type graphics...but in working mode...etc...etc. Personally, we reckon the reality of Atari's computer-related side in this issue is a lot more interesting than industry speculation, but there's no doubt that the media's certainly seeking round for Amstrad affairs — watch this space for more of the file.

A C E N E W S

PIRANHA SINKS

Latest software houses to sink is Piranha, the label set up by book publishers Macmillan to dip the corporate toe in the games software market.

While the name conjures up images of aggressive marketing, Piranha never really cut the mustard in the world of games. His was fine and far bettered, with the result that the Macmillan board pulled the plug on the project.

Piranha's demise means that the virtually completed games of their James Ray or the Flyers and an ST version of Flunky are up for grabs. There's no news as yet on any potential purchasers.



There's an unexplained boom in the computer entertainment industry—thousands of people in the UK have bought high-power machines that can handle 15-colour game screens as fast as an ST²—and here's not using them for games!

What are these cool-as-hot-cocoa, high-performance morsels? They're IBM PCs, IBM compatibles made by clone manufacturers like Amstrad and Opus. You can buy them in the High Street, monitor and all, for much the same price as an ST or Amiga system. They contain a larger range of software than either, and they'll make great games machines: if you get the chance — so why don't they?

The problem lies in few people use PC clones. ACE itself called them 'being back in issue 1', and there's an element of truth to the charge. Games like *Falcon*, *Diploarcy* and a

some heavy-duty games too. As it happens they've still got so much to offer to any other machine out there.

In the UK, games tend to be a lot more particular: getting them to buy PCs instead of comparably priced Amiga or STs would be all but impossible. That's why software houses here are increasingly trying to drive out the gamingplay market in existing PC games. As useful as it is, PC users don't play games as often get to hear about them said Microsoft's *Call of Duty*. But we are making inroads. Perhaps the answer is to produce games that fit in with other ways of using the PC. Top-up games like Microsoft's *Sim* can be loaded in memory at the same time as a serious program like a spreadsheet or wordprocessor, ready to go into life at the touch of a key when the user gets bored. Other games need more of the computer's attention but



Falcon (American Amiga) is the still unbeaten IBM clone... and it's looking good already!

PC POWER

great variety of titles have shown us that the machines can be really exciting, but the fact is that PC buyers in this country are still typically after emulators, databases and spreadsheet packages.

Across the Atlantic things are very different. Cheap PCs are seen as general purpose home machines over there, and most of them will still do gaming games at one time or another. It makes sense really. PCs have the largest software libraries in any machine in the world, and modern clones have the power to run

an entire world with serious step-up programs like *Statistica* or *PC Outline*.

VIDEO GAMES

There are several different graphics standards for the PC, but the main one for games is with the aged Color Graphics Adapter (CGA) standard. This offers a 320 x 200 pixel four-colour screen very similar to the four-colour mode of an Amstrad CPC. Though all IBM's 8088 like the one in the Amstrad PC 1632 can show three graphics modes a CGA screen at a far off speed — PC 86's a great example of this — the display simply can't compete with the 15 colours of an ST screen or the 32 that many Amiga games offer.

The CGA's days are numbered now, mind you. Increasingly cheap PCs like Amstrad's PC 164 are fitted with the Enhanced Graphics Adapter (EGA) as standard, and the EGA's an altogether more impressive beast. It can offer screens with resolutions of up to 640 x 380 pixels, in 16 colours from a range of 64. The ST and Amiga will have more colours than this to choose from, but the ST can only manage that kind of resolution in mono — and the Amiga needs a special monitor to display more than 200 lines on the screen without flickering.

That's all good news for graphics buffs — a PC 164's a serious bet for the Amiga as an art machine. It's doubtful whether that colour that you're after — but game-playing fans will be more interested in seeing the speed the PC can move its graphics around it. On the face of it, the ST and



Amiga (American) shows the cost of solid 32 graphics for IBM display card prices.

Amiga with their Motorola 68000 processors should convincingly round the PC's feet — but things aren't always what they seem.

PROGRAMMER SPEEDS

The 68000 is not the fastest chip in the world, and at comparable clock speeds the 68000 will generally show a clean pace of heels. The comparable 8088 and 8088 can offer substantially higher performance, but only at a price beyond most people's pockets. In any case they've got competition of their own in the 68000's faster cousins, the 68010 and 68010.

The 68000 family's speed comes from the fact that they were designed from the outset to handle 32 bits (that's four bytes) of data at once. The 8088 had to be a bit of a poor relation here: it has to break 32-bit lumps of information down into two 16-bit halves. The compromise of 16-bit work is faster than the 8088's pure 16-bit approach when there's a lot of data to be moved, and screen-handling's just that sort of situation.

A typical EGA game screen — 320 x 200 pixels in 16 colours — takes

up just as much RAM as an equivalent ST or Amiga screen, and the size of a screen tends to determine how much work the processor needs to do. The ST and Amiga can really get moving on those wide-open spaces of screen memory — but what hope does the PC have?

EGA ADVANTAGES

Strongly enough, the design of the PC's video hardware gives it a fighting chance against the newer machines. The 68000's only advantage is that it can access four bytes of screen RAM in one go (more or less) — but thanks to the clever design of the EGA board, the 8088 can do the job!

When it comes to moving blocks of the screen around, drawing lines or filling large areas of colour, an IBM EGA PC like the 164 normally works out at least as fast as the ST or Amiga. It's slower on some conventional gaming tasks — mainly on sprite-handling — but when it comes to the headline-making solid 32 graphics work, seeing so much more of these days, the 164 can certainly hold its own.

THE SOFTWARE GAP

The PC's weak sound performance is certainly a black mark against it, but with the amount of graphic power available the PC's real handicap as a games machine isn't hardware at all: it's software. Just as the ST or Amiga would do fine as business machines if they had a better software base, so an EGA PC clone would make an excellent choice for gamers if only more software used the graphics standard file. There's already the talent out there to write those games, if only the industry could win the UK users into playing around a bit more. ■

MESSY DIVORCE

Following our report last month that the marriage between ORL and EA was on the rocks, news has broken that divorce has taken place — and a very amicable one too.

ORL are saying that EA owe them a lot of money, under the terms of the distribution agreement signed a year ago. EA are countering with the claim that ORL's games just weren't of the 'high industry standard' stipulated.

Heads and tails: who will be most likely to sue ORL for alternative means of distributing their games.



HORACE LIVES ON...

The Maharashtra Industrial Development Corporation near Pune, one of the holdovers in the background supplies the wheels of India with Spectrums machines - the software drive is the important word here for sales and use for years to pay for use. Below inside the Decibel building. The factory has the capacity to manufacture about 600 machines a day but import duty is at 20% of parts rather than machine expenses - about £20 each.



Some parts of the world are just a beep-away from behind the real when it comes to computer entertainment. ACE recently paid a visit to a country where Horace is still doing down the toy shops and Monomags (remember them?) Full Throttle is currently top of the charts.

The country's India, and for the last year or so a small company called Decibel Electronics have been churning out Spectrums for the local population of 800 million people. Unfortunately the statistics of real life soon whittle down the size of the market: 80% of the population earn less than £25 a week and 72% wouldn't be able to read messages on screen even if they

came across a computer in the first place.

This hasn't discouraged Decibel or distributors Computer Point. Top of the charts are Full Throttle, Cheques! Flag, Point's Flight Simulator and... Galaxies Games net around £2 each - i.e. a week's salary for someone on the poverty line. Almost all the games are expertly printed - even the distributors' - seemed embarrassingly unaware as to who the original publishers were of the games they sold.

Maharashtra business is booming. 'We've just sent ten machines to Bombay,' announced manufacturer Mr Shree triumphantly. Demand is going through the roof!

TRIPLE FORMAT DISCOVERED

First came dual format 5.25inige disks, now Level II have gone one further and developed a disk loading system that enables the same disk to be used simultaneously for Spectrum +3, Amstrad CPC, and Amstrad PC16 machines. Furthermore, unlike other systems, the new format uses only one side of the disk, with each computer sharing data. Machine-specific code for each more is kept in special 'partitions' on the same side while the other side of the disk holds compressed graphics data.

Even more intriguing is the fact that those people purchasing the new system will be able to use it to convert earlier Level II disk-based software published by Rainbow onto different machines. It's hard to see, however, just how useful being able to change an Amstrad CPC disk to Spectrum +3 format will be for anyone other than the (very) small minority of users who have both machines.

It's all made possible by the fact that the three machines use the same disk hardware, so the actual tracks on the disk are in the same position for each format. Otherwise you'd have serious problems. I explained Peter South of Level II.

Apart from space-saving for retailers, the real boon of the new system is going to be in better software availability for users. Previously some shops would have been unwilling to give up shelf space for copies of PC16 versions of adventure software.

This is a Right from Level II/Maharashtra - same disk for PC16/Amstrad/Spectrum +3 users.



Gamesters who used to girder their members in vanguard, take them in stride, and then fill them with molten lead in order to control all opponents will doubtless be taken by a new project underway at Origin Systems.

Continued: *Team Battle*, the program allows the player to program his own tank using a special, easy-to-use set of commands. Once you've picked it, as it were, you send it into battle with the computer and see who wins. After the battle you can then tweak the design or -- if

MINE'S A 500ER...

you were severely trounced -- start again.

So far, so good -- but what really makes the package sound interesting is the fact that the data for your tank designs can be stored on-disk and circulated amongst other players. In the States they've even setting up a big central computer system that players can log onto and go tank-tastic with their hottest designs.

Origin hopes the game will be available later this year. Watch this space for more details.

Meanwhile, the long-awaited *Ultima V* latest in the popular *Ultima* role-playing series, has been still further delayed. The *Ultima* folks say no hopes to be able to preview it next month...



Ultima II -- now available for the AT and PC, but *Ultima V* also not far behind it all in the reg.

ACE ON THE ROAD...

The Interceptor empire

Interceptor are one of those companies who've been around a real long time -- remember such jolly titles as *Talley Wally* and *Arabian Nights*? -- but who don't really have a lot of in these days of 16-bit mega-games. ACE took to the air to find out what they are up to now.

At the moment the public probably knows *Interceptor* best for its budget *Playas* range -- *Joe Blade* reached number 1 and stayed in the charts for quite some time. But what you might not know you actually go to *Interceptor HC* to find they're much more than a software company.

There's a tape and disc duplication plant, a tape-cassette manufacturing facility, a printers, an art studio. There's even a removal and transport firm. The chances are that even if you've never bought an *Interceptor* game in your life, you will have bought a tape they duplicated, or at least a tape made a tape that they made. Perhaps you even moved house in one of their trucks.

Despite these multifarious interests, *Interceptor* are still very much involved in software production. Their in-house team is working on *Joe Blade 2* and other budget titles, while the Pandora label has several 16-bit releases up its sleeve.



The software programming team with some of their current projects.

SNIPPETS...

Up and coming titles for your micro

TRIGGER HAPPY

CD, OS4 £9.95ms £14.95ms

Trigger Happy is that alien race causing havoc in the outer atmosphere, so it's down to you as Flight Commander McCoy (the real one perhaps?) to climb in your Advanced Flight Capsule and go give 'em hell. Use your three multi-directional guns well and you might survive the 32 levels of gun barrels, mines, traps and nastiness. Look out for 4 stars.

STAR FLEET

Intercept/Electronic Arts
Amiga £24.95ms
Atari ST £24.95ms
IBM PC £24.95ms
OS4 £14.95ms

The big EA are geared up for the imminent release of the first of *Intercept's* Fleet series. The player takes command of one of 34 galactic heavy cruisers and has to protect the outer regions of the Alliance from invading Kriffin and Sabon warships. Be prepared to rescue Starbases, capture and tow enemy vessels, lay minefields, search for intruders and repair damaged systems in this intensive strategy cult role-playing game.

LASER SQUAD

Target Games
Spectrum £9.95ms
OS4 £9.95ms

Laser Squad provides a nice strategising system involving a variety of weapons and unit types. The basic one- or two-player game comes complete with three scenarios and Target Games plan to release future scenarios that can be loaded into the main programme. Each scenario is

effectively a completely separate game with different units, maps and objectives. The *Spectrum* version will be here first with the *Commodore* version following in the Autumn.

STALINGRAD

CCO
Spectrum £9.95ms

The latest ace strategy game (available next by Ken Pitkin) takes the player back to the Eastern front of 1942. Isn't it slugging it out with Jerry that's your arena a varied terrain the size of seven screens. There's plenty of scope for strategy and tactical planning and three difficulty levels so you should find the game puts up a good fight whether you're a novice or an expert.

THE SENTINEL

Firepod
Amiga £19.95ms

This is one of the all-time greats and has been available on most formats for a long time. Now Amiga owners won't have to wait much longer to be able play the classic game -- but first check the ACE updates pages in a future issue before you splash out to get all versions of a game are equally good, and though the price are the Amiga version's gonna be hot hot, it just might turn out to be a lukky.



The Sentinel



Scenario 2: Warehouse Assault

See
page 139 for a
list of the winners to date.

ATARI SC1224

ATARI ST

WIN AN ATARI ST!

Has your ACE card come up trumps this month?
There are 25 great prizes.

For everyone who received a free ACE card on the cover of the April issue, here's another great opportunity to win prizes.

Using the same program as last time, just type in the 25 new 4-letter codes printed on this page. If the program converts one of them into your personal number, you're a winner!

If you missed the April ACE, you can still get off of an ACE card — see the box for details.

LOOK AT THESE PRIZES!

ONE 1st PRIZE: ATARI ST + COLOUR MONITOR

The winning code: **8XCE**

FOUR 2nd PRIZES: £50 of software — chosen from the ACE Special Offer pages

The winning codes: **CTXJ • BXSG • ABDC • CSUM**

TEN 3rd PRIZES: £25 of software — chosen from the ACE Special Offer pages

The winning codes: **CBRE • BMYA • BLJ • AGDY • BXSP • BQOR • ELYG • CBMG • ALFK • AFMG**

TEN 4th PRIZES: A year's free subscription to ACE magazine

The winning codes: **BOUN • DPRL • ACHI • COOK • CBOW • DDDD • EFDZ • BLDX • BQPH • DYOS**

HOW TO CLAIM A PRIZE

If you don't fit within the rules, we may still be able to help by sending you more ACE cards together with a list of prizes and software on hand for the month of May.

I subscribe to ACE and/or I qualify for prizes and would like them to be sent to me in the ACE Special Offer pages (4-15).

My personal details are as follows: (Please print name and address in full, including postcode.)

Post to: ACE CARD PRIZES CLUB, 4 Queen Street, Bath BA1 1BE. Closing date for entries July 15th, 1988

HOW TO OBTAIN AN ACE CARD

You receive the first issue FREE, plus you receive 40 more at the average of 10p each, a complete set of software (including manuals and support software) worth £100, and software for the month of May worth £100. You receive 100 ACE CARD REQUESTS (3 Queen St, Bath BA1 1BE). This offer ends while stocks last.

THE DECODER PROGRAM

The decoder program (ACE 00000) is a code that prints out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

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The decoder program (ACE 00000) is a code that prints out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

CGA, CGP, ST, AMIGA version

88 FOR A+1 TO 25 INPUT "Code" : BS
20 B=0 FOR C=1 TO 4 B=B+25
88 D=ASC(CHR\$(B/C)) : P
40 IF C=2 THEN D=D-32
88 B=B-D+25 NEXT C PRINT "Winning Number is" : BS NEXT A

SPECTRUM version

88 FOR A+1 TO 25 INPUT "Code" : BS
20 LET B=0 FOR C=1 TO 4 LET B=B+25
88 LET D=CODE(ASC(B/C)) : P
40 IF C=2 THEN LET D=D-32
88 LET B=B-D+25 NEXT C PRINT "Winning Number is" : BS NEXT A

TYPING IN THE PROGRAM

SPECTRUM

88 From the decoder program (ACE 00000) you can print out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

88 From the decoder program (ACE 00000) you can print out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

CGA/CGP

88 From the decoder program (ACE 00000) you can print out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

AMIGA/ST

88 From the decoder program (ACE 00000) you can print out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

ATARI ST

88 From the decoder program (ACE 00000) you can print out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

AMIGA

88 From the decoder program (ACE 00000) you can print out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

OTHER MAGAZINES

88 From the decoder program (ACE 00000) you can print out the list of your personal number for each month and is included in your ACE card. It can be used to print the program using the decoder in your computer program.

RULES

1. The prizes are given to the winners of the decoder program (ACE 00000) who have printed out the list of their personal number for each month and is included in their ACE card.

2. The prizes are given to the winners of the decoder program (ACE 00000) who have printed out the list of their personal number for each month and is included in their ACE card.

3. The prizes are given to the winners of the decoder program (ACE 00000) who have printed out the list of their personal number for each month and is included in their ACE card.

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riding can be reached by using the lift or going a flight of stairs. And as a BMW, a Volvo and a Porsche here, we're the BMW.

CORRUPTION

Rainbird/Magnetic Scrolls

These stunning graphics - from the same studio as The Pitkin Guild of Thieves and Justice - really belong in the Adventure section, but they looked so good we just couldn't resist putting them in colour. See page 101 for more details, or just gaze at them and wish you had an ST too.

FOR YOUR EYES ONLY

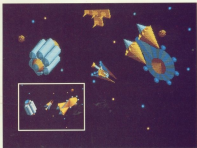
Pay attention, 007! These are some of the very latest pieces of software the boffins in Britain's software houses have come up with. They'll be issued to agents in the field as soon as the teething problems have been ironed out, but in the meantime we'll put a copy of next month's ACE in your mission briefing so you know what to expect - and for heaven's sake, be careful with them! These games are tremendously powerful, and could get very hot while in use!

WHIRLIGIG

Firebird

If the Microsoft Commodore team have got a space ball here, they might like to consider the way Taito/Amsoft are capturing the market in state-of-the-art solid 3D graphics. We brought you news of this hot little property back in ACE issue 7, when we tested programmer Mike Shogren and his Microsoft team. As you can see, it's a hot city most kinds of Whirligig - but Mike's still got the visual fun to avoid multiplayer needs off.

— ST — The same picture of ships viewed from two sides.





87 • The low-tech (but flying) creature is an alien under attack, spraying the landscape with viral shots.

ROAD BLASTERS

US Gold

Mail's remarkable rate-ups - rather like Out Run with a turbo-boost option capability - is making its long-awaited transfer to the home market. Without the twin screens of Out Run it should at one time or another make better, but all that remaining speed and completely unresolvable violence will make it a real stunner. To put it mildly!

Q&A: Into like a rocket, stay like a boat!



VIRUS

Firebird

None probably said it before about it by now, but the SE conversion of David Batten's mind-bending Archon-style shoot-em-up hasn't too heavily got a name everyone's happy with. The game's very rarely finished now - well, give it the usual thorough ACE treatment next month - and it looks mind-bombingly good, just will it really work on the Spectrum? Surely not.



87 • The green invulnerable critter has swept the game's patchwork landscape, long levels of threat keeping it just clear of the rooftops.

TAKE 'EM ALL ON...

IT'S THE ONLY WAY TO LIVE!

Screen
Star

Target Renegade is hugely entertaining and simple justification for a sequel... it develops the theme and develops the game play to and on the original... Each one is four games... all beautifully drawn with great comic bookies. The dog is quite wonderful. *Commanders Khan*

PCW
GAME
OF THE
WEEK

Target Renegade has the added assets of variety, which is not to be found in other games of this kind. Fear not, this is well worth the notice. *PCW Game of the Week*

TARGET: RENEGADE



LI

Every
you'll
every day
take, the
watching
Fight your
through
proceed

back alleys, the
parks, fight your
through the wild
community, the
north, the streets
the hoodlums. Or a
steamy night in New
York is just the tip of
iceberg on your ob
quest to confront "MR. B"
A spectacular arcade
brawl with many hoodlums
hellbonds to ensue
this is Target: Renegade
if it moves, it

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SPECTRUM

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Imagine

"The name
of the game"

OVER THE RAINBOW

As the programming fraternity has become more familiar with the intricacies of coding for the Motorola 68000 series chips, the true nature of these beasts is becoming apparent. Using obscure and almost undocumented features, first Amiga and then Atari ST software developers have discovered ways of displaying the complete palette of 512 or 4096 available colours on-screen at once.

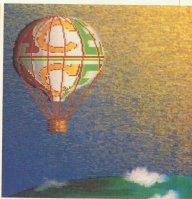
There are now at least two packages for the ST and a dozen or more on the Amiga that can display and manipulate 'Omni-colour' images. Two of these - Spectrum 512 for the ST, and Photon Paint for the Amiga - have recently appeared in the UK. They represent the state of the art in graphics for the Amiga and ST, yet they are very different packages, focussing on quite different aspects of 'screen-painting'. Brian Larkman tries them out.

OMNI-COLOUR PAINTING

Although it is usually possible to compare packages for different machines the way we do here was more when we decided on which computer to buy. It is interesting in its own because Spectrum 512 is 50% innovative. It manages to provide some completely new drawing tools and unique ways of operating within it. The old ones, using the large palette as a very effective way, despite the Amiga's previous lead in this area.

Photon Paint also has a number of new features that rely on a large palette, but by maintaining the basic layout and operating methods possessed by the original Deluxe Paint and Digipaint, it feels more like the obvious development of the theme rather than something new. This will work greatly in its favour, especially if the development team has not put right a number of surprising and annoying deficiencies. Most people find it easier to learn new software if it uses familiar icons and key maps, though this sort of consideration can sometimes 'lock' new, more powerful methods into the system.

Both packages have tried at the nearest thing to drawing tools, though Spectrum 512 has no means of drawing regular boxes or adding text to the image. Photon has no-attributes (it will neither box any form of gradient). Spectrum 512 also has an outstanding plus - a French-curve tool that can be used to lay out lines, drawn with the rubber-banded polygon tool. The really innovative aspect of this is that it also copies out-coming to the mouse as it draws them, using outside colours is slightly but the effect of increasing on diagonals. Very clever. Spectrum also uses a totally new method to



3D effect produced using the 3DAP function in Photon Paint. The 3D effect is enhanced by the continuous re-render.



8888 showing how you can achieve transformation effects in Spectrum 512.

the process of scrolling the scenery will draw each time the cursor bumps into its inside boundaries. Even the dragging open of circles and squares is quite different in the program, but since mastered, most of these new techniques are quite intuitive and easy, despite improvements.

MIXING COLOURS

If an area colour program is going to be any real use it must provide an easy way to select and mix colours without being too confusing. Spectrum 512 neatly fills down its list area because it provides an easy interface for it to get lost. However, like most other aspects of the package, with practice the colour controls are straightforward and comprehensive, allowing any

number of limited or unlimited pointers to be set up and saved.

Most Paint uses a system of colour codes generated by Digipaint that will also probably become a standard for the Amiga, or least for 16-bit, 4096 colour systems. Often the 50-bit, 16 million colour systems start appearing, the colour wheel used frequently in the computer graphics industry will probably take over. As far as it goes the Digipaint/Paint system is very good and allows the setting up of a palette of 40 colours. These can be selected or random or sequenced, or carefully calculated to produce a progressive range of shades.

The 'save' of the system is the 8888 mode of the Amiga itself, so unlike the programmers of Spectrum 512 have managed

to provide a system where almost any colour can be used to almost any other without causing lagging effects. When choosing individual colours to draw with in Plotter for any other 8888 package, the effect is often spoiled by lagging and square wave artefacts. These problems can be reduced by careful selection of base colours, but generally this is more aware of 8888 limitations than of the system used by Spectrum 512.

BLOCKS AND FLASHES

The basic and techniques discussed so far represent, with a few exceptions, the same methods that would be found in any drawing package. Where these two differ is in the way that they can manipulate an image once it is on screen. The first relates the various classes of edit-on-deleted separately.

A full colour image can be overwrote in two main ways, by editing either the colour or the bits of a chosen group of pixels. Most systems provide a means of picking up part of a screen, as a block or brush and pasting it down again. Deluxe Paint II, for example, allows an area to be transformed and deleted and number of ways by changing the form of the group of pixels in a block. When these are pasted down into the screen, they, and the pixels that they overwrite, can be made to change colour in a variety of ways that produce blurring, mirroring, smudging, fade and horizontal stretch, and a host of other effects. To a varying degree, both Spectrum 512 and Paint Plus are prepared for all these effects and more, though as we shall see, both are at best of strength and use of weakness.

OPERATIONAL COMBINATION

Comparing two packages designed for different machines seems a reasonable exercise,

SPECTRUM 512

Amiga/Electric Distribution £59.95

As always, Spectrum 512 has a unique way of doing things. To select a block of the screen a rubber-tipped bar is drawn out as usual. The area selected is available for use as it is copied to a buffer zone that is 10 full screen pages in size. Every block copied to the buffer remains available for as long as required. This all seems quite normal until the buffer area is entered. Here all blocks cut or copied can be viewed in seconds by touching the right mouse button and dragging the screen smoothly and quickly up or down. It really is as simple as holding a strip of transparency or negatives up to the light. Palettes To pick up a block only requires a double-click on it, even if it is a full screen. (Yes, 12 full screens can be stored at once on a 1088 and even saved all together in a compressed form.)

When a block is pasted back down a number of options are available. All blocks are anti-aliased as they go down. By pressing a combination of Shift, Alt and cursor keys the block can be re-sized and flipped. It is not possible to bend, rotate or give perspective (3D) to the blocks, so in general the form editing characteristics of Spectrum 512 are rather limited. Nevertheless, an interesting range of transformation effects can be achieved as often in the game 8888.

From within the block menu, the gradient fill function can be initiated. Exploring this could be a lifetime's work in itself but it provides a range of fills that seems to be limited only by

the imagination. Getting to grips with it is probably the most difficult (and most rewarding) aspect of the package so there is only room here for a brief description.

Gradient fill operates in conjunction with any colour palette you might have set up producing a range of colours emanating from various 'source' or 'seed' pixels you have placed on screen. If the palette contains a range of colours progressing from light to dark for example, the gradient will similarly be light to dark. It is a spectrum of hues, so will the gradient be. Any of the drawing tools can be used to position the 'sources' and other selected colours can be positioned to modify the gradient and mask the background. Once again Amiga have provided a unique way of implementing gradient fill, but once mastered it should be amazingly versatile and controllable.

A single example of the possibilities of gradient fill is shown in the colour CAPTION.

As well as gradient fill Spectrum 512 provides several other ways of editing colour: locally, globally, or within a block - including anti-aliasing, blurring, contrast control, hue shifting and brightness. Overall, the colour editing tools provided by the package are quite remarkable both in their versatility, and in the unique way they are implemented. The form editing tools are not so good, representing the weakest aspect of an otherwise difficult but remarkable program.

WHICH ATARI PACKAGE?

Some reviewers rate Quantum Point (Quantum) as the best, but I've opted for Spectrum 512 mainly because of the price (£59.95 - £79.95). Of course it's a bargain but what is the point of all these colours if you cannot really use them? If you can't edit with more colour editing tools, apparently in the same price, then it will compete. As always, Spectrum 512 is the better.

COLOUR TERMINOLOGY

R,G,B refers to the position of a colour on the colour SPECTRUM or rainbow. These are Red, Orange, Yellow, Green, Blue, Violet and the 888888 between 547,548,549,550 describe the purity of the hue or the amount of white it contains, a 0,0,0,0,0,0,0,0,0,0 refers to the level of black in a hue - 0,0,0,0,0,0,0,0,0,0 is the colour red.

but making a value judgment about whether the tool can only lead to tears, as I will not do it. At present there are two represent the ultimate coloring systems for their respective industries though they both have their weaknesses. Remember, the weaknesses at one end of the strength of the other end may mean a direct inverse case.

If Spectrum 512 had the brush selection, colour mapping, perspective, mirroring and text of Photon Paint it would be perfect. If Photon Paint had the Precise mirror, anti-aliasing, sliding buffer and erasability of Spectrum 512 its claim would probably spontaneously vanish. myself included. ■

WHICH AMIGA PACKAGE?

Deluxe Paint comes bundled with most Amiga 4 owners. Deluxe Paint II and DigPaint were compared in ACS issue 3. Photon Paint comes about mid-way between the latter two offering most of the facilities of each and a few more. Missing from Photon is DPaint's level of control of almost every function, its ability to paint fluidly with brushes, its pattern fill, the erasable DigPaint bit, a greater range of colour editing functions and not much else, certainly nothing like Deliauch manipulation, but watch out for DigPaint II. It would have all those Spectrum 512 goodies! Photon Plus is not only in the upcoming Deluxe A40! Photon Paint would be dead as they speak!

PHOTON PAINT

MicroLuxe.com Activation 266.09

In many ways Photon Paint is very similar to Deluxe Paint II. Anyone who has used DPaint will certainly have no trouble using the brush tools in Photon.

A brush can be picked up from the screen by dragging a box out or by basing an area (allowing an object to be cut from a complete background). Once an area has been captured any one of a set of four editing tools can be employed. These are as remarkable in their way as the colour editing tools of Spectrum 512. Any brush can be flipped (mirrored vertically or horizontally), rotated by ten or half in either direction as well as freely rotated into a 3D spiral, rotated in 100 increments or freely, bent horizontally or vertically, filled in the x, y or z planes to give a perspective effect and most importantly wrapped around a number of 3D geometric shapes. These last include a sphere (an ellipse, a tube, a cone, a cube, or a free cylindrical solid (a heart for instance). ALL OF THEM! (MORE) shows the size of several of these tools. (The original is shown in size corner).

At first the 'Wrap' function seemed to be a bit of a gimmick, but in practice it has proved to be very versatile and useful quite additive in fact. The picture ACSB HIGH was produced very quickly using 'wrap'. Both the surface of the earth and the ACS' balloon were originally flat drawings, picked up as brushes then 'wrapped'. The three-dimensional effect is

enhanced by the Luminaire requester. This provides gadgets to position a light source and alter its brightness. With a bit of experiment the 3D Wrap and Lighting function should give some remarkable results.

Like Spectrum 512, Photon Paint also provides a number of tools to apply a range of colour though these are very much more controlled by the program. Such control makes the results much less variable and experimental, but very much easier to understand. Like DigPaint, the effect of a brush posted onto the screen is determined by the mode menu. Depending on your selection the brush can overwrite the background completely, subtract the colour of its pixels from those of the background (as if it is a varying degree with the background). Blending is controlled with a very neat requester that allows the gradient and degree of blending employed to be varied in a number of ways. The effect of blending is to allow hampers, smoothly rounded, attached or together areas of the image to be produced automatically.

Overall, the four editing tools of Photon Paint are quite remarkable, especially for a HiRes program, surpassing even those of Deluxe Paint II. The colour editing is not as remarkable, though adequate enough for most people providing they have not just finished using Spectrum 512.



ALL of the various uses of the drawing and coloring effects that you can get out of Photon Paint.

Perhaps it's a good game because of all these things as well as an original idea that grabs your attention and continues to hold it for a long time? Was the flashy graphics, packaging, advertising and sound effects worth the money you've paid for your software?

Take a recent 16-bit game like *Ego*—it has nice graphics, great sound etc., but fails to hold the attention due to the lack of gameplay it could have been an excellent game if, at the design stage, a lot more thought had been put into the choices and decisions to provide a lot more variety. That classic game *Elite*, which sold to 20% of the software buying market last, for a lot of people, the ingredients needed to hold the imagination and usually kept you on the edge of your seat.

Software houses should learn from this, a game which has more time spent on it in the development and design stages produces a game with a long shelf life which will arouse the player for a long time. Of course, software houses will need to produce short time hits to provide a constant income. Although games like *Elite*, *Commander Keen* and *Captain Blood* initially cost more time and money to produce, so far so far concerned it is



ELITE - *Elite* is its complexity but also falling in its overall sales. Let's hope that *Elite II* has more success; the first game was just a little on the repetitive side.

money well spent if the game fulfils the objectives outlined in my first paragraph. I realize the role software houses take in releasing a game which needs a lot of products and then hope for whatever reason—but these rules may be taken to games to improve. If the game is well-designed and the initial idea is good then the product should do well.

LOADS OF MONEY

The old comparison between the software market and the music industry helps to prove that although a lot of money can be made from the charts, the material is usually hard and unpredictable. Long-term sales and investments like Peter Dinklage, Kate Bush and Paul Simon, for example, who take a long time to produce their work, stay popular. Surveys long-term, make excellent music and loads of money for themselves and their record companies. These types of artists build up a fanbase following of people who



The winner of our Edit ACE For A Day competition is Peter Cook, 27, who is a game designer at Elite Systems. Peter first became involved in computer education when he became obsessed with *Elite* (the game), bought the new version of *Elite II*, and advised software that "lots a lot of thought as well as being exciting."

GAMES DESIGN

What makes a good game? Is it the amazing graphics? Fantastic sound? Is it the programming the best you've seen in a long time? Winner of the fabulous 'Edit ACE For A Day' competition, Peter Cook, tells you what's what.

appreciate the music and the obvious fun and feeling that has been put into the work. This is not to say that the charts don't use this type of music—a piece can be both popular as well as experimental.

Going back to software, the point in trying to make it that if fewer games were released there would be more time for the software house to think about the product. This will hopefully provide much better gameplays which will encourage the public to buy more copies of the game. It's simple—if the gamers rubbish people won't buy it if it's great, more people will buy and keep on buying over a long time. As a software programmer is a logical mind—a valuable talent—and there have been some brilliant games written. But as a designer and a games player I notice the absence of designers in software houses who can create a game which will do the player's imagination and have elements which will inspire the player to continue playing for some time.

FRESH IDEAS

Where are the new ideas to come from

for the next feature in games? Or fresh ideas for the new technology like 16-bit, CD or transparent with all their improved graphics and huge sound. Can the 3D-ops and the 3D-ops go on forever? *Ego* certainly would transfer to 3D to CD in its present form. The future is already here in the form of

CD, and more interestingly Off Digital Voice Interactive. And are about to release their CD-ROM player and the ICA laboratories have developed CD which gives 70 minutes of motion picture video on a compact disc. Cinemas have been invited in DV for 18 months and are currently working with Paramount Pictures who are producing a series of stories based on the old idea of the Motion film. One reason have had access to all the information behind the production and will be shooting an interactive video side by side with the production team and they will probably release again up and personal computer version to help. *Starburst* have also begun working on some CD-ROM games to be released at the beginning of next year, which should mean with one of us can afford to some amazing innovations.

Today we are beginning to see what computers can really do—don't let us down, software houses, let us see some creative, long-term developments—including game designers—to produce a generation of creative, original ideas that will stretch the computer's capabilities but allow the player to



The new talent, Peter Cook (right) designs his game with editor Green (left).

become more than a maulman. I realize the necessity for software houses to make a profit, but there are a few software houses who are using a lot of imagination and are producing games which are popular and have that certain something that makes the game a classic. ■



EGO - A lot of thought went into the graphics and music etc.—notice about the lack of gameplay. More control over the character would have been nice. More innovation—a flying man, for instance—would have done things up.

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HOT ROD

Sega 32X

If as two players are driving hot rods after them, you'll be thrilled with Sega's answer to Atari's Super Sprint. The game's viewed from above with the monitor sitting in the centre of the four-player console and the music and sound effects blaring into your ears from overhead low speakers. Each player gets a control on an-screen floppy mat guide it through several continuously scrolling courses. You're got standard controls - steering wheel, accelerator and hi and lo gears. The idea is not simply to make it to the end of the course but to collect points (drive over small P symbols) on the way and then trade your points for obstacles that will help you on the next course. As well as picking up points you'll want to pick up Gas symbols because

you start the game with limited fuel and if you run out during a race you're at big trouble.

How you spend your accumulated points is crucial. Do you want to go for a set of bumpers that will strengthen your car body? Do you want extra tires for better manoeuvrability? Or would you rather have a set of wings for better aerodynamics? Bear in mind that some things may be useful for one course (wings for the desert course) but may also hinder you on another track - and you don't want to get left behind, because if the screen should wash on and you reach the border your car is blown forward to join the class of heavy metal to your left. The game's not difficult to play and with four people all going at once it can be terrific fun - don't get any stupid ideas of running your course off the road, though - the cars just drive harmlessly over each other.



Sega's hottest monitor (controlling the four cars) sits in all corners - and gets a screen peaking.

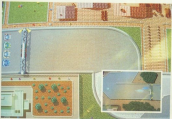
4WD!



At the start of a 4WD racing course.



It's hard to know whether to go for these wings or not, but you get six seconds left to decide though.



We decided to save the ability for the next race - that's if we survive this one. (MSX) - One and done both go for the perfect victory. Green got there first and went on to collect all the cash.

TAITO'S CONTINENTAL CIRCUS

Our fan had tags of it. Afterburner simply said it. After (Symptoms don't want for it. Most activities agree it's one of the most important ingredients of the winning car-rig formula. Taito's Continental Circus, however, has none of it. But if the crowds around the machine in a top-London arcade see any sort of yankish, Continental Circus looks to be another sure bet for the Japanese giant.

The magic ingredient the others have and Continental Circus lacks is "over the shoulder" appeal. You know the sort of thing - you see someone in an arcade playing what looks to be a fantastic game and, naturally, you want a piece of that action as soon as possible. Once you've fed the machine and started playing, it's not long before you notice someone taking over your shoulder just waiting for their turn.

Continental Circus breaks all the rules.

To watch somebody playing the game is not merely watching, it can almost give you a headache. Why? Because it's a 3-D game. A view-screen is held in front of the angled monitor on the upright cabinet by an arm attached to either side. Whoever's playing positions the view-screen and opens through it to watch foot-race cars around a number of Grand Prix circuits in three stunning dimensions. You've got a time limit to beat for each circuit and bumping into other cars usually prevents your engine from pouring out smoke and losing power - pull into the nearest pit and your pit crew will extinguish the flames and you can repair the race. You'll have to make up that lost time though if you wish to qualify and make it to the Japanese G.P. It's a great car-driving game and any well-respecting fan of the genre will want to check it out ASAP. (Don't hold your breath for home-micro-conversions though.)

SHAKE A LEG

Following our report some time ago (in ACII issue 1) on the Super X simulator, our intrepid reporter Pete Cameron has now been to the company's HQ to try out the system.

The Proton simulator is a 14-seater, which fits and tells an micro-processor controlled hydraulic, air-chromated in a high-quality 8" x 4 video display with best stereo sound. There's a range of different ride profiles, from roller-like races through to street corner simulations.

After his aerobic high jinks with Microprose, PC thought that nothing could shake him up. But he was wrong. Super X's Proton simulator is a very realistic ride indeed. Pete sampled the lute of Man for rats, and found himself being thrown around the capsule with each gear-change. It really is just like being inside the car.

The Proton's a pretty bulky beast (it does seat 14 people) so it's a little on the large side to fit in your local arcade or shop strip, but Super X have a two-seater version and under way, which is more than likely to find its way to a fun palace near you.

At the moment, there's no interactive element to the ride, but what you get is an realistic and thrilling that your lack of control doesn't bother you. If you get a chance, climb on board and shake a leg.



The Proton capsule, with simulated hydraulic two seat look, you know. The monitor is in either side, with the person sitting on each ready to take control.

DEAD ANGLE

A game with plenty of "over the shoulder" appeal is this Probotron game. Like the recent spate of boxing games, the player's character is shown in the centre of the screen in outline. You guide a right around the screen with a joystick and try to shoot as many gangsters as possible. Shooting gangsters dressed in red has the added bonus of causing a more powerful weapon to appear on the screen - and a machine-gun or grenade can come in very handy at times. If you want your reactions severely tested, shoot the one out.

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EPYX

LICENCE TO THRILL?

Or a licence to print money? Films, coin-ops, TV progs, books, toys, dolls, booties...you name it, someone's licensed it and turned it into a computer game. The chances are that at some time or another, you've bought one of them. But were you happy with it? And just how did that favourite film of yours happen to get turned in to micro game? Read on for all the answers...

It all began back in 1983, Britain's computer game boomtime. In those days nobody cared anybody else's story to see an idea to a character in you did that your game and claimed the consequences. So it was that unspoken respect of the coin-op dinosaurs appeared, often with such over-the-top terms as dinosaurs or dinosaurs although some producers got excited or nobody was actually used for blocks of copyright.

Then along came Ocean, who produced what was probably the first official space, water and delivered licence - *Merchoids*. The game was an enormous success, and other publishers realised that even playing good with is someone for a game were and about you could still make money.

Ocean didn't do as usual a title and avoid the concept of licensing. Common sense then points out that licensing is a big business that every manufacturer of consumer goods is aware of. But while the whole concept just changed, he does believe that Ocean treated most of the merchandise that gets low licensing in the games software industry wrong.

And when someone says that licensing is a big business, you'd better believe it - the whole thing is worth about £300,000,000 in the UK alone. In fact, computer software is pretty small potatoes in that figure, it amounts to about 1-1/2% of the market, or around £10,000,000.

OUT OF THE ARCHIVES

It could be the whole idea of licensing in computer games really started with coin-ops. If people were prepared to spend several pence in Space Invaders and Defender

down at the arcade, why not give them the same thing on their home station?

Give it to them they did, in weeks and with knobs on. And not just the biggest games - for every game you could see down at the arcade, you could get licensed to that machine down around for more.

One of the most popular games of that almost prehistoric epoch was *Conquest King* a sort of platform game in which an

immigrant top side your girl friend. No less than 11 different versions of the game appeared within a few months of each other - none of them, to the best of our knowledge, having paid any money to the manufacturers for the rights to use the game's software characters.

As the micro market boomed, the coin-op boys realised that there was money to be made from releasing the rights to their

intellectual property. Various games houses most of them too large to buy, were dissatisfied with legal action if they produced games with the same title or look and feel as the coin-ops.

The situation was ripe for negotiation, as the games industry became more mature and companies such as Ocean and TET Ltd displayed a more sophisticated approach to marketing their products.

Coin-op games are now the single biggest source of licences to the micro games industry, and also



Gameplay happens in the arcade and just on big screens.

the single most expensive, and lucrative, source. Get those already signed a deal with Capcom which, it is claimed, should generate £2 million income for them over the next year. Our Sun is believed to have sold over 250,000 copies of *Conquest King* at an all-time best price. Conquest titles have been big sellers since the game.

LICENSING REPORTER

Merchandise office opens for licensees
Copyrights move into Europe



Licensing Reporter: the industry organ game just got to read if you want to keep on the rights to those hot properties.

ENDORSEMENTS

One of the most controversial developments in games licensing over the past decade or years has been the body endorsement. The formula states that you find a Page 3 girl, stick her body on the packaging and advertising and then get thousands of sex-starved teenage boys to buy it.

Marked are the trailblazers in this respect, they it was who caused the game-buying public by producing *Samurai Shiro* (from back in the days when the gorgeous, posing etc. was in her game). Rather than a typical plan, Marked's David Martin says this was a happy coincidence of events: 'We had the software first and we were looking for the commercial angle. It worked. But what about the controversy? We had not one single letter of complaint', he says.

The formula was then refined by Palace software with their combat game *Barbarian*. The time Maria Whittaker was the gorgeous, posing etc. But there was no digital Maria in the game, she did her bit on the adverts, but only maintaining a modest warlike 'the game - an above-average chop and slash job - sold itself sales.

Not to be outdone, Marked has bounced back with another gorgeous, posing etc. from everybody's favourite Page 3, 'Ted' (Gaming Russell is the ideal) As with *Barbarian*, much is made of Connor's body - topknot-and and brandishing a bull whip - on the packaging and advertising.

Endorsement isn't, of course, confined exclusively to young women. If Chuck Yeager

can endorse a flight trainer for EA, and Daley Thompson can do so for Ocean, then why should not Stella Edwards (the most successful female in history) lend her name to Legend's string program? How naive what we call an endorsement with real style.



BOARD GAMES

In the beginning was *Letsure Games*, and *Letsure Games* began *Scrabble*, and *Scrabble* was a damn good game and began lots of money. And everybody was amazed that more board games were not available on video. Well, they don't have to wait very long. *Letsure Games* (bought up by Virgin) followed up with a whole range of licenses from board game best-sellers - *Monopoly*, *Cluedo*, *Olympics*.

Virgin's Patricia Mitchell says that to be turned into a computer game, a board game

must be 'well known, a household name, or very successful. It must be viable here, in the United States and in Europe. And it must be suitable for conversion to the computer'. *Scrabble*, she says, was absolutely perfect for conversion, while *Scrabble* was a better job altogether.

Successful board game conversions are the sort of thing companies like to have in their catalogues because they are excellent sellers and can go on for years - unlike most coin-up games, which enjoy a one-time, hot first sale.

An interesting development in the board game field is Gamlin's Gary Linker game. In the case Gamlin bought an endorsement from Britain's best seller, around that time they produced both an original micro game and, launched at the same time, an original board game. Both were aimed at second-hand boys who were likely to be interested in one if they were interested in the other. We can expect to see more multiple launches in the months to come.

Coin-up license don't seem cheap (see *Legend Money* box) but there are problems as well as money involved. Simply competing from other software houses and doing business with Japan. Since it huge double success can very often translate in to a huge more success, companies are extremely anxious to get their hands on the latest hot property - which, equally naturally, leads the original manufacturers to raise prices through the roof. Some big companies involved in licensing coin-up games have been forced to complain about others copying their prices.

Once a company has reached an agreement, there's still a long way to go. Most coin-up games are Japanese, and Japan is a strange country a long way away, with a very different culture and language. As Herbert Wright, now of Legend, but formerly of Teleconnect, puts it: 'Doing business with Japan is a slow process. Everything has to go through Tokyo, you've got two to three months of delay, and you never know when you'll get a reply'.

All that delay - and all that money - means you've got to produce a success, which is why double licenses are at leastly prohibited in some states (Japan).

The coin conversion trend in the customer feeling a little peeved of what he was so hastily produced products which produce little if the excitement he found from the coin-up-original, but it's all too easy to remember the disappointment - real coin-up licenses before the goods, or anyone who played *Bubble Bobble* (Gardner, New Wizzard or Buggy Boy) can testify.

THE BOOK OF THE GAME

Although coin-ups are the obvious and well-set thing to license, it was probably a book - Tolkien's *Rings* - which was the first real license, why look in 1983.

The greatest game of the book was a huge success (though some nasty and recurring bugs and other book license followed, although not with the regularity of coin-up derived games). *Jeffrey Archer* Not a *Jeffrey Archer* Not A *Penny* has earned more than 200,000 copies for Diamond, James Clavell's *Ed Fury* was released by Ocean, the same author's *Boysen* was a moderate success for Virgin, and one of the biggest book-intro-





game licenses was Douglas Adams' *hitchhiker's Guide to the Galaxy*.

But books have never made the really big time in licenses - not even the *Jacuzzi* at Adams' *Mole* - and they seem unlikely to ever do so: after all, the pleasure of rereading an author's classic is the fun you get playing a game.

THE ACTION PICTURE

It's becoming fashionable to comment on how small the games business is getting to



the film industry - 'a new Hollywood' - and all that jazz. Certainly, software production now seems to require teams of designers, coders, illustrators of all that are approaching film size.

Nevertheless, then, that film are the second biggest source of licenses after computer. Any big film - and not necessarily those that can be seen by 4 teenagers - is now more than likely to be licensed for a game. And a big film has already been based on a book or a comic strip - such as a boy in a comic strip - then there has to be something very strange going on, if it doesn't become a game.

The last really big film license was *Shogakukan*, produced by Activision for Christmas 1984 and on immediate (and huge) success. *Shogakukan* is still one of the best-selling games ever, it managed to retain something of the wacky spirit of the film, while still being a game you could really get into. And it's still making money, now (consider for a mere £1.99, its back at the top of the charts).

Oswald Dorris: What says that what his company is trying to do with titles is to

SERIOUS MONEY

So how much have you got to lay out for a decent license? It needn't always be a fortune, unless you hit that *Jacuzzi* (which computer game license went for a mere £1000 - but that was a few years ago, and times have changed a lot since then).

For a big film or well-up license, we are talking serious money. *Tim* Dale's *Die Hard* license is reputed to have cost £200,000 or more, while *Tim* Massey of *Blade* and *Mad*

Marketing has 'a big film' available at £250,000 for the world rights. On the other hand, it's said that *Demark* got their *Bond* license for as little as £20,000.

Of course, these figures are rarely agreed payments, a guarantee against sales is the usual procedure. But if a company doesn't sell the minimum agreed figure they could find themselves with a lot of tapes on their hands but a lot of cash to find.

THE TELLY

Every week getting on for half the population watches one soap opera or another. Millions watch several of them, while some seem to spend most of their waking hours following their favourite characters' business. Given the popularity of the telly the only surprise is that it took the games companies so long to get going on TV licenses. Once they started though, they kept on coming with a vengeance.

Acknowledged masters of the genre have to be *Demark* - if only because they bought up the titles already produced by the original licensor. Now *Demark* are the proud owners of games such as *Bullseye* and *Shootouts*. *Demark's* Mark Strachan describes titles like these as 'typical hit papers - shapes like TV Games are must-win items. They're not huge sellers, but *Bullseye* - which is six years old - sold over 4000

copies at Christmas.'

Strachan points out that there is a two-stage process in licensing a TV programme, in the first place there is the programme itself, the rights to which are owned by the TV company, and then there is the personality who fronts it. You have to pay separately for the rights to use each one - so if there's a picture of a bull rather than Jim Bowen on the packaging of *Bullseye*, you can perhaps guess why.

Demark are forging ahead with their TV Games labels; this autumn should see the release of *Every Body's Game* (of Paul Daniels times) and *Ball's Full House*, with the old favourite *Ball* returning. Other companies too are interested in the telly as a source of games - this autumn we can expect a more serious version of *4-Quarter of Sport* (it's not clear as yet which games house has acquired the rights in the program; interestingly it's one for which *Demark* pitched and lost). Mark Strachan is intrigued by the outcome: 'It's interesting because it all depends on what that happens next'. How are they going to put that on a disc?

WHERE DO LICENCES COME FROM?

You don't just phone up Paramount and ask for a license to turn *Pleasure* into a computer game. Everything in the world of licensing works through agents, of whom there's about 10 significant ones operating in this country. Out of these, perhaps half a dozen are active in the field of licensing to software houses.

One of the most active is *Movic* and *Media Marketing*, who have been responsible for licensing such bestsellers as *Barbie*, *Top Gun*, *Pleasure* and *Robocop*. The company's *Tim* Massey spoke to ACE about the licensing world from his point of view.

An agency such as his own, says *Tim*, is 'looking to a company to produce the best game to fit the character but the game has to be strong enough in its own right'. In other words, you'd have to persuade them you were actually going to produce a decent game rather than a couple of hundred lines of BASIC.

But would the agency have already sold the property to someone else? That necessarily, agents do approach companies, but, says *Tim*, 'we don't believe in the shotgun approach, rather in establishing good working relationships'.

Tim Massey doesn't see the proportion of licensed games getting much larger. 'How fast the product to increase it', he believes.

The future, he thinks, is more likely to lie in the areas of music and enhanced home technology such as CD-I. 'For example', he says, 'I'd have a movie coming out later this year. They're the world's biggest band. How do you make a game out of it? I don't know, but if someone can come up with a concept...'. Such a scenario might be easier to develop if the producers had a more interactive technology, such as CD-I, to play around with.

ate a new dimension', and the example he offers in support of that is *Platoon*, which was something of a departure from the simple shooting of a previous *Looney*. Double in order to add that new dimension, he believes it is necessary for composers to have a sophisticated 'software subconscious' - designers, storywriters, engineers, coders, musicians.

WHERE TO MEET

to hear full games (including developer

the next few years? Most people in a position to make some difference seem to believe that things will stay much as they are for the time being. *Looney* will games, and selling games is what the software houses are interested to do.

An encouraging sign, though, is that the software houses are thinking much more carefully about what they can do with a license: they're even ready to admit to past mistakes. Creans went so far - at the launch of *Platoon* - as to announce they were col-

ling down on the quantity of licenses in order to improve the quality.

The growing level of *Looney* licenses also suggest that the games houses may have to change in character over the next few years. *Looney* licenses tend to be able than *Looney* licenses, and are not likely to spend much time playing with toys or watching live-action TV videos, for instance: they will want more sophisticated games, and if companies are to provide them, then more sophisticated licensing deals could be on the cards. ■

LICENCES: SOME HITS AND MISSES

HITS

Batman

This superb 3D isometric arcade adventure took the caped crusader's name and figure and presented him with some terrific jousting. In the hands of a lesser programmer than Jon Filman it could have been a disaster, but *Creans* really came up with the goods on this one.

Bubble Bobble

This is a coin-up conversion that gave great playability and value; the more coins, even down to the humble *Space*, provided nearly 100% of the coin-up fun - with more of that 'more another 10p or 20cents'.

Demolition

A simple enough game idea, but great fun nevertheless. Its decent success on its release proves that a game of the film doesn't have to coincide with the movie release to be successful.

Zoids

A complex mix of strategy and action - and still the best leg game.

Aladdin

One of the best conversions of a TV programme; the game had a clever design, good graphics, fun-but-problematic and great addictiveness.



Batman: one of the great licenses.

Platoon

A brave attempt by *Creans* to do something a bit more sophisticated with a film license. The temptation was to go for another shoot-'em-up, *Rembo* style, but this was resisted and *Platoon* ended up as a much more thoughtful product. And an attractive bonus was the Smokey *Platoon* song on the other side of the tape.

Johnnibal

A coin-up that could have been designed with the movie right in mind; it converted superbly and was every bit as playable.



Like the best coin-up game of the leg, Zoids: strategy with action.

MISSES

Out Run (SNES version)

The biggest game of last Christmas was a bitter disappointment on the SNES machine; it bore all the signs of a rush job to get to the shops in time. It was too easy and gave little sensation of speed. US-*Gold* have remedied these deficiencies on the ST version.

Knight Rider

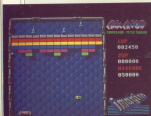
Nearly two years late, and not worth the wait, *Harsh* (1988) say that the demo was more fun than the game.

View To A Kill

The first *Bond* license was nothing of a failure; poorly designed and programmed, it provided little in the way of fun for the punters. *Orbit* admit they were a little naive with this one.



Out Run: huge sales, but a wash on the SNES machine.



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There's a goal on top of these pillars. But how are you going to get to them?

SPINDIZZY

Last month's free cover cassette was so good we've had to rack our brains extra hard to come up with something that's as good, if not better, to give away. The result of our deliberations means we can offer lucky Spectrum, Amstrad and C64 owners the chance to own the complete version of the magnificent Spindizzy.

THE PLOT...

The game was originally released at full price by Electric Dreams and became an instant success. For those of you who are new to the world of computer entertainment and possibly haven't heard of Spindizzy before, there now follows an introduction to the game.

A new dimension has been discovered which contains a strange, artificial world hanging in space. As Trainee Assistant Cartographer for Lostown Words, the job of mapping the strange place has fallen to you. The Remote Scout Craft you are given is an old-fashioned Geographic Environmental Performance Last-Mapping Device, known as GEMERALD. This craft is expensive to maintain and your time is limited. As the company has far from

valuable motivations (it's all government-sponsored work, you know), time is money. The more time you spend out there the more money the company can claim.

The map computer holds the initial raster map of the surface and your task is to explore each area, optimising energy in the form of jewels, for which you'll be rewarded with extra time.

Because the world is hung in space, falling off is not a good idea. Should you lose or destroy your craft it will be re-created and beamed back to the last location visited. But this

will cause an enormous power drain resulting in the loss of valuable time. So there you have it - do a good job and you'll be well rewarded, fail and well, you don't want to be a Trainee Assistant Cartographer all your life - do you?

IF YOUR CASSETTE IS MISSING

If your free Spindizzy cassette is missing from the corner of this issue, put out our hand and send it with a stamped SAE marked

SPINDIZZY CASSETTE
to
AGE, 4 QUEEN STREET
SOUTH DAKOTA USA

KEY CONTROLS

SPECTRUM KEY CONTROLS

- 1 Use joystick or direction keys to control GEMERALD. Pressing (HOLD) gives extra speed.
- 2 Pressing the (HOLD) key will stop your craft on any frictional surface.
- 3 Press 'M' to display the map.
- 4 Press 'S' to display your current score at any time during the game.
- 5 Pressing 1, 2, 3 and 4 will alter your viewpoint. The compass in the bottom right corner of the screen points North at all times to help with orientation.
- 6 Press 'P' to pause the game. When paused, the border will flash. Any other key will restart the game.
- 7 Press 'C' to alter GEMERALD's shape.
- 8 Press EXTEND MODE or CAPS (SAP) CONTROL SHIFT to abort the game.

HOW TO LOAD IT

Side 1 of the cassette has the C64 version followed by the Spectrum version. Side 2 has the Amstrad version.

Spectrum 48/128k

First press 48k BASIC and type LOAD " " Hit the ENTER key and press RUN on your tape deck.

Amstrad

Press CTRL and the small SYSTEM keys simultaneously. Then follow the on-screen instructions.

Commodore 64

Press TRIFT and PAUSE/STOP keys simultaneously then press play on your tape deck.

LOADING GUARANTEED!

All versions will RUN automatically after LOADING is complete.

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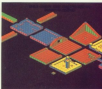
If you encounter any loading difficulty, please first check that you have followed the loading instructions on this page correctly and that your system is able to load other games satisfactorily.

PAUL SHIRLEY

The brains behind *Spellcast* believe to more often than Paul Shirley, a veteran of the programming world, he first ventured into computer entertainment when he was studying at university by writing games for the ZX80 when it was 1980 machine to own. Though these games were good for their time, it wasn't until Paul got hold of an Amstrad 1208 that he wrote *Spellcast* - originally his best game to date, but certainly the one he's most famous for.

The all-time classic was some eight months in the making and Paul's not ashamed to admit that the gameplay was, to a certain extent, inspired by *Marble Madness*. The title was inspired by the *Cross in Age* series of books by sci-fi writer James Blair, in which the *Spellcast* is a device that enables whole cities to be lifted from Earth and propped through space.

Paul's moved on from his Amstrad and now uses an ST to create his games on. Paul's had his ST for a year at its initial highy impressed him in fact of the things when it comes to writing games and there's nothing of use to working with a main frame. Paul's currently working on an as yet untitle ST shoot em up which we'll be eagerly awaiting.



The Beginner's level, where you can get to grips with the controls.

TRICKS 'N' TACTICS

The handy hints should help you ease yourself into the game.

One third of the starting screen is a beginner's section. In this area are simple demonstrations of some playing techniques. You run slowly in this section, allowing you to experiment.

Some screens will give a clue as to a switch to activate. This will cause some features to appear or disappear. Occasionally two switches may need to be used together. The clue appears in the bottom left corner of the screen.

LIFE may be used but may need switching on first. It is slippery and transparent; is bouncy (like a map) - it will help you to find short cuts (of which there are quite a few).



A handy series of jumps placed perfectly over the water.

1. Status display

All the top of the screen. Displays the time left to play the area left to visit and the number of jewels collected. Activated switches will appear in the bottom left corner of the screen.

AMSTRAD KEY CONTROLS

1. Use the joystick to control GERALD. Pressing FIRE gives extra speed. Alternatively use the keys F1 to F8 on the numeric keypad (with SHIFT key for extra speed).

2. Pressing the SPACE BAR will stop your craft on any horizontal surface.

3. Press 'M' to display the map. Unexplored areas are marked in red. Visited areas in yellow. Any area where a jewel has been seen but not collected is marked with a 'J'. Press ESC to return to the game.

4. Press 'S' to display your current score at any time during the game.

5. The cursor arrow keys alter your viewpoint.

The compass in the bottom right of the screen points North at all times to help with orientation.

6. Hold the SPACE BAR until your time runs out to stop the mission.

7. Press 'O' to toggle between colour and monochrome display mode.

8. Press 'P' to pause the game. While paused the border will flash. Any other key restarts the game.

9. Press 'Y' to alter GERALD's shape.

10. Status display.

On the left side of the screen. Displays the time left to play, the area left to visit and the number of jewels collected. The box at the bottom shows you which switches are activated.

11. Press 'M' to display the map. Unexplored areas are marked in red. Visited areas in yellow. Any area where a jewel has been seen but not collected is marked with a 'J'. Press ESC to return to the game.

12. Press 'S' to display your current score at any time during the game.

13. The cursor arrow keys alter your viewpoint.

The compass in the bottom right of the screen points North at all times to help with orientation.

2. Press 'M' to display the map.

3. Press the arrow key above CONTROL to return to the game.

4. Press 'S' to display your current score at any time during the game.

5. The function keys F1, F2, F3 and F4 will alter your viewpoint. The compass in the bottom right of the screen points North at all times to help with orientation.

6. Hold the SPACE BAR down until your time runs out to stop the mission.

7. Press 'O' to toggle between colour and monochrome display mode.

8. Press 'P' to pause the game. While paused, the border will flash. Any other key will restart the game.

9. Press 'Y' to alter GERALD's shape.

10. Status display.

On the left side of the screen. Displays the time left to play, the area left to visit and the number of jewels collected. The box at the bottom shows you which switches are activated.

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12. Press 'S' to display your current score at any time during the game.

13. The cursor arrow keys alter your viewpoint.

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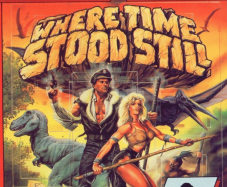
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SCREEN TEST

There's one outstanding game this month, the only one our rigorous standards have allowed us to award the coveted 900+ score – *Interceptor*, from Electronic Arts. It's a program that we raved over when we saw the demos, and that more than fulfilled its promise when the real thing came along. Read the review, admire the pictures, and marvel.



Elsewhere, it's been the month of the nearly 900s; both *Bionic Commandos* and *Leatherneck* had sterling qualities of playability and fun, but they didn't quite have the complexity or the stamina to make it to the crème de la crème. Still rollicking good fun, though.



On the updates front, check out *ST Out Run* – it's a massive improvement on the 8-bit versions, and is well worth a test drive.



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 PCP (Predicted Interest Curve) for the full story. Brilliant arcade games start high on the curve, and then steadily 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; complex strategy games may start you at first – but climb up the scale as you begin to appreciate the scope of the game. And so for the linkers – they start low, rise fast, and have nowhere to go but down, then down.

Once you've seen how long the game can hold your attention, all you need to quantify it is the renowned ACE (Attitude). This is calculated according to the area under the PCP. The bigger it is, the better the game. Add to that our definitive ratings for VG Factor (will it give 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 80000 spin codes than many a commercial programmer – but he can also beat the pants off the opposition in Chess. Andy Smith doesn't know an up code from an alien, but his years of game-playing experience enable him to pass definitive judgement on anything from Sims to shoot em-ups. Add Steve Cooke (ex Personal Computer Games and formerly columnist for magazines ranging from Zap! to Top Spin) and Peter Connor (ex-Amazon Action, Personal Computer Games, and Your Computer reviewer) 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 which 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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STOPPING today's reaction-making down to a standard enough-gamistick, goodness-only-knew, but with its combination of arcade challenge and dynamic logical puzzling (the one or least time to be different), Logotron bore something of a break record as far as the public side of things goes - that is, it was rated for over 900 total sales in ACE issue 1 - and the arcade market is a much larger pool. How will they fare against the top list?

The stakes are high, and not just to Logotron: your fate is partly important too, what with Keith's reliance on the kinds of solutions. The orbiting reaction station Astra has been invaded by the evil Guestralians, and our fortunes depend on Astra for their power supply, so your better get to work. Deterministic the reaction box levels, but not the Guestralians and Keith's economy gets better on an even less tall and you aren't better coming back.

Your level for the mission consists of six trials, each with different strengths and weaknesses. For each of the six "modules" (named as it levels you'll have to pick the two colors you think best suited to the particular problems there). The problems is specific, are made up of Asterix service desks, the rough-

QUADRALIEN

LOGOTRON get smitten by an Astra

ATARI ST VERSION

This game, just released, runs on 10 high-resolution modes and requires a 200K hard disk. It's a great example of a game that's not just a game.

GRAPHICS: 7 HD FACTOR: 8
AUDIO: 4 FUN FACTOR: 5

AGE RATING B50

RELEASE BOX

ATARI ST	CRIBLOCK	OUTNOW
AMIGA	CRIBLOCK	IMMAYNT
IBM PC	CRIBLOCK	IMMAYNT

equivalent of 20m chickens and fish. The on-line clouds come in two kinds: red ones, which attack each other, and blue ones, which eat each other. The structure they form is the most-like condition of each module will have only black, you'll suffer through to unrewarded areas or sections.

Though you can simply click your way through the game of choice, the whole you control energy. Even with the usual base-400 level of your six levels, a 1-2-3-4-5-6-7-8-9-10 approach won't get you very far. Instead, you'll have to struggle with each situation's physical properties in order to clear a path through. One wrong move can set a chain-reaction chain of events in motion, so great care is needed.

It's not enough to determine what the piece efficiently, and you. The reaction has potential to stay the whole time, and it's

NYUK! Nyuk! Nyuk! The Stooges' (Stooges) have arrived, so get ready to dodge their outland puns and avoid hitting your eyes (ah, Moh, Larry and Curly are in a mission, they've got to work through money to save the local neighborhood from closing and they've only got 30 days to which looks like

At the start of each day the player has to decide what the Stooges should do to save the money. A series of icons are displayed across the top of the screen and a small hand jumps randomly from one to the other, by hitting the two buttons, when the hand is over a particular icon a sub-game is entered

AMIGA VERSION

The game has great graphics and animation and also an interesting plot (however, avoid what, but at least it's not the best but it's the simplest and most fun to be sure)

GRAPHICS: 8 HD FACTOR: 7
AUDIO: 8 FUN FACTOR: 5

AGE RATING B55

- you've got to be quick to hit the button of the right face through as you could avoid hitting a finger in one of the 100-second-long trials that are always present. Use two fingers and it's game over.

Along with merchandise and sub-games there are also icons for money, time, questions, the hand icon and the slow-down. The money icon guarantees the Stooges at least \$100, the time question gives the Stooges a chance to earn \$500 if the player can answer a Stooges trivia question, and the next then deducts 10 percent from the Stooges earnings so far. The slow-down icon puts the player in control of time and he can be fast and fast Larry and Curly or money

THE THREE STOOGES

Mirrorsoft's slapstick-em-up



The rather sub-game, and how could the Stooges refuse an offer like that?



strong level falls as you exchange your skills. The Sims help slow the temperature rise by reducing the technology - the removal of cement, that is - in each of the modules. Certain colors of bricks, particularly blue ones, can

set up continuous ventilation. Breaking these up can keep you sane, but constant walls are ventilating itself, so you drain your skills' energy.

To actually lower the reactor's temperature, you'll have to find cooked goods and push

them as possible within a short time limit. It's more successful, the food moves much slower across the icons enabling you to choose more carefully.

There are two sub-games. The first has you controlling all three Stoooges as they stand behind a bench full of customer pies. By moving the crystal and passing tea, you can get the Stoooges to pick up and throw pies at the customers on the opposite side of the dining room. The customers throw pies back though and if they score five hits on any of the Stoooges it comes one out on to the next day. There's \$50 to be made for every pie thrown and double pay if the set



The tea selection screen at the start of the day.

number of pies is thrown before you say five hits.

The second sub-game has the Stoooges going to doctors' rooms to the operating theatre. They're cloned into motorised wheelchairs and you have to guide them through the corridors at the hospital, avoiding the patients that appear from the top of the vertically scrolling screen. Hit five patients and it's back to the coin selecting screen.

Daily activities are the stars of the third sub-game. Clunky in the boxing ring and last you get to run to the nearest radio shop and

RELEASE BOX		
AREA	CD ROM	OUT NOW
OS	PC (4 IN 1)	SEMI
SYSTEM	TEA	SEMI
IBM PC	TEA	SEMI



return with a walk before the end of the sixth round. The sub-game puts him in your direct control, having access to a laboratory window to observe criminal objectives at the parliament.

The last sub-game has the player controlling Carly's agent during a counter-mugging contest. The crooks find on sight and Carly has to get to the croakers before the cops in his soap do.

If you're a Stoooges fan, you've probably love the game - or at least you will the first time you play it. After that the digitised speech gets boring, the dial swinging becomes tedious and the sub-game become too easy. There's simply not enough in here to keep you playing for much longer than it took.

Andy Wilson



It's the old choice in your team and how different characteristics. Screen control - some are for better than others for particular results.

them don't really clash. There's a strategic edge to this: the pods are most effective when the temperature highest, so you're best off saving them till things get critical. The choice also serves another purpose: if you throw energy pods down there instead, you can replace some of the reactor energy your activities have generated.

All this provides a good structure for some very absorbing gameplay, with a whole host of extra features adding depth and complexity. But for the most part these are the



It's there's a lot of activities going on these five days, and that's leading the reactor's energy negatively. You'll have to act fast, before the temperature goes through the roof.

some involving activities that are delivered. In *The Sims*, one mistake means you fail to reduce the level. In *Quadrant* there's a strategic penalty to be paid when you have to blast your way through a messed-up structure, but that's just not as immediate or challenging.

People who found *The Sims* too abstract or frustrating to bear may well find this one a more palatable way of introducing the Sims genre, but the different puzzle levels and there will probably stick to this and *Quadrant*.

Andy Wilson





1 Your mission briefing air base (hey, the President's plane was being hit, is it a surprise that you were the guy?)



2 Your star splits from towards the 50th Airbase, your headquarters.



3 In the cockpit view, your thrust is already armed and ready to go.

INTERCEPTOR

ELECTRONIC ARTS hit the flight deck!

SOLID 3D is nothing new in the world of flight simulation, but what when it's a different matter. What you feel in progress that looks, sounds and feels intensely realistic, you don't expect straightforwardly propelling into the beyond. All sorts about to be turned on at least if you feel tight and boiling air tough to get into. Outside programming those inhibitors at proposed status won't just change you need - it'll blow it.

In September 1994, one of the most realistic simulators ever the air comes from Electronic Arts is powered by MD fighters in a variety of pump-to mission you'll flylight, strike and other tasks your way to an impossible, keeping the idea of America's role and generally delivering the true world. Can you save the President when Air Force One is attacked? Can you stop two F-104s from delivering to the Soviet Union? Can you stop four enemy jets taking out the Russian? If you can you'll get even tougher, danger missions, each involved to you only when you've completed the previous one successfully. The suspense is coming as the briefing starts up, and even yours up, before the game just gets like in view.

You want to be able to get straight into the action, and you do, but that there's a huge learning task in a hefty manual to struggle through - in fact the game presents an easy, gradual means that'll have you flying combat missions in no time, with very little bookwork required. No, what holds you up is the sheer power of the game's presentation. The sound will reassure you - you just don't know when game effects can do it for you, look the one up - and the graphics are simply out of this world.

Choosing from the main menu will get you just that taste of this world, and then, but in reality, the program does just what it should: it's not from the center Enterprise of any of these things either, either in air, it'll start in down or level based on F-16 fighting tactics, getting the body of the aircraft's sleek and handling characteristics without enemy fighters or mission objectives in every detail.

Once you're done, you starting just one plane, you're treated to a beautiful view from a large-scale view right down to ground or sea level. You can take time to recover as the view moves inside the cockpit ready to take off, but once you've returned

RELEASE BOX

AMIGA £24.95 CD-ROM £27.95

for other versions played

AMIGA VERSION

Requires 400k free disk space (using a Mega E drive) and 1MB free main memory (RAM) when using the CD-ROM. Requires the engine, system and mouse keyboard game in working order. It requires 68010 or an 68010-type computer.

DISKSPACE: 10 MB FACTOR: 3
RAMREQ: 1 MB FACTOR: 1

ACE RATING 934

934
ACE RATED

the atmosphere starts all over again. From the white of hydraulics as your landing gear retracts, or the wheel as you engage the brakes, use the ground roll away and the air slip into view as you pull up into a climb, and intensely feel the plane as you burst through the sound barrier. It's so realistic.

Not satisfied with the cockpit-view view? Then take a look round, or top above the cockpit entirely? There's a wide range of different viewing angles you can select using



14 Even in 3D, the cockpit landing deck seems to be more than you feel, making this three-screen view (the top three screens from left to right) and you could well end up in the air.



13 Thrilled down to 3D's level, you're almost home. You've got your landing gear and spoiler back down ready for a beautiful touchdown.



4 The cockpit interior lets you blend up to 80% and the cockpit will feel just as if it's real.

to remain triggered on your keyboard: the controls in the new logically laid out and easy to use in flight. These spectacularly improve your overview of things - combat manoeuvres can make a great deal more sense when viewed from outside the cockpit - as well as the game's visual impact.

Of course if you want to get outside the cockpit to real, there's always the ejector seat option. It's not that it makes clear tactics - it actually gives you a third-eye view of things out. This is even better when viewed from outside the plane as the terrain shows your enemy breaking away and then follows your demand by parachute. **Benjamin**

Programmer Bob Benetton and the headset team have really pulled out all the stops on this one, with a terrific overall game structure and tremendous attention to detail. Pure might dispute the label 'innovator' - it certainly wouldn't tempt you to try it real, its finest - but the program combines realism and gameplay far too well for that to matter. If you want 'out-of-the-gate' or combat action, innovative graphics and 3DC six-month training period, look no further!

● Andy Wilson

PREDICTED INTEREST CURVE



Setting stuff for there on a limited number of screens.



12 The Predator's plane tracks down easily - and about how you've set up to find the carrier and get one plane down easily.



5 The view from a rear three-quarter position as you power downwards. In fact, there's already engaged afterburners (the orange glow in case of exhaust) and you haven't even used your undercarriage yet!



6, 7 & 8 Realism with the Predator then you've got a 300 to deal with, but you can open the door for a good look at that '37 as it flies up to that approach of the Predator's structure.



11 The old one and then for another minute too, but it's unnecessary - that ball of flame is all that's left of your opponent.



9 Afterburners off now to reduce your fuel signature, you really want to attack that 300. You've already touched one **SHARON** at five, and here's another for good measure.

FOUNDATIONS WASTE

EXOCET get launched

better. Perhaps best of all are what look like bits of your ship left lying around on the ground. Pick those up and you get scaling weapons.

Trouble is, as the screen fills up with food (and the graphics slow alarmingly), a scorefull of items is lost enough, without your ship being released to continue around the screen (never returning).

In fact as it may, *Foundations Waste* is a good example of its type. Put your joystick on a chair, sit back with a mug of cocoa and watch the joystick around for half an hour blasting a few more alien life-forms. Highly attractive, and thoroughly mindless.

Red Letter

RELEASE BOX

AMIGA	24.95	24.95
ATARI ST	24.95	24.95
AMIGA	Under development	



ST - They really, really look lovely - and very alien!

WAST quantities of plasticity were designed from the prototyping only gradually level that *Foundations Waste*, from now company Exocet, is nothing more than a five-level, vertically-scrolling blast. One lone hero faces a trail of alien ground-breasting with hostile installations, through spots filled by some other worse-of-robot class or evil, this - again.

Most you, if the gameplay, hardly does justice to total machinery, the graphics certainly do. Shoot the best guys, and now you'll see they look behind a glowing blue shield. Pick that up and you either get temporary indestructible (indicated by a flashing green shield) or a blue laser ball to replace your standard two-ship guns. Pick up a red helmet, and you get an automatic drone - free.

ATARI ST VERSION

Game is elegant and unassuming at first, and the graphics always give a hint when the alien gets back. Very pretty graphics.

GRAPHICS	7	10	FACTOR	7
SOUND	8	10	FACTOR	7

ACE RATING 60%

PREDICTED INTEREST CURVE



Starts out as a hot plate and cools.

RELEASE BOX

AMIGA	24.95	24.95
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AMIGA VERSION

With three cool-looks you expect great graphics and sound-effects. You don't expect being graphics and sound-effects as fast as a... (some formula) like good analysis will be like a log on its own. It's like...

GRAPHICS	8	10	FACTOR	7
SOUND	8	10	FACTOR	7

ACE RATING 70%



Shoot those aliens, dodge those bullets, don't die... you have the option to win.

SIDEWINDER

Play it again with MASTERTRONIC

THE more things change, the more they stay the same. Whoever said that would easily have been talking about computer games. You'd have thought that modern hardware would have left the old vertically-scrolling shoot 'em up for behind, but not so - they still keep on coming!

This one's from Mastertronic. Fly around, shoot, dodge, destroy ground enemies, then destroy flying aliens, how increasing levels of difficulty, create a real world.

At first sight there's little to distinguish *Sidewinder* from a whole host of similar products. The graphics are nice, the backgrounds detailed and colourful, the spaces large and辽阔. There's nothing here that hasn't been seen many times before.

As usual you pick up bonuses along the way. D gives you Target Fire, F gives you Power Shot, destroy every target with a single hit, G gives you Cloak (temporary invulnerability) and H gives you Home. All nice and handy, but you can't save them up - you have to use them as you feel them.

Where *Sidewinder* scores is the progressive way the difficulty builds up. The scenery,

too, improves as you go on - screen shot is very pretty indeed. Also, after that you've got out new levels to go before you're back to level one, albeit with the difficulty level upped a bit.

And that's the trouble. *Sidewinder* won't take long to coast. That, before you start the game you can select one of five difficulty levels (from Novice to Master, but why not give with one aim, but behind your back, or a patch on one eye...).

Red Letter

PREDICTED INTEREST CURVE



It's all about variety in action and it could last for a while.

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SIMULTANEOUS four-player action. Facts what make this such a good game. The plot's simple—you control six on-screen characters and you have to advance through several areas of enemy-infested territory—the longer you survive, the more points you get.

You've got three choices of weapons to use against the enemy. The light machine gun has a high rate of fire but not much range; the heavy machine gun has a slower rate of fire but has greater range; and hand-grenades can be lobbed over obstacles. Switching between weapons is effected by giving your joystick a quick wobble or by hitting the corresponding key. Ammunition for each weapon is limited, but fortunately ammo boxes have been left by the enemy and you can use these. Simply walk into an ammo-box block of which contains an equal amount of ammunition for each weapon.

You view the game through a large window, with a status window to the right. The status window shows you which weapon you're currently using, the ammo level for that weapon and how many of you are left. Three lines you've got left. The main playing window scrolls downwards as you move up.



You've got to be in the jungle—you're a well-trained elite of the moment with two using grenades and the other two at light machine guns.

LEATHERNECK

MICRODEAL's four-way frolic

to invade the enemy—who shoot machine-guns and hit tank-grenades at you. Cleverly, Microdeal also makes an appearance in the game and has to be destroyed with 6 well-aimed grenades. Firing your machine-gun doesn't result in a whole stream of bullets slowly crawling their way up the screen to kill you; so a bit of mouse feint and whenever you were lined up with of the time taking the dust. The enemy's shot are visible, however, so you can at least try to dodge them.

Once you hit that fat button, everything stops in front of you dies—indicating people in your own team. This can be almost comical at times especially when four

people are playing at once.

Though it's not a vertically scrolling shoot-em-up, the four-player action makes for long-term interest. The start points for each new game vary as tactics developed for one scenario simply don't apply to any other. The only time you'll have to think about anything though is when you try to decide whether to shoot your pals in the back and go for that high score.

★ Andy Smith

ATARI ST VERSION

The graphics, scrolling and animation are all top-notch. Sound too. It may require a custom, guitar set up if you'd like to make the use of the most popular Commodore/Flexkey type games over to have a go.

GRAPHICS 8 HD FACTOR 4
AUDIO 8 FM FACTOR 4

ACE RATING 887

RELEASE BOX

ATARI ST £19.95
AMIGA £19.95

No other versions planned

PREDICTED INTEREST CURVE



Amiga has an ACE board, but it's mighty pricey and unreliable.



There there, mate there—player that got just a little too close to that grenade explosion and saw how close to well-trained player 1 to 5 have a little shooting.

FOUR-PLAYER FUN

To really get the most from the game, you've got to get some friends round to play the game with you and you'll need the special setup which should be available from the same place you bought the game, or direct from Microdeal at a cost of £5.95—the store all four of you to play the game using different joysticks. It's a pretty safe bet that some future Microdeal games will utilize the setup, so your money will be well spent.

WRITING high-quality 3-bit waagames like *Arkanoid* and *Meloon* is one thing, but ST Smith has now turned his attention to arcade games. Can he produce them in the same high-standard-of-fun-as-the-work?

Cyberknights is an arcade adventure game with strategic elements. The player controls a Cyberknight and has different objectives to reach, depending on whether one or two players are playing. Assuming there's only one player, the objective is to destroy the 10 computer-controlled robots that wander around the arena. In the two-player mode, the objective is to destroy the other player's Cyberknight.

The arena is large and consists of several



Have you got a fully loaded arena, so destroying the other arena should be a little easier.

CYBERKNIGHTS

CRL have at you!

of rooms connected by various lifts and walkways. Should you happen on a computer-controlled robot in a room, you have to use your limited weapons to their best advantage in order to destroy them. The winning robot to kill out of five is another effective method of pointing them off if you can't see them into view.

Scattered around the arena are small bags of money that can be used at the end of the game to purchase better equipment for your Cyberknight. Deciding which bits to add and which to take away is done using the designed program that comes with the package and has to be loaded separately. You can save your Cyberknight's tape so you don't have to struggle for hours just to

reach the point you got to last time, but even all the game's structure is repetitive and the money can't be used. It's very doubtful you'll be playing this in 10 years time.

Andy Smith

RELEASE BOX

SPECTRUM £7.95cs £11.95cr
No other versions planned

SPECTRUM VERSION

The package also includes the computer's life-time board which is used to save machine effects and the response rate of the game for each player using power from 1 to 9.

GRAPHICS 5 **IQ FACTOR** 4
AUDIO 4 **FUN FACTOR** 5

ACE RATING 518

PREDICTED INTEREST CURVE



RELEASE BOX

ATARI ST 119.95cs £119.95cr
No other versions planned

ATARI ST VERSION

It's exciting to see what the original arcade games have been turned into on a video. The alternative screen data has been built for all of you back in 15 lines. The screen can drop out generally the resolution is one of your 400x200 or 640x400 pixels.

GRAPHICS 5 **IQ FACTOR** 4
AUDIO 5 **FUN FACTOR** 7

ACE RATING 634

PREDICTED INTEREST CURVE



GOLDRUNNER II

Metallic jogging with MICRODEAL

GRANDAD was a rare world for the business man and now the responsibility for holding on to it has passed to you, the programmer. The game is visually ironic like the original *Goldrunner* - fast vertical scrolling, lots of screens and ship scattering, horizontal combat. The only you control is much smaller, but the atmosphere has been bombed up.

The heavily business takes place on a vertically scrolling corridor with large screens of walls and flying into them, or any other buildings at the corner, will result in an abrupt termination of your existence. The design of the corridor varies from level to level, and there are also two scenery data available that provide completely new backgrounds and obstacle arrangements.

On each corridor there's a network of roads carrying transportive cars. These are carrying robot pilots which you're supposed to incite. If you shoot the cars it prevents recovery steps to appear and pick them up - this causes the ship to change colour, at which point you can shoot it and collect the



The player can shoot when the robot pilots are dropped off.

robot pilot before it steps back. Then all you have to do is drop them off at a base-point score to big bonus points at the end of the level.

While this is going on the enemy are piling in ships that can't actually hurt you, but can bounce you into the ground state cars with their fire. The level ends when all the robot pilots are recovered or destroyed and you progress to the next, harder level.

Bob Felt

PHOTON Paint



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Image not quite right?

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Photon Paint does this through a combination of features from a 2D colour paint program and a 3DM paint program, with features which were previously unique to the most sophisticated, high end graphics systems.

- Sophisticated brush operation including twisting, adjustable transparency and mouse operated perspective filling.

- Rotating and moving.
- Wrapping of brushes onto 3-D objects; i.e. balls, cones, cubes and free-hand drawn shapes.

- Luminosity - light sources from a user-defined direction and intensity.

Watch out for Photon Paint in early June!

STARGLIDER II



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EDDIE EDWARDS SUPER SKI

Get one jump ahead with LORICIELS

EDDIE Edwards may not be the world's most successful ski jumper, but the ski star has certainly been back to his native snow a lot since.

At 60 years old, the star is listed and classified above the rest. The atmosphere of your skier is excellent, the background perspective and movement incredibly realistic

ATARI ST VERSION

Atmos background and graphics are quite good, but not greatly for screen quality - enough to keep you trying to show off the features of a second for a long, long time.

GRAPHICS **B** IQ FACTOR **B**
 AUDIO **B** FUN FACTOR **B**
ACE RATING 830

AMSTRAD VERSION

Graphics not as accomplished as the ST version, already business is a sensitive point and just simple.

GRAPHICS **F** IQ FACTOR **B**
 AUDIO **B** FUN FACTOR **B**
ACE RATING 784

and the impression of speed as you race down the piste is horrifying.

Using either controls or keyboard you can speed up, slow down, turn - and go flying off the mountain in a mass of falling ice.

RELEASE BOX

ATARI ST	C12600	CUT 100N
AMS	C12600, C14100	CUT 100N
CM120	C12600, C14100	8889241



ST - Steve Edwards II again...

and crash if you push your luck too far.

There are four events to take part in - slalom, giant slalom, downhill and ski jump - and three different pistes to try your luck on. If you don't fancy choosing your own piste or leg it's best to compete, yet there is also a training mode where you can make a test of yourself to your heart's content.

It hasn't won criticism that can be levelled at Eddie Edwards, it's just there's not a great deal of depth to the game. Four events, three pistes - it's not much, is it? Against that, though, it's going to take you a long, long time to get those knees down.

Red Luster

PREDICTED INTEREST CURVE



Not much depth, but a very high skill factor.

INFILTRATOR II

US GOLD sneak in again

ENTRUSTING your life to a hovering helicopter is about as sensible as ski-jumping back of the Telecoms tower. However, Jimmy Williams is the kind of guy that will not only do it once but twice. This time he'll go down our screens to complete a step-by-step guide to gaining world domination.

Each mission consists of a helicopter

flight to the target and then a ground operation. Both sections take exactly the same form as the original game, the missions being the only difference.

Flying the helicopter is fairly simple, the only tricky part is avoiding the rotating jet stream. There will request ID from you, and if you answer wrongly you're in for a fight.

Once you reach the target you proceed on foot to explore the enemy base. You can destroy various objects like a mine-blocker,

gas generators and pipes. But will get you just massive obstacles. You've also got a number of objects for specific uses like a mobile elevators, beam scanner and beam implant.

You can enter buildings in the base, whereas you can search furniture for more objects that will allow you access to more of the complex. The whole time you are at risk from the camp guards and the 10 minute time limit.

All this action is exactly the same as the original game, the differences are restricted to the mapping and the objects encountered. For fans of the first title it may prove a reasonable new challenge, while anyone new to the game should find it a good combination of in-flight action and methodical exploration.

Bob Wade

RELEASE BOX

CM120 C12600, C14100 CUT100N

No other versions planned.

CM4 VERSION

The picture resolution improved and so is the sound. New effects, including whirrs being passed in they own right. The sound is reasonable with some of the cuts and effects slightly off-beat though.

GRAPHICS **B** IQ FACTOR **B**
 AUDIO **B** FUN FACTOR **B**
ACE RATING 848



There's little use of the enemy base's buildings and you start searching the furniture for useful items.

PREDICTED INTEREST CURVE



There's tough missions, but there's nothing new to captivate you.



Here's the Space War! You see the area below. Don't think about building; I parked there though if you're intending to go to any of the buildings—the best places are very hard to adjust things.

SUNDOG

MIRRORSOFT do the Space Warp again

REVIEWING games that are some years old is not a heated way of ACE indulgence to busy others. But as we were so impressed with Click and Dangerous Miner and especially as we visited FTL's American offices last month, we were delighted to hear that Mirrorsoft were now prepared to let us review FTL's test game, previously only available over here on request.

Basically speaking Sundog could be



Setting ready to step in a new system. Present of sub-light speed is one of the many points, hit that button and you're away.



described as a science fiction strategy colony-management game somewhere between Aylee that and Little Star to your ancient recent demise you've just inherited a space fighter (the funding) and a whole load of credits. You've also inherited a five-year contract that you have to fulfil. The first part of the contract is to find a religious colony - which is not too difficult as it's somewhere on the starting planet of Jovik. You move around by using your fighter's buggy - a small white rectangle controlled by positioning a mouse-like light on the landscape and then hitting the mouse button-downs - the buggy then moves really toward the right.

The second part of the contract has you equipping the colony with everything it needs. Again, you use the buggy here to travel from city to city buying and selling goods that are available from the workshops located in the cities. The third part of the contract sees you rounding up a bunch of colonists who are on various planets throughout the system.

You control a single character throughout the game and you only have one life, so you'll have to maintain your character's health and stamina levels by ensuring he gets enough to eat and that he doesn't exhaust himself with all that driving around the land you've just park your buggy and walk into a box - of which there are many in the cities - and they'll poison a target.

Once you've decided you've stayed long enough on one planet it's time to head off to another (it's always time to move on when you're not making enough profit on the goods you've been buying and selling) in order to purchase equipment for the colony. Simply select your target planet, pocket it, sub-light speed to the warp point and then activate the warp drive - you'll be there in no time at all. Your view of the game whenever you're in space is of the cockpit of the Sundog, and this helps when it comes to fighting off pirates who would just love to poison you of your cargo. Survival is quite strict and you'll probably need to get in to regions as soon as you land. The main money, but under a failed system dump a daylight and you could end up selecting the game from the last saved position.

Finally, an ambitious game that gave the player plenty to think about and do. It takes a lot of playing to get anywhere in the game though, and unless you're prepared to put the work in, you'll reach the end of it.

Andy Smith

RELEASE BOX

ATARI ST £14.999 £17.999

No other versions planned

ATARI ST VERSION

The graphics are fine as is the animation. The graphics are fine but you have to get the right strategy to get the best results. If you like the Sun War game you'll find this one. It's a bit more difficult than the first one but it's really worth trying.

GRAPHICS 7 HD PROCTOR 6

ADDON 5 FUN PROCTOR 4

ACE RATING 7-10

PREDICTED INTEREST CURVE



No money possible - meaning if you produce enough.



Firepower - Two-player tactical action - The top monitor on the right and the keypad communicate over modem.



Firepower - In one-player action view the whole playing area. The keypad is in the empty space and handles some of your men, previously captured and now awaiting rescue.



Galactic Invasion - The map of the universe (left) that highlights just bits of features (main information area) without time in Firepower.

NO need to keep up with the Janet any more - now you can simply face them into oblivion as Activision's new takes. Microtassara, releases a series of two-player games with play-by-modem options.

Each title offers a choice of single play-in against the computer, standard two-players and two-players-on-line modes. In the two-players modes, the screen is split to give simultaneous viewpoints for each party as you roam the game-world seeking out your opponent and engaging in death and destruction. There are currently two games available - Firepower and Galactic Invasion - with a third (Chubot) to come in June - watch out for the remote test mode!

Of the two currently on the shelves, Firepower is definitely the one to go for. You start your tank across the large, swirling landscape in search of your opponent's HQ, the idea being to capture his flag and return



Timing is your ally: using things being equipped in Europe, delivery means Double Income.

If it's your boss. Up against you are numerous get-employees that can involve you in a tight direction as well as overlying telephones. Factors involve mapping, thinking up on gas tanks, and steering them to the clippers.

There's also a Chapter expert to the game, show each time the enemy destroys one of your buildings, your men will run towards your tank and, if you wait for them, enter it. You must then deliver them to you and Cross centre for extra points. Mission time and they're likely to get shot or captured - which is exactly what you're busy doing to the opposition: then you have pushed them out with a dose of heavy blasting.

ONE TO ONE

ACTIVISION'S new range of play-by-modem games

MODEM MODES

Sounds a great idea, playing these games over the phone line, but there are some pretty comprehensive drawbacks.

The first is that the software demands a Hayes-compatible modem - and that means it won't work with most of the budget price units that gameplayers are likely to own, although the standard is becoming more popular.

The second drawback is that - even if you're able to get hooked up - you're going to find the phone line unreliable. After all, if your opponent is miles away, you're got long-distance call rates to cope with - and if he's local, why not just make him rude?

However, if you've got a suitable modem, you're probably accustomed to tape phone calls - and lets face it, playing with a remote opponent can be frustrating stuff. The Janet will doubtless be given with techno-ony.

GALACTIC INVASION

Firepower is single (and... but still good fun in the one-player mode. With two players it becomes an excellent game - which is more than can be said for its companion, Galactic Invasion, which has poor graphics and less exciting gameplay.

In Q2 you go around a small sector of

RELEASE BOX

AMIGA	E1000	0UTH0W
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GALACTIC INVASION AMIGA VERSION

Four players - perhaps understandably more a challenge at once (and 20-0 programming difficulty) for its video mode, an almost perfect target for the lack of map features, slow start, and somewhat complex - forget OK to forget it.

GRAPHICS	3	10 FACTOR	3
AMIGA	4	RUN FACTOR	2
AGE RATING 511			

FIREPOWER AMIGA VERSION

Amiga graphics compared for lot of work in the first mode. The game starts slow for the most part, but becomes an hour or more (more if you'd like to be doing it) for the second with somewhat healthy over your opponent. Good if you're... (modem, network, and network).

GRAPHICS	7	10 FACTOR	2
AMIGA	6	RUN FACTOR	2
AGE RATING 000			

the universe, locating satellites and destroying them. Whilst each one is a modestly coded computerized that forms part of a secondary weapon needed by destroying your opponent's own centers and you to game.

There are the pieces to collect while at the same time avoiding your partners for the computer's hostile ship, collision with asteroids and running out of energy. In addition, there exist gravitational force that may suck you in to a quick, fatal collision.

Galactic Invasion suffers from a dull game-world, mediocre graphics, and it's hard to get better sense to fall up to the same extent as Firepower. Put your money on the banks and give the universe a taste.

Steve Cook

THEXDER

SIERRA's arcade hit

BAFFINS For all the people tired of your Thexder Super Assault 'Mez, dive as you delve deeper and deeper into a maze of tunnels and passages filled with vast, raw, nasty creatures. Your ultimate aim is to first evil-destroy the central computer which creates these creatures, though with its levels to survive you won't do it overnight.

You might not do it at all if your interest wanes fast. The quest is long and tedious, and not terribly exciting. To exit the various levels in Thexder means a perhaps irritatingly a pain, but you might save yourself a lot of time by skipping them—do you or skip. New adventures take many forms, including the "bible," "bible," and "highly unpleasant" "bible," and it's a good idea to approach all adventures with caution—before helping them out with your best-selling coin.

The various evil-destroy passages and tunnels you encounter can be navigated either in Godot or Jet mode, and control is either by joystick or keyboard. You're equipped with a shield for use in emergencies, though even this won't be much use if you plunge into one

of the many lava pools. And using the shield costs you points and saps your energy, which can only be replaced by stepping over boulders, or other abundant rocks.

Thexder may be a big success hit in Japan, but the various titles of long game lists without the lasting interest to make you want to go through.

● **Not Later**



Thexder in total mode, seeking a particular 'O'Brien.

RELEASE BOX

AMIGA £19.999 OUT NOW
to other versions planned

AMIGA VERSION

Control enough to the picture involving speed and the computer's features. To only get the 100% you need get yourself some a better and more frequent work, which probably will be difficult to do.

GRAPHICS 5 **16 FACTOR** 3
AUDIO 5 **FILE FACTOR** 5
ACE RATING 610

PREDICTED INTEREST CURVE



Playoff involving quality

...STARRING CHARLIE CHAPLIN

Alternative shoot-em-up from U.S. GOLD



Our hero's on the set and ready to shoot some 'Borghese'.

LIGHTS camera, action! U.S. Gold take you back to the golden era of slapstick, mope and Vaudeville. On a shooting budget, it's down to you to shoot the legendary Charlie Chaplin through some of the greatest films.

You have to decide which of the hell-down films to shoot first so as to make enough money to shoot the remainder. Then choose the script and the order in which to shoot the scenes—they cost varying amounts to shoot and a few detailing cost, number of scenes and props is presented to the player just for filming. Each scene takes about one minute, during which time you move Charlie around the set climbing steps, tables and trying to knock the other actors to the ground. Once the scenes have shot, it's off to the rolling mats where it can be removed or normal or double speed. You can then decide whether to re-shoot (cutting extra costs) or pass onto the next scene. For all the scenes, hit a key and the finished film is shown to a camera audience who will let you know just how funny it was. Mashed flop and you have to start again, but make a hit and you can go on to shoot your next scene.

U.S. Gold have missed the mark with

...starring Charlie Chaplin. The game tries control entirely on moving the game around the set trying to flop the other spillover—decidedly tedious when you're got to shoot some film there or four scenes. The rolling really is just a busy replay upon ending little too pure sleep-inducing O.G. novel idea.

● **Not Later**

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ATARI £9.999, £14.999 IMMEDIATE
IBM PC £24.999 IMMEDIATE

AMSTRAD VERSION

The dark and white screen don't add much enjoyment of the game either are not too far either. The game's quality and all depend on your own game level with every quality.

GRAPHICS 4 **16 FACTOR** 1
AUDIO 4 **FILE FACTOR** 3
ACE RATING 390



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LIVE AMMO



AMSTRAD 9-95 COMMODORE 17-95

TELESCOPIC tanks might not have the same immediate appeal as bulldozers, but it's the real star of the *Commandos* cast of characters you can swing across gaps with greater ease than *Andy Jones* ever managed. Not surprising really, with bionic strength to lift that rim and needle-sharp talons to help it grip, your high-tech left arm's ideal as a grappling tool. That's not to say it doesn't pack a fair old punch as a weapon too, of course - but with your trusty blaster at hand, who needs it for that?

Your mission involves discerning enemy routes to free your people from oppression, but the worthy posture doesn't intrude much on the game itself. The bonus actions a matter of going places, taking anything that tries to stop you, and - well, that's about it.

On each level your aim is to reach a landing point by climbing from one platform to another, swinging across gaps between platforms and generally making about. There's no time limit to this, but it's best



Use those ball joints like this, and they'll come to you. (Just don't sit fat down, but don't really sit, per se.)

BIONIC COMMANDOS

Six million dollar GO!

enough to let you wall around a while - say, several levels at some points. What's rather more disconcerting is the opposition you'll meet in the form of gun-toting and bayonet-fencing bad guys. State firearms and gun levels could also cause you problems, while some drops off-screen will send you to the morgue floor.

The game's got plenty of surprises up its sleeve, with water and electric opponents showing up as you move through the levels. It also got a clever solution to the end-of-life dilemma as many games have. Rather than sending you back to a fixed restart point when you die, retreat causes time to be rewound or bringing you back to the exactly where you died (retreat can put you in a death trap if you choose you back into the net).

You can also force side to side as you fall down, pick the landing spot you want,

and then give fire to catch the chase. You'll then drop onto the platform below - complete with shutters, invisibility to get you back in the swing of things. This lets you make a little progress to sign the job of



Watch that falling state for extra points - or just choose to sit on a hanging chair!

dying - but with only four lives. It's not a cheap way of gaining ground.

How such a simple game structure as this can add up to a masterly addictive is something of a puzzle. The core action is a bit tedious, animated to be sure, but its long-term attraction lies more in the flexibility of the swinging and climbing it offers. Learning just what your bionic arm can do takes a while, and the wide high-line game layouts offer enormous potential for experimenting with different routes.

Quite simply, *Bionic Commando* offers you the freedom to explore and to work out your own tactics - and that's like a breath of fresh air in the world of today's run-of-the-mill.

Andy Miller

RELEASE BOX		
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CD-ROM VERSION

There may be a subtle error if you're a regular, but with its great animation and the *Commandos* sound working well, this is the version's very playable. It's a shame, but the game's not quite finished.

GRAPHICS	4	IQ FACTOR	3
AI	5	FUN FACTOR	5

AGE RATING 838



STIR CRAZY FEATURING BOBO

Cartoon convicts from INFOGRADES

YET more cartoon-based video from Infogrames, as French locale developer Bobo attempts to break out of the notorious prison *Insanissimo*. That name should warn you of what's in store: its wacky and gaudy, but somewhat lacking in what we English might call long-term playability.

Bobo has to go through six separate games to reach the outside world. First of all he has to serve soup to the grizzled inmates, followed by a level of quiet boating (oh, if old-fashioned physics wiggling boats). He then moves on to watching a line constantly

studded by dogs, convicts and warden.

Then you get the most entertaining section, where he has to bounce his shaves over the walls by neatly moving a fencepiece as they jump out of windows. Off then to the medical ward for a simple move-left-and-right action, and then you finish up in the canteen trying to stop your inmate from eating. You next reveal wading through and trying to avoid the full elements put on the food.

All this is done in very gaudy cartoon graphics, to the reminiscence of some great early master. One or two sections are silly enough, but there's not enough there to make it a satisfying game for anyone over the age of 30. Still, perhaps, you're friends.

■ **Fun Factor**

PREDICTED INTEREST CURVE



Overdue... for an hour or so.

RELEASE BOX

ATARI ST	£19.95	£17.95
AMIGA	£19.95	£19.95
IBM PC	£19.95	£19.95

ATARI ST VERSION

The graphics are obviously based very closely on the cartoon - so there are some flaws. They're very gaudy, but very well animated. There just isn't enough in them. The music is excellent, it's the main disappointment is what it actually is very gaudy.

GRAPHICS	4	IQ FACTOR	1
AUDIO	5	FUN FACTOR	7

ACE RATING 5/10



That's three months you've got up to the air but can you get them over the walls?

GUNSMOKE

GO! Get 'em Floyd



Because that dog on the horizon... he'll start barking before 30 yrs.

SPECTRUM VERSION

The graphics are all black and white, which is a pity. The sound effects are good and the 16-bit graphics are well rendered. In all, it's a good game for the Spectrum.

GRAPHICS	4	IQ FACTOR	1
AUDIO	3	FUN FACTOR	4

ACE RATING 4/10

WYATT

Step you out, but some over-watched and overplayed about you it. You've got five stages (one or more without to complete, and some more gaudy without to avoid).

The first stage is a constantly vertically scrolling shooter-up set at a Western town. Besides some basic fire-up-and-bottom of the screen and the idea is simply to shoot them before they shoot you. Extra bullets are available in the game by shooting them (and lying on the floor - you don't get a helpful level) every time though so you have to be careful when approaching the shot stars. At the end of each level, takes a particularly nice level to dig out at before you proceed to the next level. On level two you're trying to make as much damage as possible to the railway station. Survive that and next you're on your way down a canyon full of blood-thirsty Indians. The next stage has you shooting the wagon avoiding obstacles, before end a level of alien battles, before you finally come here to face with a young woman (barking bawling) at you in a very determined

action. Complete all the levels and you can rest assured that the remainder of the citizens can sleep soundly in their beds.

Gunsmoke offers nothing more than the average shoot-'em-up, except some post-orientation and changing geometry. The mobility is fairly good and shoot battles that are coming up behind you is particularly satisfying. There's nothing here to get the adrenaline pumping for very long.

■ **Fun Factor**

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PREDICTED INTEREST CURVE



Nothing much to see to shoot about.

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EARTHLIGHT

FIREBIRD would like to fly you to the moon

THE moon may not be made of cheese, cheese (or a large portion of the surface) would appear to be chequered. That's a few Cobles (also known as anything to go by) that the chaps who brought us the C&S Academy and Microsoft One.

In the game you play Earthlight, a common as garden alien who was happily listening to way through the solar system until he ship was dragged off course and tossed to land on the moon. So it's only hope of escape is to stabilize the moon-based transmitter that made the home field that tossed him down in the first place.

The game breaks down into four levels, each consisting of eight zones. Each zone contains a set number of transmitters (sent back on the surface) which the player must pick up with his ship to clear the zone. No problem - simply fly into them. Changing the surface features - varying in shape and size

from telegraph pole-like things to craters, plus the massive levels - are problems through the landscape usually always while your ship stays in the service of the system, though you can move it from basepoint to basepoint to storage stations.

All the start of each zone you can alter the rates between the ship fuel, shield strength and ammunition levels. Some zones have the transmitters widely spaced so you'd have to do make do with less ammunition.



Zone zones as land use - rather than transmitters (the small dots), fuel for fuel and you'll have completed a zone.

SPECTRUM VERSION

The games on the site as on the screen above, and the game play may well. There's not too much variety in the zone to keep you going long.

GRAPHICS **B** IQ FACTOR **B**
AUDIO **B** FUN FACTOR **F**

ACE RATING 725

and stated strength for the extra fuel you'll need to reach them and still return. The other zones you'll need plenty of ammo to blast your way through loads of shields.

Earthlight boasts some stunning graphics and sound effects and a big task to complete, but each zone is very much like the last and it soon becomes something of a slog to complete the levels.

• Andy Smith



RELEASE BOX

SPC 07 Dec 03 0303

In other versions planned

WATCH out Cobles, here come the Action Force legends! This franchise-type shoot-em-up puts the life of one of Action Force's best men at your hands. You play the part of outstanding Action Force agent Knight, and as you play to protect your brother Black (and save Cobles forever).

The evil Cobles tend to be hiding a whole bunch of hostages in the ruins of the city. Quick Kick (and his rescue teams) at the base of a building and will climb the way to the top, regardless of any hidden dangers. So up to you then to look out for his and rescue his men in no time by pulling an awesome cross-fire sight and getting all the Cobles forever who appear in windows, doors and even shutters.

RELEASE BOX

SPC 03 Dec 04 0303 040303

In other versions planned

SPECTRUM VERSION

The games on the site as on the screen above, and the game play may well. It doesn't see any of the best of the game play as on the screen above.

GRAPHICS **B** IQ FACTOR **B**
AUDIO **F** FUN FACTOR **B**

ACE RATING 754

ACTION FORCE II

VIRGIN have another bash at some baddies

Quick Kick makes it to the top of the building scene (although will be tried and pulled up by an A.T. helicopter and landed in safety). The player then gets to choose what weapons he should use for the next building. The weapons include a machine gun, a grenade and which called a Bio-gun. Each weapon has its advantages and disadvantages, so choose carefully. Every third level of the game puts the player up against a Coble tank. To defeat the player has to wobble the joystick to the left a set number of

shots within a time limit - (it) to do this and Quick Kick loses one of his intel boxes (see below). Failure to shoot the vehicles below they shoot of Quick Kick also lose his life, as does allowing him to run out of energy (Shooting Action Force tags games to the walls enough times, repulses the energy).

Although the game play is not enjoyed (and it doesn't take long to learn the whereabouts of the enemy on any particular level, its playable still with plenty of that 'but we have go oddities/evens.

• Andy Smith



Use the screen rights to keep Black Kick out of range.



OUT RUN

ATARI ST ● US Gold £19.99dk



Zooming through the checkpoint saves you an extra 50 cc and adds a charge of necessary fuel.

ATARI ST VERSION

A good impression of speed and looks, apart from music, that has been up to the slightly disappointing degree. Thanks to the use of full screen display, without any loss in resolution.

GRAPHICS 8 ID FACTOR 3
AUDIO 5 FUN FACTOR 5

ACE RATING 873

After a week starting on the C64, a poor Spectrum performance and an Amstrad version little short of dismal, the (predictably) distributing game finally makes it onto the ST and... it's great.

As ever, you have to drive your bright red Ferrari Testarossa as far as possible, as fast as possible. You're racing against the clock over rolling hills and round sweeping bends, poising on the power the whole time and desperately weaving through traffic. Just as at the end of each highway section after you a choice of routes to skip one of the busier lines, but in the short term you get in the best checkpoint before the better the clock reaches and you'll get credits only awarded in the race, full and its game over.

There's no system of level or damage, but collisions with other cars or 1000000 obstacles can stop or wreck you - the latter which you spinning, or even bursting and over and - burning up previous credits as you get back up to speed. Careful use of gears can help - you're only get two, so that isn't exactly complex - but for the most part

UPDATE SPECIAL

the game's just a question of learning the moves and timing them.

This is one of the better ST races on offer, and just shows what the machine can do with careful programming. The code is always going to be a touch to convert, but unlike the 5.25 version this one really does catch the spirit - and much of the excitement - of the original.

Andy Wilson

PREDICTED INTEREST CURVE



Even without a 300% pay rate, there's no economy.

JET

AMIGA ● Sublogic - import only, prices vary

An old standard on the IBM PC, this one's up against much tougher competition on the Amiga. Though ranked in the Flight Simulator and Flight Sim II divisions, it's colour oriented and uses inverse polarity rather than realism. The choice of planes - you can fly a ground-based F-16 or a carrier-launched F-11 - puts the game level in head with 3D3 Interceptor, and the competition does not all go to Jet's favour, in fact it really.

For starters, Jet loses out visually. The frame rate is never too high, and the graphics

AMIGA VERSION

On presentation, this is a strong mix that if its picture is eye-biting, the logic and control better screens, and controls that have not to be large.

GRAPHICS 7 ID FACTOR 3
AUDIO 5 FUN FACTOR 5

ACE RATING 884

are not the best either. There's no attempt to show a realistic instrument panel, out-of-control views are limited and the colour used in the display can rather unconvincing. There is the same picture-in-picture facility Flight Sim II had, and you, if you want, you'll view out of the cockpit and one inside it at the same time.

The action isn't without its problems either. In dogfights you have no defence against incoming missiles, having to rely on tight turns or steep climbs to evade the Missoua-based jets fired at you. The only way is a better enemy business and more to evade them, making combat a rather hit-and-miss affair.

On the plus side you do get to bomb ground targets if you like that sort of thing,

UPDATE SPECIAL

and there's a weapon option that lets you hook up two missiles and slug it out against a human adversary. Do both these things, however, you'll be hard-pressed to not and see how Spectrum's Holobyte's Full-on Tanks out on the Amiga - if these features are vital to you, that is. Otherwise, Interceptor probably you best bet. Jet needs more, doesn't play as well and simply isn't in the same league for graphics or sound.

Andy Wilson

PREDICTED INTEREST CURVE



Even without a 300% pay rate, there's no economy.



The view from behind your fighter, as you fly towards your enemy (compare and contrast with Interceptor at 844).

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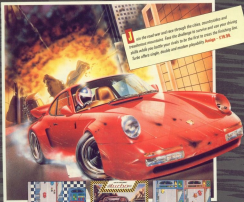
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ACTIVISION

ACTIVISION



This month's version-changers include a brace of oldies finding new life on the 16-bit scene — and when we say old, we mean it! *Captain America* (just when you thought it was safe to go back in the Doom Tube) got a mixed reception in its 8-bit incarnations, but even the critically acclaimed *Thundercats* is all but forgotten now. Also up for grabs are the umpteenth version of *Tetris*, some violent goings on courtesy of *Target: Renegade* and a couple of very snappy *Captain Bloods*. Get 'em while they're hot!

AMSTRAD

CAPTAIN BLOOD

Hyperion 24.95a (1988)

Amstrad 2 version reviewed issue 7 — Ace Rating 87

As ever, the British manage to get their feet out of the CPC than most people get out of an ST — or for as graphics and sound are concerned or any size. The gameplay's the same as the original — connect with stars across the galaxy as you search out your stone siblings — as there are the foundation of a complex (see system) to experiment with. There are all those nagging doubts about the thing's being reviewed too, come to that, but the look at it will overcome most people's reservations.

● ACE RATING 87.5

ATARI ST

THUNDERCATS

Elite 24.95a

Spectrum version reviewed issue 2 — Ace Rating 82

Did you thought ST (but then had been in the pipeline a fair old time) The 4-bit version of the fellow sideways-scroller was in the steps before Christmas, but Elite how cheap is Elite free time waiting it up into the ST. No real thing, that — the bright, well-drawn graphics are a sure sign of time well spent — but the game's scene has moved on, and if anything the action and animation have lost a certain something. It is especially the game's still unquestionably very addictive still but lacking in most the ST's economical greater power you might have expected a little more.

● ACE RATING 86.6

CAPTAIN AMERICA

CD-ROM

CD version reviewed issue 1 — Ace Rating 85

The multi-level Doom Tube of Dr Magnegon is all housing a nasty virus inside and as Captain America is still down to you to solve the virus etc. etc. The graphics are good but the game's dull, the puzzle that appears during the game is little to keep you interested

and though it's not a terrible game, it's totally not an outstanding one either.

● ACE RATING 55.5

TETRIS

Microsoft 24.95a

CD version reviewed issue 6 — Ace Rating 80

IBM PC version reviewed issue 7 — Ace Rating 87

Spectrum version reviewed issue 7 — Ace Rating 70

Amstrad version reviewed issue 7 — Ace Rating 70

One of the most covered games around, the Russian geometrical brain-teaser of Tetris makes it onto the ST, and pretty disappointing that it is too. There's plenty of colour and the music's nothing to grumble about, but the overall playing feel is poor. Controls are sluggish and erratic, while a take 3D effect makes shape-alignments difficult without adding anything to the game's appeal. In a poor show indeed when the Spectrum and CD versions can both beat the ST to playability.

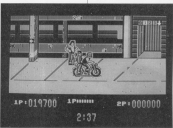
● ACE RATING 84.2

IBM PC

CAPTAIN BLOOD

Hyperion 24.95a

Amstrad 2 version reviewed issue 7 — Ace Rating 87



SPECTRUM — Target: Renegade

That integral close-buster *Captain Blood* takes to the space lanes score, the title is VGA-only eyes and magnets. Don't let that put you off too much mind you, because those scalded Finnish white hair does themselves proud with their four-colour masterpiece. The action's old as wine and weathered as an olive, with a memorably controlled use of ideas and an impressive vocabulary of conventional ones. For a dull, if not necessarily a terrible one for being intense!

● ACE RATING 81.2

SPECTRUM

TARGET, RENEGADE

Hyperion 24.95a (1988)

Amstrad 2 version reviewed issue 7 — Ace Rating 87

The follow-up to *Renegade* probably won't take you too long to complete, which is a lot of a shame because the graphics and gameplay are great. Punch and kick your way through five vicious gangs before you confront the debaucher Mr Big. There are some effective extra weapons to pick up but *Target: Renegade* isn't significantly different from *Renegade* and it's certainly worth taking you as long to make it.

● ACE RATING 85.0

CROSSWIZE

FIREBIRD do it sideways

Can you manage to survive the onslaught in sideways? Then if you don't you can still take part in the action. For time you're saving the planet (and from avoiding aliens) by guiding your character as he moves from left to right across the 2D-

travels, avoiding landscape, Crosswize has good graphics and reactions and the game plays well, but it's still dull and feels underdeveloped.

—Andy Smith

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PREDICTED INTEREST CURVE



AGE RATING E10+



SOLDIER OF LIGHT

ACE's low

THIS is very much like Crosswize and many other sideways scrolling shoot-'em-ups. Multiple elements creep in at levels and some particularly vicious enemies look distracting — it's a good job you can pick up extra weapons then. Soldier of Light boasts some good graphics and OK reactions, but ultimately it's just another run of the mill shoot-'em-up that won't get you too excited.

—Andy Smith

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ROAD WARRIOR

CRL get a punture

YOUR a one-man-army up against a vicious gang of robots who are on their annual death run. Use the gun mounted on the front of your car to blow em off the road. You have to make sure you don't run out of fuel before you've destroyed the last member of them in that particular stage — it only takes one blow to make you crash, so you run for petrol. Road Warrior got nothing that hasn't been seen in other games, and it runs because he's in to play.

—Andy Smith

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PREDICTED INTEREST CURVE



AGE RATING E10+

WIZARD WARZ

GO! get into RPG



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spell weaving, the presentation isn't bad, with a novel concept being the 'wizard' through which you view the action.

—Peter Lewis

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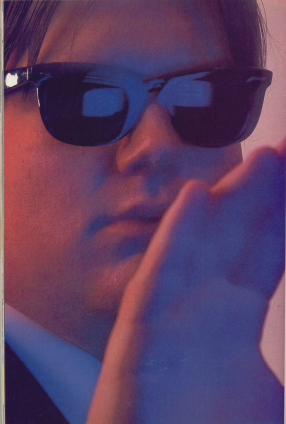
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HACKING

While most of us are using our micros for playing games, running art packages, making music or whatever, a small group of technically skilled people are making their own computer entertainment in far stranger ways. They're dismantling programs to see how the things work; they're logging on to computer systems they aren't supposed to have access to; they're creating twisted 'practical joke' programs that wreck other people's disks. They're hacking.

To most of us, hackers are mysterious creatures with seemingly endless powers. What they're really doing is pushing their equipment to the limit, in a bid to gain as much control as possible over their own machines, over games they've bought and don't want to see lives at, over other people's online machines, even, over other nations. Is this legitimate? Or is it just some sort of tedious show-off as an amateur, computerist hobby? And can these people really do all these things you hear about?

And Robert Schreier, two-time author-date - note successful computer journalist - who hit the headlines by looking into the Blue of Edinburgh Telecom Gold machine causing other havoc.

Tim Longate explained the judgement in very simple terms - the whole thing hinged on whether you can call something an 'instrument' if it can only be a fraction of a second - but there's a suspicion that Gold and Schreier's motives also had a bit to do with it. French an attorney would normally associate with dishonesty, and the nature of curiosity and 'munching' (see last issue) doesn't really fit their profile.

Development logging is really not to be feared, but it is still illegal. The storage company would be 'stealing' electricity, a relatively minor offence based on the big amount of water consumed during its operation when you use it. Is the really smaller? Any-one can make an online system use extra electricity but by drilling it up. It takes a minute amount of power but to make the thing ask you for your password, and wait for the reply. Does that mean it's a crime to dial up a machine - you don't even know a password don't you? Or is it?

● LOGGING ON

Hacking covers a lot of different computer activities, but the one that really hits the headlines is illicit logging on gaining access to private online systems, or the private data of public ones, by unauthorised means. The popular image of the down-the-phone hacker has him obtaining the balance of his bank account - or possibly even of world power - from the comfort of his own home, using some incredibly complex technique to break-control of other people's computers.

The banks are interested too, generally. Most major computer centres are made safe. Outside hackers usually do it for fun, getting access by guessing, connecting or simply being told someone else's password. As the getting-control of someone else's system, the usually works only on small, privately owned online computers - usually referred to as bulletin boards. Does it show the hacker has to rely on the owner's carelessness in running a Troika home program - see *Games Reading Guide* - but has carelessness has behind most hacks. Choosing passwords at random, changing them frequently and distributing them sporadically is usually all it takes to keep hackers out.

ONLINE LAW

The House of Lords, the highest court in the land, decided in April that it isn't sound under English law to log on to an online system using someone else's ID or password. The decision finally resolved the long-running 'El Lord' case in favour of Steve Gold



A modern bulletin board's bulletin boards, normally one for each of responsible things with other people's hardware.

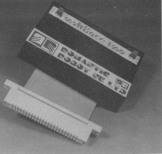
● LOGIC BOMBS

Of all the types of fun you can have with computers, making them go wrong on somebody else - or lots of somebody - is probably the most popular. Indeed, people you've never even met - but to be one of the most popular. It's popular though, almost as popular among people with the right skills as protection/locking or illicit logging-on. The secret comes from the different types of practical joke programs - the straightforward logic bombs, the Trojan horse and the obnoxious/obnoxious virus - make a simple truth: there's a handful of very critical computer users out there, mean old who would probably, but for computers, spend their spare time drawing out in the last part.

Ironically enough, the destructive program originated as a kind of over-enthusiastic protection device. Wouldn't it be nice, the reasoning went, if a programme of an unauthorised program could log if had been granted real-time ID? Better still, what if it could just be the process

MEAN KIDS

Did you ever hear ants using a magnifying glass? Did you ever pull the wings off a fly? Lots of kids have a mean streak in them, being unnecessarily nasty without any real idea just how much harm they're causing. Sadly, a minority of hackers never grow out of such things, and end up using their knowledge to ruin other people's enjoyment of computers. On large networks or online systems they'll try to crash other user's files. On the public domain, out they'll create logic bombs, or distribute ones they've come across. If you're without a virus, you probably know enough to create games or viruses that might be of some use to the world - but to a mean kid, doing something useful with your talent is hardly a priority.



Most users like the IBM, but have changed the label getting even out of recognition. For mountaineers, they like the the fun of a floppy for curiosity about features on the other hand, they speed things up otherwise.

- by wiping the hard disk for instance - to prevent loss? After all, that hard disk was previously packed along with months of enjoyable work with other perfect programs. Is today society a lot more to trash them, isn't it?

Writing such a program isn't that hard, but it also isn't very rare or particularly smart either. All these copies can be used by innocent people. Which means, runs ahead of logic boards going off (because of bugs) even when there hasn't been any piracy in the first place. As with most forms of taking the law into your own hands, vigilante-ware like this turned out to be far wiser than the problem it was supposed to solve.

If logic boards like these - destructive pieces of code that go to work when they get "trigger" conditions - are too dangerous to be used as protection devices, they're better made for computer vandalism. The only problem lies in getting the board to do exactly what you want as possible. In the world of the IBM PC and its compatibles, the answer to this one was simple. Public domain software for the PC circulates freely on disks and file formats (boards) as install programs can travel a long way if they sound interesting or useful. Here's a logic board to look for: tampering and who knows how many other boards you can find?

ORDERING GIFTS

The obvious solution, boards designed to look handsome and encourage their own distribution are known as Trojan horses, or just Trojans to short. The original Trojans were programs disguised to let down a phone line to bullets loaded by hackers. If the IBM operator can catch a board it would erode the IBM's word of honor - including its user passwords - to the hacker's gain. Nowadays Trojans usually just wipe disks, often allowing themselves to be wiped to make detection

that much harder.

The problem with Trojans is that they tend to need help in spreading. People will enjoy software without being quite sure what it is, but they're very rarely sure if on one they're of good luck to go at running it - and that'll normally be enough to detonate a Trojan. What you need is a destructive program that spreads of its own accord, copying itself onto other disks without making itself obvious to the user. Then all you have to do is load the public domain software with the program and watch the havoc that the virus does.

COUSINS AND SIBLINGS

The comparison between self-wiping

MOUNTAIN CLIMBERS

Mainstream hackers are Chris Bowling for types - they break into that online system or enter that game simply because it's there. The fact that people have set up password barriers or elaborate disk protection systems just increases the challenge. Catching someone off their guard isn't really critical, but if they're taken steps to keep you out the hack becomes a sport - and that's fun!

The true mountaineer doesn't usually want to do anything once he's inside, except take a look round and maybe leave a calling card. The challenge's the thing, and once that's gone he's off looking for mountains new.

CURIOSITY KILLED THE CAT

When a mountaineer sees a game, he sees a challenge. When a magpie sees a game, he sees a shiny thing he absolutely must have. Both these points of view are effective of the real, strong compulsion of the heat of hacking - simple curiosity. Did you ever pull a watch apart to find out how it worked? Are you fascinated by the inner workings of musical instruments and kitchen equipment? Then you should try hacking a computer game's a hundred times more complex than any watch yet built, and you can fit it back together all kinds of different ways! Finding through piles of assembler listings long into the wee small hours, struggling to connect lights packed machine code whose purpose you only vaguely understand, rummaging through enormous (and/or) too hot technical manuals - that's the real stuff of hacking!

destructive programs and real-life disaster represents an old-fashioned idea, and there are certainly many variations. In particular, computer virus writers produce just as much pure, malicious and ill-considered havoc as their biological counterparts. Should I hide my machine bank if it gets infected? Should I keep contaminated disks separate from clean ones? Is there really any worth being in a computer virus?

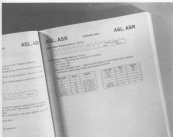
The whole story about virus writers starts in tiny pieces of program code written by a group of Swiss hackers - the so-called Swiss-Cracking Association, or SCA, for short. The code lives in the hard sector of an Amiga disk, a safe little niche where it will stay up on the directory and can't be deleted. Years later it can load into the Amiga's memory and make copies of itself on the boot sector of any other disks you put in the drive. It's ingenious, but - you can't get rid of it by reformatting the machine - but it is only a program and won't permanently damage your machine (unless the Amiga got out and the virus is gone).

The problem here is that, when you switch the Amiga back on, you need to put a boot disk in before you can use it again. If that disk has been "infected" by the virus - has a copy of the virus code in its boot sector, that is - then you're right back to square one.

All this would add up to a fascinating model of disease organisms, if it weren't for the virus's scary habit of destroying the disks once it's reproduced a certain number of times. With the message "Something wonderful has happened - your Amiga is cured," it sets about wiping whatever floppy or hard disks it can get its hands on. Most bits of the world, and you finish out.

WORTH THE GONY?

The SCA virus isn't actually very ingenious,



Real hackers know their machine inside out, and for that they need an awful lot of big, expensive books. Where do they get the money for?

as these things go. It makes no attempt to hide itself, and can be copied out quite easily by anyone who knows what he's doing. Systematic virus-killer programs can clean your disks if it without your needing any technical knowledge at all, and in-action it's so usable you'll immediately know what your up against.

For better progress start in the PC world, some of them being almost impossible to spot or identify. With PC hard disks being fairly common things, the potential damage is correspondingly greater. This one, and some machines - and various hardware-hackers to learn the PCs as and out.

The extreme difficulty of preventing virus in Trojan damage is out of all proportion to the effort involved in writing a destructive program. The one-sidesness of the battle just demonstrates what someone to work over have known for a long time: that running people's hard work is a good deal easier than actually doing something productive.

STOPPING THE EPIDEMIC

There's lots on disks. The only way they could spread in your computer disk would be in buffer-loaded RAM - some machines have the kind of memory for running a real-time clock or the like - and it's hard to see how that would be possible. The danger is in non-removable disk - disks you've got from PC clones, floppies, or disks you've downloaded programs onto. To keep your disks healthy, make sure you don't put them in a disk drive of the same time as, or after, an unknown disk. Don't transfer unknown programs to your hard disk, or to disks you can regularly install, copy these disks and get any unknown programs you want to use onto the copies.

Things to watch for are the disk drive accessing a disk it shouldn't need to look at

- a very difficult thing to spot if you've got an Amiga - or a change in the file distribution on a file that shouldn't have been updated, if your machine has a real-time clock. Relying on write-protected disks isn't by a good idea, and sending the computer rather than switching it off is completely useless. As with online banking, the best protection is being careful in the period of potential virus infection can happen to you.

● POKING GAMES

Back in the good old days, poking a game was a fascinating and extremely difficult exercise in analytical thought and program-

ming skills. To poke a game you had to break its protection system, and to do that you had to understand how the thing worked.

The fun of poking was that every game had its weak spot. There was always a loop in it, or only you could find it. Like the Russian first, a good protection system was so complex it would be almost impossible for some moron to figure out which bits of it did what. The potential rewards of breaking in were enormous - you could see how the game had been written, and after it is your own takes - so 'mountainous' look is poking in that sense.

What the pokes were often was hidden by a single machine code instruction - one byte of memory out of perhaps 50,000 - that counted off the players lives each time he died in the game. It could take a number of hours, but programmers rarely took the trouble to hide the crucial decompiling process. Finding the thing was usually quite simple, but you had to get past the protection system first, and that was tough.

These days, new game laws, the best hackers at least, they were killed out by impenetrable techniques making the task less difficult but, ironically enough, by new look making it far too easy. Magic boxes, these tame devices designed primarily to allow easy copying of protected software, reduced the noble art of hacking to mere copying.

With tools like Electronic Data's Multitool, Gene combination on the Spectrum or Sierra's Kick It on the Amstrad CPC, you can skip a game's protection secrets bare or the touch of a button. These are even programs designed to work with their magic boxes, that are in fact infinite lives pokes for you. 'Where's the challenge in using one of these?'

The challenge is still there on the latest machines but with the vital secret to get on exceeds, it can only be a matter of time before IT and Amiga magic boxes hit the shops. Anyone for a spot of Antidote-to-hacking? ●

MAGPIES

It's not just the pokers of this world who take an unhealthy interest in protection systems; some hackers like to crack games open in order to copy them. Some protection schemes force you to enter specified words from a booky manual while others make it difficult to transfer the game back itself. In either case, a little hacking skill and the right tools can open get you an unregistered and immensely profitable copy.

The real question is, why do these people do it? Half the time, the hackers spend longer breaking the protection than they do actually playing the game afterwards. Some hackers accumulate ridiculous numbers of games, so many

that they end up having to wipe old ones to make disk space for new arrivals. These people are collectors, pure and simple. They just want a collection of shiny things, brand spanking new games (or even programmes) used to hoard and play over. After all, isn't it better than PG, Top Gun, and so on?

Magpies have problems with storage space. Their pockets are crammed with credit cards that have got to be pre-empted into match books that conceal unknowns, and boxes with built-in digital clocks. A magpie's worst nightmare is having a tremendously powerful computer and no software to run on it. Magpies aren't, as a rule, Antidote-to-hacking.

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SPORTS SIMS

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When all takes part in some kind of sporting event at some stage in our lives - we might have played football in our country in our youth or taken part in the parental egg and spoon race on the school sports day. Whatever the event,

whatever the occasion, we all know there's nothing like a sporting event to make a body perform to its best ability.

A computer game based on something as physically demanding as a motor sporting event initially seems like a dumb thing to do. But if you look a little closer its easy to see why they are so popular. For a start, the computer player is usually of

a very high standard - by playing *Midway* at international level in the player's competitive spirit is brought to the surface immediately. The reality of games, of course, need looked to see human players and the amount of competition generated when two or more players compete simultaneously at whatever event has to be heard to be believed.

It's quite evident then that the competitive spirit can be almost as strong when you're playing a sports sim as it would if you were actually taking part in the event. What is missing is the physical exertion normally associated with the sport. Software houses attempted to re-create this by incorporating a feature that became the basis of many a games reviewer's list -

video games attempted to recreate this by incorporating a feature that became the theme of many a games reviewer's life - the wobble. The idea was simple enough - the player wobbled the joystick from side to side to move the on-screen character. The later you wobbled, the later you character moved. The feature satiated a almost every event including wrestling, running and even mountain climbing. While the majority of the following games have forgotten the wobble, you might just find the odd one or two that still use it.

BARRY McQUIGAN WORLD CHAMPIONSHIP BOXING
Adventure

Available on Game, Betand

Master compilation

Amstrad £12.95/\$1 £27.95/\$6
C64 £12.95/\$1 £27.95/\$6
Spectrum £12.95/\$1

Now that boxer, the Cosmos Cyclone, has started his comeback, it would be desirable to move him out of the sports roundup. **BARNEY** is undoubtedly the best boxing simulation for

masses, just beating *Frankie* there for speed, agility and size of cut.

The virtue of the game is that it's much more than a simple fat fight in the ring. First of all you have to create your own boxer. *Frankenstein*-style, from the attributes available, so you can make him black or white, a head puncher or an artilc defender. Then you have to train him, building up stamina and skills, making the right sort of life and so on. Only then can you start to work your way up the rankings. Through the 79 computer opponents towards a world title shot. The fights themselves have been designed with equal attention to detail - it's not just knowing that will see you victorious, but intelligent looking to your victim's weak points. Overall, it's a very classy product.

BOBSLEIGH

Digital imagination

Amstrad £5.95/\$6 £14.95/\$6
Spectrum £5.95/\$6

The simulation succeeds in capturing not only the thrill of hurtling down an ice wall in a metal bullet, but also the crucial elements of strategy. You can race on six different tracks,

including the one from the Calgary Olympics. Each track has its own dangers that can send you careening out of control in an instant.

The Spectrum and Amstrad versions have standard graphics and driving feel. The 64 version isn't so good because of the poor driving controls and jerky graphics. For computer in world championship and Olympic competition using two or four-man teams. You can enter the table runner depending on the weather conditions, whether the team likes to take risks and buy faster sleds if you do not enough to get more sponsorship money. A superb simulation that demands intense concentration, and is always a challenge, no matter how often you play it.

BMX SIMULATOR

CodeMaster

Spectrum £1.95/\$6
Amstrad £1.95/\$6
C64 £1.95/\$6
Amiga £14.95/\$6
Star 87 £14.95/\$6

This simultaneous two-player take-down-up has recently made it onto the larger machines after a very successful debut on the 4-bit machines. You have to compete against a friend or the

computer over a maximum of seven courses. The bumps and turns do not affect you like traditionally and help to make the game incredibly addictive and tough. Watch out too for CodeMaster's Professional BMX Simulator which provides an even tougher challenge.

DECATHLON

Frederic

Amstrad £1.95/\$6
C64 £1.95/\$6
Spectrum £1.95/\$6

This is the original wobble-tilt that had everyone at it back then-and-a-half year ago. The gameplay may not seem very sophisticated these days but it does provide a rewarding excitement and competitive action, it's still hard to beat.

The ten events are 100 metres, long jump, shot put, high jump, 400 metres, 110 metres hurdles, discus, pole vault, javelin and 1500 metres. The events all require wiggling and most need some use of the fire button to time releases, jumps and so on.

This game is guaranteed to test joystick and keyboard, but it's an immensely satisfying way of getting rid of your frustration.



COUNT
0

ROUND
01

TIME
2:41



Amiga

HARDBALL

LR Gold

C64 £9.95/\$6
IBM PC £24.95/\$6
Amstrad £9.95/\$6 £23.95/\$6

Baseball fans will not need to wait this year's introduction of the American national game to get a home-screen delight. Improving with each edition, moving on to the combination between pitcher and batter and then mixing up with the wide open spaces of the diamond, it gives you the most of the game and allows you to run them out. Graphics on the 4-bit machines are excellent, and any one that batted, threw... Amiga never

could do worse than look at EA's *Earl Weaver Baseball*, which is much the same thing, but with Earl - 'the whirring coach is baseball history' - adding the punch of realism.

HYPERSPORTS

Imagine

Now only available on compilations, e.g. *Kanami's Arcade Collection*

Amstrad £8.99ea	£11.99ea
CDi	£8.99ea £11.99ea
Spectrum £8.99ea	£11.99ea

One of the all-time best wraggling games. It's a real test of endurance and timing as you try to wrangle your way through the remaining event to the steepest (and painful) landing (this is another form of wraggling) and then the pyrotechnic event, flat water canyoning and the slide jump before you get into it



Hypersports

marvellously generous bout of weighting. Great fun, but only real fun if you psychic this.

LEADERBOARD

Access/RT Gold

Amstrad £8.99ea	£14.99ea
CDi	£8.99ea £14.99ea
Spectrum £8.99ea	
Start 91	£19.99ea

The only golf simulator worth considering on the 8-bit machines. It's been released in several forms: *Leaderboard* - the original, *Worldwide Leaderboard* - four new courses to play, *World Class Leaderboard* - an enhanced version with new and funnier, and most recently a version containing several classic world courses.

The realism of the game is in the timing and rhythm required to play shots in which you determine both the strength of the hit and the timing of the wip of the wrist. Unfortunately the game is also excellent, retaining the view to the pin



Leaderboard



8-Bit Simulator



Leaderboard

bars whenever on the course the ball has roared up. You may not get the best cut and the essence of the red thing, but you'll certainly get the tension and exhilaration of the action.



Water Sports



MATCHDAY II

Oscom

CDi	£8.99ea	£14.99ea
Spectrum	£7.99ea	£14.99ea
Amstrad	£8.99ea	£14.99ea

The definitive football game for home users. You take charge of a 11-man team and can play the computer or a friend in an attempt to win the League or the Cup. If you're feeling really mean you and a friend can gang up on the computer. Improvements on the original Matchday include the addition of a 'Kickerometer' which gives the player the chance to vary the power of his shots, passes etc. The Amstrad version arguably the best of the bunch, but if you're after the best football game available for any 8-bit machine, then this is the one.

MATCHPOINT

Oscom

Available on Game, Get and Match

Amstrad	£12.99ea	£11.99ea
CDi	£12.99ea	£11.99ea
Spectrum	£12.99ea	

Not a game to be looked up lightly, the scrabbling involves features of the toughest opponents this side of

Whitbread. Viewed in 3D from one end of the court, the defence tries to block itself as you struggle to position yourself properly and time your swing just right. It's not enough to watch and hit the ball; you've got to try hitting it away from the computer player, and that takes most amounts of

Matchday II

It goes like this: After having had plenty of time to study the game, you'll be able to take on the most powerful and battle with your opponent. The game manual includes a branching chart which you need to consult with carefully, as you'll need to study every detail. It's a real challenge, and you'll need to be prepared to face the most powerful of the

WIZARD WARS

For those who appreciate the challenge of a game that can be played in a number of ways, the branching chart will be a real challenge. It's a real challenge, and you'll need to be prepared to face the most powerful of the game's most powerful challenges.

*Eye of Newt
Blood of Rat
Bring Me The Powers of
Vision & Combat*



© 1987 Atari Games Corp.



Atari Games Corp. 2600 Broadway, New York, NY 10013

IBM PC
\$19.99
\$9.99

AMSTRAD
\$14.99
\$9.99

SPECTRUM
\$9.99

ATARI 5.1

positive, very frustrating stuff, especially for those games where you're playing off the back end by the two-player option if you'd like to win now and then.

100

(Masterdisk)

OS/2	\$19.95
Amstrad	\$19.95
Spectrum	\$19.95

The delirious computer darts game. If you must play darts on your screen then this is the one to get. 100 puts you up against a variety of foes in the championship game where you start in the quarter-finals and have to defeat two computer opponents before facing the incredibly skilled Jeremy Jen. You can, of course, elect to play a friend or go for a friendly game of round the board. Whatever you choose to do, you should take your game and get your belly to the oche.

PING PONG

(Amstrad/Comet)

Available on Game, Jet and

Match

Amstrad	\$19.95	£17.95
OS/2	\$19.95	£17.95
Spectrum	\$19.95	

Surprisingly, ping-pong the pond can be good, mostly fun on a micro. Although this Boreas game is no spring chicken - it appeared way back in 1985 - it still manages to be an enjoyable table with your computer opponent. The view is from your end of the table, whether you are serving or not. There's paddle control in tennis, table tennis or snooker, but these are quite different to get a good rally going a couple of slow looping shots followed by a steeping smash is often enough to beat your opponent - on level 1, at least. On the remaining five levels you'll have much more trouble - and much more fun.

PRO SKI SIMULATOR

(Commodore)

Spectrum	\$19.95
Amstrad	\$19.95
OS/2	\$19.95

True budget ski with the Clinix Twin take to the slopes with the tricky, engaging physics-



Pro Ski Simulator

up, then pain to get down that mountain fast, using the traditional controls of left, right and thrust - a shove on the skis that in the case - to get through the control gates of each winter course and avoid obstacles en route. The slope ascends vertically to put the camera on the race progress, but the rate of scroll is constant so you can get left behind by it. Just up all courses and you'll have to struggle down negotiating with the scores being staffed between slopes, winter tough like levels and a great simultaneous two-player mode make this a total winner - even if it is a bit unexciting now!

STEVE DAVIS SNOOKER

(OS/2)

Amstrad	\$19.95
OS/2	\$19.95
Spectrum	\$19.95

Many are the snooker and pool



OS/2

games competing to your money, but this one - despite its age - is still the best, just like 100 (himself). There's not a lot to say about it really: green table, colored balls, realistic physics, and just as hard to do well at as the real thing. What gives it the edge on its competitors is its realism: the balls behave as they should, and the spin, back, top and bottom actually does work. If you end up making more than ten HT levels, you'll have only yourself to blame.

Make It So

SKATE OR DIE

(Electronic Arts)

OS/2 \$19.95 £14.95

The best boarding sim currently available. You end up to seven other competitors can take part in a grueling five stage head-to-head contest which includes disciplines such as the freestyle ramp or tail-pipe with choiced high jumps and a pool part where you try to score points by landing your opponent off his deck. Best of all is the DevilDoll track through a misty stream back alley. It's not just unusual - it's novel!

SUMMER GAMES

(OS/2)

OS/2 \$19.95 £14.95
IBM PC \$19.95

The game that put Japps on the map even before Impossible Mission. The Olympic multi-events offered such unusual disciplines as lightboxed driving and gymnastics along with the more mundane OS/2. Both and the like. Along with the expert Summer Games II this one left a standard for athletic games and variations both still unsurpassed on the OS/2. There's a choice of country to represent - with complete with its own national anthems - and a full Olympic sporting seasons for each year.

WINTER GAMES

(OS/2)

Amstrad \$19.95 £16.95
OS/2 \$19.95 £16.95
Spectrum \$19.95 (OS only)
IBM PC \$19.95

If you not have *Winter the Eagle*, but this one has even offers requiring skill and timing, all set against picture powered scenery. The seven events are bobsleigh, hot dog tennis, speed skating, ice jump, figure skating, free skating and hockey.

Events like the hot dog tennis and figure skating require the player to perform various moves to score points. Speed skating and hockey require rhythmic wiggling to steady all the events, the main problem is staying upright - like real life. A thoroughly enjoyable game that combines good graphics, music and gameplay to make an excellent whole.

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This month Tony Ross looks at PBM newcomers *Creephouse* by Project Basilisk, designers of *Troll's Bottom*, and *In Dubious Battle*, by Pandem Games, a newcomer to PBM in Northern Ireland.

IN DUBIOUS BATTLE

Pandem Games

Dubious has 100 players, each taking on the role of a God like those in *Warhammer* or *Quest* legends. Not just any God though, but a custom job designed by each player. 1000 points are spread through 80 attributes like greed, despair, arrogance etc. The distribution of these points will affect how many worshippers the God gets and how strong he is, as it is very important to play in a network that fits in with these attributes.

The game is set in two places, Elysium, where the Gods live and fight each other directly, and on the world which is a battle-like place of 504 areas with 100 houses total. Each God attempts to get power by capturing energy sources in Elysium or by

maneuver. On the world, I did a bit of work on one tile to try and push the battleship up.

As with any new game, it is a matter of luck if you see' trying to work out the best tactics and strategies. With 21 orders that affect the world and 12 which work in Elysium, there's quite a choice of tactics.

The rule book is glossy, well written and produced, but suffers slightly from being reproduced from a non-letter quality printer. Along with some information sheets, the starter pack costs £6.00 and the game, I think, two box sets, later runs cost \$1.50 each.

COMPLEXITY 7	ENJOYMENT 7
PRESENTATION 7	REPLAY 8
ACE RATING 8	

units have swapped the game finishes.

The issue is full of other player messages who begin as Creeps, but over time turn into Slimes or even Wills. In these pages, the modules move about the house, setting problems, and lightening other things. In any game there is a pretty girl in the room with me and his presently considering whether to eat her, or lighters her or a Stone-Sea-rough decision.

Things in the house give reports on other players and sometimes sing songs. On my last printing, the booklets using the Creep lyrics whose lyrics go something like Creep creep, creep, creep FTBL, stator Very odd indeed.

Four preprinted maps give the layout on each floor plus a map of the groundwork. These can be photocopied and used to mark the location of furniture and objects like walls or stairs, it is possible to mark objects, or show them about it even stick them on top of each other and this, I would guess, is part of the games to escaping the house.

The rulebook and maps could be similar to fit a Game, though the order do not use numbers at all and are in simple English with commands like MOVE ALL BRICKS, MOVE THROWN ALL CHAIRS, instead like SLIDE 20 to go. Up to 20 words can be entered each turn.

Game starts are free and this gets the speed two turns free on well. Turns are only 50p so of this price the game should appeal to the low budget PBMer. Obviously, it is possible to have up to five turns processed each week, assuming the Post Office don't do their worst. My only worry was that this will not other players enter more turns and give them a better chance. This happens a bit in all postal games but hasn't been seen much on this side of the Atlantic.

A local variant game, which should appeal to younger players and those into adventure games, though serious PBMers would probably let go for it. It is a story to be inspired by the addition of new monsters, objects and graphics to tarantulas.

COMPLEXITY 4	ENJOYMENT 7
PRESENTATION 6	REPLAY 8
ACE RATING 7	

COMPANY ADDRESS

In Dubious Battle - Pandem Games, PO Box 127, Belfast, N Ireland, BT9 6ED.
Creephouse - Project Basilisk, PO Box 28, Sharnbrook, Kent, ME15 2GU.
 BA Games - 15 Fawcett Crescent, Harrow, Middx, HA1 2UB.
 KJC Games - PO Box 11, Bampton, Fife, UK.

PLAY IT... BY MAIL

having lots of worshippers on the world. This gives a fleet used to attack other Gods, create elements, trade domains and help shape the destiny of the tiles on the world.

Victory goes to the first God to succeed in capturing dominance over 75% of the remaining players, or who has captured one half of the power points in Elysium. An Elysium is 300 x 500 locations in size. I don't think there are going to be any winners by quite a while.

In my last turn I received some elements and had to grab three energy reserves. Generals are some of the things that visit in Elysium along with Demons, and In-Gods which seem to be the equivalent of mobile

CREEPHOUSE

Project Basilisk

This is quite a different game. British seem to specialise in quality subjects and here really captured themselves the tone. The theme is 'Candy Horror' and I would guess it serves some inspiration both the material take they'd know which also has pretty girls, gaudy parts and things.

According to the designer, Robert Forster, it is more like home computer games than PBM. Each player starts off as a creepy monster trapped in a slow-moving haunted house. Once five of the original forty private

SPECIAL DELIVERY

Not so much this time. BA Games who do the Col in featured last month are working on a junior version which will have more players and different types of units. No date has been given for its launch yet.

KJC games are bringing out a new magazine

First Class to players of its games. This will cost £1.80 and carry articles about existing and new games.

Until next time, may all your creepers turn to slime. Fast!



AVALON

THE KNIGHTS OF THE AVALON

The Chronicles of THE KNIGHTS OF THE AVALON is a fantasy-based Play by Mail game from JADE Games, where players seek to establish, through trade, colonization, politics, religion and conquest, empires.

For a free start-up write to JADE Games, with future low costs from as little as 80p on ring 0200 833271 for an immediate start up.

FREE

NEW ORDER

For centuries your civilization has respected the existence of intelligent life on other planets. Until now you could do no more than speculate about the mysterious radio signals that your scientists have occasionally intercepted. However with the recent development of the hyperjump engine, conditions have become right to reach out and attempt to create a NEW ORDER to link the stars. Will the dominant species in your NEW ORDER be yours, or that of some alien? Informed in NEW ORDER you get the chance to find out!

NEW ORDER is a detailed game of space exploration, the rule book costs £2.00 (please don't expect to play before reading the rules).

NEW ORDER



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SHATTERED WORLD

JADE GAMES

JADE GAMES
FREEPOST
SOUTHSEA
HANTS
PO4 08R

This month's selection of maps, tips and pokes should help you to make this your highest scoring month ever. Keep those tips rolling in – you never know, yours could be the 'tip of the month', in which case you'll be handsomely rewarded for your effort!

TRICKS 'N' TACTICS



BUGGY BOY

For infinite time on the Atari 2600 version of this 800+ game simply type in and Run the listing below loading.

version of this 800+ game simply type in and Run the listing below loading.

```

18 SCOR 1 MEMOY 1200
28 TOT 0
38 FOR 5=SCOR TO 8000
48 READ A5 A=VAL ("7" * A5)
58 FOR PLA: TOT =TOT + A
68 NEXT A
78 IF TOT <= 200 THEN PRINT "ERROR IN DATA END"
88 GO TO "BUGGY"
98 IF POKE (48000)-811 THEN GOTO 8000
100 FOR 8000 TO 810
110 PRINT 8000
120 DATA 21,26,42,22,15,48,33,50
130 DATA 88,38,33,33,19,38,33,81
140 DATA 42,44,55,53,54,49,43
  
```

BEN LAUGHTON, Bishopsfield.



IO

If you need help with this game, then this C64 poke should deliver. Load the game first and then reveal it before entering.

```

POKE 20000,(2-288) (Number of lives)
POKE 20000,(2-3) (Number of levels)
POKE 20001,(2-3) (Number of the screen on which you start)
  
```

DVD 674098 (restores the game with the changes)

JANFRED VAN DER ELST, Rotterdam.



ATF

A few timely words of advice for anyone needing help surviving in Digital Integration's high flyer.

As your Intelligence reports don't give you the whole picture regarding targets, it's advisable to camp out missions close to base and then search for your own targets. What you see near a target that is not in the database, a detector message will appear and will then be entered into your target list.

Missiles are only effective if your heading is within 1 or 2 degrees of your target's bearing. If you are firing over a target, it can sometimes be destroyed by cannon. Bases, factories and comms usually need more than one hit to be destroyed. Beware of using ROBBAMs as they are inaccurate and cause the game to lock as you guide them. It is a lot simpler and almost as effective to use the cannon.

If an interceptor approaches from behind, bank in the same direction as the bullets, which will rise over you. Reduce thrust and the game will overreact, then simply fire at it as it flies off. The alternate landing signal will come off approximately 800m from the landing, and it is advisable to lower the landing gear because the message does not always remind you to.

CHRIS MANTON and JEREMY WEINGARD, High Wycombe.

ARKANOID II

This C64 poke will not only give you infinite lives, but it allows you to advance screens at the press of the restore key.



```

1 PRINT (2000-147)
2 FOR i=0 to 2000: READ C: A=A+C: POKE i, A
4 END
  
```

```

8 IF A=0 THEN PRINT "GAME OVER"
9 DATA 182,87,188,17,71,187,128,1,202
10 DATA 18,247,182,288,184,76,728,7
11 DATA 32,88,248,188,7,67,288,2
12 DATA 188,1,141,288,2,76,187,2
13 DATA 188,32,147,88,2,788,182,147
14 DATA 88,2,188,1,147,88,2,76
15 DATA 0,8,188,7,76,147,17,1,1,1,188
16 DATA 1,141,1,14,1,7,7,18,208,80
17 DATA 188,175,141,208,8,182,7,188
18 DATA 208,1,157,0,57,202,78,247
19 DATA 182,0,180,0,142,208,208,148
20 DATA 0,1,205,76,2,0,188,208,141
21 DATA 87,2,78,88,55,76,2,0,8
  
```

Type SYS 2000 to start the game.

The D&D Crew, Clayton.

CYBERNOID

This cheat for the Spectrum will provide you with infinite lives and time in which to complete Mr Cocco's latest offering.



1. Choose the Define Keys option
2. Type in "CODE"
3. Redefine the keys as you would normally
4. Start the game.

GEO MONTI, Wexham.

GRAPPLING

To get anywhere in the game, you've got to get to grips (grasp!) with the grapple sequence. The priority is to de-activate the detonator. Once the detonator is safe try and arrange the question marks and boxes in the correct order. If you are low on power, it is a good idea to grapple a device and merely disarm the detonator. This will regenerate all your energy and you can keep your original path. Grappling is the only way to recharge yourself in Magnetron if you have a 'Recharge Carriage' for your machine. Now is a good time to use it!

There are several moves you can use to up the limits. For example, if you move a piece along the top or bottom row in an 'L' pattern, you will usually be able to complete one row and possibly the screen. Practice and agility are called for here!

MAGNETS

If you are carrying heavy metal near magnets - (E, C, A, B, D, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z) it is all too easy to get pulled off course and crash! If the magnet is near a ramp, make sure you go slowly and check which way the magnet points. Long magnets can save you power if you can allow yourself to be carried along by them.

DRIVE UNITS

If you're looking for a good drive, the best are the A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z models. The drive units are useful for extra speed and agility, especially when carrying extra tools. If you have a sluggish drive, you will not be able to ascend steep ramps or resist magnets. Be careful of going too fast though, especially on ledges, and a drive unit shouldn't be your primary consideration when choosing a drive to dominate.

POWER UNITS

Unlike Civilization the power units in Magnetron are matched to your items. The Dynamic units are more prone to turning down, however, so if you feel trigger-happy go for a drive with a Neutron unit. The Dynamic units are also more prone to running down when you collide with your adversaries.

WEAPONS

Proton Discs - Nuke-like weapons that are only useful against low level druids. Not recommended, but a useful starting weapon as it doesn't put excessive demands on your energy.

Cruiser - unique to the P3 security druid. If you can find one, the Cruiser is an excellent weapon. It's only effective at short ranges and tends to be inaccurate when compared to other weapons, but it is powerful enough to remove most druids and it also has guided missiles that can follow targets.

Plasmaner - a high powered weapon which security druids use to great effect against you - so be careful when you approach a P1 or a P2 unit. Like the cruiser it can destroy any druid within a few druids. The Plasmaner is an excellent weapon during the early stages.

Warler - a superb long-range weapon that it can also be used for short range combat and is only bettered by the Anti-drive when it comes to destroying druids just out of normal range.

Bouncing bomb - similar to the mortar and will work at all ranges. It's difficult to aim and fire accurately, but it is devastating - the druids seem to be expert at using the bouncing bomb.

MAGNETRON

Some comprehensive tips here for all Commodore and Spectrum owners.

Anti-drive - similar to Gusteron's detonator, it will hit all druids on the screen but it will take a few shots to destroy them. The Anti-drive is very useful for 'mopping up' the low level druids - especially war druids. Be aware of enemies though as it drains your energy but fast. Also, don't use on P2 and E2 druids as their Anti-drive devices make them invulnerable.

Seeker - homes in on the nearest target that is at approximately the same altitude as you. Only the P2 druid is invulnerable to the Seeker, which is hard to find but is worth searching for as it is very effective.

As to the druid or all weapons experts, the best way to start to grapple with a druid is to come at it from below, or a ramp, with your grapple already locked on.

DEVICES

Overwall - blocks your power unit.

Overdrive - increases your speed (useful if you're heavy).

Anti-drive - not very useful unless you're on

vertical power level.

Ultra-man - unique to the P1 druid, this device is useful in C64/6500 situations when you can just touch and destroy.

Super-shield - renders you immune to most weapons.

Scrambler - similar to the Anti-force in open box, this device jams Seekers.

Anti-grav - stops you exploding when you fall off edges.

GENERAL TIPS

As you approach a cluster of druids, use the table to see if they have anything worth stealing, and then check how well armed they are. Always try to spend a stone as this gives you an extra life and is less hazardous. The best druid is the E2 as it has an Anti-grav, Seeker and powerful drive and power unit.

JANON COLLINS, Burger Co. Downs.

FLYING BY THE LINE - YOU GET HEARTS, DRUIDS & A BOMB

FROM PICTURE AIDS TO METEAL SHIP

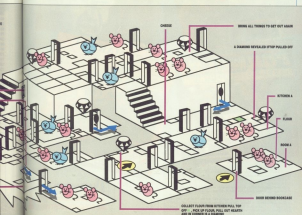
END BEHAVIOR IF THE PALMS OFF

INSIDE OUTING

ALASTAIR CUMBY, Wals

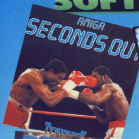
1988-1989

THE MAGNETRON DROIDS						
DROID	TYPE	SEC. CLASS	DRIVE UNIT	POWER UNIT	WEAPON	DEVICE
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D3	Elite Droid	Beta	ULTRA-PHASE	NEURON 2	SEEKER	ANTI-GRAB
D4	Fury Droids	Gamma	MITS-PHASE	NEURON 1	BOUNCING BOMB	SCRAMBLER
D5	Fury Droids	Gamma	INTER-PHASE	NEURON 2	BOUNCING BOMB	SUPER-SHIELD
D6	Guards	Gamma	CYCLE	NEURON 1	ANTI-OBS	SUPER-SHIELD
D7	Guards	Gamma	CYCLE	NEURON 1	MORTAR	BURHOLES
D8	Guards	Gamma	CYCLE	NEURON 1	MORTAR	GRAPPLE
D9	Personal Droids	Beta	SYNCHRON	CYBATIC 4	FLAMMABOM	ULTRA-ARM
D10	Personal Droids	Beta	SYNCHRON	CYBATIC 4	FLAMMABOM	ANTI-FIELD
D11	Personal Droids	Beta	ASTRON	CYBATIC 4	GAUSSIAN	EVERYPH
D12	Personal Droids	Beta	ASTRON	CYBATIC 4	PROTON DISK I	EVERYPH
D13	Void Droids	Epsilon	INTER-PHASE	CYBATIC 2	PROTON DISK	BURHOLES
D14	Void Droids	Epsilon	ELECTRO DRIVE	CYBATIC 3	PROTON DISK	BURHOLES
D15	Void Droids	Epsilon	MAGNET DRIVE	CYBATIC 3	PROTON DISK II	BURHOLES
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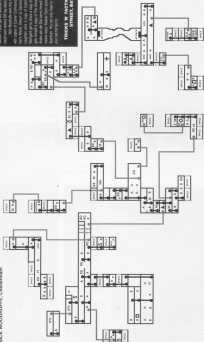
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The Flare has been designed for simple operation — in the screen that stylized machines will be controlled entirely by joystick using an on-screen (not-on) operating system. The prototype in the picture uses a 286-class disk and is controlled by a standard 101-keyboard, both for manufacturing simplicity and resale. We don't list exactly what configuration the machine will have — but options include expanding with an optional keyboard, mouse or keyboard, touch-sensitive interface, and hard disk.

There's been a lot of it about: Whispering, but a thousand have been told about new excitement from Amstrad, rendering us the possibility of a Spectrum-4 that has been variously been reported as a modest success, a 21st speed-up Spectrum-3, and more. Here at ACE, we're managed to answer at least some of the fire behind the excitement in a few lines. It exists in final prototype form, it is ready for production. But exactly who will be producing it is still undecided. How soon...?

The Flare One (or the machine is called) is a 1MHz machine with 64K of full-blown configuration ROM, 128K of video RAM, and 256K of system RAM. It was designed exclusively as a Creative computer and it reaches the marketplace it will certainly give both the Amiga and the ST a run for their money.

Although 286-based like the Spectrum series, the Flare drives its power from four custom chips designed by the company with the specific intention of providing powerful (WSP) powerful graphics and sound capability. Just to give you some idea, how would you like:

— a video that can give you a full-screen game with 256 colors on-screen, update



Martin Brennan (left) and John Matthews, two members of the Flare design team. The Department of Trade and Industry were so impressed by their dedication to the project, which has included working out many of the problems from their own work, that they made a film about them. Just a keep an eye on them around the computer show at the machine and you'll see it in the market will support it. However.

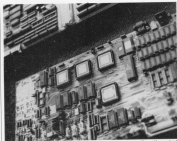
the screen at up to 3 million pixels per second, and play full stereo sound with eight voices of the same kind.

— a video that you can program to emulate a Commodore, Tascam or one of a dozen other dedicated applications.

— a video that has a dedicated video expansion capability for frame-grabbing.

PLAYPOWER!

At last - the truth behind the rumour: a new music-and-graphics micro that could put real power into the hands of the user who values self-expression more than spreadsheets. Steve Cooke visited Flare Technology, where ex-Sinclair Research boffins are putting the finishing touches to a mighty new micro.



The prototype board, featuring the four special custom chips designed by the Flare team to handle graphics, sound, and memory. The row of chips on the right — from left to right — is the video controller, the logic for the disk, and the audio multiplexing controller (see main text) and the video controller chip. In the background you can see some of the many and extremely complex TTL circuitry built up from off-the-shelf chips. The Flare is made by design into the few custom chips.



FLARE TECHNOLOGY — WHO ARE THEY?

They're no fools, these boys. Martin Brennan (left), John Matthews (left), and Ben Chesson (right) were some of the brains behind Sinclair Research, working with the intention to take on the design of the Spectrum and Spectrum video graphics.

Since 1981 proposed that never get very far, culminated (left), announced a powerful music-and-graphics machine that really caught the imagination of the Flare trio — in other words Sinclair Research passed into history they decided to form their own company to develop Flare One, the machine profiled on these pages.

The company has spent 8 years developing Flare One, and they're now ready to go into production — but there's just one problem: no one's major company has signed on the dotted line, despite how intense their of last few major players in the home computer market. Here at ACE we notice the machine is a real effort — so get your cheque books out, gentlemen!

video image, and other professional graphical applications.

— as well as a powerful letter chip that offers two scrollable screens, vertical and horizontal textwrap scrolling, collision detection, and lightning-fast image manipulation?

Well, claim Flow Technology is exactly what the Flare One is designed to do. And although the operating software for the prototype is still under development, the demonstrations we saw were a long way toward proving the capabilities of the micro. However, when just as impressive is the design philosophy behind it. Flare wanted to design a machine that, while offering significant advances in processing power, was concentrated on taking the music out of the operational area of computing and into the wider world of pop and video entertainment.

That's certainly a philosophy that ACE endorses to the full. We were only able to preview the Flare One just before our print deadline so our coverage of it in this issue has necessarily been limited by space, but we do believe that it is an impressive machine with some excellent features — check out our further report on it next month. ■

THE SPECIFICATION

A typical "top-end" system would include:

- 128K ROM
- 128K Video RAM
- 128K System RAM
- 1 RGB32 serial ports: one variable baud rate and the other fixed at 9600.
- MIDI IN, OUT, and THRU
- Industry standard keyboard interface
- Standard joystick interface
- Lightpen interface
- Stereo audio inputs (for sampling and processing) and outputs, plus "Walkman" style headphones socket.
- TV and RGB monitor outputs.
- Video expansion bus to allow fitting all 3 framegrabbers etc.
- System expansion bus for hard disk and etc.
- Up-to 256 x 256 pixels with 256 colors
- Flare 672 x 256 pixels with 16 colors
- Operating software in ROM to include paint program and music editing/synthesis software
- Extended BASIC giving full control of graphics and sound chips.



The prototype is set working in Flare's studio, being the Flare's very comprehensive 8088 open pre-installed 8192 element application such as a GUI and then also full advantage of the machine's parallel editing, sample processing, and sequencing software — most of which will be lost in ROM and therefore contain all the result of its failure. What's going to make the system manufacturer's early goal, however, is the programmability of the machine — which can be made to include many custom applications for a fraction of the cost. These operations were being set up some pretty impressive stuff when we saw them — in fact several of course, since the Flare allows you to save right in/and and back again — and save all the past two in between — within the 19 (which is the featured CPU range built designs each of the Flare system is a separate design — left, center, and right).

FOR THE MUSICIAN...

The Flare sounds like a dream come true for MIDI musicians. Not only do you get a comprehensive MIDI spec with IN, OUT, and THRU but you also get processing power that will enable you to produce some incredible sounds.

The DSP (digital sound processor) in the Flare is a custom designed chip that operates at a VERY fast speed of 8 million instructions per second (MIPS). That alone would be impressive, but it can do this AT THE SAME TIME as it carries out 1 million multiplications per second.

This means that you can store a waveform or sampled sound in memory and then get the DSP to fetch it, modify it by applying a digital filtering algorithm to the data, and then output the sound via the micro's CD quality digital-to-analog converter. The hardware is powerful enough to allow you to generate eight voices simultaneously, modulated in pitch, volume, and stereo balance at 30K samples per second.

This basic principle is used in a number of professional synthesizers, but in such instru-

ments the program that determines the performance of the DSP is held in ROM and is therefore unalterable. The beauty of the Flare is that the DSP programs are held in RAM and can be altered by the user. You can therefore emulate in software the workings of conventional synthesizers or even invent some of your own. We want the machine to start people playing with sound in the same way that SharePoint on the Macintosh started people playing with computer graphics, say the company.

Flare is currently working on built-in software (in ROM) so initially available — no waiting for tapes or disks) that will include some editing, sequencing, and sound/sample patch editing modules. The system chips involved have a strong degree of independence so that you could, for example, add a sound on screen while listening to it at the same time.

Finally, the design of the machine enables one, two, or more Flares to be linked together. Then you'd really have something to play with...

MIDI PANEL OF EXPERTS

This month's postbag contains an above-average proportion of oddities, ranging from the 'can you tell me all about MIDI?' sort of question (a spot on the vague side) to queries about MIDI software for the Amiga (less common than you may think) and about MIDI accordions (much more common than you may think). Your MIDI moans mastered by music maestro MARK JENKINS...

I was trapped by your 'True Love' photo-essay in Buy it Flexible 021200 synth card. I want to buy IT-based MIDI sequencer, scorewriting and sound editing packages up to £100 per package. I hope the alternatives will let me enter data by mouse or well, because I'm so.../Ella Jahn at the Ivy/Don't/Andrew Gignault, Boston

Well, the good news is that you don't have to spend as much as £100 on a sequencer. Super Composer from Miditem of around £49 will give you 10,000 of sequencing, a very helpful display which includes a window for each section of your song, and it operates at two different ranges in factory auto-tune-ness. If you want to spend a little more, you can go for some SP or DM which looks like a fully professional sequencer (it isn't) or cut down version of the C149 Music Masterpiece, but still considerably powerful.

Score transcription converting MIDI data to musical notes is a search for perfection in either expensive - C1400 Motitor, for instance, is over \$400, but includes the amazingly powerful Chord separator software and can store synth sounds on-lead. Easy Score from Syllab, A&S is probably the cheapest decent package - like Motitor, allowing imported or in-house entry - call Syllab/Music on 01 444 9124 for price and availability.

Editing packages for the DX100 and other Yamaha two-operator synths are plentiful, and Synthesia Music will probably point you in the direction of their Soundtrax DX100 package. DR T (distributed by MCMUSIC, 01 725 4104) also has a handy package called SOP which will handle other Yamaha synths too, and if you want to complete extra steps you'd be better off going for a multi-track synth module which can play several parts simultaneously. Synthesia's the M100 and Standard One M100 also includes drum sounds. In either case, you'd need a master keyboard, and Synthesia's the best bet, with, as they say, prices to suit every pocket.

How would any Commodore 64 sound through a TV set with Micro-Synthesizer?/Nicholas Ringway, Chichester

The answer is that it would sound ok, but it's very easy to connect to a hi-fi for better sound.

quality. If your hi-fi has phono inputs for tape or auxiliary inputs, buy a 5-pin DIN to low phono lead, stick the DIN into the Commodore's customised socket, and you'll find one of the phono plugs will deliver perfect sound through your hi-fi. It's quite easy to find out which one by trial and error, but keep the volume low until you're sure it's in, and the sound isn't affected by connecting MIDI equipment, although most software designed to MIDI will want to be using the internal sound chip on well anyway, and MIDI synths will either have their own speakers like the C1200 or a will need to go into the hi-fi or other amp, certainly not into your TV.

'What can you do with a SAM Music Librarian and what do you do it with a Spectralis 485?'/A. A. King

This is perfectly feasible, as all the members of the SAM user group will confirm, as perhaps they'd like to write out how to do what they've been doing? Meanwhile if Mr King or anyone else wants to get in touch with SAM, they're invited to write it, 15 One St Oswalds Lane, Church Crookham, Hampshire GU13 0RE, tel 0332 859995.

I want to get up some MIDI gear with an Amigo 500 and would like an odd professional if there's a MIDI provision I could use in conjunction with SP Amigo-50 show

The only Amigo MIDI interface we know of is the UK centre from Suprastel for £49.95 or so - contact them at Winchester House, Cranston Road, Westchester, Havant, Hants GU14 7HE. I like to have info and probably some MIDI or suitable software such as the Deluxe Inter-Connection Set, sent from Data Concepts. If you ever visit the Professional Music Fair you'll find IONAMA MIDI on occasions - they're not so popular over here, but it's worth checking whether either £22

0281 475105 or National 01-731 4613 report any of these lines into the UK. Either company may be able to put you into a specialist who will add MIDI to an existing installation, but even if you use the Commodore computer route a separate MIDI synth module specifically designed for a MIDI accompaniment, chord and harmony sections - or the distributor, so far as we know though. Again, also try to connect that same MIDI/Spinet up to the TV - it's not because the Amigo isn't capable of doing the same job. It's just that the Amigo already has a MIDI socket and about a million lines more MIDI software available than the Amigo unless you go on look in the States.

I think you should devote some space to acquisition and music news./Andrew Sutton, Leeds

You're right, because most synths won't make a sound without compilation, but it's a pretty large field, and even you'd get two or three synths, some others with odd or multi-track have become what you're looking for. The M100/48571. Basically a single synth will go into your hi-fi - two or three synths will go into your hi-fi via a cheap mixer, and then finally. More synths and effects and you'll be looking at a vast to your last mixer step to a small home recording mixer. Performance-oriented, research-based (sometimes) usually have built-in mixers with four or six channels and facilities for routing in external effects such as reverb/echo and echo, and if you're setting up your music system away from your hi-fi, it opens hi-fi amp and speakers will be needed (making on headphones is OK, but you give you storage recording results when played back in speaker).

Another home has involved a 'go-to-here-and-there' machine for the house (usually on a budget, at £199, the Studio 100 customer's low-back portable, conventional console desk for copying, six-channel mixer, echo, record deck and radio, and mixer with 100 mixer, two speakers, a pair of horizontal and banking tapes at dance and instrumental and music. If you want a recording studio, but don't DJ setup in one, and want mixing on cheap sound performance, this is the only bet on the catalogue for me or anybody. ■



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System 32-bit
System 16-bit

System	MSRP	MSRP	Date Available
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SNES 32-bit	1.95	1.95	AC 1/19/92
SNES 16-bit	1.95	1.95	AC 1/19/92
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SNES 16-bit	1.95	1.95	AC 1/19/92
Amiga 32-bit	1.95	1.95	AC 1/19/92
Amiga 16-bit	1.95	1.95	AC 1/19/92
Amiga 486	1.95	1.95	AC 1/19/92

BONSLEIGH

Digital Integration
Superly simulation of the exciting winter sport.

System	MSRP	MSRP	Date Available
Super Nintendo	1.95	1.95	AC 1/19/92
SNES 32-bit	1.95	1.95	AC 1/19/92
SNES 16-bit	1.95	1.95	AC 1/19/92
Amiga 32-bit	1.95	1.95	AC 1/19/92
Amiga 16-bit	1.95	1.95	AC 1/19/92

ARCADE FORCE 4

4 game compilation of Road Runner, Bull and Jerry, Gopher and Betty, Croak.

System	MSRP	MSRP	Date Available
Super Nintendo	4.95	3.95	AC 1/19/92
SNES 32-bit	14.95	10.95	AC 1/19/92
SNES 16-bit	4.95	3.95	AC 1/19/92
Amiga 32-bit	14.95	10.95	AC 1/19/92
Amiga 16-bit	4.95	3.95	AC 1/19/92
Amiga 486	14.95	10.95	AC 1/19/92

CALIFORNIA GAMES

US Gold Eggs
The best Eggs sports simulation yet. And that's saying something.

System	MSRP	MSRP	Date Available
Super Nintendo	4.95	4.95	AC 1/19/92
SNES 32-bit	14.95	10.95	AC 1/19/92
SNES 16-bit	4.95	4.95	AC 1/19/92
Amiga 32-bit	14.95	10.95	AC 1/19/92
Amiga 16-bit	4.95	4.95	AC 1/19/92





8 AMIGA TITLES

(In addition to those elsewhere)

Sea is an incredible addictive board game on World Games in the Edge sports season. Football is a great football simulation. Le Mansport is the definitive golf simulation. Hammer is a superb combat fight sim.

Title	RSP	ACE price	Order code
Sea	24.95	19.95	AC1004
Football	24.95	19.95	AC1005
Le Mansport	24.95	19.95	AC1006
Hammer	24.95	19.95	AC1007
World Games	24.95	19.95	AC1008
Edge Sports	24.95	19.95	AC1009

8 IBM PC TITLES

(In addition to those elsewhere)

Two leading games should also remain around PCs and other compatibles. Sea is a fantastic space trading and combat game. Thunderbolt is a sophisticated flight simulator. Hammer is a sophisticated outdoor football game. Le Mansport is the definitive golf simulation. Border is an adventure. Sea's engine. Terms in addition page.

Title	RSP	ACE price	Order code
Sea	24.95	19.95	AC1004
Thunderbolt	24.95	19.95	AC1005
World Games	24.95	19.95	AC1008
Edge Sports	24.95	19.95	AC1009
Le Mansport	24.95	19.95	AC1006
Hammer	24.95	19.95	AC1007
Border	24.95	19.95	AC1003
Sea's engine	19.95	19.95	AC1002
Sea	19.95	19.95	AC1001



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2. We have tried to list only those versions of software which are available NOW.
3. All prices include VAT, postage and packing.
4. You will normally receive software within 7 days of ordering. Please allow 3-2 weeks in case of temporary shortages.

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2.		
3.		
4.		
5.		
6.		

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Credit card no. Exp. date

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Our Run £19.99 Our parlay price £9.99

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Parlay games must be same RRP as the game ordered.

Send for an application form
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FREE Membership for the 1st Year !

ACE

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+ covers worth £8.00 (in £8.0000 BLUE M&A
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G000 for the Spectrum
+ Which Console? A detailed comparison of
the Nintendo, Sega and Atari machines and
the software available for them.
+ Music: Info to buy and a review of Casin
988 Game
+ Great playing tips on Build of Friends,
Ballpoint, Defender of the Crown and more.
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ISSUE 2 (Order code A12002)
+ FREE cover-cassette containing the first
complete issue of the arcade cheat (0098 &
00000) (254 and Spectrum versions)
+ Buyer's Guide to budget software - 30 top
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+ Detailed playing guides to GCR and
OFFICE 8080S, plus numerous other
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graphics and your game-playing skills.

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Amiga and Acorn Archimedes.
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+ Playing guides to Real LEGO, Shogun's
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+ Digifarm and Deluxe Paint III compared
+ Introduction to Play by Mailgames
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+ Game compilations compared.
+ Reviewer of huge range of electronic booklets.
+ Detailed tips on F-15 Strike Eagle, Indiana Jones and Spy Hunter
+ Police for Super Sprint, Quarter, Jack the Nipper 3, Revenge, Boulder

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+ The definitive comparison of flight simulators by professional pilots.
+ Games-Creators reviewed and analysed.
+ Graphics: The value of a cents of how to do it, articles.
+ Comparison of digital printers.
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page 105/22.



1-585-1000
 (333)3370
 Where you receive the TMO's prompt, you CALL #1 and that's pretty self-explanatory. The software is developed by Richard Martin, Ray Robinson, and John O'Neil.

Cost: \$4.95
 Starter Pack: \$14.95
 Special orders: \$14.95
 Bulk orders: \$9.95

CHALKBOARD
 Access Via FDS or Affinity
 Games available at present, though they'll be taken away whenever an one of the University gets into.

BOOKS

Books seem to be the most popular category of the collection if you're looking at the sheer weight of numbers, though it has something of its own. It's in the form of a book called *BOOKS* (Penguin). The game has a number of books available for reading, ranging from a book about the history of the book to a book about the book.

Most games when they're in the form of a book are in the form of a book. The book is a book called *BOOKS* (Penguin). The game has a number of books available for reading, ranging from a book about the history of the book to a book about the book.

Books is a good place to start for the user. It's a good place to start for the user. It's a good place to start for the user. It's a good place to start for the user. It's a good place to start for the user.

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Access: Books, all volume available and 80 volume. Books, all volume available and 80 volume. Books, all volume available and 80 volume.

BOOKS
 Contact: 1-585-1000
 Access: 1-585-1000
 Author: Ray Robinson, Richard Martin, John O'Neil
 Cost: Free

TRASH

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TIME AND MAGIK

LEVEL 9/MANDARIN finally get it out...

THERE have already been two Level 9 compilations, released by Mandarin, offering updated and expanded versions of their earlier games. Now the popular *Time and Magik* Trilogy, featuring *Lords of Time*, *Red Moon*, and *The Price of Magik*, has been given the same treatment — but exactly what sort of treatment is it, and does the compilation deserve your hard-earned cash?

First, you have to remember that Level 9 wrote all three games,

beginning to look decidedly antiquated. Cleverer solution: reprogram the games, adding greater sophistication, better pacing, and pictures.

However, *Time and Magik* falls into a slightly different category here. With the exception of *Lords of Time*, the games featured are later Level 9 productions. Best featured graphics is the original version and — in the case of *Price of Magik* — improved pacing and mechanics as well. This means that if you already have copies of these games, it isn't going to be worth shelling out for the new compilations — although the graphics have been improved and the games polished up, they don't improve substantially on the original by buying a second copy.

On the other hand, if you've only got one



copy, it's a valuable boxed-market download. And the price with 4MB on each disc is quite reasonable.

This put the company in a bit of a dilemma when it comes to re-releasing compilations of earlier titles. The market local changed and new floppy sales have gone to zero and CD-ROM computers with CD-ROM drives is rare.

What's more, with graphics in adventure games becoming increasingly sophisticated, the earlier fantasy games produced by the Austin family were

RELEASE BOX			
SPIC	\$14.95	\$14.95	OUT NOW
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LANGUAGE 90 SYSTEM 88
CHALLENGE 94 ENCOUNTERS 88

ACE RATING 910

of the games — and particularly if that one is *Lords of Time* — then this selection obviously represents excellent value for money. Apart from the new digitized graphics the best thing about the updated versions is MANDARIN and EMMERSON, because what the *Time and Magik* new releases do is indispensable. Now all we need is a compilation of *The Jewel*, *Quest of Theros*, and *Slender* to \$19.95 and we'll all be laughing...

THE PILGRIM'S PLAYERS' GUIDE TO THE PAWN - PART 2

Problems with the Adventure? You'll recall that Old Ripon asked you to break him out — just give him a present and that will do nicely.

The GALT early the Adventure, or get someone else to do it for you. They can carry you to do it, and will also provide light in dark places. You can get down whenever you want — in fact, you'll have to sometimes to perform certain actions.

If you have trouble with broken objects, PUT ALL ON THE FLOOR. If later you experience a rushing sensation after BREASTING THE WALL, simply make your way EAST to the Lava River, where you will find Galtin waiting patiently for you.

No, you shouldn't have entered the MAZE, should you? Simply GET BOWL and all will be well. Make sure you retrieve the BLUE KEY from under the pedestal. And before you return to the Guro (who's expecting something from you — remember! Make sure you GET THE BOWL and PUT BOWL IN THE BOWL, he'll be over to greet).

After satisfying the Guro, pop off to the forest clearing and examine the GUYARD. Red, green, and blue mix together to make... yes, it's your new source of light. RED will also certainly affect the SPINNING, allowing you to GET THE PEGS — though what good it will do you isn't generally obvious.

Make sure you're wearing the SPINOT SCOOTY and pop up the steps. And before we leave you this month, just make a note of this — you CAN open the locked door with the Star key, but if you do, you'll end up 40 points poorer. Best thing to do is SAVE your game, then attack the door and satisfy your curiosity. Later you can reload and carry on with key and 40 points in total steadiness.

Watch out for Part 3, in which you deal with the Mithrilites and Jerry Lee Lewis. This guide is brought to you thanks to The Pawn, Magister Scrolls, the Pilgrim, and Honorary Pilgrim Mark Holdeman. Let's have some more solutions, everyone...

THE GAMES...

LOADS OF TIME

For a long time, the Pilgrim's favorite Level 9 adventure, it simple scenario, in which you must collect nine artifacts to defeat the infamous Timeviper, is eagerly programmed into this separate "mini-adventure", each representing a different time-zone — ranging from the prehistoric to the distant future. The game was the first Level 9 program to be written by an outside author and the best is excellent, with vivid descriptions and some ingenious puzzles. If you get stuck at the beginning, let the Narrator get a glimpse of himself...

RED MOON

This marked Level 9's return to magical mystery following their detour through science fiction in *Shardal* and *Return to Eden*. For

many readers, including the Pilgrim, the return was a welcome one as you battle against the evil magicker Hagelin to save an all-important crystal, source of magical power on the planet, from being put to dark and heinous uses. Spells, games and a wonderful atmosphere of dragons and disasters really.

THE PRICE OF MAGIK

Back to the Red Moon for the last in the series, in which you must use magic spells to defeat the evil Magik. The title of the game refers to your progressive loss of sanity as you become involved in magical endeavor — and indeed some of the puzzles are rather tricky, though not (to my mind) as satisfying as those in the earlier games, particularly the excellent *Lords of Time*.

CONTACTING THE PILGRIM

Although the Pig quest guarantees to reply promptly to all correspondence, he does not much appreciate a letter or fax on any aspect of advertising or related subjects. He does not write every month, but every attempt is made to make ideas for some one putting his hand where his mouth is.

You can write to the Pilgrim via ACE, 4 Queen Street, BATH, BA1 1LU. Don't forget the ACE for reference, you might find that useful when writing to us. Another option is your favourite Internet and have a message, you can contact the Clerical Owl Club at clerk@clerk.com or clerk@clerk.com. Last, contact us by leaving from you.

NEXT MONTH...

Summer is coming in Pigs, and you'll find it celebrated on these pages by a closer look at the *Mitras* series - promised before but postponed so we could give you more space for other goodies. It'll be scorching the pages of the next issue - promised! And of course there'll be the usual reviews, news, and tidbits from the world of fantasy and advertising - so don't miss it!

PAT'S PATCH

Isn't it amazing how often adventurers who are perched in trees can drop objects and pick them up again without climbing down to the bottom first? It wouldn't happen in the real world so why allow different physical rules to apply in an adventure simply through lack of attention to detail? Here are routines to inject a little realism into your PZW or GAC games, both of which take little memory and are simple to use...

Both routines drop the relevant object before moving it so that the ball in your check is involved. Thus the conditions won't work unless the object in question is being carried. Also with GAC in particular, only the GET and DROP actions affect the amount deemed to be carried so DROP must be used to ensure this is done. If the object were to be shifted directly from 'carried' to the top of the tree its weight would not be removed from the player's inventory so making a nonsense of any strength limit which may have been set.

In each case the routine MUST be inserted before the normal drop conditions otherwise it will not be read at all. GAC users can ensure this by putting the routine in the local conditions for the room which is 'up the tree'.

For the room which is 'up the tree', PZW users should think about setting up a similar routine for 'drop off' too, again to be placed before the normal 'drop off' condition.

There are plenty of other situations which would benefit from this approach. How about dropping objects in a swamp, or while flying? Some objects could smash when dropped, or bounce away out of sight. Other characters could steal things as they are dropped if they happen to be there at the time, or could be attracted by easy treasure lying around. The possibilities are endless with a little imagination, and they all add something to a game making the player feel that the adventure world really does behave as it should.

RAW ROUTINE - (in response before-normal DROP _ entry)

```

DROP      AF      (up the tree)
           APTCO
           POTO    (out of tree)
           MBS    "You wash it... tumbles to the ground"
           COME
  
```

GAC ROUTINE - (in Local Conditions for room 'up the tree')

```

IF (NOT = 255 AND VFB) (drop) AND IF (up the tree) | DROP MCI
MCI TO (out of tree) MBS "You wash it out! MCI MBS tumbles to the ground" WRTEND
  
```

The Pilgrim's regular selection of hints and tips for Advanced adventures. Don't forget that YOU can achieve outstanding fame by sending in tips for your fellow wanderers to the *Presidents* of The Pilgrim, 4 Queen Street, BATH, BA1 1LU.

This month's tips are supplied by Jason Hunt, Lesley (T) John Valentine, Gary Charles, and P. Blyden.

ROOMS WANT IT

Open wardrobe in wizard's bedroom then look above wardrobe for key to open wizard's safe. Leave wardrobe open in wizard's bedroom then look behind it and you will find the magic map. Leave door to safe in the wizard's room open. To dodge wizard on the plates ship stay on the table.

To defeat the dragon use the steam train.

Knight One

To enter castle, throw something at the drawbridge.

The rope is comprised of the haystack, the

NO PROBLEM!

washing line, the mouse, the letter, Ragnorak's hat, the cord, the ball, the fence and for the last piece investigate the well...

When in Paradise, take off your shoes, open the door, go inside, examine everything, and then take the Machine and use it to recruit the mouse and the dragon.

WISDOM REVERSE

Troubled by a worm? Follow tracks.

To get uniform, throw rubble at light.

To get past the guards, find leech then introduce it.

To enter hut, use leech.

The patch and dregs are red herrings (assuming

them and into the clove).

To find pass, swim over in truck.

To get past shield post, wear uniform, feed it, and follow troops.

Trouble with archer, look under bench.

PHASE OF MIND

A list of the spells and their uses:

Spell Focus Effect

SCM (Summon) Brings things to the

SCF (Summon) Moves things but cannot

DCP (Prestidigitate) Turns it on object in dangerous

ESP (Crystal Ball) Shows things

FW (Close) mail Shows things into ball

FD (Vehement) giant Polesides examine

FLY (Broom) Makes things fly in the air

SM (Blue Sun) Pale hair into things

KL (See) Makes things kill more effectively

GAC (Gnomes) Shows things inside

SDM (See) Makes things come

XAM (Prestidigitate) for magic

ZAP (See) Turns a ball of lightning

ZEM (Small mirror) Transports you to Magic at Time

Your name: _____

Your address: _____

 _____Your age: Under 13 13-16 17-20 21-25
 26-30 Over 30 Are you: At school At a university Neither Which computer(s) do you own? _____
 _____Do you have: A disk drive? A modem? The following sections appear regularly in the *Pilgrim* pages of *MSL*. Rate your interest in them out of 10 (10 = most interested; 0 = not at all interested):

Reviews	—	Players' Guides	—
Fate Fash	—	Travelers' Times	—
Shades Gray	—	Readers' letters	—
No Problem!	—		

If you have any comments on the above sections, or would like to suggest new ones, then please feel free to do so on a separate sheet of paper — we welcome your suggestions!

Rate your interest in the following general topics out of 10:

Non-computer role-playing games (e.g. <i>Dungeons and Dragons</i>)	—	Adventure generators (e.g. <i>Quest GAO</i>)	—
Computerised role-playing games (e.g. <i>March Tale, Ultima series</i>)	—	On-line games (e.g. <i>MUD, Shadow</i>)	—
Science fiction books	—	Text-only adventures	—
Fantasy fiction books	—	Play-by-mail	—
Cinema	—	Text-driven adventures	—
Telegraphic adventures	—		

List your three favourite adventures: _____

 _____List up to five adventures which you do NOT own but would like to play: _____

 _____Name up to five software houses who produce adventure games: _____

How do you buy your adventure games?

From a specialist computer shop By mail-order
 From a High Street store (e.g. *Boots*) List up to three adventures that you have found particularly difficult to solve: _____

As a rule, do you find the adventures you play:

Very easy Easy Challenging Very challenging Too difficult

How much playing time do you normally get out of an adventure game? _____

Do you ever contact other adventurers via magazine helpline columns for assistance? By post By phone If so, do you find them helpful? Yes

THIS IS YOUR CHANCE...

...to shape the future of ACE's adventure and fantasy section — and win yourself some free software into the bargain.

WHAT YOU DO...

Fill in this form and post it to *Pilgrim*, Guestomatics, ACE, 4 Queen Street, BATH, (tel: 116) to arrive not later than the closing date of July 20th 1988. Make sure you include your name and address in case you're one of the lucky prizewinners.

WHAT WE DO...

Listen to what you have to say and act on it. The *Pilgrim* is committed to giving you the best possible column every month — to do that, he needs to know exactly what you want. Tell him!

THE PRIZES

Every form received before the closing date will be entered into a free draw and the lucky *Pilgrims* will receive a top quality software package for their machines (chosen from the ACE special offer pages on pages 84-85 of this issue).

Do you ever contact software companies for help in solving one of their games? By post By phone If so, do you find them helpful? Yes

How much money do you spend each year on adventure/fantasy software?

Under £20 £20-30 £30-40 £40-50 Over £50

How many adventure/fantasy games do you think you have played?

1-10 11-20 21-30 31-50 Over 50

Of those you have played, how many do you think you have played in the last 12 months?

1-10 11-20 21-30 31-50 Over 50

How many adventures do you expect to play in the next 12 months?

Same as last year Less than last year More than last year

You needn't fear out this form — a photocopy is quite acceptable. If you need more space to answer any of the questions, don't hesitate to grab another sheet of paper and go into more detail.

Last month we promised an end to the Great Piracy Debate. Well, we lied. You've still got things to say, and who are we to deprive the people of a voice?

Other hot topics include the old 'my machine is better than yours' stuff; a prize goes to one of the few sane voices we've heard on this subject. Are micro owners the most snobbish people in the country?

If you want to get one up on your neighbour by getting your name in print (and possibly winning a prize into the bargain) write to ACE letters, 4 Queen Street, Bath BA1 1EJ.

POWER PROBLEMS

I am thinking of selling my Commodore 64 and wanting to buy an Amiga 512. However, my family and I may soon be moving to Canada. Straight down to the point - is it possible to buy an ST in England and still play it in Canada? If so, could you please tell me any alterations I would have to make.

Ian Sutton
Barnesford

Canada uses a different voltage in its electricity systems. If you buy an ST with monitor you will need to use a step-up transformer to convert the voltage (should cost around £20-30). But wouldn't it be more sensible to sell your 64 here, then buy the ST when you get to Canada? You won't have the trou-

ble of transporting it, and it will probably be cheaper.

BOOKER

I wish to complain that you said that there were no graphics programs for the Mega. Well you're wrong! There is. Actually it's a graphics tablet, although a UK release date has not been set. How you can get a keyboard for it. The other (Sumag) game was given a bad review. It's one of my favourite games and CIVIVO gave a fair review. And I bought it and I love it! Lastly, I think your review mark is a good idea.

J. Thornley
Kempston

OK, so there is graphics tablet for the Mega - but it's not a lot of use

if you can't buy it here. Is it? After Barnes looked very pretty, but there really wasn't much of a game there. The fact that CIVIVO gave it a good review doesn't carry a lot of weight around here.

WEY MORE ON PIRACY

On the subject of software prices, it is very easy to say that it is immoral, but one can also say that of the games manufacturers who charge very high prices for sometimes mediocre or rubbish games. Take for example *Demolition* for the Amiga. This game is a joke and for sure the ZX81 had better games.

In the days when I owned a Spectrum it was good value for money to buy the better games around. The argument was that you would be able to play 100

A SANE LETTER

Way back in the beginning I had a bit of rather keyboard "snobby" and, to tell you the truth, I loved it. From the writing column back to the magazine pages, I satisfied my needs perfectly. Games were cheap, and apart from a few, most were addictive and highly playable. But as so frequently happens in life, the excitement was ruined by time, you guessed it: those irritating hypocothes, those melan-choly... that sit in wait, ready to pounce on an innocent micro-owning victim, telling them that their computer is the saviour of the Earth and that there are countless machines better (in other words, the majority of people that write in to ACE).

So, after four years, being misanthropic with all those irritating comments I upgraded to an Amiga 512.

I couldn't believe it, the power my fingertips. A slick new keyboard with built-in disk drive

PRIZE
LETTER

complete with "jussy" trailing touches - a mouse and mousemat, not to mention the graphics and the quality of the games AND IF I WANT DARK TO BUY SO, SUFFERING SOUND, I feel excited, zoned, floating on bubble bathes (but not for long) because, to my sheer amazement, these silly gits, good for nothing hypocothes were popping at my heels again. I had just spent three hundred quid on a brand new computer, not to mention software which

costs a bomb and those "brags" were entering of this.

I can't win, then if I bought an Amiga then would almost be the marker of the finish. I am not saying it's not good to have competition in computers, what I think should be made clear, though, is that people have limitations on what computer to buy according to how wealthy they are. This should be made more apparent to those condemning blots and those that have nothing better to do than put scorn upon those that do not have the "necessary" money to buy the better computer. After all, any computer is better than none!

Stephen Lightman
Luton

Give that man a prize! He's interesting to hear a sane and humane view of computer snobbery.

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PBM STRATEGY

I have just read issue 8, and I have to say that I am most impressed. I particularly enjoyed Steve Bentley's article on Life and its derivatives. I had already read William Poundstone's excellent book, but I had little knowledge of Life's many exciting permutations. Many thanks for a fascinating essay.

My principal interest is in Play-by-Mail being an Apron venue, what else can I do?, and it was because of this that I purchase ACE. But then I became absorbed by the preceding review of Strategy Games. As this is a major area of development in the PBM world also, it occurs to me that there may be much that each can learn from the other.

For example, I have designed a global war strategy game, called Megalomania, that has been well received by PBM-gamers. A smaller version for 2 players could be a very challenging game for a computer format, "challenging" because several dozen decisions have to be choreographed into a plan that is then executed simultaneously with that of the enemy. This involves a high level of strategy, especially if the opposition is programmed for various levels of difficulty.

Similarly, many other PBM strategy games would be excellent subjects for computer games, and the benefits would work both ways: computer

PRIZE
LETTER

games built could enjoy well-researched games whose emphasis is on generalship, and PBM-gamers would welcome the opportunity to practice new plays and tactics.

Any comments you might have as to the merits or otherwise of this idea would be much appreciated. A few suggestions as to how to go about it would also be welcome.

Finally, my congratulations for the inspiration of the brain teaser on page 45; it gave extra-depth to an ACE magazine!

Andrew Dodd
London

The best thing we can suggest is that you get in touch with a company that produces strategy software - your ideas are certainly interesting, and you should get a good hearing. A few companies you might go are P50 (2022 567996), CCE (04-808 0700) and Target Games (0279-87127).

games on a games machine (if you go, whereas you would play many more times on the computer version for the same price - good value for money. However with the arrival of the ST and Amiga with games costing £20 to £25, it may be more economic to play the computer as you may not spend as much as £25 on it before you become bored with it).

This brings me to the topic of piracy. I don't condone the copying of games between friends, but copying on a large scale is a different matter. Copying between friends on the Amiga is an unlikely thing as you either have to buy expensive software to break into a program or be an expert hacker, plus the fact that you have to know another Amiga user.

The professional pirate who makes a living is a lucrative side-line on selling pirated games to the

one who is doing the most damage to the software industry. The person who runs this type of business is copying games using those handy backup programs. What is the purpose of a backup program? I have had hundreds of games and never once has an original copy not worked. Even if there had been a fault I am sure the tape would be replaced. In other words the professional backup program is sold for the purpose of copying software.

Software prices are therefore pushed up due to loss of revenues and the vicious circle continues. The only way to break this vicious circle is to buy originals. If you look at the various advertisements in magazines, many 100 quality games can be bought for under 12 pounds. (For example Barbarian (Passport) £10.99 or Stonehenge (Passport) games) £6.99

I recently read that some Amiga games are outselling their counterpart ST games. This must mean more software development for the Amiga, or keep buying only loads of you Amiga owners out there.

Finally I think ACE is a very professionally written magazine and I especially enjoy the special. What about more Amiga reviews?

Niall Campbell
Cardross

Paul Green about quality and price there are some very expensive and very nice games about. But nobody bothers to price them - it's the good games that get copied. We review all the Amiga stuff we can lay our hands on.

IDEAS MAN

First of all a couple of ideas you could think about:

1. How about reviewing new video releases?
2. How about a high score chart?
3. How about a chart for games?
4. How about making the covers a bit more interesting to look at?
5. How about me shutting up about this and how about that? Maybe there's a couple of ideas here.

I think your competitions are great and the way you go about solving them is brilliant. Your reviewing method is top of the range stuff - 10 out of 10 for that. Is there such a thing to make you able to play Commodore 64 games on a Plus 4? I've always wanted to know that. Oh yes, while rummaging through all the mail a couple of weeks ago I found a neatly addressed envelope with my name on it. I quickly opened it open and saw a flash of the name ACE on it. I thought "****, this won't be competition!" With my heart beating 800 a minute I quickly read it to find it was a subscription offer. My heart sank, but then I thought this magazine is obviously not just throwing 4 money sending a letter to me with my name on it. My the way, where did you get my name from? I think you will fit a very successful magazine, but I just hope the success won't go to your head like it has with certain other magazines. Well my dad has just come round the corner from his street house so I will finish here.

Shedden Smyth
Telford

I liked number 8 best, but '87 Amiga got your offer points as well. ACE is a magazine about computer entertainment, so we don't really think video or cinema releases

are appropriate - except where they deal with computer matters or use computer technology. We may do something about high scores. The covers are already interesting in fact. Finally, C&A games will not run on the Plus 4. However, C&A games will.

THE LAST STAMP

You are my last hope (aside the best for last), I have written in many magazines and have received no reply at all. This is my last stamp.

I own a 500K IBM with both memory and drive upgraded to 1 meg and still going to set up a program board but I can't find a program that will allow me to do it.

I used to own a Bulletin Board Construction Set for my 8008, and was wondering if there is something like this available for the ST? Also I was going to buy the Super Modem (400) from Frontier Software - do you think this will be OK for a 808?

Mark Grimes
Leigh

Unfortunately there's no 68 construction kit for the ST. But you can use a Super Modem to run a BBS.

OBTERATED

Greetings to all fellow Atari ST users. I feel it is my duty to warn you about the latest game from Progress, Obterated. Last week I was in my local computer dealer's shop when to my amazement I spotted Obterated on the "latest releases" shelf. I immediately dove into my heavy pocket, full of loathly money, and bought the game. On the way home I admired the graphics and read through the short story. As soon as I arrived home I inserted Disk A into the disk drive and turned on the computer. I started to load. The first thing that appeared on the screen was the usual Progress title, but this time there was music; anyway, the really lured me on and I started to believe that this game was incredible. It seemed to take years to load but once it had I began to play.

My first impression was "Oh no not looks at the bottom of the screen again", but even so the game had excellent graphics. I began to play but after about five minutes I found it pointless playing as I don't really know where I was going, so I got out my pencil and my mapping book and began to map. Three hours of mapping passed which was not at all boring, especially when you get the man to go one way but he goes the

other, in fact, the only interesting part was the section of screens where you fly through space with the jet-pack. After four hours of mapping I picked up my last item and I was prompted to leave the ship. This last proved a death considering that I had a map. Ten minutes and I was at the shuttle station. I had made it only to learn the disappointment of witnessing a pathetic explosion from my cockpit.

I therefore phoned up Pappiross but all they could manage to say was "Well, thanks for your comments. Good-bye." I was (by now furious and sad) I decided to draw the map out neatly and send it off to ACE hoping that it might be tipped the right way and show the letter to ACE warning anyone who intends to buy this game as you will find it disappointing, frustrating, boring and a waste of money. In my eyes it is just another Bristlebar with a gun in the main hand.

Greg Brown
Gwentwyn

Well, it's the kind of sad experience that happens to all of us sooner or later - you look forward to a game and then find yourself bitterly disappointed. The moral is - read the review in ACE before you buy.

GRUMBLES AND INSULTS

I would like to have a little grumble about those people who say the dear old Commodore is slow!

The Commodore is not slow, due to the fact that using sprites and IRQ (INTERUPT REQUEST) makes control very fast (jumps games I've got are terrific!).

The limited games are much slower than the Commodore's and I think the Spectrum is too, due to the fact that:

(a) They haven't got sprites, just UDGs.

(b) They are not as sophisticated as the Commodore.

(c) The Commodore has more memory for games, thus making them better than the Amstrad and Spectrum computer versions of the games.

(d) - who's the best who writes the replies? How do software programs make the computer flash the screen and beep? Finally, where can you get an assembler/Disassembler?

Nicholas Kingsley
Chichester

I am the 'best' who writes the replies, and I have taken full note of your name and address. So watch it. You should be able to

buy an assembler or disassembler for any well stocked software shop.

PREDICATE CALCULATOR??

What done to the entire ACE team for such a superb, high quality full colour, informative magazine which is second to none. Your reviewing system is not only unique, it is also brilliant. Keep up the good work and long may ACE continue to print.

In the eight hours of ACE I have seen far purchased spillo a few controversial topics have been debated; but none more so than piracy. All I want to say on the subject is that it is having a detrimental effect on the software industry, but what can we do about it? As owner of 20 software companies come up with new protection systems then somebody comes along and cracks them.

I would also like to say that Neil Wilson is a right pain. Where does he think Sinclair Financials would be now if Amstrad Consumer Electronics Ltd hadn't failed

out Sir Clive? Probably bankrupt, that's where his slugging of Alan Sugar is also unfair. Sir Sugar and Amstrad have been manufacturing goods since 1988 and he hasn't got it where he is today without good after sales service. Wilson and people like him should think carefully before letting up and even then they should ensure they get their facts right.

I would like to know if you recommend a test on predicate calculus. I am also looking for a copy of PROLOG for the Amstrad CPC644 which will run without CPM priorty.

Finally, my dad has just acquired an Oric Atmos and he was wondering if there was anything in Britain where he could obtain software for it.

Shaun Rowson
Cheshire Moor

A test on predicate calculus? That's one of the simplest requests you've ever had. Our resident mathematicians and philoso-

phers couldn't come up with any specific titles, but suggested that you browse the shelves in a good bookshop - preferably one near a university. As for Prolog, we can't come up with a version that runs without CPM.

The Oric Atmos66, you can still buy software for the old dear. IRI Software in Malvern 06845 40000 have a stock of around 40 titles - both games and utilities - and can also carry out most Oric repairs.

BROWSE THE SPECTRUM

As I was flicking through the Letters pages in issue 1, I stumbled across your Price Letter written by J. Williams. I started promising myself (until I reach Feb. My jaw dropped and my eyes widened as I got near to the bottom of the second column. "What was this?" I asked myself. This person had put a Commodore 64 into the class of a ZX81! I gazed aghast and reread the sentence. I wasn't believing things for it was there in black and grey. My amazement had

VIRUS

LETTER OF THE MONTH

I am writing to you in order to clarify a major problem on the Amiga computer namely "The Virus". In my opinion the virus does more damage through people's ignorance of it than it actually does to date. It is not however a good idea to have it on any of your disks, as it does an excellent backup job.

The first point to clarify is that the virus cannot run your computer. Once the computer is turned on and all the virus is gone, it is impossible to destroy most computers with software, when the files on the disk and the hundreds of Amigas were being returned due to corruption due to the virus, they were wrong (think what that must have done to Commodore's UK sales figures).

There are now many different viruses around for the Amiga, the most well-known is the original SGA virus, which is easily disposed of and not really a problem. When the SGA virus is loaded into the computer from an infected disk it immediately goes to a place in memory where it is not affected by a keyboard reset. It then waits until its disks have been put in the disk drive, copying itself to any unwrite-protected ones, and then prints up the infamous message "something went

wrong. However, it is able to monitor and "surgically" remove the virus. Some knowledge of machine code is needed to do this, and it is not a good area for the amateur to play around, as you could do a lot more damage than any virus. The best way therefore is to use a virus killer, but because the disk virus killer kills all viruses, if you are infected by an SGA virus killer that there is no virus present, this may not be true.

I have compiled a disk that contains 9 different virus killers to kill all viruses. For a small charge of £2.50 I can provide you with a disk with these 9 on. I am making no profit out of the because by the time I have bought a disk, (95p) bag and stamps it has cost £2.50. Write to the address shown in an envelope marked "Virus Killer" in ink and ask for Chris.

Chris Handerson, 14 Park Gate, Knowlesborough, N. Yorkshire HD6 6BN

Your last exploration of the various viruses and your offer of a cure at reasonable price wins you an A+ letter of the month this game.

turned to anger as I read on.

As you have probably realized by now from a C&A screen, I am fully dedicated to this beloved computer of mine being called, I quote, "I, and out of state!" I can well understand him leaving his heart set on an Atari ST because I know it's a brilliant computer for as I have friends with Atari. The C&A is nowhere near the class of the ST, I know, but degrading it in such a manner is totally... I'm not for words. I'm sure many C&A owners must feel the same way. I mean, a 288K is not that pushing it a little? For always failed algorithms and always well drawn because of the atrocious graphics it does display. I must admit the C&A had to little skill as the Atari since once-upon-a-time but is slowly being pushed back by the likes of the Atari ST, Commodore Amiga, and maybe even the Amstrad, but before telling you, J. Williams, IT IS FAR FROM GOOD! OUT AND THERE IS ABSOLUTELY NO COMPETITION BETWEEN THE COMMODORE AND SPECTRUM.

I would like to finish on a bad note so I will just end by saying that I think that it deserved to be a prize letter due to your perseverance (with exception of what I

have just touched upon) and as for you Spectre owners... I have nothing against you personally but... Those away on sell your computers and buy something worthwhile because in my opinion Spectrums are well and trulyly DEAD!

E. Kelen

London

We went with interest to the replies of those dead Spectre owners...

3D PLUS

I have a Commodore 64 with a 1541 disk drive. I am very interested in 3D graphics, particularly 3D-C.A.D. of objects and their animation.

I understand that these techniques require a large amount of computing power and that the Amiga is the ideal machine.

However, recently I have been tremendously impressed with such games as Astro Rex, Chuck Yeager's 477, Driller 2/3, Starfighter - all of which utilize those techniques very impressively within the limited memory capacity of the Commodore 64.

Interestingly, Electronic Arts state on the cover of their Arctic Fox that they used a proprietary

graphics package called 3-Space to create the 3D world of Arctic Fox. Is this software available in the UK, if so, where and how much?

Are there any other graphic packages that deal with these techniques as I can design and animate my own computer-generated objects?

Also, I think the subject of these techniques would make an excellent feature in a future issue of your magazine, so I am sure many fellow readers are greatly interested in 3D-C.A.D. and animation.

Peter J. Atherton

Newcastle-upon-Tyne

You really have got to start thinking in terms of American machines if you want to do serious 3D work: the C&A is really too slow, and the limits of development systems you mention (and other systems, such as Incentive's Protopaint) are not available commercially. If you want to do it yourself, and you have some maths and machine code, then you should get hold of Fundamentals of Computer Graphics, by Foley Van Dam; this is reputed to be the bible of 3D graphics programming.

LETTER FROM G2

I read eagerly every month for your issue even though it is 2 months behind. It would be to congratulate you on a brilliant magazine. The pages are full of wonderful information. For the price of £1.50, Australia it is cheap compared to other magazines here.

I am a member to the Atari ST and would be interested to hear from other users wishing to be people.

W. Van Leeuwen,
4 Burton St, Norring 4011,
Australia

Glad to be of service, Van, I'm sure you'll be getting letters any day now.

LOADS MORE!

10 letters don't need to wait, so go load more, load more, load software! We got loads of ST variants... well, so got 21 the old TOS (which is three years old) and the new TOS v1.06. It don't make us vt though.

15-80 Amstrad? Waste a time - Suggest you get load more!

A.C.C. (Adult Oriented Computing)? Great. Same as A.O.R. - load more - don't for load more, as big a bread as pro-

gr... load more!

Home-computing? Load more enhanced by a FEEL note! Even lower if you read ACE (proving it doesn't suffice that by too many Atari Commodore news).

R.A.P. Joseph

London

Andy Elliott's got a lot to answer for...

GAMES DESIGN

I am the very proud owner of an ST. When purchasing the computer, I was hoping to be able to program it fairly easily. When I had opened the little brown box which my accessories were packaged in I found the language disk. Gladly I load it up, anxious to do a spot of useful programming. I was so disappointed when I started because I was just rubbish. My old 68K Speasy could do more than this. Anyway, the reason I am writing this letter is because I would like to get hold of a DECIBIT game programming program for the STM, e.g. Shoot-up, Construction 3D, 3D Games Wizard, Graphic Adventure Creator etc etc. Please, please could you advise me as to where I can obtain a suitable program?

A. White

Eastbourne

None of the programs you mention is available yet on the ST. However, there's a few disk games designed for the ST on its way from Mountain Software in the next couple of months. More news as it becomes available.

OVERSEAS SUBSCRIPTION

Please could you tell me if it is possible to subscribe to your magazine from over here and what it would cost. Otherwise I will be forced to buy the magazine over here at a much higher price, of course. Furthermore, I would be grateful if you would send me an ACE card. I herewith state that I have not got one.

Suzanne Baker,
Manchester

Yes, you certainly can subscribe. Send your details and £27.00, either as a cheque in sterling or International Money Order made out to Future Publishing, to Cambridge, The Old Barn, Somerton, Somerset TA11 7PY, England.

CAVEAT VENDOR

Just today (22nd April) I received a phone-call from a person wanting to buy my computer which was advertised in issue 8.

What, this person asked the what games I had for the computer, but to the excitement I brought, and could only answer with GAC.

Now I realize I might have been asking too much for the set-up, and for this reason the guy who phoned me thought he might play the funny guy by giving a wig at me.

When I answered with "GAC he said 'E... I'll off' I cut there, dumfounded. My hopes were really raised, and then the 'guy' goes and tells me to do something high on impossible list, I was disappointed at its price, so I went upstairs for a game of Pappy to cool down and hope.

The phone rang again about five minutes later. "Oh, not again!" I thought. I walked downstairs, less excited this time, and was prepared to tell him where to get it this time.

It turned out to be a gen-



vine buyer this time. He had an almost apologetic set of eyes, but he really wanted to buy the machine, even if it was by hand and nothing else. I was glad to know there were some friendly people out there.

Jonathan Miller
Essexville

that, it's not sure what I would reply if someone said "GAC" to me on the phone. But it sounds like the First Pappy did the best in the end, and I make up for that unpleasant phone call, we're awarding you software as a Prize Letter winner.

ACE PINK PAGES

Want to know the best games to run on your micro? Thinking of upgrading to a bigger machine? Look no further - all the information you need is 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

Atari ST 128K/256K

Multi-colored three-dimensional arcade adventure that sees something in the Ultimate role but is years ahead in terms of graphic detail and presentation. You, as the aerial in question, must negotiate corridors and rooms full of various obstacles - all spelling instant death. An outstanding rendition of a classic genre.

DUNGEON MASTER

Atari ST 128K/256K

A fascinating arcade-adventure with interesting game play gives you four characters to guide through a series of dungeons in a quest to find the Wizard

Superb graphics help to create an enthralling game that will keep you playing for a long time to come.

EAGLE'S NEST

Atari ST 128K/256K • Atari ST 128K/256K

This is one of the better Quantis/Orion, especially on the 14-bit machines. The military flavor of the arcade adventure adds atmosphere and if you like the particular style of game, you won't be disappointed with Eagle's Nest.

HEAD OVER HEELS

Orion • Spectrum 1280K • C64 64K/128K/256K • Amstrad 630K/128K/256K • Atari 128K/256K • IBM PC 128K/256K

3D exploration matches to pace with the huge Hercules masterpiece. The plot has characters - Head and Heels - as you search for the crown that will free the galaxy. The puzzles are not very difficult indeed, and you'll often have to split Head and Heels up to use their different capabilities. The game's 300 locations are well drawn, and the animation is excellent throughout. A real classic.

MAGIC KNIGHT TRILLOGY

Atari ST • Amstrad 128K/256K • C64 128K/256K • Spectrum 1280K • Amstrad 128K/256K • C64 128K/256K • Amstrad 128K/256K • Spectrum 1280K • Amstrad 128K/256K

This trilogy is a series of three short arcade adventures which, as well as all the expected running and jumping, have a complex system of interaction between characters. In Spellbound you must rescue Oriana the Wizard from the Wansome Castle of Runic, in Knight (you may have to find a way back in time after being catapulted into the 13th century, while in Spellbound 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 great graphics make of these winners.



STRATEGY GAMES

The games for megalomaniacs. The games listed in this section will really test your mettle on the battlefield.

BALANCE OF POWER



BALANCE OF POWER

MicroAge/Amsoft ■ Amiga 625.00k
 ■ Am 57 125.00k ■ IBM PC 125.00k
 ■ Mac 125.00k

Definitive strategy game for 16-biters. The player takes the role of one of the superpowers, while others take the computer as a friend takes the other. Then it's a case of trying to win friends and influence people on a global scale. This can be achieved in a number of ways, including supplying arms or financial aid to radical factions in the hope of toppling a government which is not receptive to the great American-style freedom dream (depending on which side you're playing). It's complex, involving and it's difficult to play in ten minute

sessions. Absolutely cool that gives an insight into the devious world of grand geo.

CARRIER COMMAND

Burton ■ Am 57 124.00k ■ Amiga 124.00k ■ Amstrad 124.00k 19.95k
 ■ Spectrum 124.00k 17.00k

A magnificent strategy game spread with some great audio action. As commander of the aircraft carrier *Freedom*, it's your job to stop the invasion of an island archipelago by the rogue aircraft carrier *Omega*. State of the art graphics mix commando duty with great gameplay to make an enthralling and entertaining game.

DIPLOMACY

Leisure Genius ■ Am 124.00k
 C19.95k ■ PC 125.00k

The grand old man of nasty negotiation boardgames finally made it onto home computer and now the game can finally sit on seven papers and it's an engaging and really addictive game that's a must for non-megalomaniacs.

EMS

Parsons ■ Am 57 124.00k ■ IBM PC 124.00k ■ Mainstr 124.00k ■ Amiga 124.00k

Parsons's Colonial Military Simulator is

designed to simulate a conflict between two forces on a non-definite terrain that can be viewed in three dimensions from any viewpoint direction. The player gains benefits as you use a 3D computer viewpoint. The 3D version is available only with the other versions following above.

VULCAN

CSI ■ Spectrum 124.00k ■ Amstrad 124.00k

An elegant, simple and impressive wargame, *Vulcan* covers the Turbicon campaign of 1943-53. A huge playing area and an attack phase make the game an improvement over the same authors earlier works *Armad* and *Desert War*. *Vulcan* is fast, efficient and



simple to play, and its self-respecting wargame should be without it.

SIMULATIONS

Games that put you at the controls. Whether you're flying helicopters or aeroplanes, or steering bobblewhigs, simulation games can become very involving.

BOBSLEIGH

Digital Inspiration ■ Spectrum 124.00k
 ■ Amstrad 124.00k 19.95k

Bobsleigh is a thrilling game with enough strategy involved to add another dimension to a highly competitive and addictive simulation. Here you get the startline to win your way into one of the top three positions by the end of the season's 16-race, against opponents 100% back users. Unfortunately, though *Bobsleigh* is available for the 124, it's a poor game compared to the Amstrad and Spectrum versions and therefore not recommended.

CHUCK YEAGER'S ADVANCED FLIGHT TRAINER

Electronic Arts ■ Am 124.00k 17.00k
 ■ PC 124.00k

Chuck Yeager's flight trainer takes the flight simulation game a step further by including a training option. Chuck will guide the novice through such difficult moves as stream loops and rolls. With so much in one package it will save many hours of instructive fun to master all the available options.

FALCON

MicroAge ■ Apple Mac 124.00k ■ IBM PC 124.00k

A magnificent flight sim that gives you a dozen missions of any of five routes, so there's an option to go through the game's very combat-oriented making it definitely one for fighters rather than just fans. After a short while of playing it's easy to see why *Falcon* scooped a whole bunch of awards in America recently.

FLIGHT SIMULATOR 2

Sub Logic ■ Am 57 124.00k ■ Amiga 143.00k ■ IBM PC 143.00k

The venerable pathfinder of flight simula-

tions, *Flight Sim 2* is the standard by which all others are judged. Although it spent a 1991 week at the top of the US charts, it's difficult to get hold of in the UK. If you have the technology, this is an essential purchase.

GUNSHIP

MicroAge ■ PC 124.00k

Excellent graphics, involving emulation and a variety of missions make this one of the better PC games. Playing your target aircraft in order to zap various goals may not be terribly exciting - but if you can stand the politics you should have a lot of fun.

INTERCEPTOR

Electronic Arts ■ Amiga 124.00k

P-13 simulation combining stunning solid 3-D graphics with atmospheric sound and an interesting variety of missions - see the main review p12-14.

LEADERBOARD

Access 123 Cast ■ Spectrum 124.00k ■ PC 124.00k 17.00k
 ■ Amstrad 124.00k 17.00k ■ Am 57 124.00k





ATARI ST SOFTWARE

ARCADE

Out Run	14.95
Saurian II	14.95
Buggy Boy	14.95
Ember	14.95
Impossible Mission II	14.95
Masters of Universe	13.95
Defender	15.95
Captain Blood	15.95
ST Saurian	15.95
Pink Panther	15.95
Vampire Empire	15.95
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A fascinating geometrical study, this Russian puzzle game has obvious mathematical aspects of packing into a suit game. One at a time, shapes fall down into a rectangular playing area. Left in their own device they'll pile up until they reach the top of the screen, your task is to guide them down and push them to tightly so that doesn't happen. Different versions have proved to be either variable in their arcade aspects, but the variability aspect does seem to mean they're well worth a look without your machine.

TRONIK

Atari Spectrum £7.95 (6.95) ■ Atari ST £14.95 ■ Amstrad £7.95

Originally released to Microsoft at full price, but now available for a fraction of that from Fantasy. It's a highly addictive game played on a full grid — either one or two player — in which you attempt to collect four counters, heretofore, until, really or tragically, it's coming back.

which incorporates many additional features and abilities.

XOR

Spectrum £14.95 ■ Spectrum £7.95 ■ Amstrad £14.95 ■ Atari £14.95 ■ IBM PC £14.95

Extremely lively maze game involving the player controlling two shields, and collecting stages through 12 mazes, which increase in complexity as you progress. Also in later stages, hit and obstacles to be wary. Making the mazes and just waiting to fall on you and bring your quest to a premature end. Later still, the fun goes into the fact of your enemies as bombs, traps, lasers and darts trap up to Omega before you. Smooth scrolling, simple graphics, the one requires playing to complete successfully.



BRAIN GAMES

Fed up with mindless blasting? Want a game that offers you an opponent who's worthy of your skills? This is your section.

CHESS MASTER 2000

Spectrum £14.95 ■ Atari £14.95 ■ Amstrad £14.95 ■ Atari ST £14.95 ■ Amiga £14.95 ■ IBM PC £14.95

Strongest chess game on the Amiga with excellent graphics, 3D or 2D view points, 11 levels of difficulty and all the playing options you could wish for. Plus some fairly witty speech synthesis.

COLOSSUS CHESS 4

Atari Spectrum £14.95 ■ Atari £14.95 ■ Amstrad £14.95 ■ IBM PC £14.95

Best bet for first machine owners, with chess at 3D or 2D view, 11 levels of difficulty and myriad options which enable you to play, watch, work out chess problems, etc against a fine computer opponent.

COLOSSUS MAJ JONG

IBM ■ Atari £14.95 ■ Atari £14.95 ■ Amstrad £14.95

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Running like several games of strategy and chance. A fair game and most manual reads this as why to use and fight extraordinary piece of software for veterans and novices alike.



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at competing at sea, the action is fast and furious and I will take a fifty-cent per 30-minute session of the more realistic route the upper tier in this game.



THRUST

Platform ■ Spectrum 17.00x ■ C64 17.00x ■ Amstrad 17.00x

Thrusting, ramming, evading, and a large helping of realistic physics make this budget title an absolute must. Flying down through the waters of an enemy-held planet, you have to pick up fuel and destroy hostile gun turrets without crashing into the funnel walls. Tough enough at first, but then you've got to make the return journey with a heavy load during under your craft. Very nice, very addictive.

THUNDERCATS

Disc ■ C64 17.00x C1+150x ■ Spectrum 17.00x ■ Amstrad 15.00x C1+150x

The game based on the hit TV series is a real winner that just about guarantees each of the game's 14 levels is a straight line dash from start to finish with a multitude of obstacles to avoid along the way. Graphically impressive and completely playable too.

URIDIUM

Platform ■ Spectrum 18.00x ■ C64 18.00x C1+150x ■ Amstrad 18.00x 17.4.00x

The piece de resistance of avoiding obstacles, this is the breakthrough and sticking things while dodging around very large structures. Great realistic-looking environments and the smoothest scrolling you'll ever see on the lead and shoulders above the opposition. A game not to be missed, especially since the C64 version is more packaged with the excellent Playblast.

ZARCH

Superior Software ■ Amstrad 17.00x ■ C64 ■ Amiga ■ Amstrad 17.00x (under development)

400% higher resolution game in disc. A side from dimensional shoot-em-up with such graphic perfection and timeless relative graphics that it became an instant classic. Zarch could do for the Spectrum what 'The Juggler' did for the Amiga.



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Diablo II 1.03b

Terrorize staff, tear your opening top over rough obstacles and collect items, against a deadline time limit. The game landscapes in a vast system of catacombs, camps, forests, and temples surrounded by white drapes - and NO safety nets. Your catches activate life and freeze gaps, but trapping them in the right order can be harder than it looks. A few fast gaps and a lot of nice bushes, for the enjoyment of the trip.

TAU CITY ACADEMY

OS: Spectrum GB 800k • C64 160k • ZX Spectrum 128k • Amstrad C64 80k • Atari 2600 128k • Amiga 128k • Atari ST 128k • IBM PC 128k • DOS 128k

Fight enemies through top up and to escape which you both possibly smooth and well put together. The attention to detail is impressive as you set off on your quest missions as a space cadet. In Academy you get to design your own space simulator craft as well.



WIZBALL

OS: Spectrum 128k • Amstrad C64 80k • Atari 2600 128k • Amiga 128k • Atari ST 128k • IBM PC 128k • DOS 128k

A compelling and original test game in which you become the ball and must set out to conquer the tower (mazes) which are filled on alternating the spectrum and rendering the landscape grey and black. Converting the actual to grey for and taking the view of the maze player game is how appeared in a long time.

ADVENTURES

Adventure games require text input from the player and give a text response in return. There are many sub-categories, involving control, graphic depiction of locations, and even speech output.

THE BARD'S TALE

OS: Spectrum GB 800k • C64 128k • ZX Spectrum 128k • Amstrad C64 80k • Atari 2600 128k • Amiga 128k • Atari ST 128k • IBM PC 128k • DOS 128k

Build a party of up to six adventurers and battle both through the city in search of treasure, combat, and love. Your character develops a reputation during play and the loot involved is pretty impressive - don't expect to finish it inside a month or less.



BEYOND ZORK

OS: Spectrum GB 800k • C64 128k • ZX Spectrum 128k • Amstrad C64 80k • Atari 2600 128k • Amiga 128k • Atari ST 128k • IBM PC 128k • DOS 128k

Whoops attempt to invade in on the mislaying market is a great success. Unlike the Babylon Council of Commerce in a game that combines the wit and ingenuity of one of the world's most original authors combined with state-of-the-art parsing and graphics. Fun only but with an on-screen mapping facility.

GUILD OF THIEVES

OS: Spectrum GB 800k • C64 128k • ZX Spectrum 128k • Amstrad C64 80k • Atari 2600 128k • Amiga 128k • Atari ST 128k • IBM PC 128k • DOS 128k

OS: Spectrum GB 800k • C64 128k • ZX Spectrum 128k • Amstrad C64 80k • Atari 2600 128k • Amiga 128k • Atari ST 128k • IBM PC 128k • DOS 128k

Britain's newest adventure authors/illustrators classic, traditional treasure hunt with state-of-the-art graphics and subtle very tricky puzzles. Powerful parser helps create a convincing game-world with fantasy and imagination.

JEWELS OF DARKNESS

OS: Spectrum GB 800k • C64 128k • ZX Spectrum 128k • Amstrad C64 80k • Atari 2600 128k • Amiga 128k • Atari ST 128k • IBM PC 128k • DOS 128k

Level 8, Britain's oldest adventure programming firms, have put together three of their classic releases, Colossal Adventure, Dragon Adventure, and Adventure Guardian-one disk. The games have been updated with graphics and super word-processors and are as close to the original spirit of adventure as you're likely to find.



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Amiga 1000 2199023255552M	£2499.00	£2449.00	Amiga 500 2199023255552M	£2399.00	£2349.00
Amiga 1000 4398046511104M	£2549.00	£2499.00	Amiga 500 4398046511104M	£2449.00	£2399.00
Amiga 1000 8796093022208M	£2599.00	£2549.00	Amiga 500 8796093022208M	£2499.00	£2449.00
Amiga 1000 17592186044416M	£2649.00	£2599.00	Amiga 500 17592186044416M	£2549.00	£2499.00
Amiga 1000 35184372088832M	£2699.00	£2649.00	Amiga 500 35184372088832M	£2599.00	£2549.00
Amiga 1000 70368744177664M	£2749.00	£2699.00	Amiga 500 70368744177664M	£2649.00	£2599.00
Amiga 1000 140737488355328M	£2799.00	£2749.00	Amiga 500 140737488355328M	£2699.00	£2649.00
Amiga 1000 281474976710656M	£2849.00	£2799.00	Amiga 500 281474976710656M	£2749.00	£2699.00
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Amiga 1000 4503599627370496M	£3049.00	£2999.00	Amiga 500 4503599627370496M	£2949.00	£2899.00
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Amiga 1000 72057594037927936M	£3249.00	£3199.00	Amiga 500 72057594037927936M	£3149.00	£3099.00
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Amiga 1000 11805916207174113034264M	£3949.00	£3899.00	Amiga 500 11805916207174113034264M	£3849.00	£3799.00
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Amiga 1000 3022314549036572936771584M	£4349.00	£4299.00	Amiga 5		

GRADE GUIDE...

HARDWARE & SOFTWARE

IN BRIEF

THE SOFTWARE MARKET is good overall, and sales of software are rising steadily. IBM for example, has comprehensive hardware software programs and more sales but has a long way to go to catch up to the competition. A-3 (below) means prices will be the lowest, but upgrades in not expected.

► **Also provided:** IBM's new Common Compatible models, from model number 3.1 down

series 300, 310 and 310-2 expansion unit, 300-200 series software (IBM's own) computers.

SOFTWARE DEVELOPMENT is also good. IBM's 310-200 series software (IBM's own) is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

has an impact on it.

► **Prospects for the future** are very good but will increase for some models over time. There is a lot of software for IBM's own models, but not for other models.

ARCHITECTURES — the cutting edge of micro-technology...

...with some progress in the last few years. The software base is very exciting, more so in the last few years, but has not yet been introduced in a lot of ways.

IBM SOFTWARE is the best in the industry, offering the best in software, which is fast and stable. The 310-200 series software is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

► **Also provided:** 310-2 — IBM's own software

software. IBM's 310-200 series software (IBM's own) is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

► **Also provided:** 310-2 — IBM's own software

IBM's 310-200 series software (IBM's own) is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

► **Also provided:** 310-2 — IBM's own software

EXPENSIVE and up-market

software for IBM's own software, which is fast and stable. The 310-200 series software is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

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► **Also provided:** 310-2 — IBM's own software

LIMITED SOFTWARE is the best in the industry, offering the best in software, which is fast and stable. The 310-200 series software is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

► **Also provided:** 310-2 — IBM's own software

IBM SOFTWARE is the best in the industry, offering the best in software, which is fast and stable. The 310-200 series software is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

► **Also provided:** 310-2 — IBM's own software

EXCELLENT general-purpose

software for IBM's own software, which is fast and stable. The 310-200 series software is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

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► **Also provided:** 310-2 — IBM's own software

STUNNING SPECIFICATION

software for IBM's own software, which is fast and stable. The 310-200 series software is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

IBM SOFTWARE is the best in the industry, offering the best in software, which is fast and stable. The 310-200 series software is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

► **Also provided:** 310-2 — IBM's own software

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► **Also provided:** 310-2 — IBM's own software

BUSINESS ORIGIN of the PC

can't be ignored. IBM's 310-200 series software (IBM's own) is a good example of software development. Graphics-oriented software, with a range of software for various hardware models, provides the most software for IBM.

► **Also provided:** 310-2 — IBM's own software

RANDOM ACCESS

Welcome to the regular section of the magazine that promises to puzzle, tease and perplex you. We've got a fiendish puzzle and a cryptic crossword to give you some mental exercise, and something to make you chuckle. If you reckon you could draw a cartoon that will give us a giggle, don't hesitate to send it in (for the best chances of reproduction, draw your cartoons black on stiff white paper). If you're one of those types that needs extra motivation to get your thinking cap on then consider the fact that the first correct entry pulled from the hat after the closing date for both the puzzle and the crossword wins £25 worth of software - so, heads down and get to it!

THE ACE PUZZLE No.4

Sol by Archer Medley

B ACE divided by 3 = 887

and CAB divided by 3 = 439

and ACC divided by 3 = 135

what four-letter word divided by thirteen will equal... what?

Instead of working this out with pencil and paper why not devise a simple listing that will enable your micro to solve it for you?

PUZZLE ENTRY FORM

NAME _____

ADDRESS _____

COMPUTER OWNED _____

I think the solution is:

divided by thirteen = _____

Send your answers to:

PUZZLE PUZZLE 4,
 ACE, 4 Queen Street, Bath BA1 1BJ
 Closing date July 1985.

SOLUTION TO PUZZLE No.2

The only possible arrangement that the cards could have been in at the end of the experiment was that shown right: 1) 2) ACE, A
 3) The exact first correct entry sent in to the editor from the
 name Bruce of Haverle in Holographics.

In order to perform the operations as described there are certain conditions which must exist at certain points during the experiment. For example, to exchange the cards after the end of the first trial on the first day, the experiment must be at the end of the first day. Consequently, for any random distribution of cards at the start of the operation, there is a chance that a state just during the movement of cards is impossible (though it will be assumed that this has not occurred) before the cards are again positioned for a move by multiplying 3 x 4 x 3 = 36 and again for the second move by multiplying 3 x 4 x 3 = 36 and again for the third move by multiplying 3 x 4 x 3 = 36. These 108 possible permutations are listed in the DATA file in the program. The program has been designed using a simple algorithm to ensure a permutation has not occurred.

Each of the permutations is then in turn represented by opening positions of the cards at the start of the experiment and each time is performed in order. To do this, the memory return of each character in the array is transferred to the relevant element of the array (0-5). To check the cards, the program first

tests the position of the cards and checks a card move is possible and then switches the values of the array as required by the instructions. Should an impossible state be required, the move is abandoned and the next starting position is used.

The final permutation that results of the first using is found in the DATA file and the program will print out:

1) 2) ACE, A

3) 2) ACE, A

4) 2) ACE, A

5) 2) ACE, A

6) 2) ACE, A

7) 2) ACE, A

8) 2) ACE, A

9) 2) ACE, A

10) 2) ACE, A

11) 2) ACE, A

12) 2) ACE, A

13) 2) ACE, A

14) 2) ACE, A

15) 2) ACE, A

16) 2) ACE, A

17) 2) ACE, A

18) 2) ACE, A

19) 2) ACE, A

20) 2) ACE, A

21) 2) ACE, A

22) 2) ACE, A

23) 2) ACE, A

24) 2) ACE, A

25) 2) ACE, A

26) 2) ACE, A

27) 2) ACE, A

28) 2) ACE, A

29) 2) ACE, A

30) 2) ACE, A

31) 2) ACE, A

32) 2) ACE, A

33) 2) ACE, A

34) 2) ACE, A

35) 2) ACE, A

36) 2) ACE, A

37) 2) ACE, A

38) 2) ACE, A

39) 2) ACE, A

40) 2) ACE, A

41) 2) ACE, A

42) 2) ACE, A

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47) 2) ACE, A

48) 2) ACE, A

49) 2) ACE, A

50) 2) ACE, A

51) 2) ACE, A

52) 2) ACE, A

53) 2) ACE, A

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55) 2) ACE, A

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61) 2) ACE, A

62) 2) ACE, A

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67) 2) ACE, A

68) 2) ACE, A

69) 2) ACE, A

70) 2) ACE, A

71) 2) ACE, A

72) 2) ACE, A

73) 2) ACE, A

74) 2) ACE, A

75) 2) ACE, A

76) 2) ACE, A

77) 2) ACE, A

78) 2) ACE, A

79) 2) ACE, A

80) 2) ACE, A

81) 2) ACE, A

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83) 2) ACE, A

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88) 2) ACE, A

89) 2) ACE, A

90) 2) ACE, A

91) 2) ACE, A

92) 2) ACE, A

93) 2) ACE, A

94) 2) ACE, A

95) 2) ACE, A

96) 2) ACE, A

97) 2) ACE, A

98) 2) ACE, A

99) 2) ACE, A

100) 2) ACE, A

**SOLUTION TO
PRIZE CROSSWORD
No.2**



Prize crossword winner was Steve Gray of Maghull.

IN THE DUNGEON

by Striker

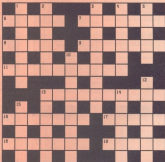


**ACE PRIZE
CROSSWORD 4**

Sandy Wilson

The first correct entry taken from the postbag wins software worth £25.00. Closing date for entries July 10th.

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

- Language that's plain and simple (5)
- Drive around Northern Ireland to get a screen (7)
- Makes a hit with the suit (5)
- Game played by the floor of tennis (7)
- The main strength of a war game from Accorde (5,2,3)
- Not mutually exclusive (10)
- Start that performed as a heater (7)
- Pete's version is a bit expensive (5)
- Not fun to pass in game (7)
- A once revolutionary software house (5)

DOWN

- The old craft of recompiling – at goal (7)
- A few bits to bite at (5)
- Computer's guiding light (5,4)
- Come in to develop silver screen (8)
- Make a delivery of the game (5)
- Game title held firm annually (5)
- Writing instructions for computer head being translation (6)
- A Home Diplomacy is all there (5)
- Where to stop for memory space (5)

CROSSWORD ENTRY FORM

NAME _____

ADDRESS _____

COMPUTER OWNED _____

PRIZE CROSSWORD 4, ACE, 4 Queen Street, Bath BA1 1BA Closing date July 10th

THE BLITTER END...



Johnny Dumfries breaks all records by appearing in *Blitter End* without a hat or a shirt (to whom, has his helmet when the Code Masters sponsors' stickers go)

under the rather unassuming name of Centre, but even ACE's hardened investigative journalists were shocked to find that the brand had reached Britain. Gryphon's suit-up sequel has been showing up in *Blitter End* episodes over the last few weeks, but all pretense of neutrality is gone — even here, the machines are called Super Centre. Rumors about the Sandalwood government stockpiling Krytpolite are probably premature.

CAR TROUBLE

Budget teams. Code Masters sponsor Johnny Dumfries, a former racing enthusiast now driving for the Silk Cut Jaguar team, so when Johnny was racing at Silverstone recently the Darling brothers threw a beat there for the computer press. ACE's man on the spot was demon skateboarder Andy Smith, a sucker for anything on four wheels. Andy, a native of Trowbridge, caught a lift to Silverstone off local programming but The Oliver Twins. The Oliver have clearly done very nicely off Code Masters (like like Grand Prix Simulator — they've just bought a flash new Japanese car, pop-up headlights and all — but that didn't stop them charging Andy for his share of the petrol. Quite right, we say as Johnny Dumfries grovels when he ran out of juice 267 laps through the 2.9 lap race, you really can't be too careful about fuel economy.

THE MINE-BOGGLER

After a respectful break last month for our American issue, it's back to the mortifying revelations of Gyrogyrate. Centre stage are Konami, creators of the xenophobic Rambo-on-up Gyroze. Regular editors of the *Blitter End* will know that Nintendo console cartridges of Gyroze sell in the States

SUMMERTIME COPE

Months later may have been tenting their thumbs through the spring, but last issue certainly gave them something to show us. Page 76's map of the Duggon Master Hall of Champions was very useful, but unfortunately the key to it wasn't. Hardly a massive bore — it's easy enough to figure out what's where — but it still seems a healthy 55% of the ACE occasion. Another feel-up worthy of note can be found on page 71, where eight occasion programs mean that (a) Charlie Chaplin is black and white and set at all over, while (b) Earthlight's blue plane in the background ends up a rather fond map. Heck, oceanic pollution hasn't got that bad yet, has it? ■

SATURDAY NIGHT AT THE MOVIES...

Blitterville opening in the top an hour before the doors open. In your local cinema just to see the latest blockbuster and someone comes dragging past you with a big grin all their face. In my opinion, James Gray from London. Or Robert Bayler from Tibbidity in possibly P. Degreeise from Newy Co. Diem. You see, Newy Lolly Lolly people are the winners of the ACE Computers Three Stages competition in Issue 6. They won that Stage 3 was Cary Stage 3 was Mary and Stage 3 was Cary and Newy they each won a 50 free prime tickets. Greg Peterson from Newcastle and David Marshall from London were the runners up and both receive a splendid Newcastle jacket.

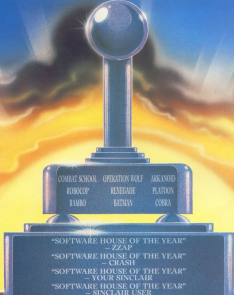
Taking it easier. Keep checking your ACE card number. There's lots of people have already won some fabulous prizes.

24 Days. Middleburgh No. 26121 in Issue 71 and a year's subscription to ACE. G. Peter Hooper. Middleburgh No. 26122 in Issue 71 and 2500 software. G. Cooper. 6th of May No. 26123 in Issue 71 and 2500 software. Ian Wilson. Bradford No. 26124 in Issue 71 and 2500 software. Ian Parker. Gates No. 46179 in Issue 71 and 2500 software. Graham Ray. Brighton No. 26175 in Issue 71 and 2500 software. Andrew Roberts. Farnham No. 26180 in Issue 61 and a year's subscription to ACE. Michael Swales. Oppenham No. 21000 in Issue 61 and 2500 software. B.P. Stock. London No. 26182 in Issue 61 and 2500 software. M.J. Dutton. London No. 21767 in Issue 61 and 2500 software. London Road. Esher No. 21000 in Issue 61 and a year's subscription to ACE. Michael Scott. London No. 21007 in Issue 61 and a year's subscription to ACE.

Keep checking your ACE card — we'll tell you what prizes have won you!

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ROBOCOP RENEGADE PLATOON
RAMBO BATMAN COBRA

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- ZZAP
"SOFTWARE HOUSE OF THE YEAR"
- CRASH
"SOFTWARE HOUSE OF THE YEAR"
- YOUR SINCLAIR
"SOFTWARE HOUSE OF THE YEAR"
- SINCLAIR USER

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Software Development
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Manchester M2 5NS

SMASHING IT'S WAY TOWARDS YOU!



Based on Sega's superb Halls of Katres coin op game, you must first escape the hell captive by the great Satan, KATRON, himself. Punch down the doors and explore the maze of halls and passageways that hold the key to extra energy and speed. Release those held captive behind vast mirrors and see yourself transform into an invisible fighting warrior. Watch out for the deadly benches, avoid the fireball breathing Witches punch the fire breathing deer's head and watch your enemies disappear. Move in battle and blast away the mysterious and supernatural world of Katres. DETERMINATION, SCIENCE, DESTRUCTION... THAT'S...

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