

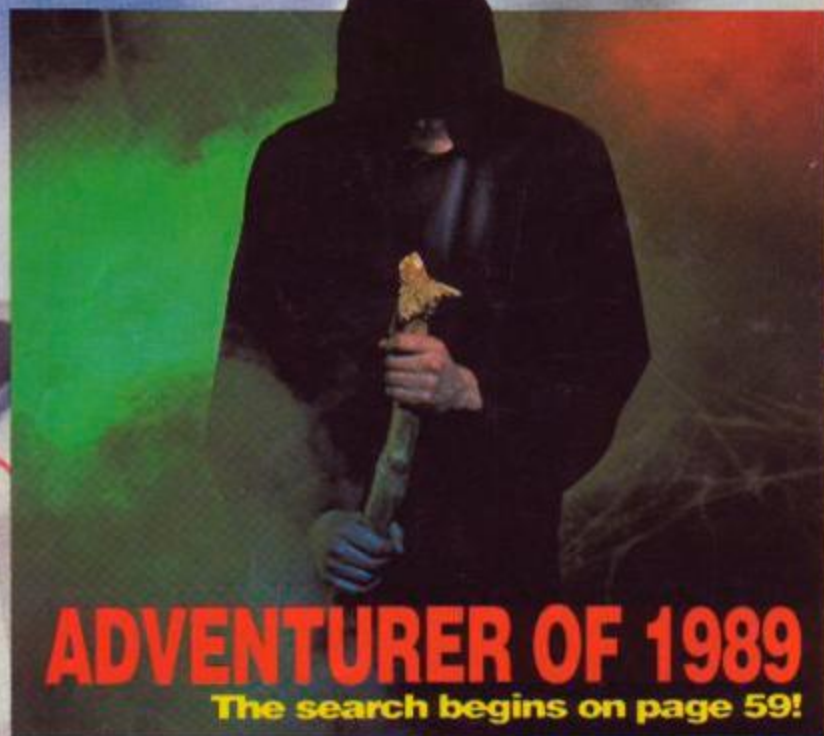
NOT
an official
Amstrad
publication!

THE WORLD-BREAKING MAGAZINE FROM FUTURE PUBLISHING

AMSTRAD ACT

AFTERBURNER

Turn to page 40 for the first CPC review



ADVENTURER OF 1989

The search begins on page 59!

FIRST with the games that matter:

- Batman
- Death Stalker
- Netherworld
- Return of the Jedi
- Roy of the Rovers
- R-Type
- and a DOZEN others...

BEST on the serious side:

- databases – full guide
- second drives survey
- word processing help
- News, reviews and hot tips
- 'Problem Attic'
- 'Absolute Beginners'
- all this and MUCH more...

THE OCEAN

BATMAN™

THE CAPED CRUSADER



BATMAN™ & © 1988 DC COMICS INC.



SPECTRUM
AMSTRAD
COMMODORE

£9.95

ATARI ST £19.95
AMIGA £24.95

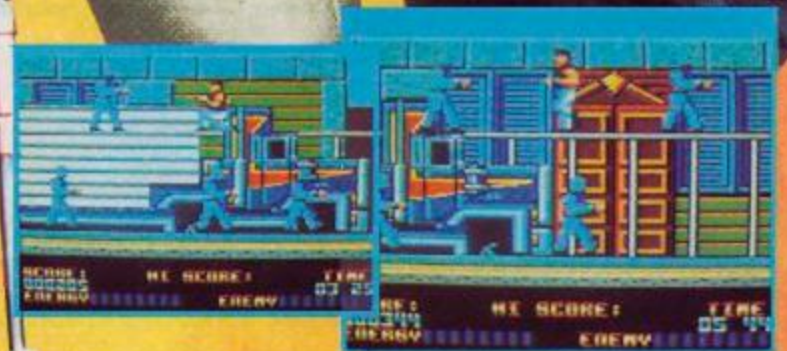
MAN-FORCE

BAD ~~BOUES~~ VS. DRAGONNINJA™

DATA EAST



HOBBS/COPI™ & © 1987 ORION PICTURES.COM ALL RIGHTS RESERVED



OCEAN

BAD ~~BOUES~~ VS.

DRAGONNINJA

SPECTRUM	AMSTRAD	ATARI ST	CBM AMIGA
£8.95	£9.95	£19.95	£24.95
SPECTRUM	COMMODORE	ATARI ST	CBM AMIGA



THE LINE UP

AMSTRAD ACTION ● FEBRUARY 1989

FRONT END

NEWS●LETTERS

07 **AMSCENE**

All the new products and releases for your CPC.

11 **REACTION**

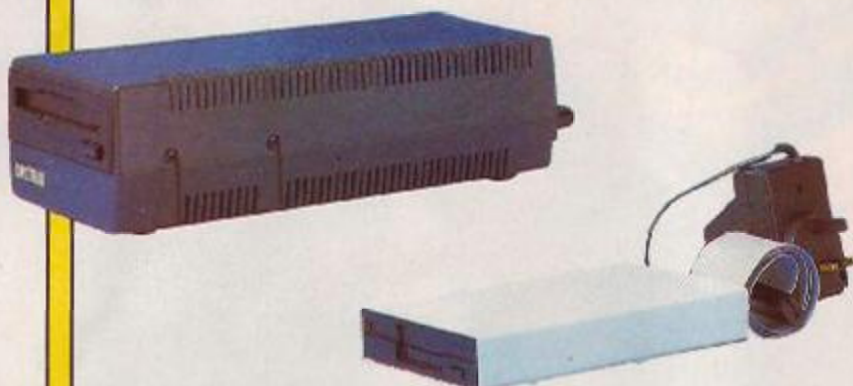
Letters of protest, letters of outrage, letters about World War Two – we have it all!

SERIOUS SIDE

SOFTWARE●HARDWARE●PROGRAMMING

16 **DRIVES – A HARD BARGAIN**

What's available, where and how much it costs. Which one is right for you?



▲ Departing air person: Sally Caslan-Meddings



▲ And Gary Barrett's off to pastures new... too

Future Publishing Limited
4 Queen Street, Bath BA1 1EJ

Telephone 0225 446034
Fax 0225 446019

Editor: Steve Carey

Technical Editor: Pat McDonald

Staff Writer: Gary Barrett

Art Editor: Ollie Alderton

Contributors: Richard Monteiro, Steve Cooke

Publisher: Greg Ingham

Production: Diane Tavener, Claire Woodland, Jenny Reid

Subscriptions: Avon Direct Mail

PO Box 1, Portishead, Bristol BP20 9EG

Telephone 0272 842487

Mail Order: Clare Bates

The Old Barn, Brunel Precinct, Somerton,
Somerset TA11 7PY 0458 74011

Advertisements: Elaine Brooks 0225 446034

Cover photography: Stuart Baynes. Tel: 0225 66343

Colour origination: Wessex Reproductions, Bristol

Printing: Redwood Web Offset, Trowbridge, Wilts

Distribution: Seymour Press, 334 Brixton Road, London

ABC

MEMBER OF THE
AUDIT BUREAU OF
CIRCULATIONS

35,095

January - June 1988

© FUTURE PUBLISHING LTD 1989

Amstrad Action is an independent publication. The company producing it - Future Publishing Ltd - has no connection with Amstrad plc. We welcome contributions from readers but unfortunately cannot guarantee to return material submitted to us, nor can we enter into personal correspondence. We take great care to ensure that what we publish is accurate, but cannot be liable for any mistakes or misprints. No part of this publication may be reproduced in any form without our permission.

THE ACTION BEGINS ON 38!

ALL THE TOP CPC GAMES

37 **ROY OF THE ROVERS**

Gremlin's kick at the Matchday II spot.



38 **NETHERWORLD**

Hewson's brilliant Boulderdash lookalike.



20 **DATABASES FOR ALL**

So you want to use your CPC for something serious - but what is a database anyway? And, given that you really do need one, which one should you buy?



ACTION TEST

All this! ▶ Netherworld ▶ Return of the Jedi ▶ Roy of the Rovers
▶ Echelon ▶ R-Type ▶ Black Beard ▶ Galactic Conqueror ▶
Death Stalker ▶ G I Hero ▶ Batman ▶ Space Ace ▶ Flight Ace ▶
Operation Hormuz ▶ Giants ▶ Game Set Match II...

40 AFTERBURNER

An exclusive review of Activision's arcade conversion.



41 RETURN OF THE JEDI

Domark complete the Star Wars trilogy.



18 HOT TIPS

Pass on your short-cuts – and read everyone else's!

22 PROBLEM ATTIC

A double-helping of solutions.

24 HELPLINE

... where you help each other.

25 ABSOLUTE BEGINNERS

Lost? Neophytes welcome!

GOODBYE FROM THEM!

Have a good Christmas, I hope? We certainly did, thanks to your overwhelmingly positive reaction to last month's issue, with Incentive's Total Eclipse and all the other goodies. It's great to know we're appreciated!

It's appropriate that a New Year should see changes taking place in Amstrad Action. Art assistant Sally 'Captain' Meddings is taking off – promoted to art editor on 8000 Plus, another of Future's fabulously successful titles. She'll be much missed. Secondly, games reviewer extraordinaire Gary 'GBH' Barrett is calling it a day. He arrived 16 issues ago, at the same time as Mac – a Macintosh SE – and has survived a good deal longer (we've now upgraded our Mac system). In that period we conservatively estimate that he's evaluated some 200 CPC games, which is quite enough for any sane person (let alone Gary) to cope with. He's been rewarded with a post on another Future title. Pat, myself and the rest of us wish him all the best.

We'll introduce his replacement next month... See you then!

Steve

27 BEGINNERS' UTILITIES

A dirt-cheap desktop publisher and a hacker's helper.

28 THE LOOK

Did you make it this month? Plus our continuing series on CPC graphics reaches the hard bit: sprites.

31 BAR CPM

'First steps' progresses a little further with Monteiro.

32 FIRST BYTES

Novice assemblers come hither!

35 COMMS

With a thoroughly modem Pat McDonald.

54 CHEAT MODE

The essential aid to games-playing on your CPC.

63 TYPE-INS

A complete database program. And much else too!

59 PILGRIM SPECIAL

The beginning of the competition no adventurer will want to miss out on, as Amstrad Action begins its search for the Adventurer of the Year!



WRAPPING UP

WHAT TO BUY•BYE!

82 BUYERS GUIDE

Christmas Mega-mix: all the best from AA!

86 AAFTERTHOUGHT

The second of our 'CPC Character Set'. Are you it?

87 SPECIAL OFFERS

Amazing ideas: catch them while they're fresh!

NOW WITH STOP PRESS, EVERYONE CAN HOLD THE FRONT PAGE NEWS.

STOP PRESS

'STOP PRESS' is the ideal DeskTop Publishing program for home enthusiasts, schools, societies and small businesses. 'STOP PRESS' makes it simple to

create professional newsletters, leaflets, forms and flyers, in fact anything where text and graphics are required – placing you right at the heart of the DeskTop Publishing Revolution.

Text can be entered from within 'STOP PRESS' or imported from your word processor with fully automatic on screen text formatting including centering, ragged right and literal justification.

The graphics capabilities of 'STOP PRESS' are equally versatile. The ability to import digitised and scanned images is complimented by facilities for drawing spraying and painting.

Enhanced cut and paste facilities replace traditional methods (no scissors and glue supplied or required).

'STOP PRESS' includes an excellent zoom facility for adding those finishing touches before your work is output to a wide range of Epson compatible dot matrix printers.



EXTRA, EXTRA

Extra, Extra is a collection of instant clip art and new typefaces covering a variety of subjects and styles.

AMX MOUSE

Stop Press can be used with a joystick or keyboard but the AMX Mouse gives you the control and flexibility which you would expect from the most accurate pointing device available.

Established as the market leader the AMX Mouse has been the driving force behind a whole host of new applications from other software houses. With its unique design and high resolution movement the AMX Mouse is a must.



LET'S LEAVE THE LAST WORD TO THE PRESS...

"the most comprehensive in its field... very high quality printouts are possible"

Amstrad Action

"the best graphics available in a DTP package"

8000 Plus

"exceptionally useful... the manual was hardly necessary"

Commodore Computing International

"it's phenomenal... this product is worth every penny"

Educational Computing

"one of the most professional packages I've seen... all I can say is go out and buy it"

A&B Computing

'STOP PRESS' IS AVAILABLE FOR	SOFTWARE ONLY	WITH AMX MK. 111 MOUSE	EXTRA! EXTRA!
ACORN BBC/B+/MASTER	£49.99	£79.99	£24.99
AMSTRAD PCW 8256/8512	£49.99	£89.99	-
AMSTRAD CPC 6128	£49.99	£79.99	£24.99
COMMODORE 64/128	£39.99	£69.99	-

These products are available from all good computer dealers or freepost direct by cheque, Access or Visa. All prices include VAT, postage and packing. Become your own publishing baron with 'Stop Press' and start the presses rolling.

ZIMS

ADVANCED MEMORY SYSTEMS



166-170 WILDERSPOOL CAUSEWAY, WARRINGTON, CHESHIRE, WA4 6QA

FOR INSTANT ACCESS OR VISA ORDERS TEL: (0925) 413501 · DEALER ENQUIRIES WELCOME TEL: (0525) 222211

AMSCENE

CPC news

Where did our disks go?

Fears that 3" disk shortages are making an unwelcome comeback are leading once again to misinformed speculation about the future of the CPC range.

Mike Mordecai, Amsoft development manager, told AA: 'Stocks weren't frozen: we simply ran out of the things. We haven't been able to supply them. It seems that demand for 3" disks has greatly exceeded expectations. Explained Mordecai: The reason we ran out was simply bad planning. Sales have been good, steady throughout the year. They built up to Christmas, but just as we thought that the peak had been reached, demand went through the roof.'

'Shortage will recur'

And he suggests that the best way to avoid similar problems in the future is for bulk users to keep Amsoft informed: 'The shortage will recur', he predicts, 'if we have no response from software houses and duplicators of their needs. That way we can gauge demand. All year round there's no word, and suddenly everybody wants 3" disks. The fact

that Maxell 3" disks also disappeared didn't help.'

Steven Burke of SJB (official distributors of UK disks) admitted to AA: 'It's affected us terribly over the last couple of weeks: we are official dealers for disks, and now they've run out there's not an awful lot to do.'

'There's been no 'stitch-up' about it. We knew about the problem a year ago, when Amstrad informed us of their stock levels. A shortage was anticipated for this Christmas. Everyone knew it was going to happen.'

'At present we're buying back disks from France and Germany, and reselling them to regular customers. We're not making any profit on them, it's an exercise in good will. As far as Joe Public goes, there shouldn't be any problems. They've got the system disks and bundled software. No, it's these software houses that haven't done business with us before, suddenly screaming for disks.' Who exactly? 'Just some software houses, I'm not prepared to name names.'

The situation has been blown out of proportion in some quarters. We'll have stocks

again soon - I believe that Amstrad are renegotiating a contract for further supplies. The situation should be back to normal before too long. One knock-on effect though will be a rise of 40-50p in disk prices. I mean that retailers will generally have to stick to the official price of £29 per pack of ten, rather than discounting.'

Disk cussing

On the buyers' side, Codemasters PR man Bruce Everiss confirmed to AA that Amsoft 3" disks are likely to be in short supply for a time to come. Codemasters have been forced to buy in 'a bulk order' from the continent. 'We just couldn't get the disks. There's none at all in Britain. We usually pay £1.20 per disk, but the best offer we got was £2.30. People who have supplies are sitting on them.'

P.S. Whether it's an indirect result of the disk shortage or not, here at AA we've had reports that those nasty 'cheap and tackies' are beginning to resurface in high street stores. Avoid them if you possibly can.

Small business - big boost

SD Microsystems, who produce small business software exclusively for the CPC, have announced a brand new integrated system for 128K machines. The *Stock Accounting System* is based around a stock control program to handle the everyday business, with an invoicing program and sales ledger built in, plus printing routines to make hard copies of documents.

Main features include up to 750 lines of stock; calculation of trade discounts; printing of price lists; customer file storing 99 main names and addresses (but remember the Data Registration Act!); and automatic or manual payment reconciliation modes in sales ledger.

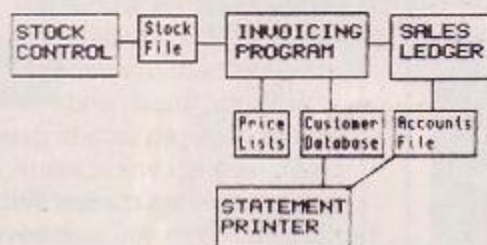
SD Microsystems are also setting up a Small Traders Club. Membership will be by an annual subscription of about £10, for which SD intends to supply help and advice in the setting up and running of small businesses, as well as cheap updates, discount supplies of disks, ribbons etc, and a small quarterly

newsletter.

Previously SD Microsystems have offered excellent advice and backup, and there's every reason to expect standards to be maintained.

The *Stock Accounting System* is available on disk only for all 128K CPCs at £39.95. (If you bought the *Small Traders Pack* or *Invoicer* programs you can upgrade for £19.95.) Contact SD Microsystems ☎ 0462 675106, or write to SD Microsystems, PO Box 24 Hitchin, Herts. Tell 'em AA sent you.

● And look out for the full review of the *Stock Accounting System* in AA soon!



System Integration Diagram

Qualitas enhanced

Qualitas, a print enhancer that allows you to define what typestyle your printer uses, has long been an invaluable CPC accessory. The problem was it didn't work under CPM - bad news for *WordStar* or *CPM+ Protex* users. Now the situation has been resolved. The *Utility Pack for CPM Plus* costs £9.95, and works comfortably within the CPM operating system. (Note: 464/664 users have to upgrade to CPM+ to use the system: you can't have everything!)

The code for the utility can be embedded directly in the BIOS, so that it works with virtually any CPM+ program. It has been especially configured for *CPM+ Protex*, and can be set to automatically install before running the word processor.

Only one font is available at a time within the wordprocessor, but there is a facility to print files in a standalone form enabling two fonts to be used together.

To obtain a copy of the *Utility Pack* talk to Seven Stars Software (☎06284 3445).

QUALITAS

QUALITAS 464
QUALITAS 664
QUALITAS 664 PLUS
QUALITAS 664 PLUS PLUS
QUALITAS 664 PLUS PLUS PLUS

QUALITAS 464
QUALITAS 664
QUALITAS 664 PLUS
QUALITAS 664 PLUS PLUS
QUALITAS 664 PLUS PLUS PLUS

SEVEN STARS

Micronet gets chop

In an effort to boost sales of its online service Micronet, Telemap has declared a price reduction. Until March 31 people can join at £9.95 for their first quarter, rather than £20. (Mind you, you'll still have to pay the full price for the other three quarters.)

Micronet also have some good cheap modems, interfaces and software still on offer. If you pay the full amount for a year, you get a free modem: and you can buy the ProPak, interface and *Cage Comms ROM* for £226.35.

ACU/CPC sells out

Amstrad Computer User - which only last month, we reported, merged with *CPC Computing* (which used to be called *Computing with the CPC*, and which itself merged with *Amtix* some time before that...) Still with us? Anyway, ACU has been sold by its publishers Europress to Focus Magazines, who own *Popular Computing Weekly* and *Computer Games Week*.

Will this stop the letters we receive complaining about the merger? Nope.

Phone home

You know how it is, you're a Busy Executive in America needing to connect with Telecom Gold. Suddenly your problem is solved when the Dialcom Group launch Travel-Link. Now all you have to do find a Telenet access point (there's a list available) and enter 'C GOLDxx' (xx is the Telecom Gold system number).

The service cost 20p per minute on top of the normal Telecom Gold rate, but of course you don't care about that because you're a Busy Executive on expenses. For more information call Dialcom: 01 493 3847

Star takes tumble

Star Micronics Ltd has announced a new rock bottom price of £1989 (plus VAT) for its LaserPrinter 8. Unusually it appears to approach its claimed printing speed of eight pages a minute (most stated speeds are highly and hilariously exaggerated - hilarious, that is, until you try achieving them!). Basic specification is 1Mb of onboard memory, and four different printing protocols (Epson, IBM, HP and Diablo).

There is also a new font cartridge for the printer. This contains Helvet Proportional, Tms Rmn Proportional, Lineprinter and Tax Line Draw. The former pair can be used in medium, bold or italics in various point sizes. There are now seven cartridges available with various typastyles: only two of them, however, can be connected to the printer at the same time. Each module costs £99.

Additional strap-ons include

a further 1Mb of memory, costing £239 and giving the capability to print a full page of graphics at 300 dots per inch. And a large capacity A4 hopper, allowing 125 minutes of printing (just say 1000 copies), is £595.

● You wouldn't believe this, but we actually had someone complaining to us that we never cover laser printers. If the above is anything to go by, you can appreciate why.

● Compumart are giving away a £30 starter pack with their range of Amstrad, Citizen and Panasonic printers. The starter packs contain 1000 sheets of listing paper, an extra ribbon and an interface cable. For more details contact: Compumart Ltd, Jubilee Drive, Loughborough, LE11 0XS 0509 610444

● In case you were after Epson's new address: Campus 100, Maylands Avenue, Hemel Hempstead, Hertfordshire HP2 7EZ.

Ash Nazg Durbatuluk*

Virgin/Mastertronic have just released the latest in a long line of Tolkien related products, *War in Middle Earth*. Previous games based the *The Hobbit* and *The Lord of the Rings*



▲ *War in Middle Earth* - Hobbit forming?

are: *The Hobbit*, *Fellowship of the Ring* and *Shadows of Mordor* - all three adventures which tried to get too much out of the CPC.

War in Middle Earth takes a more tactical approach and turns out to be a fantasy wargame. It costs £9.99 for tape or 14.99 for the disk to have a go at defeating Sauron.

(* one ring to rule them all)

To ze Manor born

Lankhor is a French software house soon to release their first CPC game, *Mortville Manor*. The adventure sports speech synthesis throughout and there's also some digitally sampled music and sound effects played during the game.

For now all we

have are some French screen shots, but we'll bring you the full and definitive CPC review at the earliest opportunity.



▲ *Mortville Manor*: coming soon to these shores - in English, we hope!

Cliff declares war!

Star show for trans*

Rambo games for gospel king

WHEN Cliff Richard came off state of Manchester's Agony Train, following from spreading the message of peace and love, he goes off the attack - Rambo style.



'They're making this up', we can hear you say as you read this: 'they've just

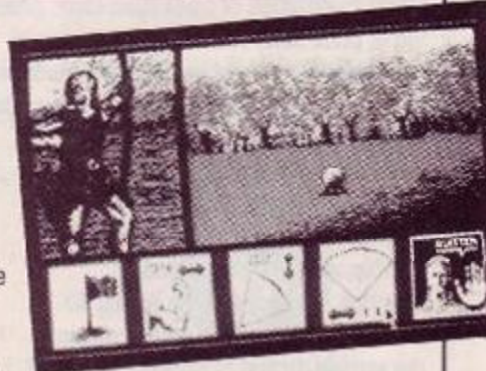
got to be making this up'. Not a bit of it.

Fresh-faced wholesome cute Christian popster Cliff Richard is a video games freak. Cliff, whose appalling 'Mince pies and wine' (shouldn't that be 'whine?') was terrorising the nation's youth all over the festive period, apparently relaxes backstage with a blast of the macho Imagine shoot-em-up *Guerilla Wars*. This unlikely tale was revealed in the *Manchester Evening News* (Sunday, 29 October), and naturally Imagine were keen to pass on the Good News (oops sorry Cliff).

● Cliff Richard, video freak. Would we lie to you? (Don't answer that)

Puffin' iron

UBI Soft proudly present *Iron Lord*, a medieval style strategy games where you have to try and reclaim your kingdom from the hands of your brutal uncle; and *Puffy's Saga*, an arcade game set in an alien world made up of numerous mazes. You play Puffy and you also have your girlfriend with you, Puffyn. Avoid the traps and escape the maze or die.



▲ UBI Soft's latest offering: *Iron Lord*. Many Knights of fun in store!

Assistance for the master

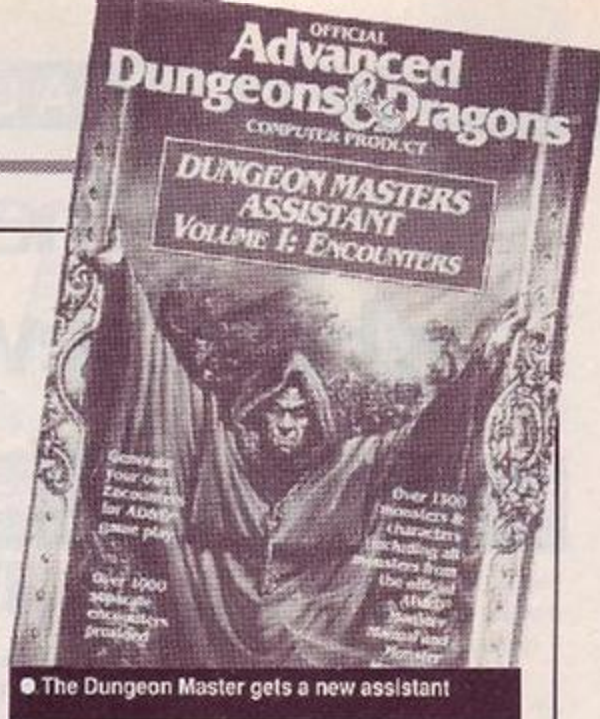
US Gold's next release in conjunction with the Advanced Dungeons and Dragons (AD&D) licence is the first volume of the Dungeon Masters Assistant series, *Encounters*.

It's designed to help the poor Dungeon Master (DM) to write adventures and encounters to keep player-characters busy as they wander the world in search of adventure. Once you've designed an encounter or adventure you can either save it to disk/tape or send it

the printer - essential unless you plan to keep your CPC with you when you're playing AD&D.

It's not a game, but is used with the rule books (*Player's Handbook*, *Dungeon Master's Guide* etc.). Experienced DM's may find the item of limited use, but novices will undoubtedly be glad of some help. It's due for release in March, though the price is as yet undecided.

Now perhaps we'll get *Pool of Radiance*?

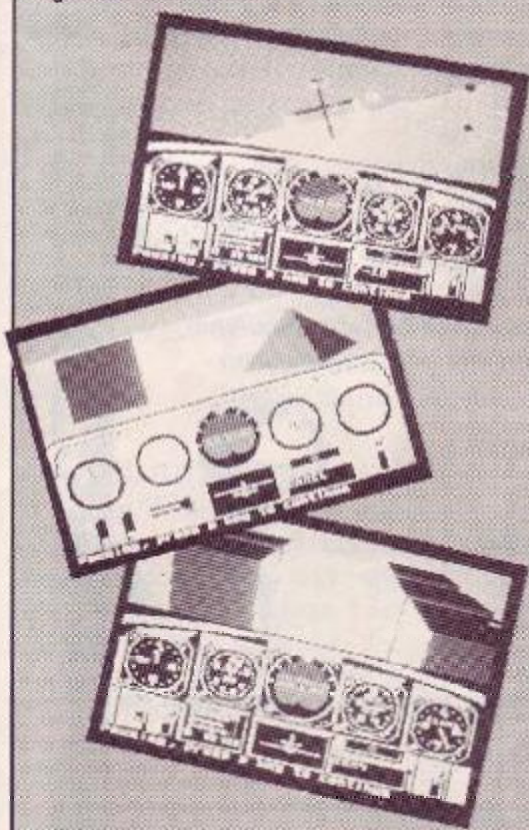


● The Dungeon Master gets a new assistant

Werewolves, Chuck Yeager, Lancelot and a giant alien monastery...

What goes up...

Electronic Arts are currently putting the finishing touches to *Chuck Yeager's Advanced Flight Trainer*. The game features 14 different aircraft ranging from the good old Spitfire through to modern jets. There are two versions of the game: one for 64K machines and the other for 128K. The 128K version has a demo and training mode. The control panel is always visible in 64K versions, even you happen to be looking out of the rear of the plane at the time, which seems a little odd. The extra memory gets around this problem on 128K machines. Expect the definitive CPC review right here next month...

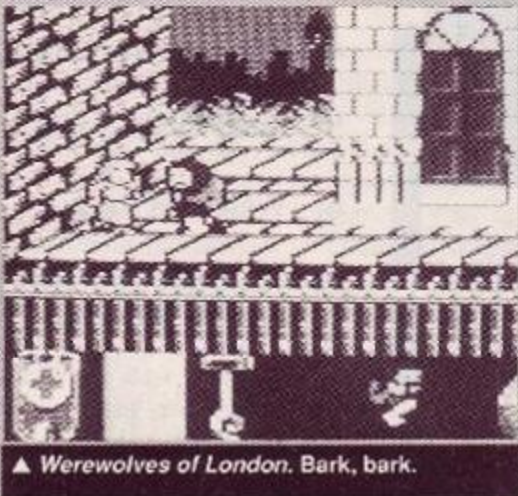


▲ Chuck Yeager, CPC-style. Coming soon!

Back trouble

Level 9 have now got some cluesheets prepared for their two most recent games, *Lancelot* and *Ingrid's Back*. If you have one of the games and are stuck just send off the coupon supplied with the

game to Level 9 and they'll send you a clue sheet free of charge. Level 9, 5 Mendip Road, Crown Wood, Bracknell, Berkshire RG12 3XG.



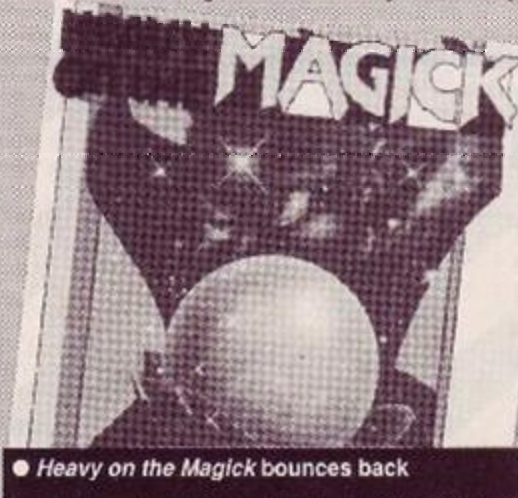
▲ Werewolves of London. Bark, bark.

Coining it

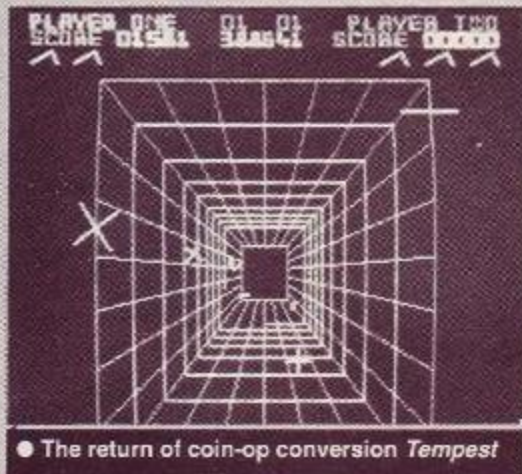
Summit Software, Alternative Software's £2.99 budget label, are re-launching *Mini Office* (not *Mini Office II*) which was well received when launched back in the mists of time. It consists of a word processor, database, spreadsheet and graphics utility for the spreadsheet.

Vroom at the top

International Speedway (£1.99, tape) by Silverbird is a motorcycle racing game in which you work your way up from street racing through local leagues and onwards and upwards until you finally



● Heavy on the Magick bounces back



● The return of coin-op conversion *Tempest*

reach the World Championship.

We're wolves

Werewolves of London was originally released by the now defunct Ariolasoft and received a goodish review (AA 27, 66%). Now you can sink your teeth into the game for a mere £1.99 from Virgin/Mastertronic.

● Also making a second appearance on budget is *Tempest* (AA 14, 83%), that classic shoot-em-up which kept Bob Wade (RIP) happy for many long hours when it was released (he was so impressed he bought the arcade machine!).

● And making a very welcome return is the ex-Gargoyle game *Heavy on the Magick*, which stars Axil the Able in his adventures in Collodon's Pile (how Collodon feels about Axil adventuring in his pile has never been fully investigated). This too is an excellent game that's well worth the £1.99 asking price. *Tempest* and *Heavy on the Magick* are both available from Virgin/Mastertronic.

Giant alien monastery?

Dark Fusion is a full price scrolling shoot-em-up from Gremlin in which you are involved in alien slaughter. Teleporters are littered about the land that, according to the press release, 'take you and your ship onto a battle with a giant alien monastery'. Now either they mean monster, in which case *Dark Fusion* is hardly up for an innovation award; or they do mean monastery, in which case this could well be cult game of the year.

REACTION

Letters topical, controversial, cynical...

Two tribes

Violence in computer games actually exists in two different forms: the type which could actually be carried out, and the type which could never be replicated in any way.

Look at games like *Target Renegade* which make punching, kicking and killing people on the streets 'fun' when of course this kind of thing is far from amusing.

Operation Wolf may appear worse than this, but I don't think it has any dangerous influence because of its setting. How many kids are going to grow up in the middle of a jungle with POW camps? Not many! Whereas how many kids grow up in towns and cities where street violence is flourishing?

Other examples are *Savage* (killing aliens and bats), *Starglider* (smashing Egrons) and many other games of that ilk.

I really think that violent computer games which have any kind of setting which the player can relate towards can cause a profound influence on his or her mind.

David Carter
Woking, Surrey

A bit annoyed

In my last letter I made my attitude towards violence crystal clear. To that, you may add filthy and crude language. I am no saint goodness knows, and alas, possess my unfair share of vices. The employment of gutter etymology is not one of them.

When I saw your review on page 54 of issue 40 (I cannot even bring myself to mention the offending 'game', if that is what it is supposed to be) (*it was 'How to Be A Complete Bastard' - ed.*), I became extremely angry.

Amstrad Action presumably grew up to reflect the adulthood of the bulk of its readers. Since the unlamented demise

Letters, pray!

Whether it's our reviews, the games that get released these days, the price of disks or whatever, no doubt something in this issue of *Amstrad Action*, or something that happens to you this month, is going to a) get your goat; b) tickle your fancy; c) rub you up the wrong way, or even; d) all of the above.

But don't just keep it under

your hat - let off steam! We care, and listen. Every single letter received is read, and we publish as many as we can. And one letter each month wins a software voucher for £15!

Get the writing paper out - or your printer - and write now to: *Reaction, Amstrad Action*, 4 Queen Street, Bath BA1 1EJ.

of *AMTIX!*, children have the limited choice of reading the 'official' periodical, or becoming *Amstrad Action*ers. It follows, therefore, like it or not, you must bear a moral responsibility towards a sizeable minority of impressionable CPC-owning children. These unhappy days, with so much lack of proper parental and teacher care, they need all the help they can get to guide them towards the despised and old-fashioned virtues of decency, honesty, courtesy, consideration for others - and good manners, including the avoidance of such sickening foulness promoted in the aforementioned game.

I was beginning to form a good opinion of *Amstrad Action*. Now, to my dismay, this

unhealthy trash is not only assumed to be 'great fun', you even attempt to give it some sort of additional respectability by concocting a competition. To compound your open invitation to children to compete for the game, you add hypocrisy with a so-called 'Important Warning' that clearly shows your real feelings by the levity and insincerity of its approach.

Wm. A. C. C. Smith

To answer your points as you raise them:

- 1) 'Gutter etymology' is a phrase completely void of meaning in the context in which you use it. Don't try to impress our readers with long words, because it won't work.
- 2) 'Extremely angry': not, by

any chance, one of your vices? Certainly it's one of the seven deadly sins, or it was when I went to school.

3) No, *AA* didn't grow up to 'reflect the adulthood of the bulk of its readers': it grew up to reflect the varied age-groups and attitudes of its readers. We don't go around telling people what they should or shouldn't do, and getting 'extremely angry' about it.

4) I don't accept a 'moral responsibility' for our readers. That would be patronising nonsense, and the great majority of them intensely dislike being patronised. So do I, come to think of it.

5) Oh come off it Mr Smith. If you can get so worked up about the use of the words 'bastard' and 'wee', what outrage remains for true obscenity, like murder, rape and war?

I can readily accept that you don't like to see rude words in print, or presumably hear them or use them either. The rest of us, I'm afraid, do our best to live in the real world, where illegitimacy and excretion are facts of life. You don't have to approve, but getting 'extremely angry' doesn't help very much one way or the other.

The last word

I have a 6128 and am interested in purchasing either *Wordstar* or *New Word II*, which I believe are similar programs. I have trained in the use of *Wordstar* at college and would like to know if the deluxe program is available for use on the Amstrad 6128.

By the way, a few years ago I had a Commodore 64 and used a game called *Hunchback* (the original one). Do you know of a supplier for this game on the 6128?

Karen Woolley
Morecambe

By the deluxe version we presume you mean the full *Wordstar*, and the answer is no: which probably just as well, since it would occupy approximately 438 disks (only joking - but even the 'pocket' version (reviewed AA1)

is hardly nippy. The same goes for *NewWord*.

You could do worse than retrain on *Protext*, *BrunWord* or *Tasword*, all of which are cheaper and considerably faster than the other monsters.

Each of these packages is a truly first-class wp program that performs excellently. We use *Protext*, for instance, here at the AA office on ROM and wouldn't dream of changing.

Hunchback was released by Amsoft, and was reviewed in the first issue of *AA*. It received a meagre 49% rating, suggesting that you may be underwhelmed by it, even assuming you can find a copy - unlikely, since Amsoft games went west a long time hence. A sequel was released by Ocean, funnily enough called *Hunchback II* (reviewed in that same mammoth roundup in *AA1*, a healthier 74%), and you may find a copy lying about.

● **Violent outburst**

When I scan the pages of *AA* one inescapable factor assails my senses, and deeply saddens me: the abnormally high proportion of games of violence. The principal character is a thug whose sole aim in life is to kill, kill, kill. This in itself is bad enough but many of them, instead of merely blasting others to Kingdom Come, have to resort to horrific deeds of bloodshed that would make evil members of the IRA seem like gentle, God-fearing souls by comparison. These vicious creations are the so-called heroes and heroines of their plots.

Unhappily, we live in a world where morals have been turned upside-down. Those among us who remember the days when Britain had the reputation of being the most law-abiding country on Earth suffer agonies of despair.

The situation is not helped by games of mindless brutality, like *Rambo*, *Barbarian*, *Target*, *Renegade*. A while back, the government banned video nasties. These three, and others like them are, in my estimation, computer nasties, and should also be banned.

One might have thought that

at least racing games would be safe, but no. *Road Blasters* and *Overlander* have to have their share of machine guns, mine fields, and other death-dealing paraphernalia. Is the animal world free from this disease of the mind? *Psycho Pigs UXB*, the sole aim of which is to bomb porkers into oblivion for no good reason, proves it is not.

First class commercial artists like Oliver Frey denigrate their obvious skills by producing colour illustrations in the most nauseating detail, leaving nothing to the imagination. They, the programmers, and the companies responsible for the obnoxious creations are little better than the purveyors of pornography, debasing their talents for worship at the feet of the God of Wealth. They seem to care little that most of their customers are children. Perhaps they are too close to their own childhood to realise the harm and corruption to which they are contributing.

Reviewers will hotly disagree with me, but they are as guilty as the others when awarding top ratings to such games. If I were a reviewer (and it is just as well I am not) I would be very harsh indeed. Zero rating would be automatic, regardless of other factors, and would extend to war

games, both science fiction and historic; boxing, and the martial arts. You will doubtless have gathered by now that I am anti-violence in any shape or form – and you would be absolutely correct. I make no apologies for my intransigence.

There are hundreds of non-violent board games on the market, many of which would transfer well, so, how about it, US Gold, Mastertronic, and all you others?

Wm. A. C. C. Smith (again)

Steve Carey replies:

May I congratulate you for having produced a rotten argument to support your case. I was opposed to gratuitous violence in computer games. Now I intend becoming a supporter of it, just so I can distance myself from your views. Where to begin, though? Should I start by pointing out that anyone who is incapable, as you you seem to be, of distinguishing between fantasy fiction and bloody reality – that comparison of video games with the IRA makes me feel sick – is not in a position to judge what other people should be 'allowed' to see and not? Or perhaps I should challenge that guff about Britain once having the reputation as 'the most law-

abiding nation on earth? When was that, exactly?

But I think I'll just suggest that anyone who imagines that the violence of *Psycho Pigs* is a serious threat to developing minds, a) doesn't know the game, and b) has a much lower opinion of young people's critical faculties than they deserve. It might be – no, it is – a load of old rubbish, but it's hardly dangerous.

And if any game instantly merits a zero rating and a banning on the grounds of violence, on what possible grounds would any of the following be valued or permitted:

- a) Shakespeare (*King Lear*, *Cymbeline*, *Macbeth*...);
- b) All Quiet on the Western Front;
- c) The Bible?

No, Mr Smith, it won't do. Your reactionary ranting just won't convince anyone. Its appeal will only be to those who already agree with you. There's a case to be made against violence in computer games: unfortunately, you've failed to make it.

● What do you think? Write to:
Violence is Golden, AA,
4 Queen St, Bath BA1 1EJ



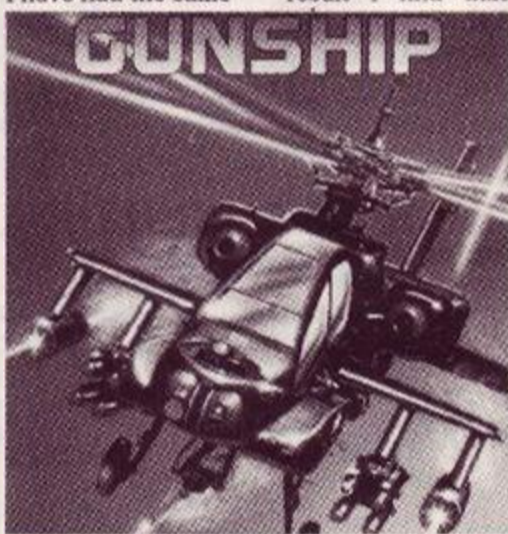
"YOUR COMPUTER GAMES ARE GETTING TOO REALISTIC..."

● **Gunship 'is not bugged'!**

With regard to the letter from Anthony Perkins (*AA* 39) regarding a bug in *Gunship*, I have had the same problem. In fact when the alleged bug appeared, having reached the rank of Colonel and 20-29,000 points, I assumed that the game was over and started again from the beginning. However, I have come to the conclusion that it is not a bug at all.

The instruction manual states that reporting sick to avoid a particularly dangerous mission means that the mission is aborted, a reprimand is attached to your record and that promotion is more difficult to achieve. I have six reprimands on my

record simply by reporting sick when a mission brief shows a wind velocity higher than seven knots. (Very hard to land properly in a gale.) As a result I find that promotion has not, so far, appeared. I have almost 60,000 points and so many medals that I am giving them away (no congressional Medal of Honour yet though).



▲ Microprose's Mastergame *Gunship*: not bugged after all!

I've found three smaller bugs that, although irritating, do not really detract from the game. Crashing at 90 feet without a hill in sight; the occasional target that can't be fired at; and a phantom enemy helicopter at the left side of the map.

Bill Jenkins
Cramlington,
Northumberland

● **Queried sanity**

Last night I heard a phone-in radio program on LBC on the number of VDU operators who (having already become pregnant) had miscarriages, which were rightly or wrongly being

blamed on the rays emitted by VDUs. These sort of statements make you query your sanity. I have noticed that a TV set emits fairly strong rays if you put your hand or face near the screen.

But I have also noticed that

my 464 does not emit any rays. In fact, it collects all the particles of dust in the air and tobacco film, and this stuff sticks to my screen like glue and I have been accused of smoking too much and of having a filthy and dusty office.

This brings up the subject of whether the Amstrad is the only computer that does not emit these deathly rays which can apparently cause miscarriages.

T C Hockney
Basingstoke

● **Attack of the Gremlins**

I'm afraid Gremlin's interpretation of the Bismark sinking in *Night Raider* is fanciful to say the least. Winston Churchill's *Second World War Vol III* devotes 14 pages to this incident from which it is clear that the ship sustained severe steering damage from Swordfish torpedo attacks and was subsequently sunk by RN warships.

As Kim said last month, this action took place in May 1941. In *An Encyclopaedia of Air Warfare* it is stated that the Grumman Avenger had just entered service in time for the battle of Midway, which all wargamers know took place in early June 1942 - i.e. over a year after this aircraft was supposed to have sunk the Bismark!

Of more interest to players of *Night Raider* with Multiface II's is that poking & 98AA, Ø and & 8D33, Ø gives invulnerability to both Blackhawk and Ark Royal.

**Fred Ball
Blackpool**

● Kim Wells was right (AA40) and you were wrong: no Grumman Avengers saw action against the Bismarck. The first strike was, as you say, made by nine aircraft of 825 Squadron from HMS Victorious at about midnight on the night of 24th May 1941. This strike force was under the command of Lieutenant Commander Eugene Esmonde who was later awarded

a posthumous Victoria Cross for his attack on the Scharnhorst and Gneisenau.

Following this, at about 3am on the 25th, contact with Bismarck was lost and not regained until she was spotted by Pilot officer D A Briggs, RAF, flying Catalina of Coastal command, at 10.30 on the following morning and almost immediately after that by two Swordfish of 810 Squadron piloted by Sub-Lieutenant (A) J Hartley and Lieutenant (A) J R Callander. These two swordfish continued to shadow Bismarck until relieved by two more Swordfish fitted with long-range tanks.

The final attack which disabled the Bismarck and enabled the fleet to make contact was made by four Swordfish from 810 Squadron under the command of Lieutenant Commander T P Coode, Commanding Officer of 818 Squadron and launched from HMS 'Ark Royal'.



▲ Gremlins hit Gremlin: *Night Raider*'s 'back to the future' plays fast and loose with history

During the action, Sub-Lieutenant (A) F A Swanton's Swordfish was hit no less than 175 times but managed to get back to the 'Ark'.

I can vouch for the accuracy of all the foregoing since I was there, in 'Ark Royal' throughout the proceedings. The Grumman Avenger, TBF-1, did not come into service until nearly a year after the Bismarck action.

**R J Skinner
Dursley, Gloucs**

Red faces all round! Gremlin Product Manager Kevin Bulmer said: 'Oh dear. Actually it's all the fault of the original programmers, Acme Animations, who were Canadian (probably still are), and whose interest in historical veracity was minimal. It seems the true story didn't make for a very interesting simulation - so they shuffled the facts, as your very knowledgeable readers noticed! We were presented with a finished game, which we converted for the Amstrad in this country. Naturally Gremlin had no intention of offending anyone who may have been involved in these historical events'. And red faces from us, too, for stupidly believing what we read in the Gremlin manual! Still, thanks to all those who pointed out the error.

And we did try to cover ourselves by saying that we weren't WWII experts!

● **One of them**

I have just finished a run of 66 games playing *Matchday II*.

This includes two league programs and 11 cup runs. During this time I have remained unbeaten and during the two

league sessions I conceded just one goal overall and won every match. In one match I won 7-0. Do any other readers -

**Chris Kinsella
Wigan**

Sorry Chris that's all we've got room for.

Sugarman



K & M COMPUTERS

THE LEADING AMSTRAD MAIL ORDER SPECIALISTS

★ ADVENTURE ★	CASS	DISC
Time and Magik	£10.90	£10.90
Jinxter (6128)	£14.45	
Corruption (6128)	£14.45	
Return to Doom	£12.50	
Silicon Dreams	£10.90	£14.45
Jewels of Darkness	£14.45	
Not a Penny More	£10.90	£14.45
Mindfighter	£10.90	£14.45
Gnomell Ingrid's Back N	£19.90	£14.45
Lancelot	£10.90	£14.45

★ COMPILATIONS ★

Gold Silver & Bronze	£11.90	£21.50
Giants	£10.50	£15.95
Glassie Games 4	£7.99	£10.90
Ten Great Games V. III	£7.99	£11.90
Konami Arcade Collection	£7.50	£13.10
Frank Brunos Big Box	£9.90	£13.10
We Are the Champions	£7.50	£13.10
Fists N Throttles	£9.90	£13.10
Supreme Chall. (Inc Elite)	£9.90	£13.10
Taito Coin-op (Inc Rastan)	£9.90	
History in the Making	£15.95	£21.50
The In Crowd	£9.99	£13.10

★ STRATEGY/SIMULATION ★

Football Manager II	£7.50	£10.90
Pirates (6128)	£14.45	
Football Director II	£14.45	
Gunship	£10.90	£14.45
Ancient Battles	£10.90	
Match Day II	£6.99	£10.90
Red October	£10.90	£14.45
Fair Means or Foul	£7.50	£10.90
Artic Fox	£7.99	£11.90
Bards Tale	£7.99	£11.90
P. Beardsley Int. Soccer	£6.99	£10.90
Football Director (464)	£6.99	
Roy of the Rovers	£6.99	£10.90
Monopoly	£7.50	£10.90
Bridge Player 3	£9.99	£11.95
Heroes of The Lance N	£7.99	£11.95
Steve Davis Snooker	£1.80	£7.99
Trivial Pursuit (New Ed.)	£10.90	£14.45
P.H.M. Pegasus	£7.99	£11.90
Track Suit Manager N	£7.50	
Vulcan	£6.99	
4 Soccer Simulator	£7.50	£10.90
D. Thompsons Olym Chall	£7.50	£10.70
Classic Games 4	£7.50	£10.90
Night Raider	£7.99	£11.90

★ EDUCATIONAL ★

Answer Back Jnr	£7.95	£11.95
Factfile 500s	£3.75	£6.75
Fun School (U5-8, 8-12)	£5.50	£7.95
Max Maths (Geometry)	£8.50	£13.95
The Three Bears	£15.95	
Giant Killer (9-14)	£12.95	
Magie Maths (4-8)	£8.50	£12.95
Maths Mania (8-12)	£8.50	£12.95
Chemistry GCSE	£11.90	£14.95
Physics GCSE	£11.90	£14.95
Biology 1 (12-16)	£8.50	£12.95
Wordhang	£7.50	£11.95
Happy Writing	£7.50	£11.95
Physics 1 12-16	£8.50	£13.95
Mapwork Geography Quiz	£8.50	£13.95
Spanish Tutor	£12.95	£15.95
French Mistress	£12.95	£15.95
Italian Tutor	£12.95	£15.95
lankey Crash Course (6128/PCW)	£19.90	
lankey Two Finger (6128/PCW)	£19.90	

★ ARCADE ★	CASS	DISC
Operation Wolf	£6.99	£10.90
Last Ninja II	£9.99	£11.90
Thunderblade	£7.99	£11.90
Double Dragon N	£7.50	£10.90
Motor Massacre N	£7.99	£11.90
Guerrilla War	£7.50	£10.90
Robocop N	£7.50	£10.90
Rambo 3 N	£7.50	£10.90
Live N Let Die	£7.50	£10.90
4x4 Off Road Racing N	£7.99	£11.90
Seate or Die N	£7.99	£11.90
Road Blasters	£7.99	£11.90
Barbarian II N	£7.50	£10.90
Game Over II	£7.50	£10.90
Total Eclipse	£7.50	£10.90
Pacmania	£6.99	£10.90
1943 (Midway)	£7.99	£11.90
Alterburner N	£7.50	£10.90
The Train	£7.99	£11.90
Munsters N	£7.50	£10.90
Bushido N	£7.99	£11.90
Supreme Chall. N	£7.50	£10.90
Savage	£7.50	£10.90
Salamander N	£6.99	£10.90
Return of the Jedi	£7.50	£10.90
Laser Squad N	£7.50	£10.90
Victory Road N	£6.99	£10.90
R-Type	£7.50	£10.90
Batman (New)	£7.50	£10.90
G.I Hero	£6.99	£10.90
Skate Crazy	£7.99	£11.90
Captain Blood	£7.50	£10.90
Street Fighter	£7.99	£11.90
Fernandez Must Die	£7.50	£10.50
Cyberoid II	£7.99	£11.90
Soldier of Light N	£6.99	£10.90
Eliminator N	£7.99	£11.90
Typhoon	£6.99	£10.90

★ BUDGET ★ Cass only

Comunando	£2.75
Battleships	£1.80
Quest/Golden Eggcup	£1.80
Beach Buggy Simulator	£1.80
Frank Bruno Boxing	£1.80
Biggles	£1.80
Thai Boxing	£1.80
Powerplay	£1.80
Flight Path	£1.80
Knightmare	£1.80
Video Classics	£1.80
Formula Grand Prix	£1.80
A.T.V. Simulator	£1.80
Ghostbusters	£1.80
Stuha Kidz	£1.80
Ace	£2.75
Ace II	£2.75
Bombjack	£1.80
Uridium	£2.75
Shockway Rider	£2.75
Adrian Mole	£1.80
Beach Buggy Simulator	£1.80
Kickstart II	£1.80
Rocky Horror Show	£1.80
Turbo Boat Simulator	£1.80
Tau Ceti	£1.80
Glider Rider	£1.80
Skateboard Kidz	£1.80
Superstuntman	£1.80
Software House	£1.80
Adventure Pinball Sim	£1.80
Space Trader	£1.80
Superhero	£1.80

**464 UPGRADE ROM
NOW AVAILABLE
ONLY £16.99 FROM US**

SPECIAL PRICES ON A.M.S. SOFTWARE

StopPress	£39.95
StopPress & Mouse	£72.95
Mouse & Art	£61.95
Mouse Mats	£4.95
Max	£16.95
Extra Extra	£21.95

SIREN SOFTWARE SPECIAL OFFERS

Discology	£11.95
Discovery +	£11.95
Ultrasound	£11.95
MicroDesign	£23.99
M.Mouse + C.Paint	£48.99
MasterMouse Cherry Paint & Micro Design	£63.99

MINI OFFICE II STILL DUR NO1 SELLER Cass. £10.95 Disc £14.45

AMSOFT 3" DISCS

One	£2.50
Five	£11.50
Ten	£21.95
Twenty	£42.00

ROMANTIC ROBOT QUALITY PRODUCTS AT DISCOUNT PRICES

Insider	£13.95
Multiface II	£14.95
Rodos (on rom)	£25.95
Rodos extra	£8.75

**ALL OUR PRICES
INCLUDE VAT + P&P
NOTHING EXTRA TO PAY
IN STOCK ITEMS SENT
BY RETURN OF POST
NO MINIMUM ORDER**

**SPECIAL OFFER
ORDER ANY FIVE
£1.80 BUDGET GAMES
AND PAY ONLY £8**

DMP 2000/2160/3000 RIBBONS

£3.99	EACH
£6.99	FOR TWO
£15.50	FOR FIVE

★ ACCESSORIES ★

K.D.S 8 Bit Printer Port	£18.75
Rombo Rombox	£34.95
Keyboard Extension Leads	£7.99
Cover Set 464 or 6128	£7.50
Cover Set DMP 2000/2150	£4.50
Joystick Splitter	£7.99
464 LightPens (Col. Monitor)	£9.99
6128 Cassette Leads	£3.99
Lockable 3" Disc Boxes (60)	£9.99
K.D.S Romboard	£24.95

★ JOYSTICKS ★

Amstrad JY2	£13.95
Cheetah Starfighter	£13.95
Konix Navigator	£13.95
Gunshot	£5.75
Delta (Microswitch)	£9.50
Cheetah 125	£7.95
Quickshot II Turbo	£12.95
Cheetah Challenger	£4.75
Konix Autofire	£11.95
Konix Speedking	£9.99
Cruiser (Microswitch)	£9.50

★ BUS/UTIL ★

Mastercalc 128	£28.95
Qualitas +	£12.99
Masterfile III	£32.95
Plan-It	£14.99
Professional Ad. Writer	£24.95
Protect	£20.95
Prospell	£20.95
Promerge	£20.95
Protect Filer	£22.95
Protect CPM (Spell & Merge)	£54.95
Tasword 6128	£20.95
Matrix Spreadsheet	£28.95
Protect (on rom)	£32.50
Promerge + (on rom)	£29.95
Prospell (on rom)	£29.95

★ HARDWARE ETC ★

2160 Printer	£159.95
DD1 Disc Drive (Phone)	£159.95
MF2 Modulators (Phone)	£29.95
FD1 Second Drive	£99.95
64k Memory Expansion	£17.95
K.D.S 51/4" Disc Drive	£149.95
MiniMax Modem I/F Cable	£97.95
Amstrad/Pace Modem	£91.95
DkT Colour TV Tuner	£72.95
464 Speech Synthesiser	£29.95
6128 Speech Synthesiser	£35.95
C15 Cassettes	£0.45
Fanfold Labels (1000)	£5.90
CPM+ (DISC)	£18.95
CP6128 Manual	£14.95
Printer Cable	£8.99

★ NEW LINES AT LOWEST PRICES ★

Atari ST Super Pack	£369.00
Amiga A500 Inc Mod.	£379.00
PCW8256 (Inc. VAT)	£389.00
PCW8512 (Inc. VAT)	£499.00
PCW9512 (Inc. VAT)	£510.00
PPC512 (Inc. VAT)	£449.00
PC1512 (Inc. VAT) from	£449.00
PC1640 (Inc. VAT) from	£725.00
PC2086 (Inc. VAT) from	£675.00
Utax CRF 3FAX (Inc. VAT)	£999.00
DMP4000 Printer	£375.00
DMP3250 Printer	£220.95
LQ 3500 P	

**PCW OWNERS WRITE OR PHONE
FOR NEW CATALOGUE
PRICES IN THIS ADVERT ARE FOR
AMSTRAD 464/6128**

**BUY WITH CONFIDENCE FROM THE LEADERS IN AMSTRAD MAIL ORDER
50P VOUCHERS SENT WITH EVERY ORDER
USE THE VOUCHERS TO DEDUCT 50P OF FURTHER ORDERS OVER £10
WE USE AND SPECIALISE IN THE COMPLETE AMSTRAD RANGE**

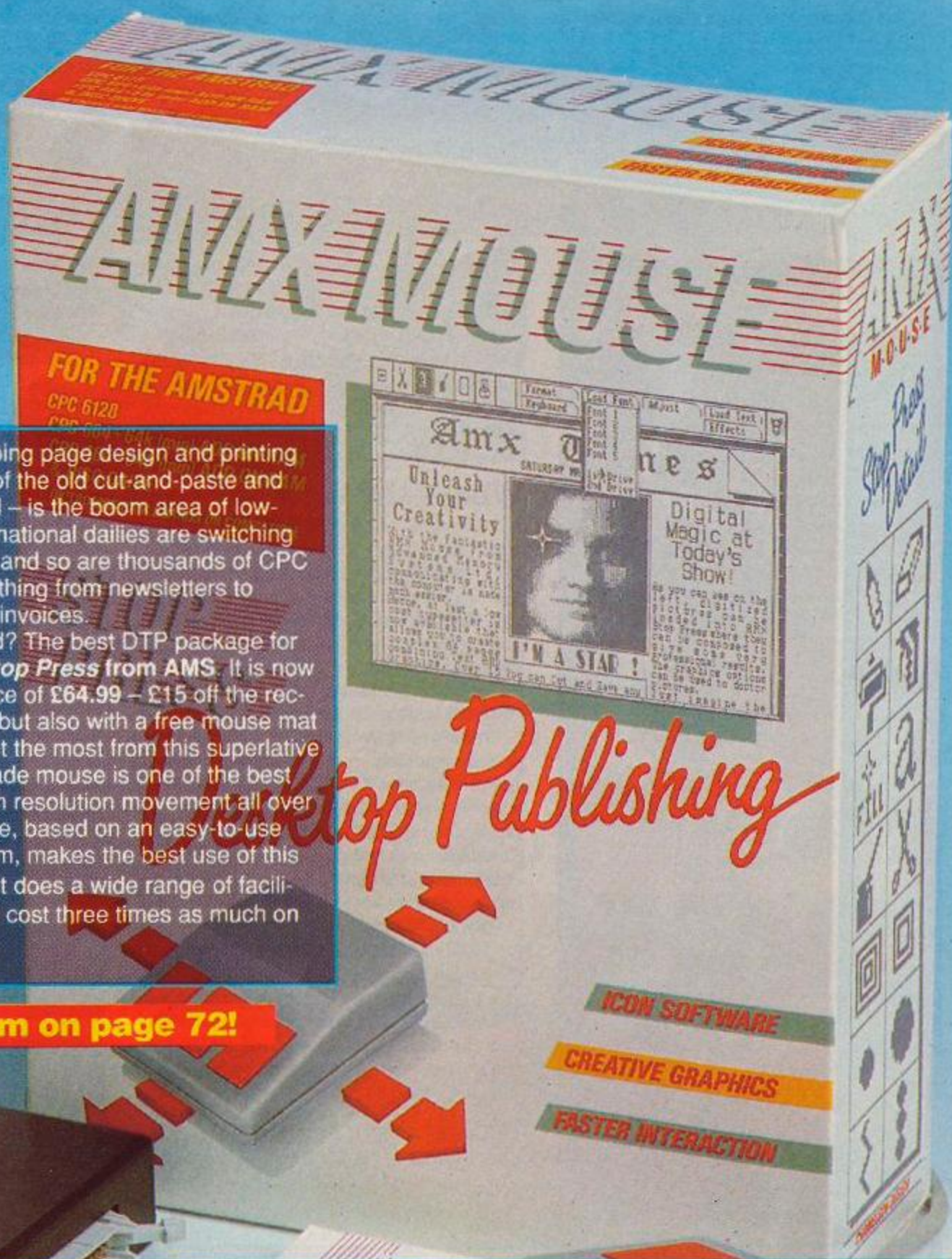
**K & M COMPUTERS (AA)
40, FAIRSTEAD, BIRCH GREEN,
SKELMERSDALE,
LANCS. WN8 6RD
★ 24 HRS PHONE 0695 29046 ★**

**WHEN ORDERING PLEASE STATE MAKE OF COMPUTER,
PLEASE MAKE CHEQUES & P.O PAYABLE TO K & M COMPUTERS
OVERSEAS INC. EIRE ADD £1 PER ITEM OF SOFTWARE
WE SUPPLY GOVERNMENT & EDUCATIONAL ESTABLISHMENTS**

**ACCESS ORDERS BY PHONE
OR MAIL N = NEW RELEASE
PLEASE PHONE FOR
AVAILABILITY
AND OTHER NEW RELEASES**

STOP PRESS
Only £64.99
(RRP £79.99)
with free
mouse mat

THE AMSTRAD ACTION SPECIAL OFFERS SECTION



Desktop publishing – doing page design and printing on a computer instead of the old cut-and-paste and linotype printing method – is the boom area of low-cost computing. All the national dailies are switching over to DTP methods – and so are thousands of CPC users, to produce everything from newsletters to menus, from posters to invoices.

Want to try your hand? The best DTP package for the CPC – by far – is *Stop Press* from AMS. It is now available at an all-in price of £64.99 – £15 off the recommended retail price, but also with a free mouse mat enclosed to help you get the most from this superlative package. The Swiss-made mouse is one of the best available and offers high resolution movement all over the screen. The software, based on an easy-to-use icon-driven menu system, makes the best use of this sensitivity, featuring as it does a wide range of facilities that would probably cost three times as much on another machine.

Order form on page 72!

Just a few of the features:

- 14 different fonts supplied
- Type sizes from 9 to 96 points
- Clip art ready made to insert into files
- Text entered **directly** or **imported** from word processor
- **On-screen text formatting**, including **autoflow** around picture
- **Draw, spray or paint** - your own designs or those supplied
- Up to **nine columns** per page!
- Bold, italics, underline and reverse boxes
- Centering, ragged right/left and literal justification
- Prints up to **108 pages** in one go
- **Shape drawing** includes triangles, squares, cubes, circles and ellipses
- Compatible with **digitised pictures** from MasterScan,

- Electric Studio and the Rombo digitiser
- Compatible with a full range of printers

Altogether, a superb way of getting to grips with DTP with a package that is unlikely to be bettered. Newsletters, fanzines, posters, letter heads, leaflets, charts, flyers, business reports, adverts - all are now within your reach, allowing your imagination as much freedom as possible. There's no better program than *Stop Press*, and no better introductory offer than this. Another offer from the *Amstrad Action* team you can't refuse!

Order Code AA363

Desktop Publishing

Desktop Publishing

DRIVES - A HARD BARGAIN

Here at AA we generally clean the postbags to the dregs at Christmas, ready for a fresh winter assault of mail. Looking through all those *Hot Tips* and *Attic* letters, PAT McDONALD noticed all the requests for information on second drives. Dozens upon dozens of the things! Well, here he goes.

KDS 5.25"

£159.95

e.g. KDS ☎ 04853 2076

The 5.25" drive means that you can get very cheap blank disks – as a rough guide, 60p each is easily attainable, though you can always pay more... They come with their own dust sleeve, but it's easy to touch the exposed magnetic surface accidentally.

Using the drive alone is alright, but add some extra software and you've really got something. *Ramos*, also manufactured by KDS, is the obvious choice, and when you're using it one thing becomes apparent: the disk speed is about half that of



▲ The 5.25" from KDS: 60p disks!

using a standard 3" drive. The enhanced capacity (as much as 796K under CPM+) more than makes up for it. It is quite something to see it format a disk and initialize all that free space.

It's impressive, cased in metal, and takes up a fair old slice of desk room. If you really want a large capacity drive, then take a good look at this one.

The CPC disk drive was generally invented very much as a CPM-based system, and CPM can handle lots and lots of disk drives – up to 16, indeed. It's a pity that, on the Amstrad, only two drives can be used (actually, a silicon disk can be added as well, but that's another story altogether).

What's the big idea?

A basic CPC with disk has 178K to play with. Add another 3" drive (like the Amstrad FD-1) and you double that. The problem is that very large applications (like CPM utilities, *At Last Plus*, *NewWord*) gobble up most of your first drive's capacity for their programs, leaving you with precious little room for data. The Amstrad FD-1 second drive costs £99, assuming you can find a supplier.

There is a thriving market for third party or independently produced second drives. Apart from the FD-1, there have also been some traders who offered 3" drives – Matmos springs to mind. Or Silicon Systems. These are usually quite cheap – around £80 minimum – and match the machine well in terms of looks.

If you want more than 178K, then going for a different sized drive is a good option. (The quad density 3" is prohibitively expensive.) There are two varieties, the 3.5" (rapidly becoming the standard for floppy disks) and the older 5.25" drives, for which the disks are cheaper.

Harmed and dangerous

5.25" disks are, however, more easily damaged than 3.5", which are in turn less durable than 3". Costs go in a similar fash-

ion, although 3" disks are outrageously expensive to the public. (Avoid cheap disks with the circular indentations: 'C&Ts' – Cheap 'n Tackies – are used as frisbies in the AA office. They're that bad.)

A second 3" drive can soon be filled by some of the more powerful applications, which leaves you with either using multiple disks – a real drag in CPM+, and even worse in CPM – or move up to another league in storage.

Under Amsdos, the situation can get really silly. With a 128K machine, you can have a lot of data in store, plus a huge program. And remember, every time you save an update with the same name, a backup file is created automatically: so your disk can fill within an hour's use.

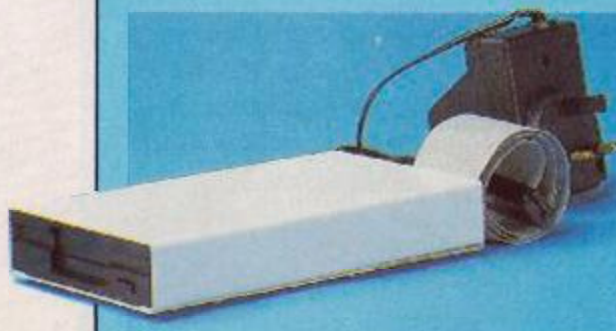
Must be crackers

A further example of a need for a second drive is in program development. When people are writing computer programs, the amount of storage that is desirable becomes huge. A program like *Pyradev* can input hundreds of K of source code, and produce one

MEGADRIVE

£124.95 with Ramos; £134.95 with Romdos or Rodos

Siren ☎ 061 228 1831



▲ The Siren 'Megadrive', and very pretty too

Similar to the KDS offering. The capacity is the same, and as far as the software goes (any of the three reviewed can be purchased) there's little difference either. It does take up much less space, and those disks are harder to damage.

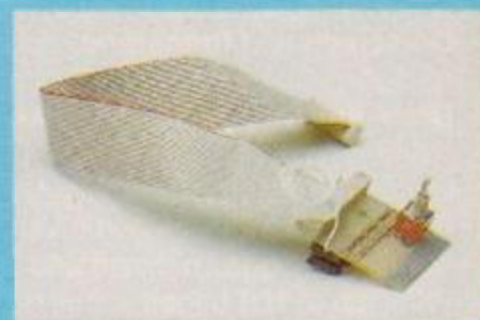
I'm not saying they're more reliable: with disks, you get what you pay for. So, an expensive 5.25" disk should at least in theory be better than a cheap 3.5". Do remember though, that 3.5" is becoming more and more popular every day.

DRIVE SWITCHER

Price not yet decided

Strathclyde Developments ☎ 0292 541283

An ingenious little device this. All it does (after it's been fitted to the inside of a 664/6128 – sorry, no 464 version yet) is switch drive A around with drive B. This might not seem too good, and if you have two 3" drives it isn't particularly amazing. If you have a large capacity second drive, though, it's excellent news. It means you can copy disk based programs across to the larger format (*Stop Press*, for instance) and run them on the second drive. (Or perhaps I mean the first drive, which was the second drive... Well, I know what I mean.)



▲ A drive switcher in the flesh (?)

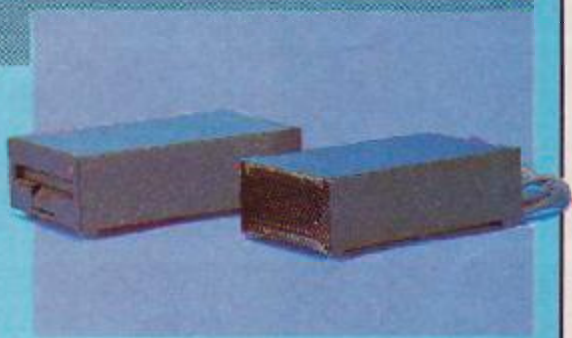
THIRD PARTY 3" DRIVE

£80-100

Supplies scarce

The supply of 3" drives manufactured by independent producers has dwindled considerably, and if there is a company still out there producing them, please let us know! If you can find a disk drive like these for sale, especially if it's offered at a reasonable price, then buy one. They're reliable and robust, and stand many years of hard use.

These drives generally come with a separate power supply, although I have known them to sell without a power supply or case at around £35. That's OK



▲ A 3" drive: if you find one, tell us!

for a *Soldering On* fanatic, but less than ideal for the average user.

file from it: doing this on a single built-in drive is just out of the question.

Rather more distasteful are the backup merchants, the people who collect cracked (de-protected) versions of games and save them onto disk. Large capacity second drives are good, because dozens of games can be saved onto them. 3" are often ignored entirely: they just can't handle the amounts of data. Mind you, they save disk swapping when pirating disks. Now, who would do a thing like that?

So it's clear that there's a genuine need for the devices: but just what can you get for your hard earned? We've tried out all the drives you see covered here, and as usual left you to make up your own mind... ●

RODOS

£29.95 ROM only

Romantic Robot = 01 200 8870

In contrast to *Ramos*, *Rodos* creates a new operating system rather than by simply patching the existing one (*Amsdos*). The result is very sophisticated. It can be set up using an inbuilt boot option: so customizing it to automatically configure to a particular system is no great programming chore. The number of commands and enhancements available is amazing - it allows the use of parent/child directories, so you can store collections of files together in a logical way.

Rodos also configures the 3" first drive into a 200K usable format straight away, again with a parent/child directories. It also continues to recognise standard disk formats. So transferring programs onto the new format is easy. There's even a collection of enhancer programs, called *Rodos Extra* (£14.95 see AA33).

Sounds good? Indeed it is: if you're prepared to put in the effort, *Rodos* really is incredibly useful. The only thing for which it's no use at all is CPM: just don't mix the two up, or you'll get double trouble.

Drive safely

Here's a few tips on getting a drive to behave:-

- The drive should follow the Shugart standard.
- No terminating resistor should be connected if you are using it as drive B.
- The drive must have a 'Ready' signal on pin 34, as well as its own power supply.
- The cable to connect them should be the correct connectors on both ends (this is different for the 464).
- Finally, a decent program for extra drives should be obtained (see below).
- Now plug it in and see if it works. Unless the drive isn't a Shugart type, it won't hurt your computer.

AMSTRAD FD-1

£99.95

e.g. MJC Supplies = 0462 32897

If you have a CPC464 with a DDI-1 interface you'll know this at once. It matches the first drive exactly. 664/6128 owners, however, tend to look down on this disk drive, as it is considerably bulkier than the internal drive on their machines. They also need a different lead to connect it up.

RAMDOS

£24.95 disk

Rom version (Romdos): £29.95

KDS = 04853 2076

Quite possibly the dullest of articles - which isn't to say it's not worth every penny. The whole point of the program is that it resets the disk parameters according to what you want, and then vanishes away. On the good side, it works well with CPM and CPM+, enabling those databases and spreadsheets access to a much larger storage area.

In many ways, *Ramos* is a good choice for the the average user. Apart from starting the program, there's really not that much to do. In itself though, this may represent something of a chore. So, KDS have produced a ROM version. Setting up with a second drive has never been easier.

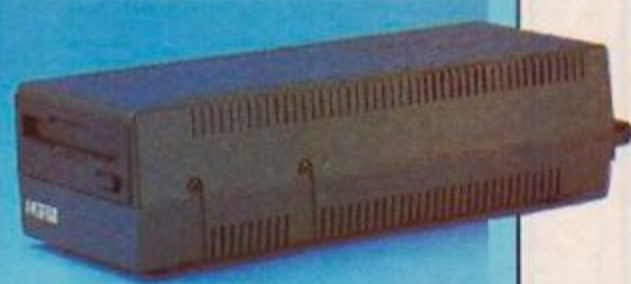
Its power combined with ease of use make it worthwhile. But it isn't the most powerful program available: that accolade belongs elsewhere...

Computer:

1. CPC 464
2. CPC 464 + 64K expansion
3. CPC 664
4. CPC 664 + 64K expansion
5. CPC 6128

RAMDOS installed in Bank No. 7
© 1985 KDS, Preston, Lancs. Tel: 04853 2076
Written by Dave Jackson-Brewer.
Press any key to continue...

▲ Ramdos: not very exciting, really



▲ Amstrad FD-1: the obvious choice

Second drive myths - exploded!

BANG! - 464 owners often phone to ask if they can connect a second drive without having a DDI-1 first drive. The answer is no. The DDI-1 includes the disk operating system ROM as well as the hardware to get the disks to talk to the computer: so don't get a second drive without getting a first. **CRACK!** - I don't need another wall socket, do I? Yes you do. A second disk drive - any second drive - needs another power point. It breaks the CPC maxim of 'everything on

one plug', but saves on the cost of installing a better power supply in the monitors and modulators.

KABOOM! - Do I need more software? Depends. A second drive on its own will behave just like a normal Amstrad 3" 178K beastie.

If the drive can store more data, a program such as *Rodos* or *Ramos* can patch the operating system to allow more storage space to be used.

HOT TIPS

PAT McDONALD passes on more of your hints

Just the ticket

Isotopes - the fantastic game on the B side of the cover tape on AA40. Just the ticket to keep you in joystick cramp for hours on end. One problem though: it doesn't work with a joystick! So for those who haven't a clue how to convert it, here goes.

Break into the program by typing ESC twice. Now enter these lines into it:

```
330 IF INKEY(72)=0 THEN d%=1
340 IF INKEY(73)=0 THEN d%=2
350 IF INKEY(74)=0 THEN d%=3
360 IF INKEY(75)=0 THEN d%=4
```

Don't forget to SAVE "ISOTOPES" afterwards!

Joel Hogarth, Walsall

Head solution

Recently my 464 stopped loading all but the simplest games. I sent it to be repaired, and three weeks later (after being charged £10) it came back with the message 'Tape Deck unrepairable'. I have

a disk drive, so the machine wasn't a total loss, but I wasn't very happy about the situation.

At the recent G Mex show I consulted Amstrad's technical person (there was only one). He suggested that the tape head had probably gone. I could have had it replaced locally, but I decided to have a go at repairing it myself. With amazing success!

For any readers who also have problems using their tape software:

- 1) Obtain a standard mono tape head (I got mine from Maplin Electronics #0702 554155. The order number is FQ64U, and it costs £3.50 plus P&P).
- 2) Remove the six screws in the CPC's base and open it up.
- 3) The keyboard side is connected to the base by two groups of wires. The connector nearest the tape deck should be gently pulled away.
- 4) The tape mechanism can now be removed by unscrewing the four red screws holding it in place. (Eject the

£20 anyone?

We welcome contributions to *Hot Tips*, and the best published each month earn their author £20. So what are you waiting for?

Address your work to:
Hot Tips, AA, 4 Queen St, Bath,
Avon, BA1 1EJ

lid to help it out.)

- 5) Another pair of hands are useful to hold the mechanism whilst you work on it.
- 6) The head should now be seen (it looks just like the replacement). Some of the later heads are larger than the original, but they all work.
- 7) Unsolder the connecting wires and unscrew the old head. Don't mix it up with the new one.
- 8) Place the new head in and screw it in place, then solder the wires back onto it.
- 9) Assemble the machine.

The new head will need aligning. You can either get the tape aligning kit from Interceptor or follow these steps. Find a thin long screwdriver and a long playing tape. Place the tape into the cassette recorder and press play. Turn the volume to about half way (it's very unlikely that you'll hear much at first). Now put the screwdriver into the hole on the front of the cassette unit, and adjust it by small amounts. When the music sounds the loudest, that's the best place. Try loading a game - it should work first time.

Matthew Pinder, Preston

Useful addresses

Some useful addresses for the 464:

- £B819: File type of last block loaded.
- £B1C8: Current screen mode.
- £B294: Lowest definable SYMBOL (default 240)
- £B1D9/£B1EA: Border colours.
- £B4EA/£B4E9: SPEED KEY (&B4EA),(&B4E9)
- £B285/6: Cursor X and Y position.
- &B32C/E: Graphics cursor X and Y position.



● Have you ever noticed how every Type-In to let you use double height characters uses a SYMBOL AFTER command? By sticking to the default characters, memory can be saved - but this means using the slow ROM routine TXT SET MATRIX or directly accessing the ROM.

On the 464, data for the 256 characters starts at £3800 with the 8 bytes for CHR\$(0) followed at £3808 with CHR\$(1) data and so on, but remember - this is in the lower ROM, not the RAM.

So, how do you access the correct data? I use the routine below.

```
LD A,ascii code
LD L,A
LD H,£7
ADD HL,HL
ADD HL,HL
ADD HL,HL
```

After the routine, turn the lower ROM on, and voila! HL holds the address of the correct data.

● While I'm on machine code, a lot of programmers would like to use

the 5K of RAM that Amsdos takes up (from £AC00 onwards). The only trouble is that this would overwrite the jumpblock, making it more difficult than ever to access the ROM routines for those useful tasks like reading the keyboard, producing sound etc. There is a way:-

- 1) Don't erase £B982-£B9B0.
- 2) Find the ROM address of all the routines you want to use.
- 3) Somewhere in RAM, put CALL £B982 before your addresses.

Example: TXT OUTPUT (&BB5A), ROM address £9400. So in RAM, put this routine:

```
print: CALL £B982
DB £0,£94
```

You can use as many ROM routines as you can fit in memory but remember to put CALL £B982 before each ROM address. Oh, and &B982 POPs an address, so in the example above the &0 and &94 are not executed.

● One last point - remember you are creating a jumpblock so don't incorporate the CALL £B982 into a routine. Below is an example to print a string.

```
LD HL,string
LD B,14
pl: LD A,(HL)
CALL print
INC HL
DJNZ pl
RET
print: CALL £B892
DB £0,£94
string: DS "Amstrad Action"
```

All these have been tested on a 464, so 6128 owners should not depend on them working. If anyone wants to exchange tips and ideas, then please get in touch.

Michael Gledhill, 21 Newtake Rd,
Tavistock, Devon, PL19 9BX

Very good indeed Michael. £20 will arrive shortly.

ARMY STORES

Nearly everyone at some time or another gets a strong urge to use the CPC for something useful, such as storing lists of information. After all, you're not exploiting its full potential if you treat it simply and solely as a games machine. The trouble is that there's an imposing amount of jargon to plough through. The route to enlightenment isn't

particularly well signposted, either: it's fine to be told 'get a database', but in itself this isn't terribly helpful advice. It would be a bit much to claim to offer in two pages a complete guide to using databases on the CPC, but if at the end of it you're a little wiser than PAT McDONALD'S effort will not have been in vain.

Extract from a letter recently received:

"I am an electronics technician and would like to use my CPC464 to store the following information on cassette:

i) Type of equipment (One of four types)

ii) Fault on equipment

iii) Cure for fault

So an example might read something like:-

Type	Fault	Cure
Towed	EHT Trips out	PSA

I would like to be able to hold several pages like this and be able to start a new page, add the info required and be able to refer to previous pages."

- L/Cpl S Vickers, RSA Larkhill

Computers are regarded by non-users as mysterious sources of knowledge: just recall those dreadful novels, films and TV series where the obscure clue is discovered by someone frowning at a monitor, pressing a few keys and exclaiming, 'Hang on, I think we might have something here!' What is not appreciated is that the storing of information on a computer is in itself no use to anyone. Add the processing power, though, the ability to look up and cross reference facts and figures, and you *have* 'got something here'.

Generally speaking computer databases are complete stores of records for one particular subject. So a full club member-

ship list would comprise one database. It might be stored in lots of different files: perhaps it would be split alphabetically. But it's only one database. One database could be comprised of a series of files (CATALOGUE a disk or tape: a list of the files on it will be displayed). In each file, there would be various records (defined here as individual complete entities: perhaps a member of a club, or a piece of faulty equipment in the case of L/Cpl Vickers.)

On each record would be a series of fields (an area which can store one piece of data for a record). So, the name field of a club database would have a member's name in it: the address would have the address etc. In L/Cpl Vickers' case, there are three fields: type of equipment, fault and cure.

There wouldn't necessarily be just the three fields per record, however: he wanted to store several different types on one page (one record). This would be easy enough, by having say 15 fields, so making 5 subjects per record. No hassle.

Record collection

There are five activities associated with databases:

Data Setup: deciding on the structure of a database is an important task. How many records? How many fields? A field that isn't used much should be eliminated, in order to make more room for more. On the other hand, including a field you missed to begin with can be a tricky job on some database programs, more so if you have started entering data.

Programming

Databases are huge arrays of connected data. The searching criteria are generally not complex: 'find all records that begin with S', or 'Remove all males over 55'. Occasionally some searches are requested

that are more complex. When one particular field is used often for searches, it makes sense to have that field first in a record.

The reason for this is that the computer has to search each record for

the field to be checked, and it makes for quicker searches for it to find it first rather than last. In this, databases are one of the few occasions when what the end user does affects the performance of a program.

Data Entry: to have a database, of course, some poor soul has to sit down and enter it all. Once completed, few people find the need (or indeed the inclination) to enter the information all over again.

Calculating sort

High tech uses are more specialised. 'Knowledge bases' are allied to databases, except that they contain conditions and results for situations. From these, programs called expert systems make calculated guesses at predicting results for real occurrences. In simple terms, computers that can tell you if your plane is about to crash (so you know for sure you're going to die), or can recommend a heart/lung transplant for a sick patient. The impressive thing is, they'd usually be right.

Data Search: this is the general, everyday usage. Some database programs allow you to specify a few general characteristics to search for. A technique used by many junk mail senders, I suspect. Anyway, sorting records by contents is an important job, and is included on most products.

Data Print: a task not only used for printing out target records - sometimes it becomes necessary to divide an over-large database into several smaller databases.

Data Update: any database is only as useful the accuracy of its data, so regularly checking and correcting errors is a vital part of using any database. This is almost as tedious as Entry.

They're the bland jobs, and to be perfectly honest they're not much fun. The purposes you can use a database for are much more interesting. At the home user side, there's making lists of collections: stamps, coins, music recordings, and so on. Business users find them useful for customer lists, stock control and product statistics. Individuals of all types find databases very useful: in a way, the programs are silicon paper, able to store information for studying later.

DATABASES ON THE CPC

Once upon a time there were lots and lots of Amstrad databases. Three have stood the test of time: *Masterfile III* from Campbell Systems, *Random Access Database* by Minerva Systems, and *At Last Plus* published by Rational Solutions.

There's also a database included with *Mini Office II*. And to those still unsure about how useful a database program can be but would like to find out, we have included just such a program in this month's *Type-Ins*.

ATLAST PLUS

£39.95 CPM+ only
Rational Solutions ☎ 056681 511

This is a database that uses the disk drive, and so the capacity is very large (particularly if you have a second drive attached). Indeed it can cope with up to 32,000 records, which would fill a hard disk drive. There's also quite a good manual, which helps.

Some of the options are pretty advanced: fields can be further subdivided into elements, for instance, which means that the amount of detail that can be held on an individual record is very good indeed.

Another of the more powerful features is the report generator, which can produce all sorts of statistics on databases. The only fly in the ointment is the lack of calculating features, but that still doesn't detract from the power of this program.

RANDOM ACCESS DATABASE

£39.95 disk only
Minerva Systems ☎ 0392 37756

'Random access' is the somewhat useful ability to step to a particular location without passing through the intervening space. Clever. Since databases are long lists of records, they're generally sorted by sequence, going from one to the other. This product lets you go straight to a given field, saving you lots of your valuable time.

The capacity is large - 3000 records

When the program first runs, it requests the total number of fields you require. The maximum capacity the program can handle is 15 fields of 30 characters, each with a name of not more than 15 characters, to make a total not more than 201 records (0-200).

In other words, no more than 201 items can be stored, each having up to 15 characteristics. The capacity of these can be up to 30 letters or numbers long, and each can have a title ('name', 'age' etc) of no more than 15 letters or numbers.

Let's use the example that L/Cpl Vickers

EASIBASE

RECORD #	Equip. Type	Notes	Field #	Action
1	A) Equip. Type	Towed	8	EXTRA OI
2	A) Fault	EMI trips out	1	ALTER AL
3	A) Decision	PBA	2	ALTER PI
4	B) Equip. Type	155mm howitzer round	3	ALTER ON
5	B) Fault	Doesn't go bang	4	ADD FIE
6	B) Decision	Hit with hammer	5	DELETE I
7	C) Equip. Type	Bowden lorry	6	CHANGE I
8	C) Fault	Dirty	7	DELETE I
9	C) Decision	Clean it		
10	D) Equip. Type	CO		
11	D) Fault	Senile		
12	D) Decision	Force into early retirement		
13	E) Equip. Type	Technical Editor		
14	E) Fault	Sarcastic pillock		
15	E) Decision	Shoot him		

▲ This is what's required

requested 700 words ago. The first thing to do is to set the number of fields to 15. Why 15? Well, that way we're using up all of the available space: we'll subdivide those into lots of five, with the three fields

each that are needed. Once that's been achieved, the names of all the fields must be entered. After that, it's over to you to actually put in the information required, L/Cpl Vickers.

MINI OFFICE II

£14.95, £19.95 disk all CPCs
Database Software ☎ 0625 879940

As mentioned earlier there is indeed a database program within this com-



▲ Mini Office II - Database's moneyspinner

pendium of business utilities (word-processor, accounts, spreadsheet and comms are the others). The database is pretty simplistic, but has the advantage of being relatively easy to learn. Setting up a database is simple indeed, and entering the data is only a bit tougher.

What the program lacks is some real storage ability: it can have up to 25 fields, and a couple of hundred records. It's not really enough for real memory munchers, but for the occasional one off *Mini Office II* is OK.

MASTERFILE III

£34.95 cass ,128K disk only
Campbell Systems ☎ 0378 77762

The main feature of this product is the way records can be related. A record of one software house, for example, which produced several games in a collection could be a parent record: each game would be a child record, set to point towards the parent. This saves memory over the conventional approach of having to repeat some fields.

Designing the way in which records are presented to you is selected from a menu, which is a little clumsy. Some calculation on fields is possible, but it doesn't have the same capacity as, say, *Random Access Database*. You can reserve 'search templates', which are lists of words for the program to search for. Better than just one or two condition searches.

PROBLEM ATTIC

Quite openly offering people assistance is PAT McDONALD

Bard's Tale question

I think the *Bard's Tale* is the best game ever. One thing though, the manual says that the ? key will print the time of day, plus the location of the party. It doesn't

work! Why? Can you or any readers do a program to get the feature to work? I have the disk version.

Ian Garnett, Oldham

There probably wasn't enough time/memory/inclination to include everything in the game, but as you say it's a cracker without this function. As for getting it working, well that depends really...

One possibility is that the time function isn't implemented too well within the game, in which case printing it would be difficult. I daresay it could be done: we'll just have to wait and see if we get a program that fits the bill.

```
10 MODE 2:CAT
20 RESTORE 50
30 FOR z=&BF00 TO &BF06
40 READ b$:POKE z,VAL("&"+"b$")
50 NEXT z
60 DATA cd,60,bb,32,07,bf,c9
70 PRINT #8
80 FOR x=1 TO 80
90 FOR y=1 TO 21
100 LOCATE x,y:CALL &BF00
110 a$=CHR$(PEEK(&BF07))
120 PRINT #8,a$:
130 NEXT y
140 PRINT #8
150 NEXT x
```

Convert's prayer

I am in the midst of getting the bits and pieces together for the great 464-6128 conversion. If I also bought a copy of CPM+ would the CPM+ version of *Protext* work OK? If you also said that absolutely any 6128 program will work on a converted 464 then I would be ecstatic.

B S J Pandya, Wirral

Well, as far as we've been able to ascertain, the 464 with a 6128 ROM, disk drive and 64K extra RAM does seem to be a dead ringer for a true 6128. We test everything we get, and if it should come to pass that a program isn't compatible, we'll let you know. Fair? (If you, dear reader, know different, please get in touch!)

CAT among the printers

Is there a way I can catalogue a disk or tape to my Citizen 120D printer?

A Thomas, Dorset

Just type in and use this listing. Be warned that for tapes you should press ESC twice, and then type GOTO 20. Sorry about this, but the command CAT works differently for tape and disk.

Compat-ability

I am thinking of purchasing the Amstrad DDI-1 disk drive for my CPC464. I would like to know if the *Multiface II* is compatible with my system for transferring games (all originals) from tape onto disk.

Also, can the CTM640 monitor (the one without the built-in 12 Volt socket) be used to power the DDI-1 disk drive - or does the drive have its own external power supply?

David Mayden, Stoke-on-Trent

The combination works very well, although very occasionally the connectors wobble and the machine crashes. This happens fairly frequently when you have multiple interfaces connected to a 464, and although it's annoying I can't really class it as 'incompatible'.

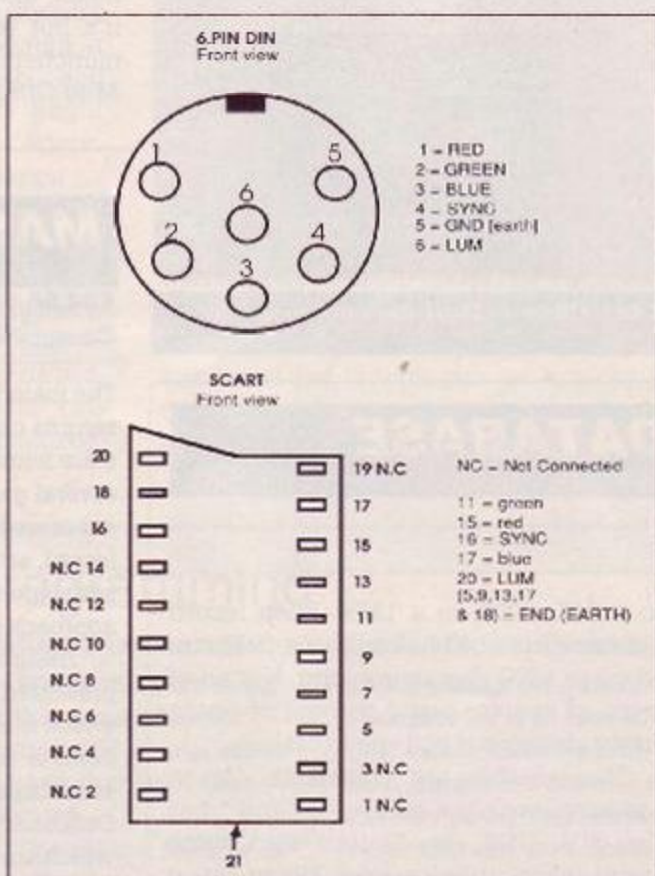
Both the FD-1 and the DDI-1 have their own power supplies, so there's no problem at all.

Don't drift off like that!

I have a 6128. When I connect it to the TV via the MP2 modulator and start to play games, it starts to drift off tune very quickly. The TV is a 22" Salora. It's only a year old and there are no other problems with stations or the video channel. Is the MP2 at fault? I would prefer to connect the computer to the TV from the RGB monitor socket to the Scart Eurosocket on the TV. Is there a ready made lead to do this on the CPC? If not, could you please tell me the pin connections etc.

Kevin McNally, Newry

The pin outs of the Scart and CPC connectors are as in the illustration. Using these, any electrical repair bod worth his socks should be able to make a cable for you. (And charge you for it.)



Gone west

Help! I purchased *Toadrunner*, and I'm having problems. I have written to Ariolasoft (who make the game) but they cannot help as the programmers left over a year ago. They suggested writing to you. I don't know if it's a bug in the program or what but I can't use any of the items lying around and therefore can't get past 1%. I am at my wits' end.

Mrs J Green, Livingston

Unfortunately Ariolasoft themselves have now long gone west. The game is a bit before our time here on AA. Has a reader got any tips they'd like to send in?

Totally eclipsed

Your Christmas free gift was fantastic. But could you please explain how the instructions for the programs have been written and hidden in the help file. I couldn't find any clues to the data when I LISTED the program.

S Ismail, Dundee

The secret is to have a copy of Protex on ROM. Just type in the Basic program, and |P. Now put in your text file. QUIT, and adjust the FOR-NEXT loop to the correct length. When you SAVE the program, the text is saved with it.

Spaced out man

Can you tell me please what word-processors are available for the CPC464. Also, my spacebar doesn't work on one side - any help on that one?

Nicholas Hughes, Portsmouth

The choices available are Protex from Arnor (☎ 0733 68909) which costs £19.95 on tape, and Tasword from Tasman (☎ 0532 742928), priced the same. Protex is much faster but a little more difficult to learn. Tasword has lots of menus but the speed isn't up to much. You pays your money...

The keyboard goes wrong often, because it's a moving part. Very likely it's a metal insert that's come out of place. However, if your machine is out of guarantee, I would urge you to use a repair specialist unless you are confident in your repair abilities. Having a keyboard gunged up because of over enthusiastic gluing is a nightmare.

If you feel fine about opening your machine up, do so. Separate the two halves by unplugging the two connectors. Now look at the keyboard half. Carefully undo the screws holding the keyboard plate in, and gently lift it up. (If you don't do this carefully, you'll now be covered in lots of coloured keys. Keep them all together - losing one is a major disaster.)

What you will probably find is that a small metal tag has come out of one end of the spacebar. Glue it back in, and leave the machine until it's dry. Then put the machine back together, and you shouldn't have any more trouble.

If you do need a repair company, try Analytical Engineering on (☎0702 618455). Bear in mind that keyboard replacement is very expensive, so try to convince them to repair it.

Bright and queasy

I recently purchased an Amstrad CPC464 computer with a colour monitor, but have found that the colours on the screen are too garish. Noting the absence of colour or contrast controls (as one would find on a television) I rang Amstrad to see if something could be added.

The representative was apologetic but advised that this was not the case. While I can probably arrange for the dealer to adjust the monitor to my particular taste (or obtain a refund) I would obviously like the flexibility of being able to adjust the set to suit the varying circumstances.

Is there anything to solve my problem? Would I be better advised using a colour TV instead of a monitor? If I do this, how about picture quality?

I Burdett, Horley

Background cover

I am currently learning assembler with the help of Maxam and a few books. I can't understand yet how to do sprites or three channel sound. Hopefully The Look will come up with the goods soon, but how about backgrounds? I never did understand how games could store so much information. And how can I set up a disk so that it's impossible to CAT? I have a 464.

David Gibbon

The background data for games is set up in a modular form. Let's take a jungle

style background. All that games do is record where each tree is, and then have just one tree in memory. When a particular piece of background is put onto the screen, then the computer looks up where each tree has to go, and copies the same picture to that position.

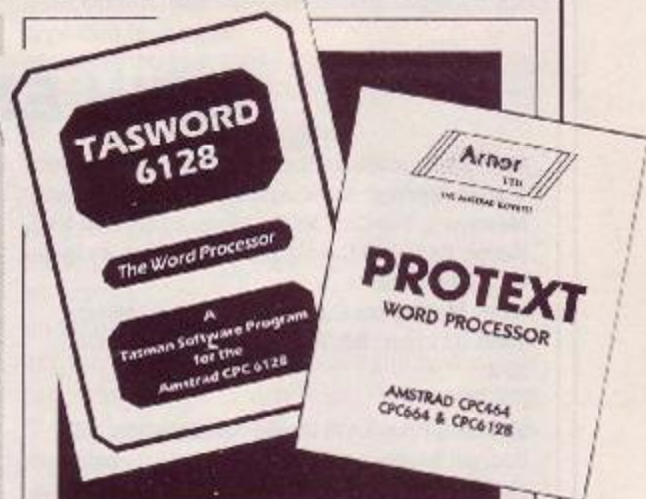
To vary the backgrounds you could have more than one picture of a tree, but the saving in memory would not be so good. (That's why games with large playing areas tend to be rather boring to look at.)

There are innumerable

ways to set up a disk as you want, the easiest being to stick all the directory entries into a different user area. So, set up a variable with a number from 0-15, and then change the user to that number. Any data saved will go to that area, so a casual CAT will not reveal it.

```
a=15:|USER,@a
SAVE "filename"
CAT Make sure it's there!
a=0:|USER,@a
CAT It's vanished.
```

Although the program will LOAD Ok, to CAT it you would have to type in a=15:|USER,@a again.



▲ Protex and Tasword: both have things to recommend them, and the final choice is yours

Yes, computer colours are garish. Adjusting colour/contrast is a case of reaching inside the computer and twiddling a few knobs. It might be possible to persuade an electrical repair shop to install some more knobs on the surface that repeat these controls.

Buying a TV monitor will give you the control you want, but you will notice the comparative lack of clarity and resolution.

One cheap and simple solution would be to buy a screen filter made out of transparent plastic that will tone down the colours. You lose some brightness, but it's worth it. ●

But what exactly is the problem?

I have a 6128 with colour monitor. When I plug the computer into the monitor, the screen goes on. It also constantly moves diagonally like an old TV. When I use my friend's computer this doesn't happen. Which part should I take to be mended?

T Horsman, Beckingham

Before you rush off to a repair shop, take a look at the back of the monitor. There are two knobs, one can be turned with your fingers, the other needs something like a screwdriver to turn. By twiddling these you might improve your picture.

Far more likely though is that the computer-monitor connecting lead has been damaged. Take the monitor to a TV repair shop - they should be able to sort out the problem if you explain it carefully. It's almost certainly not the computer.

Get 'em off!

Get your contributions off now to:
Problem Attic, AA, 4 Queen St,
Bath BA1 1EJ

AA helpline

NEW ENTRIES

Tips, pokes, maps for Rebelstar, Xael, Magic Knight Trilogy, Equinox, Zoids, Antinac, Sentinel, Aliens, Mercenary, Tau Ceti, MGT, Dragon's Lair, Icon Jon, Nether Earth, VB Cave Adventure, asking for help on Zombi, Driller

Steve McClay (no Steve, we haven't forgotten you!), 32 Lycett Rd, Wallasey, Merseyside, L44 2DA

Anyone got an AA18 they're willing to part with? Poor old Debbie can't get hold of one - it's out of print. (We did look in the office for one for you, Debbie: no luck.)

Debbie Bainbridge, 16 George St, Ystrad Mynach, Hengoed, Mid-Glamorgan CF8 7BJ

Renegade, FMI&I, Superstuntman & about 8 trillion others

Richard Ruane, 97 Cobden St, Darlington, Co Durham DL1 4JD ☎ 0325 58745

Hitchhikers, Tasword, some BASIC, Matchday II, Pagemaker

Ben Taylor, 5 Hope St, Old Glossop, Derbyshire SK13 9SB ☎ 04574 62023 between 4-6.30pm only

Penpals please! (Good luck with the A levels - Steve)

Paul Scott, 13 Kiln Crescent, Bishop Middleham, Co Durham DL17 9AP

Grand Prix Simulator, Who Dares Wins 2, Speed King, Paperboy etc. plus pokes, maps, trillions of programs and help with Basic and machine code

Steven Flynn, 76 Dunlop Rd, Tilbury, Essex RM18 7AU

Oblivion, Locomotion, One Man + his Droid, Army Moves, Space Harrier, Project Volcano, Thunderzone, Gunstar.

James (11) ☎ (0458) 73926

Millions of pokes, maps, tips etc. Send SAE for full list

Scott Paterson (got it right now, we hope Scott!), 8 Moor Lane, Thornton, Liverpool L23 4TW

AA type-ins, Basic, DMP 2000, Adventure programming, Laser Basic, screen dumps, most football games.

Adrian Sill, 19 Sherwood Drive, 5 Lane Ends, Skelton, Doncaster, South Yorkshire DN6 8NY

Matchday II, Buggy Boy, Tetris, Nigel Mansell's Grand Prix, Soccer Boss, Jet Bike Simulator, Super Stunt Man.

Craig Thomson, ☎ (0698) 51177

Raid, 180, Star Raiders II, Beach Head II, Death Wake, Sir Lancelot, Footballer of the Year, Nonteraqueous, SD Snooker, GP Simulator, Leaderboard, Desert Fox, Aliens, Champ Basketball, Champ Baseball

Michael Dickinson, 281 Tyldesley Road, Atherton, M29 9AL

Solving Basic bug, most machine code programs

Enclose listing + description of program +) If poss

Tips on Dizzy, Grand Prix Rally II, Superstuntman and loads more. Cheat Modes 25p & sae per order. 464 only.

K. Gillard, 80 Wentbridge Rd, Bolton, Gtr. Manchester BL1 2QR ☎ 0204 399198

The reach out collection: 10 good games: Art Studio, Ace Test, Reach Out & others. Send £1 & sae & disc

Rowan Griffin, 6 Charles Rd, Frome, Somerset, BA11 1NT ☎ 0373 63389

Hints/pokes Gauntlet, Gryzor, Ikari Warriors, Super Stuntman & others

Alex Henshall, 44 Badger Rd, Tytherington, Macclesfield, Cheshire SK10 2EP ☎ 0625 25690

Help on Basic programming, DMP 2000, short machine code routines (workarounds), soldering on articles, readers' ideas for type-ins &c

Rafe Aldridge, ☎ 01 505 5600

Sheets of pokes for over 70 top games for use with Multiface. Send large SAE

Stephen Trimmer, 24 Vale Rd, Broadstairs, Kent CT10 2JQ

De-bug Basic programs, help with m/code. Send tape & listing if short prog.

Andrew Price, 27 Ashwell Walk, Houghton Regis, Dunstable, Beds LU5 5QA ☎ 0582 868557

enclose cassette with program on 464 only. If machine code enclose assembler listing.

Paul Jones, 78 Fitzwilliam Street, Swinton, Rotherham, S. Yorkshire, S64 8RW

Radzone, Ghosts and Goblins, Knight Tyme, Dragons Lair, Green Beret, Gauntlet, Feud, Starquake (codes), Boulder, Boggit.

David Brooke, 8 Birkby Grove, Bilton Grange, Hull, HU9 4PZ

Basic programming, some machine code.

Paul Bower, Elm Gable, Hermitage, Newbury, Berks. RG16 9SA. ☎ (0635) 200891

Feud, BMX Simulator, Equinox, Who Dares Wins 2, Frank Bruno's Boxing, Shogun, Green Beret, Paperboy, Terminus, Jailbreak, Curse of Sherwood, Nemesis, Ghostbusters, Willow Pattern, Amarote, Spellbound, Hunchback Bombjack

Basic programming, machine code programming, firmware calls, Amsdos calls + accessing them, adding second drives (3in + 5.25in), tape loading problems, multiface two, printer problems.

Feeling helpful? Just send your name, address, phone number (say if you don't want it printed) and subjects on which you're offering help to: Helpline, Amstrad Action, 4 Queen Street, Bath, BA1 1EJ. Write on a postcard/back of a stuck down envelope and keep it short or you won't get in (or you'll get cut to 'loadsagames').

If you want help contact the appro-

Kevin Bryant, Jessamine Cottage, Chapel Lane, Ashford Hill, Newbury, Berks. ☎ Tadley 71792

Programming in basic (mostly utilities), Protect, Toolkit (Beebugsoft), DMP 2000, Utopia, Printmaster, listings 15p (draft) or 30p (NLO), Artwork (Kuma), tape only.

Matthew Cawley, 42 Hamilton Av, Sandycroft, Deeside, Clwyd, CH5 2PB

Stormbringer, Eagles Nest, Indiana Jones, Short Circuit, Curse of Sherwood, Suard of Inovar, Batty, Lightforce, Lord of the Rings, Worm in Paradise, Venom, some hacking.

Nicholas Roach, 5 Hintlesham Close, Stowmarket, Suffolk ☎ 0449 674848

Enduro Racer, Bombjack 1 and 2, Yie ar Kung Fu, Buggy Boy, basic programming.

Alex Kelly, 113 Potter Street, Northwood Middex, HA6 1QF

Send program and tape and I'll draw a loading screen for you. Enclose description. CPC 464 only.

Andy Van-Kerro, 42 The Avenue, Ramsey, Huntingdon, Cambs, PE17 1AU. ☎ 0487 813194 10am-10pm

3 Weeks in Paradise, Renegade, Knight Tyme, Ninja, Flash Gordon, Grand Prix Simulator, Ghosts and Goblins, Yie ar Kung Fu.

Mark Warriner, 92 Whitfield Avenue, Pickering, N.Yorks, YO18 7HY

Cobra, Yie ar Kung Fu, Green Beret, Bruce Lee, Rambo, Ghostbusters, Gauntlet, Gauntlet II, Mission Genocide, Chronos, Ninja, Trantor, word processor writing.

Andrew Given, 83 Dickson Street, Edinburgh EH6 8QH. ☎ 031 554 5001, call after 5pm.

Ikari Warriors, Football Manager Europe, Into the Eagle's Nest & loadsamoregames.

Richard Ruane, 97 Cobden St, Darlington Co Durham DL1 4JD ☎ 0325 58745

Amstrad 464 disc, DMP 2000, wants penpals. SAE to **D Aspey**, 111 Crawford Ave, Tyldesley Nr Manchester M29 8LS.

☎ 0942 876997 weekend

Loadsagames.

Paul White, 17 Garnet Crescent, Salterbeck, Workington, Cumbria CA14 5ER

Over a hundred pokes, tips and mega-maps.

Martin Dillon 176 Coal Clough Lane, Burnley, Lancs BB114NJ

Basic machine code, C, Forth, CP/M, Electronics, Graphics.

Kevin Groves, 11 St Edmunds Rd, Deal Kent.

Radzone, Ghosts and Goblins, Knight Tyme, Dragons Lair, Green Beret, Gauntlet, Feud, Starquake.

David Brooke, 8 Birkby Grove, Bilton Grange, Hull HU9 4PZ

private Helpliner - not us. By post include a self-addressed, stamped envelope for the reply - or you won't get one. And phone only in decent hours!

Piracy is not welcome: don't try it, you'll get booted off. Keep it legal. And if you receive SAE's, for heaven's sake return them with some acknowledgement. If you want to come off Helpline write and say so.

ABSOLUTE BEGINNERS

Basic for beginners with **ANDY WILTON**

We now know two different sets of looping commands. Let's compare what they do

In a FOR-NEXT loop you set a variable to some starting value. Each time the loop is repeated a fixed number is added – the 'step size' – to this variable. The loop stops repeating once the variable goes over some given upper limit.

In WHILE-WEND loop, things are much simpler. You don't set or add to any variables, unless you give separate commands telling the CPC to do so. The loop just keeps repeating and does nothing else. It stops repeating when the WHILE condition stops being true.

Loops apocalypse

So far we've only skimmed the surface of what loops can let us do. Our program draws a square falling towards the bottom of the screen, but you could do much more complicated things with it if you wanted to. Using just one loop or even a series of loops one after another doesn't get at the real power of looping. Before we get any further we'll have to get rid of that falling-square program. We shall need it later on though, so rather than typing NEW straight away we want to save it.

It's a good habit before saving anything to label it by tacking a few REM statements to the top of the program. Six months later with a heap of cassettes or disks to sort out, you'll be glad you did.

1 REM Falling Squares

2 REM Absolute Beginners AA Feb 88

If you have a disk drive you've got things easy – just shove a formatted disk in the drive, type SAVE "square" (return), and after a few seconds of whirring you'll have your program safe and sound on your disk.

If you've got a drive-less 464, just put a cassette in the data recorder and type SAVE "square" just as you would for saving a program on disk. You will then be asked to Press REC and Play then any key. Do just that, and the program is saved. It'll take longer than a save-to-disk would, but for a program of this length it's probably worth the effort.

Now that you've saved the square-dropping program, type LIST. You'll find that the program is still quite unchanged. The SAVE command doesn't move the program onto your disk or cassette: it just makes a copy there, leaving the original intact in memory.

Knowing that we've got a copy safe on

cassette or disk, we can use NEW to get rid of the original. When you've done that, try typing in this listing.

```
10 FOR a=1 TO 10
20 PRINT " 5 times ":a;" makes ":5*a
30 NEXT a
```

This just prints out the five-times table – hardly exciting stuff, I'm sure you'll agree. Now, modify line 20 and add new lines 5 and 35, so the program ends up looking like this:

```
5 FOR b=1 to 10
10 FOR a=1 TO 10
20 PRINT b: "times " :a:" makes ":b*a
30 NEXT a
35 NEXT b
```

Try to guess what this is going to do. Then run it, to see if you were right.

Here we go loopy-loo!

Now you know what the program does, but the question is why? Well, think about the loop formed by lines 5 and 35. This tells the program to repeat all the lines in between – lines 10 to 30, in other words – while stepping through values of b from 1 to 10. We know what lines 10 to 30 used to do before we modified line 20: they just printed out the five-times table. The change to line 20 just means that they now print out the b - times table, whatever b is.

The first time through the FOR b=1 TO 10...NEXT B loop stops repeating.

Our program has two separate loops, one inside the other. There is a special term for loops like this: we say they're nested. The outer loop – which starts first and ends last, in the case the FOR b loop made by lines 5 and 35 – simply tells the CPC to repeat the lines in between. These lines include loop commands that form an inner loop – the FOR and NEXT command in lines 10 to 30, in the case of our program.

As you know, the FOR b=1 TO 10 makes the CPC run through the outer loop ten times. Each one of these ten times, the inner loop is repeated ten times. In other words the line inside repeats the inner loop – line 20 – gets repeated 100 times. All that printing scrolls off the top of the screen pretty fast, but the program really does print 100 separate messages – take my word for it.

Let's try another program that makes this

a bit clearer. NEW the times-table program and type this in instead:

```
10 PRINT "Line 10"
20 FOR a=1 TO 3
30 PRINT "Line 30: a=":a
40 FOR b=1 TO 4
50 PRINT "Line 50: a=":a:" b=":b
60 NEXT b
70 PRINT "Line 70: a=":a
80 NEXT a
90 PRINT "Line 90"
```

You should now be able to see the flow of the program – the way it repeats lines according to the loop commands – by looking at the messages printed up when you run it.

Something nesty

Loop commands come in pairs. They tell the CPC to repeat all the lines between the start (FOR or WHILE) and the finish (NEXT or WEND) of the loop. If these repeated lines include the start and finish of another loop, that's okay – we just have a nested loop as above. But what happens if we have this second loop starting in the repeated lines and finishing after them?

Take a look at this listing and you'll see what I mean:

```
10 FOR a=1 TO 10
20 PRINT a
30 FOR b=1 TO 5
40 PRINT b
50 NEXT a
60 NEXT b
```

This is called bad or improper nesting, and the CPC can't cope with it. I can't see what it's supposed to do either. This kind of thing happens only if you're careless. If you're nesting loops, make sure the inner one is completely inside the outer. That way you'll always be OK.

All fall down

Nesting isn't just about putting FOR-NEXT loops one inside the other. You can nest WHILE-WEND loops, put FOR-NEXT inside WHILE-WEND's or vice-versa.

Reload the 'falling square' program you saved earlier. If you're a disk user simply put the disk onto which you saved back into the drive, the same way as before, and type Load "square".

The disk will whirr, you'll get the 'ready' prompt and, when you list it you'll find you've got the program back. Tape users have to rewind the tape and then type Load "square". You get the message press PLAY' and then any key. Do this, and your program loads back in.

Now you can experiment with your program. Try putting an outer FOR-NEXT loop around it to make it fall repeatedly.

You could even use the loop variable as a sideways co-ordinate so that the square falls slightly further over each time. ●

Next month *Absolute Beginners* moves onto GOSUB



13 CASTLE AVE., ROTHERHAM, S.YORKS. S60 2JN

*** CRAZY JOE'S TOP 20 ***

	CASS	DISK
Batman.....	£6.95	£10.95
Operation Wolf.....	£6.45	£10.45
Pacmania.....	£5.95	£10.95
Thunderblade.....	£6.99	£10.99
Afterburner.....	£6.99	£9.99
Savage.....	£6.99	£10.99
Tiger Road.....	£6.99	£10.99
Return Of The Jedi.....	£6.95	£10.95
Total Eclipse.....	£7.45	£11.45
Mega Games Vol. 1.....	£9.99	-
Fun School.....	£4.75	-
Robocop.....	£6.45	£10.95
Fernandez Must Die.....	£6.99	£9.99
Typhoon.....	£6.45	£10.95
R-Type.....	£7.49	£10.99
The In-Crowd.....	£9.95	-
Spitting Image.....	£7.45	£11.45
History In The Making.....	£15.99	£19.99
Hero Of The Lance (!?!).....	£7.49	£11.49

We Stock 'Cheetah' Joysticks

- Challenger.....£4.45
- Cheetah 125+£7.45
- Mach 1.....£9.45
- Star Fighter.....£12.95

Bargain Basement

- Dun Darach.....£0.99
- Marsport.....£0.99
- Muggins Spaceman.....£0.99
- How To Be A Hero.....£1.99
- Firetrap.....£1.49
- Zorro.....£1.99
- Saracen.....£1.99
- Dambusters.....£1.49
- Starglider.....£4.95
- Eye.....£1.99
- Gothik.....£1.99
- Guerrilla War.....£4.95
- Enlightenment (D).....£4.95
- Pepsi Mad Mix.....£3.95
- Hacker 2.....£1.45
- Chain Reaction (D).....£2.50

Secondhand Software

Guaranteed Originals

- Acrojet.....£3.00
- Blood Brothers.....£2.00
- Doomsday Blues.....£1.00
- Gunship.....£5.00
- Magnificent 7.....£4.00
- Solomon's Key.....£2.00
- Starstrike 2.....£1.50
- Sweevos World (D)..£2.00
- They Sold A Million...£1.00
- Zoids.....£1.50

Please 'Phone For Availability

All Prices Include
P & P In UK
E.E.C. Countries Add
£1.00 Per Order

BUDGET
TITLES
£1.75
+
£2.50

Free Catalogue On Request
100's Of Titles In Stock

POST
NO
BILLS

TEL : ROTHERHAM (0709) 829286

TELETEXT

A world of information
at your fingertips

A Microtext Adaptor turns your 464 or 6128 into a sophisticated Teletext Receiver. Giving you access to any of the hundreds of free pages from Cefax or Oracle. As well as up-to-the-minute news or football results, there's the local weather or even bargain holidays. And Teletext caters for special interests, like computing, motoring, or gardening, you'll find things to do and places to go in your area plus much much more.

But unlike a Teletext TV, a Microtext Adaptor allows you to do a lot more with the information, you can save a page to disc or cassette, perhaps to keep a watch on share prices, or print pages like what's on TV. There's free software too! Amstrad software is broadcast in a special format on Channel 4 for Microtext users to download. Plus you can access and use Teletext data from your own programs, providing endless possibilities.

The Microtext Adaptor fits neatly on the expansion port, it comes with software and is very easy to use. Just connect it with the lead supplied to the VIDEO OUT or AV socket of a video recorder and change channels with the controls on the video or there's our own Tuner which has been specially designed to provide the signal that the Adaptor needs, plug in an aerial, it tunes itself in (!) and channels are selected from your keyboard. Tune into Teletext, a world of information at your fingertips.

'A well thought out product that performs admirably.'
Amstrad Action Dec 87

A Microtext Adaptor for use with a video is only £74.95 Adaptor and Tuner just £124.90 Prices include p/p & VAT.

Instructions are provided to transfer software to disc. Discs are available for £5.00 extra



Please send cheques/PO's to



MICROTEXT

Dept AA 7 Birdlip Close, Horndean, Hants PO8 9PW
Telephone: (0705) 595694

SOFT
SHOP

SPECIAL PURCHASE FOR 464/6128 USERS

THE AMAZING
AMD RUM
DIGITAL DRUM SYNTHESISER

INCLUDING 2 EXTRA TEMPLATES ON TAPE
USUAL RETAIL PRICE
OVER £52.00

ONLY
£12.95

Including VAT & P&P (UK mainland only)
Overseas customers add £3.00 for Post & Packing

Orders to:
SOFTSHOP LTD
55 St Peters Court, Chalfont St Peter, Bucks.
SL9 9QQ
Tel: 0753 889010 & 0753 886947
Fax: 0753 885039

LEARNING CURVE

Utilities for beginners – Pat McDonald at the wheel

POKE EASY PLUS +

£10.99 cass • £15.99 disk, all CPCs joystick/keys

Galeper Soft, 36 Weston Lane, Bridgetown, Totnes, S Devon TQ9 5UN

Poke Easy Plus+ is billed as 'The Ultimate Game Hacking Tool', a claim which would put it in the same league as the *Multiface/Insider* combination from Romantic Robot, which weighs in at a whopping £62.90. So how does it measure up to this big claim?

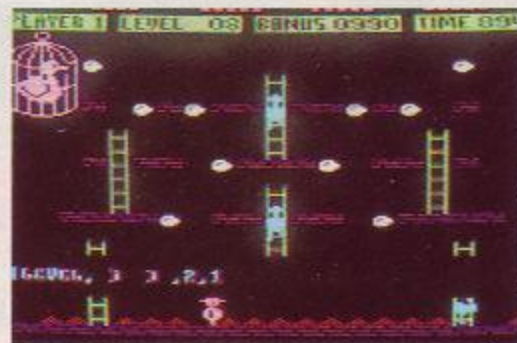
Can you hack it?

The purpose to which game hacking devices are put is simple: to extract cheats for games from the game program itself. In the usual course of events this would take some understanding of machine code: if you have 'The Knowledge' then finding such unsporting means to beat your CPC is no great sweat. The trouble is that for the great majority of games players machine code is too much hassle. So, rather than find

out for themselves, they check out *Cheat Mode* in AA every month. This is the market *Poke Easy Plus+* is aimed at: people who don't know how games work.

You get a manual and a gift-wrapped disk. The manual is written in a light style, and you can imagine the author talking you through the tricky steps of using the program. The type quality is poor, although the layout is much better. Overall the manual's good. Using the program is not difficult: you reach a main menu with a few different options. There are facilities to de-protect games (including DJL speedlock, Firebird and headerless) – but note that the backups are fingerprinted for easy identification. Pirate copies are likely to be traced.

Poke Easy Plus+ achieves a high standard of actually finding pokes for games. It includes the facility for finding them on disk as well as on tape, and there is also



▲ *Poke Easy* goes to work on a Chuckie Egg

a 'level' change facility. What's more to the point is that novices will find it far easier to use than a conventional disassembler, and after a while it becomes second nature.

Generic programs like this are often jacks of all trades. *Poke Easy Plus+* is more reliable than most, but it still isn't perfect.

GOOD NEWS

- Great introduction to hacking.
- Super price.
- Terrific manual.

BAD NEWS

- Presentation less than brilliant.
- Can't cope with everything.

TINY DESK TOP PUBLISHER

£6 • 6128 only

Microdata, 221 Rockingham Rd, Kettering, Northants NN16 9JB

Desk top publishing is becoming ever more popular. So it's pleasing to see a program that doesn't have either the price tag of *Stop Press* or the bugs of *Fleet Street Editor*.

The subject shouldn't need much of an introduction by now: DTP is the solution to the age-old problem of getting the printed page laid out according to what the writer wants, rather than trusting the discretion of a printer. Broadly speaking, it involves laying a page out on your trusty computer (CPC in this case), putting in illustrations and headlines to taste, and having the final result printed out before your very eyes.

Tiny Desk Top Publisher is a simple program that can nevertheless be useful for the occasional page or advert. Setting up a page is simple – the program runs in mode 2 (80 columns of text), and the physical page

is split up into three distinct areas. Any one area can be viewed at a time.

(It should be borne in mind that these three sections make an area slightly in excess of a length of A4. So it makes sense to leave the bottom of a document blank, unless you are using particularly long paper.)

Pictures too

Putting text onto the screen is pretty simple, using just the cursor keys to select the target area. The size of characters can be altered, although there are only five different sizes to choose from.

The good news is, different font styles can be loaded into the *TDTP*, and they are in the standard format for such programs. So creating your own styles shouldn't prove difficult. Using DTP always involves some form of illustration. The *TDTP* supports this fair-

ly well, with a few built in tools to help draw lines, boxes etc. A few items of clip art are included, but they are saved in standard Amstrad format.

The practical upshot is that the program can use any standard graphics formats, and cut sections of them out: imagine the fun you could have mixing and matching loading screens from games.

Mind you, you'd have to process them through some sort of convertor for the dif-

ferent graphic modes. Can't have everything, I suppose.

The most important part of any DTP package – the printout – is no hassle to use. A standard print for page checking takes 15 minutes, but for real quality the time lengthens to about 1.5 hours per page.

So, getting it right before final printing is even more important.

As you would expect at the price, *Tiny Desk Top Publisher* cannot match a full-price DTP program.

What it can be useful for is for someone who doesn't know much about DTP, but would like to see it in action without going to the heavy expense of buying a new program. At the price you can hardly go wrong!



▲ DTP for six quid – can't be bad!

GOOD NEWS

- A good way to try DTP.
- Cheap and cheerful.
- Good for the occasional page.

BAD NEWS

- Manual lacks a lot...
- and was produced with the program.

THE LOOK

A regular feature on CPC graphics in the company of PAT McDONALD

This month we begin the rather large task of programming some sprites on the humble CPC. I do hope you've been reading over the past few months, because I'll be drawing rather heavily on what has gone before.

The first thing to bear in mind is what sprites are. It's all very well this technical thingummy rabbiting on about how to program them, but if you've never met the concept before, then a million pages of listings won't help much.

Sprites are simply shapes that can be printed on the screen. A rather crude form of sprite is the character, such as you are reading now. These are patterns of pixels that form intelligible shapes. Sprites are

more encompassing, in that they do not have a fixed size or spacing: want to see a sprite? *Just load up a video game.* Those pretty shapes (spaceships, gun toting psychos, exploding piglets) – they all come under the one heading of sprites.

Sprite idea

But it's no easy job being a sprite – not on the Amstrad, at least. Dedicated arcade machines have multiple computers built into them, just to take care of all the graph-

So here we start to look at the problem and solution in total: what your average system analyst might call an overview of the system.

(But then, what does your average system analyst really know?)

ical jiggery-pokery. The Amstrad does not have so much as one transistor to deal with sprites. Anything in that direction is the responsibility of programmers.

At first sight, it seems very simple to set up a routine to handle the problem. All it is is a simple printing routine that can handle larger shapes than normal, in more than one colour, right? Wrong. Imagine for a second what would happen if you could type in anything, anywhere on the screen at all. Pretty soon you'd have gibberish covering all your work area. There must be some provision of removing sprites, cleanly and evenly.

Also what happens when your missile/laser beam/plasma bolt hits the spaceship/robot/alien? Clearly, there must be some sort of control mechanism, to register when sprites hit each other or collide. Often what makes or breaks a game is how closely it permits you to approach an enemy without touching it involuntarily. This increases the gameplay, as you can narrowly avoid death by using skill. Or, in the editor's case, die every time by not

Got the time right?

Not only the secret of good humour, timing is also the reason why I can say that I can make the sprite routines activate themselves just after the screen has finished being updated.

On the CPC interrupts occur 300 times per second: the screen is updated every

50th of a second.

Thus, for each raster frame update, there are six interrupts. (An interrupt serves as a trigger to some high priority task – like sprites.)

If we number these from zero to five, then you can see that frame flyback

(when the raster beam moves to the top of the screen) occurs on interrupt number zero.

If instead, we use interrupt number five as our trigger to the sprite routine to go to work, then almost twice as much time is available for printing. Simple eh?

The gallery



● Confirmed Star Wars fan Gary A Marshall from Swanwick can draw a mean picture.



● Alternative: a blocky Gryzor from M S Tara of Birstall

Divided by a common language

This is a very simple trick, attained with the help of the CRTC (6845 - remember?). A word of caution though: if you are using a CPC with a none PAL system (this will be generally north American users) then I'm afraid none of these routines in *The Look* are going to work too well. The feeling's mutual - we can't use any of your software

either.

The register to use on the CRTC is number 4. Its normal value is 38 - try writing something different into it by using:-
`OUT &BC00, &4:OUT &BD00, n`

Values of between 30 and 40 work best for n. This only moves the screen by character sized chunks: to move it by pixels use register number 5.

Small steps for n, between 0 and 7, work best: for larger increments register 3 should be used. Use:-
`OUT &BC00, &3:OUT &BD00, n`

The more astute readers will note that this opens up the path for pixel perfect vertical scrolling.

Coming soon to *The Look*...

grams must be synchronised to the same rate as the TV output. If it runs faster, then you're not going to see the results. If it runs out of phase, then some really flickery sprites are the result, as they'll be printed in different halves at different speeds. Yes, some commercial games suffer from this!

Don't make a mesh!

The CPC does have a feature built into its operating system to allow meshing with the frame flyback rate. It's a little signal which floats up and down, and I'm afraid I'll have to ignore it. Consider the two diagrams: in the one on the left, the sprites are printed to the operating system requirements: on the right, my system comes into its own.

You see, sprite printing is such a long-winded process on the Amstrad that you want as much time as possible in which to accomplish the task. Also remember that, ideally, the sprites should be able to keep up with the TV signal.

In the example on the left, the sprite routines can start work when the raster refresh beam on the TV or monitor is at the top of the screen: on the right, the same routines can get started earlier, just after the refresh beam has left the middle section of the screen where the CPC prints to, and it is working on the border area.

Drawbacks

Ok, nobody's perfect. It'll be necessary to use a couple of `OUT` commands to set up the screen as it should be. This means the playing area will be nearer the top of the TV picture than usual, that's all. ●

● Next month we continue with a look at how the sprites are stored, and ways in which to input them into the computer

having any skill in the first place (*don't think I'm not reading this, big nose - od*).

A further point to bear in mind is what happens to the backdrops when sprites pass over them. Now, backdrops are those huge chunks of the screen that play dead and don't do anything, like the maze in *Pacman* or the jungle in *Operation Wolf*. In an ideal sprite program, when a sprite passes in front of the backdrop, it wouldn't leave a trail or change the backdrop once it had been printed in front of it.

Routine check-up

So we want routines that print sprites, check when they overlap (and do something about it), don't alter the backdrops on games and can be printed at any pixel location. This is quite a tall order for software alone, and one further complication is the raster refresh rate. (A raster, just in case you'd forgotten, is the pattern of horizontal scanning lines traced by an electron beam.)

The problem lies in that the sprite pro-

SPRITES PRINTED NOW



THIS IS IGNORED

▲ Normal Amstrad flicker free interrupt...

AND THIS IS USED TOO



SPRITES PRINTED NOW

▲ Gain time by using this one



● Beano enthusiast Jonathan Rowe of Newbury is responsible for this



● Paul Williams from Flamstead occasionally impersonates Domark loading screens



● Is Bob Williams of Kesgrave colour blind?



● James Davison sent in a big, big collection. This alone wins £20!

PROTEXT Grows!

New MAXAM rom

PROTEXT FILER - New Release!

This invaluable program will keep your address lists or other datafiles in good order. Includes: datafile management from within Prottext; extremely flexible file sorting program; label printing and mailmerging using the datafiles. Send SAE for full details.

disc: £24.95

PROTEXT OFFICE - New Release!

Invoice printing program as used by Arnor. Easily configurable for your own requirements. Works from within Prottext. Produces invoices/credit notes/delivery notes/statements. Includes Prottext Filer. Send SAE for full details.

disc: £34.95

PROTEXT

Prottext is without doubt the most sophisticated word processor you'll find on any home micro. Its ease of use and advanced range of features are normally only found in business systems costing many times more. Widely praised throughout the Amstrad press, Prottext is rightly acclaimed as the No.1 word processor for Amstrad CPC owners.

- * Super fast * Works with any printer * Flexible find and replace *
- * Layout stored with text; normal & decimal tabs, left & right margins *
- * Word count * Versatile print options; incl. headers/footers, page nos. *
- "Extremely powerful editing features ... superb search and replace" AA
- "I can't emphasise how good it is" PCW

rom: £39.95, disc: £26.95, cassette: £19.95

PROSPELL

Typing and spelling errors are simple to make and frustrating to miss. But by using Prospell, you can produce documents that are error-free. Prospell is an spelling checker that points out any odd words or dubious spellings.

- * checks Prottext text in memory *
- * checks file on disc from Prottext/Tasword/Amword/NewWord/WordStar *
- * over 33000 words * room for thousands more of your own *
- * up to 2000 words/min * find words and anagrams - great for crosswords *
- "Fast, efficient, easy to use" YC

rom: £34.95, disc: £24.95

PROMERGE

More than just simple mail merging for multiple standard letters!

- * integrates perfectly with Prottext * read data from keyboard or file *
- * conditional printing so you can create your own personalised letters *
- * use the built in maths functions to produce invoices etc *
- * microspacing - to even out the spaces between words * typewriter mode *
- * link files together at print time * Reformat while printing *

disc: £24.95

PROMERGE PLUS

All the features of Promerge, plus:

- * Edit two separate files in memory at once; copy blocks between them *
- * Background printing - allows you to print and edit at the same time *
- * Box mode - cut and paste any rectangle to create newspaper columns *
- "You'll have a set-up that can thrash any 8-bit word processor for speed...and even some 16-bit programs for power" PCW

rom: £34.95

ROMBO

All rom software requires a rom expansion system. Its benefits include zero loading time and maximum memory available for text, data, programs etc. Remember; Utopia and the extra commands of Promerge Plus are not available on disc. Fits CPC464/664,6128.

8 socket rom box: £34.95

Amster's Cage Rom: £31.95

Quite simply the best Viewdata rom available ... ideal for Prestel. Menus. Easy to use. Can be used to upgrade your existing comms software rom. Please state which serial interface you have.

MAXAM 1½ - New Release!

At last, due to massive public demand, we have produced an enhanced Maxam ROM especially for Prottext users. The editor has been taken out, and you can now assemble your source code simply by typing ASM while it is in Prottext's memory. Debugging is now easier with comprehensive diagnostics and the ability to change register contents and resume from breakpoints. Other new features include load/save machine code from Prottext/Maxam and extra assembler directives. All the other Maxam features are included.

rom: £29.95

MAXAM

The classic Assembler/Monitor/Editor for developing Z80 machine code.

- * Plain English error messages * Disassembler * Memory editor *
- * Menu driven full screen editor * load/merge/save/print/find/replace *
- * Mix BASIC and machine code * or assemble directly from editor *
- * Use the editor to edit BASIC programs saved in ASCII *

"This piece of software should be held up as an example of what can be done by programmers who care ... buy one now!" E & C

rom: £39.95, disc: £26.95, cassette: £19.95

BCPL - new low price!

Flexible, fast, easy to learn programming language. Comprehensive I/O libraries including graphics and sound. Example source files supplied, including a space invaders game, full screen editor and all the libraries. 60 page manual covers the language and gives details of the libraries.

"Designed for humans, not computers" CWTA

rom: £29.95, disc: £24.95

UTOPIA

50 new commands available without having to load a program, including:

- * Text screen dump * Graphics screen dump to Epson compatible printer *
- * disc utilities - disc format, disc copy, copy files, sector editor *
- * useful function keys automatically set up; easily define your own *
- * BASIC programming utilities * ROM management commands *

"UTOPIA is by far the best utilities rom...it's worth buying a rom board just to plug it in" AMSCLUB

"Utopia seems to be in a class of its own" AMTIX

rom: £29.95

C (6128,CP/M+)

Integrated C programming system. Full implementation of K&R standard.

- * Floating point * 32 and 16 bit arithmetic * Optimising compiler *
- * Linker * I/O and maths libraries * Conditional compilation * Macros *
- * Editor is program mode of Prottext *

"In typical Arnor fashion, they've taken their time and got it right" AU

disc: £49.95, Maxam II + C: £69.95

MAXAM II (6128,CP/M+)

Enhanced version of Maxam for CP/M+. Extras include:

- * Single stepping * conditional breakpoints * symbolic debugger *
- * Editor is program mode of Prottext * Macro assembler *

"Now the best gets even better" CWTA CPC

disc: £49.95, Maxam II + C: £69.95

PROTEXT (6128,CP/M+)

Combines all the features of Prottext, Promerge Plus and Prospell into one integrated program. German program & dictionary also available (Prowort).

"Prottext is just so fast and versatile once you have used it - it is like putting Nigel Mansell against a C5" PYATW

disc: £59.95

Also:	Model Universe (CPC)	£19.95 (disc), 15.95 (tape)
	Pocket Prottext (CP/M+)	£29.95 (limited period only)
	PC Prottext	£59.95 (5¼" or 3½" disc)
	Atari ST Prottext	£79.95

Releasing your Amstrad's potential ...

Arnor Ltd (AA2) 661 Lincoln Road, Peterborough. PE1 3HA Tel: (0733) 239011 (24 hr)

All prices include VAT, postage and packing. Access/Visa/Cheque/Postal order. Please mention this magazine when ordering.



BAR CPM

First Steps part six with RICHARD MONTEIRO

After last month's galloping introduction to the various transient programs available on CPM 2.2 and 3.1 system disks, it's back to a more leisurely canter as we inspect each command more closely.

There's no point dealing with the transient programs in alphabetical order: some are too obscure to be of any real interest to beginners. (ASM, for instance, is only worth mentioning if you're competent at 8080 assembler: it creates machine code from assembly source, if you really must know. We'll deal with it properly in time.) For now, though, let's tackle file copying and the omni-talented PIP.

PIP has the memorable acronym Peripheral Interchange Program and, as its name suggests, moves files between peripherals. The peripherals in this case will generally be disk drives - although the screen, parallel port (with printer connected) and serial interface (with modem or serial printer attached) are just as plausible.

PIP can also rename a file after copying it, combine two or more files into one and copy a character file from disk to some logical output file.

Not surprisingly PIP has a daunting number of possible parameters.

PIPING Tom

However, at its simplest it is just as easy to understand as the AMSDOS command.

There are two ways of using PIP. You can issue a command which will load the program, transfer the file from one place to another, and then reload CPM. Alternatively you can load PIP into memory and use it repeatedly from there.

CPM 2.2 users will find PIP useless for copying files from one disk to another using a single drive - it's impossible. This is because disks can't be swapped once the copying process starts. (If you have two disk drives or use CPM Plus then you won't encounter these problems.) FILECOPY and DISCCOPY are provided to overcome CPM 2.2's shortcomings. More on these elsewhere.

You have probably realised that PIP doesn't work identically in the two CPM environments. You don't have to worry about that this month: all forthcoming examples will work with both versions.

Assuming you have two drives - 3.1

File copying - the easy way

Strictly for CPM 2.2 users. Filecopy copies a named file from one disk to another. Use the command like this:
FILECOPY filename.ext

Remember to include the file extension (denoted here by ext), if there is one, otherwise you'll be treated to one of CPM user-friendly error messages. Wildcards are permitted, so FILECOPY *.COM is acceptable.

Entering a command similar to the above results in a prompt asking you to insert the source disk (the disk containing the file you wish to copy). Once the file has been loaded into memory you will be prompted again; this time for the destination disk (the disk you wish to send the file).

COPYFILE is the same as FILE-COPY - but it works with two drives, rather than just one.

users don't need two drives as CPM will prompt for disk A and disk B - type the following:

PIP B:=A:AMSDOS.COM

Make sure you have a blank, formatted disk in drive B. This copies AMSDOS.COM from drive A to drive B (or disk A to disk B). Note that the destination drive is put first. The command, when translated to plain English, says, 'Let drive B take a copy of the file AMSDOS.COM from drive A'. The syntax is the same as Basic's LET command.

Taking the PIP

The above is the simplest form of disk-to-disk file transfer that you can make PIP do. You can add a whole host of options and use wildcards to specify more than one file in a single PIP instruction.

You can save the file copy under a different name by using the required name after the destination drive letter. For instance,

PIP B:ANOTHER.COM=A:AMSDOS.COM
copies AMSDOS.COM from drive A to drive B and changes its name en route to ANOTHER.COM.

To save a copy of the same file on the same disk, you must specify different filenames either side of the separator (the equals sign in this case). Source and destination drive letters can be omitted:

PIP ANOTHER.COM=AMSDOS.COM

This is just the start, but sadly that's all there's room for. See you next month! ●

Join us next month when we investigate the differences between PIP 2.2 and PIP 3.1.

How to recover erased files!

A few issues back we lied. It was only a very tiny white lie, and was for your own good (© R. Nixon). We stated that once a file had been erased, it was gone for good. Well, that's almost true. By using a sector editor or the public domain program UNERASE.COM, it is possible to recover the deleted file as long as the erased file hasn't been over-written.

The UNERASE file, if you're interested, is

available from most good PD libraries. Try PD Software (☎ 08926 63298) or Wacci (☎ 01-898 1090). Or try *Type-Ins* this issue (page 68)!

If you have the file in question but don't know how to use it, here's what you do. Enter UNERASE filename at the A> prompt. The parameter filename can be left blank (in which case the computer unerases all the deleted files it finds) or consist of a letter and wildcard characters. All

unerased files are plonked into USER area 5. This is done to ensure there are no conflicting filenames in the directory.

Many thanks to B. Rowley of Bradford-on-Avon for the above: a crisp (salt-and-vinegar flavoured) tenner is on the way to you. Remember any tip we print here wins £10. The address to write to is: Richard Monteiro's Bar CPM, 4 Queen Street, Bath, BA1 1EJ.

FIRST BYTES

Assemble here series with RICHARD MONTEIRO

Your first assembly language program this month. You'll need the cover cassette freebie, MAA, or some other assembler. Get ready!

Doubtless you're itching to get down to writing assembly programs. But there are a few things to be wary of before plunging headfirst:

- Unlike Basic programs, assembly programs must be told where to sit in memory. Basic is a very friendly programming environment and consequently it works out many tedious problems - memory management is one. You must decide where assembly programs should start in memory. Unfortunately the CPC's 64K of memory isn't all free for you to play with. Avoid, at all costs unless you're 100% sure you know what you're doing, locations &0 to &40 (RST vectors) and &A000 to &BFFF (system variables and firmware jump vectors). Screen ram lies between &C000 and &FFFF - that's definitely out.

- The **END** command can be used in BASIC listings to tell the interpreter that there are no more Basic instruction to process. Basic is so friendly that it doesn't require the **END** statement. Unfortunately this isn't true of machine code programs. If the Z80 processor

doesn't find an end instruction, it will jump about memory executing whatever it finds there. If you're lucky control will return to you, but it's much more likely that the computer will crash or lock up. While a crash won't damage the computer, it can be immensely annoying if you lose an hour's work.

- Writing in assembler means you gain full control of the computer and its hardware. Desirable? Yes. But also very daunting. If you step out of line once - that is, access a restricted area of memory or miscalculate an address - you will more than likely crash the computer.

For real

Most assemblers - but not MAA - use the pseudo opcode **ORG** for specifying the start position in memory of machine code programs. For instance, **ORG &8000** would force your assembly program to start at memory location &8000. Use locations &4000 (16384) to &9000 (36864) until you become more familiar with the CPC's memory map.

RET is the instruction used to end a machine code program. This must be placed at the end of your assembly program. **RET** works in much the same way as Basic's **RETURN**. But now we're now jumping the gun. Let's keep things simple.

Assemble here

Following is your first assembly program. There are two versions; one for use with MAA and the other for use with Maxam or similar.

MAA version first. Load MAA and type **DELETE -170**. Then add the line **3761 DATA ld a r,ed,5f,0**. Save MAA. Finally enter this listing:

```
10 'ld b,32
20 'ld a r
30 'add a b
30 'ld (,&6050) a
40 'call ,&bb5a
50 'ret
60 'end
```

Type **RUN** after entering the above. Hit the 1 key and press Return. Slowly the program will assemble. Press any key when you see 'end' on screen. Press **ESC** twice to exit the program. Enter **CALL &6000** at Basic's Ready prompt.

A character will appear on screen. Congratulations, your first program was a success. This is what it does. The B register is loaded with decimal 32. The value in R is placed in the accumulator. R is known as the refresh register; it's a reasonable source for random numbers. Next the contents of A and B are added together. The result ends up in A.

The value in A is then placed in memory location &6050. **CALL &BB5A** is a jump to the firmware - this won't be covered for a while so just accept that it works - which simply prints the Ascii character whose value is held in A. Finally **RET** returns you to Basic. Simple really. ●

HACKERS ONLY

As was revealed last issue, the high and low halves of the IX and IY can be split to make four 8-bit registers. These possibilities aren't documented in official Zilog literature, but if you experiment you'll discover the truth. The ability to manipulate these four extra registers can prove incredibly useful - particularly on the CPC where the alternative register set is used by

the operating system. The new instructions - a cutdown list of which appears below - handle the individual halves of the index registers and bear a striking resemblance to H and L register operations. For example, **LD A, (HL)** has the code **7E** and **LD A, (IY+2)** has the code **7E 06**. Similarly **LD A, B** has the code **7C**. Of course, there's no published **LD A, YH**

(YH denoting the high bit of the IY register) code. If you use the code **FD 7C**, however, you'll find it works as expected: it loads the accumulator with the high byte of the IY register. Any flag changes that result from the hidden instructions are the same for the equivalent H, L or HL instructions. See what you can do with this lot:

ADD A, XH DD 84	ADD A, YH FD 84	LD A, XH DD 7C	LD A, YH FD 7C
ADD A, XL DD 85	ADD A, YL FD 85	LD A, XL DD 45	LD A, YL FD 45
CP XH DD 8C	CP YH FD 8C	LD XH, A DD 67	LD YH, A FD 67
CP XL DD 8D	CP YL FD 8D	LD XL, A DD 6F	LD YL, A FD 6F
DEC XH DD 25	DEC YH FD 25	LD XH, XL DD 65	LD YH, YL FD 65
DEC XL DD 2D	DEC YL FD 2D	LD XL, XH DD 6C	LD YL, YH FD 6C
INC XH DD 24	INC YH FD 24	LD XH, nn DD 26 nn	LD YH, nn FD 26 nn
INC XL DD 2C	INC YL FD 2C	LD XL, nn DD 2E nn	LD YL, nn FD 2E nn

Maxam version:

```
ORG &6000 ;start position in
           ;memory
LD B, 31 ;place 31 decimal in
         ;B reg
LD A, R ;load A with the R's
        ;contents
ADD A, B ;Add B contents to A
        ;contents
LD (&6050), A ;put value of A
             ;in loc &6050
CALL &BB5A ;call a system print
          ;routine
RET ;return to Basic
```

That's more than enough excitement for one issue. We'll be back next month with more assembly instructions for you to tinker with.

WACC

THE WORLDWIDE AMSTRAD CPC USERS CLUB

THE FANZINE

ANNUAL SUBSCRIPTION RATES

UK.....	£15.00
Europe	£22.50
Overseas	£30.00
Sample copy	£1.25

THE SPECIAL OFFERS

	Rom	Disc	Cass		
				Rombo Rom Box	27.00
Protex	31.00	21.00	15.00	Vidi-CPC Digitiser	68.00
Prospell	27.25	19.50	-	464/664 Speech Synth Rom	39.95
Promerge Plus	27.25	-	-	6128 Speech Synth Rom	35.95
Promerge	-	19.50	-	10 x Amsoft CF2 Discs	23.95
Maxam	31.00	21.00	15.00	Protex Office Disk	27.25
Utopia	23.25	-	-	Maxam 1 1/2 Rom	23.25
Model Universe	-	15.00	12.00	BCPL Rom	23.25
CP/M+ Protex	-	47.00	-	Micro Music Creator Rom	19.95
CP/M+ Maxam II	-	39.00	-	Rombo Rom Box	27.00
CP/M+ Amnor C	-	39.00	-	Vidi CPC Digitiser	68.00
				TV Receiver/Tuner	65.95

DMP 2000 PRINTER RIBBONS £2.95

THE PUBLIC DOMAIN SOFTWARE

CPM DISC 1 - MACHINE CODE TOOLS	Price £5.50
Z80 and 8080 assemblers, Z80 to 8080 to Z80 code translator, Debugging monitor and assembler, Reverse assembler, Binary File comparer, plus NewSweep and more.	
CPM DISC 2 - COMPUTER LANGUAGES	Price £5.50
Small C, Prolog, Lisp, EBasic, Small-C-Interpreter plus NewSweep	
CPM DISC 3 - FILE AND DISC MANAGEMENT	Price £5.50
Library utilities, Disc quality checker, Unix GREP command, PCW disc reader, Disc sector editor, Text file sorter, Word counter, plus NewSweep and more.	
CPM DISC 4 - AT YOUR LEISURE	Price £5.50
Cave Adventure, Chess, Othello, Golf, Word search, Birth-ythms, Maze generator, On-screen calculator, Prolog, Comms utility, plus NewSweep and more.	
CPM DISC 5 - THE BUSINESS	Price £5.50
Srivener spreadsheet, Inventory database, Powerful text editor, Spelling checker with dictionary, Sorter, Word counter, Comms utility, plus NewSweep and more.	
CPM DISC 6 and 7 - PASCAL PLUS (Two Discs)	Price £9.00
Pascal, SCL, Cobol, EBasic, Powerful text editor, plus NewSweep.	
* ALL PROGRAMS COMPLETE WITH ORIGINAL DOCUMENTATION AND SUPPORT FILES * SAVE MONEY * CPM DISCS 1 TO 5 £27.95 - ALL 7 DISCS FOR £36.95 * SAVE MONEY	

WACCI UK, 59 THE GREEN, TWICKENHAM, MIDDX TW2 5BU
EST. 1986 — PHONE 01-898 1090

SIREN SOFTWARE

ADD A ONE MEGABYTE DISC DRIVE TO YOUR CPC FOR ONLY £124.99

Our 80 track double sided 3.5 inch disc drive will allow you to store upto 800K on a single 3.5 inch disc. 3.5 inch discs are fast becoming the industry standard and have been adopted by Amstrad for the PPC, Atari for the ST and Commodore for the Amiga.

The drive itself is a slimline 1 inch high NEC mechanism and comes cased and complete with power supply and cables. We have 3 different software packages that complete the system, RAMDOS and ROMDOS by KDS software (ROMDOS is a rom version of RAMDOS) or RODOS by Romantic Robot. When ordering please state 464/664/6128. 464 owners must already own a first drive and interface before they can use our disc drive

All prices include VAT and postage and packing

Disc Drive with RAMDOS	only £124.99
Disc Drive with ROMDOS	only £134.99
Disc Drive with RODOS	only £134.99
Six Socket romboard	only £24.99
Blank 3.5 inch Discs	only £1.00



SIREN SOFTWARE TEL 061 228 1831
2-4 OXFORD ROAD, MANCHESTER M1 5QA



COMSOFT

Approved Amstrad Business Dealer. Scotland's Largest Mail Order Firm
All prices include VAT & Carriage. No hidden extras

AMSTRAD EDUCATIONAL SOFTWARE		CASS R.R.P	OUR PRICE	DISC R.R.P	DISC PRICE
Animal Vegetable Mineral	Bourne Educational	9.95	8.71	14.95	13.08
Answer Back Junior	Kosmos	9.95	8.71	13.95	12.21
Better Maths (age 12-15)	By School Software	10.95	9.58	16.95	14.83
Better Maths (age 3-7)	By School Software	---	---	16.95	14.83
Better Spelling (Age 9-Adult)	By School Software	10.95	9.58	16.95	14.83
Biology 1 (age 12-16)	By School Software	10.95	9.58	16.95	14.84
Chemistry 1 (age 12-16)	By School Software	10.95	9.58	16.95	14.84
Chemistry GCSE	By Bourne Educational	14.95	13.08	19.95	17.45
Happy Letters	By Bourne Educational	9.95	8.71	14.95	13.08
Happy Numbers	By Bourne Educational	9.95	8.71	14.95	13.08
Happy Writing	By Bourne Educational	9.95	8.71	14.95	13.08
Magic Maths (age 4-8)	By School Software	10.95	9.58	16.95	14.83
Map Rally	By Bourne Educational	9.95	8.71	14.95	13.08
Mapwork Quiz (age 10+)	By School Software	10.95	9.58	16.95	14.83
Maths Mania (age 8-12)	By School Software	10.95	9.58	16.95	14.83
Maxi Maths (age 9-14)	By School Software	10.95	9.58	16.95	14.83
Osprey	By Bourne Educational	12.85	11.33	17.95	15.71
Physics 1 (age 12-16)	By School Software	10.95	9.58	16.95	14.83
Physics GCSE	By Bourne Educational	14.95	13.08	19.95	17.45
Playschool (age 3-7)	By School Software	10.95	9.58	16.95	14.83
Three Bears	By School Software	---	---	16.95	14.83
Timeman One	By Bourne Educational	9.95	8.71	14.95	13.08
Timeman Two	By Bourne Educational	9.95	8.71	14.95	13.08
Weather/Climate (age 12-17)	By School Software	10.95	9.53	16.95	14.75
Wordhang	By Bourne Educational	9.95	8.71	14.95	13.08
World Wise	By Bourne Educational	9.95	8.71	14.95	13.08

AMSTRAD CPC PERIPHERALS		CASS R.R.P	OUR PRICE	DISC R.R.P	OUR PRICE
256K Memory Expansion 464/664	Ram Electronics	---	---	129.95	116.96
256K Memory Expansion 6128	Ram Electronics	---	---	129.95	116.96
256K Silicon Disc 464/664	Ram Electronics	---	---	149.95	134.96
256K Silicon Disc 6128	Ram Electronics	---	---	149.95	134.96
64K Memory Expansion 464/664	Ram Electronics	---	---	49.95	44.96
AMX Mouse & Art Graphics prog	A.M.X	69.99	62.99	69.99	62.99
AMX Stop Press & Mouse	A.M.X	---	---	79.99	71.99
Colour Monitor TV Receiver CP	Ram Electronics	79.99	71.99	79.99	71.99
CPC6128 Cassette Lead	---	6.95	6.26	---	---
Joystick Splitter	---	6.99	6.29	---	---
Light Pen & Graphics 464	Electric Studio	19.95	17.96	---	---
Light Pen & Graphics 6128	Electric Studio	---	---	29.95	26.96
Lightpen 464/664	Ram Electronics	19.95	17.96	---	---
Lightpen 464/664 [ROM]	Ram Electronics	---	---	29.95	26.96
Lightpen 6128 [ROM]	Ram Electronics	---	---	29.95	26.96
Mirage Imager	Mirage	---	---	40.40	42.26
MP1 CPC464 Modulator	Amstrad	19.95	17.96	---	---
Printer Cable 1.5m LONG	---	---	---	12.95	11.66
RAM Music Machine	Ram Electronics	49.95	44.96	59.95	53.96
Rombox Rombox	Amor	---	---	39.85	35.96
Speech Synth 464/664 [CASS]	Ram Electronics	39.95	35.96	---	---
Speech Synth 464/664 [ROM]	Ram Electronics	---	---	44.95	40.46
Speech Synth 6128 [ROM]	Ram Electronics	---	---	39.95	35.96
Speech Synthesiser & Stereo A	Amstrad	39.95	35.96	---	---
Video Digitiser Inc L/PEN 612	Electric Studio	---	---	99.95	89.96

AMSTRAD CPC UTILITIES		CASS R.R.P	OUR PRICE	DISC R.R.P	OUR PRICE
Advance Music System	Rainbird	---	---	29.95	26.21
AMX Stop Press Software Only	A.M.X	---	---	49.99	43.74
Azimuth Head Alignment Kit	Interceptor	8.99	7.87	---	---
Aztec C Prime	Hisoft	---	---	79.95	69.96
Bonzo Blitz	Nemesis	---	---	12.50	10.94
Bonzo Doo Dah	Nemesis	---	---	12.50	10.94
Bonzo Super Medler & Hackpack	Nemesis	---	---	12.50	10.94
CF2 3" disk (pack 10)	Amsoft	---	---	29.95	23.66
CPC6128 system disks (each)	Amstrad	---	---	17.25	15.09
Dev Pac 80	Hisoft	---	---	49.95	43.71
Discovery Plus	Siren Software	---	---	14.99	13.12
Extra Extra	A.M.X	---	---	24.99	21.87
FTL Modula-2	Hisoft	---	---	54.95	48.08
Laser Compiler	Ocean IQ	19.95	17.46	24.95	21.83
Mastercalc 128	Campbell Systems	---	---	33.00	28.88
Masterfile III	Campbell Systems	---	---	39.95	34.96
Matrix Spreadsheet Plus	Audiogenic Software	---	---	34.95	30.58
Maxam	Amor	19.95	17.46	26.95	23.58
Maxam [Eprom]	Amor	---	---	39.95	34.96
Microfile/Microword	Amsoft	---	---	49.99	43.74
Micropen	Amsoft	---	---	49.99	43.74
Microscript	Amsoft	---	---	49.99	43.74
Mini Office	Database Software	5.99	3.00	---	---
Mini Office II	Database Software	14.95	13.08	19.95	17.46
Music System	Rainbird	15.95	13.96	19.95	17.46
OCP Art Studio	Rainbird	---	---	19.95	17.46
Planit	Database Software	14.95	13.08	19.95	17.46
Promerge	Amor	---	---	24.95	21.83
Promerge Plus [EPROM]	Amor	---	---	34.95	30.58
Prospall [EPROM]	Amor	---	---	34.95	30.58
Protect	Amor	19.95	17.46	26.95	23.58
Protect [EPROM]	Amor	---	---	39.95	34.96
Rembrandt	Beebugsoft	---	---	24.95	21.83
RS232 Serial Interface	Amstrad	59.95	52.46	59.95	52.46
Simple Accounts	Cornix Software	34.95	30.58	34.95	30.58
Speech	Superior Software	---	---	14.99	13.12
Stop Press Software only	A.M.X	---	---	49.99	43.74
Tas Diary	Tasman	---	---	12.95	11.33
Tascopy	Tasman	---	---	12.95	11.33
Tasprint	Tasman	9.90	8.60	12.95	11.33
Tasspell	Tasman	---	---	16.50	14.44
Tasword 464/664	Tasman	19.95	17.46	24.95	21.83
Tasword 6128	Tasman	---	---	24.95	21.83
Teach Yourself Basic Part One	Amsoft	19.95	17.46	---	---
Teach Yourself Basic Part Two	Amsoft	19.95	17.46	---	---
Utopia [EPROM]	Amor	---	---	29.95	26.21
Write Hand Man	Hisoft	---	---	29.95	26.21
Z Basic	Hisoft	---	---	69.95	61.21

Send for a catalogue of over four thousand titles for Amstrad CPC - PCW - PC, Commodore, Spectrum, Atari Atari ST, BBC, MSX, Electron, Apple Macintosh Computers all at discount prices. All prices include VAT, Post & Packing in UK only. Prices subject to change.

COMSOFT MAIL ORDER DEPARTMENT

48 Duke Street, Coldstream, Scotland, TD12 4LF
Shop open Mon/Sat 9.30-12.00, 1.00 - 5.30. Tel: 0890 3232 Telesales until 10.00PM
Fax: 0890 2927

CP/M+ on ROM - a backup service for owners of a CP/M plus master disc. This removes the need for 70K (EST.) of disc space. Features include;



AMSDOS

1 command startup name, serial number & Password string command passing to CP/M. Menu selection of CP/M program catalog of CP/M roms (see below).
Version Two £32.50. Upgrade £9.90

CP/M+

EMS file inclusion New commands - Run, Ink, Mode, Set 1st, Setoff, Show, Cat, Border, Language, Palette, Cts, Lprint, Rom cat

ROMS under CP/M+ Our first standard rom contains NSWEEP, PCW, FORMAT, UNERA cost ten pounds (custom version 15 pounds). New customers should enclose their CP/M plus master disc and send to:

GRADUATE SOFTWARE, 14 Forrester Ave, Weston-on-Trent, Derby DE7 2HX Tel: 0332 702993.

Personalised fully compatible, no reduction in TPA, prices are inclusive.

Matrix Software Hire

The cheapest way to play them all.

Top games titles for Amstrad, Commodore and Spectrum

Disc and Tape for Amstrad and Commodore.

Please state system

Please send large SAE for details to

**Matrix Leisure Club, Dept AA,
271 Stansted Road, Bishops Stortford
Herts CM23 2BT**

DEMON DEVELOPMENT CARTRIDGE

The Ultimate machine code tool. Suitable for 464/664 and 6128 machines. Demon will give you full control of your Amstrad. Stop Any program Anytime by a press of a button, the memory remains intact and can be saved to Tape/Disc, debugged, traced, moved, disassembled etc. Inline Z80 assembler, Bank switching for 6128 machines etc. etc. More functions than ANY other unit of this type on the market

Demon Cartridge with user manual only £24.95 (note no through connector).

EPROM PROGRAMMER

Transfer your favourite programs onto Eprom. Suitable for 464/664 and 6128 machines.

- Programs 2764 and 27128 type Eproms
- Switchable for 12.5 or 21 volt types
- Normal or Fast algorithm programming
- Powerful but easy to use software
- Rom to Rom copy, Editing, Verification.
- Single or block programming.
- Full screen Editing for BIN files
- Completely self-contained in smart impact resistant case. (No messy separate power supply)
- 12 months parts and labour guarantee

Eprom Programmer, Software & 12 months guarantee Only £39.95
Available in kit form with through edge connector (uncased) £31.25
Blank 16k Eproms available phone for latest prices

EPROM EXPANSION BOARD

Holds 4 EPROMS. Suitable for Maxam, Protek, Utopia etc. etc. Top quality silk screen-printed PCB measures 7cm x 12cm approx with through edge connector to allow the use of Disc (464) or other peripherals.

Complete Kit of parts, with instructions to build it yourself £16.75
Ready built and tested only £21.95

PCB DESIGNER III

Design double side printed circuit boards quickly and easily with this powerful software. Used by universities and government establishments. Some of the main features are:-
Double sided 200mm x 131mm (8" x 5.25") board.

Nine print options for standard Epson or compatible printer (DMP 2000).
Predefined DILs, IDCs from 8pin to 64 pin, horizontal or vertical placing.
Single pads, lines, blocks and edge connectors at the touch of a key.
Auto Routing and common bussing.

Suitable for microprocessor and related projects.
Minimum system requirements to run this software are:- Amstrad 464 Mono Monitor and Printer.
Supplied on cartridge (just plug in and go) only £89.95 (note no through edge connector). Evaluation cartridge with Save & Load routines removed only £25.00 refundable against purchase of main cartridge

PASCAL COMPILER ROM

Our Pascal compiler is easy to use, suitable for the absolute beginner and produces stand alone Machine code. Does NOT require CPM. A built in text editor and combined compiler makes the program easy to use. The user manual supplied will teach you how to write programs and contains many examples, these include games and useful utilities. The compiler produces very fast machine code for example:- BASIC PLOTx,y (10000 times) 12.46 secs Pascal Plotxy (10000 times) 2.1 secs. Supplied on Eprom with user manual only £19.95 or Cartridge £24.95

Many other items in stock including Public Domain CPM software at £2.50 per disc.



JOHN MORRISON Dept. A.A.
4 Rein Gardens, Tingley, West Yorkshire, WF3 1JR
Telephone: (0532) 537 507

Return of post service on Access or POs. Please allow 3 days for cheques

AA SMALL ADS

FOR SALE

Fed up with games? Learn Basic programming. Get this 16 page intro for £3. For CPC, BEEB, etc. with notes for Commodore and Spectrum. Cheque, PO or wee parcel of 3 coins to J H Taylor, 18 Seahill Road, Holywood, co Down, BT18 0DA.

CPC 464, 6128 Nightingale Modem, RS232 interface, software, manual. Excellent condition, ready to run. Cost £200, accept £100.
CPC464/6128 AMX Mouse with Graphics programmes, boxed. Cost £70, accept £35.
Tel: Harrow 01-864 5577.

CPC 6128, colour monitor, TV modulator tuner, 5.25" disk drive, Mirage Imager, joysticks, cassette lead, plenty of software, and disks. All in excellent condition, will sell for £400. Telephone evenings 0892 40960.

Software Christmas sale! Loads of Amstrad CPC titles. all originals from £1 each. Write: G Sanghera, 58 Hawkins Street, Hill Top, W Bromwich, B70 0QS or phone 021 556 1046 weekdays after 6pm.

Masterfile III loader to convert upper-lower-upper case chars.

Delete from, insert sequentially into Field globally or individually. Send present loader disc + £5.95 to J Ison, 62 Brunswick Crescent, London N11 1EB. 01 361 0422.

Reach Out collection! 9 great games (60K) on disc £5.99! Database, Art Studio, Coffee Shop, Diary + more. Postage included. reach Out, 6 Charles Road, Frome, Somerset, BA11 1NT. (0337) 63389.

Amstrad CPC464, colour monitor, disk drive, Multiface 2, joysticks, lightpen, over 400 games (tape + disk) worth thousands £700 ono. Phone Danny on Dartford 0322 337530 (home pm) or Dartford 0322 58230 (work am)

Final Conflict strategy wargame Nato Warsaw 160+ units, Armour infantry, helicopters, cities, fully detailed instructions 464/664/128 £7 disc, £5 tape. Martin Adams, 32 Albert Street, Seaham, County Durham SR7 7LJ.

Mono monitor for 464 £40, Rombo Rombox with Rodos/Rodos extra £30, Cracker (PCW/6128) £15, 64K DKT Ramdisk £15, wanted 256K DKT Ramdisk, second disk drive for 6128. Hughes - Derby (0332) 753605.

Sharewatcher, a superb stock-market simulation. Can you cope with another stockmarket crash? Test your skills with this authentic simulation. £2.50/tape.
Cheque: M Pinder, 4 Wham Hey, New Longton, Preston, PR4 4XU.

CPC6128 colour monitor, tape recorder, Multiface Two, joystick, assembly language course, firmware guide, word processor, maxam assembler etc. Manual, magazines, disks and many games. £370 ono. tel: (0772) 747371.

EMR midi interface and miditrack performer (eight track sequencer makes computer act like 8-track recorder) disc and tape for 6129 £80. Phone 0270 626545.

Small traders! Our simplified range of CPC business software includes accounts, invoicing, stock/mailling management etc. Recommended in reviews. SAE for catalogue: SD Microsystems (Dept AA), PO Box 24, Hitchin, Herts. Telephone (0462) 675106.

Amstrad DMP 2160 printer: perfect £115 - ono. 2nd disc drive no case home made power supply all leads £30 - AmX Pagemaker disc + manual £18 - all prices ono. Peter Tel Norwick (0603) 748338.

Amstrad CPC 464 with colour monitor and DDI-1 disk drive. £200 ono. Tel: 0225 765086 after 7pm.

WANTED

Wanted laser basic, have already got tape 2 and manual, tape 1 got damaged cannot acquire another

copy anywhere as it has been discontinued. Please help me disc/tape CPC 6128. Tel: Penny on 0705 664991 after 7pm.

Amstrad colour monitor for CPC6128 computer. Phone after 6pm Rushden (0933) 312368.

Wanted Britannia rom board, Multiface + Multiface insider. Promerge tutorial TV tuner. Don Banks "Rocklands" Sea Road, Felpham, West Sussex PO22 7AN. telephone 0243 821 999.

Wanted DD1 disc drive for 464 for cabs, or exchange for Rombo rom board fitted with Protect, database, spreadsheet and Pascal roms. Phone 0277 224581 after 6pm (Essex).

SERVICES

The CPC users club, software library, titles wanted to add to stock, to join the club send SAE to Stephen Brewer, 72 Noel Rise, Burgess Hill, West Sussex. Free membership.

Earn extra income with your Amstrad. Cash in on the demand for office services. Unique guide shows you how to get started. SAE to Avon Cliffe, 5 Cliffe Drive, Limpley Stoke, Bath. BA3 6HY.

USER GROUPS

Free software! 2 titles worth £8.95 each. With every membership opened with CPC users club (£2.00). Cheques: G Sanghera, 58 Hawkins Street, Hill Top, West Bromwich, B70 0QS. Limited offer only.

This section of the magazine offers you the chance to speak directly to the huge world of CPC owners - or would be owners. Users report good results. You can place an ad up to 30 words for just £5.

So you could use it to sell a printer or launch a user group or publicize a piece of software you've written. One thing you can't advertise is the sale or swap of software. Such ads can be misused by pirates.

Fill in the application form and send it to us together with payment. We'll then place the ad in the next available issue (published 2-7 weeks after we receive your order).

ORDER FORM

SEND TO AA SMALL ADS, FUTURE PUBLISHING LTD, 4 QUEEN STREET, BATH BA1 1EJ

Please place the following advertisement in the next available issue of Amstrad Action

Name

I enclose payment of £5.00 by Cheque/ P.O/ Access/ Visa

Address

Credit Card number

Telephone

Credit Card expiry date

Classification. Tick box

For sale

Wanted

Services

User Groups

Other

Write your advertisement here, one word per box. Include your name and phone no. If you want them printed

ROMANTIC ROBOT

present

THE ULTIMATE PERSONAL COPIER

RESET

Multiface two

STOP

If you wish to be able to STOP any program at any time and COPY it to disk or tape, fully automatically, at a touch of a button, then MULTIFACE 2+ is the ONLY answer. There are no other comparable hardware devices, and the software copiers simply cannot compete.

Firstly you cannot compare the SUCCESS ratio of any tape copier with the MULTIFACE - you get what you pay for (and we throw in a lot more with the MULTIFACE...).

TAPE COPIERS always need to be loaded first, whilst MULTIFACE has all software in ROM for instant use. TAPE COPIERS can only attempt to copy a program as it stands, before it loads - there are various protections in the way and not enough memory for both the program to be copied and the copier. MULTIFACE is different: you can load any program from TAPE or DISK, run it as you wish and activate the MULTIFACE whenever you need it. Once you SAVE a program, be it to DISK or TAPE, you can CONTINUE it, SAVE it again if you wish, etc. In fact, you can play games as never before: there is no need to start from the beginning each time you play a game (as you would with a tape copier - if it could copy in the first place...). Since you can SAVE a program at ANY TIME and continue it, you can actually SAVE as you progress through a game. If, eventually, you lose all your lives, you can just load the latest saved version and continue from there! That is, if you do not manage to get INFINITE LIVES to start with: MULTIFACE has a built-in TOOLKIT which allows you to STUDY and ALTER anything in any program; you can thus POKE in infinite lives, ammo, etc.

MULTIFACE is extremely simple to use, friendly, idiot-proof, menu-driven with on-screen instructions, fully automatic - PURE MAGIC. It can be used on any CPC, comes with a cable and an extension bus for £47.95 ONLY! By the time you buy 10 programs on tape instead of disk - MULTIFACE will put them on disk for you - you will have saved some £50 which is more than the cost of a MULTIFACE.

The money you save on further tapes is all yours!

MULTIFACE - WORTH EVERY PENNY, SAVES YOU POUNDS!

NOW AVAILABLE: MULTIFACE 2 PLUS - THE INVISIBLE ONE.

Tape-to-disk at the touch of a button. Ridiculous, you may say, but it works every time. Multiface can stop any program in its tracks and save the program from memory to either tape or disk. It's completely fool-proof. Similar products have had problems with screen size, colour and even sound; Multiface can handle all these without a second thought.

That alone would have satisfied many people, but Romantic Robot has gone one step further, incorporating a memory editor. No program is safe with this: everything is out in the open, including the Z80 registers, CRTC data and any part of memory.

Don't be fooled into thinking this will result in mass piracy, however. The Multiface unit itself must be plugged into your Amstrad to allow reloading of a program it saved.

Multiface II must be the cleverest hardware device at present - a necessity for disk owners who thought they were stuck with loading from tape every time.

AMSTRAD ACTION JANUARY 1987

WOULD YOU LIKE TO TURN YOUR CPC INTO A PROFESSIONAL SET-UP?

Would you like to be able to attach additional disk drives - 40/80 track, single/double sided, 5.25 or 3.5 or 3 inch - and store up to 800K per disk? All controlled by a powerful DOS? Have RANDOM ACCESS to your files? Get a PRINTER BUFFER and SILICON DISK and a ROM manager and over 50 new bar commands! All this on a single ROM:

RODOS

FOR ANY CPC ONLY £29.95



Now also available: RODOS EXTRA on disk for only £9.95. Any RODOS owner will find RODOS EXTRA indispensable: it offers nearly 200K of valuable information how to get the most out of RODOS, with examples of RODOS applications ranging from simple to complex such as a DISK DOCTOR or IBM MSDOS DISK READER. The indispensable EXTRA!

RODOS requires a ROMBOARD. RODOS EXTRA needs RODOS. INSIDER needs MULTIFACE 2.

TOP SECRET
BUT NOT FOR THE
INSIDER

NO PROGRAM IS SAFE ONCE THE INSIDER GETS IN!

JUST INSTALL INSIDER INTO MULTIFACE, RUN ANY PROGRAM, STOP IT AT ANY MOMENT AND INSIDER REVEALS EVERYTHING: IT WILL FULLY DISASSEMBLE, FIND TEXT OR CODE, VIEW/ALTER MEMORY AND Z80 REGISTERS, DUMP TO PRINTER - ALL THIS ON DISK FOR **ONLY £14.95**

INVALUABLE FOR M/CODE USERS
SOLID GOLD FOR HACKERS.

THE YEAR OF THE ROBOT - BE PART OF IT

I Order:	MULTIFACE 2	£47.95 <input type="checkbox"/>	RODOS	£29.95 <input type="checkbox"/>	Plus p&p UK £1, EUROPE £2
	INSIDER	£14.95 <input type="checkbox"/>	RODOS EXTRA	£9.95 <input type="checkbox"/>	Overseas £3

I enclose a cheque PO for £..... or debit my No Card exp.....

Name & address

ACTION TEST

Let's do it one last time in the company of GARY 'GbH' BARRETT!

- Gremlin have a ball (this page)
- **MASTERGAME: NETHERWORLD** (p.37)
- **Afterburner** - an AA exclusive! (p.40)
- **Domark's Return of the Jedi** (p.41)
- and what's wrong with **R-Type**? (p.48)

MASTERGAME NETHERWORLD pages 37-38

Archon	45
Batman	52
Blackbeard	53
Death Stalker	46
Echelon	44
Flight Ace	51
Galactic Conqueror	46

Game Set Match II	51
Glants	51
GI Hero	52
Operation Hornuz	43
R-Type	48
Return of the Jedi	41
Space Ace	51
Typhoon	43

RAVES

Afterburner	40
Return of the Jedi	41

ROY OF THE ROVERS

Gremlin ● £9.99 cass, £14.99 disk joystick/keys

Way back in February 1988 we ran a news story on a forthcoming release from Piranha, *Roy of the Rovers*. A few months later Piranha sank without trace and the game licence went with it. Gremlin decided to get on their skuba gear and dive down for the licence. They found it and now, a year after the news story, we have the game.

Just before a vital fund raising match the Melchester Rovers football team has been kidnapped. If enough funds aren't raised by the match then Melchester Rovers will close and the ground will be turned into a pile of rubble (Spurs got their two points back, I see). Roy Race is the only one they didn't get and now he

must rush around town looking for his kidnapped team mates. Before the kick off he must return to the football ground and then play with however many players he's rescued. He might even have to play alone. Guess who you play?

The game's split into two sections - the adventure and the five-a-side football match - but if you want to you can just play the match. In part one you wander

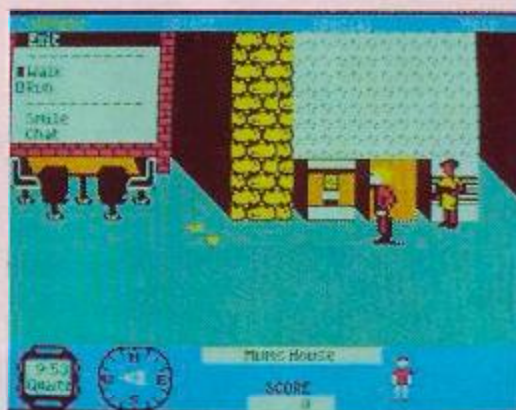
SECOND OPINION

"Last month Codemasters had a crack at Ocean's Matchday II crown as **THE** football game. Now it's Gremlin's go. Still, the novelty value of the 'kidnapping' hocus-pocus is a welcome addition. A good shot." SC

GREEN SCREEN:
Fine

around Melchester using a mixture of keyboard controls and pull down menus. Across the top of the screen are four menus: command, object, special and help. The rest is taken up with a flick screen view of the streets of Melchester.

With the command menu you can run, walk, smile, chat or fight. The special menu is used to wait, go home or visit mum (what a nice boy you are!). Other options appear occasionally. When at home you can brush your teeth, to keep that wonderful smile of yours, or rest. Finally you can get some clues with the help menu - it costs points though.



▲ Roy visits his mum

By wandering around you'll pick up clues and maybe track down one of your team mates. Supporters of the opposing team and hoodlums lurk around the town trying to stop you from rescuing your fellow players. Whether you've found them all by 7:30 or not you have to load the football game and then play for the sake of the club.

The football game itself is fairly standard stuff, using the flick screen approach rather than a scrolling pitch. There are no goal posts to shoot at: you just have to guess where the goal is, but it's not difficult. One or two players can take part in the match. Your computer opponent is tough to beat and the odds are stacked against you if you have fewer players than the computer.

A good tune plays as the game loads, but there are none in the game itself. Sound effects are adequate and there are nice effects in the football match.

Mixing a football game and a menu-driven adventure has worked well to produce a fun game, although you're only likely to play the adventure until you've solved it and then you're left with a football game. At that point you're better off with *Matchday II* (AA 28, 86%). GBH

FIRST DAY TARGET:
Rescue two players

The Verdict

GRAPHICS 69%

- Colour sprites and scenery.
- What happened to the goal posts?

SONICS 63%

- Good title tune.

GRAB FACTOR 76%

- Challenging adventure...
- And above average football game too.

STAYING POWER ... 67%

- Tough computer opponent.
- You only get to play football when the adventure has been solved.

AA RATING 74%

- Nice mix of strategy and arcade game.



NETHERWORLD

Hewson © £9.99 cass, £14.99 disk
joystick/keys

Take a trip into another time and dimension, my friend. Journey with us into a world where good and evil are locked in eternal conflict: visit the planet Netherworld. Stay awhile – maybe even stay forever. All this good and evil beating each other around the head stuff is one thing, but when you get stuck in the middle it's just too much.

Escape from Netherworld can only be accomplished by one method, collecting diamonds. (No, don't ask me to explain the logic of that one: just do as you're told, OK?) These pretty rocks sit



▲ Diamond hunting

Before the game itself begins you're offered a choice of starting level: one, five or nine – a nice feature to stop you having to battle your way through screens you've done before just to get to the one you keep dying on. Instead you can go there immediately and die anyway!

On the first level your mission is to find and collect 27 diamonds within the time limit. There are spitting demons and mines to avoid and the only tricky part is finding the secret door into a horde of diamonds. To travel to the next level you then have to find and go through a teleporter. Later levels have rocks that must be converted into diamonds, spitting goats' heads (a very bad habit and definitely anti-social) and alien generators which produce shield-bashing aliens. Smashing through walls occasionally with the aid of a brick smasher (comes in handy, that) is also necessary.

Sometimes you'll see a bunch of question marks drifting around and if you take your chances and collect them one of four things hap-

MASTER GAME

Monstrous regiment

Alien Eggs

Scramble them if they get in your way.

Alien Generators

Produce little aliens that should be annihilated.

Demons

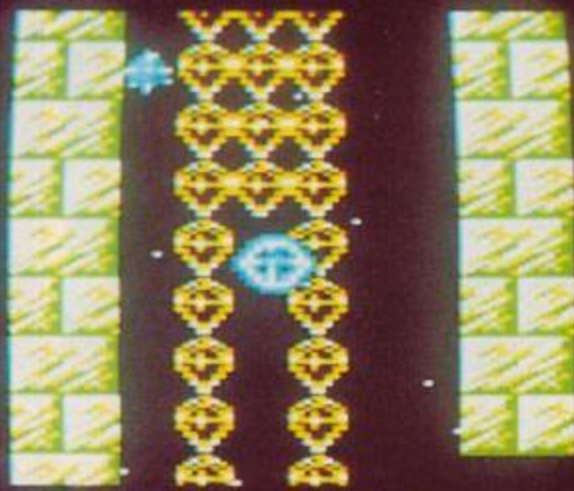
Spit acid bubbles that deplete your energy.

Goats' Heads

Spits acidic blood at you. Not nice!

pens. The two good are an extra life gained or invulnerability (the ship changes colour to indicate this). An uncontrollable ship or the controls being reversed are the bad effects. If you don't want to take the risk then don't pick up any question marks. It's just asking for trouble (sorry!).

Scrolling of the playing area is jerky, but it makes up for it in speed. The sprites are a little flickery, but not the sort of flicker that make you bang your head against the wall. A good continuous tune plays throughout the game, but not only do you have the option to turn it on or off, you can even adjust the volume of it. Sound effects can likewise be turned on or off, or have their vol-



▲ Still loads of diamonds left to collect

around the planet just waiting to be collected, although some do hide in apparently inaccessible places. Plenty of hostile bad guys lurk around and do their utmost to kill you.

Each level is made up of a large eight way scrolling playing area with an information panel at the bottom of the screen. This tells you how many lives you have left, diamonds still to be collected, score, level and time remaining to complete the level.

Mine your own business

BOUNDER MINE

Flies in a straight line until it hits something. It then turns 90° and continues.

HOVER MINE

Moves vertically and is deadly to touch.

SCANNER MINE

Moves around objects in a clockwise direction.

Remember Boulderdash?

When Mirrorsoft released *Boulderdash* all that time ago (it was reviewed in the first issue of *AA*: 93%), it was immediately hailed as one of the great originals – 'an instant classic', as wise old Pete Connor described it. You controlled Rockford, a stick-insect figure with an impatiently tapping foot, who has to collect jewels by running into them. The game got its name from its underground setting: you dashed along a cave avoiding the boulders that threatened to give you a first class flat top – head and all!

Along the way you

encountered peculiar amoeba and magic walls. The former grew with time to encompass any surrounding earth, and if you dropped a boulder onto the magic walls it was transformed into jewels.

Of course, the real reason we're going on about *Boulderdash* at such length – apart from the fact that it's a brilliant game, and *Netherworld* has torn a page right from its book – is that Chris Anderson, boss of Future Publishing (and therefore the bloke who signs our pay-cheques... eventually) is an absolute *Boulderdash* freak.

(Whaddya mean never mind the *Boulderdash*?) He even took time off from shouting at us to write a superb playing guide way back in *AA2* (p.88). We timidly knocked on his door and asked him for his opinion of *Netherworld* as a *Boulderdash* clone, and he said: 'YOU'RE FIRED! GET OUT! DON'T COME BACK! – Oh, what's that? *Boulderdash* clone you say? Give that here...'

And that was the last we or anyone has seen of him. Perhaps we'll be able to bring you a report next month...



▲ Converting rocks into diamonds by a simple process of squeezing

The Verdict

GRAPHICS 69%

- Colourful sprites and background.
- Some flicker on the sprites.

SONICS 74%

- Excellent continuous tune.
- Tolerable sound effects.

GRAB FACTOR 93%

- Starts off fairly easy...
- And more expert players can start on tougher screens.

STAYING POWER ... 86%

- Loads of levels and they get much more difficult
- May get frustrating if you keep getting stuck on the same level.

AA RATING 91%

- Buy this and you'll nether look back.

SECOND OPINION

"Yeah! OK so the scrolling's somewhat jerky, but at least it's fast. And you do get a relatively gentle introduction, with a realistic mission to accomplish. Don't be fooled, though: it gets seriously tough a little later on!"

SC

THE SCREEN IN GREEN:
all clear

ume adjusted. They're not as good as the tune, but still acceptable. It's better to have either effects or music because they do tend to clash at times. Go for music.

In many ways it plays like that old classic *Boulderdash*: collecting diamonds, changing rocks into diamonds, having a time limit to do it in and loads of levels to complete. It has been refined a little to make it as good as if not better than *Boulderdash*. There's plenty to keep you occupied and the levels get progressively harder as you get better at completing them. Start hunting for those gift tokens that Auntie Agatha bought you and head for the high streets.

GBH

FIRST DAY TARGET:
Complete levels one to three



▲ A naughty spitting goat



▲ Surrounded by skulls



▲ Ready to teleport



▲ Jukka Tapanimaki

FINNISH

Born 28 years ago in beautiful Finland and living in Tampere, 500 miles from the Russian border, Jukka did his National Service in the army before going to University. 'Then I discovered computers were much more interesting!' he says.

His first full-length game was *Octopolis*, a platform game-cum-shoot-em-up.

The logical problems in *Netherworld* may owe

something to Jukka's other chief interest: chess. He is 'addicted' to the game, he says.

He works with Jori 'the Hubbard of Finland' Olkkonen, who wrote the excellent continuous tune you hear as you play *Netherworld*.

Among Jukka's other interests are horror movies and science fiction novels. 'I even wrote an SF novel once', he admits: 'but it was 350 pages of rubbish!'

EXCLUSIVE!

AFTERBURNER

Activision ● £9.99 cass, £14.99 disk
joystick/keys

In the arcades *Afterburner* is a furiously fast shoot-em-up that demands lightning reactions, a blur of a trigger finger – and no brains. When it first announced that it was going to come out on home micros there were plenty of sniggers from people who said that it simply couldn't be done. Indeed it has to be admitted that we here at AA were among them.



▲ Taking off from the carrier

Now we've got our greedy mitts on the CPC version – you read it here first, folks! – it faces the ultimate test at the hands of a departing imbecile (i.e. Gary's going. No flowers please – ed). The plot: fly your F-14 Thunder Cat through stage after stage of mindless violence. The screen is composed of a status panel at the bottom which shows how many missiles you have left, lives and fuel. At the top of the screen is your score, number of planes hit and the stage. The rest of the screen contains the playing area with your plane viewed from the rear. The ground moves towards you and enemy aircraft appear on screen from the front and rear.

Stage one takes place over open sea and all you have to do on this and every stage is survive until the end. At this point you go onto the next level and are awarded bonus points for number of kills. A sight drifts around the screen according to how you fly the plane and if it crosses the position of an enemy aircraft a missile is locked on it. It's just a matter of hitting the fire button to destroy your

enemy. There's also a continual stream of machine gun fire from you. Stage two is similar except that you're flying over land instead and after that you get to link up with a plane to re-fuel and re-arm.

On later stages you have to navigate through valleys and destroy ground targets and re-fuelling sometimes takes place on an airstrip rather than in mid-air. Airstrip re-fuelling is hysterical, you get to see tiny sticks with dots on top walk towards the plane making a vain attempt to impersonate men. That's about it as far as game-play goes, just blast away forever, or until you get sick of it anyway.

SECOND OPINION

"If only you could see me now, sitting here eating my hat. I scoffed when they said Afterburner was coming out in a CPC conversion, but having seen it now I'm quite happy to take it all back. It may not be Mastermind, but then again Mastermind isn't Afterburner. Highly recommended." SC

GREEN SCREEN:
perfectly playable



▲ Shot down and heading for the drink



▲ Flying along looking for trouble. Don't worry, it won't be long in coming!

Graphically it's very good, it's fast and colourful with plenty of detail. The graphics on the title screen look very nice with the moving balls. It's a pity that sound isn't up to the same standard, though, and all you get are a couple of explosions.

The conversion from the arcades is done surprisingly well considering the nature of the game. It's still fast and furious, which is what the game's all about, and even though you don't get to use your brain much at least your fingers get some exercise. Unfortunately this is one of those that works much better in the arcades simply because you often find it on a hydraulic set-up that throws you around as the plane moves. Unless you fancy setting up your CPC on your bed and bouncing around as you play, you'll miss that excitement. Never mind, it's still fabulous! GBH

FIRST DAY TARGET:
250,000

The Verdict

GRAPHICS 89%

- Very fast and smooth.
- Lots of detail and colour.

SONICS 45%

- Just a few explosions.

GRAB FACTOR 81%

- Basically just a shoot-em-up.
- But an accurate conversion.

STAYING POWER 72%

- Level after level to battle through...
- The only difference being more enemies.

AA RATING 81%

- A good game, especially since it's an arcade conversion.





RETURN OF THE JEDI

Domark • £9.95 cass, £14.95 disk
joystick/keys

Way back in AA29 there was *Star Wars* (37%), followed in AA38 by *The Empire Strikes Back* (51%). Now the trilogy gets rounded off with the final instalment. Can Luke, Leia, Han and Chewie (hurrah!) save the universe or will it fall into the hands of evil Darth and the Emperor (boo!)? And, as a matter of somewhat more pressing importance to the earthlings at Domark (they are earthlings, I suppose?), is the third of the series any better than the other two mediocre efforts?

The Verdict

GRAPHICS 64%

- Best diagonal scrolling in game yet.
- Chunky, but colourful graphics.

SONICS 29%

- Step, bang, kaboom.

GRAB FACTOR 86%

- Not mentally stimulating, just blast and dodge.
- OK, so all you do is blast things and dodge them. What's wrong with that?

STAYING POWER .. 76%

- Three skill levels...
- Each one is more of the same.

AA RATING 82%

- The best of the *Star Wars* games.

Luke, Leia, Han and Chewie get the dubious honour of deactivating the forcefield. Once that's been done you get to fly the Milenium falcon right inside the Death Star and shoot the reactor core. Getting out of there as fast as possible is your next problem because otherwise you'll play a very active part – a radioactive part, indeed – in the Death Star's destruction.

Stage one is set on Endor with Leia racing towards the Ewok village on a



● A tie on your tail

speeder bike with Imperial Stormtroopers in hot pursuit. Trees, logs and the occasional Ewok trap get in your way and you also have to deal with the enemy.

Reach the village and you then control an Imperial Walker guided by the hairy hands of Chewbacca. Logs and rocks have to be destroyed or avoided, as do the occasional Imperial Walkers. Meanwhile Lando Calrissian is flying towards the Death Star in the Millenium Falcon and the action switches between the two every so often.

Eventually Lando gets inside the Death Star and you have to guide him



● Rebels 1, Empire 0



● Shoot the reactor and then get out – fast!

There are three difficulty levels: easy, medium and hard. On the easy level you don't ride in the Imperial Walker, but instead go straight to the attack on the Death Star. With the medium level you don't get the Death Star approach, which is available only on the hard level. Every time you destroy the Death Star the level increases and things get tougher, but the points awards become greater.

Although the diagonal scrolling is a bit on the jerky side it's still very good. The sprites are rather chunky, but at least they're colourful. Sound effects are something that you might as well forget about, all you get are laser blasts, explosions and walker steps.

At last Domark seem to have come up with a decent *Star Wars* game. As a matter of fact they seem to be producing better games in general at the moment. Long may it continue!

GBH

FIRST DAY TARGET:
Score 200,000 points



● Dodge the trees on Endor

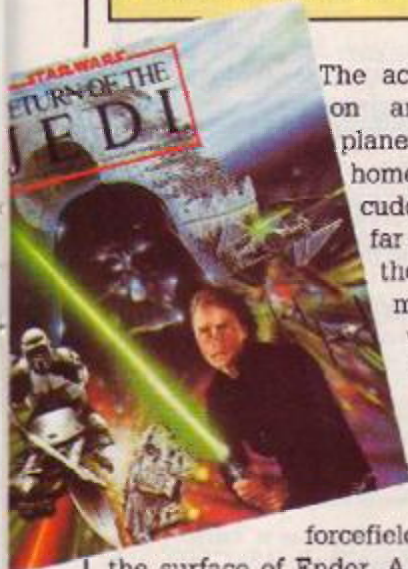
SECOND OPINION

"Here's something of a novelty: a Domark game that's more than just hype. There's some real gameplay and skill involved, and some of the later levels are quite tough. I like it – hope they can keep up the good work!"

PbM

GREEN SCREEN:
Fine

towards the reactor. Tie fighters are pursuing you and must be dealt with in the usual, predictable way. Should you reach the reactor you have to blast it and then get out of there fast the same way that you got in.



The action takes place on and around the planet Endor. Endor is home to the cute and cuddly Ewoks and far above its surface the Empire's latest mega-death weapon, a new Death Star. At present it's still uncompleted and only protected by a forcefield generated on the surface of Endor. A Rebel fleet is at this very moment travelling through hyperspace (hopefully they won't get swallowed by a dog – just thought I'd throw in a quick *Hitchhikers* reference to check you're still awake) to destroy the Death Star, but they need the forcefield deactivating.

!! NOW SPEEDTRANS PLUS HAS EVEN MORE TO OFFER !!

SPEEDTRANS PLUS2

For CPC6128 (or 464/664 with DK Tronics 64K (or larger) Memory)
Once the programs has been transferred to disc IT WILL RUN ON ANY CPC

SPEEDTRANS PLUS2 now handles the VERY LATEST Speedlock types automatically. No need to hold a key down at anytime during loading. **SPEEDTRANS PLUS2** also saves 99% of opening screens and saves them in their full colours

FULLY AUTOMATIC - JUST ONE KEYPRESS * ONLY ONE PROGRAM TO RUN WHICH FINDS THE SPEEDLOCK TYPE AUTOMATICALLY * WILL TRANSFER ORIGINAL AND MANY OF TODAY'S SPEEDLOCK PROGRAMS * NO FIDDLING OR MEDDLING - WRITTEN WITH THE AMATEUR IN MIND * AUTOMATIC DISC FILENAMES * NO WASTED DISC SPACE - SAVES THE CORRECT AMOUNT OF GAME CODE * SAVES 99% OF OPENING SCREENS * SCREENS SAVED IN THEIR CORRECT COLOURS * COMPRESSES SCREEN CODE TO SAVE EVEN MORE DISC SPACE * FASTER LOADING TIMES FROM DISC BECAUSE OF SHORTER FILE LENGTHS

SPEEDTRANS PLUS2 transfers over 200 programs to Disc, some of the latest it will do are MADBALLS, FREDDY HARDEST (both games) BASKET MASTER, MATCHDAY II, PHANTOM CLUB, GRYZOR (main program), SUPER HANG ON.

These latest Speedlock types can be identified by the whole screen flashing with horizontal bands of colour immediately after the first file has loaded. Do remember that **SPEEDTRANS PLUS2** does not save all the memory in the hope of having saved all the game. It saves exactly the right length of code. All screens are saved in compressed form - some as little as 4K (Basket Master) - thus saving even more disc space.

SPEEDTRANS PLUS2 is the most sophisticated Tape to Disc transfer utility for SPEEDLOCK protected programs ever published. It will certainly transfer more games than any other Speedlock transfer program on the market and with much greater ease. Other transfer programs require you to know how long the game code is so that you may run an alternative program for the long games which does not save the loading screen. This is done because they do not make use of the extra memory available on the CPC 6128 or from the use of an extra RAMPACK (DK Tronics 64K or greater.) This program is highly intelligent in that it first reads the loader from the tape and establishes which type of protection is in use from 6 alternatives. At the end of the load it then finds out how long the code is and if it is too long to be saved to one file it will move the excess code into the banked memory and save the game in two parts and write the appropriate loader program. The screen will also be moved into a bank and compressed before saving. This can mean screen files as small as 4K (Basket Master) depending on mode and content. All this adds up to a lot less disc space being used than with other transfer programs and you will nearly always get the loading screen saved. The exception to this is when there is no loading screen (as in SCRABBLE) or when the screen is blanked out and more code is loaded into the screen memory, as in BMX SIMULATOR and MADBALLS for example. Try getting a screen with Multiface or any other imager. These imagers are only capable of saving what you have in memory at the time the button is pressed. What happens in multi part games? you have to press the button for each part thus wasting precious disc space. They also save far too much code and therefore waste even more space and saving too much code means longer loading times from disc. Programmers are now checking to see if you have an imager plugged in or if you have the program will not load. Imagers also have to be in place before you can reload your program and saved programs can only be reloaded in to the machine in which they are saved. **SPEEDTRANS PLUS2** creates totally stand alone files and if you have no other CPC even without extra memory they will run perfectly. It also displays the saving name on screen at the start of the load with all except the very latest games. In all cases the disc saving name is displayed while the save is carried out. To run the transferred game just RUN this name. Another intelligent feature of **SPEEDTRANS2** is that the very first thing it does is to find out which drive it is in. This means that if you have a two drive system you may run the program from drive B by typing RUN "B DISC" or "B RUN" DISC. However the saving will ALWAYS be to DRIVE A so with a single drive you must change the disc when prompted on screen.

DISC:- UK £14.99 - EUROPE £16.25 - REST OF WORLD £17.00

Upgrade your **SPEEDTRANS PLUS** send your disc together with: UK £2.00 - EUROPE £3.25 - REST OF WORLD £4.00
Upgrade your **SPEEDTRANS TAPE** send your tape together with: UK £12.00 - EUROPE £13.25 - REST OF WORLD £14.00

* LOW LOW PRICES * ARNOR SOFTWARE * LOW LOW PRICES *

Program	UK - Disc		Europe - Disc		Rest of World - Disc	
	Disc	Eprom	Disc	Eprom	Disc	Eprom
PROTEXT OFFICE *NEW*	27.00	N/A	28.25	N/A	29.00	N/A
PROTEXT FILER *NEW*	19.00	N/A	20.25	N/A	21.00	N/A
PROTEXT	20.00	30.00	21.25	31.25	22.00	32.00
PROSPELL	19.00	27.00	20.25	28.25	21.00	29.00
PROMERGE (ROM=PROMERGE PLUS)	19.00	27.00	20.25	28.25	21.00	29.00
MAXAM *THE BEST!*	20.00	31.00	21.25	32.25	22.00	33.00
MAXAM 1 1/2 *NEW*	N/A	23.00	N/A	24.25	N/A	25.00
UTOPIA	N/A	23.00	N/A	24.25	N/A	25.00

ROMBO ROMBOARD UK - £28.00 EUROPE - £30.00 REST OF THE WORLD - £31.00

DMP 2000/2160/3000/3160

The printer buffer presently in the DMP 200/3000 series is a 2K RAM. Most of this RAM is used by the printer's operating system leaving an average 1/2K as buffer space. Our upgrade kit contains a new static RAM chip which will increase the printer buffer by 6K (about 4 pages of text). This upgrade allows all Download Characters to be re-defined allowing the user to design special characters for use with scientific and other programs. The kit is supplied with full pictorial instructions to allow the amateur to carry out his own modification (the DMP2160 takes about 7 minutes). If you don't think you are up to it your local TV shop can do the job in approximately 15 minutes

UK £12.50 - EUROPE £13.75 - R. of W. £14.50

FIRETRANS

This utility will transfer a number of FIREBIRD programs from tape to disc automatically including most opening screens in full colour. FIRETRANS will work equally well from tape but will be more convenient to use if converted to disc with SAMSON/Transmat. It will transfer WILLOW PATTERN, HUNESTONE, CHIMFRA, GUNSTAR, PARABOLA, REALM, SPIKY HAHOLD, BOOITY, DON'T PANIC, GUNFRIGHT, STARGLIDER, NINJA MASTER, HELICOPTER, and some version of THRUST, HARVEY HEADBANGER and BOMBSCARE.

TAPE:- UK £5.00 - EUROPE £6.25 R. of W. £7.00
DISC:- UK £8.50 - EUROPE £9.75 - R. of W. £10.50

NEW

COMPACTOR

NEW

COMPACTOR will allow you to load a standard 17K screen, set the mode, border and ink colours and then save it as a compressed screen containing its own mode and ink colour information. Most screens compact down to an average of 9K which is an enormous saving on disc space. Loading time of compressed screens is also proportionately reduced.

TAPE:- UK £5.00 - EUROPE £6.25 R. of W. £7.00
DISC:- UK £8.50 - EUROPE £9.75 - R. of W. £10.50

TRANSIT

TRANSIT is a disc-to-disc file copier which handles file upto 40K in length in one pass. It will copy from drives A-A, A-B, B-B and B-A making an ideal utility for use with 5 1/4" second drive.

TAPE:- UK £4.50 - EUROPE £5.25 - R. of W. £6.50
DISC:- UK £8.00 - EUROPE £9.25 - R. of W. £10.00

UTILITY DISC No. 1

This utility disc contains 5 programs, all menu driven. They are SAMSON, TRANSIT, QCLONE, VIEWTEXT and the fast disc FORMATTER.

DISC:- UK £15.50 - EUROPE £16.75 - R. of W. £17.50
ROM:- UK £17.25 - EUROPE £18.50 - R. of W. £19.25

ADVANCED MUSIC SYSTEM

When you buy Hairbird's Advanced Music System from us we will give you

ABSOLUTELY FREE OF CHARGE

A disk containing THE GOLDMARK COLLECTION of virtuoso demonstration music files by Rob Baxter some of which have been written especially for us.

UK £26.00 - EUROPE £27.25 R. of W. £28.00

NEW

NIRVANA

NEW

Have you tried backing up your original expensive disc software and failed? Use **NIRVANA** before its too late! **NIRVANA** (meaning enlightenment) is an extremely powerful disc handling utility which has the following features: Disc to disc back-up cooler which will handle most of the commercially protected discs available today. File copier for individual files. Disc formatter, much easier to use than CPM. Change file attributes. Erase files. Change filenames. Will handle all disc drive combinations.

DISC:- UK £14.99 - EUROPE £16.25 - R. of W. £17.00

NEW

SHAREPLAY

NEW

THE STOCK MARKET SIMULATION
(All CPC's)

This is a serious educational program for 1 to 6 players and provides all the enjoyment of playing the stockmarket without any risk of personal bankruptcy! Each player can buy and sell shares and the target is the first to reach £1,000,000. The program includes a stockholding portfolio listing the shares purchased, their number, cost and market value. Bank balances are also shown. Graphical representation of market fluctuations are given in the form of a bar graph. Also included is a high score table. Scores are automatically saved at the end of each session.

DISC:- UK £12.00 - EUROPE £13.25 - R. of W. £14.00

NEW

WORDSEEK

NEW

THE WORDSEARCH PROGRAM
(All CPC's)

This educational program will tax even the most agile mind. The aim is to find the hidden words in a 15 by 15 puzzle within a set time limit of 30 seconds. The time limit is extended for every correct letter of the current word found. You may create your own puzzle consisting of up to 10 words which can be saved to disc and used at any time. You may only retain one puzzle at a time but if you choose not to use your own puzzle then the program will randomly select one from the library of 50 on the disc. All of the puzzles in the library are made up of 10 words each consisting of 1x8 letter, 1x7 letter, 2x6 letter, 3x5 letter, 2x4 letter and 1x3 letter words. This ensures equal difficulty regardless which one is randomly loaded. The program contains a print option (for Epson compatible printers) allowing a hard copy to be made of any puzzle created. Keyboard/Joystick options are also available.

DISC ONLY - U.K. £12.00 - EUROPE £13.25
REST OF THE WORLD £14.00

NEW

TUNESMITH

NEW

TUNESMITH is a simple to use sound utility which allows you to use the keyboard to play and record your tunes. No knowledge of music or Amstrad sound commands is required all you need to be able to do is whistle the tune you play or record. The octave and period of notes is variable and the program includes synthesizer and vibrato routines. **TUNESMITH** will save any tune as a basic file which can be RUN, CHAINED or MERGED into your own program.

DISC:- UK £12.00 - EUROPE £13.25 R. of W. £14.00

SAMSON

SAMSON has been developed by us to transfer not only the normal programs but also many of today's where the code is much longer. **SAMSON** differs in many ways from other Tape to Disc utilities, the main differences being: * **SAMSON** retains original file suffixes (SAMSON.SCN will be saved as SAMSON.SCN) * Improved file relocation method * Elaborate Tape read/Disc write system which reduces Tape Motor, Slave Replay and Disc Drive Motor wear substantially. * A large reduction in tape transfer time is also achieved in all but a few cases * NEW "SPLIT" option for today's longer games (we will be using this option in future routines) * All file information is displayed on screen and can be echoed to your printer if needed. **SAMSON** also transfer itself to disc.

TAPE:- UK £7.50 - EUROPE £8.75 - R. of W. £9.50
DISC:- UK £11.50 - EUROPE £12.75 - R. of W. £13.50

CHARACTER DESIGNER

(All CPC's)

* REDEFINE YOUR PRINTER DOWNLOAD CHARACTERS
* REDEFINE THE COMPUTER SCREEN FONT
* REDEFINE ANY/ALL KEYBOARD KEYS (ASWERTY)
* DESIGN SPECIAL SCIENTIFIC CHARACTERS/FONTS

Takes all the hard work out of character designing making it a pleasure. The printer part of the program will only work if your printer is capable of DOWNLOADING and is EPSON compatible - see your printer manual. Works with 7-bit or 8-bit output (8-bit port). All the designing is done "On-Screen" so you can see exactly what you are doing. You can save your newly designed characters to disc and reload them at any time into a basic program and into most Word Processors. The program also allows the user to redefine any or all of the keys on the keyboard. This feature will be useful for those who require an ASWERTY keyboard. The disc also contains twelve sample fonts for experimentation.

TAPE:- UK £7.99 EUROPE £9.25 - R. of W. £10.00
DISC:- UK £11.99 - EUROPE £13.25 - R. of W. £14.00

FAST FORMATTER

The **FAST FORMATTER** will format one side of a disc in approx. 30 seconds with the choice of DATA, VENDOR or SYSTEM and its much easier than using your CPM disc.

TAPE:- UK £4.50 - EUROPE £5.25 - R. of W. £6.50
DISC:- UK £8.00 - EUROPE £9.25 - R. of W. £10.00

Please send your cheque (£ Sterling) Eurocheque OR UK P.O. to
**GOLDMARK SYSTEMS, 51 COMET ROAD, HATFIELD, HERTFORDSHIRE,
AL10 0SY, ENGLAND**

Please write or telephone 07072 71529 for full brochure.

TYPHOON

Imagine ● £8.95 cass, £14.95 disk
joystick/keys

Hordes of mechanical invaders threaten to dominate the Earth (oh no not again) and so must be blasted out of existence. You pilot both a helicopter gunship and an F-14 jet plane on a seek and destroy mission behind enemy lines.

SECOND OPINION

"One of those games that starts really badly, and then gets a little bit better before sliding off the bottom of the scale again. Treat with suspicion, unless you're a jet/helicopter gunship freak." SC

GREEN SCREEN:
Lousy choice of colours

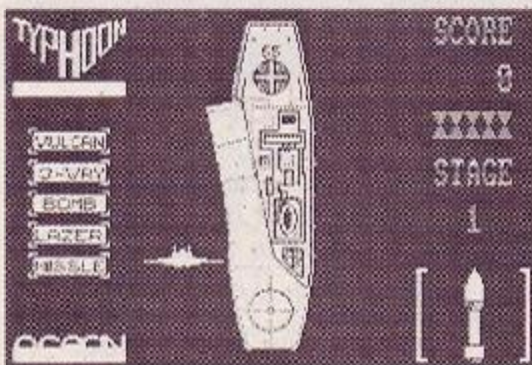
Down one side of the screen is a column of five icons: vulcan, 3-way, bomb, lazer and missile. Down the other is a score and lives panel with a smart bomb sitting down at the bottom of the screen. In the centre of the screen is the playing area which either comes out towards you or scrolls down the screen.

The first stage of the game shows your

plane diving vertically through the clouds and shooting down enemy aircraft. Eventually it reaches an aircraft carrier and then hovers vertically over it as you try to sink the ship. (Pretty smart plane huh?) Level two is reminiscent of *Flying Shark* or *Xevious* - a vertically scrolling level with both ground and air targets to blast and avoid. That's about it as far as gameplay goes: shoot, bomb, die.

On level one you get a terrible impression of moving towards the ground, the clouds leap up at you in big steps, but slow ones and colour is very scarce on all levels. Sound effects are tacky, but you do at least get a decent tune on the title screen and in between stages.

Soar through wave after wave of flying death in your armour-laden helicopter, scream through the skies in your F-14 as you take on seemingly limitless hordes of mechanoid invaders. At least that's what the instructions



▲ Typhoon? More a storm in a thimble

say you do in this Konami coin-op conversion. Instructions like that should always be taken with a pinch of salt, but the ones with *Typhoon* should come complete with a share in a salt mine. Have a good look before you even consider investing your hard-earned cash. GBH

FIRST DAY TARGET:

Score 50,000 points

The Verdict

GRAPHICS 48%

- Lacking in colour.
- Little sense of movement in plane stages.

SONICS 51%

- Good tunes.

GRAB FACTOR 46%

- First stage is ultra-tedious.
- After that it gets better.

STAYING POWER ... 53%

- Eight levels to go through.
- Not that difficult to complete them though.

AA RATING 51%

- Typhoon? More of a storm in a thimble.

OPERATION HORMUZ

Again Again ● £9.99 cass, disk
joystick/keys

Durrell Software (of *Harrier Attack* - AA1, 53% - fame) have come with another game of naval conflict, only this time they're just the programming house. The setting is the Arabian Gulf and you have control of a McDonald (no relation to Pat) Douglas (no relation to Adams) VTOL ground attack jet. Your mission is to destroy seven enemy missile bases in the surrounding area.

A large sprite of your jet sits in the middle of the four way scrolling playing area and a panel across the bottom of the screen showing the status of your aircraft and your score. Aircraft status is broken down into fuel, weapons and damage sustained.

Your have four weapon types on-board: cannons, bombs, air-to-air missiles and anti-



● Blow 'em to hell!

SECOND OPINION

"A not-half-bad shoot-'em-up that will occupy you for quite some time before your attention wanders." SC

THE SCREEN IN GREEN:
no problems

ship missiles. Bombs and cannons are in the greatest supply with a single anti-ship missile and a handful of air-to-air missiles. All damage is repaired and fuel and weapons systems are reset to maximum when you land on your own carrier. If the carrier sinks, however, things will start to go very badly for you. You have three jets to complete the mission with and bonus ones can be gained.

Exocet missiles are being fired at the carrier and so you have to periodically return to the ship so that you shoot down the missiles. MIG 21 fighters are also in the area and they have to be dealt with in a typically violent manner: blast-'em! Ground based targets also fire at you and launch missiles at your carrier.

Sound is unimpressive, with just a handful of explosions and an irritating noise coming from your engine. There's a good tune on the title screen, though.

The scrolling is fast and smooth. You can do some pretty impressive manoeuvres with

the plane and the explosions are crude but effective.

Operation Hormuz cannot seriously be

The Verdict

GRAPHICS 64%

- Fast and smooth scrolling.
- Plenty of colour.

SONICS 54%

- Nice title tune.
- Ticks and booms, but they suffice.

GRAB FACTOR 73%

- Plane's tricky to control at first...
- But you'll soon be flying!

STAYING POWER 64%

- Seven bases to destroy.
- Just a simple shoot-em-up.

AA RATING 70%

- Ideal for gratuitous blasting.

described as ultra-sophisticated, but it does its job as a shoot-em-up very well. Destroying the seven bases is fairly irrelevant, and you'll get your kicks just flying around killing things instead. Not a classic, but a solid, playable game. GBH

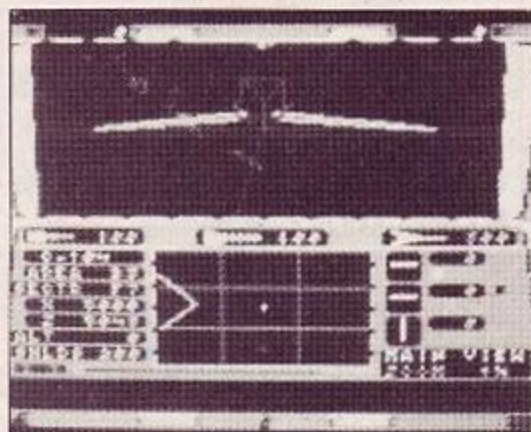
FIRST DAY TARGET:

Score 10,000

ECHELON

US Gold ● £12.99 cass, £14.99 disk joystick/keys

For many years astronomers had been looking for the tenth planet. In 1996 it was found. It was named Isis after the Egyptian goddess of the moon and exploration craft were sent out to study it. Isis turned out to be a rather unusual planet, since it appeared at one stage to have housed an advanced civilization. Now however it's just a cold rock sitting 6.5 billion kilometers from the sun.

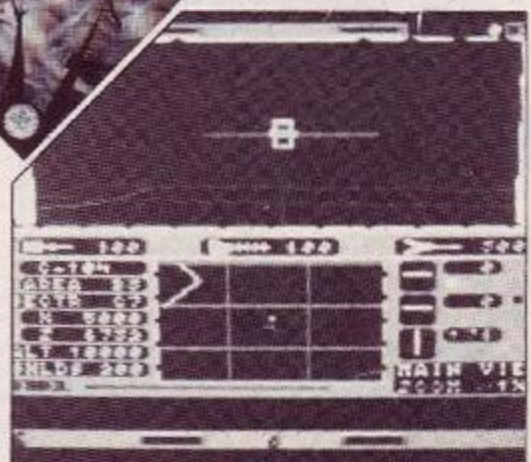


● view of your C-104 from the RPV...

The only logical explanation is that it had been captured by the sun's gravity when it passed by the solar system.

In 2054 a prison colony was set up on Isis and the inmates forced to work in mines. 32 years after its opening there was a major prison break with 350 prisoners escaping. The prison was closed and in the following year pirates began raiding ISF (International Space Federation) Facilities (the ISF being a United Nations run organisation).

Eventually things got a little out of hand and Echelon was set up on Isis - which appeared to be a centre of pirate activities. You're a pilot of the C-104 Tomahawk combat/exploration craft and have been posted on Isis as part of Echelon. Your mission



▲ Returning to the base station

is to find and destroy the pirate base.

The playing area is made up of 36 areas which are further sub-divided into 196 sectors, giving a total of 7056 sectors to explore. Somewhere among them is the pirate base. Nine areas are mapped out for you on the patrol zone map supplied with the game, with the other 25 to be filled in by you as your exploration continues. There are several difficulty levels which range from simple scientific explorations through patrol to military. More and more enemy craft are encountered on the patrol and military levels.

Isis is viewed in 3D through any of the six cameras positioned around your C-104. A grid is overlaid on the map to give you some idea of how far away something is and how fast you're going. If you switch it off, however, things move a little faster.

SECOND OPINION

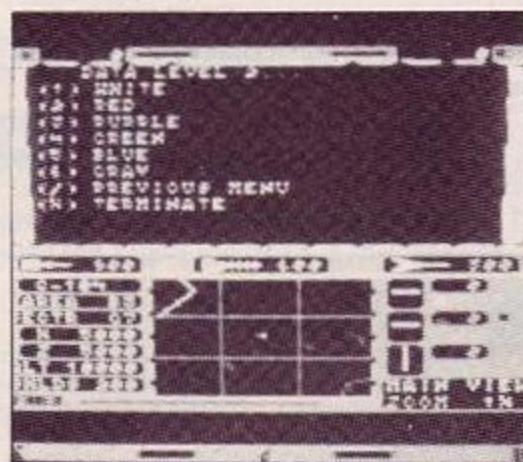
"Call me old-fashioned (you're old-fashioned - Gary), but I really don't like a game that threatens to crash when I try to save it. It just made me nervous.

"On the other hand, if you get into this game you're going to be hooked for months. It's massive!" SC

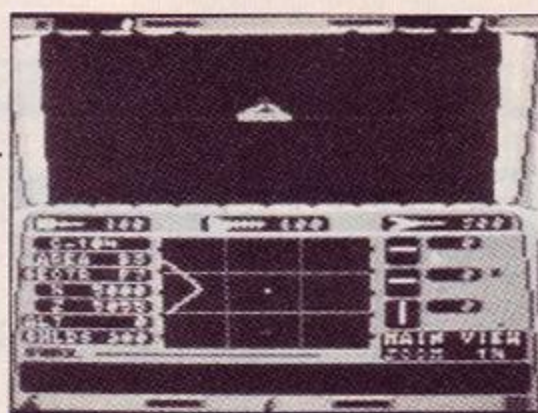
THE SCREEN IN GREEN:

Text easier to read, but some vector graphics indistinguishable

There are a multitude of controls - 33 in all. These control the ship, launch remote controlled vehicles, select and fire weapons and allow communication between you and ISF computers. This latter 'datalink' is the cause of the most serious objection to this game. Pressing ESC is supposed to present you with four options: docking; game options; pirate maps; and terminate. In practice it frequently caused our copy of the game to crash.



▲ Connecting to the Datalink - lucky this time!



▲ And a view of the RPV from the C-104

You can play *Echelon* as an arcade or as a strategy game. As far as the arcade action goes it's all slow paced and looks dated. The strategy style of game should take a very long time to complete with such a huge playing area. The problems and puzzles that you'll have to solve require some lateral thinking, but at least your brain gets a bit of exercise instead of just your fingers.

Graphically it's fairly boring with simple vector graphics to represent everything. Text on the datalink screens seemed to be easier to read in mono than colour, but you should be able to work things out after a couple of squints. Sound effects are almost non-existent, just the firing of your weapons.

Echelon reminds me in some ways of *Elite* with its long term objectives and vector graphics. It also bears some resemblance to *Driller* with its problem solving aspects, but truth be told it's not as good as either. The major problem though is the datalink bug which is likely to put many people off - and rightly so. GBH

FIRST DAY TARGET:

Crack half of the pirate cipher

The Verdict

GRAPHICS 61%

- Well designed control panel.
- Slow moving vectors and poor colour choice.

SONICS 19%

- Feeble effects.

GRAB FACTOR 64%

- Simple to control, after a while anyway.
- Program sometimes crashes in the datalink.

STAYING POWER... 72%

- Huge area to explore.
- Very little action to keep your interest.

AA RATING 67%

- A good effort spoiled by a disastrous bug.

ARCHON COLLECTION

Electronic Arts • £8.95 cass, £14.95 disk joystick/keys

Question: take chess, throw in a mixed assortment of monsters and magic, add a few arcade-style elements and what do you get? Answer: *Archon*. It's a battle between the forces of good and evil with no sophisticated plot: beat your opponent. For your money you get not only *Archon*, but get *Archon II-Adept*.

The game is played on a nine by nine board of squares which are in several flavours, the most useful being the power

there's also an option to play against the computer. Both sides are made up of eight different types of pieces which make up a total of 18 pieces on each side in all. Good consists of nine knights and two each of phoenix, djinni, valkries, golems, archers and unicorns. The evil forces are made up of nine goblins and two each from among

EA games, but still worth a look nonetheless. Several difficulty levels help to extend the life and being able to play against a human is always a worthwhile addition to a game. **GBH**

FIRST DAY TARGET:
Beat the computer on beginner level

The Verdict

GRAPHICS 64%

- Colourful graphics.
- Animation leaves a little to be desired.

SONICS 31%

- Just a handful of effects.

GRAB FACTOR 67%

- Two games for the price of one
- Simple to play.

STAYING POWER... 75%

- Two player game plus difficulty levels.
- Computer opponents will eventually be no challenge.

AA RATING 71%

- Not quite up to EA standards, but a very good game nonetheless.

points. There are five power points and to win the game you have to either control all five of them or blast your opponent off the board.

You can play either good or evil and

Spelling it out

With a **Teleport** you can rapidly move one piece to any other square on the board.

If one of your pieces is wounded the damage can be repaired with a **Heal** spell.

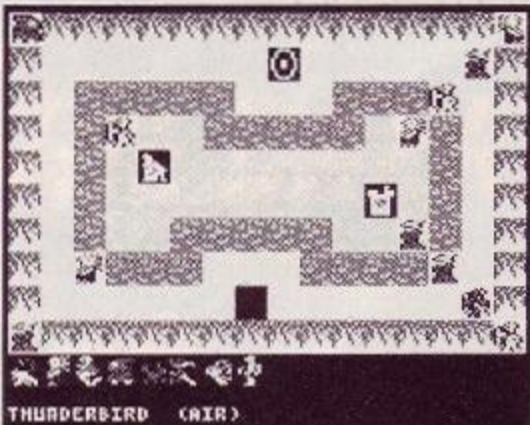
Time can be reversed or accelerated with the **Shift Time** spell.

With **Exchange** any two icons on the board can have positions swapped.

Four types of elemental can be summoned with **Summon Elemental**: earth, fire, air and water. Elementals fight for you for one combat.

Dead pieces can be brought back to life with the aid of **Revive**.

Finally **imprison** temporarily immobilises an enemy piece.



▲ *Archon II-Adept*

basilisk, manticore, troll, shapeshifter, dragon and banshee. The good and evil forces are both led by a spell caster: the wizard and sorceress respectively.

As well as having an army of pieces to hack away at your opponent with you also have seven spells at your disposal: teleport, heal, shift time, exchange, summon elemental, revive and imprison.

Archon II is very similar to *Archon* in set-up, the main difference being that you

In the light corner...

The **Wizard** is the only member of the good forces who is capable of casting spells and so must be protected at all costs.

Unicorns charge around quickly and fire bolts of energy from their horns. Boulders can be hurled by **Golems** who take some killing.

Valkyries fly through the air wielding a magical spear.

The **Djinni** is a tough air spirit that can create a tornado.

Standing close to a **Phoenix** can be dangerous: they explode into a ball flame and while they do so they're invulnerable to attack.

They may be lousy combatants, but you do have nine knights to vanquish your foes with.

have four Adepts to conjure creatures associated with the four elements and the objective this time is to capture your opponent's citadel. Combat is resolved in exactly the same way as in *Archon* and there are also some spells that can be used to aid you or hinder your opponent.

The graphics are bright and colourful, but it would have been nice to have more animation. Sound is rather limited, but it is a strategy game after all.

Not quite up to the standards of recent



▲ Light and dark in the Archon Collection

And in the dark corner...

The **Sorceress** is just as deadly as the **Wizard**.

Gaze into the eyes of the **Basilisk** and it could be last thing you see.

Don't stand near the **Manticore's** tail or you could end up with more perforations than a Tetley teabag.

Trolls may not be very intelligent, but they have a distinct talent for picking up and throwing things. They were always bottom of the class, but no-one ever laughed at them for it, unless they wanted to be picked up and thrown a bit.

The **Shapeshifter** is a sneaky one, which becomes an exact duplicate of its foe.

Everyone knows to keep well away the fierce firebreathing **Dragon**.

The wail of the **Banshee** drains the life-force from anyone too close to her. Like Tiffany only worse.

They may only be armed with clubs, but **Goblins** can be a match for the **Knights**.

SECOND OPINION

"Not EA's strongest ever game, but even so it has a fascinating quality that makes you keep returning to it. And with the various levels it stays just difficult enough to challenge you to continue."

"Not bad at all." **SC**

THE SCREEN IN GREEN:
No problems

GALACTIC CONQUEROR

Titus ● £9.99 cass, £14.99 disk
joystick/keys

Gallion is an organisation dedicated to the protection of mankind. It's situated in a remote corner of the galaxy from where it scans for hostile invaders. Alien invaders have been detected and so you've been sent to intercept in the space craft *Thunder Cloud II*. Good luck, and don't forget to wrap up warm and ring your mum at weekends.

There are basically two screens to the game: a galactic map and the shoot-'em-up section. With the map you have a crosshair that's moved under joystick con-

SECOND OPINION

"I did enjoy this, and nothing Gary says is going to change my mind. Still, he's right about the gameplay, and the suspicion is definitely there that this one won't run and run." SC

THE SCREEN IN GREEN:

Loses the prettiness, but OK to play



▲ Blasting away again

trol and pressing fire sends you to the planet under the crosshair. The shoot-'em-up section is viewed from the rear of the ship with aliens coming towards you in 3D. Across the bottom of the screen is your score and there's also an indicator for your shields.

In the main part of the game you just fly around blasting everything in sight or at least getting out of its way. The action takes place in three places: low, high and space. At low altitude your ship stays upright and tilts left or right, depending on how you move it. With the high altitude and space sequences you can roll your ship, but the screen turns rather than your ship.

The graphics are fast and colourful, although there's little animation. Sound effects are good even if they are limited to firing sounds and explosions.

This would make a great little budget

DEATH STALKER

Codemasters ● £2.99 cass
joystick/keys

Codemasters' latest venture into the world of budget software is a game of exploration and hacking in a world filled with monsters and people stupid enough to fight them. You'll notice at once, because you're very observant like that, the increase in their prices. £3 is likely to become the standard budget price for a number of houses before too long, and what you'll be wanting to know, because you're inquisitive like that, is whether what you get is half as good again as the 'old' £2 games. Read on and find out!

SECOND OPINION

"If we don't like something here you'll know about it. And when we say we like something, you know you can rely on it being good. Like *Death Stalker*. At £3 it's well worth buying, and you'll enjoy it. Promise." SC

GREEN SCREEN:

Dull but visible

The screen shows your location and any objects, monsters and exits and a column of skulls to the right of the screen gives an indication of your state of health. Your score is also shown and objects carried appear up the left hand side of the screen. When desired a menu can be called up across the bottom of the screen.

One thing that does make this game slightly different is line of sight. You can only see into areas where a normal human could see - there's definitely no looking around corners from 40 feet away with this game. (The only other game that I can think of that used a similar system is *Ranarama* by Hewson. *Ranarama* used an overhead view and you could only see into rooms once you'd entered them: *Death Stalker* has a side view instead. It is nice to have this sort of feature in a game though, it gives it a little more realism.)

Throughout the game an atmospheric tune plays, but you can ditch it if you

▼ Stalking death in *Death Stalker*



The Verdict

GRAPHICS 87%

- Fast moving and colourful.
- Galactic map could be clearer.

SONICS 31%

- Effects are done well - there just aren't enough of them.

GRAB FACTOR 73%

- Plenty to blast.
- Some tactical thought needed to win.

STAYING POWER ... 68%

- Big galaxy with plenty of things to kill...
- But that's all that you do.

AA RATING 73%

- Not a bad game at all.

game, but at full price it's wide open to the criticism that it's just another 3D shoot-'em-up with pretty graphics. Titus seem to be able to produce games with good graphics, but perhaps have more trouble with gameplay. GBH

FIRST DAY TARGET:
score 250,000

want to. The graphics are small, but there's plenty of colour and they're well animated.

There's plenty to do and lots of places to explore which means that Codemasters are going to make loads of money out of this one over the next few months. The strangest thing about it is that it's not called *Death Stalker Simulator!* GBH

FIRST DAY TARGET:
1,000 points

The Verdict

GRAPHICS 70%

- Lots of colour and well animated.
- Small characters though.

SONICS 65%

- Atmospheric tune.

GRAB FACTOR 74%

- Enough hack and exploration to keep you entertained.
- Frustrating for a few games while you work out what's going on.

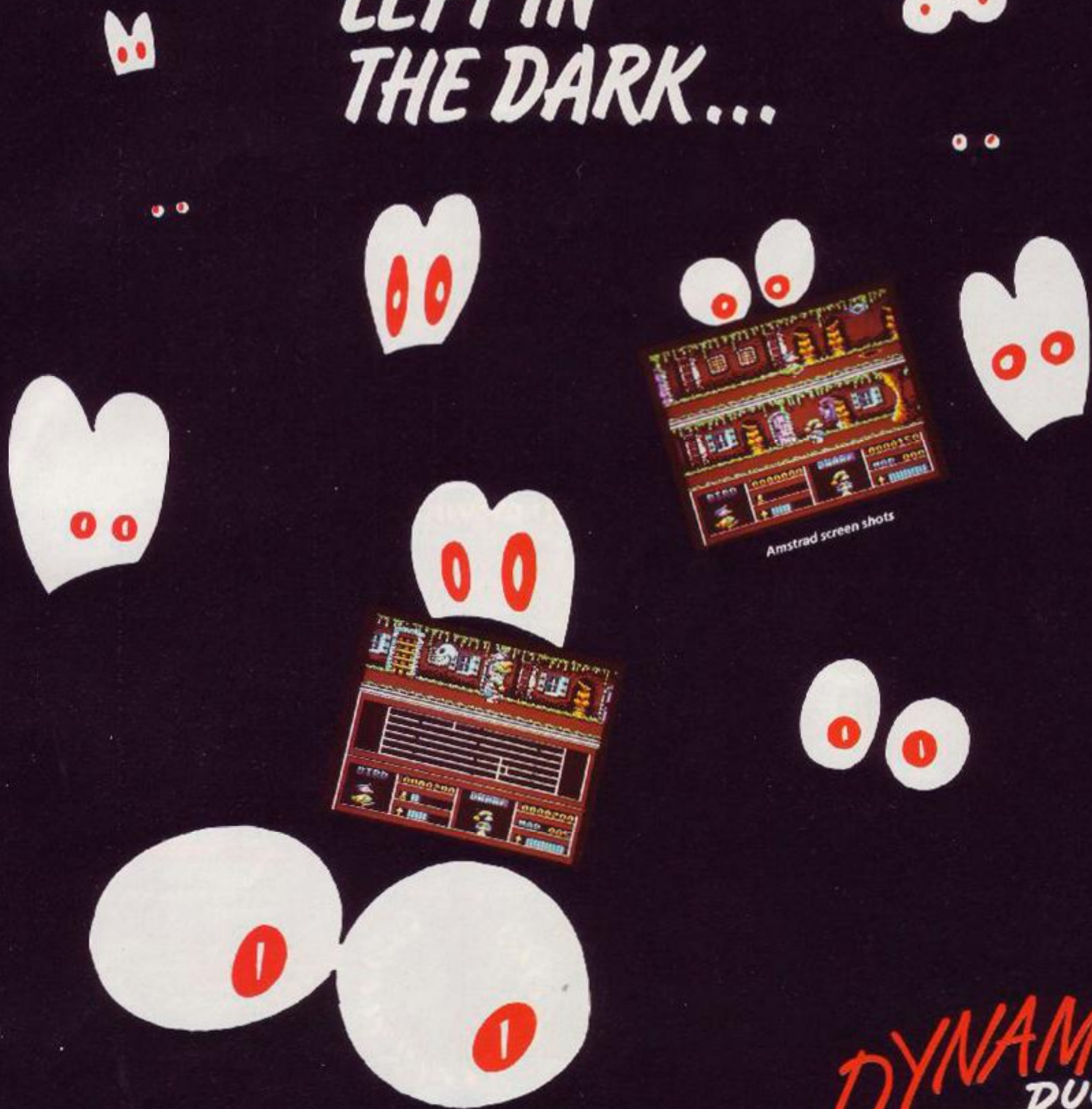
STAYING POWER ... 74%

- Large playing area to discover.
- Puzzles and problems to overcome.

AA RATING 72%

- Excellent budget value.

DON'T GET
LEFT IN
THE DARK...



Spectrum cassette £7.99
Commodore 64 cassette £9.99, disc £12.99
Amstrad cassette £8.99, disc £14.99

For mail order please send your order and remittance (cheques payable to British Telecom plc or direct debit from Access/Visa card by stating card number and expiry date) to: The Marketing Department, Telecomsoft, First Floor, 64-76 New Oxford Street, London WC1A 1PS.



Telecomsoft, First Floor, 64-76 New Oxford St, London WC1A 1PS.
Firebird and Firebird Logo are trademarks of British Telecommunications PLC.

**DYNAMIC
DUO**



A LEGEND IN GAMES SOFTWARE

R-TYPE

Electric Dreams • £9.99 cass, £14.99 disk joystick/keys

In its long and unhappy history, the Bydo Empire has never ever won an award for niceness. Not once. Zilch. It is evil, horrific and deadly. Not altogether surprisingly, war has been waged by them on the planet Earth. The battle has raged for some time, and now Earth is fighting back – with your help as pilot of the R-9 fighter plane. All you have to do is grind the star hopping monsters to pulp (blow 'em away) using every dirty trick in the book or not in it, and every weapon you can get your grubby hands on. Save the Earth or die trying.

There are many levels to play through, each one being loaded in separately from tape or disk as the previous one is completed. Each level scrolls horizontally from the right, and the Bydo hordes attack from all sides.

Below the playing area is a score and lives panel, along with a beam indicator. The intensity of the beam fired from your ship depends on how long you keep the fire button depressed (talk to it about the meaning of life and the futility of it all, that should do the trick). A long press gets you a very powerful beam, but you can't fire as often.

Your ship initially only has the beam weapon, but extra ones can be collected by shooting certain alien types and then flying over their deposits (jewels). Three types of laser, homing missiles, extra speed and shield orbs can be added. When the first jewel is collected you also get a special weapon called 'the force' which can be fitted to the front or rear of the ship. It can also be left flying around



▲ Flying through a narrow gap

to act as advance or rear guard.

When it's fitted to your ship it stops all bullets from the front or rear, depending of course on where it's attached. Reflection lasers bounce all over the screen destroying everything that they touch. Anti-aircraft lasers and ground lasers fire up or down respectively. Homing missiles are fired in pairs go for a suitable target on screen. Extra speed fairly obviously makes you move faster and shield orbs drift alongside your ship destroying whatever they hit.

At certain sections of a level you'll

encounter some very big and nasty aliens, and you'll need all of your arsenal of weaponry to stand any chance of survival. The first biggie is a caterpillar-like creature going around in circles. Its outer surface is invulnerable and the only way to get at it is by going into the centre of the circle.

Unfortunately it's armed on the inside and if you don't take care you'll end up dead instead of it. The end of level one is guarded by the fearsome alien on the cover of the box.

This guy takes some killing and if you lose a life all special weaponry is lost. When (or if) you get past him you'll go onto the second level and things start getting even tougher.

First the good news on the graphics front: the scrolling is smooth and fastish. The bad news, however, is that there's very little colour and the sprites aren't exactly what you'd call overly detailed. Sound effects are limited to a handful of explosions and they're nothing to write home about.

R-Type has all of the features of the arcade game except for the graphics, speed and sound. It's a dull, slow game with poor sound effects. Not a good example of an arcade conversion. **GBH**

FIRST DAY TARGET:
Score 100,000

SECOND OPINION

"I don't reckon this is as poor as Gary makes out – but then I was never as addicted to the original R-Type arcade experience as he was! The fact is that people do buy conversions, and this one will be no exception. Just hope they're not too disappointed." **SC**

GREEN SCREEN:
No more exciting



▲ Collecting jewels adds even more to your firepower

The Verdict

GRAPHICS **48%**

- Good scrolling.
- Lacking in colour and detail.

SONICS **29%**

- Futile effects.

GRAB FACTOR **62%**

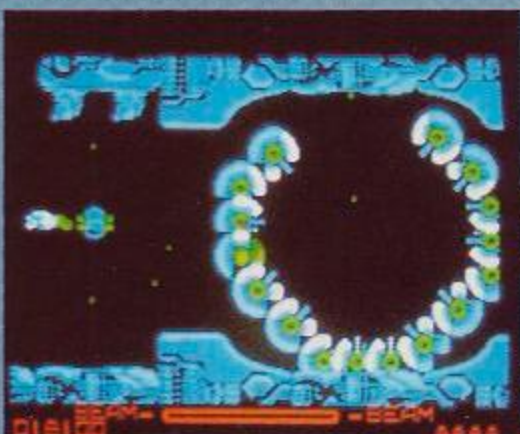
- Plenty of strap on weapons.
- Slow paced.

STAYING POWER **54%**

- End of level guardians make progress tough.
- Tedious maximus.

AA RATING **57%**

- Another disappointing arcade conversion.



▲ Caterpillars are tough to kill





NOW
TAKEN



Castle House,
11 Newcastle House, Burslem
Stoke-on-Trent, ST6 3QB
Tel: 0782 575043

AMSTRAD SPECIAL OFFERS

Heroes of the Lance	6.99
Salamander	6.00
Vindicator	6.00
Matchday 2	6.00
Out Run	6.99
Captain Blood	6.50
Cyberoid 2	6.99
Virus	6.50
Typhoon	6.25
Rambo 3	6.25
Operation Wolf	6.25
Guerrilla Wars	6.25
T Wrecks	7.99
Double Dragon	6.25
D. Thompsons Olympic Challenge	6.75
Night Raider	7.50
Fernandez Must Die	6.75
Football Manager II	6.75
Barbarian II	6.75
Marauder	7.50
Black Tiger	7.50
Last Ninja 2	8.50
Victory Road	6.50
After Burner	6.99
R Type	6.99
Gunship	9.95
19 Boot Camp	6.75
Target Renegade	6.00
View to a Kill	1.80

AMSTRAD SPECIAL OFFERS

Karnov	3.95
Enduro racer	3.50
Waterloo	3.95
Battle For Midway	3.95
Battle For Britain	3.95
Pegasus Bridge	6.99
Sorcerer Lord	7.95
Battlefield Germany	6.99
Andy Capp	3.95
Starglider	3.99
Dragons Lair 1	2.99
Armageddon Man	3.95
Auf Wiedersehen Monty	2.25
Agent Orange	1.75
Avenger	1.75
By Fair Means or Foul	6.50
Amazing Shrinking Man	2.99
Bride of Frankenstein	1.25
Bubbler	0.50
Beyond The Ice Palace	6.75
Bionic Commando	6.99
Basil Mouse Detective	2.50
The Big Sneeze	1.99
Batman II	6.99
Mindfighter	6.99
Not A Penny More	3.95
Vindicator	6.50
Victory Road	6.99
Dragon Ninja	6.99
Armageddon Man	2.00

AMSTRAD SPECIAL OFFERS

Black Magic	2.99
Bobby Bearing	1.75
Big Trouble L. China	2.99
Captain America	1.99
Championship Sprint	2.50
Combat School	3.50
Chall of the Gobots	1.25
Cholo	2.50
Centurions	1.25
Cosmic Shock Absorber	0.99
Cyberoid	6.99
Nosferatu	0.99
Clever & Smart	1.99
Dan Dare	1.70
Dandy	0.99
Dark Sceptre	2.99
Doomarks Revenge	2.99
Doomsday Blues	1.50
Dambusters	1.70
Not A Penny More	2.99
Eye	2.99
Escape Singes Castle	1.99
Eidolon	1.99
Evening Star	3.95
Farlight	1.99
Future Knight	1.25
Colour of Magic	2.99
Bard's Tale 1	6.75
Eidolon	5.00
Rolling Thunder	3.95

AMSTRAD SPECIAL OFFERS

Flunky	1.75
Frankie Goes Hollywood	1.75
Gladiator	1.99
Gothic	2.99
Greyfell	1.50
Grangehill	1.99
Guadal Canal	2.99
Gunsnoke	2.99
Gauntlet	2.75
Galvan	1.50
Hot Runestone	1.50
Hijak	1.50
Hive	0.99
Hopping Mad	6.25
How To Be Complete B**ard	2.99
Impossible Mission	0.99
Impossible Mission 2	6.75
Inter Karate +	2.99
Jackal	2.50
Johnny Reb 2	2.99
Kinetic	1.50
Knightmare	2.50
Killed Until Dead	2.99
Legions of Death	2.99
Lazertag	2.99
Typhoon	6.50
Slane	2.99
Evening Star	3.95
Super Hang On	3.95

AMSTRAD SPECIAL OFFERS

Leviathan	1.99
Mermaid Madness	0.99
Magnetron	2.99
Mutants	1.99
Nemesis Final Challenge	2.75
Nexor	1.50
Out of this World	1.25
Prodigy	0.99
PHM Pegasus	6.99
Platoon	6.00
Pulsator	1.25
Quartet	2.99
Rampage	2.99
Ramparts	1.99
Red Scorpion	1.99
Road Runner	2.99
Renegade	3.95
Rygar	3.95
Artura	7.25
T. Pursuit Baby Boomer	4.95
T. Pursuit Young Players	4.95
West Bank	2.99
Terramex	2.99
North Star	3.50
Venom Strikes Back	3.50
Convoy Raider	2.99
Dan Dare	2.99
Star Wars	3.50
Action Force	3.50
Bubbler	0.50

AMSTRAD SPECIAL OFFERS

Starglider	3.99
Star Fox	1.99
Solomons Key	2.99
Star Raiders II	1.99
Shogun	2.99
Skate Crazy	6.95
Space Harrier	3.95
Soy v Spy: A. An	1.99
Survivor	2.50
Shockway Rider	1.50
Strike	0.99
Supersprint	2.99
Samurai Trilogy	2.50
Target Renegade	6.00
G.B. Air Rally	2.99
Trap Door	1.70
Through the Trap Door	2.99
Thing Bounces Back	1.99
Throne of Fire	1.99
Thing on a Spring	1.50
Village of Last Soul	5.95
World Games	2.99
Wonderboy	4.95
Yogi Bear	1.99
Xarq	0.99
Zynaps	2.99
Echelon	7.25
Muncher	7.50
Captain Blood	6.99
Gunship	9.95

PAY THAT LITTLE EXTRA FOR A FAR BETTER SERVICE

P&P ON ALL ORDERS UNDER £5.00 - 50P, OVER £5.00 P&P FREE (NO OVERSEAS ORDERS PLEASE)

WE NOW OFFER A FASTER SERVICE THAN EVER BEFORE

ALL ORDERS SENT 1ST CLASS POST.

AMSTRAD COMPILATIONS

SPORTS PACK
GFL Basketball
GFL Baseball
GFL American Football
RRP £14.95
OUR PRICE £6.95
CONFLICTS 1
Battle of Britain
Tobruk
Theatre Europe
£5.95
TRIO HIT PACK
Great Gurianos,
Airwolf 2, 3DC
SPECIAL PRICE ONLY £3.95

AMSTRAD COMPILATIONS

KNIGHT ORC
Loosed Orc,
A Kind of Magic,
Hordes of the Mountain King
RRP £14.95
OUR PRICE £6.95
TAITO COIN OPS
Rastan,
Flying Shark,
Bubble Bobble,
Arkanoid 2,
Slapfight,
Legend of Cage,
Arkanoid,
Renegade
EIGHT ALL TIME FAVOURITES ONLY £8.95

AMSTRAD COMPILATIONS

SUPREME CHALLENGE
Elite, Starglider,
Tetris, Ace 2,
Sentinel
WOW! MEGA PRICE £9.50
PRESTIGE COLLECTION
Rescue on Fractalus,
The Eidolon,
Koronis Rift,
Ballblazer
ALL 4 GAMES £2.99
MAG 7
Wiz Ball, Short Circuit, Arkanoid,
Head Over Heels,
Cobra, The Great Escape, Yie Ar Kung Fu, Frankie Goes To H'wood
8 OCEAN GAMES £6.99

AMSTRAD DISCS

COMPENDIUM
Shove a Sledge,
Tiddly Drinks,
Ludo, Snakes & Hazards
RRP £14.95
OUR PRICE £4.95
Cut Thorats
£6.00
Hollywood Hi Jinx
£6.00
Stationfall
£6.00
Ballyhoo
£6.00
Trivial Pursuits Baby Boomer
£5.95

ACCESSORIES

Castle Computers new catalogue listing hundreds of games from 50p upwards, issue 1 now available. Only £1 if ordered with any software, or £1.50 if only the catalogue is required
Castle Computers wishes all its customers a Happy Christmas and Prosperous New Year

AMSTRAD DISC

FEW ONLY LEFT
Amstrad Games Discs
We need to move these quickly and are therefore offering them as blanks. All games are brand new, not second hand, but untested. Daft price to clear them.
10 games for £18
6 different titles left
ALL TOP TITLES STOCKED! PHONE NOW!

A SMALL SELECTION FROM OUR WAREHOUSE

HARDWARE & PERIPHERALS

	RRP	WAVE
Amstrad Home Entertainment Centre (Desk, Clock/Radio, Tuner)	£99.99	£79.99 ANC
Cambridge Computer Z88 Portable Computer	£287.49	£241.50 B
Amstrad MP1 Modulator / PSU - CPC464	£14.95	£12.71 C
Amstrad MP2 Modulator / PSU - CPC464/664/6128	£29.95	£28.45 C
DDI-1 1st 3" Disc Drive & Interface - CPC464	£159.95	£147.95 B
FD-1 2nd 3" Disc Drive - CPC/+3 (6128 Also Reqs DL-2)	£99.95	£89.28 C
DL-2 Cable - FDI To CPC6128/+3	£6.95	£5.56 E
JY-2 Joystick - CPC	£14.95	£8.22 E
QS2 Turbo Joystick - Spectrum/CPC	£11.95	£8.96 E
Romantic Robot Multiface 2+ - CPC	£47.95	£48.76 E
Lead. Printer Centronics Parallel - CPC/+3	£14.94	£7.48 F
13A 4 Bang In Line Socket With 3 Yards Flex & 13A Plug	£13.97	£5.56 D
AMX Mouse With Art Software - CPC464/664/6128	£69.99	£52.49 C
AMX Mouse With Stop Press - CPC6128	£79.99	£59.99 C
Kempston AM15 Mouse & Blueprint Software - CPC464/664/6128	£69.95	£52.46 D
Trojan Light Pen & Graphics Software - CPC464 Colour	£19.95	£14.95 C
Trojan Light Pen & Graphics Software - CPC6128 Colour	£23.95	£17.96 E
Dust Cover 2 Piece Set - CPC (State Model)	£8.63	£5.61 D
Ribbon Reinking Nylon-DMP2000/3000 Range	PKT2	£4.16 F
Ribbon Fabric - Star LC10	PKT 2	£4.60 F
Ribbon Fabric - Star NL10	PKT2	£5.36 F
Ribbon Fabric - Citizen 120D	PKT2	£4.86 F

BLANK DISCS & SOFTWARE

The following disk software titles RRP £12.99/£14.99. Our price only £5.99 E
Strike Force Cobra, Movie, Ping Pong, Through The Trap Door, Yogi Bear, Mr. Weems & The She Vampires, Deactivators, Druid.

Amsoft/Maxell 3" Discs DS/ All 3" Drives	Box 10	£17.99 E
Athana 3.5" DS/DD 135TPI Blank Discs	PKT10	£7.59 D
Athana 5.25" DS/DD 40/80T Blank Discs	PKT25	£6.01 D
AMS20L 3" Disc Storage Box Holds Up To 45 Discs		£8.42 D
Romantic Robot Insider (Reqs Multiface)		£14.95

Large range Of Books & Software Business/Games/Utilities Etc. All At Good Discounts.
Far Too Many Items To List Here. Send 3 19p Stamps For Lists. Stating For Which Products.
Eng. Mainland post & ins.: (A) £5.00 (B) £4.00 (C) £3.00 (D) £2.00 (E) £1.00 (F) 50p
(ANC) 3 Day £9.00 Next Day £12.00. Maximum UK Postal charge £6 Per 20KG/£500.
All Prices Include VAT. All sales subject to our Trade Terms of Trading.

W.A.V.E. (Trade Dept. AA 289)

Walney Audio Visual & Electrical Distribution

1 Buccleuch Street, Barrow-in-Furness, Cumbria. LA14 1SR

Telephone (0229) 870000 (6 lines) Hours Mon-Fri 10:00-5:00



WIN WITH COURSEMASTER

NEW

THE COMPUTER HORSE RACING PROGRAMME

- ★ RATES ANY RACE IN SECONDS - ANY DAILY NEWSPAPER IS ALL YOU NEED
- ★ NEVER out of date - Both N. Hunt and Flat - Fast data entry
- ★ AMAZING ACCURACY !! - Now you CAN BEAT THE BOOKIE !!
- ★ Works on the simple principle that FAST HORSES BEAT SLOW ONES !!!!!
- ★ Clearly identifies best selection in every race plus these AMAZING Features :-
- ★ First, Second and Third choice shown for forecasts and Tricasts etc. Recommends most suitable type of bet
- ★ Actually works out your WINNINGS on most popular bets including SINGLES and DOUBLES, win and each way, PATENTS, YANKEES, CANADIANS, HEINZ etc. Good EACH WAY and LONG ODDS bets clearly shown
- ★ Will PRINT out your BETTING SLIP for you
- ★ Maintains a BANK ACCOUNT - BET Like PROFESSIONALS Do!
- ★ PLUS !! - THE AMAZING COURSEMASTER SYSTEM. Try it! Can pay for itself many times over on the first day!
- ★ Supplied with 20 page BETTING GUIDE and MANUAL.

FREE HOT TIP OF THE MONTH TO EVERY PURCHASER

Available for IBM PC: £18.95 (State Disc Size). Also available for Spectrums etc (inc + 3 disc version)
Commodore 64/128 Sinclair QL (add £1.00 for drive) Amstrad CPC, all PCW's BBC and Electron
All For £14.95 inc Post + packing (Disc users please add £2.00 for disc)

£ PROFIT FROM YOUR MICRO YOUR OWN SMALL BUSINESS USING MICRO

- WHATEVER your MICRO is you can use it to make a good income! Even if you only have a couple of hours spare each week!
- We have put together a package of easy, sensible and practical business ideas which can easily be used by anyone with any micro. No computer expertise required !!
- Earn ££s from home doing what you enjoy doing - using your COMPUTER! It doesn't matter which model.
- You probably already have all you need to start earning.
- THOUSANDS of potential customers in your area who will GLADLY pay for your services. We will show you how to find them!

Full step by step guide to EARNING MONEY FROM YOUR MICRO
FREE BUSINESS IDEAS CASSETTE TAPE WITH EVERY COPY. £12.95 inc p&p

SPECIAL OFFER:- Buy both of the above - discount £2.00
INTRASET Ltd. (Dept A.A) FREEPOST
(No stamp needed) 6 GILDERDALE CLOSE, GORSE COVERT,
BIRCHWOOD, WARRINGTON, CHESHIRE, WA3 2BR (Large SAE for further details)

NEMESIS - The Original Meddlers

BONZO SUPER MEDDLER

"The best tape to disc transfer utility available", WACC1 6/88.

THE BEST SELLER?

We wouldn't know - nor does it matter! What does matter is that BONZO SUPER MEDDLER transfers MORE games from TAPE to DISC than any other program. A triple refund to the first person to find another program to beat it! It's time to let results speak for themselves, so here is a list of SOME of the 800 plus games that will transfer to disc with BSM. 464/664/6128.

ANTIRIAD, ARKANOID, AVENGER, BARBARIAN, BMX SIMULATOR, BUGGY BOY, BOBSLEIGH, CYRUS CHESS, CAULDRON 1 & 2, COBRA STALLION, DEACTIVATORS, DAN DARE, DRILLER, DARTS-180, EXPRESS RAIDER, EQUINOX, ENDURO RACER, FOOTBALLER OF YEAR, FLYING SHARK, FIRETRAP, GREMLINS, GUADAL CANAL, GRAND PRIX SIMULATOR, 3D GRAND PRIX, HOPPING MAP, HACKER, HUACK, IKARI WARRIORS, ICE PALACE, JETSETW, JACK NIPPER, JOE BLADE, KNIGHT ORC, KNIGHTMARE, KUNG FU MASTER, LEADERBOARD, LIGHTFORCE, LIVING DAYLIGHTS, METROPOLIS, MICROBALL, MONOPOLY, NEXOR, NINJA SCOOTER SIM, PYJAMARAMA, POGO OLYMPICS, REFLEX, RED OCTOBER, RAMBO, SCRABBLE, SUPER STUNTMAN, SUPERSPRINT, STAR RAIDERS II, SKATE BOARD KIDZ, SWORD SLAYER, STAR TROOPER, SPINDIZZY, STRYFFE, TT RACER, TOPGUN, TRANSMUTERS, TETRIS, TANIUM, THRUST 1 & 2, VAMPIRE, WEREWOLF SIM., XOR, YOGI BEAR SAVAGE, FERNANDEZ MUST DIE, IMPACT and OVER 700 others!

Isn't it time you got the BEST? Send your disc based utility to be transformed into BSM & HACKPACK for just £8.00. If you haven't got one then BSM & HACKPACK with full instructions, details of over 700 transfers, and our current NEWSLETTER.

£12.50 inclusive. Supplied on disc

BONZO BLITZ SPEEDLOCKS TO DISC

"HIGHLY RECOMMENDED" - WACC1, 12/87

BONZO SUPER MEDDLER will cope with a large number of SPEEDLOCKS, but for the enthusiast we developed BONZO BLITZ as the first utility to deal with all forms of SPEEDLOCK. Always up to date, and still the BEST. Works on 464/664/6128. A few examples:

ALIEN HIGHWAY, ARMY MOVES, BLACK MAGIC, BEACH HEAD 1 & 2, CATCH 23, DALEY SUPERTEST, DIZZY, ELEKTRAGLIDE, FRUIT MACHINE, FREDDY HARDEST 1 & 2, GAMEOVER 1 & 2, GREAT ESCAPE, MATCHDAY 1 & 2, MIAMI VICE, MADBALLS, METROCROSS, SUPER HANG-ON, PHANTOM CLUB, ROAD RUNNER, REVOLUTION, SCRABBLE, SUPERHERO, TRANSMUTERS, WIZBALL, ATV SIMULATOR, SLAINE, WORLD CLASS LEADERBOARD and ROADRUNNER although "multi-loaders" will completely transfer if you have BSM to assist! All other "multi-loaders" - main file only. BLITZ was also the first to deal with the "NEW" SPEEDLOCK variation and without confining transfers to expanded machines!

£12.50 inclusive. Supplied on disc

UPGRADES: BSM or BLITZ, £3.00 (return disc!)

BONZO's FLASHPACK

"Best all round basic extension program seen", WACC1 3/88.

FLASH BASIC uses 70 RSX's in a last versatile and very powerful implementation. It is relocatable and thus usable with hardware expansions. COMPACT - it uses only 8k of memory, and a "mini" version use only 3K! YOU can produce "stand-alone" programs written in FLASH BASIC! BONZO's FLASH-PACK is a very full DISC containing FLASH BASIC, DEMOS and UTILITIES written in FLASH BASIC. The DISC EDITOR is one of the the best you'll find - anywhere!

Some of the RSX's employed in FLASH BASIC are almost mini-utilities themselves, here's a few -
MEMORY COMMANDS - I M.EDIT, [editor!], I M.SEARCH, I M.LIST, I M.MOVE
DISC COMMANDS - I D.FORMAT, I D.READ, I D.WRITE, I D.PROPH.HEADER
PRINTER COMMANDS - I POSTER, I P.CDUMP, I P.ON, I P.OI, I PSEND
SCREEN/OTHER - I BIG [big chars], I BOX, I COLOUR, I PAUSE, I LINE I SLEEP, I SORT, I MENU, I CALL, I SCR. PUT, I SCR. GET, I KEYS, I INFO

Documentation supplied is very extensive, and the built-in HELP can quickly locate the area of interest and send information to the screen or printer.

BONZO's FLASHPACK £12.50 inc. Disc

A SECOND DISC of other major utilities is also now available

BONZO's BIGBATCH £12.50 inc. Disc

This contains a very fast and flexible DATABASE, a superb FOOTBALL POOLS PREDICTOR, both written in FB, plus a user-friendly and memory saving SCREEN & SPRITE DESIGNER. It is not necessary to have the FLASHPACK disc to take advantage of BIGBATCH

BONZO's DOO-DAH

"This is the best I've seen in a long while. . . I recommend it!"
- AMSTRAD ACTION, JUNE 1987

FEATURES: BIGBONZO FORMAT

A REALLY USABLE 203K per SIDE FORMAT, with all the support files to maximise its use. PLUS - All the disc housekeeping features that you could possibly want, including "Cloning", Directory & Sector edit, Disc search, Formatting, Read sectors, Filecopy, etc. ALL FUNCTIONS are effective on normal, enhanced, and the majority of "funny formats"

MANY UNIQUE FEATURES, supplied on DISC
£12.50



NEMESIS A.A.

10 Carlow Road, Ringstead, Kettering, Northants, NN14 4DW

TEL: (0933) 623967



ALL ORDERS sent by return: Cheque/P.O./ACCESS

THE BIG BOX PAGE

Compilations ripped open – and in some cases apart – by Gary Barrett

FLIGHT ACE

Gremlin ● £14.99 cass, £17.99 disk joystick/keys

Six flying Gremlin efforts: *Air Traffic Control* (AA 1, 68%), *Ace* (AA 18, 54%), *Spitfire 40* (AA 5, 68%), *Strikeforce Harrier* (AA 7, 91%), *Tomahawk* (AA 8, 92%) and *Advanced Tactical Fighter* (AA 31, 94%). All are simula-



▲ Up, up and away with *Flight Ace*

tors, though ATF does have some arcade style action in it. Combat comes into all of them, except *Air Traffic Control*, which is all about running an airport (neat idea guys). This lot should keep the simulationist happy and everyone else should get enjoyment out of some of these games at least.

AA RATING 78%

Ideal – for sims freaks especially.

SPACE ACE

Gremlin ● £14.99 cass, £17.99 disk joystick/keys

Gremlin have two compilations out this month, both part of the Ace series which started with *Karate Ace*. There seven games: *Xevious* (AA 18, 57%), *Trantor* (AA 27, 80%), *Exolon* (AA 24, 93%), *Zynaps* (AA 24, 83%), *North Star* (AA 30, 73%), *Cyberoid* (AA 32, 91%) and *Venom Strikes Back* (AA 33, 91%).

As you can see from those ratings you're getting quality for your cash. There's a nice mixture of straight shoot-em-ups and mixed shoot-and-think games, *Exolon* and *Cyberoid* being the best of the bunch, but the rest still put up a good fight.

Well worth getting even if you have half the games already.



▲ *Space Ace* – the final frontier

AA RATING 84%

Excellent value.

GIANTS

US Gold ● £15.99 cass, £19.99 disk joystick/keys

Take four tatty games from 1988, throw in one good one and what do you get? *Midgets* – sorry, *Giants*. All of the games were big sellers so that qualifies them for the title of a giant, but if you base it on quality then you're well advised to avoid this compilation. The only good game here is *Gauntlet II* (AA 28, 90%). The others are: *Outrun* (AA 30, 37%), *California Games* (AA 30, 59%), *720°* (AA 28, 69%) and *Rolling Thunder* (AA 30, 37%).

If you've already got *Gauntlet II* then don't bother with this.



▲ *Giants* – oh no they're not!

AA RATING 38%

Even leprechauns look down on these *Giants*.

GAME, SET AND MATCH II

Ocean ● £12.95 cass, £17.95 disk joystick/keys



Eight sporting games get squeezed into the same box in the second set of sporting games from Ocean. (The first set was called – that's right – *Game, Set and Match*). They are: *Championship Sprint* (AA 32, 66%), *Track and Field*, *Steve*

▲ Sport for all in *Game, Set & Match II*

Davis Snooker (AA 1, 68%), *Super Hang On* (AA 29, 68%), *Matchday II* (AA 28, 86%), *Ian Botham's Test Match*, *Nick Faldo Plays the Open* (AA 9, 65%) and *Basket Master* (AA 29, 65%).

The most impressive thing about this compilation is the lack of *Leaderboard*. Nearly every compilation to come out with some vague sporting connection has *Leaderboard* on it, and so that makes this rather unusual. Other than that it's a decidedly average compilation.

AA RATING 83%

Matchday II is the best of an average bunch

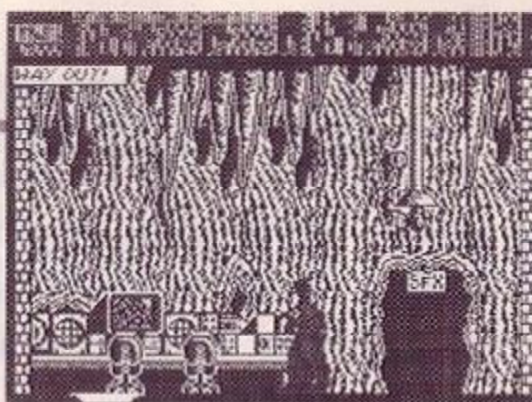
BATMAN - THE CAPED CRUSADER

Ocean ● £9.95 cass, £14.95 disk
joystick/keys

Batman and Robin are about to make a comeback in a movie and not surprisingly there's also a computer game. Batman's arch enemies Penguin and The Joker have returned to Gotham City to carry out their devilish plans for world domination or to get even with the cream cake eater... erm, caped crusader and his red breasted friend. This is not the first time that Batman's reared his ugly head (pointy ears) on the CPC: he starred in a game that came out almost three years (AA 8, 93%) which went by the extraordinarily original title of *Batman*.

There are two stories for the dynamic mono (Robin has disappeared) to go through: 'A Bird in the Hand' (leaves little messages on your palm) and 'A Fete Worse than Death'. Penguin is the enemy in the former and The Joker in the latter. P-p-p-penguin plans to rule the world with his mechanical chocolate bars salesmen and the Joker has captured Robin and locked him away somewhere in harms way.

Lying around (and under) Gotham City you'll find an assortment of objects that you can collect and use to defeat the hoodlums



● *Kerpow! Bam! and all that kind of thing*

sent to stop you by the arch villains. You can kick and punch away at the villains or let-'em-'ave-it with your Batarang (like an orangutang only it doesn't say oook).

Through both games you get a batty little tune which can be turned off (*fortunately - ed.*) and there's another tune which sounds vaguely Spiderman-ish on the 'utility' screen. Sound effects are rather simple. The

SECOND OPINION

"Bam! Kerpow! Holy CPC, Batman, this is a cracking good game and no mistake. There's no real reason why a licence has to be good (except, usually, as a licence to print money), but this is. Buy it!" SC

THE SCREEN IN GREEN:
Won't drive you batty

The Verdict

GRAPHICS 84%

- Nice windows to show the action.
- Well animated sprites.

SONICS 71%

- Continuous tunes in both games.
- You can turn them off too!

GRAB FACTOR 77%

- Plenty of object-related puzzles...
- A map is essential to complete it.

STAYING POWER .. 73%

- Two games for the price of one.
- Once you've complete them though....

AA RATING 74%

- Batman's back in business!

graphics are large, detailed and colourful.

An excellent game that should keep Batman fans and arcade adventurers busy for many hours. Two adventures for the price of one, even if they are very similar in style of play. GBH

FIRST DAY TARGET:
25%

GI HERO

Firebird ● £8.95 cass, £14.95 disk
joystick/keys

Some vital NATO peace documents have been stolen. The documents are in a politically sensitive country and they must be retrieved quickly. Only a government issue (GI) hero can save the day, and the world for that matter. Unfortunately you only have a trained dog called Killer for company and if things go badly the government will deny all knowledge of your existence. Nice to know you've got back-up isn't it? As you approach the landing zone something goes wrong with the plane and you're forced to jump and get separated from Killer.

The screen consists of a flick screen playing area across the bottom with the rest of the screen being taken up with a status panel. In the panel there are two bars: one represents your health and the other is battery power. A row of magazines sit at the top of the screen (ammunition not AA) with a row of bullets below them. Time and score are also shown.

Your first mission is to find Killer and then start worrying about the documents. The jungles are occupied with enemy troops who must be shot. You can shoot them from either a crouched or upright

position - in the former their bullets will pass over your head if they're standing.

Rather than just being a straight kill-'em game there's also a little strategy involved, and there's a set of pull down menus to help with this. The menus are needed to change ammunition, decode messages, switch on torches, cut through fences and set or detonate mines.

Graphically it's very similar to *Dark Sceptre* with large sprites ambling around, although there's little colour. Sound effects are negligible.

The Verdict

GRAPHICS 61%

- Large and well animated sprites.
- Lacking in colour.

SONICS 19%

- Clickety click.

GRAB FACTOR 64%

- A mappers game.
- Just wandering around is boring.

STAYING POWER ... 55%

- Many locations, all looking the same.
- Not enough to keep you enthralled.

AA RATING 59%

- Overpriced.

It suffers from the same problem of *Dark Sceptre* - lack of speed - but not to such a large extent. There's a lot to explore, but can you be bothered? GBH

FIRST DAY TARGET:
250 points



● *Stomping around the jungle*

SECOND OPINION

"If you like the sound of the scenario you'll probably enjoy the game, though I have to admit it all sounds a bit dubious to me."

SC

GREEN SCREEN:
Fine

PETER PACK RAT

Silverbird ● £1.99 cass
joystick/keys

A rodent's life is not a happy one, especially if you're a rat. Mice are cute and small, but rats look big and nasty. To owls they also look tasty and insects don't seem that keen on you either. Not all rats are uncouth and messy, however: some are caring, considerate and tidy. You for example.

You live in a little hut which is surrounded by ramps, pipes, wires and ladders. Littered around the area are bottles, cans and the like which make the place very untidy. The idea is to collect the



▲ Down in the sewers!

objects to get to the next wave and then do it all over again. Not a sophisticated task, but not an easy one either.

An unusual option at the start of the game is for scrolling or flick screen play. The latter is faster, but the former makes it a little easier to play because you can see your foes more easily: there's no stepping off the edge of the screen and bumping into an enemy.

The graphics are lacking in colour and if you have the scrolling on then the action slows down considerably. An irritating tune plays throughout the game.

A simple concept, *Peter Pack Rat* is really little more than a matter of collecting things and avoiding other things. It

At first sight it looks very similar to *Gauntlet*. That's because it is. There are four levels to the ship and each one

SECOND OPINION

"Gary's last ever review for AA, and how right he is (whaddya mean, makes a change?). Get *Gauntlet* instead." SC

GREEN SCREEN:

Loses colour - all the game had going for it to begin with!

scrolls in four directions. Pirates are the monsters and there are treasure chests for you to empty of their contents. One of the chests has the treasure map in it, but which one? Chests can only be opened by being shot, but bullets work well on pirates too. You have to save some bullets or you won't be able to complete the game. You also have knives that can be used on pirates as well. Supplies of both can be found around the ship.

The graphics are colourful, but the scrolling is very slow. Animation is poor too. Sound effects are very limited and there are no tunes.

It's slow and it's boring. The only thing it has going for is its price, but you can pick up *Gauntlet* on loads of compilations and *Gauntlet* is much better than this. Steer clear. GBH

The Verdict

GRAPHICS 52%

- More or less monochrome.
- Slow and jerky scrolling.

SONICS 47%

- A horrible one. Truly shocking.

GRAB FACTOR 63%

- Just a matter of collecting things.
- Lose a life and you have to start the wave all over again.

STAYING POWER .. 52%

- Lots of waves to go through.
- All very similar to each other.

AA RATING 58%

- A game for new games players. Old hands steer clear.

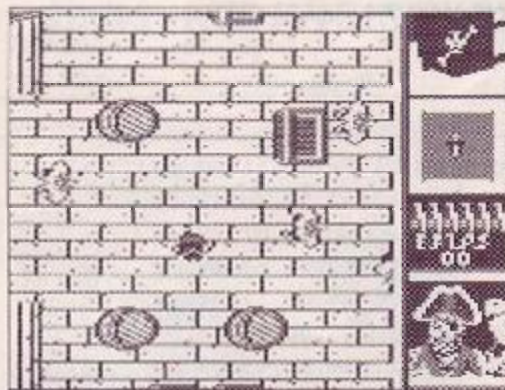
should keep new games player happy for a while, but more sophisticated players will find little to keep them occupied in the long term. GBH

FIRST DAY TARGET:
Complete wave three

BLACKBEARD

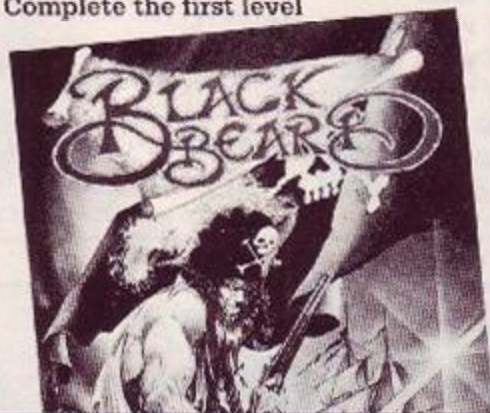
Kixx ● £2.99 cass
joystick/keys

Whenever pirates get together they have a good old fashioned drinking session and Blackbeard wakes up the morning after he and Redbeard have drunk the town dry of rum. Fearing the worst Blackbeard shoves his hand in his pocket and comes out with a handful of nothing. What he hoped to come out with was a treasure map, but it appears that Redbeard has been through that pocket already. Understandably Blackbeard wants the map back and so he sets off to get it from Redbeard's ship. Guess who's Blackbeard.



▲ My, Redbeard, what a big ship you have. I didn't know aircraft carriers had been invented yet!

FIRST DAY TARGET:
Complete the first level



The Verdict

GRAPHICS 45%

- Colourful sprites.
- Slow scrolling and poorly animated sprites.

SONICS 11%

- It goes ping!

GRAB FACTOR 49%

- Too slow paced.
- Finding something to do is boring.

STAYING POWER .. 42%

- Four large levels to explore.
- Each one is very similar though.

AA RATING 47%

- If you can find it get *Gauntlet* instead.

CHEAT MODE

GARY BARRETT'S survival kit for CPC games

In this, Gary's last ever session (boo!) there's our usual crop of game-beaters, and the third instalment of our special *Bard's Tale* playing guides

FERNANDEZ MUST DIE!

Imagework's brilliant first game gets the Mike Wong treatment and is hacked for infinite health, lives and ammunition. (Method 1.)

```

1 ' Fernandez-tape
2 ' by Mike Wong
3 ' Amstrad Action Feb 89
10 MEMORY &3FFF:MODE 1
20 FOR n=&BE00 TO &BE19
30 READ a$
40 a=VAL("&" + a$)
50 POKE n, a:NEXT
60 LOAD"! "
70 POKE &417F, &8F
80 POKE &41CC, &B3
90 POKE &422C, &F9
100 CALL &4005
110 REM data
120 DATA 3e, c3, 32, 35

```

```

130 DATA ae, 21, 0e, be
140 DATA 22, 36, ae, c3
150 DATA 00, ac, 3e, a7
160 DATA 32, 8c, 53, 32
170 DATA 36, 62, 32, 92
180 DATA 62, c9 ●

```



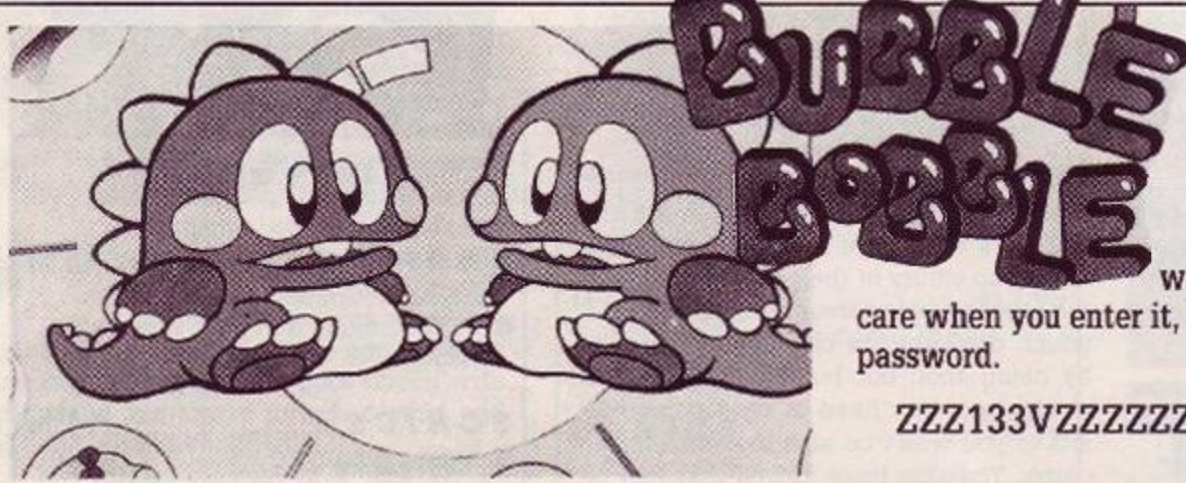
Death Wish III

Gremlin's gratuitously violent and gory game gets infinite ammunition courtesy of Mike Wong. (Method 1.)

```

1 ' Death Wish 3-tape
2 ' by Mike Wong
3 ' Amstrad Action Feb 89
10 DATA 21, 00, 40, 11
20 DATA 00, 01, 01, 00
30 DATA 02, ed, b0, c3
40 DATA 00, 01, 3e, a6
50 DATA 32, 8e, 21, 32
60 DATA 34, 24, c3, 84
70 DATA 03
80 FOR n=&320 TO &338
90 READ a$:a=VAL("&" + a$)
100 POKE n, a:NEXT
110 MEMORY &3FFF
120 LOAD"! ", &4000
130 POKE &4005, &2E
140 MODE 1:CALL &320 ●

```



Firebird's brontosaurii game is split into two parts and a password is needed to play the second part with levels 79+. *James Indecipherable Signature* has discovered it and

wants to share it with you. Take care when you enter it, because it's a long and illogical password.

ZZZ133VZZZZZZ4ZZZ1Z4V44ZZ1Y24V32

STREETHAWK

Mike Wong again, with another tape based lame duck, this time from the Ocean stable (a duck called *Streethawk from a stable?* - confused ed.). It makes you invulnerable to everything, except a bad dose of mixed metaphors. (Method 1.)

1 ' Streethawk-tape

```

2 ' by Mike Wong
3 ' Amstrad Action Feb 89
10 FOR n=&BE80 TO &BEBA
20 READ a$:a=VAL("&" + a$)
30 POKE n, a:c=c+a:NEXT
40 IF c<>6429 THEN 200
50 MEMORY &39AE:LOAD"sh"
60 POKE &39E2, &C3
70 POKE &39E3, &89
80 POKE &39E4, &BE
90 CALL &BE80:END

```

```

100 DATA 21, ff, ab, 11, 40, 00
110 DATA c3, af, 39, 3e, 45, 32
120 DATA 4b, 00, 3e, 0f, 32, 4e
130 DATA 00, f3, f1, c9, 08, dd
140 DATA 21, be, bc, 11, 36, 00
150 DATA cd, 67, bb, 21, aa, be
160 DATA 22, ee, bc, c3, c9, bc
170 DATA 3e, 18, 32, 2c, 85, 32
180 DATA 32, 85, 32, cf, 93, 32
190 DATA b1, 84, c3, 00, a9
200 PRINT"Error..." ●

```


OUTRUN

One of this column's most prolific contributors, Mike Wong of Sale, has come up with a poke for the tape version of US Gold's huge turkey. It gives you either infinite time or a time from 10-99 seconds. (Method 1.)

```

1 ' Outrun-tape
2 ' by Mike Wong
3 ' Amstrad Action Feb 89
10 MODE 2:MEMORY &3217
20 x=&BECD:y=x+1
30 FOR n=&BE80 TO &BED8
40 READ a$:a=VAL("&"+a$)
50 POKE n,a:c=c+a:NEXT
60 IF c<>8691 THEN 330
70 INPUT"Inf time (y/n)";a$
80 IF a$="n" THEN 110
90 POKE x,&37
100 POKE y,&30:GOTO 170
110 INPUT"Time limit (10-99 sec)";a
120 a$=STR$(a)

```

```

130 POKE x,&30+VAL(MID$(a$,2,1))
140 POKE y,&30+VAL(RIGHT$(a$,1))
150 FOR n=&BEBC TO &BECB
160 POKE n,0:NEXT
170 LOAD"":CALL &BE80
180 DATA 2a,0f,bc,22,d7,be
190 DATA 21,0e,bc,36,c3,23
200 DATA 36,94,23,36,be,c3
210 DATA 18,32,af,cd,d6,be
220 DATA 3a,d5,be,3c,32,d5
230 DATA be,fe,02,c0,21,a9
240 DATA be,22,5b,34,c9,dd
250 DATA 21,5b,aa,11,00,01
260 DATA cd,ea,a9,21,bc,be
270 DATA 22,0a,ab,c3,85,aa
280 DATA 21,b0,20,36,00,23
290 DATA 36,00,23,36,00,21
300 DATA 26,21,36,00,21,39
310 DATA 39,22,74,03,c3,00
320 DATA 01,00,cf,53,50
330 PRINT"Error..."

```

QUESTOR

The illustrious Graham Smith strikes again with a poke for infinite lives in Cascade's game. (Method 1.)

```

1 ' Questor-tape
2 ' by Graham Smith
3 ' Amstrad Action Feb 89
10 FOR j=0 TO 10:READ a$
20 POKE &BE90+j,VAL("&"+a$)
30 NEXT j:CLS:a=48850
40 LOAD"casrun",a
50 POKE &BEF1,24
60 POKE &BEF2,149
70 CALL a
80 DATA 3e,c9,32,17,75,32
90 DATA 82,75,c3,70,6e

```



GAME OVER II

The Dinamic game gets infinite lives in both parts, courtesy of Graham Smith.

```

1 ' Game Over II-tape
2 ' by Graham Smith
3 ' Amstrad Action Feb 89
10 CLS:OPENOUT "b"
20 MEMORY 1999
30 CLOSEOUT
40 LOAD"c.bin",2000
50 BORDER 0:INK 0,0:MODE 1
60 FOR j=0 TO 17:READ a$
70 POKE 111+j,VAL("&"+a$)
80 NEXT j
90 IF PEEK(2135)=205 GOTO 140
100 POKE 2144,195
110 POKE 2145,111
120 POKE 2146,0
130 CALL 2000
140 POKE 2135,195
150 POKE 2136,120
160 POKE 2137,0
170 CALL 2000
180 DATA 32,ea,8f,cd
190 DATA e8,80,c3,63,08
200 DATA 32,c3,9b,cd
210 DATA dc,81,c3,5a,08

```

GAME OVER II



DIZZY

AA37's well crucial cover cassette (transferred to disk version) gets hacked so that you're invulnerable to everything. It comes to you courtesy of Simon Edmonds from Portsmouth.

```

1 ' Dizzy special edition
10 MODE 1
20 MEMORY &3FFF
30 INK 0,0:BORDER 0
40 INK 1,26:INK 2,6:INK 3,18
50 LOAD"SCREEN"
60 LOAD"CODE2"

```

```

70 FOR a=&A480 TO &A4A3
80 READ a$
90 POKE a,VAL("&"+a$)
100 NEXT
110 CALL &A480
120 DATA 06,09,21,9b
130 DATA a4,11,00,50
140 DATA cd,77,bc,21
150 DATA 40,00,cd,83
160 DATA bc,3e,00,32
170 DATA 09,7d,cd,da
180 DATA 7a,00,00,43
190 DATA 4f,44,45,31
200 DATA 2e,42,49,4e

```



POKE METHODS ON TAPE

Here's how to input most Cheat Mode tape pokes - the instructions for each poke tell you which of the two to use. 664 and 6128 owners: first type 1 tape.

METHOD 1

Rewind the game tape to the beginning, type in the poke listing and then type RUN and press the Enter key. (Don't use the key marked CTRL or Control, or the poke won't work.) Press the Play key on the cassette deck, then any key on the

main keyboard - spacebar does nicely. The tape should now play through as normal.

METHOD 2

Skip the first bit of the game program. To do this, rewind the game tape to the beginning; type in the listing; now type CAT and press Enter.

Start the tape by pressing Play and then any key. Soon you'll see the message: "Found something Block 1". It doesn't matter what the

something is, and it varies from game to game. If the Cheat Mode instructions just tell you to skip the first block, stop the tape here. If the instructions tell you to skip things, stop the tape when the "Found" message comes up for the last thing you're trying to skip.

Once you've stopped the tape, press Escape, type RUN and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape.

THE BARD'S TALE

Part three **GARY BARRETT** roams the sewers (no comment)

Last month the party was left standing at the top of a flight of stairs that descended into the murky depths of the sewer system of Skara Brae. A horrible smell almost as bad as that in the kitchen after Steve's finished microwaving his cabbage greets your nose and you have a simple choice: go down and kick bottom, or run home to mummy.

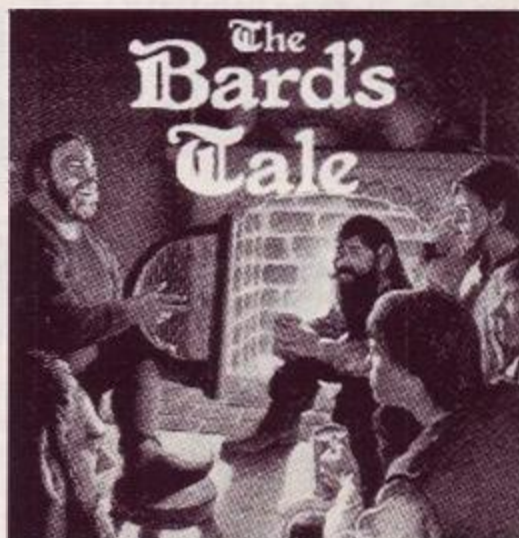
Doze plugz

After taking a deep breath and equipping yourself with a pair of nose plugs you descend the stairs to find out what strange things lurk in the polluted waters (!). You emerge in a tunnel with exits to the east and west. Now would be a good time to cast Scry Sight, because it'll make returning to the cellars much easier when you're fleeing from monsters. The stairs are at 7 east and 18 north if you don't have the spell or don't want to waste the spell points.

The first sewer level is fairly unexciting; you encounter larger and larger groups of monsters and find bigger and better treasures hordes, but it's very similar to the cellars. You'll find some areas of darkness which extinguish torches and light-giving spells. Mapping these is not too tricky though, if you use the kick key to move forwards. If you kick and there is a wall in your way the screen briefly lights up to show you that you've hit the wall. Wandering around using this method will soon have the area mapped out. Using a torch or light spell will illuminate the area, but it'll be extinguished as soon as you move again.

Giant spider

The warning message about 'passing the light at night' refers to a corridor in the second level of the sewers (see below). Only one other thing is significant on this level of the sewers, and that's the statue of the giant spider (4 east, 9 north). If you examine the spider then be prepared for a nasty shock, since it turns into a spinner which poisons characters, causing them to lose hit points periodically until they die. (The only way to stop death is to neutralise the poison with one of three spells: *Flesh Restore*, *Flesh Anew* and *Restoration*. Only the first spell is likely to be available to you (unless



you've used the poke in AA38), because the other two are both seventh level.) Stairs to the second level of the sewers can be found at 17 east and 14 north, but it's in an area of darkness. Go to 19 east, 11 north and then go north through the door, west, west, north and finally north again to find the stairs.

Monsters in the dark

Level two has two large areas of darkness that you can quite easily get lost in if you're not careful. Magic compass and scry sight are almost essential down here. At 3 east, 4 north there's a magic mouth with an important message about the mad god, but to get to it you need to pass along a corridor with the burning ray mentioned on level one. If it's daylight the ray causes you lots of damage, but at night it's harmless. The only other way to the magic mouth is to use *Apport Arcane* or *Phase Door*, both high level spells. The portal which leads to the third and final level of the sewers is found at 5 east, 21 north. Remember to use the *Levitation* spell to descend or you'll take damage from falling through.

Now that you're deep in the bowels of the earth you'll find the most confusing and deadly maze of passages yet. Monsters are afraid of the dark too and so they go around in big groups looking for poor innocent adventurers to pulverise. Down here you'll find a staircase (17 east, 16 north) that leads back to the surface world of Skara Brae, within the courtyard walls of Mangar's Tower. Entry is not permitted yet, but you can use it as a quick exit to the surface.

After removing your nose plugs you can return to the Adventurer's Guild for a well earned rest. Pop off round the corner

to the Review Board to see if you can go up any levels and while you're at it visit Garth to dispose of some of the junk you'll have picked up along the way. Don't discard any magic items unless you really have to. It might be a good idea to drop in at the temple and get healed too. ●

NEXT MONTH we go and visit the Mad God's Temple and have a quiet word with the priest about 'Tarjan', the Mad God. That gains you entry to the catacombs, which make the Sewers seem like a quiet walk in the park. If you can survive all that, you'll be quite capable of looking after yourself!

Multiface The Bard's Tale

This magical poke modifies character one in the party to have 5000 hit points, 5000 magic points and huge quantities of gold and experience. To go up levels just enter the review board and choose advancement until you get bored and then buy spells if appropriate.

When you've done the first character press 'ESC' and then 'R' to return to the game. Press 'N' to change the marching order of the party until you've altered all of the party.

Don't bother with the spell points poke for classes other than the wizard, conjuror, magician and sorcerer because they still won't have any spells to cast.

Addr	Poke	Effect
04da	01	Silly experience
04ea	01	Loadsamoney
04f6	13	Set Hit points to
04f7	88	5000
04f8	13	Set Condition to
04f9	88	5000
04fa	13	Set maximum Spell
04fb	88	points to 5000
04fc	13	Set Current Spell
04fd	88	points to 5000

The Bard's Tale is published by Electronic Arts, at £8.95 (cassette) and £14.95 (disk).

JOE BLADE

II

Even heroes like Joe get into trouble and so Mike Wong comes to his aid with infinite time, extra keys and you don't die if you fail to complete a sub game. (Method 1.)

```

1 ' Joe Blade 2-tape
2 ' by Mike Wong
3 ' Amstrad Action Feb 89
10 MEMORY &3FFF:MODE 1
20 GOSUB 80
30 LOAD ""
40 POKE &417F,&8F
50 POKE &41CC,&B3
60 POKE &422C,&F9
70 CALL &4005:END
80 FOR n=&BE00 TO &BE26
90 READ a$:a=VAL("&"a$)
100 POKE n,a:c=c+a:NEXT
110 IF c<>3168 THEN 330
120 INPUT"Inf time (y/n)";a$
130 IF a$="y" THEN 150
140 POKE &BE0F,&35
150 INPUT"Extra keys (y/n)";a$
160 IF a$="n" THEN 210
170 PRINT"Extra 10 keys when";
180 PRINT" you collect how many";
190 INPUT" dustbins (1-5)";a
200 POKE &BE14,a
210 PRINT"Don't die when fail";
220 INPUT" a sub-game (y/n)";a$
230 IF a$="y" THEN 250
240 POKE &BE19,&A8
250 RETURN
260 DATA 21,35,ae,36,c3,23
270 DATA 36,0e,23,36,be,c3
280 DATA 00,ac,3e,00,32,6a
290 DATA 15,3e,05,32,98,1d
300 DATA 3e,70,32,28,23,32
310 DATA bc,24,32,c3,26,32
320 DATA e2,28,c9
330 PRINT"Error..." ●

```

Cybernoid II

Peter Featherstone of Leeds pokes Hewson's shoot-em-up-in-a-maze game. (Method 1.)

```

1 ' Cybernoid II-tape
2 ' by P. Featherstone
3 ' Amstrad Action Feb 89
10 MODE 2
20 GOSUB 370
30 c=0
40 FOR f=&BF00 TO &BF45
50 READ a$:a=VAL("&"a$)
60 POKE f,a:c=c+a
70 NEXT f
80 IF c<>5245 THEN PRINT "DATA ERROR":STOP
90 DATA 06,00,af,cb,40,28,03
100 DATA 32,6b,2b,cb,48,28,03
110 DATA 32,2f,16,3e,c3,cb,50
120 DATA 28,03,32,0c,2b,3e,c9
130 DATA cb,58,28,03,32,da,28
140 DATA cb,60,28,0c,32,34,22
150 DATA 32,ea,2d,32,be,33,32
160 DATA 43,20,cb,68,28,03,32
170 DATA a4,38,3e,02,32,44,01
180 DATA c3,00,01,54,45,41,33
190 bit=1
200 opts=0
210 a$="INF LIVES":GOSUB 320
220 a$="INF EXTRAS":GOSUB 320
230 a$="INVULNERABILITY":GOSUB 320
240 a$="NOTHING FIRES BACK":GOSUB 320
250 a$="NO LARGE YUKKIES":GOSUB 320
260 a$="NO SMALL YUKKIES":GOSUB 320
270 INPUT "SPEED OF GAME (FAST 0-5 SLOW) ",a
280 IF a<0 OR a>5 THEN a=2
290 POKE &BF3B,a
300 POKE &BF01,opts
310 CALL &A000
320 CLS:PRINT "DO YOU WANT ";a$;"?"
330 INPUT b$
340 IF LEFT$(LOWER$(b$),1)="y" THEN opts=opts+bit
350 bit=bit+bit
360 RETURN
370 MEMORY &9FFF:LOAD ""
380 POKE &A099,0:POKE &A0AB,0:POKE &A0AC,&BF
390 RETURN ●

```

PREDATOR

Peter Featherstone's third contribution this month gives you infinite ammo and lives in Arnie's blast-the-alien game. (Method 1.)

```

1 ' Predator-tape
2 ' by P. Featherstone
3 ' Amstrad Action Feb 89
10 MODE 2
20 MEMORY &3FFF
30 FOR f=&7D00 TO &7D4C
40 READ a$:POKE f,VAL("&"a$)

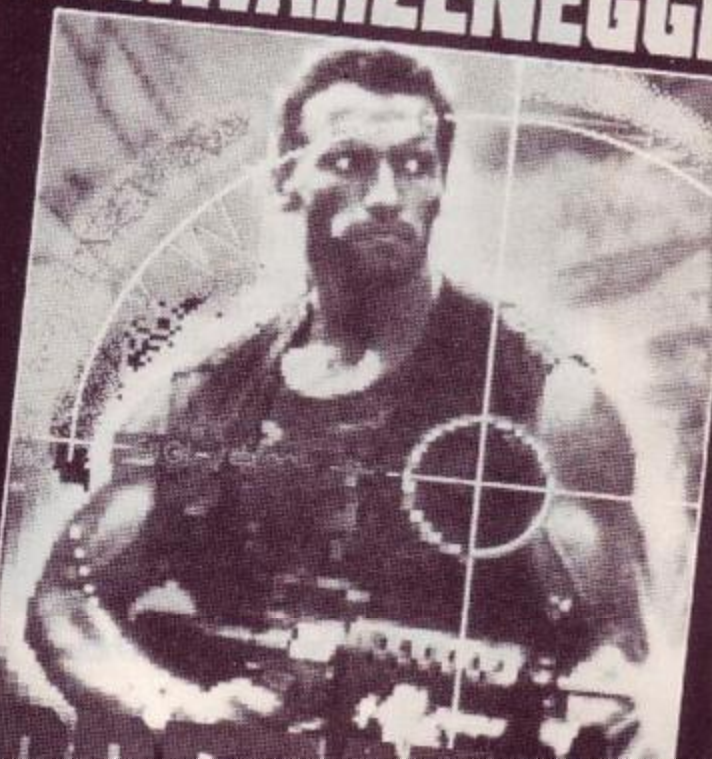
```

```

50 NEXT f
60 LOAD "":CALL &7D00
100 DATA 21,09,7d,22,4e,42,c3,b0,42
110 DATA 21,14,7d,22,41,00,3e,c3,32
120 DATA 40,00,21,44,7d,11,08,00,3e
130 DATA 99,cd,7b,00,2a,46,7d,ed,5b
140 DATA 48,7d,3e,88,cd,7b,00,3a,45
150 DATA 7d,fe,02,cc,3c,7d,2a,4a,7d
160 DATA 22,3a,7d,c3,00,00,af,32,c2
170 DATA 35,32,7c,a7,c9,01,01,01,01
180 DATA 01,01,01,01,00 ●

```

SCHWARZENEGG



URIDIUM

Hewson's shoot-em-up gets infinite lives from Peter Featherstone of Leeds. (Method 1.)

```

1 ' Uridium-tape
2 ' by P. Featherstone
3 ' Amstrad Action Feb 89
10 BORDER 0:INK 0,0:INK 1,20
20 INK 2,26:INK 3,24:MODE 1
30 MEMORY &3FFF
40 LOAD "!loader"
50 POKE &414E,&0:POKE &414F,&BF
60 FOR f=&BF00 TO &BF06
70 READ a$:POKE f,VAL("&" + a$)
80 NEXT:CALL &4000
90 DATA af,32,c2,5e,c3,00,40 ●
    
```

And Julian Page has been at it as well. The homing missiles no longer bother you and you also have infinite lives. (Method 1.)

```

1 ' Uridium Plus-tape
2 ' by Julian Page
3 ' Amstrad Action Feb 89
10 'URIDIUM+ - Tape
20 'By Julian Page
30 'Amstrad Action Dec 88
40 MODE 1:BORDER 0
50 INK 0,0:INK 1,20
60 INK 2,26:INK 3,24
70 MEMORY &3FFF
80 LOAD"LOADER"
90 POKE &414D,&C9
    
```

```

100 CALL &4000
110 WINDOW 1,40,25,25
120 X=0:DEFSTR A-B
130 FOR X=0 TO 1
140 GOSUB 190
150 NEXT X
160 CALL &4000
170 DATA INFINITE LIVES,&47AF
180 DATA NO HOMING MINE,&47B2
190 READ A,C:B=""
200 PRINT A:" Y/N ?"
210 WHILE B=""
220 B=UPPER$(INKEY$)
230 WEND
240 IF B<>"Y" THEN RETURN
250 FOR Y=C TO C+2
260 POKE Y,0
270 NEXT Y
280 RETURN ●
    
```

ANARCHY

Hewson's anarchic budget game gets infinite lives thanks to Julian Page of Shrewsbury. (Method 1.)

```

1 'Anarchy-Tape
2 'By Julian Page
3 'Amstrad Action Feb 89
10 DATA 41,4E,41,52
20 DATA 43,48,59,06
30 DATA 07,21,00,A0
40 DATA 11,00,C0,CD
50 DATA 77,BC,21,24
60 DATA 7F,CD,83,BC
70 DATA CD,7A,BC,21
80 DATA 6B,7F,11,24
90 DATA BF,01,DB,00
100 DATA F3,31,23,BF
110 DATA ED,B0,DD,21
120 DATA 62,BF,11,06
130 DATA 00,CD,8F,BF
140 DATA DD,21,70,01
150 DATA 11,C0,6C,CD
160 DATA 8F,BF,CD,70
170 DATA 01,DD,21,00
180 DATA BF,11,06,00
190 DATA CD,8F,BF,DD
200 DATA 21,70,01,11
210 DATA C0,6C,CD,8F
220 DATA BF,3E,C9,32
230 DATA A4,01,CD,80
240 DATA 01,3E,C9,32
250 DATA E1,48,C3,00
260 DATA 80
270 FOR X=0 TO 100
280 READ A$:A=VAL("&" + A$)
290 POKE &A000 + X, A
300 C=C+A
310 NEXT X
320 IF C=&2AD3 THEN 340
330 PRINT"ERROR. ":STOP
340 MODE 0:CALL &A007 ●
    
```

Black box

- Most games are heavily protected these days, resulting in longer pokes.
- Many of you have one of the infamous black boxes that can be used to stop programs - the Multiface 2 from Romantic Robot for example.
- Often the only thing that they're used for is transferring games from tape to disk, but they can also be used to hack games for infinite lives etc.
- This occasional section is for owners of the Multiface 2 and similar devices so that they can poke games without typing in huge listings.
- Here's how you enter them:
- Plug the Multiface into the expansion slot at the back of your keyboard. (Multiface 2 owners: make sure that the switch on the front is in the up position.)
- Load the game that you want to poke in the usual manner following the instructions supplied with it. (Multiface 2 owners: move the switch to the down position after it has loaded.)
- Press the red button on the Multiface and a menu appears at the bottom of the screen. Press 'T' for tool and then 'H' to change input to hexadecimal.
- Press the spacebar and type in the number under the Addr column. Next type in the number under the Poke column.
- Repeat this process until you've entered all of the pokes that are listed for the game and then press 'ESC'.
- Press 'R' to return to the game. It then runs with the pokes that you've just entered.

Game	Addr	Poke	Effect
Caves of Doom	2525	ff	255 Lives
Soul of a Robot	2304	ff	255 Lives
Ghosts'n'Goblins	509c	00	Infinite lives
	5099	18	Next level if you die
	828d	00	Slows down game
	8282	00	Invulnerability
	5096	c8	Changes level when Esc pressed
	8564	00	
Space Harrier	8565	00	Makes zombies appear more quickly
	0d74	00	Infinite lives
	104c	00	
	104d	00	
Impossaball	104e	00	Stop aliens firing
	a45b	ca	
	a45c	4e	
	a45d	91	
	a45e	00	Next level when time runs out
	a462	00	Infinite lives
	962d	c9	Infinite time
	9c23	18	Remove cylinders
AA Dizzy	a3bb	c9	Pretty colours!!!
	7d09	00	Invulnerability

Winners of this month's *Mastergame* are Mike Wong, Graham Smith, Peter Featherstone, Julian Page and Simon Edmonds.

PILGRIM

The Pilgrim sets out to discover The Adventurer of 1989

The Pilgrim tackles Anna Popkess and Fergus McNeill of Abstract Concepts; Pat Winstanley wonders about the future for GAC-based games; and the search begins here for AMSTRAD ADVENTURER OF THE YEAR!

ADVENTURER OF THE YEAR

So you think you're tough, eh? Think again, because it's time for the Ultimate Challenge. Amstrad Action presents the AMSTRAD ADVENTURER OF THE YEAR competition - a three-stage extravaganza in which adventurers pitch their wits against some of the toughest puzzles ever posed and win the coveted AAY 1989 Trophy, bags of free software, and the chance to contribute to the Pilgrim column in AA. Be tough - or be Balrog-fodder!

What's it all about?

The AAY 1989 Trophy and associated prizes will be

awarded to the overall winner of the competition. This competition is to be run in two stages, starting this month and continuing in the next issue of AA. It will test two basic adventuring skills: general adventuring knowledge and puzzle solving.

The prizes

The first prize winner will have his or her name engraved on the AAY89 Trophy and will be given the trophy for display in his/her house for a year until the next competition. In addition there will be valuable runners-up prizes of Amstrad adventure software. The winner will also be invited to contribute

to the AA adventure column. Full details of prizes will be announced in the next issue... Don't miss it!

What you do...

All you have to do is answer the questions in this month's section. Next month's issue holds the second stage of the competition and an entry form. That gives you a WHOLE MONTH to research the answers to the questions in this first stage. And you may need it, because they're not easy!

As soon as you've answered all the questions you can in each stage, you send off your entry to The Pilgrim. Hang on, though for full details on entry will be in next month's issue along with the entry form. Meanwhile, get cracking on this month's posers!



NEXT MONTH:

- the entry form;
- the prizes; and
- the second, final stage of the competition.

DON'T MISS OUT!

STAGE ONE: GENERAL ADVENTURE KNOWLEDGE

1. How hot is your games history?

In which game did you:

- insert batteries into a toy robot?
- cast an IBM?
- carry a swag bag?
- get no tea?
- wear a wristband?
- fight Nightingales?
- steam the rats?
- hail a cab outside your house?
- aspire to live in North London.
- learn how to fly?

Who or what...

- sat down and sang about gold?
- went somewhere else?

- went to the ball as a cowboy?
- died in a blender?
- sprung from a frog?
- flew you over the desert?
- said Kwah?
- Made a habit?
- lay down in front of a bulldozer?
- came when you said kentilla?

2. Name those games!

Name one game written by each of the following:

- Fergus McNeill
- Ram Jam Corporation.
- Dave Lebling
- Pete Austin
- Derek Brewster

- Peter Killworth
- Steve Meretsky
- Adventure International
- Scott Adams
- Interplay Productions

Fill in the missing letters to make the name of an adventure:

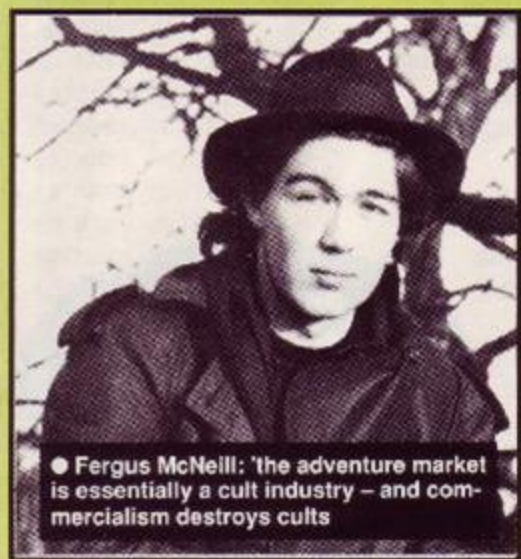
- M**d*h**o*
- L*r* ** *h* **ng*
- *rba* **st*r*
- **ss*g* **o* A**ro*e*a
- **sp*c*
- T** **bb**
- *** *o*g*t
- *m**a** *l*
- *** **rd* T*l*
- **n*t*r

ABSTRACT CONCEPTS

Fergus McNeill and Anna Popkess are the driving force behind one of the few labels that still supports the Amstrad market. What do they have to say about the future of adventures? The Pilgrim finds out

Fergus McNeill must be every would-be adventure writer's hero. Who else, after all, could move from programming adventures using the Quill, to getting them published, to forming his own software house (Delta 4), to signing up with Activision/Mediagenic, and – finally, with Anna – to commissioning his own adventure writing system, SWAN, and releasing major titles across several formats?

With all this success behind him, people looked forward to a fruitful collaboration between Fergus and Anna Popkess when they formed Abstract Concepts. Unfortunately, the first title – *Mindfighter* – received mixed reviews and was, the Pilgrim has to say, a deeply flawed game, despite its promise for the future.



● Fergus McNeill: 'The adventure market is essentially a cult industry – and commercialism destroys cults'

'Criticism of *Mindfighter* fell into several categories,' says Fergus, 'including those who felt the subject was too 'heavy' for an adventure and those who felt it lacked technical features. We've put all that behind us and put it right too.'

"The future of the text adventure is looking pretty bleak: the 16-bit machines are looking to graphics to deliver gameplay and not enough attention is being paid to the quality of the text"

That means a new approach for their new game *Parisian Knights*, due out very soon for most formats including the Amstrad. The game, to be previewed in AA next month, takes place in three parts as you undertake undercover missions in different exotic locations. Your life is continually threatened due to the activities of a mole in your organisation and your ultimate goal is to put the little furry devil out of business.

Although programmed in SWAN, like *Mindfighter*, Fergus and Anna have included some high-level improvements. In particular, you can now FIND.

In addition, the performance of the interactive characters has been beefed up, so these now not only talk to the

player but also chat amongst themselves.

And, of course, Fergus and Anna have paid particular attention to the text... 'The future of the text adventure is looking pretty bleak,' admits Anna: 'the 16-bit machines are looking to graphics to deliver gameplay and not enough attention is being paid to the quality of the text.' No danger of that with *Parisian Knights*, we hope.

But mention of 16-bit machines and graphics prompts a few stern remarks from the dynamic duo. 'It's just like the music business – Stock, Aitken and Waterman deluging us with tons of Rick Astley and Kylie Minogue, and in the adventure game market the distributors are pushing for more arcade elements.'

'Even worse,' says Fergus, 'is the attitude of shopkeepers who think there's no point in stocking games unless they're a major arcade licence is influencing kids.' We're being steadily brainwashed by some of the big companies into accepting more and more glossy products. As Fergus angrily declares, 'the adventure market is essentially a cult industry – and commercialism destroys cults. The more commercial it gets, the less room there is for newcomers.' In other words, experimentation and originality die in the face of commercial exploitation.

Let's hope Fergus and Anna hit back with *Parisian Knights* – watch this space.

THE PILGRIM'S POST BAG

Over – and out!

Thanks for your reply to my edited letter in *Amstrad Action*, December. Despite the cuts it did convey most of my feelings. I'll reply to your three points with three more...

1. I still fail to understand how you could have missed Return to Doom's HELP facility in the earlier games that you reviewed.
2. We'll have to continue to disagree on prices. How close have you ever been to the manufacturing process?

However, we are running a special offer. Kingdom of Hamil, Acheton, Philosopher's Quest, and Countdown to Doom retail at 9.95 each. Buy 3 and they're 7.95 each. But all 4 and they're only 6.95 each. Return to Doom stays at 12.95 because we think it's worth it and buyers – whose opinions count for us more than yours – seem to agree.

3. I noticed that when you did your review of coming releases/software houses' plans you failed to ask our intentions, and that none of our stuff fea-

tured in December's AA Adventure roundup. Happy New Year.

Brian Kerslake, Topologika,
PO Box 39, Stilton,
Peterborough, PE7 3RL

Readers may be wondering why Brian keeps writing in veiled letters of complaint to this column when his last game got a good review. The only reason the Pilgrim can think of is that he simply wants more publicity!

Anyway, in answer to these three questions – for the last time:

1. As I made clear previously, I didn't 'miss' the help facility in the earlier game – I simply forgot it when reviewing the later one. If you play as many games as I do, you're bound to forget the details of some of them over a period of time. I'm only human.

2. This is an important point. Reviewers never criticise prices on a commercial basis – i.e. on the basis of whether they will or will not make profits for the software house concerned. They review a price simply on the

DEADENDERS

Top Ten. All CPC's
● £1.99 cass

When will amateur adventure writers realize that careless programming is an instant turn off to reviewers?

Deadenders. A GACked spoof on that popular soap opera, simply bristles with bugs which tend to spoil what would otherwise be an enjoyable game.

The plot casts you as the local bobby, Donald Dance, and has you wandering around Herbert Square listening to gossip. Your task is to ascertain the whereabouts of a certain dog by the name of Willie and having done so determine the cause of said dog being squashed flat with two holes in his neck.

Herbert square is populated by your favourite characters,



many of whom have a marked aversion to conversing with the constabulary. This together with a remarkably limited vocabulary makes the task of eliciting information remarkably difficult.

A variety of objects clutter the game and supplies of some are eternal. Thus dead rats can be found and removed indefinitely and as for the inexhaustible box of garlic crisps (yes garlic!) an off-beat gourmet should find plenty to eat - not, I'm sure, the programmer's intention.

Character interaction is the

main point of this game and worming information out of reluctant residents takes a great deal of trial and error. It quickly becomes tedious asking x,y and z about z,y and x, especially when your informant finally delivers a gossipy gem which has more to do with nasty neighbours than Dirty Dan.

Deadenders is a classic example of a good idea spoilt by sloppy programming and inefficient (if not non-existent) playtesting. The pre-defined structure of GAC Makes bug-hunting simple so there are no excuses for this kind of result - particularly when the game is on commercial release.

Atmosphere	55%
Interaction	50%
Challenge	65%
Overall	55%

GAC to the future - Pat Winstanley comments

"For all that GAC has been available for several years now, very few commercial releases written using the utility have made the shelves. As for the future, the prospects for the amateur author are no better.

"Much of the blame for this state of affairs lies with the writers themselves. It's no use having the best, most original concept in the world if sloppy implementation robs the idea of all impact.

"Nor is it sufficient to assume that technically brilliant use of a utility will produce a playable game if the plot is

non-existent.

The only software houses likely to take on utility written games are those which grab any product they can get hold of, and if that product is poor the reputation of GAC written games will sink still further.

However, many games ARE available through user groups and fanzines and these tend to be critically reviewed, thoroughly playtested and highly recommended. This is the route GAC users should follow - aim for the adventure enthusiasts."

basis of whether or not the quality of software provided makes it a worthwhile purchase for the consumer. You could produce a rubbish game for £1.99 and I still wouldn't think it was good value for money. On the other hand, if you produced a world-beating blockbuster at £30 I might think it was a bargain. The manufacturing process (which as a matter of fact I have been involved with) is of no relevance.

3. No, you weren't in the list. Nor were lots of other companies. On the other hand, you've had more publicity in this column recently

than most, so why do you keep complaining?

This correspondence is now firmly closed!

GAC or Quill?

My friend and I have just formed a small company to produce and sell adventure games. Between us, we have a 464, 6128, and some knowledge of BASIC so we have decided to use one of the utilities available.

As we want to have cassette and disk versions of our games, the PAW is out, so we are left with Quill and GAC. Could you please answer the

following:

a) Can the GAC or Quill save a completed game to disk as well as tape?

b) Which is the best to produce a good adventure game?

c) What makes a good text only adventure?

d) We hope to release our first game in the first few months of next year. If I send you a copy, will you review it?

Sean Ramplee, LR Adventure Software, Southampton

Sean: (a) Yes. (b) they're both different. Quill is rather more flexible and is, following the price reductions, an excellent buy at £5.95. GAC is some-

The Player's Guide to Gnome Ranger - Part 3

by The Paladin

Nearly home! the gate will tell you what to do, and the sign will point you in the right direction.

● Firstly, climb the mountain, but ignore any ferocious sounds on the way up. Well the Yeti to lead the way through the clouds - unless you want to take fatal flying lessons. Collect the first gem and cloudstuff from Cloud 9. Put the cloud stuff in the Yeti's shoes and return the way you came.

● Wander south-east from the Gate until you reach the lake. Follow the bank until you meet a penguin, then p-p-p-ick up its egg. Now that you're babysitting, go west along the bank until you reach an icebridge. Cross it then - whoops! Wait until you see the penguin again, then ask it to push you to the iceberg. Once there, collect the next gem. the mother will take her offspring and leave. To return to the shore ask the other penguins to push you back.

● In the north-west corner of the country there is a cave. enter this and continue in until you meet the Fireking. the conflict between the fire and ice peoples can be resolved, by first kidnapping the ice-child, then returning the water to its natural course. To leave the fire kingdom with the child, you must hide it...

● Oops! We're not quite finished yet. Watch out for the very final and absolutely last part (you can say that again - ed.) next month!

what easier to use. You should really try both if you're serious about games production, as you may find one or other unsuitable for your particular titles. (c) Caterpillars. Come on! If you really need to ask this question, should you be writing games? Any game that takes you out of your chair and into another world that you later regret abandoning for reality is OK in my book. (d) Aha! The million dollar question! To find out the answer, send one million dollars to... Seriously, though - the best of luck with your venture and do send in the game when it's finished.

The weekly...

The trouble with trying to write an ad for New Computer Express is there are so many good reasons to buy it you don't know which to mention first.

Should it be the **spectacularly low** cover price of 48p?

Or the fact that because it comes out **every week**, it's bang up-to-the-minute on news and reviews?

What about its remarkable **buyers' guides** packed with **detail** and **fact-backed** opinion?

Or its **crystal clear** series of articles aimed at computing **beginners**?

Perhaps it would be better to start with the point that each issue includes a special **info-**

crammed section dedicated to **each** of the main computers.

Not forgetting the magazine's **dynamic**, modern layout.

Or its string of remarkable news **exclusives**.

Or its **mischievous** sense of humour.

Or its **brash**, exciting approach to all things computing.

Or its ad pages packed with the **latest** **bargains** (and made

irresistible by the magazine's unique **discount** voucher scheme).

The fact is, it's dangerous to start anywhere with New Computer Express. Once you do, you're **hooked for life**.

Where to Buy

New Computer Express goes on sale every Thursday in all leading newsagents. In case of difficulty you can get hold of the latest issue by sending a cheque for 75p (inc P&P) to Express Copies, Future Publishing Ltd, Somerton, Somerset TA11 7PY.

Save £££££££!

Each issue of Express includes a page of fabulous money-off vouchers. These allow you to save a fortune when ordering from advertisements inside the magazine - and your choice of goods isn't limited to specific items. You can make savings on any order from participating advertisers.

What readers say

"I congratulate you on releasing such a +*!?!@ brilliant mag."
Ronni Stirling, Glasgow

"Your competitors are doubtless quivering in their snow-boots. Your magazine is infinitely superior. It's suddenly worthwhile getting out of bed on Thursdays again."
Don Howard, Croxley Green, Herts

"Our warmest congratulations on the first issues of New Computer Express. We have immediately cancelled our long-standing order with *****. It will be interesting to note how long you can maintain your unbelievable price of 48p."
H J Mueller, The Adventure Club

"Yours is by far the best weekly computer magazine on the market."
Roger Davis, Southampton

Issue 5 • Dec 10, 1988

Only 48p!

CRASH! Adult game rocks city - page 3

NEW COMPUTER EXPRESS

First news, first reviews - every week

BARGAINS - see page 49

Save £15 off adverts in this issue!

Amiga
Atari ST
BBC
C64
CPC
MSX
PC
PCW
QL
Spectrum

SINCLAIR PC 200 FIASCO

On sale without manuals, operating system, monitors and games

So what is UNIX?
All you ever needed to know (but were too afraid to ask) - page 28

PUBLISH ON YOUR MICRO!
A friendly guide to desktop publishing

R-TYPE
Pixel Picasso!
The country's most talented computer artist reveals his secrets

Charts 3 • Letters 13 • Tech Test 31 • Entertainment 32 • Beginners 4 • Tips 43 • Vouchers 49 • Columns 52 • Job Ads 60 • PSuff 62

...that's taken
computer
users
by storm

TYPE-INS

Another colossal collection courtesy of PAT McDONALD

EASIBASE

Looking for a database program for your CPC? Look no further!

GILES PARK, who lives in Leeds, has been working away on a superb program that files all your facts and figures into polished blocks of data, easily referred to and hygienic as well. It's a whopper all right – but we're sure you'll agree it's well worth the effort!

● Giles Park talks about his program over the page

```
1 ' EasiBase
2 ' Giles Park
3 ' Amstrad Action February 1989
150 REM *** Initialise ***
160 CLEAR
170 DIM NAME$(15)
180 DIM FILE$(200,15)
190 MODE 2
200 DEFINT A-Z
210 PENC=11:SCREEN=0
220 ZONE 15
230 INK 0,0:INK 1,11:BORDER 0
240 PAPER 0:WINDOW #1,1,53,1,25:CLS
250 PAPER 1:WINDOW #0,54,80,1,25:CLS
260 IC=4
270 IF P=1 THEN 400
280 REM *** FIELD NAMES ***
290 CLS #1
300 INPUT #1,"ENTER NO. OF FIELDS";FIL
310 IF FIL>15 THEN 290
320 FOR T=1 TO FIL
330 PRINT #1,"ENTER NAME FOR FIELD";T;:INPUT #1,
    NAME$(T)
340 IF LEN(NAME$(T))>15 THEN 330
350 NEXT
360 REM **** OPTIONS PRINT ****
370 CLS #1
380 GOSUB 730
390 ZONE 3
400 FOR T=1 TO 10
410 READ A$
420 PEN 0:LOCATE #0,1,(T*2):PRINT #0,T-1,A$
430 NEXT
440 READ A$
450 PEN 0:LOCATE #0,1,(T)*2:PRINT #0," - ",A$
460 READ A$
470 T=T+1
480 PEN 0:LOCATE #0,1,(T)*2:PRINT #0," ^ ",A$
490 PEN 1
500 DATA EXTRA OPTIONS,ALTER ALL RECORDS,ALTER
    PRESENT RECORD,ALTER ONE FIELD,ADD
    FIELD/RECORD,DELETE FIELD/RECORD,CHANGE FIELD
    NAME,DELETE BLANK RECORDS, SORT, SEARCH, DOWN A
    RECORD, UP A RECORD
510 DATA SWAP FIELDS/RECORDS,LOAD FILE,SAVE FILE,
    CAT,ERASE FILE,CHANGE COLOURS,MAIN MENU,

    RESTART,PRINT
520 A$=INKEY$:IF A$="" THEN GOTO 520 ELSE GOSUB 570
530 GOTO 520
540 DEFINT A-Z
550 REM **** OPTIONS ****
560 REM *****
570 IF A$="^" THEN RECORD=RECORD+1
580 IF A$="-" THEN RECORD=RECORD-1
590 IF A$="6" THEN LOCATE #1,53,14:PRINT #1,"*":
    GOSUB 1000
600 IF A$="9" THEN LOCATE #1,53,20:PRINT #1,"*":
    GOSUB 1050
610 IF A$="5" THEN LOCATE #1,53,12:PRINT #1,"*":
    GOSUB 1150
620 IF A$="4" THEN LOCATE #1,53,10:PRINT #1,"*":
    GOSUB 1440
630 IF A$="2" THEN START=RECORD:FINISH=RECORD:
    LOCATE #1,53,6:PRINT #1,"*":GOSUB 870
640 IF A$="1" THEN START=0:FINISH=200:LOCATE #1,
    53,4:PRINT #1,"*":GOSUB 870
650 IF A$="8" THEN LOCATE #1,53,18:PRINT #1,"*":
    GOSUB 1740
660 IF A$="7" THEN LOCATE #1,53,16:PRINT #1,"*":
    GOSUB 1880
670 IF A$="0" THEN LOCATE #1,53,2:PRINT #1,"*":
    GOSUB 2140
680 IF A$="3" THEN LOCATE #1,53,8:PRINT #1,"*":
    GOSUB 800
690 IF RECORD>200 THEN RECORD=200
700 IF RECORD<0 THEN RECORD=0
710 GOSUB 730
720 RETURN
730 CLS#1
740 LOCATE #1,1,1:PRINT #1,"RECORD";RECORD
750 FOR T=1 TO FIL
760 ZONE 3:LOCATE #1,1,T+2:ZONE 6:PRINT #1,T,:
    ZONE 23:PRINT #1,NAME$(T),FILE$(RECORD,T)
770 NEXT
780 RETURN
790 REM *** ALTER ONE FIELD ***
800 LOCATE #1,1,1:INPUT #1,"ENTER FIELD NO. FOR
    DATA";NY
810 ZONE 3:IF NY<16 THEN LOCATE #1,1,NY+2:ZONE 6:
    PRINT #1,NY,:PRINT #1,NAME$(NY),:PRINT #1,
    STRING$(32,32)
820 ZONE 3:IF NY<16 THEN LOCATE #1,1,NY+2:ZONE 6:
```


HOW TO USE EASIBASE

The first thing that you must do is specify the number of fields you want. This can be any number from 1-10 - but only use a field up if you really need it.

Then you have a menu of different options to look at. These are selected by pressing either one of the number keys along the top row, or a couple of keys adjacent to them.

- 0 - Gives a list of yet more options!
- 1 - Allows you to alter all of the records. To go back to the menu, enter END.
- 2 - Just lets you at the displayed record only.
- 3 - Alter one field within the present record only.
- 4 - Add a field or record anywhere in the file.
- 5 - Delete a field or record.
- 6 - Change field names.
- 7 - Deletes all blank records.
- 8 - Sorts all the records into alphabetical order.
- 9 - Search for a particular entry in a field.
- - Move to the previous record.
- [up arrow] - Move to next record.

Even more

Once you have selected option 0 from the main menu, you're taken direct to the extra menu.

This is for general housekeeping tasks, as follows:-

- 0 - Swap two fields or two records.
- 1 - Load a new database.
- 2 - Save the current database.
- 3 - Catalogue a tape or disk.
- 4 - Erase a file from a disk.
- 5 - Change screen colours.
- 6 - Go back to the main menu.
- 7 - Reset the database.
- 8 - Print all of the records out on a printer.

```

PRINT #1,NY,;:PRINT #1,NAME$(NY),;:INPUT #1,
FILE$(RECORD,NY)
830 IF LEN(FILE$(RECORD,NY))>30 THEN LOCATE #1,1,
NY+2:ZONE 6:PRINT #1,NY,;:PRINT #1,NAME$(NY),;
:PRINT #1,STRING$(LEN(FILE$(RECORD,NY))+2,32):
GOTO 800
840 GOSUB 730
850 GOTO 520
860 REM ALTER ONE RECORD AND ALTER ALL RECORDS
870 FOR RECORD=START TO FINISH
880 GOSUB 730
890 FOR T=1 TO FIL
900 OLDFILE$=FILE$(RECORD,T)
910 ZONE 3:LOCATE #1,1,T+2:ZONE 6:PRINT #1,T,;:
PRINT #1,NAME$(T),;:INPUT #1,FILE$(RECORD,T)
920 IF LEN(FILE$(RECORD,T))>30 THEN ZONE 3:LOCATE
#1,1,T+2:ZONE 6:PRINT #1,T,;:PRINT #1,NAME$(T)
,;:PRINT #1,STRING$(LEN(FILE$(RECORD,T))+2,32)
:GOTO 910
930 IF FILE$(RECORD,T)="" THEN FILE$(RECORD,T)=
OLDFILE$
940 IF FILE$(RECORD,T)="END" THEN FILE$(RECORD,T)
="":GOTO 840
950 NEXT
960 NEXT
970 RECORD=RECORD-1
980 RETURN
990 REM *** CHANGE FIELD NAME ***
1000 LOCATE #1,1,1:INPUT #1,"ENTER FIELD TO
CHANGE":NY
1010 LOCATE #1,1,2:PRINT #1,"ENTER NEW FIELD
NAME
"
1020 ZONE 3:LOCATE #1,1,NY+2:ZONE 6:PRINT #1,NY,;
:PRINT #1,NAME$(NY),;:INPUT #1,NAME$(NY)
1030 RETURN
1040 REM *** SEARCH ***
1050 LOCATE #1,1,1:INPUT #1,"ENTER FIELD NUMBER":
NO
1060 LOCATE #1,1,1:INPUT #1,"ENTER DATA FOR FIELD"
:SEARCH$
1070 CLS #1
1080 FOR T=0 TO 200
1090 LOCATE #1,1,1:PRINT #1,"SEARCHING RECORD":T
,;"
"
1100 IF FILE$(T,NO)=SEARCH$ THEN RECORD=T:RETURN
1110 NEXT
1120 RECORD=1

```

```

1130 RETURN
1140 REM *** DELETE A FIELD/RECORD ***
1150 LOCATE #1,1,1:INPUT #1,"DELETE FIELD(F) OR
RECORD(R)":Q$
1160 IF Q$="R" OR Q$="r" THEN 1200
1170 LOCATE #1,1,1:PRINT #1,STRING$(40,32)
1180 LOCATE #1,1,1:INPUT #1,"ENTER FIELD NO. TO
DELETE":NO
1190 GOTO 1310
1200 LOCATE #1,1,1:INPUT #1,"ENTER RECORD NO. TO
DELETE":NO
1210 FOR T=1 TO FIL
1220 FILE$(NO,T)=""
1230 NEXT
1240 FOR T=NO TO 199
1250 LOCATE #1,1,1:PRINT #1,"RECORD":T
1260 FOR Y=1 TO FIL
1270 FILE$(T,Y)=FILE$(T+1,Y)
1280 NEXT
1290 NEXT
1300 RETURN
1310 FOR T=NO TO FIL-1
1320 NAME$(T)=NAME$(T+1)
1330 NEXT
1340 FOR T=0 TO 200
1350 LOCATE #1,1,1:PRINT #1,"RECORD":T
1360 FOR Y=NO TO FIL-1
1370 FILE$(T,Y)=FILE$(T,Y+1)
1380 NEXT
1390 NEXT
1400 NAME$(FIL)="" :FOR T=0 TO 200:FILE$(T,FIL)=""
:NEXT
1410 FIL=FIL-1
1420 RETURN
1430 REM *** ADD A FIELD/RECORD ***
1440 LOCATE #1,1,1:INPUT #1,"ADD FIELD(F) OR
RECORD(R)":Q$
1450 LOCATE #1,1,1:INPUT #1,"ENTER NO. FOR NEW
FIELD/RECORD":NO
1460 LOCATE #1,1,1:PRINT #1,STRING$(32,32):
1470 IF Q$="R" OR Q$="r" THEN 1530
1480 FIL=FIL+1
1490 FOR T=FIL TO NO+1 STEP -1
1500 NAME$(T)=NAME$(T-1)
1510 NEXT
1520 GOTO 1630
1530 FOR T=199 TO NO STEP -1

```


GILES PARK, author of Easibase, talks about himself and his programming

"I'm 18 and I attend Park Lane College (no, it's not named after me!) in Leeds where I'm studying for an OND in computer studies. My interest in computers began when I got a colour 464 for Christmas about four years ago. Since then I've obtained lots of extra hardware such as a printer, AMX mouse, light pen and speech synthesiser. Until a year ago I was mainly interested in games and light programming. All that changed, though, when I bought a disk drive and assembler.

"When I started college I began programming in earnest (no, it's not a computer language!): but simple games and utilities turned out disasters, due to lack of organisation in planning. Writing Pascal programs, with full documentation, flowcharts and pseudo-code

made me much more effective. After that it was fairly simple to convert Pascal programs into Basic versions.

"Easibase originated from a smaller database I wrote in Pascal as a college assignment. Originally it only had a few options, such as delete, amend and add records. As I learnt new Pascal routines I would convert them to Basic and add them to my database. The hardest was the sort routine.

"The reason I converted the Pascal database into Basic was so my father could use the home computer as well. He's secretary of a model railway association and has to keep lists of members, addresses and so on. When I bought my disk drive I also bought a database for him to use. After a while it became clear it was totally unsuitable for his needs and



● Giles Park, 18: "I bought a database and found it was totally unsuitable, and very unfriendly too. So I wrote my own!"

was also very unfriendly (no, I'm not telling you which one it was!). So I concentrated on those aspects of my own database.

"I'm now in my second year at college, and we now

program in Cobol. Chances are that later this year we'll have to write a Cobol database as an assignment - so there could be Basic, Pascal and Cobol versions of Easibase! We also work in *dBase II* at college and I can also program in assemble, making five languages in all (not counting French).

"My main interest now is programming in assemble. I've written demos in it and would like eventually to write an assemble game, though I've already discovered what a hard field of programming this is.

"I'd definitely say to anyone who was interested in programming that they should try to do it as a college course. It's the best way to learn, and you get a wider range of experience than you would just working on your own."

```

1540 LOCATE #1,1,1:PRINT #1,"RECORD";T
1550 FOR Y=1 TO FIL
1560 FILE$(T+1,Y)=FILE$(T,Y)
1570 NEXT
1580 NEXT
1590 FOR T=1 TO FIL
1600 FILE$(NO,T)=" "
1610 NEXT
1620 RETURN
1630 LOCATE #1,1,1:INPUT #1,"ENTER NEW NAME";
      NAME$(NO)
1640 IF NO>FIL-1 THEN RETURN
1650 FOR X=0 TO 200
1660 LOCATE #1,1,1:PRINT #1,"RECORD";X
1670 FOR T=FIL TO NO+1 STEP -1
1680 FILE$(X,T)=FILE$(X,T-1)
1690 IF NO=1 THEN FILE$(X,1)=" "
1700 NEXT
1710 NEXT
1720 RETURN
1730 REM *** SORT ***
1740 LOCATE #1,1,1:INPUT #1,"ENTER FIELD TO SORT
      BY";NO
1750 FOR Y=0 TO RECORD
1760 FOR X=0 TO RECORD-1
1770 LOCATE #1,1,1:PRINT #1,"RECORD";X
1780 LOCATE #1,1,2:PRINT #1,"PASS";Y
1790 IF FILE$(X,NO)>FILE$(X+1,NO) THEN 1800 ELSE
      M=M+1:GOTO 1840
1800 M=0
1810 FOR T=1 TO FIL
1820 A$=FILE$(X,T):FILE$(X,T)=FILE$(X+1,T):FILE$(
      (X+1,T)=A$
1830 NEXT
1840 NEXT
1850 NEXT
1860 RETURN
1870 REM *** DELETE BLANK RECORDS ***
1880 M=0
1890 C=0

```

```

1900 FOR T=0 TO RECORD
1910 M=0
1920 FOR Y=1 TO FIL
1930 IF FILE$(T,Y)=" " THEN M=M+1
1940 NEXT
1950 IF M=FIL THEN C=C+1
1960 NEXT
1970 FOR T=0 TO C
1980 LOCATE #1,1,2:PRINT #1,"PASS";T
1990 FOR X=0 TO RECORD-1
2000 M=0
2010 LOCATE #1,1,1:PRINT #1,"RECORD";X
2020 FOR F=1 TO FIL
2030 IF FILE$(X,F)=" " THEN M=M+1
2040 NEXT
2050 IF M=FIL THEN 2060 ELSE 2100
2060 FOR F=1 TO FIL
2070 FILE$(X,F)=FILE$(X+1,F)
2080 FILE$(X+1,F)=" "
2090 NEXT
2100 NEXT
2110 NEXT
2120 RETURN
2130 REM *** EXTRA OPTIONS ***
2140 CLS #0
2150 FOR T=0 TO 8
2160 READ B$
2170 ZONE 3
2180 PEN 0:LOCATE #0,1,(T*2)+2:PRINT #0,T,B$
2190 NEXT
2200 A$=INKEY$:IF A$=" " THEN 2200 ELSE GOSUB 2220
2210 GOTO 2200
2220 IF A$="1" THEN GOSUB 2730
2230 IF A$="2" THEN GOSUB 2730
2240 IF A$="3" THEN GOSUB 2330
2250 IF A$="4" THEN GOSUB 2410
2260 IF A$="7" THEN GOTO 2490
2270 IF A$="5" THEN GOSUB 2520
2280 IF A$="0" THEN 3260
2290 IF A$="6" THEN RESTORE:PAPER 0:WINDOW #1,1,53

```



```

,1,25:CLS:PAPER 1:WINDOW #0,54,80,1,25:CLS:
GOTO 390
2300 IF A$="8" THEN GOSUB 2610
2310 RETURN
2320 REM *** CATALOGUE DISK ***
2330 CLS #1
2340 WINDOW #0,1,53,1,25
2350 WINDOW #1,54,80,1,25
2360 PAPER 0:PEN 1:CAT
2370 WINDOW #0,54,80,1,25
2380 WINDOW #1,1,53,1,25
2390 RETURN
2400 REM *** ERASE FILE FROM DISK ***
2410 GOSUB 2330
2420 LOCATE #1,1,24:INPUT #1,"ENTER NAME TO
DELETE";DEL$
2430 LOCATE #1,1,25:INPUT #1,"ARE YOU SURE";Q$
2440 IF Q$="n" OR Q$="N" THEN 2460
2450 |ERA,@DEL$
2460 GOSUB 2330
2470 RETURN
2480 REM *** RESTART AGAIN ***
2490 LOCATE #1,1,1:INPUT #1,"ARE YOU SURE";Q$
2500 IF Q$="Y" OR Q$="y" THEN 160 ELSE 2200
2510 REM *** CHANGE SCREEN COLOURS ***
2520 PENC=PENC+1
2530 SCREEN=SCREEN+1
2540 IF PENC>15 THEN PENC=0
2550 IF SCREEN>15 THEN SCREEN=0
2560 INK 1,PENC
2570 INK 0,SCREEN
2580 BORDER SCREEN
2590 RETURN
2600 REM *** PRINT TO PRINTER ***
2610 FOR RECORD=0 TO 200
2620 CLS#1
2630 LOCATE #1,1,1:PRINT #1,"RECORD";RECORD
2640 LOCATE 1,1:PRINT #8,"RECORD";RECORD
2650 FOR T=1 TO FIL
2660 ZONE 3:LOCATE #1,1,T+2:ZONE 6:PRINT #1,T,;:
ZONE 23:PRINT #1,NAME$(T),FILE$(RECORD,T)
2670 ZONE 3:LOCATE 1,T+2:ZONE 6:PRINT #8,T,;:ZONE
23:PRINT #8,NAME$(T),FILE$(RECORD,T)
2680 ON BREAK GOSUB 2210
2690 NEXT
2700 NEXT
2710 RETURN
2720 REM *** LOAD A FILE/SAVE A FILE ***
2730 CLS #1
2740 LOCATE #1,1,1:INPUT #1,"ENTER NO.OF FIELDS";
FIL
2750 IF FIL>15 THEN 2730
2760 IF A$="1" THEN GOSUB 2810
2770 IF A$="2" THEN GOSUB 3050
2780 IF RECORD>200 THEN 2730
2790 GOSUB 730
2800 RETURN
2810 CLS #1
2820 LOCATE #1,1,1:INPUT #1,"ENTER FILE NAME";NM$
2830 IF LEN(NM$)>8 THEN 2810
2840 ON BREAK GOSUB 2790
2850 OPENIN NM$+".EAS"
2860 ON BREAK GOSUB 2210
2870 FOR REC=0 TO 200
2880 LOCATE #1,1,2:PRINT #1,"RECORD";REC
2890 FOR FL=1 TO FIL
2900 INPUT #9,FILE$(REC,FL)
2910 NEXT
2920 NEXT
2930 FOR FL=1 TO FIL
2940 INPUT #9,NAME$(FL)

```

```

2950 IF EOF=-1 THEN GOTO 2970
2960 NEXT
2970 CLOSEIN
2980 FIL=FL
2990 LOCATE #1,1,3:PRINT #1,"FINISHED"
3000 RECORD=0
3010 LOCATE #1,1,4:PRINT #1,"PRESS SPACE"
3020 IF INKEY(47)=0 THEN 3030 ELSE 3020
3030 CLS #1
3040 RETURN
3050 CLS #1
3060 LOCATE #1,1,1:INPUT #1,"ENTER FILE NAME";NM$
3070 IF LEN(NM$)>8 THEN 3050
3080 OPENOUT NM$+".EAS"
3090 FOR REC=0 TO 200
3100 LOCATE #1,1,2:PRINT #1,"RECORD";REC
3110 FOR FL=1 TO FIL
3120 WRITE #9,FILE$(REC,FL)
3130 NEXT
3140 NEXT
3150 FOR FL=1 TO FIL
3160 WRITE #9,NAME$(FL)
3170 NEXT
3180 CLOSEOUT
3190 LOCATE #1,1,3:PRINT #1,"FINISHED"
3200 RECORD=0
3210 LOCATE #1,1,4:PRINT #1,"PRESS SPACE"
3220 IF INKEY(47)=0 THEN 3230 ELSE 3220
3230 CLS #1
3240 RETURN
3250 REM *** SWAP A FIELD/RECORD ***
3260 LOCATE #1,1,1:INPUT #1,"SWAP RECORDS (R) OR
FIELDS (F)";Q$
3270 LOCATE #1,1,1:PRINT #1
"
"
3280 IF Q$="R" OR Q$="r" THEN 3430
3290 ORECORD=RECORD
3300 LOCATE #1,1,1:PRINT #1,"ENTER FIELDS TO
SWAP";
3310 LOCATE #1,1,2:INPUT #1,"ENTER 1ST FIELD";NO1
3320 LOCATE #1,1,2:PRINT #1
"
"
3330 LOCATE #1,1,2:INPUT #1,"ENTER 2ND FIELD";NO2
3340 CLS #1
3350 FOR RECORD=0 TO 200
3360 LOCATE #1,1,1:PRINT #1,"RECORD";RECORD
3370 T$=FILE$(RECORD,NO1):FILE$(RECORD,NO1)=FILE$(
RECORD,NO2):FILE$(RECORD,NO2)=T$
3380 NEXT
3390 T$=NAME$(NO1):NAME$(NO1)=NAME$(NO2):NAME$(
NO2)=T$
3400 RECORD=ORECORD
3410 GOSUB 730
3420 RETURN
3430 LOCATE #1,1,1:PRINT #1
"
"
3440 LOCATE #1,1,1:PRINT #1,"ENTER RECORDS TO
SWAP";
3450 LOCATE #1,1,2:INPUT #1,"ENTER 1ST RECORD";NO1
3460 LOCATE #1,1,2:PRINT #1
"
"
3470 LOCATE #1,1,2:INPUT #1,"ENTER 2ND RECORD";NO2
3480 CLS #1
3490 FOR FL=1 TO FIL
3500 T$=FILE$(NO1,FL):FILE$(NO1,FL)=FILE$(NO2,FL):
FILE$(NO2,FL)=T$
3510 NEXT
3520 RECORD=NO1
3530 GOSUB 730
3540 RETURN ●

```


A.L.P.H.A.B.E.T

This friendly little program from STEPHEN BURGESS of Warrington first displays the whole alphabet. It then repeats, but takes a letter out: you have to input which letter is missing. It's very good for 5-7 year olds, with lots of prompts in big friendly letters. We're impressed: we just can't get enough educational *Type-Ins*.

```

1 'Alphabet
2 'By Stephen Burgess
3 'Amstrad Action February 1989
10 MODE 0
20 CLS
30 LOCATE 1,12
40 PRINT" ALPHABET ALPHABET "
50 FOR n=1 TO 6
60 t=TIME
70 WHILE TIME<t+100:INK 1,6
80 WEND
90 t=TIME
100 WHILE TIME<t+100:INK 1,18
110 WEND
120 t=TIME
130 WHILE TIME<t+100:INK 1,24
140 WEND
150 NEXT
160 CLS
170 PRINT"Hello":SOUND 1,293,25:PRINT
180 PRINT"This is the fun ALPHABET game."
190 PRINT:PRINT"Now remember to press ENTER
    after you type in your answers"
200 PRINT
210 INPUT"What is your name";nam1$
220 CLS:SOUND 1,293,25
230 PRINT"hello ";nam1$
240 INPUT"Are you by yourself (y/n) {ENTER}"
    ;an$
250 IF an$="y" THEN nam2$="":GOTO 290:' If playing
    alone set second player's name variable to
    empty string for reference later in program.
    Skip asking for second player's name.
260 CLS:SOUND 1,293,25
270 PRINT"Hello player two":PRINT
280 INPUT"What is your name";nam2$
290 CLS:SOUND 1,293,25
300 PRINT"Each time ALL the alphabet will be
    shown, then it will disappear.":PRINT
310 PRINT"For game 1 when it reappears one
    letter will be missing.":PRINT:PRINT"For game
    2 only four letters will reappear and the
    fifth letter will be missing"
320 PRINT"You must decide which letter is
    missing and tell me by pressing the
    correct key.":PRINT:PRINT
330 INPUT "Which game would you like (1 or 2)";game
340 IF game<>1 AND game<>2 THEN 330
350 sco1=0:sco2=0:pl=1:cycle=0:'set player's score
    variables to 0. Set player variable to 1st
    player for 1st cycle. set cycle variable to 0.
360 CLS:SOUND 1,293,25
370 GOSUB 510:' goto game routine.
380 IF nam2$<>"" AND pl=1 THEN pl=2:GOTO 400:'If
    2 players playing and 1st player has just had
    a turn then let next turn be for player 2.
390 IF nam2$<>"" AND pl=2 THEN pl=1:'If 2nd player
    just had a turn then let next turn be for
    player 1.
400 IF nam2$<>"" THEN cycle=cycle+1:'If 2 players
    playing then increase cycle by 1 (i.e. Each
    player has 10 turns)
410 IF nam2$="" THEN cycle=cycle+2:'If 1 player
    only then increase cycle by 2 (i.e. 10 turns)
420 IF cycle=20 THEN 440'when 10 turns gone goto
    end routine.
430 GOTO 360:'Repeat game cycle.
440 CLS:SOUND 1,293,25
450 IF nam2$="" AND sco1=10 THEN PRINT"Well done "
    ;nam1$:PRINT:PRINT"You scored 10 out of 10":
    GOTO 480
460 IF nam2$="" AND sco1<10 THEN PRINT nam1$:PRINT
    :PRINT"you scored ";sco1;" out of 10":PRINT
    :PRINT"See if you can do better next time.":
    GOTO 480
470 PRINT nam1$:PRINT:PRINT"You scored ";sco1;"
    out of 10":PRINT:PRINT nam2$:PRINT:PRINT
    "You scored ";sco2;" out of 10"
480 LOCATE 1,14 :INPUT "Do you want another game
    (y/n) {ENTER}";anoth$
490 IF anoth$="y" THEN 10
500 END
510 CLS
520 IF pl=1 THEN nam3$=nam1$:'This line and next
    3 transfer present player's name and score to
    game routines player and score variables
    depending on who's turn it is.
530 IF pl=1 THEN sco1=sco1
540 IF pl=2 THEN nam3$=nam2$
550 IF pl=2 THEN sco1=sco2
560 t=TIME
570 LOCATE 1,8
580 FOR n=97 TO 122:'this prints the alphabet.
590 PRINT CHR$(n);
600 NEXT
610 PRINT:PRINT:PRINT" (WAIT)"
620 WHILE TIME<t+3000:'holds alphabet on screen
    for 10 seconds to refresh child's memory.
630 WEND
640 CLS:SOUND 1,293,25
650 PRINT nam3$;"'s turn"
660 PRINT nam3$;"'s score=";sco1
670 IF game=2 THEN rl=INT(RND*22)+101 ELSE rl=INT
    (RND*26)+97:'Determines random letter(rl) for
    game 2 or else game 1 by default.
680 LOCATE 1,8
690 IF game=2 THEN 740:'If game 2 selected skip
    lines 790 to 820 which print alphabet minus 1
    letter for game 1.
700 FOR n=97 TO (rl-1):PRINT CHR$(n);
710 NEXT
720 FOR n=(rl+1) TO 122:PRINT CHR$(n);
730 NEXT
740 IF game=2 THEN LOCATE 1,8
750 IF game=2 THEN PRINT CHR$(rl-4);CHR$(rl-3);
    CHR$(rl-2);CHR$(rl-1);"?":'Gives 1st 4 letters
    of sequence for game 2.
760 LOCATE 1,18
770 INPUT"Which letter is missing";geus$
780 CLS:SOUND 1,293,25
790 an$=CHR$(rl):'Sets answer to random letter
    selected previously.

```



```

800 PRINT "The missing letter was ";an$:PRINT
810 IF geus$<>an$ OR geus$<>UPPER$(an$) THEN GOSUB
    860 ELSE GOSUB 910
820 IF pl=1 THEN scol=scopl:'This line (or next)
    returns the updated score from game routine to
    appropriate players' score variable.
830 IF pl=2 THEN sco2=scopl
840 o$=""
850 RETURN
860 IF geus$<>an$ OR geus$<>UPPER$(an$) THEN PRINT
    "Sorry, ";nam3$;" you are wrong.":SOUND 1,800,
    40:SOUND 1,900,80:PRINT
870 PRINT "Your score is still only ";scopl:
    PRINT
880 IF nam2$<>"" THEN INPUT "Please press 'o' for

```

```

Other player's turn. (Then ENTER)";o$ ELSE
INPUT "Press 'c' to continue";c$
890 IF o$<>"o" AND c$<>"c" THEN 880
900 RETURN
910 IF geus$=an$ OR geus$=UPPER$(an$) THEN PRINT
    nam3$;" you are correct":SOUND 1,300,30:SOUND
    1,250,30:SOUND 1,200,30:SOUND 1,100,90:PRINT
920 scopl=scopl+1:'increment score by 1
930 PRINT "your score is now";scopl:PRINT
940 IF nam2$<>"" THEN INPUT "Please press 'o' for
    Other player's turn. (Then ENTER)";o$ ELSE
    INPUT "Press 'c' to continue";c$
950 IF o$<>"o" AND c$<>"c" THEN 940
960 RETURN ●

```

UN ERASE

Many is the time we've received pleas from people who have accidentally erased precious files. Here's a friendly program from BENJAMIN MAIZELS of Bromley.

It's been designed to be as easy as possible to use: simply type |UNERASE, and the

program prompts you to enter the filenames of the missing files. Then hey presto! They're back.

It can't cope with disks that have been reformatted. But then again, nothing else can either. It works with both System and Data formats, the

two most common types.

Once the message 'That's all Folks!' has appeared, you can go through the updated disk again.

Alternatively, exit the program and catalogue your restored programs in all their glory.

```

1 'Unerase
2 'By Benjamin Maizels
3 'Amstrad Action February 1989
50 '
60 CLS: CLEAR: POKE &BE78, &FF: MEMORY &4FFF
70 l=1000:i=&5000
80 READ a$
90 FOR k=1 TO 31 STEP 2
100 b$=MID$(a$,k,2):a=VAL("&"+b$)
110 sum=sum+a:POKE i,a:i=i+1
120 NEXT k
130 check$=RIGHT$(a$,3):check=VAL("&"+check$)
140 IF check<>sum THEN PRINT "ERROR in line";l:END
150 sum=0:l=l+10:IF l=1410 THEN 170
160 GOTO 80
170 CALL &5000
180 PRINT "Type |UNERASE to run program.":PRINT
190 NEW
1000 DATA 210950010D50C3D1BC000000001250C344D
1010 DATA 5D50554E45524153C500E17ECD5ABB236A4
1020 DATA B720F8E9213550CDD4BCD239502236507BE
1030 DATA 79323850C984000000CD1A500D0A2A2A422
1040 DATA 204552524F52202A2A0D0A0D0A00C921336
1050 DATA 5550C3275085215C50C3275089CD1A5062B
1060 DATA 0D0A496E7365727420646973632C20614FC
1070 DATA 6E6420707265737320616E79206B65795F0
1080 DATA 203A0D0A0D0A00CD06BBCD56503E04DF4AA
1090 DATA 3650CD24502100801E0016020E41DF36402
1100 DATA 50D2B3503E0232B1503E4132B250C305613

```

```

1110 DATA 510000CD24502100801E0016000EC1DF415
1120 DATA 3650D2D2503E0032B1503EC132B250C36E1
1130 DATA 0551CD1A500D0A0D0A2A2A204552524F367
1140 DATA 52202A2A2020466F726D6174206E6F744E0
1150 DATA 207265636F676E69736564202121210D4D3
1160 DATA 0A0D0A00C93AB250FE4ACA4752FECACA763
1170 DATA 4752CD24502100801E003AB150573AB2517
1180 DATA 504FDF3650D23950210080CDE6517E236A5
1190 DATA FE00CA0E52FE01CA0E52FE02CA0E52FE779
1200 DATA 03CA0E52FE04CA0E52FE05CA0E52FE0668A
1210 DATA CA0E52FE07CA0E52FE08CA0E52FE09CA75A
1220 DATA 0E52FE0ACA0E52FE0BCA0E52FE0CCA0E6A7
1230 DATA 52FE0DCA0E52FE0ECA0E52FE0FCA0E526F4
1240 DATA 3E013244527ECD5ABB233A44523C324450C
1250 DATA 52FE09CA9E51FE0CCAA651C385513E2E7E2
1260 DATA CD5ABBC385513E002B3CFE0CC2A851CD7B2
1270 DATA 7852202020556E65726173652028592F4CD
1280 DATA 4E293F0D0A00CD8752FE79CAE051FE5973C
1290 DATA CAE051FE4ECAEF51FE6ECAEF51C3C651AA1
1300 DATA 3E0077C3EF51237EFEE5CA47522BC93E7D1
1310 DATA 00324452233A44523C324452FE2020F44F1
1320 DATA 2245523A4552FE81CA1252C32B512BC3664
1330 DATA EF513A4652FEE0C22B51CD4F5021008073B
1340 DATA 1E003AB150573AB2504FDF3650D239505FB
1350 DATA 3AB250FE49CA4752FEC9CA47523C32B2830
1360 DATA 50C30551000000CD1A500D0A54686174448
1370 DATA 7320616C6C20666F6C6B732121210D0A485
1380 DATA 00CD4F502100801E003AB150573AB2504F9
1390 DATA 4FDF3650D23950C9228552E17ECD5ABB812
1400 DATA 23B720F8E900002A8552CD06BBC90000633 ●

```

Just room to let you know that every Type-In we print is paid for, and £10 is the absolute minimum. (A really mega-prog like Giles Park's 'Easibase' is worth much nearer £100 than a miserly tenner,

though.) Send your tape or disk - and a print-out if you possibly can - to:

Type-Ins, Amstrad Action
4 Queen St, Bath BA1 1EJ

The listing must be all your own original unpublished work.

Say whether you wish your program to be placed in the Public Domain, and if you'd like it returned enclose an SAE.

THE BUYERS GUIDE TO ADVENTURES

The complete list of every adventure ever reviewed in these hallowed pages, compiled with the valuable assistance of Glen Baldwin (the cheque's in the post)

Adventure	Software House	Rating	Issue	Page	Adventure	Software House	Rating	Issue	Page
Acheton	Topologika	69	29	60	Monsters Of Murdac	Global Software	75	11	88
After Shock	Interceptor	69	15	87	Mordon's Quest	Melbourne House	78	2	80
Al-Strad	Rhinosoft	68	6	75	Mountains Of Ket/Top Secret	Incentive	55	23	60
Apache Gold	Incentive	58	17	79	Murder on the Atlantic	Infogrames	45	22	67
Archers, The	Mosaic/Level 9	60	16	51	Never Ending Story, The	Ocean	82	4	80
Ashkeron	Mirrorsoft	70	2	79	North Sea Bullion Adventure	Kuma	25	1	40
Ballyhoo	Infocom	89	9	75	Old Scores	Global Software	89	11	68
Beer Hunter, The	Global Software	62	7	79	Pawn, The	Magnetic Scrolls	92	19	76
Bestiary	Perry Williams	75	21	80	Philosophers Quest	Topologika	58	26	71
Black Fountain/Sharpe's Deeds	Incentive	58	23	60	Price Of Magik	Level 9	88	10	71
Boggit, The	CRL	80	13	58	Rebel Planet	U.S. Gold	N/A	14	68
Bugsy	CRL/St.Brides	69	16	52	Red Moon	Level 9	90	1	39
Bureaucracy	Infocom/Activision	89	22	66	Redhawk	Melbourne House	58	9	75
Countdown To Doom	Topologika	59	26	69	Return To Doom	Topologika	70	36	59
Die You Vicious Fish	Rhinosoft	61	18	62	Return To Oz	US Gold	28	15	89
Dodgy Geezers	Melborne House	50	18	62	Rick Hanson, Special Agent	Robico	52	24	41
Dracula	CRL	48	17	80	Robin Of Sherwood	Adventure Int.	68	2	78
Dungeons, Amethysts, Alc.	Atlantis	65	23	61	Robin Of Sherwood	CRL	77	10	72
Escape From Khoshima	Atlantis	75	21	80	Runestone	Firebird	80	6	75
Fourmost Adventures	Global Software	85	8	78	Seabase Delta	Firebird	85	10	72
Gnome Ranger	Level 9	60	28	81	Seas Of Blood	Adventure Int.	78	4	81
Growing Pains Of Adrian Mole	Virgin/Mosaic/Level 9	75	19	77	Secret Diary Of Adrian Mole	Mosaic/Level 9	80	3	78
Guild Of Thieves	Magnetic Scrolls	89	29	60	Secret Of St.Bride's, The	Audiogenic/St.Bride's	62	7	80
Hitchhikers Guide To Galaxy	Infocom	93	5	70	Shadow Of The Bear	Kuma	25	1	40
Hollywood Hijinx	Infocom/Activision	90	20	64	Shadows Of Mordor	Melbourne House	81	21	79
Hunchback-The Adventure	Ocean	70	12	71	Shymer	Sandra Sharkey	65	30	61
Ice Station Zero	Eighth Day	49	4	82	Silicon Dreams	Rainbird	88	17	78
Imagination	Firebird	75	19	79	Smugglers Cove	CRL	62	1	40
Ingrid's Back	Level 9	82	38	68	Souls Of Darkon	Taskset	58	3	79
Island Of Riddles	Redbeard	58	3	81	Spy Trek	Americana	69	11	72
Jinxter	Magnetic Scrolls	88	30	60	Stationfall	Infocom	90	27	73
Knight Orc	Level 9/Rainbird	84	28	80	Subsunk	Firebird	65	1	40
Kwah!	Melbourne House	69	16	51	Terrormolinos	Melborne House	77	3	81
Lancelot	Level 9	80	38	67	Time And Magik	Level 9/Mandarin	92	34	59
Last Believer, The	Paul Lucas	N/A	25	66	Tomb Of Kuslak	Intrigue Software	22	3	79
Leather Goddesses Of Phobos	Infocom/Activision	91	15	87	Treasure Tunnels	Plasma Touch	65	9	77
Lord Of The Rings	Melborne House	85	6	72	Twice Shy	Mosaic/RamJam	68	16	52
Lost Phirious-Part 1, The	Vidipix	55	8	78	Venom	Mastertronic	60	29	61
Lost Phirious-Part 2, The	Vidipix	59	10	73	Very Big Cave Adventure, The	CRL	76	10	73
Lurking Horror	Infocom	94	27	73	Warlord	Interceptor	70	2	79
Magic Cottage	Stuart Lockey	N/A	25	65	Winter Wonderland	Incentive	55	17	80
Magicians Ball, The	Global	80	4	81	Wishbringer	Infocom	92	9	77
Mandradore	Infogrames	70	12	70	Worm In Paradise, The	Level 9	87	5	66
Mansion	Central Solutions	41	7	80	Zork 1	Infocom	86	5	71 ●
Mindshadow	Activision	75	3	81					

Don't miss the next **AMSTRAD ACTION**-packed issue – out on **FEBRUARY 9th!**

AAfterthought

And now for something completely different...

The CPC character set

2. The club secretary



Now in a state somewhere between semi- and complete retirement, the Club Secretary is the nominal Director of a local company, though his services are no longer greatly in demand.

He has recently become totally obsessed with the idea of using his 6128 to put his life in order. Perhaps it's because

it does as it's told without answering back?

This curious monomania began with little things – writing the odd letter to his local newspaper, for instance. He then, of course, needed a printer to put this literary masterpiece onto paper. (The letter, which pointed out that waste-bins in beauty spots attracted a great deal of rubbish. Doubtless the fault of that ignorant buffoon the editor.) It then progressed to cataloguing his stamp collection using his database and very soon spiralled out of control. There is now little hope.

He even puts his shopping lists and notes to the milkman

on it. The surest sign that the bug has really bitten, however, is that he even does home accounts on his CPC. He was once involved in a dispute with his bank manager over £1.50 interest charged over three months. Eventually it was returned, and ever since has referred to it as the great proof that all his effort is not wasted.

Sometimes he feels persecuted, and approaches despair. Why should it be his sole responsibility to hire the hall, bring along the equipment, set it up, organise the guest speaker, speak when the guest speaker fails to appear, arrange the refreshments, and remind people that

they haven't paid this year's subs – or indeed last year's, come to mention it. And if he were even to mention the number of hours he'd spent doing the club accounts...

He objects to games players but above all to hackers. If an ingenious individual hacked his way into the Pentagon defence system he would be outraged at their social irresponsibility. By contrast he feels a respect verging on awe at anyone who's managed to program a computer to, say, deal a hand at cards.

Next month's member in the CPC character set is the technical type

Avoid the queues!

To the newsagent: *Amstrad Action* is distributed by Seymour Press

Dear newsagent,

Please reserve me one copy of the March *Amstrad Action*, due out on 9 February

Name:

Address:

Telephone number:

If you're under 18, please get your parent or guardian's to sign here:



Yes folks, that's it for another month. There is no more. Still, hang on just four short weeks (can you wait?) and we'll be back with another action-packed *Amstrad Action*. Once again we don't want to say too much about what's in it, because all the other mags will nick it (ho ho. Real reason: haven't the faintest).

And if you've been having problems getting your hands on a copy, why not reserve one? Your newsagent will be ever so glad to oblige. Just hand him this reservation slip and make life a little easier.

CHEER UP!
we've got you
covered!

Now for
CPC range **£8.95**

SEAL 'n TYPE™

- * Protective keyboard cover through which you can type.
- * 24hr dust/spill cover
- * Removable, washable, re-usable.
- * Can be custom-made for any keyboard. Ring for details

Ring or Write for our FREE catalogue

Reinking Service £1.50	Prices are fully incl.
Ring for transporter SAE	Cheques/P.O. payable to:
DMP re-inking kit £10.00	KADOR
VDU Screen	Unit 4
(Colour/Mono) £14.50	Pontcynon Industrial Estate
Mouse Mat £5.95	Abercynon
Dust Cover (Col/Mono) £7.50	Mid Glamorgan CF45 4EP
Pronker Box £2.30	Tel: 0443 740281
Dexette Copy Holder	Computer
A4 £8.50 A3 £10.00	Accessories
Surge Protectors £12.00	Manufacturer
Acoustic Boxes £38.95	

ADVERTISERS INDEX

AMS 6	MJC IBC
Amstrad User Club 10	Matrix 34
Arnor 30	Microtext 26
Castle 49	John Morrison 34
Comsoft 34	Nemesis 50
Crazy Joe's 26	Ocean IFC,3,OBC
Firebird 47	Romantic Robot 36
Goldmark 42	S.D.C. 19
Graduate Software 34	Siren 33
Intraset 50	Softshop 26
K&M Computers 14	Wacci 33
Kador 70	Wave 50



Patent pending and Registered Design

Your CPC is alive. To make sure it's kicking subscribe to *Amstrad Action*. Now!

What's really going on in the CPC world? How do you know if you're really getting the most out of your CPC? How do you get hold of the best **bargains**? Get all the best **advice**, plus **tactics** and **games hints**, **pokes** and help which adds **new life** to your existing software collection and lets you make your future choices wisely: news, features, comms, the letters pages (!) - all this by subscribing to *Amstrad Action*.

For just **£16.50** you'll get the next 12 issues delivered straight from the presses to **your door**. And in every one of them the chance to pick up bargains you'll never see repeated elsewhere.

But that's not all. To make sure you get a proper AA kick-off we're giving away one of these four amazing games - your copy will arrive two days after your subscription order. But there's more! In a moment of **pure folly** we're throwing in a copy of Firebird's *Enlightenment* to those who choose tape rather than disk! In other words, subscribe, pick a game from the four listed below. If you want it on tape, you get *Enlightenment* thrown in **free!** We can't do more than that for you. But you have to want that machine to **come alive**. Contact us on (0458) 74011 or fill in the order form on the next page.

Do it now!

OPERATION WOLF

Normal shop price £9.95 tape, £14.95 disk

- The Christmas biggie from Ocean
- Taito coin-op conversion
- Blast your way to freedom in all-action shoot-'em-up
- Super-fine multi-directional trigger control



CYBERNOID 2

Normal shop price £9.99 tape, £14.99 disk

- Hewson's AA Mastergame, December '88
- Pirate ship redesigned with more weapons
- Collect cargo, blast pirates and go on a stage
- Beat the timer
- Bombs, time bombs, trackers, defence shields, bouncing bombs, seekers and more!
- Mega music and sound



BATMAN

Normal price £9.95 tape, £14.95 disk

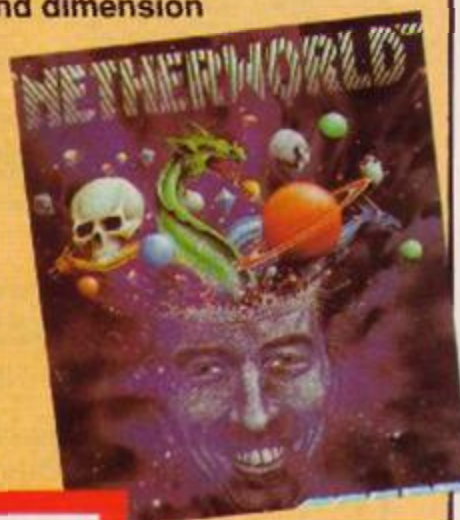
- Totally new version written by Special Effects
- First section is a four section Penguin plot: Batcave, On the Street, Penguin Mansion, Penguin Warehouse
- 100 different rooms & locations
- Second section is The Joker Plot in four locations: Batcave, Sewer, Fun-fair, Funhouse, On the Rollercoaster
- Rescue Robin from the robotic penguins!



NETHERWORLD

Normal Price £9.99 tape £14.99 disk

- Trip into another time and dimension
- Only ever escape by collecting diamonds
- Bricks, squeezers, egg timers, rocks, secret doors and teleporters are your weapons
- AA Mastergame February '89



ANY ONE OF THESE
PROGRAMS FREE WHEN YOU SUBSCRIBE!
Or buy them separately for just £6.95 cass, £11.95 disk.

SUBSCRIPTION GAMES (see previous page for description of game)

ITEM SUBSCRIPTION	OUR PRICE	ORDER CODE
with OPERATION WOLF cass* ...	£16.50	AA364
with OPERATION WOLF disk...	£16.50	AA365
with CYBERNOID 2 cass* ...	£16.50	AA366
with CYBERNOID 2 disk...	£16.50	AA367
with BATMAN cass* ...	£16.50	AA368
with BATMAN disk...	£16.50	AA369
with NETHERWORLD cass* ...	£16.50	AA381
with NETHERWORLD disk...	£16.50	AA382

*Cass options include *Enlightenment* on tape as free extra

Games on their own • Games on their own • Games on their own •

OPERATION WOLF CASS	£6.95	AA370
OPERATION WOLF DISK	£11.95	AA371
CYBERNOID 2 CASS	£6.95	AA372
CYBERNOID 2 DISK.....	£11.95	AA373
BATMAN CASS	£6.95	AA374
BATMAN CASS.....	£11.95	AA375
NETHERWORLD CASS	£6.95	AA383
NETHERWORLD DISK	£11.95	AA384

HIGHLIGHTER PENS

Three for £1.50

For bringing out those key phrases, there's nothing like these AA-embossed pens in red, yellow and green.

Order Code AA266

HOW TO ORDER

Just fill in the order form below. Use the order numbers listed with the product, **OR**, for a subscription, look at the Subscriber Code box above.

Or phone us with your credit card details on 0458 74192 (24-hour answerphone).

CLASSIC GAMES 4 CP Software

Just £8.95 on tape (RRP £9.95) and £13.95 disc (RRP £15.95)

Features four classic board games - chess, bridge, backgammon and draughts. Each is a full-blown game - no short measures. Three dimensional chess, full ACOL bridge system, full screen backgammon board and nine levels of draughts - amongst a host of other options.

Just released, and an exclusive release to Amstrad Action readers only (no other magazine met CP Software's stringent professional standards apart from us!). A super program for anyone who wants to have the big four board games in one go. This one will last longer than two weeks after Christmas! Don't miss it!

Order Code AA380



ORDER FORM No.41

Name _____

Address _____

Postcode _____

Tel Number (if possible) _____ Date of Order _____

Please send me the following item(s) from the Amstrad Action Special offer pages:

CODE	DESCRIPTION	PRICE

Make cheques & postal orders payable to FUTURE PUBLISHING LTD. If paying by credit card, please enter details

CREDIT CARD NUMBER

EXP. DATE

Send this form plus payment to **SPECIAL OFFERS, AMSTRAD ACTION, THE OLD BARN, SOMERTON, SOMERSET TA117PY**

ATLAST PLUS

CPC6128 CP/M database now

£29.95 (RRP £39.95)

"Superb value for money and hard to pick holes in" we called the first version of *AtLast*. Now, with the release of *AtLast Plus* by Rational Solutions, you have the chance of buying one of the best (and probably *the* best for the 6128) databases for £29 - £10 less than the full retail price!

AtLast Plus handles up to 32,000 records, ten files per database, 20 fields per record, 99 elements per field and up to 79 characters per element. User-definable report and screen layouts, full on-screen control of data entry, impressive indexing/sorting facilities and automatic data re-organisation are all included in this latest version.

The package includes disk and full 120 page manual - altogether one of the most suitable programs for organising club-type membership lists, and unbeatable value for money - only through *Amstrad Action*.

Order Code AA360

MINI OFFICE II
£12.95 tape £17.95 disk
(RRP £14.95/£19.95)



Database's combined word processor, database, spreadsheet, label printer, communications and graphics package and offers the best value for money in any eight-bit integrated package.

Suitable for any CPC (it doesn't run under CP/M), AA called Mini Office 'good enough to fulfil the entire software needs of many a small business!'. That is borne out by the sales figures - more than 400,000 users across the country.

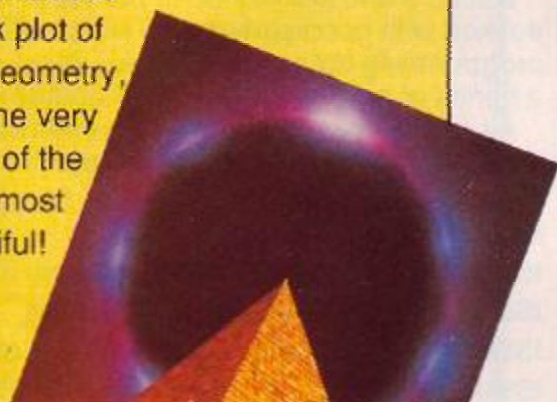
The figures testify to the features. You can build a verstaile card index, produce pie charts, access Prestel and other comms networks and run off personalised letters. Altogether, you may never need any other program once you've got Mini Office II. Time to get serious?

Order Code AA284

TOTAL ECLIPSE
Just £7.95 tape and £12.95 disc

Here is one of the most sophisticated games yet to appear on the CPC. Beautifully described using **Freescape 3D**, *Total Eclipse* investigates the inner world of the Pyramids of Ancient Egypt. The most ambitious Freescape yet, we find a dark plot of an imminent eclipse, secret geometry, potent magic dimensions in the very buildings and a total mastery of the mystery of one of the worlds most advanced civilisations. Beautiful!

Order Code ATE1 (tape)
ATE2 (disk)



DISK BOX!

Only £7.95

The box is made from top-quality perspex and features a tinted, hinged, lockable lid. It is specially designed to hold and display 20 CF2's including their cases or 40 without cases. A set of 10 dividers included with the box can be used to lay your hand instantly on the disk you need.

Order Code A2169

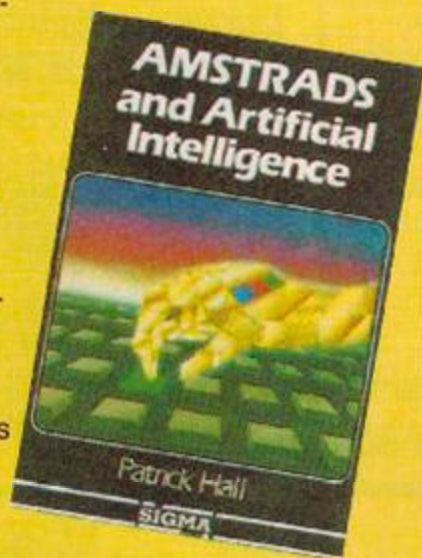
**HOTLINE
 PHONE
 0458 74011**

AMSTRADS AND ARTIFICIAL INTELLIGENCE

by Patrick Hall
Just £1.95 (RRP £8.95)

This book looks in detail at one of the most talked-about topics of our generation - artificial intelligence. The book discusses the requirements of AI and offers several program listings that allow you to start tackling the issues at the practical level. Didn't think you could get AI on your CPC? Well think again. Topics include expert systems, computer vision, robots and learning, game playing and knowledge representation. All this for just £1.95. An excellent book for anyone who owns a CPC and wants to take it further than ever before.

Order Code A895



NEW GAMES FOR 1989

The three games listed below are available for £8.95 tape and £12.95 disk. The RRP's in each instance are £9.95 tape and £14.95 disk.

Heroes of the Lance • US Gold

The Dungeons and Dragons game of '89! Eagerly awaited, this graphic adventure is a MasterGame and looks sure to set the pace for D'n'D'ers for some time to come.

Order Code AA285

Crazy Cars II • Titus

The follow-up to the major OutRun challenger gets a second outing! Improved courses and music promise a lot.

Order Code AA286

Titan • Titus

An unusual blend of action somewhere between Gauntlet and Arkanoid which involves strategy, willpower and joystick skill. 100 per cent 'Just One More Go' quality.

Order Code AA287

BLANK DISKS

We now stock Micro Interface blank 3 inch disks. Made in Japan, they come with a hard plastic case just like they should. A pack of five disks costs just £12.95 - or £2.99 each.

Order Code AA386 (5 disks)
AA387 (single disk)

BACK ISSUES

Expand your Amstrad Action collection!

If you're one of the thousands of readers who've joined *Amstrad Action* only recently, you'll want to catch up on some of the good things you've missed. Here's how to do it. We have limited numbers of the back issues listed below, which we're selling at cover price with post and packing free.

Issues 8 and 16 may be of particular interest, as both include free cassettes packed with good software. Two series also went down very well. Andy Wilton's programming course in Basic for absolute beginners ran from issues 8-17, while a series of articles on the CP/M operating system ran from 10-17.

All issues contain numerous game reviews, Type-Ins and Pokes, all making up the best in Amstrad Action past and present.

ISSUES 1-6 SOLD OUT!

ISSUE 7 • £1.00 • Educational software reviewed. Tips on *Elite*.

ISSUES 8, 9 & 10 • SOLD OUT!

ISSUE 11 • £1.00 • Pokes for Batman, Bounder, The Covenant, Tau Ceti.

ISSUE 12 • £1.00 • Big disc drives, Starstrike II, Programming Pascal.

ISSUE 13 • £1.00 • 7-page music special. Knight Tyme playing guide.

ISSUE 14 • £1.00 • Art Studio review, maps of Dan Dare, Price of Magik.

ISSUES 15 & 16 SOLD OUT!

ISSUE 17 • £1.00 • Pagemaker review. Red Boxes review. Numerous Type-ins.

ISSUES 18 & 19 SOLD OUT!

ISSUE 20 • £1.00 • Survey of ingenious gadgets and add-ons.

ISSUE 21 • £1.25 • Type-ins special including Card Trick program.

ISSUE 22 • SOLD OUT!

ISSUE 23 • £1.25 • Launch of Word-Processing series. Utility Type-ins.

ISSUE 24 • Two years of AA! Exolon. Word processors. Tas-Sign. More WIMPs.

ISSUE 25 • SOLD OUT!

ISSUE 26 • £1.25 • Special on Midi music interface.

ISSUE 27 • £1.25 • Midi and Teletext. Build an RS232. Red L.E.D.

ISSUE 28 • SOLD OUT!

ISSUE 29 • £1.25 • Six top printers reviewed. Spreadsheets.

ISSUE 30 • £1.25 • Discovering databases. How to upgrade a 464 to a 6128.

ISSUE 31 • £1.25 • CP/M software section starts. Basic programming reaches part five.

ISSUE 32 • £1.25 • Educational software survey. CP/M on ROM. Word processing.

ISSUE 33 • £1.25 • Loads of hardware projects! - joystick, splitter, I/O port etc. Comms.

ISSUE 34 • £1.25 • Simulation software from space shuttles to bikes. Small business?

ISSUE 35 • £1.25 • Joy of hacking scrutinised! Buyers guide to computer books.

ISSUE 36 • £1.25 • Micronet - worth it? Code Masters? Printer selection.

ISSUE 37 • £1.25 • 3rd birthday cover tape includes *Dizzy*. D & Der's get *Heroes of the Lance*.

ISSUE 38 • £1.25 • Fleet Street Editor arrives. Micro Music. Empire Strikes Back.

ISSUE 39 • £1.25 • Language guide - from C to Basic. 14 pages of Xmas games.

Gambling with Coursemaster

ISSUE 40 • £1.25 • Cover Cassette • Total Eclipse demo • 1988 Games Awards.

Turkeys '88. Preview 1989. Comms special. Nemesis.

AA DUST COVERS

2-piece set only £6.95

Let's face it, computers don't like dust. Over a period of time it can make them very ill indeed: disk drives and cassette decks in particular can suffer serious, sometimes fatal damage.

A set of dust covers provides a neat solution. And there's the added bonus of smartening up the hardware's appearance when it's not in use.

The specially-commissioned Amstrad Action covers are made from high-quality, water (and coffee) proof PVC. They're coloured a gentle beige with smart blue trimming and matching AA logo.

You can order a 2-piece set tailor-made for your CPC system - just choose the correct order code from the list next to the order form.

Order Codes

464 mono - A208	664 colour - A211
464 colour - A209	6128 mono - A212
664 mono - A210	6128 colour - A213

24 HOUR

CREDIT CARD ORDERS

0458 74192

THE AMSTRAD ACTION T-SHIRT

Just £3.50

The amazing AA T-shirt is here! The sparky red and blue AA logo is printed on a white cotton T-shirt which you can buy for £3.50 in either medium or extra large sizes. Get this and you'll have AA even nearer your heart than ever before! Order Code A361 (medium) A362 (extra large)



DISCOUNT SOFTWARE



from M.J.C. SUPPLIES

DISC GAMES

Arcade Force Four	16.95
Batman	11.95
By Fair Means or Foul	11.95
Bubble Ghost	11.95
Colossus Mah Jong	11.95
Colossus 4 Chess	11.95
Corruption	15.95
Cyberoid II	11.95
Dark Side	11.95
Driller	14.95
Empire Strikes Back	11.95
F15 Strike Eagle	11.95
Fernandez Must Die	11.95
Flight Ace	13.95
Football Director II	15.95
Fists and Throttles	11.95
Game Set and Match II	13.95
Games Over II	10.95
Gary Linekers Soccer	11.95
Giants	16.95
Gold, Silver, Bronze	21.95
Gunship	14.95
History in the Making	19.95
Konami Arcade Collect	14.95
Lancelot	15.95
Magnificent Seven	14.95
Matchday II	11.95
Mickey Mouse	11.95
Monopoly	11.95
Nightraider	11.95
Operation Wolf	11.95
Pac Mania	11.95
Pirates	14.95
Return of the Jedi	11.95
Road Blasters	12.95
Savage	11.95
Scrabble Deluxe	12.95
Six Pack III	11.95
Spitting Image	11.95
Supreme Challenge	12.95
Thunderblade	11.95
Time and Magik	11.95
Total Eclipse	11.95
Trivial Pursuits	16.95
Turbo Cup	11.95
Victory Road	11.95
Vindicator	11.95

MJC SPECIAL:

Typhoon
RRP £14.99 OURS £9.95
Offer ends Jan 31st.

EDUCATION

Animal Veg, Mineral	11.95
Answerback JNR Quiz	11.95
Factfile Arithmetic	7.95
Factfile Spelling	7.95
Factfile Sports	7.95
Fun School 2-5 years	7.95
Fun School 5-8 years	7.95
Fun School 8-12	7.95
World Wise	11.95

Note: Factfiles are extra question packs for the Answerback JNR Quiz

DISC SERIOUS

Protex	19.95
Qualitas Plus	12.95
Rodos Extra disc	8.95
Spanish Tutor	16.95
French Mistress	16.95
German Master	16.95
Maxam ass/diss	19.95
Prospell	18.95
Promerge	18.95
Tasword 6128	19.50
Taspell	12.95
Tasprint	10.95
Tascopy	10.95
Tasdiary	10.95
Tassign 6128	23.95
Matrix Spreadsheet	29.95
Mastercalc 128	25.95
Masterfile III	29.95
Mini Office II	15.95
Advanced Music System	Call
Advanced Art Studio	Call
Arnor Filer (state CPM or AMS disk)	18.95
Arnor Office Suite (state CPM or AMS disk)	26.95
Stop Press	38.95

CPM BASED

Supercalc 2	39.95
Dr Graph	39.95
Dr Draw	39.95
Dr CBasic	35.95
Dr Pascal MT+	35.95
Arnor C Compiler	38.95
Maxam II	38.95
Fortran	39.95
Nevada Cobol	39.95
Hisoft Devpac 80	39.95
Hisoft Pascal 80	39.95
Hisoft C Compiler	39.95
Iankey 2 Finger Typing	19.95
Iankey Crash Course	19.95

MJC SPECIAL

Protex CPM: including
Spellchecker & Mailmerge
RRP £59.95 OURS £39.95

CASSETTE BASED

Maxam 464	15.95
Protex 464	15.95
Tasword 464	15.95
German Master 464	14.95
French Mistress 464	14.95
Answerback JNR Quiz	8.95
Italian Tutor	14.95
Spanish Tutor	14.95

ACCESSORIES

Multiface II Plus	42.95
Printer Lead 1M	8.95
Printer Lead 1.5M	9.95
Printer Lead 2.0M	10.95
3" Disc Cleaner	6.95
Amstrad RS232 Interface	55.95
Mono Screen filter	12.95
Colour Screen Filter	14.95
Comp Pro 5000 joystick	13.95
Quickshot Turbo Joystick	11.95
Cruiser Joystick	9.95
464 Monitor Ext Leads	6.95
6128 Mono Ext Leads	7.95
1000 Fanfold Labels	5.95
Second Drive Lead	7.95
DKT 64K Memory Exp	44.95
AMS 20L Disc Box	9.95
AMX Mouse + Art Software	59.95
AMX Mouse + Stop Press	69.95
464 Dust Cover (Mono/Col)	7.95
6128 Dust cover	7.95

BOOKS/MANUALS

Adv Amstrad Graphics	7.95
Mastering Machine Code	8.95
The Amstrad CPM+ Book	12.95
Programming the Z80	19.95

RIBBONS

Printer	Quantity		
	1	2	5
DMP 2000/2160	3.95	7.00	15.00
Panasonic 1080/1081	3.95	7.00	16.00
Citizen 120D	3.95	7.00	15.00
Star LC10 (Black)	3.95	7.00	15.00
Micro-P165/200	4.95	8.00	18.00
Star LC10 Colour	5.95	11.00	26.00
Genuine Amsoft CF2 Disc			
x 5		12.00	
x 10		22.95	
x 20		42.95	

ROM BASED

Maxam	29.95
Maxam 1.5	22.95
Protex	29.95
BCPL	22.95
Utopia	22.95
Prospell	26.95
Promerge+	26.95
Rodos	28.95
Cage Rom (State which I/Face)	31.95
Rombo (if purchased with Rom)	28.95
KDS Rom Board (holds 6)	24.95

ALL ABOVE PRICES INCLUDE VAT, POSTAGE & PACKING IN THE U.K

THE ABOVE SOFTWARE IS ONLY FOR THE AMSTRAD CPC RANGE

M.J.C. PACKAGES

Qualitas Plus
KDS 8 Bit Port
Display Font Pack
R.R.P £44.45
Package Price £34.95

CORNIX SOFTWARE

CARD INDEX: Easy to use filing system
CASS: 19.95
DISC: 24.95

SIMPLE ACCOUNTS: easy to use accounts ideal for small business includes VAT.
CASS: 34.95
DISC: 39.95

JOB ESTIMATOR: useful tool for contractors.
DISC: 39.95

PRODUCT COSTING: DISC: 39.95
Full specifications on all of the above programs on request.

PRINTERS

MP-135 Printer 80 column, 135 CPS
Friction & tractor feed, Epson comp.
MJC PRICE £149.95

DMP 2160 Printer £159.95

Panasonic 1081 80 column, 120 CPS
Friction & Tractor feed, Epson comp.
MJC PRICE £169.95

MP-200 Printer 80 column, very fast
240 CPS, Fric & Tractor, Epson comp.
MJC PRICE £279.95

MP-201 Printer
wide 136 column, fast
240 CPS, Fric & Tractor, Epson comp.
MJC PRICE £349.95

STAR LC 10 PRINTER: 144cps, with front panel font selection
£229.95

STAR LC10 COLOUR: 144cps, with front panel font selection, seven colour option. £269.95

Overseas Orders Welcome - Please write for details

WE ARE NOW IN OUR FIFTH YEAR OF SPECIALISING IN AMSTRAD MAIL ORDER, OUR POLICY IS TO PROVIDE THE WIDEST RANGE AT DISCOUNT PRICES WITH A FAST TURN AROUND TIME - TRY OUR SERVICES WITH CONFIDENCE

CALLERS WELCOME: Mon-Fri 9 to 5 Sat 10 to 4

PLEASE SEND CHEQUES/POs TO:

M.J.C. SUPPLIES, (AA)

40a Queen Street, Hitchin, Herts. SG4 9TS.

Tel: (0462) 32897/420847 for enquiries/Credit Card orders

VISA



THE CRUCIAL COMPILATION



LAST NINJA REPLACES CRAZY CARS ON THE COMMODORE

THE IN CROWD

ocean



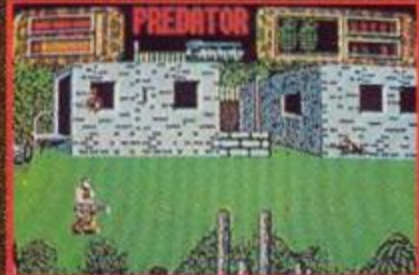
GRYZOR Featuring all the game-play of the arcade original, Gryzor takes you into a thrilling alien world of force fields, fanatical guerrillas and strange enemy defence systems - but you have the fire-power and maybe, with a 'little' skill, grit and split second timing, you can infiltrate the aliens' headquarters. Play Gryzor once and you'll be hooked!
© 1987 Konami



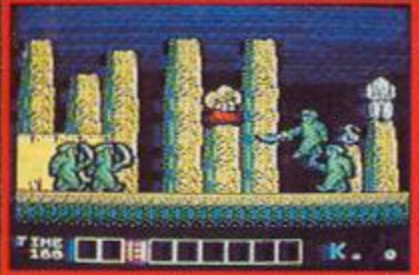
BARBARIAN THE STORY SO FAR... The evil sorcerer Drax has agreed that if a champion can be found who is able to defeat his demonic guardians, the Princess Marilana will be released. From the wastelands comes an unknown barbarian, a mighty warrior, wielding his broadsword with deadly skill. Can he vanquish the forces of Darkness? ONLY YOU CAN SAY...
© Palace Software Ltd.



CRAZY CARS You are racing in the world's craziest race: "The American Cross Country Prestige Cars Race". If you are able to complete the race before the time runs out, you will get a faster car. You start with a Mercedes 560 SEC, and only the world's best drivers may drive a Ferrari GTD. PREPARE TO START, READY? GO!!!
© Trivix Software Ltd.
LAST NINJA replaces CRAZY CARS on C64.



PREDATOR You've heard about Predator, the Schwarzenegger movie - now you can play the leading role. Take a crack commando unit into the South American jungle to rescue a bunch of trapped diplomats. Should be easy enough... and so it would be, if it weren't for the mysterious alien who keeps on taking out your men.
© 1987 Twentieth Century Fox Film Corp. All rights reserved.



KARNOV Join Karnov, the fire-breathing Russian strongman, on his hazardous quest to defeat the evil dragon Ryui and find the Lost Treasure of Babylon. Karnov is a vast 4-way scrolling game that combines both strategy and fast action in nine challenging levels of gameplay. It is recognised by arcade addicts everywhere as one of the best games of its kind. Karnov also has something special in the way of characters - have you ever been killed by a skeleton on an Ostrich?
© Electric Dreams Software Ltd.



COMBAT SCHOOL Konami's arcade hit now for your home micro and already a No. 1 hit. Seven gruelling events featuring the Assault Course, Firing Range, Arm Wrestling and Combat with the instructor himself! Combat school throws down the challenge to the toughest of the toughest gamers.
© 1987 Konami



TARGET RENEGADE Every move you make, every step you take, they're watching you. Fight your way through the precinct - the back alleys, the car parks, fight your way through the villainous community, the skin-heads, the Beastie Boys, the bouncers. This is just the tip of the iceberg on your chilling quest to confront "MR. BIG".



PLATOON Lead your Platoon deep into enemy territory, you can almost feel the humidity, sense the threatening dangers as you encounter the enemy and his many booby traps. Having found the underground maze of tunnels, enter at your peril! Enemy soldiers lunge at you from the murky waters within, but this is the only way you can find vital information. If you come out of this alive, you'll be just one of the few!
© 1987 Hemdale Film Corporation. All Rights Reserved.

ocean

SPECTRUM
AMSTRAD
COMMODORE

CASSETTE
£14.95