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AMSTRAD ACTION
APRIL 1992

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Blues Brothers

They're brothers, and they sure are blue... but you won't be!

Technical Forum

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Compilation round-up

TNT2 and more – the best of the current crop of compilations reviewed

ACTION pack

- *Ranarama* – the Hewson Mastergame in full!
- *Maze Mania* – guide Flippo round a series of hazard-filled mazes (complete game)
- *Pokes galore!* Full details and instructions in this month's *Cheat Mode*
- *Word Pro* – brilliant, feature-packed word processor
- *Easi-sheet* – plan your business (or your bank account) with this spreadsheet
- *Powerbase 2* – store all that vital information with this powerful database

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ACTION pack

HOW TO LOAD YOUR COVERTAPE

Loading the programs couldn't be easier! Type RUN" (followed by RETURN) and press a key to start the tape. (A shortcut way to get RUN" is to hold down CONTROL and tap the small ENTER key.)

A menu screen will appear in a short time. Select the program you wish to load. Press SPACE to highlight the program you want followed by RETURN to load the program. *Ranarama* and *Maze Mania* and two of the game pokes are on side one of the tape. The rest of the pokes and *Meaning Business – Word Pro, Easisheet* and *Powerbase 2* – are on side two. Turn the tape over and rewind to the beginning to load these programs.

Note that all the programs on side two must be loaded direcly from BASIC with the RUN" command.

| If you have a disk drive connected to your machine you'll first have to type |TAPE to switch the machine to tape loading rather than disk loading. (The | is obtained by pressing SHIFT and @) The computer will load the next program.

Ranarama

This is one game we've been trying to get on the covertape for months, readers, and within seconds of loading it up you'll see why. *Ranarama* is like no other game we've seen, it scored 91% on its original release (*AA21*) and it's quite astounding. It's a role-playing game and a shoot-em-up and an arcade adventure. *Gauntlet* is the game it can best be compared to, and even then the similarities are few.

The aim of the game is to start at the top level of the dungeon and defeat each warlock you encounter. Once you've waxed every guardian on that level, you can take the escalator to the next level down to battle another (tougher) crowd of them. It is easy to get side-tracked when the monsters start appearing – remember, seeking out and destroying the warlocks is the name of the game (*I thought it was 'Ranarama' – Ange.*) Stop interrupting, you don't like games anyway.

Keep moving from room to room, readers, as you will come across more energy crystals and warlocks if you keep treading new ground. Map everything out if possible (use Pause) – this will help enormously when you die in a horrible manner and have to start again.

Try to gather as many runes and spells as you can before moving on to the next level; the former will aid your ability in combat, the latter come in four flavours (Power, Offence, Defence and Effect) and their advantages will soon become apparent. Losing your Power spell makes you mortal (killable). If you're clumsy enough to lose it, find a Glyph of Sorcery to stand on to get yourself another one as soon as possible.

Use runes sparingly – they increase your firepower or shields, but they don't grow on trees (no, they lie around on dungeon floors instead). Use a Glyph of Power to kill all the monsters in the room in one go. And if your Glyph of Travel takes you too deep into the dungeon, return and try another of the Glyphs.

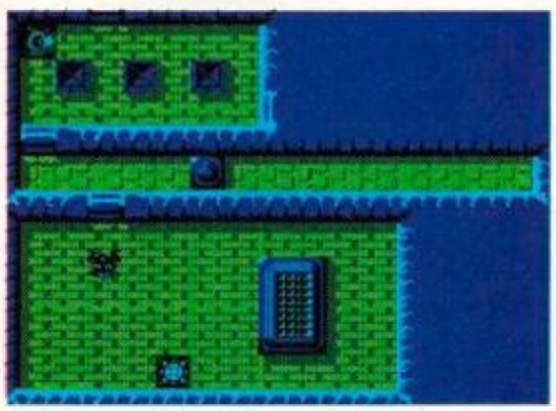
To fire an offence spell, press Fire with a direction selected. To cast an effect spell, press Fire without a direction selected. To activate a floor glyph (these are spell icons lying around on the floor), stand on it and press Fire. During 'ritual combat' you need to switch the letters around to spell the word 'ranarama' – move left and right to select pairs of letters and hit Fire to switch them.

And if this doesn't make any sense, that's because you haven't tried playing the game yet. Grab that joystick, remember at least some of the above, and you should do OK.

• Ranarama controls

Keyboard or joystick

ASDFG	Up
ZXCV	Down
BN	Left
M	Right
HJKL	Fire
P	Pause



■ ***Ranarama* is set in a labyrinth of underground rooms. The game area is bigger than a very big thing.**

■ **Those black squares are Glyphs that you stand on to enact weird and wonderful magic spells and so forth.**

■ **Feel like casting a spell? They can aid you in combat, kill the bad guys, heal wounds... everything but play chess.**

■ **Er, right. *Maze Mania* is the sort of game you really need to see running.**

■ **You're the big ball thing – you have to bounce around a maze painting squares.**

Maze Mania

You can't get a much simpler idea for a game than this. Similar to *Skweek*, *Maze Mania* is ace. You play the role of Flippo, a strange creature of some kind, and your aim is to change all the squares in a maze from green to red, simply by walking over them.

There are baddies and gaps to jump over, a nasty blocky thing that moves around the maze (you lose a life in you land on it – the baddies only sap your energy). Use **SPACE** or the Fire button to jump. There are plenty of levels to work your way through. Not taxing, maybe a tad easy, but a great laugh nonetheless. And hey, it's free!

• Maze Mania controls

Keyboard or joystick control

Q .....Up
A .....Down
O .....Left
P .....Right

Pokes

This month's covertape is so packed that we've had to split the pokes into two sets. Group A is on side one, Group B is on side two.

GROUP A

DISCCOMP.GS: Graham Smith pokes his nose (and his computer skills) into 30 of the games on the Software Superstore 50 Game Disk. He's even thrown in a menu at no extra cost.

GHOSTII.AP: A very unusual poke for *Ghostbusters 2* (see *Cheat Mode* for the details).

GROUP B

HBCOLLCT.GS: Infinite all sorts for the four games on the *Hanna Barbera Collection*.

JBCOLLCT.GS: Some great cheats for the three film tie-ins on Domark's *James Bond Collection*.

KNIGHT.GF: This cheat, together with the solution in *Cheat Mode*, means *Knight Force* on tape need never trouble you again (much).

MONACO.AP: Infinite time for all you *Super Monaco Grand Prix* drive-em-up fanatics.

NIGHTSFT.AP: Here's a bit of invulnerability for that platform classic *Nightshift*...

● **Check out *Cheat Mode* (pages 35-37) for details of how to load and use these cheats.**

Meaning Business

Meaning Business is a collection of three excellent business progs. Two of them, *Word Pro* and *Easisheet*, have appeared on previous *AA* covertapes (*AA52* and *AA49*, respectively) but that was over two years ago so you might have lost them by now. The third, *Powerbase 2*, is by Richard Fairhurst of Robot PD. These progs can be found on side two of the tape.

Word Pro. [RUN"WP.BAS] *Word Pro* is an excellent fully-featured word processor with so many features we couldn't possibly list them all here. So we've included a text file instead. Select '3' (Load) from the Word Pro main menu, then enter the name of the file [READ.ME] and hit return. The program will load up the file (eventually, it's right at the end of the tape) and you can then study the instructions on screen, by selecting '2' (Edit) from the menu. Use the cursor keys to scroll through the text, or you can print out a hard copy if you prefer.

Easisheet. [RUN"EASIPROG.BAS] Fancy doing some accounts? You'll be wanting to use Andrew Hodgson's spreadsheet then. Fortunately, he's got more than one copy of it. He's got over 37,000 copies of it in fact, and you now own one. Simply enter your figures into the 'cells' on screen, using the cursor keys to move around. Hitting 'f8' ('8' on the numeric keypad if you've got a 464) will give a list of the available features and commands.

Powerbase 2 [RUN"PBASE.BAS] A database allows you to keep records (lists of customers, addresses of friends or club members, etc), sort them, arrange them, and specify a number of different characteristics (fields) for each record. The various options are explained on the menu screen. *Powerbase 2* has been supplied by Robot PD, 2 Trent Road, Oakham, Rutland LE15 6HF – purveyors of public domain software to the rich and beautiful (send SAE for catalogue).

Tape Trouble?

If you have any difficulty loading the covertape, please try the following:

- Try loading at several different volume levels if you're using an external tape recorder. Computers can be fussy about the volume they will load at.
- Clean the tape heads. This can be done with any commercially available cleaning kit. Or else use a cotton bud soaked in alcohol. Gently rub the surface of the heads and pinch roller to remove that layer of accumulated grime.
- Adjust the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Rotate it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on.
- Sometimes the tape spools can jam or stick at a critical moment. Check the spools in your cassette rotate freely, if necessary giving the casing a slight tap against a table edge just to make sure.

If, after trying the all of the above, you still can't get the tape to load then you can return it for a replacement. Send the tape, along with an SAE to:

AA79 Covertape Returns,
Ablex Audio Video Ltd,
Harcourt,
Halesford 14,
Telford,
Shropshire TF7 4QD

Disk owners read this

If you have a disk drive, you'll only ever have to load from the tape once – all programs are transferred easily to disk.

Insert a blank formatted disk into the drive and the covertape at the start of side one into your cassette player. Connect the REM socket if you have one (6128 owners) – it'll automatically stop the tape in the right places when accessing the disk drive.

Load the menu program in the normal way and select the TRANSFER TO DISK option. Follow the on-screen instructions and press a key when the computer asks you to. It's as simple as that!

Should you experience problems you'll be asked to rewind the tape and try again. Don't panic if this happens – simply follow the advice for tape loading troubles outlined elsewhere on this page.

disk offer

Owners of the 6128 Plus are unable to connect a cassette recorder to their machines. If these or any other users would like a copy on disk, simply send this coupon along with a cheque/PO for £2.00 made payable to Ablex Audio Video Ltd to: AA79 disk offer, Ablex Audio Video Ltd., Harcourt, Halesford 14, Telford, Shropshire TF7 4QD.

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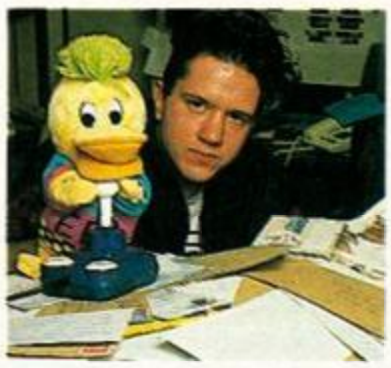
reaction



We've all been on our best behaviour this month readers, what with having the cameras in (for the *Behind the Scenes* feature on page 14). Maryanne wandered round pouting, Ange hid behind a table, Rod looked stern, Adam W looked bemused and ADAM PETERS, er, edited these letters pages. We dish out £10 cash for the best letters received. Write to *Reaction, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.*

GOING GREEN

I must say, you do churn out a great mag for us, but I do have one suggestion. How about printing it on RECYCLED PAPER, eh? So *AA*'s been around a long time, has it? Well then, it's the older ones who should be setting a good example for the little 'uns to follow – and don't give me that about being on a tight budget, because using recycled paper saves energy and those lovely tall leafy green and brown things called trees.

Naturally, you're all already using 'ozone-friendly' air fresheners for that stinkin' office of yours, and saving your milk bottle tops and coke cans to take to some recycling institution, aren't you, responsible and considerate people that you are? Thank Heavens for that!

Louisa 'Ecologist' Ersanilli
London

Adam: We don't know nothing about paper and budgets and that. Give our publisher a ring and have a word with her, Louisa. We do a bit of the old recycling lark in the office though. Ange collects all our old envelopes to re-use, Adam Waring collects milk bottle tops (*yeah, but I don't recycle them, it's my hobby – Adam W*), and I recycle all my jokes (*what jokes? – ed*) from the 1978 *Morecambe & Wise* annual. We're so green, people think we're Martians. (▼❋❑❋✖✎✏ – *ed.*) Great Martians gag, Rod. (❋▼❋❑❋❐ – *ed.*) Rod? (✪✚❋○❋k – *ed.*) Aaaaargh.

EXPENSIVE CONSOLES

I have seen the console being sold for £150 (only used five times) with one game in our town's local newspaper *The Crow*. I wondered if this was the most expensive console.

Rachel Welsh
Royston, Herts

Adam: Probably, yeah. Hang on a minute... aren't you that famous film star woman? Oh no, sorry, that's Raquel Welch. It's spelt differently.

HALLUCINOGENIC CONSOLES

I was in my parents' car with my family. We drove down a small lane which had shops on one side and a small field on the other. When I looked across the road there was a man selling a console for £4.99. I was tempted to buy it with the money I had with me, but I thought that it might be broken or stolen so I didn't bother.

Mark Tucker
Bristol

Adam: Unfortunately, that doesn't win you the Cheap Consoles Compo prize, Mark. We want evidence. Signed statements from members of the clergy and stuff like that.

OI YOU, YOU'RE CRAP

You lot don't have any brains, your magazine is terrible and the covertapes are complete crap. Me and lots of other Commodore users find it crap. Maybe it's time you had a proper complaint. Maybe you'll be scared to print this... Oh, sorry, is this *Amstrad Action*? Oops! I thought it was *Commodore Format*.

Chris Goodswen
Kings Lynn, Norfolk

Adam: Letter of the Month. (*Editor's Note: Shortly after writing these words, Adam was set upon by* ▶

byte-size

I have written you fourteen letters and not one of them has been published...

George Holliday
Ashford, Kent

Adam: Make that fifteen.

I'd like to order *Outrun Europa* and *Smash TV* from your mail order section but I haven't got any money.

Sid Psycho
Abingdon, Oxon

Adam: Well you're stuffed then aren't you Sid, since it's totally impossible to shoplift by post.

Seeing that I put Adam P for cool dude of the year on my 'Giant 1992 Survey', can I have £25 please?

Jack Alcock
Tunbridge Wells

Adam: No, but you can have a badge.

Here's some money to make up for the pay rise that never was.

Seamus Docherty
Westcliff-on-Sea, Essex

Adam: Cheers for the 2p piece Seamus. Don't mock readers, two pence goes a long way nowadays (this two pence, for example, went all the way from Essex to Bath).

On Saturday 25th January I saw the picture of Adam W snogging shown in *Blackmail Corner* (*AA77*) on Going Live at 11.14am.

James Coupe
Sutton Coldfield

Adam: We think you must be imagining it James, but you certainly got someone round here very worried (so well done)!

If you ever see Edd the Duck around, please could you cut off his head and eat him for your tea.

Simon Jones
Biddulph, Staffs

Adam: How dare you diss Edd! Edd is a better duck than you will ever be. What's more he's my best friend (*he's your only friend – ed*), so I most certainly will not do as you say (besides which, I'm a vegetarian).

6 readers letters readers letters readers letters

angry letter of the month

The last Angry Letter spot ever (sob)

Who does this D Ching person think he/she is? Pah, if this entrail of a diseased worm lived anywhere near me, I'd tie him/her to a large chair and slowly remove his or her teeth with a pair of scissors. Then I'd unleash the cheese grater, and cover the raw, de-skinned legs with pepper. Then I would consult my CPC's *Random Torture Selector* on Torture Level 5 to work out what to do next to the scum-sucking swine. Failing that, I would slowly remove Ching's toes with a one-foot mini-chainsaw that my friend would lend me, or else make the slime play Roland in Time for five minutes.

If Ching lived anywhere near me, I would read aloud the entire book *Role-Playing Mastery* by Gary "co-creator of the *Dungeons & Dragons* game" Gygax, and tie Ching – face down – to the back of a car by his/her laces and drive away. Slowly.

This deluded person has no sympathy from me. What sort of person spells 'graphics' with an 'f' and an 'x'? He/she obviously has a puerile brain. Or something like that.

Doc Marten boots and felt-tip pens? I know what I'd like to do with a pair of Doc Martens and it isn't painting. And are you saying the edge-of-the-circuit board connectors are not robust? Do you regularly break them or something? They may not be as good as the connectors on the Amstrad Pluses and the CPC may not be full of hidden compartments like an Amiga or PC, but my CPC has an expansion port with Rombo Rombox and DD-1 interface plugged in the back and it doesn't complain. Of course, if I had to use my CPC like a grappling hook to climb down a sheer surface, then perhaps the printer ribbon might break or snap the printer port, but I have never had to do this yet.

Thank goodness *GAC* got on the covertape – now I can forget about having to use that ghastly Lens Lok thingy that I have with my other copy. I hate Lens Loks nearly as much as I hate D Ching.
David Hodder
Peterborough

Is it not about time that the letters page got back to being a letters page, and not just a platform for folk to verbally bash one another? Perhaps, if Craig Brewin (*AA77*) and Michael Davies (*AA73*) et al want to criticise and re-interpret each other's letters and opinions, then they should write direct to each other, missing out *Reaction* completely.

I feel some of the blame has to lie with Adam Peters (yeah, you!) for allowing this "debate" to continue as long as it has. Those letter writers are no longer commenting on the Amstrad scene, but only on each other. Yes, let's debate the male-orientation in computing, let's criticise the editors of *AA* for allowing the use of expletives (such as "crap" and "get") in replies and reviews (I don't feel such words belong in *AA* – maybe in the retarded *Viz*) and let's discuss the decline (or not) of the CPC. But let's not trash each other through the pages of *Reaction*.

■ ***Viz* – the language of the gutter. Is this the future of youth publishing?**

Letters pages are the sounding board between readers with a common interest, not a vicious battling ground. I'm upset that *AA* condones all this groundless slagging off. Okay, so it's free opinion etc, but what about the evidence to back up arguments? An opinion cannot be validated by more opinion and misinterpretation.

I'll go for jokes, and fun, and sarcasm, and scathing replies and reviews. But, lately, *Reaction* is taking the mick.

Yours, frustrated, despite the banana,
Len Dean-King
Nottingham

Adam: It's not my role to make moral judgments about whether a certain viewpoint deserves airing. *Reaction* is for readers' letters – it is a section of the magazine that (more than any other) belongs to *AA*'s readers not its editorial staff. For better or for worse, a massive proportion of the letters we receive are of the 'verbal abuse' variety.

Taking this month's *Peter's Postbag* as an example, over half the letters received for this section were of the 'threatening', 'slagging off' variety rather than the reasoned counter-argument type. Are we to deny access to these pages to 50% of our correspondents because they don't offer arguments that would stand up to close theoretical analysis? Get real.

It's also a fact (for better or for worse) that a lot of the more 'entertaining' letters we receive are of the type you don't like. We aren't 'condoning' these views or this verbal battle by printing these letters, we're only meeting our 'duty' to give our readers an opportunity to have their say.

Having said that, we're scrapping *Angry Letter of the Month* anyway (aside from your letter, a few survey forms carried notes to the effect that *Reaction* was brilliant and funny but the Angry Letter bit wasn't). Does that mean the end of groundless slagging? Maybe. Maybe not. Given the choice, we'd prefer to carry witty, incisive, well thought-out points of view in place of mindless tirades of violent threats. But we can't give ourselves that choice, Len, that's down to the people who write in.

Swearing in *AA*? Aha, here's another little can of worms. The two words you list are the ONLY 'swearwords' we use in the mag. "Crap" is the weakest word still construed as being a swearword. It is used by everyone from Wogan interviewees to *Smash Hits* reviewers. "Get" isn't a swearword, it's a verb meaning "to obtain". It is the 'acceptable' version of another word which is a swearword.

Part of our job is to be critical (of games, of hardware, etc). We live in an era where low-impact swearwords have become the universally-used basis of criticism in every corner of society. No-one uses the word "rubbish" to describe something that isn't any good any more. The weakest of those alternatives that are actually used is the word "crap".

If we want to criticise a game (for example) then we have to use a credible word to do so. Older readers may grimace a bit but as far as popular culture and young people (at whom the games content of this mag is inevitably aimed) are concerned, the word "crap" is no longer a swearword. The English language is changing all the time and the word "crap" in 1992 means the same as what the word "rubbish" meant 20-25 years ago.

We won't print "bl***y". We won't print "b*******". We won't print dozens of words that all of our readers use in everyday conversation, because we do monitor our content. Around two-thirds of the letters we receive at *Reaction* include words we refuse to print. The magazine *Viz*, based around the strongest swearwords in existence, sells 1.2 million copies an issue and is our readers' second favourite magazine (after this one).

Our argument is that we need a genuine word for criticism ("crap") and a genuine word for abuse ("get"). The 'non-swearing' equivalents have been replaced in common usage and are no longer able to fulfil the required role. So we choose two very weak swearwords and change the spelling of one of them. The alternative is to appear very 'out of touch' in the eyes of our readers.

Is that a good argument? Or a not very good one? That's this month's *Reaction* debate, folks. Write to The Swearing Debate at the usual address. As ever, it's your decision...

three members of the Commodore Format staff wielding large vegetables, thought to be of the marrow family. Whilst we are waiting for Adam to regain consciousness, his assistant, the popular children's TV character Edd the Duck, will take over replying to readers' mail.)

ANGRY POET OF THE MONTH

You cluster of illiterate wazzocks! You bunch of artless, hypocritical, pathetic buffoons! You gang of old biddies, brain dead and blinking daft... What do you mean by not giving "that Obvious Bod's" excellent verses a prize? Tom Ash be blowed – just because you've got a name that rhymes with "cash"... I think the Bard of Hanwell is terrific!

Obvious Pseudonym
Hanwell, London

Edd: Squeak squeak squeak squeak squeak. Squeak. *(Editor's Note: Unfortunately Edd the Duck doesn't speak English. He just squeaks a lot. Sorry.)*

A COMPLAINT

I have a twelve year old daughter whom I have so far managed to shelter from the evils of society, but yesterday, whilst she was reading *Amstrad Action* (without my permission I might add) she was subjected to the most disgusting tongueing sesh I have ever seen in my life, involving Adam Waring, who is far too young to be indulging in such things and ought to know better.

Frankly I am disgusted by the increasing levels of violence, gratuitous sex and poems in *Amstrad Action*, but I have nothing better to do with my time than to read magazines which I later complain about.

If you want some decent poetry, look no further than this letter:

Oh what is wrong with England?
It's going to the dogs.
And your issue seventy-seven,
Was all about flippin' frogs (magazines)

Really, in this day and age we should be listening to the great politicians of the day, like Margaret Thatcher or Michael Foot, and buying British.

I am a hideous fool. Forgive me.

Ms J Grace
Brentwood, Essex

Adam: You're forgiven. And here's ten quid while you're at it. Go away. Oh no, I haven't left enough room for the *AA Guide to Europe*. Darn.

THE TYPE-INS DEBATE

■ We're putting the *Type-Ins* on the covertape, but keeping them in the mag too!

Well, we've sorted through your letters and for every retired person saying "if Type-Ins go I'll stop buying the mag" there were a couple of kids saying "put them on the covertape – I haven't got time to type them in". A few of you were concerned about us replacing the commercial software on the tape with the Typos. Don't panic, there was never any question of replacing something else to chuck the Type-Ins on the tape.

Anyway, being the wishy-washy liberals that we are, we've come up with a brilliant (though we say so ourselves) compromise solution. The Type-Ins will stay in the mag, but each batch will also appear on the covertape two months later. Brilliant, eh? There's still every incentive to type them in, but if you can't be bothered (or can't get them to work) you don't have to go without. Are we clever or what? (Don't answer.)

peter's postbag: consoles

Worley's World

This man Peter Worley has got some prettey strong opinions – but he's certainly generating lots of mail. Which is why we've given him his own little slot in *Reaction*. There's no room for anything from Pete himself this month (*hurrah! - AA readers*), Write to: PETER'S POSTBAG, Reaction, at the usual AA address...

Yes, I could have taken the easy way out and got a games machine for my son at Christmas. Yes, it would have been cheaper than the 464 Plus I got in the end. Yes, a games machine loads faster – instant play but boring. My sister's kids are getting bored with theirs already, because they can't afford to buy the games the kids like and DEMAND. Me, I can buy a game and at not much more than pocket money prices.

With a computer you can have just as much fun with your kids, learning how to compete with each other, not just with games but with programming and, most fun of all, typing in *AA Type-Ins*, each trying to better the other. So I get about a million syntax errors. Who cares? If an old dog like me can have fun and learn, just think what the kids can get from a computer. Twice the fun without smashing, stealing or anything else to get the latest craze (or its price).

M Copplestone
Whitby, N Yorks

Personally speaking I think Peter Worley should open his eyes (and brain) and take a good look at a console and a CPC. If (and I doubt it) he has any sense he will notice a big difference. Believe it or not, consoles do not have a keyboard. Thus the buying public will also notice this. If they want "games only" loving offspring, they'll buy a console. However, if they would like games, WP, programming, BASIC/machine code literate offspring then I'm sure they'll buy a CPC. The general public is not as stupid as Peter Worley thinks.

Nicky Hampstead,
Peterborough

Give kids a break! Firstly, they have to go to school all day (where in most schools nowadays they study some serious computing).

Secondly, they have to put up with parents (God help them), and then just when they're about to have a nice relaxing game on their Nintendo, along comes Peter shouting that they're ruining their lives by having a rest.

■ The Sega Megadrive: A brilliant piece of kit or a brain-destroyer? Have *your* say...

And isn't Peter insulting anyone who doesn't own a computer by saying that without computer skills they haven't a hope of getting a decent job? What a load of rubbish! There are plenty of jobs out there that don't involve computers.

I think it's the individual's choice whether they want to use computers/consoles for fun or serious purposes, and if people are stupid enough to spend £30 on a game then more fool them!

Amanda Hall,
Wickford, Essex

I agree totally with Peter Worley's argument against the current flood of consoles – I am personally amazed at how well they have sold, especially the Gameboy, where the price of its games is unbelievable. I feel this is just a trend which will wear off when the children are screaming for another £25 to buy a game they could play on the Spectrum for a couple of pounds (and find more enjoyable).

Mark Thacker,
Leicester

Adam: What a lot of letters on the subject of consoles. Peter certainly seems to have struck as many raw nerves as he's hit hammers on the head. (*What exactly does that mean? – ed.*) It means that we've got *another* big batch of readers' letters about consoles in next month's edition, together with Mr Worley's response to some of the arguments you've raised. Reserve your copy today.

SLY SNAPSHOT

I would like to submit this photo for your new Blackmail Corner. You see, my friend Jamie hates having photos of himself being taken, and when he came round to my house just before the New Year I had a one in a million chance of taking a photo of him. I am even prepared to bribe you to print it. I have enclosed a homemade badge.

Marcus Durham
Farnham, Surrey

Adam: Thanks for the badge Marcus, but to be honest the photo is a bit of a let-down. Whilst taking photos of camera-shy people is exactly the sort of anti-social behaviour we like to see our readers getting up to (along with frightening small children and greasing old people's walking frames), the end result is very disappointing.

If you're going to take a picture of someone who doesn't want their picture taken, at least get their blinkin' face in shot Marcus. I mean, frankly

photo compo

this could be anybody. Philip Schofield? Colonel Gadaffi? Joanna Lumley? Sort it out Marcus, and send us a proper picture of Jamie if you can get one (trying climbing up the drainpipe of his house and snapping him through the bathroom window).

This does give us an excellent idea for a competition, though (*oh God – ed*). We want you to send us photos of people reading AA. Not just any old people, though, we want pictures of celebrities or people in uniform. So if you live near any famous people, or aren't embarrassed about propositioning nuns or coppers or some such, then get snapping. There is, of course, a sumptuous, near-priceless prize up for grabs for the sender of the best pic (we don't know what it is yet, but it'll be fab – trust us).

Oh yeah, and if that sounds too much of challenge you could always take a pic of yourself or a mate reading the mag, and send that in instead. Providing the mag is being read in an unusual place; up a tree, in a canoe, on top of a fast moving vehicle, anything like that. Got that. Then grab that camera and seize your chance of fame beyond your wildest dreams (sort of). Send your snap, plus details of who it's a piccie of, to Photo Compo, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW. In that order.

crap poem of the month contest

Flaming Poetry

We tried folks, we really tried to get into your poetry, honest. But, well, call us artless Philistines, call us mindless spawn of the video generation, call us smelly old poo bags; call us what you will, we simply couldn't absorb more than a couple of stanzas before having to run off and lie in a dark room for a few hours.

So how can we judge the *Crap Poem of the Month* contest if we can't read any of the poems? Bit of a problem that. Then Ange explains something she read about in one of her books on witchcraft and, ha ha, we have the solution – we will simply put your poetry to (da da da da) the Judgement of the Flames!

So we slip off down to the Future Publishing car park, pile up a few copies of *Commodore Format*, dowse them in petrol and set the whole lot ablaze (don't try this at home kids, remember we're professionals).

The game works like this: If we can survive the opening lines of your sonnet without screaming then kudos to you, most excellent poetic dude. If nausea gets the better of us, though, we let the flames do the judging. If your poem burns then it's crap, if it doesn't then it's, er, probably written on flameproof paper or something. Got that? Right, let's go...

First up it's Lee Woodward of Abingdon, Oxon. Lee's effort begins like this: *"I love to play with my CPC/Because of the graphics, the sound, etc."* Fell at the first hurdle there, Lee. When you read the abbreviation 'etc', you read it as 'et cetera' not 'ETC'. So it doesn't even rhyme. And on the fire it goes.

■ We don't know art but we know what we like. And what we like most of all is throwing readers' poems on to a fire.

Next up is Antoni Hanus of Huddersfield. How does this one go then? *"When I went to the shop there was a dead cool mag/Better than school or smoking fags."* Saying nice things about *AA* is a smart idea Ant, but saying that smoking is cool is a very stupid idea. Smoking is not cool at all – it kills people. And 'smoking', incidentally, is exactly what your poem has just started to do...

We're going to be a bit more sympathetic to Dolph, seeing as he is stuck on a "windswept, uninteresting lump of peat, rock and penguin crap" called The Falkland Islands for another four months. It's actually quite a good poem Dolph, but we're interested to see how well one of them ultra-thin Armed Forces Aerogrammes burns...

"*C&VG is crap, ACU is too/If you want a cool mag, then AA is for you.*" What a brilliant opening couplet. Unfortunately, Dylan Goding of Norwich made one small error of judgment; Garfield notepaper (sizzle).

Timothy Bennett of Hackney, London (the rave centre of Britain, fact fans) sent us a very committed attempt. It scanned, it rhymed, it was witty, entertaining and very well put together. It was about Hampton Court Maze. I had a very nasty experience in Hampton Court Maze when I was fourteen. Sorry.

Well none of you have managed to avoid (or survive) the Judgment yet. And indeed none of you will. The Hard Bard of Camberley, Surrey refers to Rod as "the bearded prat" and (s)he would have won a prize but I got overruled (*and clipped round the ear – ed*). Robert Iddon of Croston, Lancs wins points for dissing Spectrum owners, then spoils it with a long soliloquy about doing his homework. Only squares do their homework, right kids?

And that's that. Oh, there was someone who wrote about their mate Dave, and someone else who wrote a 20-liner about our postal address. That hot yellow stuff is devouring the whole lot even as we speak. Oh well, things can only get better (we hope).

Keep sending us those verses, readers. Send 'em to Crap Poems at the usual address. Next month's batch will be fed to a rabid Dobermann.

NEWS... NEWS... NEWS... NEWS... NEWS... NEWS..

amscene

AA SALES UP!

What's all this about a declining Amstrad market? Amidst an atmosphere of gloom amongst the software houses, *Amstrad Action* has just posted its highest ABC since 1989!

The latest figure is 37, 120, some 2,000 readers up on the previous 6-month's sales.

It just goes to show two things: that Amstrad owners are amongst the most loyal there are, and that the Amstrad itself has got a long way to go yet! Indeed, if current trends continue, within a couple of years the Amstrad may be the most popular 8-bit machine on the market. (As well as the best.)

Many full-price software houses are thinking of pulling out of the Amstrad market – others have done already. But the industry reaction to AA's latest figures has been terrific. Nick Wild of Psygnosis (the company behind the 16-bit sensation Lemmings) said to us: "I was really impressed with your ABC. I couldn't believe it." Psygnosis plans to release Lemmings on the CPC later this year – the company's first Amstrad release for three years.

Whatever happens in the Amstrad market over the coming years, with a readership of this size, one thing is for sure – as long as you lot out there want the latest and the best Amstrad info, Amstrad Action will be here to supply it!

'ABC' stands for Audit Bureau of Circulations. A magazine's ABC figure is universally accepted as the measure of a magazine's sales. Any magazine worth its salt publishes ABC figures – if there's no ABC, it means the mag is ashamed to print it!

■ ***AA*: Selling more copies all the time!**

Trouble loading Firelord?

We've had lots of people complaining to us about the *AA77* covertape. The problem was with *Firelord* – try to load it from the menu screen as usual and you get a "read error b". The weird thing is, you get this error before the machine has even reached the first *Firelord* file (the game comes after *Seymour Take One* on the tape)... and yet *Seymour* loads perfectly!

Even more strange was the fact that if you wound most of the way through *Seymour* and then tried to load *Firelord* it would work (thanks for that info, Mr. Betts).

■ ***Firelord*: loading problems explained.**

AA's covertape guru Dave Looker (he puts them together for us) finally sorted it out. It seems to be a bug in the Amstrad firmware – the machine is supposed to identify the file it's supposed to load, then carry out an error-checking process on that file. However, the Amstrad checks all files it runs through. This wouldn't normally be a problem, but the firmware bug means that if the file it finds is longer than the file it's looking for, it still stops doing the error-checking after the shorter distance. Therefore, it returns the wrong result and the machine displays a "read error".

Don't despair, though! *Firelord* will load perfectly if you wind through *Seymour*. It will also load perfectly if you simply ignore the "read error".

Dave is on the verge of sorting out this little bugette even as you read this.

Microdesign

Software house Campursoft is to relaunch *MicroDesign* on the CPC. *MicroDesign* was originally published by HogSoft, but Campursoft is now releasing the program in conjunction with a powerful "enhancer" from Creative Technology, the original author of the program.

The Enhancer makes it easier to add text, clip-art and *Stop Press* page files – plus colour screen files (the program substitutes 'dithered' patterns for the different colours).

MicroDesign on its own will cost you £20, while the Enhancer is £13.75. Buy both at once and you pay only £30.00, and get a disk of graphic typefaces thrown in.

Both programs are disk-only, and require 128K. Call Campursoft on 041 554 4735.

Cheap Seikosha

Seikosha has produced a new 9-pin printer aimed at those on a tight budget. The SP1900 Plus offers "an outstanding price/performance ratio". We take that to mean it's good value.

Costing £155, the SP1900 Plus runs at 192cps in fast mode, 160cps in draft and 40cps in NLQ. For your money you also get a built-in "semi-automatic" sheet feeder, plus the usual tractor feed.

To find out more about the new Seikosha, call the company on 0753 685873.

■ **Seikosha steps in with a new 9-pin printer for the budget-conscious.**

Spring Computer Shopper Show

If you just happen to be knocking around London during the last week in May, you might like to drop in on the Spring Computer Shopper Show.

The show dates are May 28th-31st, and the venue is the National Hall, Olympia, Kensington. Opening times are 10am-6pm, and tickets are £6 for adults (gulp!), £4.50 for children under 16. You can get a family ticket for £18 (two adults, two children).

Don't expect too much CPC stuff, though (apparently Wacci was the only CPC exhibitor last time). But owners of other machines might be able to pick up a bargain or two.

the latest news on the amstrad scene, all the latest news on the amstrad scene, all the latest news on the amstrad scene • AMSTRAD ACTION • APRIL 1992

Join the club!

According to golfing equipment manufacturers Prosimmon, the CPC is the bee's knees! The company distributes a 'Matchplay System' which provides golf pros (every golf club has a resident 'pro') with a computerised club designing package to tempt the punters (or do we mean 'putters')

It's based around a mono 464, and uses "the science of physics and metallurgy, combined with the rules of geometry, leverage and human anatomy, to establish precisely the right combination of club length, shaft frequency and club swing-weight". Crikey! – and we thought golf was just a case of knocking a ball into a few holes.

It's nice to know the CPC is at the leading edge of sporting technology...

■ Thanks to David Hannuell of Enfield for this gem... have you seen any unusual uses for a CPC?

COMPO WINNERS

NOW WE ARE SIX COMPO (AA73)

We got quite a few entries for this one, but only one of you managed to get all of the questions right. Well done **David Ward** of **Southmead, London**. You win a Marks & Spencer birthday cake with a clown's face on it. Adam Peters will deliver it the next time he's in London. Er, unless we eat it first.

Answers: 1(a), 2(a), 3(b), 4(a), 5(a), 6(c), 7(c), 8 (any of them, it depends what day it is), 9 (again, any of them will do), 10 (your choice not ours).

I THINK I'M PRETTY SMART COMPO (AA74)

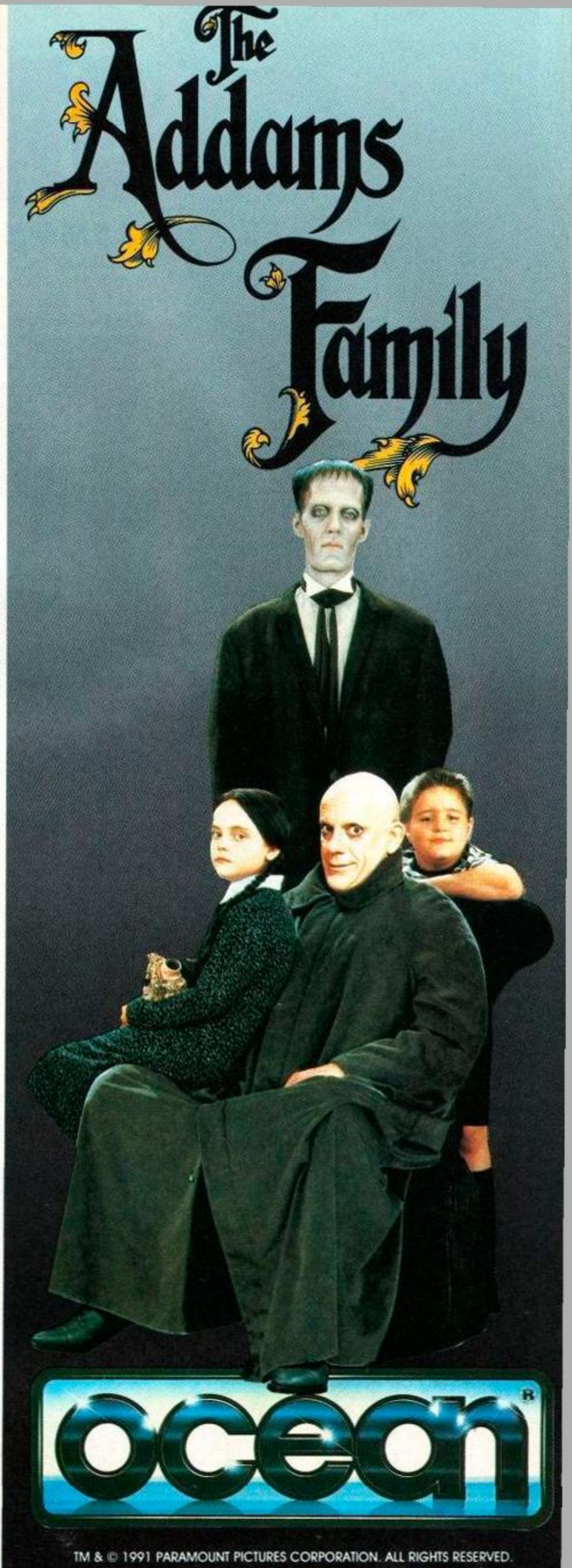
About a dozen entries. Ten of these were brave attempts - every one was different, with lots of fractions and minus numbers involved. But only two of you realised the two problems weren't solvable. It was a completely random set of numbers. Sorry, we were bored. Of the two who sussed this, one of them had help from their maths teacher so the copy of Swap goes to the other one, **Marinus Kielen** of **Axminster, Devon**. Except we've lost it. So we'll have to send something else.

Answers: There aren't any.

CRAP HAIRCUT COMPO (AA75)

The entries were so crap that we burnt them all. So the Terminator 2 tape goes to the first person who writes in with the best idea for a name for Adam P's pet mouse (*it's not a pet as such, it lives under my sink – Adam*). Closing date, er, next Thursday.

more competition winners in next month's Amscene



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Meet the Team

Meet the team, cos the boys (and girls) are here, the boys (and girls) to entertain you. What's your fave joystick then, AA people...?

ROD LAWTON
I'll go for the **Logic 3 Manta Ray**, because you can really get your hands round it and smack nails in with it – it's that hard. In fact my Logic 3 follows me wherever I go (see pic).

ADAM PETERS
I love the **Konix Speedking**, because beneath that crunchy external shell there's lots of lovely chewy little microswitches. *(Kids, don't try this at home - remember, Adam is an idiot.)*

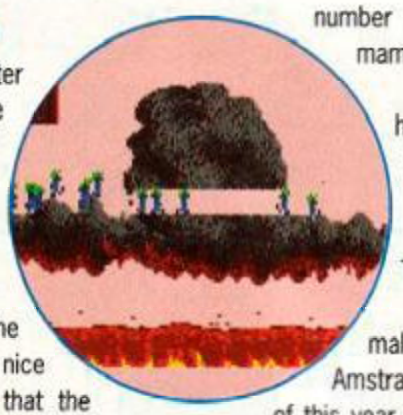
ADAM WARING
My top 'stick is the **Competition Pro**, because of its build and design. Just look at its base, you don't see Philips crossheads like that everywhere you know. Crikey, it's incredible.

MARYANNE B
I'll have to pick the **Konix Speedking** because it's the only one the others will let me use. They say I'll break anything else. But they're the rough ones not me. It's not fair.

CHERYL BEESLEY
My favourite joystick is the **Quickjoy Jet Fighter**, because you can balance it on your head and pretend to be an alien space warrior. I... will... destroy... you... *(Sigh – ed.)*

on the GRAPEVINE

LEMMINGS



Barely a day goes by without a letter arriving at the AA offices from some reader or other asking "is *Lemmings* ever going to come out on the Amstrad?" Well, the answer, you'll be glad to hear, is "yes it is". Triple hurrah with chocolate on top!

But before you rush down to the shops, read the next bit. Whilst the nice man at Psygnosis has confirmed that the company has "definite plans" to produce a CPC version of the game, work hasn't yet begun on it. Indeed, Psygnosis has yet to hire a programming team for the project. So it will be a few months yet before it hits the streets.

■ **Here's a couple of *Lemmings* pics, one from the PC and one from the Spectrum. Can you guess which is which, readers?**

The Amiga, ST and PC versions have been out for a long time (*Lemmings* is regarded as probably the best 16-bit game of all time), with the Spectrum version having appeared to great acclaim around the New Year. Sega and Nintendo versions are already starting to appear on import, and now the Psygies are gearing themselves up for the release of the CPC and C64 versions later this year. World domination or what?

For those that don't know the game, the object is to steer your posse of lemmings through a number of different screens, without more than a specified number of them plunging to their tragic mammalian deaths.

There are of course lots of horrible lemming-killing hazards around, but you do have a few useful features of your own, such as, er, lemmings that explode. Totally daft but terrific fun.

But when will it eventually make its appearance on the Amstrad? Some time in the second half of this year, we reckon. The summer hols at the earliest, Christmas at the latest. We await it with the most batedest of breath...

***Lemmings* (Psygnosis) won't be out for quite a while, but it should be well worth waiting for.**

STRIKER AND THE CRYPTS OF CHAOS

Crikey! Are we talking Controversy City or what? Our ace pals at Codemasters are bringing out a new game called *Striker and the Crypts of Chaos*. (*What's controversial about that? – ed.*) What's controversial is that the game accesses all the additional hardware of the Plus from tape.

In other words, 464 Plus owners will be getting a

■ ***Striker* has so many different colours in its graduated skyline that our £10,000 Mac system couldn't cope with them all!**

The Word Is Out

Greetings fellow gamesters, let's take a look in this month's big bag of rumours, preview disks and press releases... Hmmm, hello there Mr Linel, where's **Never Ending Story 2**, you great Swiss cheese. Ouch! It's not ready yet then? But **Tilt** should be in the post any day now, eh? What's *Tilt* about then?

"It's a *Pipemania* style puzzler. You have to slide around the blocks on screen, in order to aid the progress of a little silver ball from the top left of the screen to the bottom right. There are 20 levels in all." Excellent. We'll bring you a review very soon...

Who's next? Let's try our mates at US Gold. Hello US Gold, when are **Indiana Jones 4**, **Bonanza Bros** and **Mega Twins** coming out then? "*Indy 4* should be out at the end of April, with *Bonanza Bros* and *Mega Twins* also in either April or May."

Watch out for a preview of *Indy 4* in next month's *On The Grapevine*, and further details of the others when we get it. Right, let's see what our mate Ken at Ocean (who recently broke his nose in a karate competition) has to say for himself. Yo, Ken! "Yo, *AA*!" What's happenin' dude?

"Well, **Space Gun** and **Robocop 3** are both virtually finished. They'll be out in March, and we'll get review copies to *AA* in time for next month's issue. **Hook** unfortunately won't be coming out on the Amstrad after all, but **The Addams Family** will, and it should be out at the end of April or start of May." Cheers Ken, and watch out for those high flying kicks.

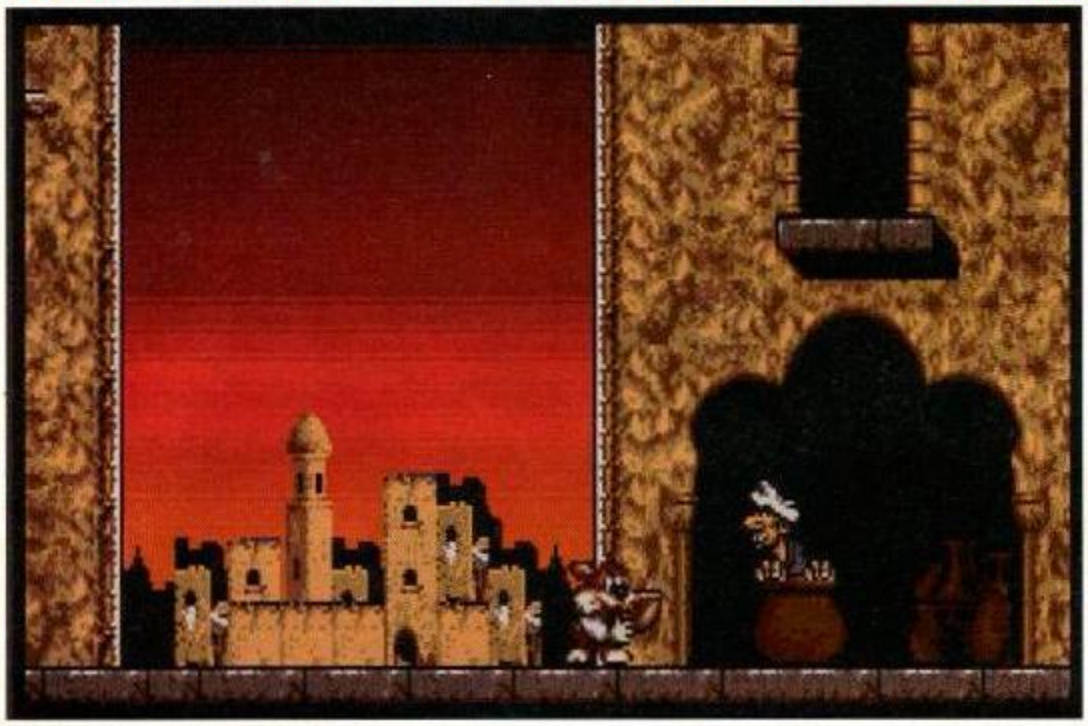
cartridge quality game, with loads of extra colours, stereo sound, ultra-smooth scrolling, etc. And all for the price of a standard budget game! Yep, that's right ladies, a cartridge game (in all but format) for £3.99. Phew.

Owners of the original CPC machines needn't panic though, as the game will work perfectly well on their machines too (only obviously without the extra colours and stuff). What's it about then?

Well, it's very similar to Gremlin's *Switchblade* (in fact, it was programmed by the same people), only instead of a ninja dude you play the role of a wrinklie wizard dude. You have a strange selection of weapons at your disposal, including a long German sausage and some fireballs.

There's loads of game area, mainly caves and stuff, together with a massive mob of nasty baddies. We'll be giving you the full story next month, with our special review feature and covertape demo (if we can swing it). Don't miss it.

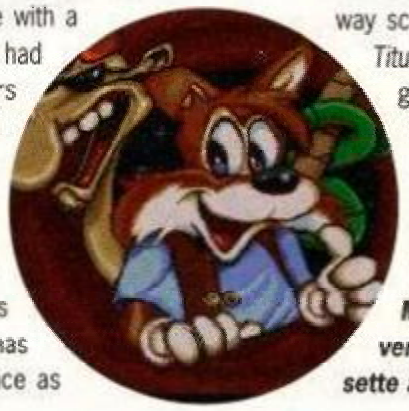
Striker and the Crypts of Chaos (Codemasters) will be out in late March, priced £3.99 cassette



■ **Why do we have Amiga screenshots on the *Grapevine* page? So we can give you an idea what an upcoming game is like before the CPC version actually comes out, of course. If you'd rather have lots of blank spaces, let us know. This is *Titus the Fox*.**

TITUS THE FOX

French software house Titus, whose holding company recently bought out the English label Palace, is hitting the CPC scene with a vengeance. No sooner had *Prehistorik* and *The Blues Brothers* landed on the *AA* doormat than we learnt that another game, *Titus the Fox*, will also be hitting a shop near you any day now.



Titus the Fox is based on the character that the company uses in its logo. The 16-bit version has already established itself in France as one of the best platform games ever. You travel on foot, on skateboard and on magic carpet, across the Sahara to save your babe.

With seven levels, 30 baddies, four-way scrolling and over 200 screens, *Titus the Fox* looks like being a game and a half. But what about the gameplay? Check out the review next month.

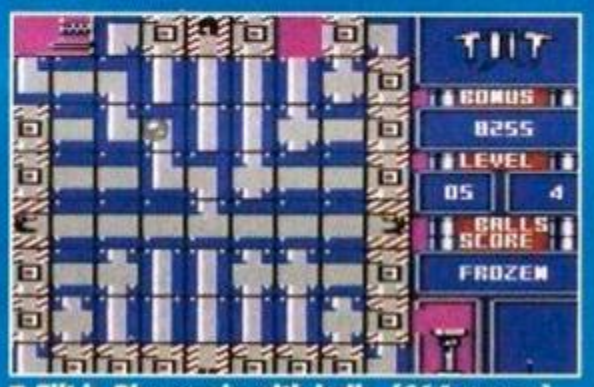
Titus the Fox (Titus/Palace) will be out in March or April, priced at a very reasonable £10.99 cassette and £15.99 disk.

Crumbs, what is it about the end of April that makes all the softies want to bring all their big games out then? Let's ask our big chum at Codemasters, Richard Eddy (grabbed by the Polaroids in this month's *Behind the Scenes* feature). Why is it, Rich?

"I don't know, but what I do know is that **Soccer Pinball** will be out in March, followed soon after by **Steg** and **Seymour in the Wild West**." *Seymour in the Wild West*? Tell us some more Mr Codemaster...

"Well, it's a kind of cross between *Sim City* and an ordinary Seymour/Dizzy game. Seymour is in a town in the Wild West, and he has to go round solving problems which in turn make the town get bigger, increasing the size of the game area and making more screens accessible. It's going to be very good."

It certainly sounds like something special. Speaking of something special, *Gamesmaster* is on in a couple of mins and our mate Neil from *Sega Power* is on it (they won't let us on because they don't use CPC games for any of their challenges – tsch). Got to go. Till next time, remember – never invite cannibals round for lunch...



■ ***Tilt* is *Pipemania* with balls. [C64 screen]**

The Charts

This chart is compiled by Gallup Ltd. (© European Leisure Software Publishers' Association Ltd. 1992)

FULL-PRICE

1. **WWF Wrestlemania** Ocean
2. **Dizzy's Excellent Adventures** C/masters
3. **The Simpsons** Ocean
4. **Cartoon Collection** Codemasters
5. **Dizzy Collection** Codemasters
6. **Terminator 2** Ocean
7. **Manchester United Europe** Krisalis
8. **Big Box** Beau Jolly
9. **Pit-Fighter** Domark
10. **Mini Office 2** Europress

BUDGET

1. **Bubble Dizzy** Codemasters
2. **Robocop** Hit Squad
3. **New Zealand Story** Hit Squad
4. **Rainbow Islands** Hit Squad
5. **Double Dragon 2** Tronix
6. **Altered Beast** Hit Squad
7. **Dragon Ninja** Hit Squad
8. **Bubble Bobble** Hit Squad
9. **Chase HQ** Hit Squad
10. **Magic Land Dizzy** Codemasters

a magazine in the making...

Behind the scenes at Amstrad Action

***AA* is currently selling more copies than at any time in the last three years. Declining CPC market? We think not! To celebrate, we thought we'd come clean and show you exactly how this magazine is put together. ADAM PETERS peels back the covers – glasnost, here we come...**

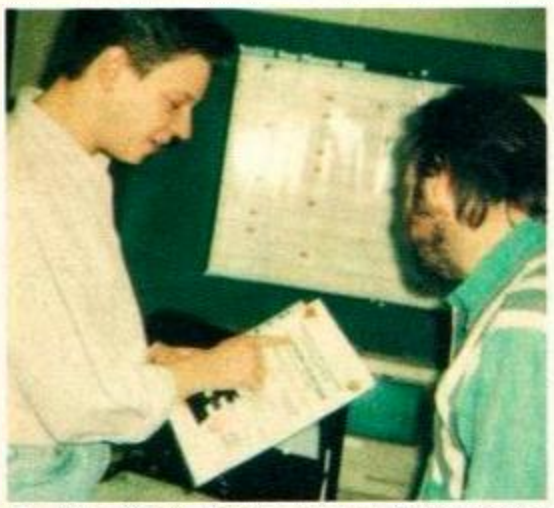
We lied to you, readers. All that talk of *AA* Towers with its fabulous glass spires, a separate office for each section of the magazine, and an army of two dozen secretaries sorting through the mail. It was all a big porkie. *Amstrad Action* really has only three full-time staff of its own, and they inhabit an office measuring 9' by 18' – about the size of an average kitchen.

There are other people that work on the mag, including Maryanne (who sits in the *Your Sinclair* part of the room, but works for both mags), Adam Waring (who sits round the corner, where his *Public Domain* mag is based), our out-of-house freelancers (Phil Howard, the Balrog, etc), and a few people who handle certain areas for more than one magazine (publisher, advertising manager, production people, etc). But the sight that visitors to the Future offices have described to them as "*Amstrad Action*" is Rod, Ange and yours truly, in someone's kitchen.

■ **Future Towers. This building is home to *AA*, as well as thirteen other (almost as good) computer mags.**

Studying the Future. *AA* is published by a company called Future Publishing, which was set up on June 1st 1985 by an out-of-work editor (Chris Anderson) with £1,000 in the bank. *Amstrad Action* was the company's first magazine. Today Future has nineteen magazines, fourteen of them computer titles, and sells more computer games magazines than any other company in Europe.

The company is based in Bath, though the mail order and subscriptions departments are based at a warehouse in Somerton (the Somerset village where Future was founded). The company occupies four buildings in central Bath, three of which are linked together. The *Amstrad Action* office is on the



■ **It's that bloke from Codemasters (*Richard Eddy – ed*) with some blurb.**

■ **Rich and Rod check out *Striker and the Crypts of Chaos*. Watch out for... too late.**

top (third) floor of the largest of these buildings. This is where the magazine comes to life.

About our equipment. *Amstrad Action*, like around 95% of all High Street magazines, is produced mainly on Apple Macintosh computers. These are incredibly expensive (around £1,000 for the basic writers' ones, £3,500 for the big colour ones the art bods use), as is the software (£700 per program), but they allow almost total control over how the words and pictures come together on the page.

Rough pages are printed out on a black and white laser printer (£3,000 if you're interested). Once they're completely finished they are printed out on the Future Publishing Linotronic, a dead flash laser typesetting machine (yours for £40,000), on transparent film.

There is one film for every mono page, but four for every colour page. With the colour pages, each film represents a different colour; one for black, one for cyan (light blue), one for magenta (purple) and one for yellow. These four colours, when mixed, can make up any shade of any colour imaginable. The Linotron works out what percentages of black, cyan, magenta and yellow go to make up each colour on the page, and then prints at the relevant (percentage) shades on each of the four films.

The four films are all standard black print on transparent background, but when the printer prints each one in a different ink (black, cyan, etc) on the same sheet of paper it makes up... da da da daaaa... a page in full-colour! Somehow.

Converting the CPC. So where does the Amstrad fit into all this? All over the place, actually. Apart from three Apple Macs, the *AA* office is also home to two CPC6128s (one with a green screen), a CPC464 with DD-1 interface, two 6128 Pluses, one 464 Plus, and a broken GX4000.

The old CPCs are mainly used for testing programs and playing games, the Pluses are also used ▶

■ **Here's the system *AA* uses to get screenshots from the CPC to the Mac.**

Being Economical

No day goes by in the *AA* office without us encountering a letter or survey form complaining that "there's too many adverts in the mag" and "there should be more pages in it". "Why can't you have over 200 pages like *Amiga Format*?" a number of people have asked.

The economics of it is this: magazines are founded on advertising revenue. A single page of advertising pays for the printing of not only itself, but also three pages of editorial. Therefore, when the amount of advertising coming in falls, it hits the magazine financially, forcing a reduction in the number of pages.

Software houses and dealers only have a limited amount of money available for advertising, and many have chosen to concentrate more on the 'sexier' 16-bit market and the current consoles fad. Advertising for the 8-bit mags has inevitably fallen as a result, resulting in smaller issues across the board (*AA*, *ACU*, all Spectrum and C64 mags).

It's not all bad news though – we are doing our best to keep the amount of editorial (non-advertising) in the mag as high as possible. Despite having 25 fewer pages of ads in the past two years, we have managed to keep the editorial loss to only ten pages.

This issue of *AA*, whilst only a 60-page issue, features more pages of editorial than any other issue since June of last year! It just goes to show you can't judge a mag by issue size alone.

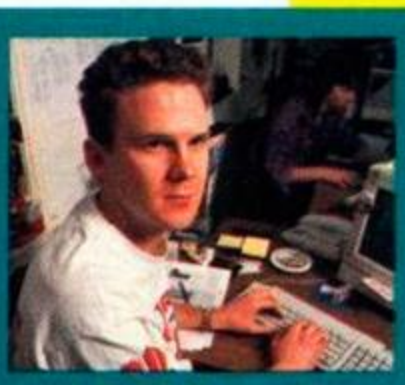
The thinner issues is an unfortunate but unavoidable fact of economic life. However, we are trying our hardest (honest) to cram as much as we can into the available space. Hence the redesign, *Technical Forum*, *Beginners' Basic*, *Public Image*, *Buyers' Guide*, etc.

And you're not really getting that much less than 16-bit owners. Sure, *Amiga Format* has 168 pages more than AA, but how many pages of editorial more does it have? Answer: Only 31 (over 60% of the mag is ads!). It's a pretty good deal when you look at it that way?

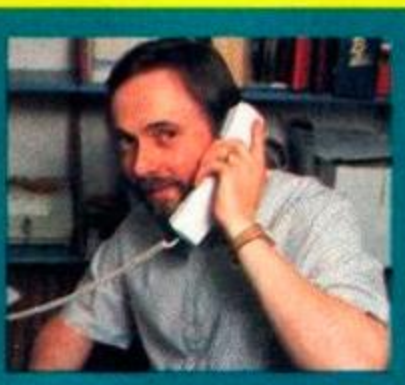
Who does What

Art Editor? Production Co-ordinator? Circulation Manager? Very daunting-sounding job titles, but what (if anything) do these people actually do? We hear from some of the characters involved in transforming an issue of *Amstrad Action* from a few idle thoughts to the brill magazine you're reading now...

ADAM PETERS
(Staff Writer, 21)
I write most of the copy (words) in the magazine. This involves chasing up games from software houses, playing them to death when they arrive, reviewing them, researching for main features and the *Buyers' Guide*, replying to readers' letters in *Reaction*, sorting the mail, losing things (a speciality), and making the tea (*making the tea? – ed*).



ADAM WARING
(Consultant Tech Ed, 25)
I do all the boring, dull techie stuff. (*Er, we're going to print this in the magazine Adam – ed.*) Whoops. Ahem. I write the *Technical Forum* section, answering all the readers' techie queries, and reviewing serious/business software and hardware. And when something goes hopelessly wrong with one of the office CPCs, I'm called in to make it worse.



ROD LAWTON
(Editor, 33)
I plan the issue, draw up flatplans, commission features, schedule magazine production, organise the covertape programs, plan covers, juggle budgets, sub articles and correct proofs (rough copies). I check through the copy (removing all the libel from Adam P's stuff) and put the text on to grids for the art people to do their arty things to it.

for interfacing with our Apple Macs. Out-of-house freelancers send their copy in as ordinary CPC ASCII files, and these are ported over to the Mac using a comms cable and RS232 interface.

What about the screenshots? These used to be converted in the same way, having first been grabbed using a Multiface. This was very troublesome, particularly since the Multiface has a habit of sometimes crashing the game after grabbing a screen – not a lot of fun if you're trying to get grabs of later levels which are difficult to get to.

We now use the spanky new Mac grabbing system in the *Sega Power* offices (yup, another Future mag). This involves a special cable which connects the monitor socket of the Plus to an image grabber (£4,000) which is in turn connected to a Macintosh. This enables us to freeze the screen on the Mac at any point, and save the image as a standard Macintosh picture file.

This system has problems of its own, such as having to play the game on a very small screen (about 20% of normal size) and the fact that the game itself doesn't freeze, only the screen display, leaving you to 'play blind' for 10 seconds (eek!). This system is a lot quicker and more versatile than previous systems (the Multiface and taking photos), but getting screen shots will always remain a very tricky and time-consuming task.

We like to put each game through its paces for at least a week before coming to a verdict, and we will only review completed versions of games. And only CPC versions. Not Amiga or Spectrum versions (you know who we mean).

Games that aren't fully finished, or are still being converted to the CPC, get a preview in *Grapevine* (along with any games we didn't have room for in *Action Test* that month). A lot of these games turn up in the post of their own accord, but we do keep closely in touch with the software houses to find out what's coming up, what we can get an early 'preview' version of, etc.

In fact, whilst this feature was being written a softie called Richard Eddy turned up in the kitchen with a briefcase in his hand. (Er, we're not calling him a 'softie' because we think we could beat him in a fight or anything – though we probably could. 'Softie' is industry slang for 'software house product manager/PR person type'.)

■ **The Future Publishing post-room. Adam P: "Here's some films and photos to go to repro." Jim the post person: "OK."**

■ **A big pile of *AAs* arrives at a wholesale warehouse in a big lorry. Careful there Mr Fork-Lift Truck person.**

Young Richard carries a case with top budget dudes Codemasters, and he'd come along to show us a nearly-finished version of *Striker and the Crypts of Chaos* and give us the low down on up-coming projects such as *Seymour in the Wild West*. Hurrah!

Checking the schedules. The final deadline for each issue (by which time all the pages should be at the printers) is two weeks before the publication date (i.e. the first Thursday of the month). This means we usually have four weeks to produce an issue, though sometimes it's five weeks (a luxury). In the case of the January and February issues, though, due to Christmas printers' deadlines it's three weeks or less (yikes!).

■ **Here's Ange checking over a laser proof. Notice the extreme tidiness of the *AA* office (ho ho).**

Most of the hard graft comes in the final two weeks of the production schedule, when Maryanne joins us from *YS*, and both writers and designers have to start knocking out pages at a fair old rate. The first half of the schedule is mainly spent putting together most of the mono (black and white) pages, which are a lot easier to design and produce.

The tape inlay is the first thing that has to be sent off to the printers. This has to go off very early, to allow time for the inlays to be folded, bunged in cases, and filled with tapes in time to be stuck on to the mags as soon as they've been printed. The front cover is another thing that must be sent off way ahead of the rest of the mag.

Colour pages with photographs on them have to be sent off to a 'repro house' to have the photos scanned in onto the films of the pages. It can take anything up to a week to get these done, so 'repro' pages also have to be all completed well in advance of the final deadline. This is the reason there are often mistakes on the contents page; since it includes colour pics, it has to be finished before a lot of the other pages (which then change – oops).

ANGELA NEAL
(Art Editor, 28)
I lay out the pages, combining the words, photos, drawings and screen shots, and then doing strange and exciting things with it. I send the finished pages to the Lino (a big printer). I also sort out photo shoots, commission illustrations, boss Maryanne around, and do lots of horrible paperwork (dealing with the art budget).

MARYANNE BOOTH
(Art Assistant, 21)
I'm Ange's assistant. I help her to lay out the pages, draw maps and pictures on the Mac, collect films from the Lino room, liaise with Nicky [Production Coord] about what time things have to be at the printers, talk with Ange about designs and stuff, and have Rod and Adam make fun of me. I work alternate fortnights for *AA* and *Your Sinclair*.

CHERYL BEESLEY
(Advertising Manager, 22)
I'm Group Advertising Manager for Future's 8-bit titles (*Amstrad Action*, *Your Sinclair* and *Commodore Format*). I sell all the advertising space, ensure smooth running, keep the editors in their place (*pardon? – ed*), organise team lunches, etc. The telephone is my only link to the outside world – I spend most of my life on it.

JANE RICHARDSON
(Publisher, 29)
I'm the product manager for the magazine. (*Er, what does that mean Jane? – ed.*) It means that I oversee the budget, circulation, promotions, and general content – both editorial and ads – of *AA*. (*In other words, she's our boss – ed.*) I also publish *Your Sinclair*, *Commodore Format*, *Public Domain* and *PC Format*. And I'm a Scorpio.

Printing and distribution. Individual pages/sections are written at separate times, and knocked out in a more or less random order - with priority given to 'repro' pages like this feature. The pages are ticked off as they are completed, on a flatplan. This is a kind of easy-to-glance-at guide to the layout/order of the pages and articles in the issue being worked on.

Once a particular piece, be it a game review, a serious review, a regular column or whatever, is written and checked for spelling mistakes (etc), it is put on a *Quark XPress* DTP grid, and passed over to the art people. They have to juggle the words and the illustrative material (photos, screen shots, etc) to get it all to fit the page and still look lovely.

The completed page(s) are then 'sent down' to the Lino machine, and hopefully come out of it a couple of days later without any horrible mistakes. The nineteen Future mags all use the same Lino, but have different deadlines so there shouldn't be more than four or five mags 'on deadline' – and consequently jamming up the Lino – at the same time.

Once all the pages have been completed and all the films have come out of the Lino or back from the repro house, the films are bunged into a big envelope and sent by motorcycle courier to the printers. The printers make metal plates from the film (somehow), whack these in a big press along with a massive roll of paper, and hit a big red button. Or something.

The machinery prints with wheels covered in ink (one for mono pages, four for colour ones), dries, folds, staples, crops, and piles the mags up in big bundles. All in one go. Another company then sticks the covertapes – which are duplicated elsewhere – in their boxes, and sellotapes one to the front of each issue.

Some of these finished mags go off to the Future warehouse in Somerton to be sent off to subscribers, and the rest go in big lorries to wholesalers (other warehouses dotted around the country), which in turn deliver them in further big lorries to your friendly local newsagents. Ta daaaa... end of story. **AA**

■ **Here's what the writing bods give the art bods. The text is chucked into the right styles and columns...**

■ **...and the arty types add a bit of colour and chuck in the screenshots. And get it all to fit (more or less).**

Join the Team (briefly)

Well, you've seen the glamorous (ho ho) life of an AA staffer, here's your chance to join the team for a day in this totally mega competition. This is the prize:

- **Free second class return train fare for you, and a parent/guardian if necessary, from anywhere in Britain (except Bath – you can walk) to the Future Publishing offices.**
- **Meet the team, see the office, play around on our computers (but don't break anything).**
- **Play all the latest games, including some that haven't been released yet!**
- **Get some freebies (probably).**
- **Review a couple of budget re-releases for the magazine's *Budget Bonanza* section (cor).**
- **Rod will buy you lunch (*hey, wait a minute – ed*).**
- **We'll take some photos of the whole experience, and either print them in the mag or else blackmail you with them in later life (or probably both).**

It's the chance of a life time, yes indeed. All you have to do is write us a review of any game in your collection (no more than 80 words) and send it to Join the Team Compo, Amstrad Action, 30 Monmouth Street, Bath, Avon BA1 2BW. Please include your name, your age (if under 18), an address (preferably your own) and a telephone number (if you've got one).

Our favourite entry received by April 10th 1992 (that's very soon indeed, so get your skates on), taking into account age and stuff, will win a day in hell (*er, our offices – ed*).

RULES:

1) Future Publishing employees can enter if they like, but they're not going to win. 2) Don't think you're going to blag a day off school if you win – this'll probably take place during the Easter hols. 3) Don't enter more than once (please). 4) The 'lucky' winner will be expected to laugh at – at least some of – Rod's jokes.

JEROME CLOUGH
(Lino Operator, 30)
The 'Lino boys' are responsible for setting up pages to print on the Linotronic, keeping the machine running, and trying to sort out any printing problems. Next door is the Scanning Room, where the 'Scanning boys' scan black and white photos and illustrations onto the mag pages. These pages are then passed on to us.

BARRY BUSH
(Repro Man, 42)
I'm one half of The Two Barrys (Barry and Barrie) at Bath Graphics, a 'repro' house. We get sent films of pages together with any colour photos or illustrations that need to go on them, and using lots of hi-tech gear we make negative films, split the pics into four colours, position them and then make positive films. (*Er, right – ed.*)

NICOLA LUCAS
(Production Co-ordinator, 27)
I co-ordinate all the different parts of the magazine. I deal with the printers, regarding deadlines and things like that, making up excuses when we're late (though they're very understanding). I also sort out production of the adverts (chasing up copy, typesetting, repro work, proofs, etc). As well as *AA*, I also do production for *Amiga Format*.

SUE HARTLEY
(Circulation Director, 35)
The Circulation Dept is responsible for the physical selling of the individual printed copies of the magazine to the consumer (*that's you, readers – ed*), via a wholesale and retail network of newsagents in this country and worldwide. If anyone has difficulty getting *AA* (or any Future mag) in their area, I'm the person they should contact.

technical forum

Welcome to *Amstrad Action's* new *Technical Forum* section, where our Consultant Tech Ed ADAM WARING keeps you up to date with every serious aspect of the CPC. Got a techie problem? He'll sort it out. Got a hot tip for your fellow CPC users? It could earn you a tenner... Write to: Technical Forum, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

COLOUR CO-ORDINATION

I am a 464 Plus owner but wish to upgrade it by buying a disk drive. First of all, which disk drive do I get and where from? I know about the DDI-1 but am looking for one the same colour as my new Plus machine – white, not black.

Please sort out this problem for me as I am in desperate need of a disk drive.

A Gibbons
Bridgewater, Somerset

I'm afraid you don't have much choice when it comes to colour co-ordination as the DDI-1 is needed as a first drive.

Things are furthermore complicated as Amstrad didn't make the Plus machines particularly upgradeable; you can't plug a DDI-1 in without modifying it first.

The problem exists because the disk ROM is present in all Plus machines, even the 464s. When you plug a DDI-1 interface into the back, the ROM inside that clashes with that of the computer's. It needs to be disabled first. It's possible to buy already modified DDI-1s from a number of suppliers that advertise in Amstrad Action. Try WAVE, 1 Buccleuch Street, Barrow-in-Furness, Cumbria LA14 1SR. ☎ 0229 870000.

SOME BROTHERS DO 'AVE 'EM

I have had a CPC464 for five years and I have had no trouble with it – until, that is, my younger brother got his hands on it and put a magnet on it...

Now none of my tapes will load. I would like to know if there is anything I can do for it?

Shaun Turner
Manchester

First thing to do is give your brother a darn good punch on the nose. It sounds like the tape heads need demagnetising. You can buy a tape to do the job, or a local radio repair engineer should be able to sort the problem out for you.

ON THE TELLY

Please help! I am referring to a letter that was printed in *AA68* where someone wrote in asking for info on how to get a 7-pin RGB cable that will connect his CPC to his Hitachi TV. In your reply, you said that a company called Lightwave might have one. I wrote to them as I'm in the same situation, but they wrote back saying they didn't have such a cable. Do you know any other companies that might sell them?

I desperately need one as my green screen monitor's days are numbered! I hope you can help.

Theresa Murison
Tiverton, Devon

If you can't find a ready-made cable in the shops, then you may be able to get a computer store or electronics shop to wire one up for you. Take the TV's instruction leaflet along with the computer's manual, showing the relevant pin-outs, along with you. Hope you're successful!

WHICH COMPUTER?

I wonder if you can help me? I own an Amstrad CPC464 and was thinking of upgrading to a 464 Plus. But I've heard that some games are not compatible with the Plus. Is this true? If so, is the Plus machine a waste of space? Give me your honest opinion – should I keep my computer?

Anthony Howe
Humberside

There are some compatibility problems with certain older games, though this certainly affects only the minority. All new games will work on the CPC and Plus alike.

Whether you upgrade or not really depends on whether you're likely to buy any cartridge games – and these are in short supply nowadays. You already have a fine machine and if you can live without carts then I think you'd be better off sticking with what you've got. The choice is yours...

COLOUR VISION

I am the owner of a CPC464 with a green screen monitor. Can you please tell me where I can buy a colour monitor? I have asked around in many shops but my effort was wasted as no-one was able to help me.

Aidan Reynolds
Cheshunt, Herts

Colour monitors were never made available separately, I'm afraid Aidan. As far as Amstrad were concerned, if you bought a green monitor then you were stuck with it.

It may be possible to pick one up second-hand, though, and occasionally mail order suppliers get hold of a batch of reconditioned ones. Check out *AA*'s ads.

Alternatively, you can link your computer to a colour telly. You need an MP-2 or MP-3 modulator. Again, looking through the adverts is your best bet.

ON THE MENU

With regard to your menu-driven cover tapes, I can see that this is an improvement for 464 owners when loading from tape.

However, having transferred tapes to disk I would like to maximise disk usage by deleting unwanted files and storing two or more cover tapes per disk.

Whilst I can rename the Menu file using the REN command, each Menu calls up the numbers 1, 2 etc and so the programs themselves cannot be renamed. Is there a mechanism for overcoming this problem or am I stuck with one cover tape per disk?

M J Frosdick
Rugby

One way round the problem is to store different cover tapes in different User areas on the disk. As long as they're in separate User areas, several files with the same name can be stored on one disk. You could have a program a little like this saved in the main directory with the contents of the cover tapes stored in

other User areas:

```
10 INPUT "Which covertape do you
want? ",a
20 |USER,a
30 RUN "MENU"
```

Save the contents of cover tape one to user area one and so on, and by modifying the above program to suit your needs, you'll be able to store several tapes on each disk.

CART CRISIS

I am the owner of a 6128 Plus and am happy to report that it has been 100% reliable since I bought it (unlike certain friends' Amigas and STs...). however it seems to me that even your magazine has given up on the cartridge system and that sooner rather than later the CPC will become obsolete.

I have found that the machine's major disadvantage is that it's not IBM compatible. I have noticed that it's possible to get a BBC emulator for a PC, and as I was hoping to get a 386 or 486 in the near future, I was wondering if there was such a thing as a CPC emulator. If there is would it work on a machine of these speeds?

Also I have seen that it is possible to get a TV tuner for a CPC monitor. Is it possible to get one for the Plus monitor?

B Smith
Abingdon, Oxon

I'm afraid that you're out of luck – I'm not aware of any CPC emulators for any machine.

But don't go out and bury your computer just yet... there's plenty of life in the old dog yet. And as for the cartridge situation, though they didn't take off in the way that Amstrad (or us at AA) would of hoped, we may see one or two further releases yet. Check out Ocean's *Space Gun* adverts...

There's no TV tuner available for the Plus, though it should be possible to modify a CPC tuner to work with this monitor.

A SLICE OF PI

I have written a little program on my 464 that prints all the even numbers that have been multiplyed by PI up to 1,000:

```
10 MODE 1
20 FOR n=1 TO 1000
30 PRINT n*PI
40 NEXT n
50 END
```

Is it possible to print them so that they are numbered?

I would like the display to look something like this:

1) 3.14159265
2) 6.28318531
etc...

HELP

This is a brand new section – Technical Helpline. If you've got a problem too tough even for the great (his words, not ours) ADAM WARING to solve, this is the place. One of our 37,000+ readers is *bound* to know the answer.

Or maybe you've got some particular area of expertise that you think our readers might benefit from?

The address to write to in both cases is:

Technical Helpline
Amstrad Action
Future Publishing
30 Monmouth Street
Bath
Avon BA1 2BW

This service is completely free, but we DO ask that you DON'T try to sell your kit here (the *Small Ads* page is the place for that) and that you DO include both your first name and telephone number (sorry, but we can't print full names and addresses).

OK? Well here's this month's Technical Helpline section...

Wanted: 6128 rom and 8-bit printer port for the 464, preferably with manual.
Andrew, 0533 606786 weekdays 3:30pm-4:30pm, any time on Sundays

Wanted: first disk drive for (old model) CPC464. Will pay up to £80.
Jonathan, 0780 783073

Offered: limited advice on hardware problems.
David, 0793 532417

Help offered on programming, GAC and the Amstrad in general. Also contacts wanted in any country, 100% response.
Len, 0254 382349

Wanted: can anyone help? I am looking for a manual for the DDI disk drive. I am willing to pay any expenses.
John, 0495 227183

Book wanted: *The Digital Research CP/M Plus Manual for CPC6128 and PCW Machines*.
Colin, 0786 75982

Wanted desperately! Amstrad CPC6128 Firmware manual (Soft 968) to buy, borrow, hire etc. Also wanted: *Anatomy of CPCs* book.

Plus!! Help offered on any aspect of CPC – programming, hardware and so forth.
Pete, 0533 886039 after 6:30pm

Ask Alex...

Hi! I'm back after what seems like ages! Have you missed me?

Well, I've missed writing for AA, and was delighted when Rod asked me come back and help some of you poor 'lost souls'. I'm here to answer your very basic questions, so if your queries at all technical then I don't want to know! (I'm sure Adam would be delighted to here about your techie teasers, though...)

Anyway, enough of the chit-chat. Who's our first reader in distress...

PRINTERS, MICE AND OTHER ADVICE

It's none other than Gillian Williams from Ashton-under-Lyne. She wants some advice about printers, light pens, mice and a doing a bit of home accounts on the side. Phew!

Q First of all, "Can you recommend a cheap colour printer?"

A As it happens, yes! The Star LC-200 is a good buy. It's pretty nippy and quite a snip at around £220. A word of warning, though: for anything more than pretty-looking text (printing out screens, for example) you'll need to get hold of some special software. Colour Dump 2, which costs £12.95 and is available from MJC Computer Supplies (✆ 0462 481166), will print out screens from Art Studio.

Q "Would a light pen or mouse be better for drawing?", is next on the list.

A Most definitely – you get a much freer movement than with using the joystick or keyboard. Of the two, I prefer mice. Try Datel Electronics' (✆ 0782 744707) Genius Mouse. It'll set you back £49.95 and comes complete with *Art Studio*. If you'd prefer a light pen then give The Electric Studio a ring (✆ 0582 595222). Its *Light Pen* comes complete with software. The address is P.O. Box 96, Luton LU3 2JP.

Q Home accounts is next on the list. She wants to use the computer to, "do something useful like entering our incomes and outgoings each month and monitoring our financial situation."

A There are a number of accounts programs that will do the sort of thing you want, but SD Microsystems' (✆ 0406 32252) *Home Finance* is tailored for domestic use, rather than the running of huge multi-national companies! You'll have to make your first outgoing £14.95, though!

AMIGA GAMES ON THE AMSTRAD?

Q Mark Perry from the lovely-sounding Cobh in Ireland is next in the queue. He's been looking at 3.5-inch second disk drives and is wondering, "Would it be possible to play Amiga or other 3.5 inch games for other computers on a 6128 Plus?"

A Sorry Mark, but the answer's no! Although you'll be able to use the same type of disks, the computers act in a completely different way. They have different chips and all sorts of other complicated components inside. Your Amstrad simply won't be able to understand the codes that are on the other computer's disk. The same applies to other machines – basically, only Amstrad CPC programs will run on the Amstrad CPC!

That's not to say that buying a 3.5 inch drive's a bad idea, though – it allows you to store far more per disk than you can on the built-in disk drive.

top tips

AUTO TYPING

I have been reading your magazine for some time now and have noticed that a lot of people have trouble with the *Type-Ins* checking program *Type-Writer*. The general problem seems to be with lines 40 and 100, and occurs because people answer the question incorrectly.

I have put together a replacement for the old version which checks the type of computer automatically – no more awkward questions have to be asked! It's been tested on a 464 and should work on the Plus machines without problems. Alter the *Type-Writer* listing as follows:

```
40 flag=0
110 j=&7fff: k=&4500: POKE j,81: POKE
k,93:OUT &7f00,&c5: jj=PEEK(j): kk=PE
EK(k): OUT &7f00,&c0: IF jj=81 AND
kk=93 THEN POKE a+8,&a4
```

James Chaney
Patching, Sussex

POKE CITY ARIZONA

In *AA76* Ron Rose asks whether there is any way of checking which drive was being accessed. The information is held at address &a700 – a '0' signals drive A and a '1' drive B. You can also POKE the address to change the drive. Here are some other useful addresses:

&A6FF – normally contains zero, but when poked with a non-zero number it disables the disk ROM.
&a701 – holds the current user number. Usually this is between 0 and 15, but any number up to 255 can be used. Do not use &E5 though – this signifies a deleted file and any data stored here is liable to disappear at any time!
&B1C8 – current screen mode. Poking this address will not actually change the mode, but it will fool the computer into thinking it's operating in a different mode, causing any further text and graphics to appear corrupted.
&BB18 – calling this address causes the computer to wait until a key is pressed.
&BB02 – resets the colours to the defaults when called.
&BDEE – this is used by the computer's firmware to check for a reset when CTRL, SHIFT and ESC are pressed. Typing POKE &BDEE,&C0 you can disable the soft reset and ESC keys.

E A Blackshaw
Bedford

review Fun School 4

£12.99 CASSETTE, £16.99 DISK ● DATABASE

This is the fourth in the *Fun School* series of educational games from Database, and follows a similar format to earlier releases. There are three programs in the range, featuring characters designed to appeal to different age groups. There's Teddy for the under-fives, Froggy for five to seven year olds and, er, Spyey for those between seven and 11 years of age. Each pack comprises of six games, all with a very definite educational slant. The idea is that your kiddie has fun while learning – they won't even realise. Sneaky, eh?

The basic format is the same throughout the three packages. The games are usually simple to control, in many cases just two keys, Space and Return, are used. In other games the cursor keys have been implemented and full keyboard skills are necessary in a couple of the spelling games for the older age groups.

Big, bold, bright graphics feature prominently in all games. The animation is excellent and has improved very noticably from the earlier versions. Presentation is good on the whole, and after a while even the youngest child should be able to play with the computer unsupervised, thanks to logical and simple keyboard layout.

Most games have neat reward sequences for getting things right – there's nothing worse than educational programs where a wrong answer provides more entertainment than a correct one. Even the manuals are excellent with great little stories that link the games together.

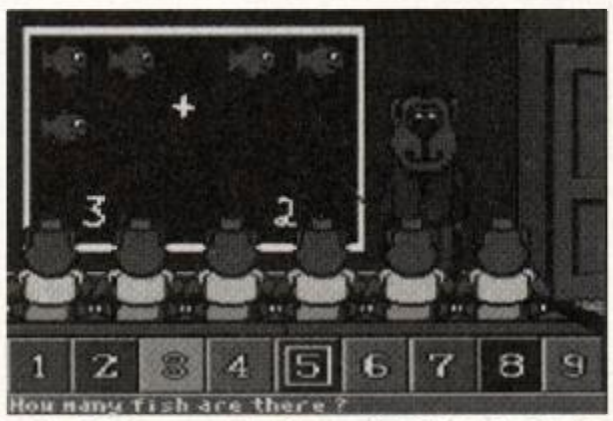
There are a couple of minor grumbles – a couple of typos have crept in. Ok, these find their way into the most vigilant writer's copy (you should know – ed) but for an educational program this shouldn't happen. Then again, whether the average five-year-old's going to notice a missing apostrophie is doubtful.

Some of games do get a bit tricky – especially the typing game in the Five to sevens pack and the quiz program in the over-sevens – I've no idea how long the Great Wall of China is. Maybe it's time I went back to school!

Fun School 4 contains a wealth of eductaional material, disguised as games that will appeal to even the fondest of shoot-em-up fans. Who said learning can't be fun?

UNDER 5s

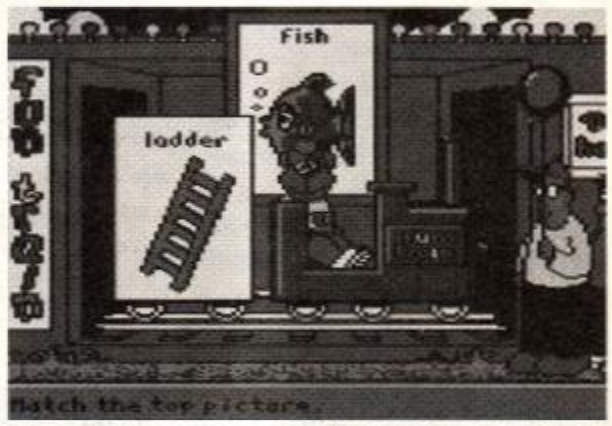
Addition Oh no! Sums! Help Ted with the arithmetic before he and his chums can go out to play. The first level's fairly straightforward; you simply have to count the number of obects on the blackboard. Things get trickier higher levels where there's adding up to be done...



■ **The first game for the under-fives is simple arithmetic. You have to add up the items on the blackboard before you can go out to play.**

Teddy Paint Ah, this is more like it. It's picture-drawing time. Slap down the shapes on the screen to create your masterpiece. Well, not quite, but it's better than the purple and orange crayon scribble that young kiddies normally produce.

Fun Train A train circles round through a fairground ride, carrying a picture in its carridge. Does it match the picture behind it? Only Teddy can tell! This is all very well, but can't we have a go on the ride itself? Oh, please, please, please. I'll hold my breath until turn purple!



■ **Does the picture on the back of the train match the one on the top? On later levels you'll need to be able to spell, too.**

Teddy's House More painting, this time it's a spot of house decorating. Choose the colours to paint Ted's house. In later levels you're asked to select specific colours to paint the objects with. Just you wait 'til Daddy Bear gets home and sees what you've been up to...

Teddy's Karaoke Yo, kids! Get down to the acid groove. Ted's at a rave and has to sing along to the KLF. Well, not quite ted has to holler to the mike to the sound to such hardcore hits as Humpty Dumpty Sat On A Wall and the unforgetable Grand Old Duke Of York.

Teddy's Books Ted's had a big day, and the poor little mite's knackered. But Dad insists on reading a goodnight story before he'll be counting sheep (or kids or whatever bears eat). Teddy has to name the number of the book Dad's reading before he'll let him sleep.

5 TO 7s

Library Freddy Frog's been lumbered with sorting books in the local library to keep him quiet. Knew it was the wrong place to practise yodelling. There's a stack of books, and they all have to be placed into the correct order. As the levels get harder, more things need to be taken into account such as authors' names rather than simply book titles.

Shopkeeper It's down to Sainsbury's to get the week's shopping. The shopkeeper's a bit fussy about giving change and so you have to calculate the correct coinage to buy the various goods on sale. Ohh, the price of fish nowadays...

Log Cabin It's time young Freddy settled down and built a log cabin to make little Freddys in. Only thing is, it's not hammer and nails that hold the logs in place, but sums instead! Answer the problems properly, and the

■ **Oh, that's a bit of a tricky one. Select the log with the correct answer to add it to the side of your house. Beats bricks and mortar any day.**

frog throws the lumber into place. Get it wrong and timber! it's time to try again.

Basketball This is more like it! It's fun in the gym, only the missing letter letter or number sequence has to be worked out to successful bag baskets. Get it wrong and you're given additional clues to help you work it out.

■ **Find the missing letter or number from the secquence to score. Get it right and you'll get a sucessful basket, wrong and you miss.**

Opposites It's swimming time, the only problem is before Freddy's friends can take a dip he has to give the opposite answer to a word. He does this by hopping around lily pads looking for the correct answer. It gets decidedly difficult in the later stages, with plenty of similar words with similar meanings to choose from.

Typing Freddy's favourite chocolates are Malteasers. Unfortunately, the crocodile's favourite are Malteasers surrounded by Freddy. To avoid this terrible fate you have to type as fast as your three-fingered limbs can go or you'll end up on the dinner plate. Starts off with easy keyboard-bashing, but later on you have to type full sentences and it reaches speeds which that would give a touch-typist trouble.

7 TO 11s

Proportions Count up the spies and answer questions about how many have shoes (or hair or false teeth) and work out the proportion. You can use percentages and fractions to help work it out, but have to resort to decimals to do the sums. It's actually tricker recognising who's wearing what, than doing the calculations. Later levels include hunting around the prof's lab to count objects there.

Spy Quiz It's a tough mission. The spy has to scale a wall and answer some pretty tricky questions to climb higher and higher to get the secret plans. And the questions get quite tough on later levels, even for grown-ups. Eeh, it's a wonder what they teach them kids at school nowadays. The questions do tend to repeat after a fairly short while, which is a pity.

Exchange rate A sort of strip game, this, only in reverse. The young 'tec has to work out foriegn money problems, converting currency between countries, in which case he gets to wear an additional part of his disguise. There's a calculator in case he gets stuck, but he can only use it amaximum of five times.

Timetable Typical! At the airport on the way to a secret destination (so secret that you don't know) and the plane's late (or early – now there's a first!). You have to work out when the flight's actually going to take off from the times on the departure board.

■ **Convert the currency to win the undercover clothing. And you need to – you'll stand out like a sore thumb (un)dressed as you are.**

Spy Travels Uh oh, it's Geography time. But there's no getting out of it, if you're to be a secret agent then you're going to have to learn where the good guys live as opposed to the evil pinko commie scum. Various games teach you where's where as you travel the globe.

Desert Dates You're asked questions and have to chip open the stones of a pyramid with the correct dates. You have five hammers, for each wrong answer one gets broken. It gets more specific on higher levels, but it does suffer from repeating question syndrome.

good news

- Graphics certain to appeal to kids
- Educational yet fun!
- Well written mauals with entertaining stories

bad news

- Question and answer games repeat themselves
- Some games taxing, for adults
- A couple of typos

93%

VERDICT

■ **Multiple choice questions have to be answered to climb a little higher up the wall. Let's see... 80 seems reasonable to me.**

▶ Thanks! By the way, what happened to Ask Alex? Has Rod fired her or something?

John Harrington
Horley, Surrey

It's a simple matter to modify your program to do what you want. Alter line 30 to read:

```
30 PRINT n;") ";n*PI
```

The semi-colons are separators that allow a list of several items to be printed on the same line.

And as for Alex, she's back! She was getting a little busy with her college work and so had to give up the column for a while, but we've persuaded her to write a smaller version of her section.

MAC SUITS YOU

I have an Amstrad CPC6128 and I use the school's Apple Macs a lot. I was wondering if there was any software or hardware for the Amstrad that would provide a menu system similar to the Mac's instead of the boring screen the Amstrad provides when you switch it on.

If a system like this exists, could you please tell me how much it costs and where I can get hold of it?

Ewan Cameron
St Andrews, Fife

There is a program that will do just what you want, and the good news is that it's public domain! DW Desk provides a Mac-like desktop for the Amstrad. For your copy send £6 to the author David Wild at DW Software, 62 Lascelles Avenue, Withernsea, North Humberside HU19 2EB. Or check out the Public Domain section on page 42. Most of the libraries mentioned should have the disk in their collections.

NOT ON TAPE

I purchased a DK 'Tronics 64K memory expansion about a year ago for my CPC464. I thought it would widen the range of software available for my computer – I have already bought one program that I could not have used without this extra memory (*OCP Art Studio*, tape version).

However, I have made a few queries about programs that use the extra memory such as *Stop Press* and *Protext*. They say on the covers that they require 128K of memory. I have 128K, but cannot use them because

top tips

CENTRE STAGE

I wonder if this brief listing will be of any use to your readers. I've noticed that in many Type-Ins, authors use spaces to centre a line of text. This little routine does it automatically:

```
10 MODE 2:wide=80
20 st$="Amstrad Action is brill!"
30 x=wide-LEN(st$)
40 LOCATE x/2,1:PRINT st$
```

This is best used as a subroutine where the variable 'wide' is alters depending on the screen mode used and 'st$' is the text you want centring.

Mick Ayzi
Nelson, Lancs

STAT OF THE ART

I write concerning a letter that appeared in the February edition of *Amstrad Action* from Paul Halliden concerning the use of the Stat program.

The Stat program is provided with CP/M 2.2 to show the status and statistics of files and the system. The program STAT.COM must be present on your disk to use it.

Typing STAT after the A> prompt will display the status of the drive. It will display something like this:

```
A: R/W, Space: 7k
```

This means the protection status of the disk is read/write and there's 7K of space left on the disk.

To show the statistics of a file, add the filename, for example typing STAT STAT.COM will present you with:

```
Recs  Bytes  Ext  Acc
41      6k   1  R/W A:STAT.COM
Bytes remaining on A: 7k
```

Don't worry, this is what it all means:
Recs – used by CP/M to group the bytes of a file together. A record is 128 bytes.
Bytes – this is an approximation of the file size. In the example there are 6K
Ext – this consists of 16K of disk storage space. If a file is 16K or less then 1 extent is used. The number is incremented by one for every additional 16K added to the file.
ACC – either read-only or read/write.

Martin Beddall
Wombourn, Staffs

they are only available on disk and not on tape.

Is there any way these programs can be transferred from disk to tape so that 464 owners with 128K of memory can use the programs?

Paul Kerr
Omagh, N Ireland

These programs are only available on disk because by far the majority of 128K memory owners will have 6128s. I'm afraid that the only way you'll be able to run them is to upgrade to a disk drive.

However, if you intend to use your computer for serious work, then a disk drive is a pretty good buy – it'll make your life a lot easier!

SMART PRINTING

I am hoping to get the Star LC-200 printer soon. I also have *AA*'s *Smart 2* program, but do not know how to print from it. To avoid me cracking up please could you help – I've been working my butt off to produce a masterpiece with the program!

Graham Peacock
Bishopbriggs, Glasgow

I'm afraid that *Smart 2* has no facilities to print screens from within the program. To obtain a print out you'll need to use a separate screen dump program. Several have appeared in the *Type-Ins* pages of *AA* before.

But as you're after a colour printer, you might like to print out your pictures in glorious hues. For this you'll need to get hold of a colour screen dump program, such as *Colour Dump 2*, available from MJC Computer supplies. ☎ 0462 481166.

STOP PRINTING

I have a CPC6128, *Stop Press* (which I am very pleased to have), a Star SG10 printer (now discontinued) and a problem.

When I try to print things out with *Stop Press*, everything is printed so that it looks like it has been enlarged vertically but not horizontally. This gives the impression of circles looking like ovals, and squares become rectangles. It also means that an 'A4' page from *Stop Press* will not fit onto an A4 piece of paper. This has, quite frankly, put me off using *Stop Press*, which is a shame as think the program's excellent.

I expect the fault's with the printer as it is old, well used and not even made by Star any more. Please help!

Stephen Carruthers
Bristol

Stop Press is designed specifically to work with 9-pin printers. I suspect that the model you have is a 24-pin jobbie. While this means that the printer is superior in terms of print-quality, it does mean that the vertical pitch of the characters it creates is longer.

The problem is really with *Stop Press* – it should cater for both types of printer. But it was written before 24-pin printers were generally available, and so a 24-pin printer driver was never implemented.

It's an annoying problem, and one that we've been waiting for an answer to for some time. If anyone has come up to a solution then write to the Tips section – there's a prize up for grabs!

GET THE PICTURE

1. I Have a 464 and a 464 Plus. After being told that you can only buy a FD-1 disk drive for the Amstrad I was wondering whether the there was an alternative disk drive available.
2. I have written several text learning programs without loading screens. How do you create a loading screen and get it to stay on the screen until the rest of the program has loaded?

S McNaughton
London

To attach a disk drive to any 464, be it a CPC or a Plus, you will first need to get hold of a DDI-1 Interface which comes with a FD-1 disk drive as part of the package.

You can use other types of disk drive with the 464, but only as a second drive. 3.5-inch drives, which can store far more data than a standard 3 inch drive, are widely available and can be bought from many of the advertisers that appear in *Amstrad Action*.

You'll need to use an art package to create a loading screen. These are available commercially, through the public domain and there was even one given away on one of *AA*'s cover tapes.

Once you've created your masterpiece, you'll need to create a loader program the first of all loads up your screen and then loads and runs the main program. This is dead simple, actually:

```
10 INK 0,5:INK 1,13:INK 2,6:INK
3,11:MODE 1:REM change the INK
values to suit the colours of your
screen.
20 LOAD "SCREEN",&C000
30 RUN "PROGRAM"
```

This should pretty up your programs!

DISK DESPERATION

Do you have any information about the games I can get for the 6128 Plus? I've tried everywhere in Liverpool to get hold of games, but they don't stock them for the Amstrad. I've seen plenty of tapes, but cannot use them.

John Davies
Liverpool

It's unfortunate, John, but it's getting pretty difficult to get hold of disk or cartridge games – the types that you can use – for the Amstrad.

Luckily, both formats are still available from mail order suppliers. You could do worse than scan through the *ads in AA and see what's around.*

DOWN TO BUSINESS

Help! I would like a cheap or free word processor program. I want it to write a novel, and letters to *AA*! I'm also after something that does things with household accounts, so I can budget for a few games!

Is there a teach yourself to read music program available anywhere?

And finally, o' wise one, tell me where I can get hold of a list of educational software.

John Davies
Liverpool

If it's free you're after, the best place to look is in the public domain. Check out the What's happening in the PD world on page 42.

If you're prepared to shell out a little cash, then you could do worse than check out Mini Office 2 from Database Software. This compilation includes a word processor and accounts program. Could be just what you're looking for.

I'll pass on the music, but if anyone can help, write to Top Tips!

For a catalogue of all the latest educational software, get in touch with Rickitt Educational Media, Ilton, Ilminster, Somerset TA19 9HS (☎ 0460 57152). It'd normally cost you a quid, but tell 'em *AA* sent you and they'll let you have one for free!

Price Buster

READ THIS!

Fast 7 day delivery

AMAZING OFFER

SELECT ANY TWO GAMES FROM THE LISTS BELOW AT DISCOUNT PRICE

i.e. £2.99 + £2.99 not £5.98 but £5.60
£2.99 + £3.99 not £6.98 but £6.50
£3.99 + £3.99 not £7.98 but £7.40

AMSTRAD SELLERS

AMSTRAD FULL PRICE	Cass	Disk
3D Construction Kit	£16.99	£16.99
Captain Planet	New £8.99	£10.99
Cisco Heat	New £7.99	£11.50
Double Dragon 3	New £8.99	£10.99
Final Flight	£8.50	£11.50
Football Director 2	£7.50	N/A
Fun School 2 Range	£7.50	£9.99
Fun School 3 Range	£9.99	£12.99
Fun School 4 Range	£9.99	£12.99
Golden Axe	£7.50	£10.99
Hudson Hawk	New £7.99	£10.99
Jetsons	New £5.99	N/A
Manchester United Europe	£8.99	N/A
Mindstretchers (Monopoly, Scrabble, Cluedo)	£13.99	£13.99
Pitfighter	£8.50	£12.99
Potsworth & Co	New £5.99	N/A
RBI 2 Baseball	£7.50	£10.50
Rodland	New £8.99	N/A
Shadow Dancer	£7.50	N/A
Skull & Crossbones	£7.50	£9.50
Simpsons	New £7.99	£10.50
Smash TV	New £7.99	£10.50
Space Crusade	New £7.99	£10.99
Super Space Invaders	£7.50	£11.99
Turtles Coin Ops	New £8.50	£11.50
Terminator 2	£7.99	£10.50
Viz	£7.50	N/A
WWF Wrestle Mania	New £8.99	£11.50

BUDGET	
3D Pool	New £3.99
Altered Beast	New £3.99
APB	£3.99
Atlantis 4 pack	New £3.99
Barbarian 2	£3.99
Batman - The Movie	£3.99
Big Nose's American Adventure	New £3.99
Blazing Thunder	£3.99
Bobsleigh	New £3.99
Bravestar	£3.99
Bubble Bobble	£3.99
Bubble Dizzy	New £3.99
Cabal	New £3.99
California Games	£3.99
Championship Golf	£3.99
Chase HQ	New £3.99
Chevy Chase	New £3.99
Classic Punter	£2.99
Classic Trainer	£2.99
Cricket Master	£2.99
Defenders of The Earth	£3.99
Dizzy Panic	New £3.99
Double Dragon	£2.99
Dragon Spirit	New £3.99
Fantasy World Dizzy	£3.99
Fast Food	£3.99
First Past the Post	£3.99
Footballer of the Year 2	New £3.99
Four Soccer Simulator	£3.99
Fruit Machine 2	£3.99
Ghostbusters II	New £3.99
Ghouls & Ghosts	New £3.99
Guardian Angel	£3.99
Hard Drivin'	New £3.99
Heroes of the Lance	New £3.99
Impossamole	New £3.99
Indiana Jones + The Last Crusade	New £3.99
Interchange	£2.99
Jocky Wilsons Compendium	£3.99
Jimmys Soccer Manager	New £3.99
Kenny Dalglish	£3.99
Kwix Snax	£3.99
Last Ninja 2	New £3.99
Magicland Dizzy	£3.99
Midnight Resistance	New £3.99
Moonwalker	New £3.99
Multimix 1	£4.50
Multimix 2	£4.50
Multimix 3	£4.50
Multimix 4	New £3.99
Navy Moves	New £3.99
New Zealand Story	New £3.99
Operation Thunderbolt	New £3.99
Outrun	£3.99
Paperboy	£2.99
Power Drift	New £3.99
Pro Tennis	£3.99
Pro Golf	£3.99
Pub Trivia	£3.99
Quattro Fantastic	New £3.99
Quattro Fighters	New £3.99
Quattro Skills	£3.99
Quattro Sports	£3.99
Quattro Power	£3.99
Quattro Adventure	£3.99
Quattro Coin Ops	New £3.99
Quattro Arcade	£3.99
Quattro Combat	£3.99
Quattro Firepower	£3.99
Quattro Racer	£3.99
Quattro Cartoon	£3.99
Quattro Super Hits	£3.99
Question Of Sport	£2.99
Rainbow Islands	New £3.99
Rambo 3	£3.99
Red Heat	£3.99
Renegade 3	£3.99
Roadrunner + Wile E Coyote	New £3.99
Robocop	New £3.99
Rick Dangerous	New £3.99
Scooby Doo & Scrappy Doo	£3.99
Shadow of the beast	New £3.99
Shinobi	New £3.99
Silkworm	£2.99
Skatin USA	£2.99
Snooker Management	£3.99
Soccer Double 2	New £3.99
Strider	New £3.99
Stunt Car Racer	New £3.99
Super Scramble	£3.99
Superkid	£2.99
Superkid in Space	£2.99
Super Seymour	New £3.99
Technocop	£3.99
The Games - Winter Edition	£3.99
The Games - Summer Edition	£3.99
Tin Tin On The Moon	New £3.99
Toobin	£3.99
Top Cat Beverley Hills	£3.99
Track Suit Manager	£2.99
Treasure Island Dizzy	£3.99
Treble Champions	New £3.99
Turbo Outrun	New £3.99
Turrican	New £3.99
Tusker	New £3.99
Vigilante	£3.99
Vindicator	New £3.99
Wembley Greyhounds	£3.99
World Games	£3.99
X-Out	New £3.99
Xybots	New £3.99
Yogi & The Greed Monster	£2.99
Yogi's Great Escape	£2.99

COMPILATIONS

TOO HOT TO HANDLE
Golden Axe, Super Off Road Racer, Total Recall, Shadow Warrior **Cass £12.99**

NINJA COLLECTION
Shadow Warrior, Double Dragon, Dragon Ninja
Cass £7.50

CHART ATTACK
Lotus Esprit Turbo Challenge, Impossomole, Cloud Kingdoms, Ghosts + Ghouls, Supercars
Cass £10.50, Disk £13.99

MOVIE PREMIER Teenage Mutant Hero Turtles, Back to the Future II, Gremlins 2, Days of Thunder **Cass £10.50**

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mastering machine code

Greetings fellow programmers! This instalment, we begin to venture into the weird and positively fascinating world of interrupts. Firstly, though, we complement our feature on sound programming last month with a little look at graphics in machine code. That mighty games hacker ANDY PRICE delves deeper into the realms of his assembler...

Built-in to our CPCs are some ROM routines which do many varied and wonderful things like print characters, make sound and generally take care of some of the more basic needs of the Amstrad. These routines are called †Firmware† routines and make our life a lot easier.

The firmware, luckily, has some routines for basic graphics functions. These include line drawing, pixel plotting and moving commands. Such similar commands available in BASIC are DRAW, PLOT and MOVE.

What are these routines and how do we access them? Simple, just use the CALL command and examine Listing 1, which shows you how to access every graphics command and which registers to use...

Remember that the maximum range of co-ordinates is 0-399 for y coordinates and 0-639 for the x coordinates. Also, when using the Firmware, register DE holds X and HL holds the Y co-ordinates.

Firmware graphics summary Below is a table showing the address of each of the firmware's graphics routines and their purpose. For details on which registers to use, have a look at Listing 1!

ADDRESS	PURPOSE
&BBBA	Initialise Graphics VDU
&BBBD	Reset Graphics VDU
&BBC0	Move to a pixel position, absolute
&BBC3	Move to a pixel position, relative to present position
&BBC6	Get the current Graphics cursor position
&BBC9	Set Graphics origin (default is 0,0)
&BBCC	Get Graphics origin
&BBEA	Plot a pixel, absolute
&BBED	Plot a pixel, relative to current position
&BBF0	Test a pixel position, absolute
&BBF3	Test a pixel position, relative to present position
&BBF6	Draw line to an absolute position
&BBF9	Draw line relative to present position
&BBFC	Place a character at current graphics position (similar to &BB5A except for the graphics cursor (pixel precision))

The mysterious world of interrupts We can really have some fun with interrupts! You can also do some very impossible things with interrupts, which are not possible without them (*er, I don't think that makes sense, Andy – ed*), for example, Split Mode Displays (See my Type-in March 1989)!

"What is an interrupt?" I hear you cry... Well, an interrupt is a routine which is executed when the interrupt is ready to do so, not when the CPU decides it is! Basically, the interrupt ¡interrupts¡ the CPU to do whatever it wants to do. Interrupts are †normally† timed using the system clock, which means that about every 1/300th of a second we can execute a program do to something devious, i.e. to update the screen with two different modes (Split Modes – see Listing 2).

It's all a matter of timing! There are two types of interrupts, namely **maskable** interrupts which can be interrupted and **non-maskable** which cannot be interrupted (for example, a soft reset by pressing CTRL, SHIFT and ESC).

Now then, before any of you flash know-it-alls out there start writing to me saying that poking address &0000 with &C9 (RET) will prevent a soft-reset, WRONG!!! The normal routine is directed to address &0000 when those keys are pressed, using the OUTput port at address &7F89 will still execute a soft-reset which CANNOT be interrupted. I just thought I'd let you know!

Anyway, where were we? Oh yes. Probably the most used interrupts from a programming point of view are **time interrupts**. The time interrupt occurs every 1/300th of a second and is available to us in five forms:

The Fast Ticker Block – This occurs every 1/300th of a second and is intended for short period timing. However, as a matter of interest, this is what I used to put about 3 different screen modes in 6 places on the screen (to split the screen directly in half with two modes, see Listing 2!).

The Frame Flyback – Occurs every 1/50th of a second. This is used for routines like paper and border and flashing.

The Ticker Block – Occurs every 1/50th of a second. The keyboard is scanned every ticker interrupt and is a very general purpose interrupt.

Sound Interrupt – Occurs every 1/100th of a second and, believe it or not, drives the sound routines! (No? You don't say...)

The System Clock – This counts clock ticks every 1/300th of a second. This holds the number of ticks passed since your computer was switched on. You could write a routine to hold the current time by using the system clock. I hope you don't intend to leave your computer on for more than 166 days because the system clock resets after that time! (Yet another useful piece of information!)

A simple interrupt For the purposes of this instalment, I have chosen to use the **Fast Ticker Block** because it is the only routine fast enough to be capable of producing Split Mode displays.

Now then, to put your program into the fast ticker block, you have to use the firmware routine at &BCE0 (KL NEW FAST TICKER). This produces an interrupt every 1/300th of a second. To add any program to the Fast Ticker, Frame Flyback or Ticker blocks, the Firmware routines take the following general format:

HL holds the address of the fast ticker block
B contains the event class
C holds the ROM selection
DE holds the address of your program

The reason I am only going to explain the Fast Ticker to you is because interrupts are very peculiar things to grasp. I have produced Listing 2, the Split Mode Display program, so that you can see what you are capable of using interrupts and so that you can see how they work...

Right then, it's time for an explanation of the registers above, which are needed to introduce an interrupt. **HL** holds the address of the fast ticker block. This is a 9 byte section of code for use by the computer. As you can see in Listing 2, I have located these at the end of my program. The event class, held in **B**, in Listing 2 has been set to &81. This is because any number less then &81 is a negative number and thus the interrupt will not be installed. &81 means that it will install my interrupt once because it decrements the event count each time and &80 is a negative number (-128). **C** has been ignored in our program because we are only concerned with our programs in RAM, not other people's in ROM. **DE** just holds the address in memory of your program.

How to alter the mode Altering the mode is quite straightforward. In Listing 2, we have a sec-

tion of code like this:

```
DI          ; disable all interrupts
EXX         ; alternate register set
RES 1,C
SET 0,C     ; mode 1 - see explanations in
            ; text
OUT (C),C
EXX
EI
```

Now then, to choose a mode, simple RESet or SET bits 0 and 1 of the C register (which controls the hardware pins for the mode). This is getting a bit above the beginners stage now, but I am sure you can follow what is happening.

To change to MODE 0:

```
RES 0,C
RES 1,C
```

To change to MODE 1:

```
SET 0,C
RES 1,C
```

To change to MODE 2:

```
RES 0,C
SET 1,C
```

Remember, this only occurs for a specified count (3 or 4 in my program for half of the screen, depending on the machine you have). You can do this for counts of, say 1 or 2, to get three modes on the screen simultaneously!

Just have a fiddle around with the program until next month where I can explain some more features of the Split Mode program. Sadly, I've run out of space this month...

● Next month, I'm sorry to say, and the months thereafter, I have been cut down to 1 page! However, it does mean that we can handle our machine code in easy chunks. We will carry on looking at interrupts next month. Until then, happy split moding!

LISTING ONE

```
ORG #6000

; LISTING ONE:
; Simple Graphics using the Firmware


CALL #BBBD      ; reset graphics
LD DE,0         ; x coordinate
LD HL,0         ; y coordinate
CALL #BBC0      ; Move to an absolute graphics
                ; position
LD DE,639
LD HL,0
PUSH HL         ; preserve value in HL for
                ; later
CALL #BBF9      ; draw a line relative to
                ; current position
POP DE          ; get value 0 from stack into
DE
PUSH DE         ; store 0 on stack again
LD HL,399
CALL #BBF9
LD DE,-639
POP HL          ; get 0 from stack
PUSH HL
CALL #BBF9
POP DE
LD HL,-399
CALL #BBF9
RET
```

LISTING TWO

```
ORG #6000

; Split screen into two modes
; Mode 1 in the top half of the screen
; Mode 2 in the botton half
; by ANDY PRICE - Mastering Machine Code,
; April 1992
; Original Code, Jan 1989

NEW_FAST_TICKER:   EQU #BCE0
DEL_FAST_TICKER:   EQU #BCE6
NEW_FRAME_FLY:     EQU #BCD7


     LD A,(#BDEC)     ; SCR MODE CLEAR, just
                      ; to test whether
     CP #F7           ; it is a CPC464 or a
                      ; CPC6128
     JR Z,C464
     CP #17
     JR Z,C6128
PROG: LD HL,FRAME_BLOCK  ; for computer's use
     LD B,#81         ; only install
                      ; interrupt once
     LD DE,ROUTINE    ; address of main
                      ; routine
     CALL NEW_FRAME_FLY ; install interrupt
     RET

               ; ROUTINE TO PRODUCE
               ; MODE 1

ROUTINE:     DI       ; disable all
                      ; interrupts
             EXX      ; alternate registers
             RES 1,C
             SET 0,C  ; mode 1 - see
                      ; explanations in
                      ; text
             OUT (C),C
             EXX
             EI

SWITCH_DELAY: LD A,4        ; 4 for half
                            ; screen in a
                            ; CPC464
              LD (STORE),A  ; 3 for half
                            ; screen in a
                            ; CPC6128
              LD HL,TICKER_BLOCK
              LD B,#81
              LD DE,DELAY_ROUTINE
              CALL NEW_FAST_TICKER
              RET

DELAY_ROUTINE:  LD A,(STORE)
                DEC A
                LD (STORE),A
                OR A
                RET NZ
                ; ROUTINE TO PRODUCE
                ; MODE 2

     DI
     EXX         ; alternate registers
     SET 1,C
     RES 0,C     ; change to mode 2 -
                 ; see text
     OUT (C),C
     EXX
     EI

     LD HL,DELAY_ROUTINE
     CALL DEL_FAST_TICKER ; remove routine
                          ; for block
          RET

C464: LD HL,#BDEC        ; alter
                         ; firmware
                         ; routine
      LD A,#E            ; MODE CLEAR so
                         ; that when
      LD (HL),A          ; the screen is
                         ; cleared it
      INC HL             ; jumps to a
                         ; different place
      LD A,#B            ; in the lower
                         ; ROM
      LD (HL),A
      JR PROG

C6128: LD A,#2E          ; the same
                         ; applies
                         ; to the
      LD (#BDEC),A       ; 6128's firmware
                         ; routine
      LD A,3
      LD (SWITCH_DELAY+1),A ; delay
                         ; for screen is 1
                         ; tick less than
                         ; a CPC464 for
                         ; the CPC6128
     JR PROG

FRAME_BLOCK:  DEFS 9
TICKER_BLOCK: DEFS 9
STORE:        DEFB 0
```

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RODLAND

STORM ■ £11.99 CASSETTE, £15.99 DISK

Oh no, nightmare scenario! A land populated entirely by chaps in beards who wander round making sarcastic comments and giving people funny looks. (*Pardon?* – ed.) Fear not, dear readers, this game has nothing at all to do with our beloved Ed. Not unless he's really called Tam or Rit and secretly wears a fairy costume underneath his ordinary clothes.

Tam and Rit have inherited some Rods. Tam has inherited Rod Stewart and Rit has inherited Rod Hull and Emu. No, not really, ho ho. They've inherited the Rods of Sheesanomo (a magic weapon they can bash baddies with) from a local wrinklie, and they've also got some Rainbow Shoes (for climbing ladders with) from their dad.

SECOND OPINION

"Cor, almost looks like an Amiga game, doesn't it? Pity it runs at about a millionth of the speed... the general sluggishness cripples the gameplay."
ROD LAWTON

Here are some questions: (1) If the weapon is a rod, how come it works like a lasso – it must be a very floppy kind of rod. (2) Why do Tam and Rit need rainbow shoes to climb ladders – most of us can quite comfortably climb ladders in our Reeboks.

Never mind. *Rodland* is from the *Bubble Bobble* school of computer games. You have to collect some flowers, whilst avoiding the baddies, on lots of single-screen levels (there are 40 levels in all). It's the sort of multi-load game that will drive many 464 owners mad, but there you go.

If you collect all the flowers you get to play a so-called 'bonus game' where you simply have to wax any baddies you didn't do over while you were collecting the blooms. You despatch them by rodding them and then throwing them over your shoulders a few times and banging their heads on the floor (sigh).

When killed, the foes turn into weapons. There's a chance they'll then kill some of the other enemies (if you're lucky).

Rodland moves slowly and is a bit of a tired old formula. But it's easy to get into, there are plenty of levels, and if you liked *Bubble Bobble* then chances are you'll like this too.

Adam P

FIRST DAY TARGET SCORE
Get to level eight

● Zapabunga! You can hook the foes with your Rod thingy.

graphics **84%**
Very colourful, very slow, simple but sweet animation. Detailed if not inspired.

grab factor **75%**
You've seen this game before – it's *Bubble Bobble* without the bubbles. Easy to get into.

sonics **45%**
Cutsie sway-a-long title track, plus cheap and nasty in-game beeps and choofs.

staying power **72%**
Forty levels makes for a fair amount of challenge. But let's be honest, innovative it ain't.

71% VERDICT

■ **You start level 1 with temporary invulnerability. *Very* temporary...**

■ **Oh dear, Prehistorik goes to that great primordial swamp in the sky**

■ **You'll find most of the food you need to finish the level in the caves**

■ **Eek – looks tricky, doesn't it? Clue: jump into the water just behind you for bonuses...**

PREHISTORIK

TITUS • £10.99 CASS, £15.99 DISK

FIRST DAY TARGET SCORE

Finish Level One

Prehistorik is a (cave)man with a mission. Never mind "feed the world", this primitive man has realised he's got to feed the tribe first. He sets out to take on the worst the prehistoric world can throw at him...

Which include Gubba-Glubs, Balor and Bobor, Pyro-Tax, Swordy, Chimp-Agogo and many more ultra-cute beasties. Don't stand and gawk at them too long, though, 'cos they're all out to get you. Let any of them touch you and you lose valuable energy. Lose enough energy and you die.

Fortunately, you've got your faithful club at your side. If any of these prowling beasties comes too close, just give it a good few smacks and pick up the points.

This game isn't really about points, though. Don't forget, you've got to feed your starving tribe. So while you're busy fending off monsters, you've got to keep your eyes open for food. You'll find most of the food inside the caves dotted about your world. Also in the caves, however, are nasty spiders and fires, both of which reduce your energy if you get too close.

The aim is to collect enough food by the end of the level to be able to progress to the next... and so on. This means you've got to explore just about bit of the level.

What we've got here is a very nice-looking, very sweet platform collect-em-up. However, it's got a few problems. Not least of these is the scrolling. The game uses a push-scroll system that doesn't actually push-scroll until you get to the very edge of the screen.

And then it takes it a few seconds to load the next screen, which is an annoying break in the gameplay.

And that's not the worst of it. The whole lot moves quickly enough when there's not much happening, but get more than a couple of monsters on-screen at once and the animation slows down to a crawl. This really cripples the playability.

Unfortunately, the playability isn't up to much in the first place. It's almost impossible not to take hits, and since you're temporarily invulnerable afterwards, it makes sense to just pile straight in. And while the game is full of nice touches – like the balloon-flight over the sea – the graphics slow down to a horrible, jerky crawl at the slightest excuse.

Nice try, Titus, but the speed of animation is a real let-down. It's more than just cosmetic – it makes the game almost impossible (and not much fun!) to play at times. Add the fact that it's too easy to get hurt and you've got a real old dinosaur on your hands.

Rod

SECOND OPINION

"It moves slowly and the combat is sluggish. It looks good, but it just gets too bogged down when things start happening."

ADAM PETERS

■ ***Prehistoric* is full of nice little touches. In this section our hero has to float above the sea clutching some toy balloons (Balloons? In the Stone Age?)**

■ **Look at all those caves! Yeah, but look at all those monsters too...**

■ **That monkey in the tree is a real pain – it throws coconuts at you**

■ **Look out for that hairy yellow thing – it spits at you! (It's pretty easy to kill, though)**

■ **That food looks tempting, but you've got to get past that horrible spider first**

graphics	68%	grab factor	90%
Looks wonderful... until it starts getting hectic		It looks like you're in for a whale of a time...	
sonics	50%	staying power	45%
A reasonable tune, but no in-game fx		...but looks aren't everything, unfortunately	

64% VERDICT

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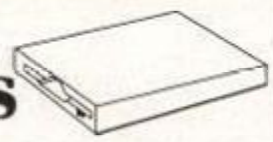

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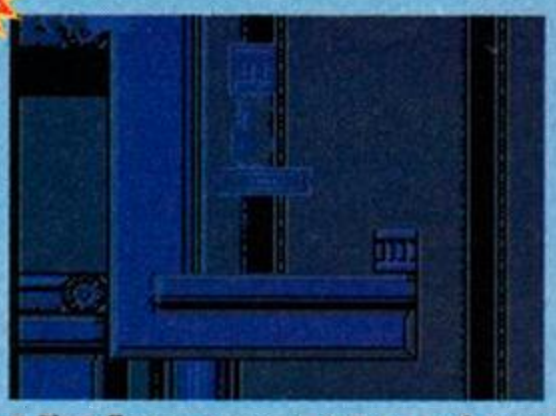


■ First floor – coppers, crates, mad nuns, records, trees, menswear, haberdashery, and a guitar. Elevator going up...

■ Them things top left will be balloons. You'll be wanting to hitch a lift up on one of them to get some records. Indeed.

■ Hurrah! It's level two and there's three rather deformed-looking records just waiting to be picked up by our hero.

THE BLUES BR

TITUS/PALACE • £10.99 CASSETTE, £15.99 DISK

"It's 106 miles to Chicago, we've got a full tank of gas, half a packet of cigarettes, it's dark and we're wearing sunglasses."

"Hit it."

Er, no. Hang on a minute. In actual fact, *The Blues Brothers* isn't a film licence. It's only a character licence. What does that mean? It basically just means that the game doesn't have any photos from the film on the box, and it doesn't follow the plot of the film. Which is no real problem, as a lot of 'genuine' film licences don't either (*Hudson Hawk, Live & Let Die*, etc).

SECOND OPINION

"Crikey! – bit *blue* isn't it? Is this monitor lead working, Adam? ...Well, OK, given the great gameplay and good soundtrack we'll forgive it."

ROD LAWTON

Taking the role of either Jake or Elwood, you have to platform it around five different levels. At the end of each is some item or other you need to stage your concert.

You have three lives, your current state of health being indicated by the number of hearts at the top left of the screen (one life = three hearts). You can get extra hearts by collecting the records that hang around the game area in their hundreds. A hundred, incidentally, is how many you need for each extra heart.

There are also balloons and umbrellas around to 'give you a lift', together with bonus hearts and presents. Some of these presents increase your energy. Most of them stun you instead, leaving you at the mercy of any enemies in the vicinity. Great present, folks. It's that blinkin' Auntie Susan with her perverse sense of humour again, isn't it? (*No, I don't think so – ed.*)

There are enemies parading around the place, including coppers, gardeners and nuns (*and why not – Barry Norman*). Pick up boxes and throw them at the baddies – it's the only way you can kill the rotters. You

FIRST DAY TARGET SCORE

Complete the first two levels

tips tactics

Level One: Coppers and Clouds

Every now and then we're going to include a few tips and tactics to get you started in a game. Here, we show you how to work your way through Level One...

1 WALK THIS WAY

You're in a building. You're on the ground floor. There are a lot of boxes where you start from, and very few later on. So you will need to pick up a box, move right, splatt one of the baddies, then go back to where the boxes are, and so on. It's also a good idea to take things slowly as well, perhaps hanging around for an enemy to appear on the screen you're on, rather than racing onto the next screen and possibly walking straight into one. Try to always have a box in your hands whilst moving onto unexplored screens. It is possible to jump the foes though, so go for that instead if you're a bit on the impatient side.

2 GOING UP

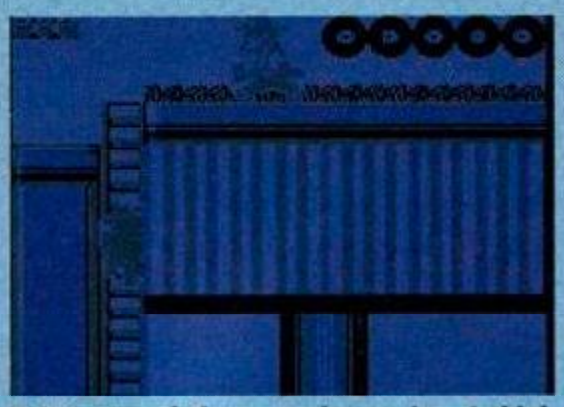
There are a couple of balloons on the second floor of the building. You can use these to collect the records that are hanging around in mid-air up above. You should be able to collect them without two much trouble. When you hit the ceiling, the balloon bursts and you float back down again. On one of your balloon trips, try to land on the floor just above the one you take off from (the one with two boxes on it), as this takes you to four screens packed full of records. There's a couple of nasty baddies too though, including a manic canteen lady (box her).

3 HITCH A LIFT

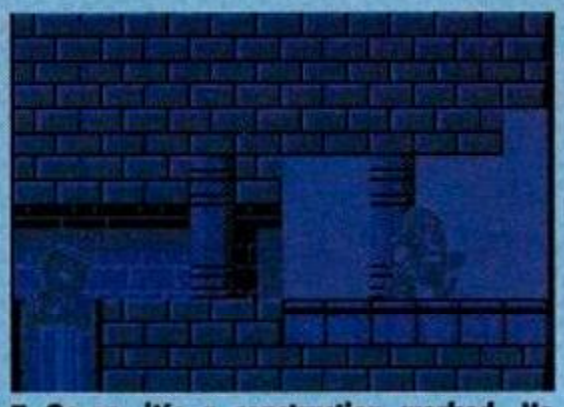
A service lift takes you from level three to level four. There is a small network of conveyor belts, tunnels and service lifts that takes you from here to the roof. These lifts are fairly safe, with the exception of the first one. There's a nasty copper standing by it shooting a lot, and there's a big hole below. Mis-time your jump and you end up back of the first floor again. Once you reach the roof, head left, avoiding the gardeners, till you reach a tree. Jump to the top to collect the box, then jump right a couple of times to land on a cloud.

4 HEAD IN THE CLOUDS

The cloud section is particularly troublesome. Apart from some dastardly nun-like angels, there's also the problem of jumping from cloud to cloud. The nuns can be boxed, but you can only jump over them safely if you are on the same horizontal plane than them. With the first nun, hang around lower down (where she can't hit you with her throwy things) and she'll gradually back off. When there's enough room, jump twice - once to get alongside her, once to leap over her. When you're on the far right of a cloud screen, it is difficult to know how far away the next cloud along is. So you don't know whether to do big jump or a small one. In all but one case, the big jump is the one to go for. Once across the cloud bit, grab the guitar you see. Ta da, end of level one.



■ It's one of those gardeners (or, *I think they're Illinois Nazis actually – ed*). Oh, listen to Mr Smarty-Pants clever clogs.



■ Oo-er, it's a construction worked. He looks in a good mood, but I think we'd better avoid him nonetheless.

■ Yikes! Things are starting to get a bit hectic. Rod (rioft) and Adam P (right) gang up on poor Mr Blues. The rotters.

OTHERS

■ Hello. We're up a tree, about to take to the clouds.

don't jump as high with a box in your hands. Nor can you swim or crawl with one.

In later levels, you encounter more in the way of platforming. Lots of little blocks to jump between, whilst avoiding various hazards and ever more bizarre types of enemy.

***The Blues Brothers* is** an excellent game, similar in a lot of respects to last month's *Hudson Hawk*, but with a lot more in the way of exploration involved, plus the added bonus of the 'record collecting' idea. The graphics are a bit dodgy and it's very easy to avoid the foes by simply leaping over them. There is enough of a challenge here to keep you plugging away till you complete it. As platform games go, this is one of the best. Buy it today and help save that orphanage.

Adam P

AA at the Movies

Over the ten years since its original (1982) release, *The Blues Brothers* has built up a massive cult following. This is partly because of the excellent music, with cameo appearances from most of the blues and soul greats, including James Brown, Ray Charles and Aretha Franklin.

It could equally be down to the brilliant humour and comical appearances from the film's two stars, Dan Ackroyd and the late John Belushi. On the other hand, perhaps it's the incredible amount of action that has been the basis of its success – amongst other things, the film features the biggest car chase scene ever (over 150 cars are wrecked in the process).

The film details the exploits of two crooks, Jake (Belushi) and Elwood (Ackroyd) Blues, who put together their old blues band while on the run. They need to make it big to raise some money to save the orphanage in which they grew up.

The ensuing two hours is full of music, cars driving into each other, and lots of witty one-liners and ridiculous situations. All in all, a great laugh.

win the video

Cor blimey, what do you know, our mates at Palace have given us THREE copies of *The Blues Brothers* video (worth over £15) to give away in a competition. Brill-o-fab.

So what do we want you to do? Simple. Using any clothes and props you can find (try your dad's wardrobe when he goes out), we want you to dress up as one of the Blues brothers (pork pie hat, suit, dark glasses, whatever you can find).

Get someone to take a photo of you – if you can get someone else to be the other brother, please include them as well – and send it, together with your name, age, address and a list of your hobbies, to Blues Brothers Compo, Amstrad Action, 29 Monmouth Street, Bath, Avon BA1 2DL. The three best entries received by 20th May 1992 will win their senders a spanking new copy of the vid. Hurrah!

RULES

1) Employees of Future Publishing and Titus/Palace, their relatives, their pets, their lodgers and the strange old man who lives down the end of their road, aren't allowed to enter.

2) The film is a 15-certificate, so don't enter if your folks are going to have a go at us if you win.

3) The editor's decision is final.

4) So there.

graphics **81%**
Great two-colour graphics, neat single screen scrolling but little in the way of animation.

grab factor **94%**
A brilliant platform-em-up, featuring lots of exploration. It's very easy to get into.

sonics **56%**
Everybody Needs Somebody plays continuously (and irritatingly) throughout. No spot FX.

staying power **96%**
Five large levels means you won't finish it in a hurry either. The difficulty level is spot on.

95% VERDICT

COMPILATION ROUND-UP

Compilations, eh? Whose idea was that then? The first mega big compo was US Gold's *They Sold A Million*. In recent times, the trickle of compilations has turned into a veritable flood. Recent trends have been more towards 'concept' compos, where three or four games of a particular type (eg sport sims, coin-op convos beat-em-ups, etc) are bundled together – one of the first of these was the ten game sporting pack *Game, Set and Match*. Another recent development has been the emergence of budget compilations; the Kixx Multimixx packs and Codemasters Quattro jobs, for example. Compos offer excellent value for money and they're certainly here to stay. ADAM PETERS action tests a few recent examples...

SOCCER STARS

EMPIRE • £12.99 CASSETTE, £17.99 DISK

Hurrah! This is what we call a brilliant compo. Four of the best footie games of all time (see *Buyers' Guide: Games* on page 56) all bundled together in one reasonably-priced pack.

The best of the four games is **Emlyn Hughes' International Soccer**, which is also the only one featuring a side view of the action (the other three are all overhead jobbies). It's fairly slow, but very easy to see what's going on, the strategy/team selection bits are dead good, and brilliant passing moves are easy. Excellent.

Microprose Soccer includes 6-a-side and indoor versions, along with the standard outdoor 11-a-side game. There's a very small 'window box' view of the action and not much in the way of colour, but the playability is spot on.

Gazza 2 and **Kick Off 2** are similar small sprites/large pitch thingamyjigs, the former having originally made a big splash as a cartridge game before making the jump to disk and tape. If you haven't got too many of these games already, buy this compo right this minute. You won't regret it.

■ ***Emlyn Hughes' International Soccer* is as ace as it looks. Passing, tackles, the lot.**

■ **And *Gazza 2* isn't bad either. *Soccer Stars* is a vital buy for CPC footie freaks.**

compilation

■ Kick Off 2	87%
■ Microprose Soccer	90%
■ Emlyn Hughes Int Soccer	94%
■ Gazza 2	85%

95% VERDICT

NINJA COLLECTION

OCEAN • £9.99 CASSETTE, £15.99 DISK

Another from the Ocean stable, the *Ninja Collection* doesn't set a place at its table for Mr Variety. All three of the featured games are reasonable but not brilliant ninja-em-ups.

Double Dragon is the oldest and wrinkliest of the *Double Dragon* series of ninja games. Double *Dragon 2* is riding high in the budgie charts even as we speak. *Double Dragon 3* was reviewed last month. And if you've played one you've played them all.

Dragon Ninja has also enjoyed a large sortie into the budget charts recently (meaning that a lot of you have probably already got it). It's a pretty good game, with different platforms, passing traffic and stuff like that to liven it up.

The version of **Shadow Warriors** on *The Ninja Collection* is, strangely enough, identical to the version of *Shadow Warriors* on *2 Hot 2 Handle*.

Nice one Ocean – there's a really neat way to nark off people who are thinking of buying both packs...!

■ ***Dragon Ninja* is your standard ninja beat-em-up. Yawn, yawn, yawn.**

■ **Aiiiee, it's ninja time. *Shadow Warriors* is the highlight of *The Ninja Collection*.**

compilation

■ Double Dragon	59%
■ Shadow Warriors	74%
■ Dragon Ninja	73%

61% VERDICT

Movie PREMIERE

ELITE • £14.99 CASSETTE, £19.99 DISK

A mixed bag of bananas from the Walsall dudes, the best of the lot is the chart-topper **Teenage Mutant Hero Turtles**, and as we all know even that isn't exactly the most inspiring game in computing history.

It's a platform beat-em-up featuring those four Pizza-guzzling dudes that everyone's forgotten about. (*What pizza-guzzling dudes? I don't remember any pizza-guzzling dudes – ed.*)

The other games are pretty mediocre. **Days of Thunder** is a dull racing game based on a dull film with Tom Cruise in it. It's an American NASCAR thingy, and it's pretty slow.

Gremlins 2 is a platform/arcade adventure sort of thing, and it's difficult. Too difficult really. And a bit repetitive in the gameplay department to boot. **Back to the Future 2** is the real turkey, though. The graphics are naff black and white Spectrum style, the title tune is irritating, the stages are too long, and you will get bored very, very quickly indeed.

There are skateboard riding, puzzle and beat-em-up stages. Full marks for variety – minus a hundred for the actual game.

■ **Turtleabunga dudes, it's those *Teenage Mutant Hero Cows* (*try again – ed*).**

compilation

■ Teenage Mutant hero Turtules	65%
■ Back to the Future pt.2	39%
■ Gremlins 2	54%
■ Days of Thunder	52%

50%

VERDICT

TNT 2

DOMARK • £12.99 CASSETTE, £17.99 DISK

This, we believe, is Domark's last ever CPC release. Er, and it's very nobby unfortunately. **Escape from the Planet of the Robot Monsters**, aside from the longest title in computing history, also offers isometric-3D rooms, lots of robotic foes, some hostages to release, and an excellent two-player mode. It's the only game on this pack worth owning.

Hydra is a boat-em-up with mega naff confusing graphics and very little in the way of playability. Skull & Crossbones is a chop-em-up involving lots of pirates (i.e. blokes with eye patches and parrots, not that spotty geek in the fourth year with all those Amiga games). It looks quite good at first glance, but turns out to be as dull as the dullest thing in Mr Dull's Amazing Encylopaedia of Dullness. Duh!

And then we come to the real stinkers: **Badlands** has graphics that are dire beyond the limits of human imagination. Like *Super Off Road* on the *2 Hot 2 Handle* compo, it's a *Super Sprint* style race-em-up. But it's total crap. You'd laugh if your computer-illiterate little brother wrote something like this while you were having tea. Commercial release? Pah!

STUN Runner, a scrolling-towards-you sci-fi shoot-em-up (*leave some hyphens for the rest of us Adam – ed*), is better but is just another pointless conversion of an ultra-fast coin-op (*hyphens – ed*). Take out the 'fast' bit and you don't have anything left in the way of a game. Gah!

It's a shame indeed that Domark should take its leave of the Amstrad market with such on old pile of didgeridoos as this.

■ ***Hydra* is one of the better games on the *TNT2* compilation. And it's crap.**

compilation

■ Hydra	37%
■ Skull and Crossbones	42%
■ Escape from the Planet of the Robot Monsters	20%
■ Badlands	15%
■ STUN Runner	31%

34%

VERDICT

2 HOT 2 HANDLE

OCEAN • £15.99 CASSETTE, £15.99 DISK

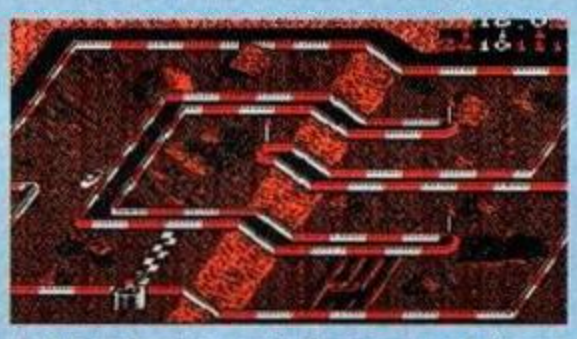
Variety, they say, is the spice of life. So here's a spicy little compo from the Ocean posse, combining a couple of bouts of beat-em-up action, an excellent film tie-in and a reasonable racing sim.

Total Recall is the best game on the pack. Clocking up a Mastergame on its original release, TR is a traditional Ocean film tie-in of five levels; three of these are platform game style, the other two are driving games. Very challenging and very addictive.

Of the two beat-em-ups, **Shadow Warriors** is the best. It's a ninja kickie where you can interact with the background (swinging off lamp-posts and stuff like that). **Golden Axe** is a bit nobby, the controls are very clumsy and there are a few annoying little bugs. It's set in a fantasy world full of dragons and such like.

The final game on the pack, **Super Off Road**, or to give it its full (and very long) title, **Ivan 'Ironman' Stewart's Super Off Road**, is a racing sim. It offers tiny car sprites hurtling round an obstacle strewn dirt track, the whole of which is on screen. It's incredibly fast, incredibly bumpy and incredibly difficult to control. It's quite good fun, actually.

■ ***Total Recall* is an excellent little game in which you play the part of Arnie.**



■ **It's a hard-to-control *race-em-up* based around the exports of a chap called Ivan.**

compilation

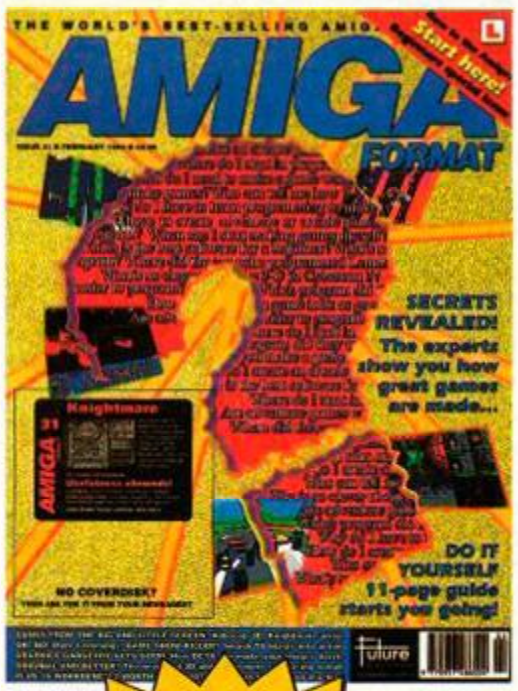
■ Shadow Warriors	74%
■ Golden Axe	58%
■ Total Recall	89%
■ Super Off Road	67%

72%

VERDICT

Choosing a magazine is as easy as...

1 **Amiga Format,** the World's best-selling Amiga magazine, is essential for every Amiga owner, packed with features and reviews.



SUPERB COVER DISK EVERY MONTH

2 **Amiga Power** reviews each and every Amiga game as soon as it appears, it's essential for all Amiga games players.

FULLY PLAYABLE DEMOS EACH MONTH

3 **Amiga Shopper** is packed with tutorials, tips and reviews dedicated to the serious side of the Amiga.

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cheat mode

Cheat Mode **is the place to look for hints, tips and solutions on just about every game ever published! The pokes on the covertape are described in full, too. Got some cheats yourself? Well send them in! We pay £10 for the month's top tips, and £20 for pokes. Send your stuff to: Cheat Mode, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW – who knows, fame and fortune could be yours...!**

SKATEBOARD JOUST

Chris Bennett of Hertford suggests that if anyone has the game *Skateboard Joust* (I haven't), press the keys SHIFT, CTRL and SPACE on the title screen, then press 1 or 2, and when you play you will have infinite lives.

NAVY MOVES

Marc Smith of Abbey Hulton has supplied the password for level 2 of Dinamic's *Navy Moves* – it is 28750.

U.N.SQUADRON

Here's something nice, Simon Stoakes of Heol-Y-Cyw (pronounce that with a mouth full of cream crackers!) Bridgend has a clever way of increasing your chances on US Gold's *U.N.Squadron*. Select a two-player game and put both players on joystick 1. Start the game and move both planes up to the top left hand corner of the screen, wherupon both planes will merge together – you then will have twice the firepower.

Steven Hodgkinson of (Oh dear! Ive lost your address Steve, please let me have it, so I can send your prize) has sent us a map of *Spike in Transylvania* and, to complement his artistic effort, has sunk his teeth into the game and staked out a batch of tips for you to be undead by.

1) The door knob is used to open the door to the start screen.

2) The ploughmans lunch must be given to farmer Piles. He will give you a pair of wellies, which are needed to cross the muddy patch in the middle dungeon.

3) Give personal stereo to the guard by the exit as a bribe.

4) Give the juice of toad, spell book, and bat to Arbold the Wizard; they will then turn into a tie.

5) Wear the tie to get past the Innkeeper.

6) Wear the gloves to ring the bell in the belfry.

7) Get the bone from the middle dungeon and drop it in front of the dog in the rebels' hideout.

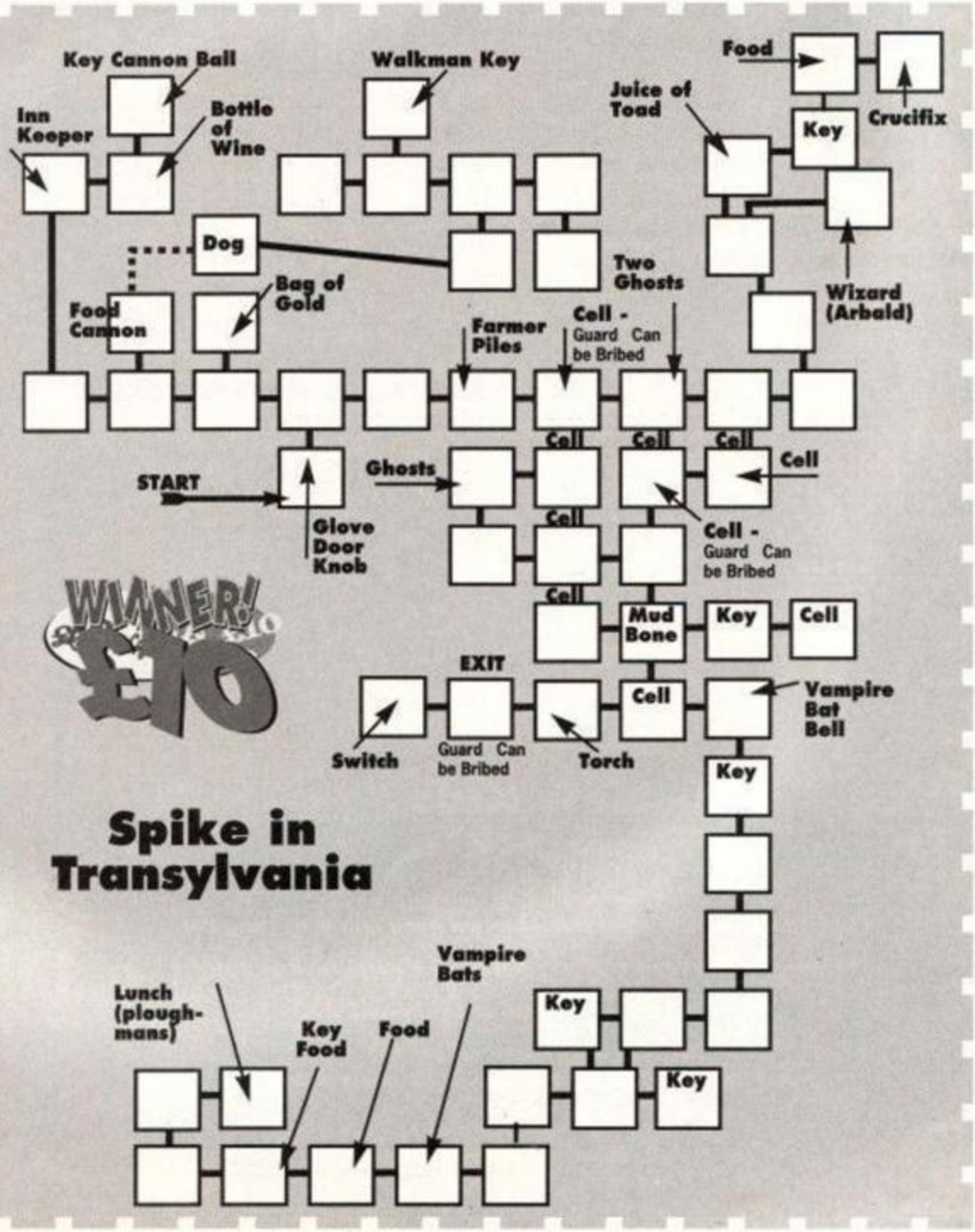
8) Get the crucifix from the church and drop it in the ghastly ghost room. One of the ghosts will drop the spellbook.

9) Flick the switch in the central corridor to stop the spikes in the lower corridor from puncturing you.

10) Flick the switch in the upper dungeon to get past the broken pathway.

11) Get the bottle of wine from the inn and give it to the guard in the deepest dungeon.

12) Push the cannon towards the rock in the abandoned shack. When it stops moving, drop the torch (that is found in the upper dungeon), and the cannon ball (found in the cellar). The cannon will now blow up the rock and allow you to the rebels' underground hideaway.



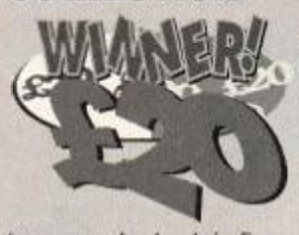
covertape pokes

Every month we put a collection of game pokes on the covertape. These short programs 'modify' the game code when it loads to give you all sorts of extra goodies, like infinite lives...

Also, where we can we give you equivalent Multiface pokes so that you can get the same effect using one of Romantic Robot's little Black Boxes.

See below for details on this month's covertape pokes, plus instructions on how to use them for first-timers, PLUS some tasty Multiface pokes...

HANNA BARBERA COLLECTION



The very excellent Graham (who we haven't heard from for some time) Smith of Street in Somerset has resurfaced, (nice to see you're back in fine poking fettle, Graham). He has put together a major set of cheats for a couple of popular compilations. First, the *Hanna Barbera Collection*, which includes the games *Top Cat* (infinite time and energy), *Hong Kong Phooey* (infinite energy), *Ruff and Reddy* (infinite lives and stops the clock), and *Yogi's Great Escape* (infinite lives and infinite time).

JAMES BOND COLLECTION

Second up is the *James Bond Collection*, which includes *Live and Let Die* (infinite fuel and infinite missiles), *Licence to Kill* (no damage) and *The Spy Who Loved Me* (99 lives). Graham is visibly shaken but not stirred...

● Multiface pokes for the Hanna Barbera Collection

Top Cat

ADDRESS	POKE	EFFECT
7C06	AF)	Inf time
7C07	C9)	
71CD	18)	Inf energy
7472	00)	
7473	00)	
7474	00)	
7625	00)	

Hong Kong Phooey

ADDRESS	POKE	EFFECT
0894	00)	Inf energy
0895	00)	
1520	C9)	

Ruff and Reddy

ADDRESS	POKE	EFFECT
06F8	00	Inf. lives
52C5	22	Slows clock

Yogi's Great Escape

Address		Poke	Effect
07CC	A7	Inf. lives	
1404	AF)	Inf. time	
1405	C9)		

● Multiface pokes for the James Bond collection

Live and Let Die

ADDRESS	POKE	EFFECT
7401	00)	Inf. fuel
7402	00)	
7495	00	Inf. missiles

Licence to Kill

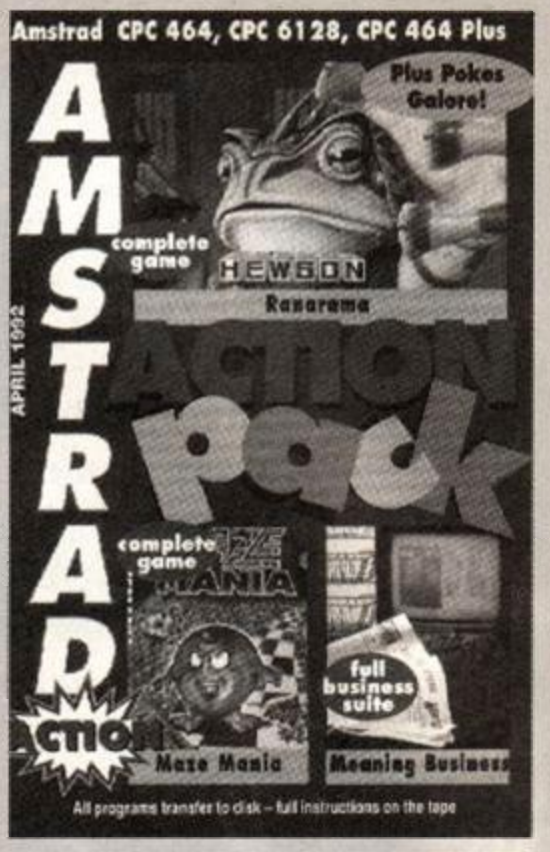
ADDRESS	POKE	EFFECT
1674	00)	No damage
A4F4	00)	
A6E5	00)	
A7EE	00)	
ABF0	00)	
FEED	00)	

The Spy who Loved Me

ADDRESS	POKE	EFFECT
0EFD	63	99 lives

SOFTWARE SUPERSTORE'S 50 GAME DISK

Good old Graham (is there no end?) has also done a super set of cheats for the Software Superstore's 50 game disk compilation. From a menu you can load and cheat on 30 (yes 30) of the games, including *Curse of Sherwood*, *Energy Warrior*, *Apprentice*, *Xcel*, *Spellbound*, *Fly Spy*, *Amaurote*, *Stormbringer*, *Terminus*, *Zub*, *Knight Time*, *Chronos*, *Back to Reality*, *Pipeline 2*, *Finders Keepers*, *Galletron*, *Into Oblivion*, *Locomotion*, *Soul of a Robot*, *The Fear*, *Storm*, *Destructo*, *Ball Crazy*, *Motos*, *Streaker*, *Trashman*, *Nonterraquaeous*, *Golden Talisman*, *Dr Scrimes*, and *Rasterscan*. This just has to be the biggest poke of all time... unless, of course, you know different.



NIGHTSHIFT, SUPER MONACO GRAND PRIX & GHOSTBUSTERS 2

Andy Price, machine code magician and compulsive cheat of downtown Dunstable is never short of a poke or seven. This time he has had a go at 3 disks: Lucasfilms' *Nightshift*, for which he has supplied invulnerability, *Super Monaco Grand Prix*, which gets infinite time but sadly no Multiface version, and *Ghostbusters 2*.

The disk version of *Ghostbusters 2* has been given a clever twist by Andy. The cheat allows you to watch the storyline (digitised screens in between levels) and also select which level you want to play. Plus you can select whether to advance a level when you die. As a type-in, 8 kilobytes is a just bit long, but now we have the covertape, get a load of this...

Multiface poke for Nightshift

ADDRESS	POKE	EFFECT
0858	00	Invulnerability

KNIGHT FORCE

Last but by no means least is a cheat that I have been trying to squeeze in for a while now. it is a double entry (see the tips elsewhere) for the tape version of *Knight Force*. Both are put together by Milford's Garret Flynn.

New Kids Block

1) Load the poke you want from the covertape into your computer.

2) Take out the covertape and put in your game tape or disk.

3) Type \|DISC if you are using a disk poke.

4) Type RUN to run the routine (not RUN "" (CTRL+ENTER) as you normally would)

You should find that the game will load normally, or you will be given instructions what needs to be done.

CAPTAIN "S"

Michael Till of Fleet, who assumes that I won't be including his cheats (never underestimate the eye of a trained cheat Mick!), has the password for part 2 of *Captain "S"* – it is HI SCORE

NEBULUS

For a long time now I have known there was a key-press cheat hidden in the old but classic game *Nebulus*. Terence Smiyan of Chelsea has discovered what it is (well done Terence, I tried and failed!) While you are playing, hold down SHIFT and a number from 1 to 8 – you will be automatically transported to that level and given infinite lives and time to boot. It all seems so easy now...

SLUG

Peter Neeson of Carrickfergus has found a crafty keypress for Alternative's game *Slug* – if you press the keys H,B,N and M during play it will allow you to skip a level.

HARD DRIVIN'

John Stray of Washingborough has compiled the absolute and definitive *Hard Drivin'* guide (so he says). I reckon its pretty good, see what you think. One of these days I'll loop the loop (not much chance in a Fiat Uno, mind).

General:

- Keep the steering central at the start so as not to slow the car
- Be prepared to use both sides of the road and the verges.
- Be gentle on the joystick – hefty waggling causes over-correction.

Stunt track:

- Keep acccelerating up the hill; decelerate when you pass the first 60mph speed limit sign.
- Slide around the bend at 60mph.
- Go down the close to vertical drop at 40mph or less.
- Accelerate until you're close to the bridge then decelerate to about 65mph.
- Take the next corner at 40mph or take it on the grass.
- Centre the steering just before you do the loop – the computer will do the rest.
- When you are out of the loop, go over the hill at around 65mph
- Take the dip at around 60-65mph
- Take the banked section on the grass to save time.
- Go flat out until the finish.

Speed track:

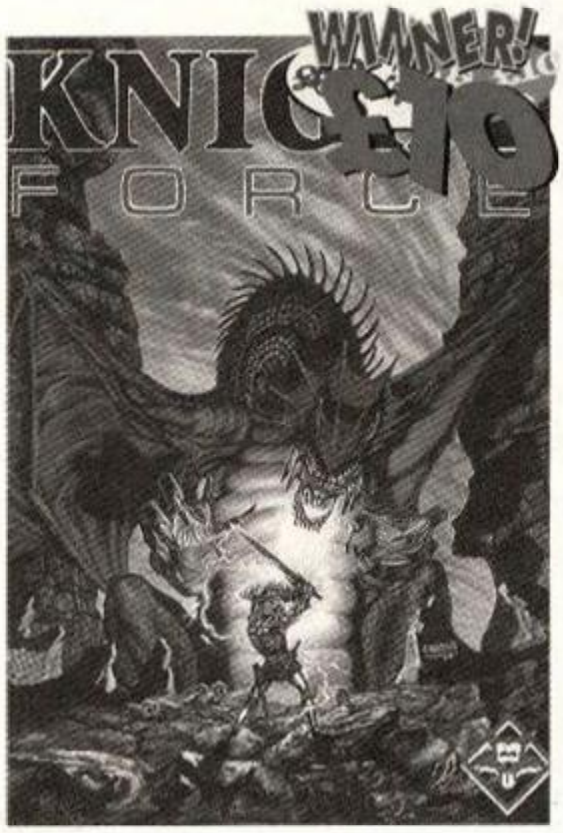
- Any long bends can be taken at between 65 and 80mph

Championship lap:

- Do not overtake on the bridge leap
- If you are miles ahead (not quite John's words) slow down to give you a better chance of winning when you qualify again

KNIGHT FORCE

Knight Force is a graphic masterpiece but difficult to get very far on. Now from Milford's Garret Flynn, and in conjunction with the tape poke he supplied earlier,



here is the rundown on how to play the game. May the Force be with you! (Don't you just hate those predictable jokes?)

Level 1 Walk over to the flowers on the right hand side of the screen. Keep the skeleton just to your left and hit the skulls as they appear on his head using the downward swing. Keep doing this until the amulet appears at the bottom of the screen. Then walk over to the bird as it flies over using the upwards thrust move.

Level 2 Walk to the middle of the cave. Wait for the caveman to get near enough for you to hit and kill him using the downwards thrust move. Keep the sword stuck in him until he dies. Go on killing the cavemen until the amulet appears, then kill the bat using the upward thrust movement.

Level 3 Avoid the hook moving over and back at all times by crouching down (even if you are being attacked); your attacker will always stop – most sporting of him. Kill him by using the lateral thrust move, again hold the sword in him until he drops (pressing the Fire button or space bar repeatedly is no good!) When you have killed enough the amulet will appear, kill the seagull in the usual manner.

Level 4 This is the hardest of all the levels. Kill the springs using the downward lateral thrust, kill the sounding satellites using the downward swing. When the robot appears jump beside it and, as it rolls back, use the lateral thrust move to kill it before it has time to shoot you. When the amulet appears, go and kill the bird.

Final level Kill Red Sabbath by using the lateral thrust move. He will turn into a cloud of smoke and reappear somewhere else. Move around with the cloud and when it reappears hit him before he has a chance to fire at you. Don't worry if the Princess disappears, she will re-appear when you have destroyed Red Sabbath. **AA**

HELP

Here's a brand-new *Cheat Mode* section for all those gamesters well and truly stuck on their fave (or not so fave!) games.

We've broken up the *Helpline* page into queries about games, technical topics and adventures. From now on, if you're stuck on a game, or you simply can't get hold of an old classic, send a postcard (or write on the back of an envelope) to:

Games Helpline
Amstrad Action
Beauford Court
30 Monmouth Street
Bath
Avon BA1 2BW

The normal Helpline rules apply:

DO try to keep it quick and simple – name the game, name your problem, and make sure it's a reasonable request!

DO include your first name and your telephone number. Sorry, we can't print full names and addresses.

DON'T try to advertise 'games for sale' – that's what the *Small Ads* page is for. This section is for people who need help only.

And now, just to get the ball rolling, is the first batch of readers' pleas...

Has anyone got *Sorcery* on tape for the Amstrad 464?
Ron, 0582 873267 after 5pm

Wanted: *AA* mags 55 to 59 or all the cheats in those mags. Will pay good prices for mags.
Jim, 081 848 7493

Help please: I cannot get past Level 1 of *The Simpson* disk game.
Debbie, 0504 268797

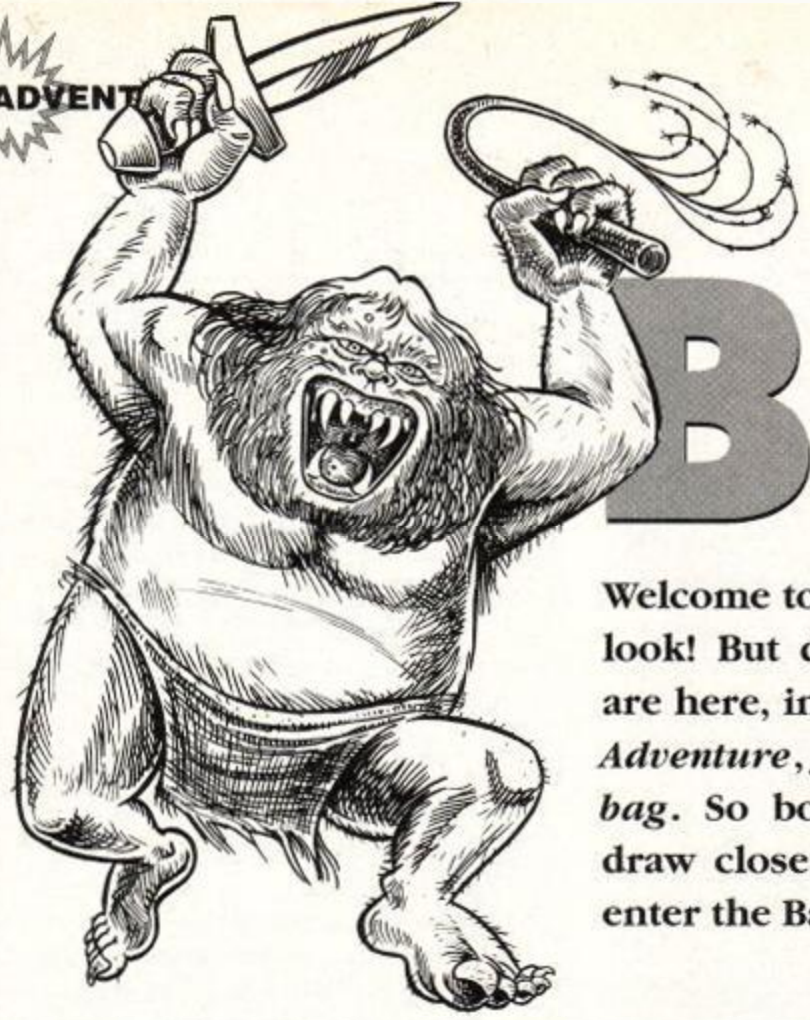
Help wanted on *Bubble Bobble*. I don't know the type-in code (CPC464 cassette). Also wanted: TV modulator MP1 (464).
Warren, 0533 768765 4pm-9pm

Help please with *Sweevo's World*. How do you collect a BOO? I have a problem with my TINS, BLOCK & FULL.
Angela, 0344 428053

I will offer *Slapshot* for any help on *Hammerfist*.
David, 0375 843096 outside school hours

Help needed on *Batman the Movie* and *Untouchables*. Help given on *The Simpsons*, *Sim City*, *Kick Off 2*, *Ghostbusters 2*, *Back to the Future 2* and *Indiana Jones and the Last Crusade*.
Pete, 0302 855107 6pm-9pm

Please, can anyone tell me what finally kills the Necromancer in *Sorcery Plus*?
Eileen, 0582 873267 5pm-9pm



the Balrog

Welcome to a Balrog section with a brand new look! But don't worry, all the old favourites are here, including *Cluepot*, *Lords & Ladies of Adventure*, *Just for laughs* and *Balrog's Postbag*. So bolt the doors, light the lamp and draw close around the fire as we once more enter the Balrog's domain...

Contacting the Balg

To get in contact with the Balg, write to him at: Amstrad Action, Future Publishing Ltd, Beauford Court, 30 Monmouth Street, Bath, AVON BA1 2AP or e-mail at cazsjw@uk.ac.leeds.dcs.

This month's scintilating collection of clues are from Thomas Christie (Grangemouth), Babooshka(?!) (Scarborough), Jonathon Constable (Kendal), Laurence Boyce (Leeds), Robert Melody (Surrey), Daniel Philpott (Huntingdon), Chris Morgan, Brendan 'Legolas' McGoldrick (Northern Ireland), Mayur Maha (Orpington), Lee Hatton (Northern Ireland) and Jonathon Papworth for his map of *Hero Quest*.

Apache Gold

• The password to open the wigwam flap is MONIGERO.

Big Sleaze

• There is a pawn shop in Kenmore street in part three. Use the cloth found in Chinatown to find the secret of the statue of liberty...
• You can find the four parts of the torn photograph with the objects the dog leaves in your office, inside the couch at Ben's apartment in Imrahd Street, in the desk in the office of 21st Street and inside the assassin's leg in Chinatown. When you have all four pieces take them to the dame's apartment at Brooklyn Heights.

Boggit

• In the Goblin's Dungeon you can find the egg and the ring. Wearing the ring stops the goblins from spying on you. Make sure you have the egg when you escape as the eagle will think that it's hers and rescue you. The backdoor is to the east of the 'goblins refuse' location.

Heavy on the Magick

• The password to gain entry through the door which leads into Wolfdorp is "Wolf".
The silver nugget destroys the werewolf in wolfdorp. After picking up nugget which lies on a rock in the methos, drop the nougat (found in Trollwynd) on the same rock to make the "cloud" go back in its basket.
• Three door passwords are – lunacy, eleven and silence (although to keep it interesting I'm not going to tell you which doors!)

Hobbit

• To get from the Elvenkings dungeon to Lake Town, wait until "Someone opens the Red door." then W, wear ring, S, keep waiting and wearing the ring until the butler throws a barrel through the trapdoor... then jump onto barrel, e.

Imagination

• Dig loose earth (use long spade) to get RAF gloves.
• You'll need the infinite lives poker to climb up ladder.
• Examine the old man and bunk bed.

Ingrids Back

• Hide behind the sunbed and wait for Jasper. When he comes he will go into the changing room. Get unchanged and come out – he will go to the pool so you can go into the changing room to get the faxofile.
• Sit on the bird and tell it to go to the lighthouse when you have all the evidence in part 3, Daisy will disappear but don't worry as you won't need her any more.

Knight Orc

• To get the green knight's horse reins, bid him hello. When he challenges you and hands you the axe, do not attack him (he can live without his head!), instead chop off his horse's head – his horse will fall and pin him to the ground so you have time to quickly steal the reins.
• The hermit is a mine of mostly useless information but give him something golden to get his belt.

Lords of Time

• Zone 1: To cross river tie rope to planks. • Give Narcissus mirror – He will give you Lodestone, use this to get keys to shed.

Price of Magik

• Cast the ZEN spell to allow quick access to rooms.
• You need the FLY spell to get past the ice room.
• Pull the rope.
• The BOM spell is very useful. You need to wait near the grandfather clock to learn it, and use the trumpet as a focus (get the trumpet from the Cherub).
• Cast BOM at the picture of Stonehenge.
Cut the vine with the knife and the mirror with the diamond to get two important spell foci.

Quest for the Golden Egg-Cup

• Give exploding beans to the guard.

Sharpe's Deeds

• Give the rod to the blacksmith to get bellows, then go to Sharpe's grave, find the ticket, go to the train station, give ticket to the stationmaster, open cardboard box, get dinghy and inflate it. You can now cross the river. To get rid of the swan, get bottle, give bottle to bartender, go to bakery, buy the loaf of bread, go to swan and give the bread to the swan

Help please!

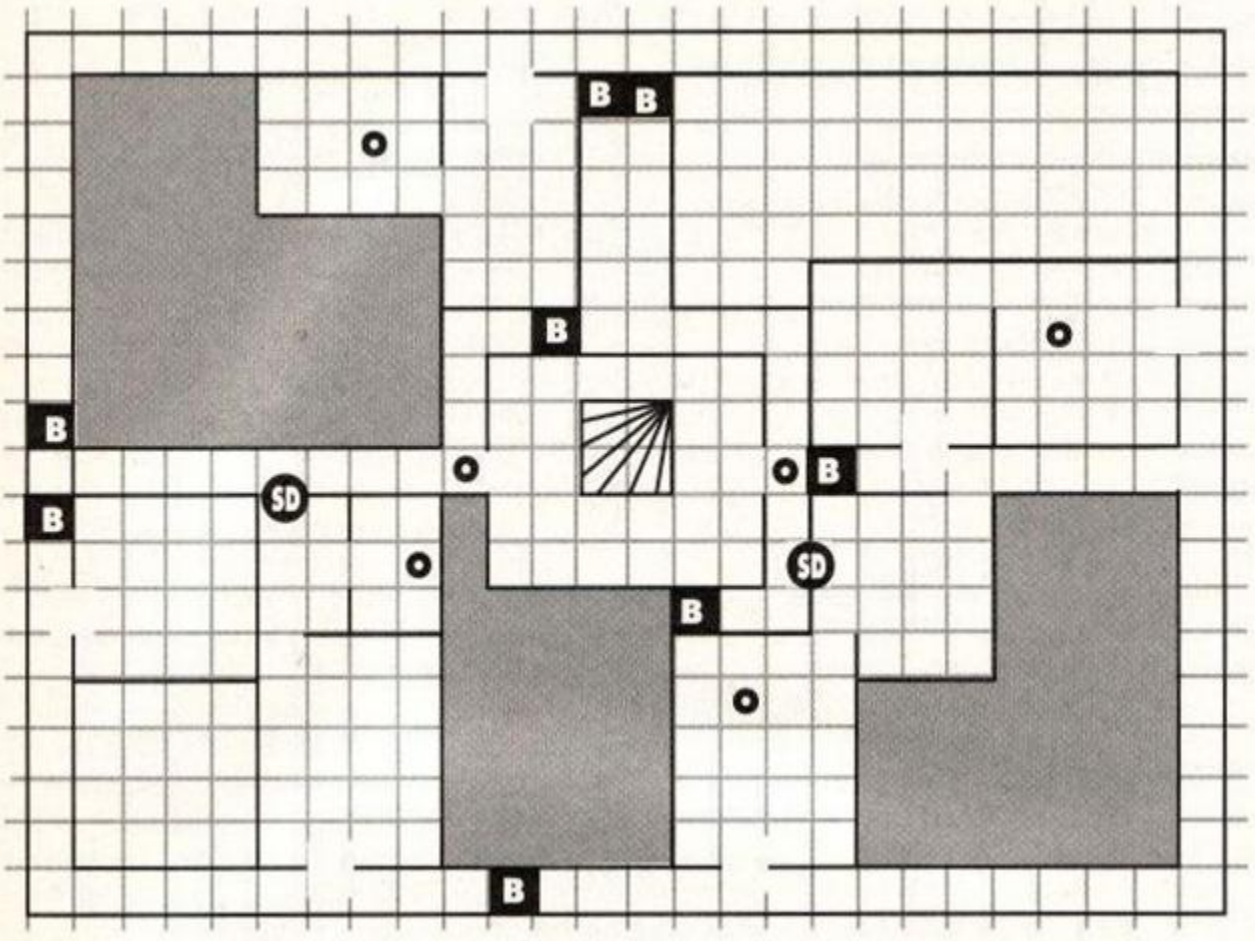
Simply Magic **Lee Hatton from Northern Ireland is well and truly stuck in this game – what is the code to the silver casket and how do you get the parchment in the room of frustration?**

Corruption **Katharyne Allen from Guernsey is stuck and can find no-one who has completed the game (you're right, Katharyne, none of the Lords and Ladies have done it!) How does she get into the casino and where can she drive the car as the traffic always seems too bad to let her get anywhere?**

WizBiz **Mrs Smith is stuck in – she doesn't know how to pass the dog and dragon.**

Hero Quest Map: level one

by Jonathon Papworth



The Maze

- B — BLOCKED WAY
- o — ORE
- SD — SECRET DOOR
- STAIRS

Lords and Ladies of Adventure

More valiant and brave adventurers offer their services to us mere mortals. Remember to phone during sociable hours and to enclose an SSAE when writing for a reply.

Hitchhiker's Guide • Leather Goddesses • Lurking Horror • Moonmist.
Ken Dean, 63 Elmhurst Avenue, Oulton Broad, Lowestoft, Suffolk NR32 3AR.

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Debby Howard, 10 Overton Road, Abbey Wood, London SE2 9SD.

Apache Gold • Atalan • Base • Bestiary • Black Knight • Boggit • Bored of the Rings • Castle Blackstar • Castle of the Skull Lord • City for Ransom • Classic Adventure • Colour of Magic • Cursed Be the City • Dodgy Geezers • Dracula • DAA • Escape from Koshima • Espionage Island • Fantasia Diamond • 4th Protocol • Gremlins • Grue-Knapped • Guild of Thieves • Heavy on the Magick • Helvera • Hobbit • Hunchback • Imagination • Inca Curse • Island • Jinxter • Kentilla • Kobyashi Naru • Mindfighter • Mindshadow • Mordon's Quest • Mountains of Ket • Mystery of the Indus Valley • Necris Dome • Never Ending Story • Not a Penny More Not a Penny Less • Nova • Panic Beneath the Sea • Pawn • Planet of Death • Project Annihilation • Project Volcano • QOR • Quest for the Golden Egg-cup • Questprobe 3 • Rigel's Revenge • Robocide • Scary Tales • Seabase Delta • Seas of Blood • Smashed • Smuggler's Cove • Souls of Darkon • Spiro Legacy • Spytrek • Star Wreck • Subsunk • Sydney Affair • Terrormolinos • Test • Top Secret • Vera Cruz Affair • Very Big Cave Adventure • Village of Lost Souls • most Topologika, some Infocom, ALL Level 9, Interceptor and WoW games!
Joan Pancott HPilg, 78 Radipole Lane, Weymouth, Dorset DT4 9RS. Tel: (0305) 784155 Any day – 1pm to 10pm.

Colour of Magic • DAA • 4th Protocol • Gems of Stradus • Not a Penny More Not a Penny Less • Return to Eden • Scary Tales • Vera Cruz Affair.
William Conlon, 171 Mulvey Park, Dundrum, Dublin 14, Ireland.

Forest at World's End • Kobyashi Naru • Message from Andromeda • Quest for the Golden Egg-cup • Rigel's Revenge • Snowball • Venom.
Bill Bennett, 171 Stapleton Hall Road, London N4. Tel: (081) 340 3884.

Redhawk.
Lars Arell, Angsrogatan 1B, 554 39 Jonkoping, Sweden.

Al-strad • Astral Plain • Book of the Dead • Federation • Hermitage • Imagination • Teacher Trouble • Tealand.
Peter Knowles, 102 Standhill Crescent, New Lodge, Barnsley, South Yorkshire S71 1SS. Tel: (0226) 292141

Big Sleaze • Lord of the Rings • Not a Penny More Not a Penny Less (part 1) • Quest for the Golden Egg-cup • Shadows of Mordor.
Brendan "Legolas" McGoldrick, 14 Curley Hill, Strabang, County Tyrone, Northern Ireland BT82 8LP.

Adult 1 & 2 • Al-Strad • Big Sleaze • Boredom • Burlough Castle • Can I Cheat Death? • Case of the Mixed-up Shymer • Castle Blackstar • Cave Capers • Cursed be the City • Doomlords I-III • Dracula • Druids Moon • Dungeon • Experience • Firestone • Frankenstein • Gnome Ranger • Gremlins • Jason & the Argonauts • Kobyashi Naru • Magicians Apprentice • Mystery Indus Valley • Price of Magik • Project X (Microman) • Roog • Scapeghost • Souls of Darkon • Spacy • Storm Mountain • Stryptiche 1 & 2 • Swamp Thing • Theseus • Venom • Welladay • Wolfman.
Mark Wake, 2 Oatland Close, Little London, Leeds LS7 1SW.

GAC programming tutorial PART 3

This month we look at the 'guts' of the adventure – the conditions. Conditions are used for puzzles and programming the adventure how to react to different situations and player input...

There are three types of conditions: local, high priority and low priority. *GAC* processes in the following order:

1. Print start room description
2. Do HIGH PRIORITY conditions
3. Get the adventurer's command
4. Check for connections and if so, move
5. Do LOCAL conditions (Specific for a room)
6. Do LOW PRIORITY conditions (General commands)

For example, if you want the computer to describe a room when you type the command 'LOOK' then you would put the following code in the LOW PRIORITY conditions section:

```
IF ( VERB 7 ) LOOK WAIT END
```

So, the general form of a condition is:

```
IF ( some conditions) some actions END
```

If the conditions are true, then the actions are performed. For more explanation look at the bank adventure example in *AA76* and *AA77*.

All the GAC conditions are:

VERB n Has VERB n been typed? (n is a number in the verb list) VERB 7 will give a TRUE answer if verb number 7 was typed, otherwise it will give FALSE.
NOUN n Has NOUN n been typed? (similar to VERB)
ADVE n Has ADVErb n been typed? (similar to VERB)
HERE n Is object n HERE in the same room/location as the player? For example, if you are in room 3 and object 1 is there then HERE 1 will respond TRUE.
CARR n Is object n being CARRied?
AVAI n Is object n AVAIlable for use? (i.e. HERE or being CARRied)
x IN n Is object n IN room x? If object 1 is in room 3, then 1 IN 3 will be TRUE.
WEIG n Give the WEIGht of object n.
SET? n Is marker n SET? (If you're not sure what markers are then look in AA77.)
RES? n Is marker n RESet? (Markers 0-2 have special values defined below:
Mkr 0, if set, means that a room has been described since it was last reset.
Mkr 1, if set, means you are in a light room. Otherwise you are in a dark room.
Mkr 2, if set, means you have a lamp or some other source of light.
If markers 1 and 2 are both reset, then the program will refuse to describe rooms, coming up with the "It's dark" message instead, since you are in a dark room without any light.
Mkr 3, if set, disables the scoring mechanism when you exit from the game.
CTR n Gives you the value of CounTeR n. (For more details on counters see AA77.)
x EQU? n Is x EQUal to the value of counter n?
TURN Gives the number of TURNs since the start of the game.
ROOM Gives you the room number of the ROOM you are currently in.
AT n Gives a TRUE answer if you are AT room number n.
condition AND condition Will give a TRUE answer if both of the conditions give TRUE answers, e.g. VERB 1 AND NOUN 2 will be TRUE only if verb 1 and noun 2 are both typed.
condition OR condition Will give TRUE if either conditions are TRUE, or both.
condition XOR condition Will give TRUE if one of the conditions is TRUE and the other is FALSE.
NOT condition Will give a TRUE answer if the condition was FALSE, and vice versa. So NOT VERB 1 will be TRUE if VERB 1 is FALSE.
x < y Gives TRUE if number x is less than number y.
x > y Gives TRUE if number x is more than number y.
x = y Gives TRUE if x is equal to y.
RAND x Gives a RANDom number between 0 and (x-1). So RAND 10 might give any number at random in the range 0 to 9.
VBNO Gets the number of the verb in this command.
NO1 Gets the number of the first noun in this command.
NO2 Gets the number of the second noun in this command.
NO1 and NO2 are used to check word order, and to GET and DROP objects without having to have a condition for each one.

All the GAC Actions are:

LOOK Describe the room you are in at the moment.
DESC n DESCribe room number n.
PICT Turns the PICTure display on.
TEXT Turns the picture display off, giving a TEXT only adventure.
GET n GET object number n. If it isn't here, or you've already got it, or it's too heavy, then the appropriate message is printed.
DROP n DROP object number n. If you haven't got it, then the appropriate message is printed out.
x SWAP y Exchange objects x and y.
OBJ n Describe OBJect number n.
LIST n LIST all objects in room number n.
LIST WITH LISTs all the objects carried WITH you.
x TO n Move object number x TO y. To destroy an object move it to room 0.
SET n SET marker n.
RESE n RESEt marker n.
x CSET n Set x to be value of counter number n.
INCR n INCRease counter n by one. The maximum is 255.
DECR n DECRease counter n by one. The minimum is 0. Trying to increase past 255 or decrease past 0 is ignored.
GOTO n GO TO room n and describe the new room.
CONN n This checks through the CONNection table for a connection from the current room using verb n. If one is found, this gives the room number of the room you would move to if you took the connection, If not, then it gives zero. As an example, if you were in room 3 in the bank adventure, CONN 4 would give 4 because in the connections from room 3, verb 4 (W) would take you to room 4.
STRE n Set the maximum weight you can carry to n. STRE is short for strength.
BRIN n BRINgs object n here (if it exists).
FIND n FIND object n and move to it (if it exists). This does not acknowledge any restrictions (such as connections), so it could be useful in a magic spell or summoning.
SAVE SAVEs the current game position to tape or disk.
LOAD LOADs the current game position from tape or disk.
WAIT WAITs for a new command.
OKAY Prints "Okay" and awaits a new command.
EXIT Stops the game. The player is NOT asked, so this is for use when the player gets killed or wins.
QUIT The player is asked if s/he wants to continue, and if they type "N", for "No" when asked if they are sure, the game continues, else the game is abandoned.
MESS n Prints MESSage number n.
PRIN n PRINt number n.
LF Prints a LineFeed. Everything from here is printed on a new line.
WITH Is equal to the room number of where things are put when you are carrying them.
HOLD n HOLDs up the game for n fiftieths of a second. For example to freeze the game for 10 seconds use HOLD 500.
x + y Returns the value of x added to y.
x - y Returns the value of x minus y.

In all the above, n, x and y need not be simple numbers. They can be complex expressions (like 2+2 instead of 4 or other words such as CTR 1 or NO1), but expressions should be enclosed in brackets, e.g.

```
IF ( VERB 3 ) GET 1 OKAY END
```

will become:

```
IF ( VERB ( 3 ) ) GET (1) OKAY END
```

GAC Programming Clinic

If you have any questions on the use of GAC or specific GAC-related problems and queries then jot them down and send them to the **Balg's GAC Programming Clinic** at the usual AA address.

BALROG'S POSTBAG

If you have any comments, suggestions or just general views on the adventure world, the Balrog column or any other adventure subject then why not jot them down and send them to the Balrog's Postbag at the usual address...

ADVENTURER PROTECTION?

Whilst programmers have the law to protect them against the punters copying their programs, there seems to be little or no protection for the punters against the programmer – e.g. someone who buys an adventure which is badly-written or impossible to solve. Don't you think there should be some law for the people that play the games?'

Jim
Cambridge

Ummm... I can see your point but I think it would be very difficult to implement! Your best bet is to stick to magazine reviews and word of mouth, then you can usually be sure of paying for a quality game. However, if you think a game is really awful then your best bet is to write to the makers and complain.

PILG QUOTE

Here is a quote from the Adventure section of *AA28* – "Some pessimists are even predicting the demise of the CPC adventure market with a future limited to home-brew *GAC* titles and the occasional budget release". It seems as if the 'pessimists' were right doesn't it?'

Robert Melody
Surrey

Umm... Maybe so but then people have been predicting the demise of the Amstrad as well of the Amstrad adventure scene and yet *Amstrad Action* is still here at issue 79! Granted the 'major' adventure companies have pulled out of the Amstrad market but this is not a reflection on the Amstrad – Level 9 and Infocom have all but disappeared and Magnetic Scrolls has only released one game since *Fish*! However there has been a rennaisance of adventures on the Amstrad – OK, most of them are GAC offerings, but every now and then a jewel stands out and shows that smaller companies can produce very enjoyable games. In fact in the past years the number adventures released on the Amstrad has grown fantastically, thanks to the efforts of these small companies and PD libraries such as Adventure PD.

GAME RECOMMENDATIONS

I know how much you love adventuring and I was wondering if you have ever tried playing any Games Workshop board games. Then you could stalk around dungeons, devouring careless adventurers and rampaging through peasant villages on a board in front of you instead of on the computer.

Also, could you recommend any good, cheap, cassette-based, fantasy, dungeonstalking, village-rampaging (got the idea?) adventure games for the CPC464?

Lee (Dungeon Stalker) Hatton
Northern Ireland

■ **Who needs to play boardgames when the CPC has got *Hero Quest*?**

"...instead of on the computer"!??! I'm sorry, Lee, you've got it all wrong! The Balg stalks around dungeons, devouring careless adventurers (and careful ones as well!) as his job – playing computer adventures is only my hobby!

Anyway, the sort of games you are looking for are available on the Amstrad – I recommend *Hero Quest*, *Lords of Chaos*, *Bloodwych* and *Bards Tale* to keep you going (although you might experience difficulty getting your hands on *Bards Tale* nowadays). All four are brilliant role-playing games and are great fun. In fact, *Hero Quest* is a conversion of a Games Workshop game so you should be right at home with it!

JOLLY GOOD!

I recently wrote to Beau Jolly, the supplier of the *Tolkien Trilogy*, about a problem I have encountered with *The Hobbit*, and commented that I was disappointed to have only been able to obtain the tape version of the game. In response, they not only answered my query, but supplied me with a free disk with two games from the trilogy. I feel that this courtesy merits a little publicity.

Dave Stokes
Roslin

A big gold star to Beau Jolly for their efforts – it's good to hear when people have praise for companies instead of criticisms.

GAC manual offer

Can't wait for forthcoming instalments of the GAC programming tutorial? Well it's not too late to order your copy of the GAC booklet supplied with the program. Write to: GAC Booklet, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW, enclosing a cheque/postal order for £2.99 made payable to Future Publishing Ltd.
ARE YOU WAITING FOR YOUR GAC BOOKLET?
Sorry, but due to unprecedented demand, we've had to get loads printed – hence a delay in sending out copies. SORRY. Your manual will be with you soon.

Just for laughs

This month's collection of humorous responses comes to you from Thomas Christie (Grangemouth), David Mann, Jonathon Crompton (Denton), Steven Haddon (East Calder), Ainsbrith (Sage of Dwarn Front) and Mark Wake (Leeds).

Al-strad
- Drink water from stream.

Asylum
- Swear
- Fart

Bar trek
- Examine and talk to the worm.

Base
- Try emptying the pot and waiting.

The Big Sleaze
- Try kissing the woman in the room with the obelisk.
- Smash window in office.
- Kiss dame.
- In part 2 at night, go north into central park.
- Examine calendar in Joe's diner.

Red moon
- Swear

HELP

As you will have read elsewhere in the magazine (and if not, why not?!), the *Helpline* section is being broken up into its component bits and spread throughout the magazine. This means that pleas for technical help will go to the *Technical Forum* section, while requests for hints and tips on games will go to *Cheat Mode*. Each section in the magazine will have its own *Help* section – and *Balrog* is no exception.

The previous *Helpline* rules apply.

- **Send your requests in on a postcard, or the back of an envelope**
- **Keep it short. The shorter the *Help* entries, the more we can squeeze in**
- **Don't try to sell anything! That's what the *Small Ads* page is for. *Help* is for people who are genuinely looking for help or who want to help others**
- **Make sure you include your first name and telephone number.**
- **The address for all your adventuring queries is: Adventure Help, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW**

public image

Waaahey! Look out below, it's our new page covering PD libraries, fanzines and user groups. Here comes ADAM PETERS...

■ **Wacci rises from the ashes with CPC freak Clive Bellaby at the helm.**

AS WACCI AS EVER

Of all the organisations operating within the Amstrad PD scene, one of the most famous and most well respected is WACCI. A large CPC user group with a monthly fanzine and a vast selection of PD software, WACCI was established six years ago by one Steve Williams.

The group collapsed in the middle of last year amidst massive financial problems, and Mr Williams disappeared to pastures new. Everybody assumed that was the end of WACCI. Tears were shed, eulogies were written, and everyone mournfully wandered into the sunset...

But wait! Late last year a certain Clive Bellaby from Nottingham got together with some other former WACCI members and set about reviving the great beast. We thought we'd drop in on Clive and get the full SP, but we couldn't afford the train fare. So we phoned him instead.

Hello Clive, how's everything going?

"Really well. Approximately 400 people have re-subscribed, the majority have sent some extra money on top of the subs rate. Subs are currently coming in at the rate of two or three a day. We've had two letters from people very angry at Steve [Williams], but most sympathise and wish him all the best in his new venture [an Amiga fanzine]."

Any plans for the PD library arm of WACCI?

"We're expanding the Amsdos side quite rapidly. All the PD stuff is now presented in a more user-friendly manner. COBOL, for instance, originally consisted of the program plus a 20K DOC file. Now we've got a disk containing 150K of code – the original files, some utilities, a complete set of example programs, the original WACCI programming series, etc. Basically everything you need from first putting the disk in to writing your own advanced COBOL programs."

So what's WACCI all about then?

"It's a non-profit making collective of Amstrad enthusiasts. We have experts in every field, and have a telephone helpline service to help sort out members' techie problems. We run our own bulletin board (☎ 0252 318557 v21/22/22bis) open to everyone. We've a large homegrown library, including some formerly commercially-relèased games. Everything's run by committee, and we have a members' charter governing the group's organisation."

Clive is 39, runs a domino league, and is one of the driving forces behind the resurgence of the veteran user group. But he's only one of the vast group of people that go to make WACCI one of the best user groups of any kind in the world.

For more info, send an SAE to: WACCI, 12 Trafalgar Terrace, Long Eaton, Nottingham NG10 1GP.

PS The WACCI crew consists of some of the leading figures in CPC computing, including one Paul Dwerryhouse as treasurer. The Paul *Dwerryhouse* of *WACCI* shouldn't be confused with the "Paul *Derryhouse* of *Scull PD*" we mentioned last month. Er, actually it's the same geezer. We got it wrong last month (oops).

Look out for a regular WACCI page, coming soon...

NEXT MONTH

Next month in *Public Image* we will give you the low-down on all the top Amstrad user groups, rap with the man behind Robot PD, and give you all the latest gossip from the PD world. Don't miss it.

public postbox

Here's some more PD library addresses for you, readers. Chuck these ones in your Filofax along with all those from last month. Oh, and please remember to enclose an SAE (stamped, self-addressed envelope) when requesting your free catalogues from any of these lovely people...

Dragon PD, The Flat, 45 Whitehall Road, Bristol, Avon BS5 7BP. Er, it's a PD library (send us a catalogue, whoever you are).

Data PD, 202 Park Street Lane, Park Street, St Albans, Herts AL2 2AQ. One of the biggest and most popular libraries around, Data has a large stock of disks, is very helpful to new libraries trying to get off the ground, and you can get hold of its catalogue and news disk by sending a blank disk and an SAE. Hurrah!

John Fairlie, 20 Montague Road, Saltford, Bristol, Avon BS18 3LA. It's that man who wrote *Rambase 2* on the *AA72* covertape. And just look at that - he's got a whole stack of PD progs under his bed, and he whacks them out as individual files (so you can just choose the files you want, instead of getting a disk containing a particular set of progs). Lots of *AA Type-Ins*, loads of programming languages, tons of stuff, all going for only 1p per K. Wow! Send off that SAE today.

Paul Fairman, 39 Woodlands Road, Barry, South Wales CF6 6EF. Paul doesn't run a PD library. But he's an ace geezer. Listen up - if you've got a disk drive, can run CP/M, and want to do some word processing, you need the excellent *VDE* program. Paul has put together a disk containing *VDE*, a spell checker, 7000-word expandable dictionary, plus a couple of customisation utilities. And he's willing to bung you a copy completely free! Just send a blank disk, together with a stamped addressed envelope. Nice one Paul, you're a scholar and a gentleman.

MPD Software, 23 Nobes Avenue, Bridgemary, Gosport, Hampshire PO13 0HS. Martin Elliot was responsible for the *Deluxe Word Print* prog in last month's *Type-Ins*. It was a good program. Martin Elliot runs MPD Software. So it's probably very good too. Hmm, yes.

Yorkie PD, 11 Beechwood Avenue, St Albans, Herts AL1 4XP. A small but expanding selection of programs, and the second CPC PD library to come from the town that always used to win *It's A Knockout*.

TOTAL is the only mag that's 100% dedicated to Nintendo gamers. So if you own an NES or a Game Boy...

... You'd better get issue three of TOTAL. Out now!

BUDGET BONANZA

What a lot of new features we've got in *AA* this month. (*Technical Forum*, *BASIC tutorial*, *Public Image*, etc.) So we'll only have room for one page of *Budget Bonanza* then? No chance, it's two pages as usual (aren't we fab?)...

re-releases

MULTIMIXX 4

Kixx ■ £4.99

It's another Multimixx 'concept compo'. The concept this time is, er, *Gauntlet* style games. Oh, all right then, just plain *Gauntlet* games; *Gauntlet*, *The Deeper Dungeons* (*Gauntlet* Expansion Kit) and *Gauntlet 2*. If you don't know what *Gauntlet* games are like, try playing *Ranarama* on this month's covertape, and that's sort of what they're like. The basic idea is to explore a dungeon, killing foes, collecting treasure, and mainly just trying to survive for as long as possible. There's an excellent two-player mode as well, but this pack is basically just three versions of the same game.

F-16 COMBAT PILOT

Action Sixteen ■ £3.99/£9.99

An AA Mastergame and just about the best flight sim ever, *F-16* makes it to the budget shelves courtesy of Digital Integration's (16-bit) budget label, Action Sixteen. *F-16* sits you in the seat of, er, an F-16 fighter plane. You have six different missions, one of which (Conquest) can only be selected once you've

QUATTRO FANTASTIC

CODEMASTERS • £3.99

What's all this about then? Er, well it's pub games mainly. Someone at Codemasters probably didn't like the idea of calling it *Quattro Pub*. This is the first Quattro pack to include a new (never before on the CPC) game, a lovely little venture entitled (rather strangely) **Wacky Darts**.

Like Alternative's *180*, *Wacky Darts* features a hand floating in front of a dartboard. The hand is yours and the Fire button will release the dart attached to it. There's a lot more to it than that, though, with different characters, plenty of comical incidents, and a brilliant selection of graphics.

Amongst the other games on the pack is **Fruit Machine Simulator**. A lot of people were puzzled when we gave this 0% in our *Mega Pack* review, but we stand by our original criticisms. Never mind all the nudges and silly stuff like that, fruit machines are mainly about luck. The only interest the real ones provide is that money's involved. Without that you might just as well have a 'Toss of the Coin Simulator'.

■ **We gave this 0% last time. We've had a change of heart though. We'll give it two.**

■ **It's roulette time folks. Place your bets ladies and gentlemen, place your bets.**

QUATTRO FIGHTERS

CODEMASTERS • £3.99

In the air or on foot, it's time to don that uniform and do battle with a myriad of different enemy forces in the latest Codies *Quattro* compilation.

The best game is **SAS Combat Simulator**, a kind of *Rambo/Mercs* style overhead viewed shoot-em-up. You're a dead hard SAS dude, foolishly taking on the entire enemy army on your tod. Unless you can find a mate, in which case there'll be two of you against the two hundred of them. **Turbo Chopper** is passable. Just imagine a single-screen *Airwolf* where the main enemy is yourself (your shots ricochet round the cave till they find you!).

Hmm. **MiG 29 Soviet Fighter**, on the other hand, is a naff *Afterburner* style thing with 'budget game' written all over it in indelible ink. **Guardian Angel** is a kick-em-up in the *Double Dragon* vein. Unfortunately, you can only move along one horizontal plane, enemies only appear in gangs of twelve, and the graphics are so naff you haven't got a clue what's going on. Tsch.

■ ***Guardian Angel* plays as well as it looks (ahem).**

■ ***MiG 29* is like *Afterburner* minus all the good bits.**

■ ***SAS Combat* is *Rambo*, er, without Sylvester Stallone.**

■ **Tears for Fears. I know, I bought the 12-inch. Oh, er, ha ha, it was for a friend (gulp).**

■ ***Wacky Darts* is an ace little venture, here on the CPC for the very first time (hurrah).**

Monte Carlo Casino gives you six different games, including roulette, craps and others you'd expect to find people losing money on in Las Vegas. Most of these involve a lot more than just luck, too. Neat graphics, neatish game.

The final game, **Pub Trivia**, is a quiz thing. It's very difficult, though, as you only have 10p (one go) to start with, and some of the questions are right stinkers.

All in all, with a fab new game included, *Quattro Fantastic* is probably the best *Quattro* pack yet. Fantastic! (groan)

compilation

■ Wacky Darts	85%
■ Fruit Machine Simulator	2%
■ Monte Carlo Casino	56%
■ Pub Trivia	76%

81%

VERDICT

DOUBLE DARE

ALTERNATIVE • £3.99

■ **Well it's definitely not Henry VIII. (She didn't have a beard in it.)**

■ **It's challenge time, and here comes Madonna's impression of Marilyn.**

Kids' TV licence ahoy! Er, that is to say that this is a game based on a kids' TV programme, and Alternative has had to acquire a licence to produce it. It's got nothing to do with TV licences like what you have to buy down the post office or anything. (*Get on with it – ed*) All right, all right, don't rush me.

Double Dare is a game of two halves. The first half is a quiz section where you compete against the computer in answering questions. This seems a trifle unfair – the computer must know all the answers otherwise it wouldn't know whether you'd got your question right. Cheat City, Arizona!

There are some challenges (e.g. picture puzzles) involved in this section, but they're hard to come by – you need to pass a question to the computer ('Dare') and then have it passed back to you ('Double Dare'). Unfortunately, the computer always gets it right (it knows all the answers).

If you win the quiz (your reviewer managed this on his first go, but then he's ace) you go on to the collecting and jumping around in piles of gunge platformy bit. You can keep going at this till you win.

Double Dare is quite fun, though the questions are quite hard and many relate to old films and boring nob like that. But if you like the idea of two games (a quiz and a platform game) for the price of one, *DD* could be the purchase for you. Well done (Alternative)!

■ ***Turbo Chopper* is a bit daft but quite jolly (shame about the title).**

compilation

■ SAS Combat Simulator	61%
■ Turbo Chopper	57%
■ Mig 29 Soviet Fighter	31%
■ Guardian Angel	30%

43%

VERDICT

■ **Gungerama! Ignore the primitive graphics, one of those balloons contains a flag. Grab it.**

The questions are too difficult, the challenges never happen, but *Double Dare* is still fairly fab.

72%

VERDICT

re-releases

completed the other five. Every mission is randomly calculated, so your route will be different each time. Once you've kitted out your plane, you take to the skies. The game shifts to a 'driver's seat' view of the action, and the massive array of numbers and dials on the screen let you know that there's more to this one than just heading in the right direction and firing occasionally. The disk version will please people annoyed at the distinct lack of budget software on disk, but look at that price (£2 more than the Amiga version!).

TOYOTA CELICA GT RALLY

90%

GBH ■ £3.99

The latest budgie re-release from the Gremlin posse is a tricky race-em-up. You get a driver's seat view of the road and race against the clock. It's so hard to keep the car under control that all you will see for your first dozen or so goes is lots of smashed windscreens. A bit dull.

GHOSTS 'N' GHOSTS

Kixx ■ £3.99

71%

The sequel to *Ghosts & Goblins*, *G 'n' G* was majorly dissed on its original release for its ghastly graphics. But if you like purple and orange... It's a platform game with lots of natural hazards (collapsing bridges, etc), together with lots of unnatural ones (ghosties). Ignore the graphics and it's quite fun.

WORK IN PROGRESS

PC Format **is the UK's leading PC leisure magazine and is devoted entirely to helping you get more out of your leisure time with the PC. Issue 7 is out on March 26 and fast forwards you into the exciting world of video. We'll show you how to liven up your home videos with titles and graphics, and how to get video images on to your PC.**

The rest of the magazine is packed with everything you need to keep you entertained: comprehensive and well-written game reviews, incisive and thought-provoking profiles, plus indispensable regular columns on shareware, music, CD-ROM, problem solving, playing tips and much more. Don't miss it. (Contents subject to change without notice, because life is like a baby – you never know when it's going to throw up unpleasant surprises.)

For the finished version of all this and more, make sure you get issue 7 of *PC Format* on March 26 and enter a new world of PC entertainment

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FINAL FIGHT

US Gold

One of the best ever beat-em-ups in the arcades is now one of the best ever beat-em-ups on your machine. ***Requires 128K***

save up to £4

Description	Price	Order No
Final Fight Cass	**£9.99**	**AA649AC**
Final Fight Disk	**£12.99**	**AA649AD**

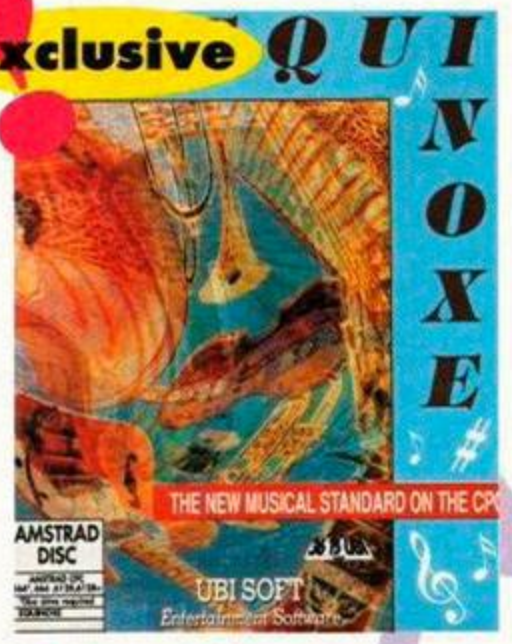
OUT RUN EUROPA

US Gold

An excellent drive-em-up which sees you racing across Europe on a motor-cyle, a Porsche, a jet-ski, a Ferrari and a powerboat! Excellent high-speed racing fun.

save up to £4

Description	Price	Order No
Out Run Europa Cass	**£9.99**	**AA655AC**
Out Run Europa Disk	**£11.99**	**AA655AD**

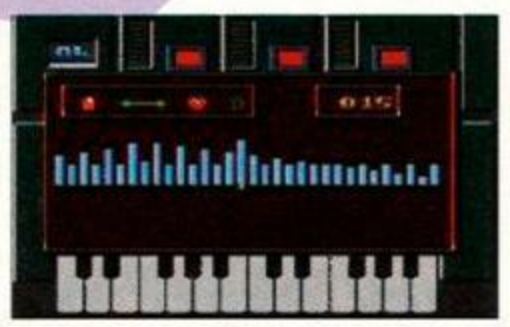


Equinoxe

By special arrangement with the French publisher Ubi Soft, *Amstrad Action* can bring you the music program that's taking France by storm. Create your own sequences, edit sound envelopes, save your musical creations to disk and more... see the review in the December '91 issue of *Amstrad Action* for the full story. *Remember, you can only get this program from Amstrad Action.*

- **DISK ONLY**
- **The menus in this program are in French but the manual contains instructions in English**

Description	Price	Order No
Equinoxe	**£29.99**	**AA653AD**



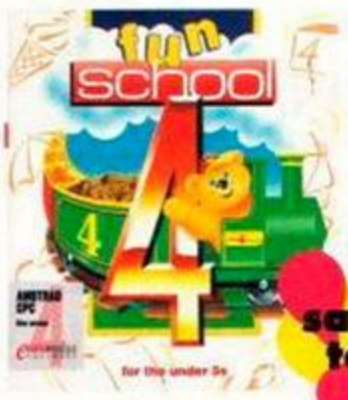
MINI OFFICE II

Database Software

Word processor, database, spreadsheet, label printer, graphics and communications – a fabulous all-in-one pack at an amazing price!

save up to £4

Description	Price	Order No
Mini Office II Cass	**£13.99**	**AA670AC**
Mini Office II Disk	**£15.99**	**AA670AD**



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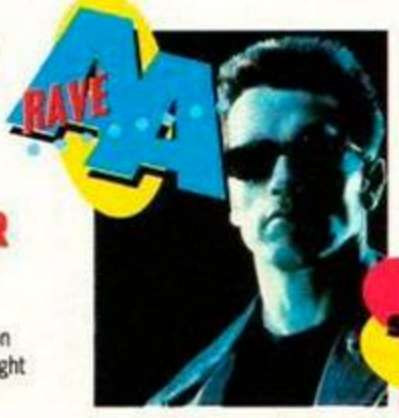

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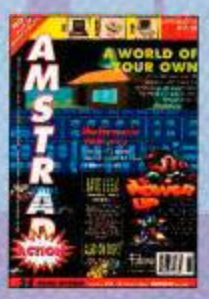

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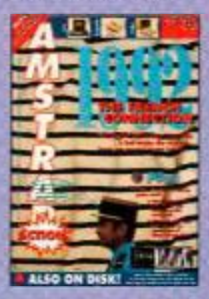

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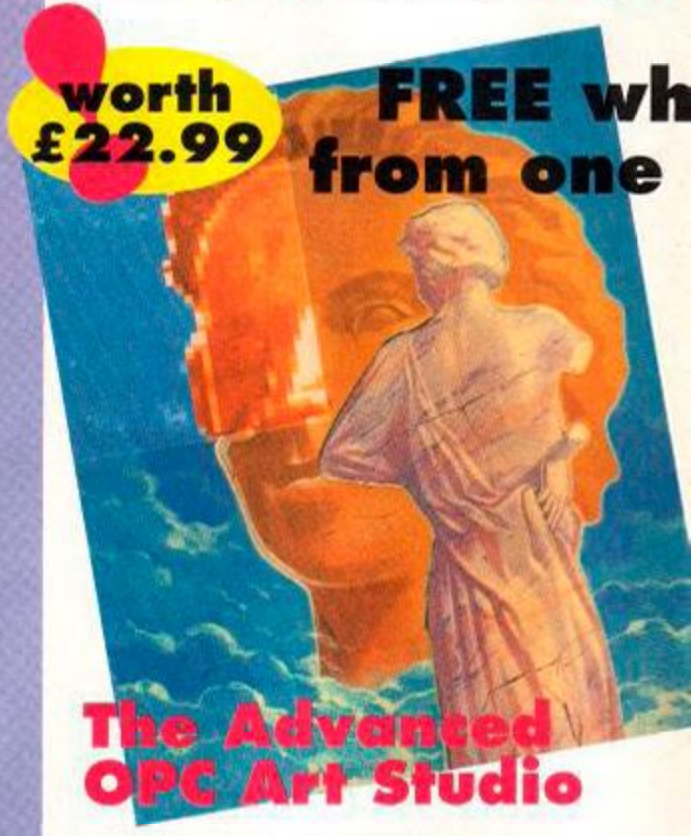

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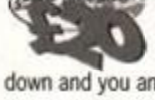
type-ins

This month JERRY GLENWRIGHT starts his BASIC tutorial for beginners – and don't forget, your own *type-ins* could earn you £20! The address is: *Type-Ins, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW...*

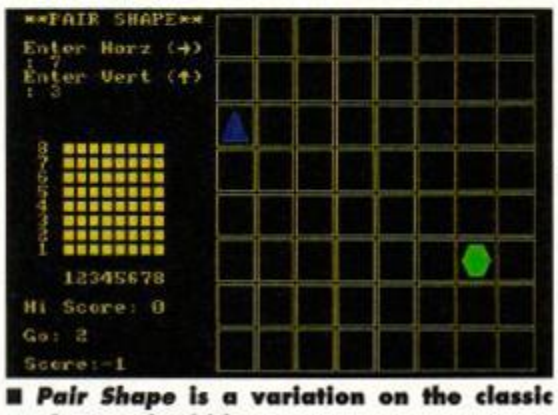
PAIR SHAPE (6128 ONLY)



Here's an updated electronic version of that fun pair-matching card game. You know, the one where all the cards are face down and you and a partner take it in turns to turn over two cards and discover a matching pair.

Pair Shape's action takes place on an eight by eight grid beneath which there are 32 hidden pairs, and the object of the game is, of course, to discover them. The pairs consist of four shapes: a triangle, square, pentagon and hexagon in eight colours including red, purple, green and so on. You search each square by entering a horizontal and vertical co-ordinate.

As well as running totals to take care of your score and number of attempts, David Wagstaff of Moulton, Northampton has also provided a high-score feature too. *Pair Shape* has a very pretty screen display and uses FILL and GRAPHICS PEN functions to good effect (restricting it, unfortunately, to owners of 6128 ROMs...).



■ ***Pair Shape* is a variation on the classic card game for kids.**

```
{CsAo} 10·'·Pair·Shape
{IsAw} 20·'·By·David·Wagstaff·(c)·1991
{JuAq} 30·'·Basic·1.1·only
{NtEx} 40·DIM·mixed(64):DIM·mix(8,8):INK·0,0:
       INK·1,25:PEN·1:PAPER·0:MODE·1:BORDER·0:
       GRAPHICS·PEN·1:RANDOMIZE·TIME:go=1:sc=0
       :r=0:cnt=0:LOCATE·1,3:PRINT"Please·Wait
       "
{PmAo} 50·FOR·p=1·TO·64
{GiBi} 60·mixed(p)=ROUND((RND*63)+1):q=0
{DuAu} 70·q=q+1:IF·q=p·THEN·90
{GvBp} 80·IF·mixed(p)=mixed(q)·THEN·60·ELSE·70
{DlBt} 90·LOCATE·1,1:per=ROUND((p/64)*100):
       PRINT·per"%":NEXT·p
{AjCn} 100·FOR·p=1·TO·8:FOR·q=1·TO·8:r=r+1:
       mix(p,q)=mixed(r):NEXT·q,p:ERASE·mixed
{EwCi} 110·FOR·y=1·TO·400·STEP·50:FOR·x=240·
       TO·639·STEP·50:PLOT·x,y:RESTORE
{GjCk} 120·FOR·n=1·TO·4:READ·a,b:DRAW·x+a,
       y+b:NEXT·n,x,y:DATA·46,0,46,46,0,46,0,0
{PpBl} 130·LOCATE·1,1:PRINT"**PAIR·SHAPE**"
{JtBu} 140·FOR·n=1·TO·8:LOCATE·1,9+n:PRINT·9-
       n·STRING$(8,233):NEXT·n
{MxBi} 150·LOCATE·4,19:PRINT"12345678":GOTO·320
{MrAo} 160·'Triangle
{AjBs} 170·c=mix(x,y):GOSUB·280:PLOT·xp+6,
       yp+6:RESTORE·680
{KjBs} 180·FOR·n=1·TO·3:READ·a,b:DRAW·xp+a,
       yp+b:NEXT·n:GOTO·310
{MnAk} 190·'Square
{GiBs} 200·c=mix(x,y)-16:GOSUB·280:PLOT·xp+6,
       yp+6:RESTORE·690
{KuBs} 210·FOR·n=1·TO·4:READ·a,b:DRAW·xp+a,
       yp+b:NEXT·n:GOTO·310
{KmAn} 220·'Pentagon
{LoBu} 230·c=mix(x,y)-32:GOSUB·280:PLOT·xp+13,
       yp+5:RESTORE·700·
{LuBr} 240·FOR·n=1·TO·5:READ·a,b:DRAW·xp+a,
       yp+b:NEXT·n:GOTO·310·
{FrAm} 250·'Hexagon
{MtBv} 260·c=mix(x,y)-48:GOSUB·280:PLOT·xp+15,
       yp+6:RESTORE·710
{IuBr} 270·FOR·n=1·TO·6:READ·a,b:DRAW·xp+a,
       yp+b:NEXT·n:GOTO·310
{DoAp} 280·RESTORE·720
{NkCs} 290·FOR·n=1·TO·16:READ·d,e,f,g,h:IF·
       c(d·AND·c)e·AND·cnt=f·THEN·INK·g,h:m=n-
       m
{JmAo} 300·NEXT·n:RETURN
{ApBu} 310·MOVE·xp+25,yp+25:IF·cnt=1·THEN·
       FILL·2·ELSE·FILL·3
{BuAx} 320·IF·cnt=2·THEN·GOSUB·590
{DjAr} 330·cnt=cnt+1:qflag=0·
{GlCv} 340·LOCATE·1,21:PRINT"Hi·Score:"hisc:
       LOCATE·1,23:PRINT"Go:"go:LOCATE·1,25:PR
       INT"Score:"sc
{AwAw} 350·FOR·p=1·TO·8:FOR·q=1·TO·8
{JiBi} 360·IF·mix(p,q)<>0·THEN·qflag=1
{NnAl} 370·NEXT·q,p·
```

BASIC tutorial... BASIC TUTORIAL...

In these days of widely available and powerful microcomputers, BASIC has become something of a joke in many programming circles, where nothing less than C, Modula 2 and the like will do. Yet BASIC is still the best computer language to begin your excursions into programming. It's an interpreted language, which means that each line of code you enter is translated into a form the computer can understand as it's encountered. You don't have to edit, compile, run, discover errors, redit, recompile etc as you do with C and the others. Simply type in your program and watch it execute. If a problem is encountered, you'll be able to correct it immediately.

In addition, BASIC consists of keywords which are very similar to standard English words - those you use everyday to ask for a cup of tea, a newspaper or whatever, and that means they're so much easier to remember.

These reasons are why even today, BASIC is still the world's most widely used language, and why it will go on being so popular. Learn BASIC, and you have a solid foundation to explore whatever language you choose ultimately.

So over the coming months, we're going to teach you exactly how to program in BASIC. Starting with the most basic principles, and assuming nothing on your part, we'll build month by month into the definitive guide to BASIC programming on the CPC. Stick with us, and you'll soon be programming with the best of 'em!

Foundation course... Before we start with the principles of the language, let's take a few moments to become familiar with the concept behind programming languages, why you need them and what they do.

You've all heard the 'experts' say that the computer is a dumb beast and not really intelligent at all, that it's simple carrying out the instructions of its programming master,

```
{LtCi} 380·IF·qflag=0·THEN·ERASE·mix:LOCATE·
       1,8:PRINT"New·Game·(Y/N):"·ELSE·430
{BoBk} 390·ans$=INKEY$:IF·ans$=""·THEN·390
{GlBn} 400·IF·ans$="Y"·OR·ans$="y"·THEN·GOTO·40
{JmBm} 410·IF·ans$="N"·OR·ans$="n"·THEN·CLS:
       STOP
{AlAm} 420·GOTO·390
{ImCw} 430·LOCATE·3,4:PRINT"·":LOCATE·1,3:
       PRINT"Enter·Horz·("(CHR$(243))")":LOCAT
       E·1,4:PRINT":"
{KsCs} 440·LOCATE·3,6:PRINT"·":LOCATE·1,5:
       PRINT"Enter·Vert·("(CHR$(240))")":LOCAT
       E·1,6:PRINT":"
{CxBp} 450·x$=INKEY$:IF·x$=""·OR·x$="-
       "·OR·x$="."·THEN·450
{CpAx} 460·x=VAL(x$):LOCATE·2,4:PRINT·x
{JtBt} 470·y$=INKEY$:IF·y$=""·OR·y$="-
       "·OR·y$="."·THEN·470
{PtBi} 480·y=VAL(y$):LOCATE·2,6:PRINT·y
{GlBk} 490·IF·(x(1·OR·x)8)·OR·(y(1·OR·y)8)·
       THEN·340
{PxAt} 500·IF·mix(x,y)=0·THEN·340
{PtBi} 510·xp=((x-1)*50)+240:yp=((y-1)*50)+1
{AuCp} 520·IF·cnt=1·THEN·cx1=x:cy1=y:x1=xp+
       25:y1=yp+25:c1=mix(x,y):GRAPHICS·PEN·2
{CkCq} 530·IF·cnt=2·THEN·cx2=x:cy2=y:x2=xp+
       25:y2=yp+25:c2=mix(x,y):GRAPHICS·PEN·3
{JlBj} 540·IF·cnt=2·AND·c1=c2·THEN·340
{OmBj} 550·mix=mix(x,y):IF·mix(17·THEN·160
{BvBk} 560·IF·mix(33·AND·mix)16·THEN·190
{AmBj} 570·IF·mix(49·AND·mix)32·THEN·220
{DoBi} 580·IF·mix(65·AND·mix)48·THEN·250
{JrCj} 590·FOR·n=1·TO·4000:NEXT·n:GRAPHICS·
       PEN·0:MOVE·x1,y1:FILL·0:MOVE·x2,y2:FILL
       ·0
{NkAo} 600·RESTORE·740
{JoAs} 610·FOR·n=1·TO·4:READ·a,b
{JvBs} 620·IF·c1(a·AND·c1)b·AND·c2(a·AND·c2)
       b·AND·m=8·THEN·640
{HrBv} 630·NEXT·n:sc=sc-go:LOCATE·1,25:PRINT
       "Score:"sc"··":GOTO·670
{GlCk} 640·GRAPHICS·PEN·1:MOVE·x1,y1:FILL·1:
       MOVE·x2,y2:FILL·1:SOUND·1,50,50,10
{PxBm} 650·mix(cx1,cy1)=0:mix(cx2,cy2)=0:
       sc=sc+100
{NmAv} 660·IF·sc)hisc·THEN·hisc=sc
{LuAw} 670·CNT=0:m=0:go=go+1:RETURN
{PpAt} 680·DATA·41,6,22,40,6,6
{IlAx} 690·DATA·40,6,40,40,6,40,6,6
{DoAx} 700·DATA·34,5,41,28,24,40,6,28,13,5
{NwBo} 710·DATA·32,6,41,23,32,40,15,40,6,23,
       15,6
{DpCw} 720·DATA·3,0,1,2,6,5,2,1,2,7,7,4,1,2,
       8,9,6,1,2,15,11,8,1,2,18,13,10,1,2,2,15
       ,12,1,2,24,17,14,1,2,20
{MpDk} 730·DATA·3,0,2,3,6,5,2,2,3,7,7,4,2,3,
       8,9,6,2,3,15,11,8,2,3,18,13,10,2,3,2,15
       ,12,2,3,24,17,14,2,3,20·
{NnAw} 740·DATA·17,0,33,16,49,32,65,48
```

BIN-DIG

OK, so Kevin Kitchen's not going to win the Queen's award for program names, but the youthful coder from St Helens, Merseyside, has come up with the a neat utility to solve all those binary to decimal (and vice-versa) headaches you get while deep in the heart of machine code.

See, although you and us speak a number language we can both understand, the CPC and other machine like their values watered down into simple 1s and 0s – or *binary*, as it's known. Now binary is actually quite simple to learn but it's a pain to put up with when you're programming a need a quick number conversion.

Bin-Dig does the deed for you. A front-end menu offers binary to decimal or decimal to binary, select one, enter a suitable value and you'll receive its equivalent in the other base by return.

■ Ever need to convert base 10 numbers to binary? *Bin-Dig* is just the program you need!

```
{EiAp} 10·'**********
{FsBi} 20·'**********)Amstrad·Action
{HxAx} 30·'**BIN-DIG**)By·Kevin·Kitchen
{AjAw} 40·'**********)St.Helens
{AmAp} 50·'**********
{AkAl} 60·MODE·0
{EiCi} 70·LOCATE·6,2:PRINT"[MENU]":REM·To·
       get·[·you·press·control·&·x
{CmBi} 80·LOCATE·3,5:PRINT"1.BINARY-DIGIT"
{KkBj} 90·LOCATE·3,6:PRINT"2.DIGIT-BINARY"
{HuBj} 100·A$=INKEY$:IF·A$=""·THEN·100
{PqBj} 110·IF·A$)"2"·OR·A$("1"·THEN·100
{GnBj} 120·IF·A$="1"·THEN·GOSUB·150
{PsBi} 130·IF·A$="2"·THEN·GOSUB·310
{DvAl} 140·GOTO·60
{FjAr} 150·'BINARY-DIGIT
{OsAl} 160·MODE·1
{ErAu} 170·PRINT"BINARY·=·";··
{GjAm} 180·INPUT·B$
{GqAn} 190·V=LEN(B$)
{MtAr} 200·IF·V)16·THEN·260
{JoAt} 210·IF·B$=""·THEN·280
{LwBi} 220·IF·LEFT$(B$,1)="1"·THEN·240·
{NwBm} 230·IF·LEFT$(B$,1)="0"·THEN·240·ELSE·260
{LuAq} 240·B=VAL("&x"+b$)
{MoAr} 250·PRINT"DIGIT·=·";b
{IwAs} 260·PRINT·STRING$(40,"-")
{LmAm} 270·GOTO·170
{EjBl} 280·LOCATE·9,23:PRINT"[PRESS·ANY·KEY]"
{AvAp} 290·CALL·&BB16
{EtAn} 300·RETURN
{BmAp} 310·'DIGIT-BINARY
{MqAl} 320·MODE·1
{CiAr} 330·PRINT"DIGIT·=·";
{IvAm} 340·INPUT·D$
{DwAu} 350·IF·D$=""·THEN·420
{BmBn} 360·IF·D$("256"·THEN·BL=8·ELSE·BL=16·
{HpAp} 370·LET·D=VAL(D$)
{FlAv} 380·IF·D)65535·THEN·400
{FvBi} 390·PRINT"BINARY·=·";BIN$(D,BL)
{LwAs} 400·PRINT·STRING$(40,"-")··
{CoAm} 410·GOTO·330
{NnBk} 420·LOCATE·9,23:PRINT"[PRESS·ANY·KEY]"
{AlAp} 430·CALL·&BB16
{CoAm} 410·GOTO·330
{NnBk} 420·LOCATE·9,23:PRINT"[PRESS·ANY·KEY]"
{AlAp} 430·CALL·&BB16
{PiAo} 440·RETURN·
{LsAl} 450·END
```

DISC

A really funky little problem solver this one, and crammed into just 1K of feature-packed code. What *Disc* does, is simplify several

BASIC tutorial... BASIC tutorial...

right? Patronising, sure, but the description is more or less true. The computer is a simple machine, but one which can follow your instructions very quickly, thereby providing an *illusion* of intelligence. Playing chess, calculating salaries, or helping you to slaughter space invaders - all electronic illusions created by a machine executing instructions very, very quickly.

And you guessed it, those instructions are presented to the machine in the form of a programming language. It'd be nice if you could simply say to the CPC "OK machine, let's play invaders." or "I'd like you to calculate my income tax now". Unfortunately, the computer must be instructed in a defined and precise fashion via a programming language.

Computers – including your CPC – can't actually understand BASIC. What they can understand is a series of binary numbers. When you write a BASIC program and enter it into the machine, another program written directly in this binary code (*machine code*), accepts your BASIC instructions (known as 'high-level' instructions) and converts them line by line into machine code. The Z80 CPU at the heart of the CPC then performs whatever actions were described by your BASIC instructions.

This conversion into machine code is the reason why BASIC runs with less speed than compiled languages - those where the high-level instructions are converted into machine code *before* being passed to the CPC.

The big advantage is that because there's no need to make the conversion until the program is actually running, the whole process is far more flexible. You can stop it at any time, change something, then set it running again - a tedious process using compiled languages.

So. You write *high-level* instructions in BASIC, a language similar to English. The ▶

basic disk operations such as renaming, erasing and unerasing files.

After running *Disc*, you're prompted to insert a new floppy. Bung one in the drive, a list of its contents appears, together with a menu of *Disc*'s functions. To use one, enter its associated function number. If any more information is required, you're prompted for it as the function proceeds. Simple, effective and it shows just what can be done in a small amount of code. Well done David Hunt of Derby!

■ ***Disc* is a file-handling utility for disk owners everywhere – it'll let you Erase, Unerase and Rename files**

```
{MnBs} 10·|USER,0:MODE·2:INK·0,0:BORDER·0:
       CLS:INK·1,26:PEN·1
{DuBx} 20·LOCATE·1,1:PRINT"INSERT·DISC·WITH·
       FILES":CALL·&BB18:CLS:CAT
{EjBt} 30·PRINT "(1)erase  (2)unerase  (3)rename
       (4)new disc  (5)user"
{PtAt} 40·LOCATE·1,24:INPUT·a
{HjAt} 50·ON·a·GOTO·70,80,90,10,100
{FqAl} 60·GOTO·40
{MnBx} 70·LOCATE·1,24:INPUT·"ERASE";A$:|ERA·,
       A$+".*":CLS:CAT:GOTO·30
{HsDr} 80·CLS:POKE·&A701,229:CAT:LOCATE·1,24:
       INPUT·"UNERASE";b$:G$="0:"+B$:|REN·,@g$,
       @b$:|USER·,0:CLS:CAT:GOTO·30
{MpFn} 90·LOCATE·1,24:PRINT·"after·file·type
       ···.bin··or·type·.bas":CALL·&BB18:LOCATE
       ·1,24:PRINT·SPACE$(40):LOCATE·1,23:INPUT
       ·"RENAME";C$:INPUT"TO";D$:|REN,@D$,@C$:C
       LS:CAT:GOTO·30
{KmCj} 100·LOCATE·1,24:INPUT·"USER(0-255)";
       U:POKE·&A701,U:CLS:CAT:GOTO·30
```

TRACKER

An absolute corker this one! Similar to all those Light Cycles games of yesteryear, the object is to manoeuvre a relentlessly moving craft through a mind-boggling maze without touching any of the walls. There's a choice of speeds and plenty of levels to keep you going. But what sets Tracker apart from so many other similar games is that it's so damned addictive! You've got to have just one more attempt after every crash.

Written by Johnny Dean of Sutton Coldfield, the program features good spot effects, fast animation and increasing levels of difficulty guaranteed to keep you hooked.

```
{GiAq} 10·REM·***TRACKER***
{NtAq} 20·REM·***JONNY.D***
{DiAq} 30·REM·*****1991****
{BnAs} 40·REM·***SET··UP***
{IwBo} 50·BORDER·0:MODE·1:INK·0,0:INK·1,26:INK·2
       ,6:INK·3,2
{GuAu} 60·SC=1:L=3:ENV·1,15,-1,10
{HrAq} 70·SYMBOL·AFTER·144
{MqBl} 80·SYMBOL·144,126,255,255,255,255,255,255
       ,126
{XqBi} 90·LOCATE·17,2:PRINT·"TRACKER"
{BrBi} 100·LOCATE·17,3:PRINT·"|||-"
{OmBl} 110·WINDOW#2,1,40,7,18:PAPER#2,2:CLS#2
{DlBs} 120·WINDOW#1,2,39,8,17:PAPER#1,0:PEN#1,3:
       CLS#1
{OmAq} 130·REM·***INTRO***
{GnGn} 140·LOCATE#1,1,2:PRINT#1,"····YOU·ARE·IN·
       CONTROL··OF··A·TRACKER··PROBE.YOUR·MISSI
       ON·IS·TO··GUIDE··THE··TRACKER··THROUGH··
       THE··MAZE··TOWARDS··THE·BLUE·SPHERE.·TOU
       CH·THE·WALLS·AND··YOU·HAVE·FAILED.GOOD·L
       UCK.".
{EqBx} 150·LOCATE#1,10,8:PRINT#1,"ANY·KEY·TO·CON
       TINUE":WHILE·INKEY$="":WEND
{NpBt} 160·CLS#1:LOCATE#1,9,2:PRINT#1,"·CONTROL:
       JOYSTICK/KEYS"
{DxEu} 170·PRINT#1:LOCATE#1,15,4:PRINT#1,"UP····
       ·-Q":PRINT#1,"···PAUSE·-·L··DOWN··-
       ·A··ABORT··-·C":LOCATE#1,15,6:PRINT#1,"LE
       FT···-O":LOCATE#1,15,7:PRINT#1,"RIGHT·-
       ·P"
{KwBu} 180·PRINT#1:LOCATE#1,8,9:PRINT#1,"CHOOSE·
       INITIAL·SPEED(H/L)"
{GkBk} 190·IF·INKEY(36)=0·THEN·SPD=3:GOTO·220
{NuBl} 200·IF·INKEY(44)=0·THEN·SPD=4:GOTO·220
{EoAn} 210·GOTO·190
{EwBi} 220·WINDOW#3,11,30,8,18:PEN#3,2
{QtBl} 230·WINDOW#4,13,28,10,16:PAPER#4,0:PEN#4,
       1
{LvAo} 240·REM·***MAZE***
{NrFk} 250·IF·SC=8·THEN·CLS#4:LOCATE#4,2,2:PRINT
       #4,"RIGHT!·BACK·TO":LOCATE#4,2,4:PRINT#4
       ,"··THE·START...":LOCATE#4,2,6:PRINT#4,"
       ··BUT·FASTER!!":SC=1:WHILE·INKEY$="":WEN
       D:SPD=SPD+1
{NmAx} 260·IF·SC=1·THEN·RESTORE·670
{MrBi} 270·IF·SC=2·THEN·RESTORE·770
{LwAu} 280·IF·SC=3·THEN·RESTORE·870
{L1Ax} 290·IF·SC=4·THEN·RESTORE·970
{FuBj} 300·IF·SC=5·THEN·RESTORE·1070
{IsBj} 310·IF·SC=6·THEN·RESTORE·1170
{LqBj} 320·IF·SC=7·THEN·RESTORE·1270
{JwAl} 330·CLS#1
{LnBi} 340·LOCATE·13,23:PRINT·"LEVEL";SC
{P1Bj} 350·LOCATE·23,23:PRINT·"SPEED";SPD-2
{InAq} 360·FOR·A=1·TO·10
{MvAn} 370·READ·A$
{IqAo} 380·FOR·B=1·TO·20
{OsBp} 390·IF·MID$(A$,B,1)="A"·THEN·PRINT#3,CHR$
       (143);
{FtBn} 400·IF·MID$(A$,B,1)="B"·THEN·PRINT#3,"·";
{MqAk} 410·NEXT·B
{EuAl} 420·NEXT·A
{CjBl} 430·LOCATE#1,2,2:PEN#1,3:PRINT#1,CHR$(144
       )
{CiAs} 440·REM·**THE·GAME**
{P1At} 450·X=600:Y=200:XM=-SPD:YM=0
{XtAn} 460·MOVE·X,Y
{DsBi} 470·DRAW·X,Y:SOUND·1,239,5,5,,,1
{BmBs} 480·IF·INKEY(67)=0·OR·INKEY(72)=0·THEN·YM
       =SPD:XM=0
{EwBt} 490·IF·INKEY(69)=0·OR·INKEY(73)=0·THEN·YM
       =-SPD:XM=0
{NiBp} 500·IF·INKEY(34)=0·OR·INKEY(74)=0·THEN·XM
       =-SPD:YM=0
{MoBq} 510·IF·INKEY(27)=0·OR·INKEY(75)=0·THEN·XM
       =SPD:YM=0
{NkBr} 520·IF·INKEY(52)=0·THEN·FOR·A=1·TO·1000:N
       EXT:GOTO·60·
{NwBo} 530·IF·INKEY(36)=0·THEN·GOTO·540·ELSE·550
{OnBo} 540·IF·INKEY$=""·THEN·GOTO·540·ELSE·530
{OjBr} 550·IF·TEST(X+XM,Y+YM)=2·OR·TEST(X+XM,Y+Y
       M)=1·THEN·GOTO·600
{GwGq} 560·IF·TEST(X+XM,Y+YM)=3·THEN·SOUND·1,119
       ,150,15,1:CLS#4:LOCATE#4,4,2:PRINT#4,"WE
```

BASIC tutorial... BASIC TUTORIAL...

CPC converts each line as it's encountered into *low-level* machine code instructions which it can directly understand, and then performs whatever action you told it to with the BASIC. And now, let's look at some high-level code...

Entry code BASIC consists of a series of *keywords* - explicit instructions which form the vocabulary of the language. Let's meet ten of of them right now:

```
PRINT
END
INPUT
GOTO
IF ... THEN
STOP
FOR (STEP)
NEXT
```

Keywords are combined with other information to form BASIC *statements*. When several statements are grouped together, you have a program.

As well as keywords, BASIC also provides *commands*. Here are a couple of commands:

```
RUN
LIST
```

Unlike keywords, commands are used without any other information. You type in the

```
      LL·DONE!!":LOCATE#4,3,4:PRINT#4,"NOW·GO
      ·ON·TO":LOCATE#4,2,6:PRINT#4,"THE·NEXT·
      LEVEL":SC=SC+1:CLEAR·INPUT:WHILE·INKEY$
      ="":WEND:GOTO·220
{FqAn} 570·MOVE·X,Y
{DlAp} 580·X=X+XM:Y=Y+YM
{JiAl} 590·GOTO·470
{PlAn} 600·REM·***CRASH***
{OnAm} 610·L=L-1
{EpAw} 620·SOUND·1,0,150,15,1,,31
{GpEk} 630·IF·L=2·THEN·CLS#4:LOCATE#4,5,3:PRINT
       #4,"BAD·LUCK!!":LOCATE#4,5,5:PRINT#4,"T
       RY·AGAIN":CLEAR·INPUT:WHILE·INKEY$="":W
       END:GOTO·220
{JuEj} 640·IF·L=1·THEN·CLS#4:LOCATE#4,5,3:PRINT
       #4,"BAD·LUCK!!":LOCATE#4,4,5:PRINT#4,"L
       AST·CHANCE":CLEAR·INPUT:WHILE·INKEY$=""
       :WEND:GOTO·220
{PkDx} 650·IF·L=0·THEN·CLS#4:LOCATE#4,7,3:PRINT
       #4,"OOPS!!":LOCATE#4,4,5:PRINT#4,"START
       ·AGAIN":CLEAR·INPUT:WHILE·INKEY$="":WEN
       D:GOTO·60
{HvAp} 660·REM·***DATA***
{ElAw} 670·DATA·AAAABBBBBBBBAAAAAAAA
{DiAu} 680·DATA·AAAABAAAAAABABBBBAAA
{JlAt} 690·DATA·AAAABAAAAAABABAABABB
{NmAt} 700·DATA·AAAABAAAAAABABAABABA
{GwAv} 710·DATA·AAAABAABBBBBABAABABA
{EoAu} 720·DATA·AAAABAABAAAAABBABABA
{ApAw} 730·DATA·AAAABAABABBBAABABABA
{DvAt} 740·DATA·BBAABAABABABAABABABA
{EpAu} 750·DATA·ABBBBAABABABAABABABA
{PiAu} 760·DATA·AAAAAAABBBABBBBABBBA
{CoAu} 770·DATA·AAABBBABBBABBBAAAAAA
{DxAu} 780·DATA·BBABABBBABBBABABBBAA
{DjAv} 790·DATA·ABABAAAAAAAAABABABAA
{NlAt} 800·DATA·ABABBBBBBBAAABABABBA
{HmAv} 810·DATA·ABAAAAAAABABBBABAABA
{LuAu} 820·DATA·ABBBABBBABABAAABBABA
{EuAv} 830·DATA·ABABABABABABBBAABABA
{JkAt} 840·DATA·ABABABABABAAABAABABA
{FjAt} 850·DATA·ABABABABABAAABBBBABB
{FiAt} 860·DATA·ABABBBABBBAAAAAAAAAA
{EnAt} 870·DATA·AAAABBBABBBABBBABBBA
{AsAu} 880·DATA·ABBBBABBBABBBABBBABA
{HiAu} 890·DATA·ABAAAAAAAAAAAAAAAABB
{EpAu} 900·DATA·ABBBBBBBBBBBBBBAAAAA
{HkAt} 910·DATA·AAAAAAAAAAAAAABABBBA
{DuAt} 920·DATA·AABBBABBBABBBABABABA
{LsAu} 930·DATA·AABABABABABABABBBABA
{XjAt} 940·DATA·AABABBBABBBABAAAAABA
{CiAu} 950·DATA·AABAAAAAAAAABBBBBBBA
{BuAu} 960·DATA·BBBAAAAAAAAAAAAAAAAA
{AoAv} 970·DATA·AAAAAAAAAABBBBAAAABB
{KnAv} 980·DATA·AAAAABBBAABAABAAABBA
{IpAt} 990·DATA·BBBABBABAABABBAABBAA
{JxAt} 1000·DATA·AABABAABABBABAABBAAA
{LiAv} 1010·DATA·AABABAABABAABABBAAAA
{XuAu} 1020·DATA·AABABABBABBABABAAAAA
{PoAv} 1030·DATA·AABABABAAABABABBBBBA
{XmAv} 1040·DATA·AABABABABBBABAAAAABA
{GsAt} 1050·DATA·AABBBABABAAABBBBBBBA
{BuAu} 1060·DATA·AAAAABBBAAAAAAAAAAA
{GpAu} 1070·DATA·AABBBBABBBABBBBAAABB
{IpAu} 1080·DATA·AABAABBBABBBAABAABBA
{IqAu} 1090·DATA·AABAAAAAAAAABBABBBAA
{EmAt} 1100·DATA·AABAAAAAAAAABBABBAAA
{IsAt} 1110·DATA·AABBBBBAAAABBABBAAAA
{AkAw} 1120·DATA·AAAAABAAABBABBAAAAA
{IlAt} 1130·DATA·AABBBABAABBABBAAAAAA
{XmAv} 1140·DATA·AABABABBABABBAAAAAA
{CqAu} 1150·DATA·AABABAABABBBAAAAAAA
{MiAt} 1160·DATA·BBBABBBBAAAAAAAAAAA
{EjAv} 1170·DATA·AAAAAABBBBBAAAAAABB
{FsAu} 1180·DATA·AAAAABBAAABAAAAABBA
{EqAw} 1190·DATA·AAAABBAAAABAAAABBAA
{JvAw} 1200·DATA·AAABBAAABBBAAAABBAA
{MuAv} 1210·DATA·AABBAAAABAAAAABBAAA
{AuAu} 1220·DATA·AABAAAAABBAAABBAAAA
{GtAt} 1230·DATA·AABBBBBAABBAABAABBBA
{JvAw} 1240·DATA·AAAAAABAAABBABBBBABA
{HsAv} 1250·DATA·ABBBABBAAAABBAAAAABA
{IkAw} 1260·DATA·BBABBBAAAAAABBBBBBBA
{IwAw} 1270·DATA·AAABBBAAAABBBBAABBBA
{OmAv} 1280·DATA·AAABABAAABBAABAABABA
{FvAv} 1290·DATA·AABBABAABBAABBABBABA
{NrAv} 1300·DATA·ABBAABBABAAABAABAABA
{PnAt} 1310·DATA·BBAAAABABBAABBABBABA
{PrAv} 1320·DATA·AAAAABBAABBAABAABABA
{HtAu} 1330·DATA·AAAAABAAAABABBABBABA
{JvAv} 1340·DATA·AAAAABBAABBABAABAABA
{NsAu} 1350·DATA·AAAAAABABBAABABBAABA
{HmAt} 1360·DATA·AAAAAABBBAAABBBAAABB
```

AA

Famous Five!

That's what we're offering: five minutes of glorious fame, and masses of cash (well, your name in print and twenty quid, anyway...) . So if you're a brill BASIC programmer writing code which knocks spots off anything published here – send it in! Your name in lights and big prize money is a-waiting...

Here's a few dos and don'ts to help you on your way:

DO

- send your program on tape or disk, rather than as a print out. We simply haven't got time to type the programs in to see if they're any good.
- include your name and address with your tape or disk, preferably stuck on the tape/disk itself (in case it gets separated from everything else)
- Include a SAE if you want material returned
- include a written description of your program and details of its operation – on-disk doc files won't do!

DON'T

- include instructions saying "...here's my program Hot-Dots, the name speaks for itself...", because it doesn't! If you can't be bothered to describe what it does, we can't be bothered to load it up, OK?

BASIC tutorial... BASIC tutorial...

command, BASIC executes it! Now let's look at an example to illustrate what you've learned already.

```
10 PRINT "CPCs are funky!"
20 END
RUN
```

See the line beginning with the 10? That's the first BASIC statement. There's a line number (10), a keyword (PRINT) and information relative to the statement's keyword – the message "CPCs are funky!". By the way, that message could have consisted of anything you wanted it to, like "Spectrums are crap!", "Baz woz 'ere..." and so on. Anything that you put between quote marks is treated by BASIC as a message or *string* ... but we're jumping ahead a little!

Line 20 is also a statement. It contains the keyword END. Although it looks like a command because there's no qualifying information, it's accompanied by the line number and together, they form they the statement. But now look at that word RUN after lines 10 and 20. That's a command. No line number, no information, just one explicit instruction.

Here's what's happening in our example program. Lines 10 and 20 as you now know are statements (don't worry they're what *about* at the moment...), together, they form a program, but the instructions in a program aren't obeyed until you give the word, and the word is the RUN command – it tells the computer to begin executing the program.

And so to bed... Easy, right? We've only scratched the surface this month, but it never really gets any harder than this, just keywords forming statements, and statements forming programs until you've got big fat sexy software! Next month, you'll start to write your own...

the buyers guide

joysticks

There are more joysticks than ever on the market – but which one do you buy? There's table-tops, hand-helds, foot-pedals... LINDA BARKER investigates

Joysticks, eh? Hmm, a good chance to get some waggling jokes in there. And of course all those brilliant puns that make such good headlines. Let's get them all over in one go, shall we? Sticks out for the lads! How fast can you waggle yours? Get waggling! Sticks of joy! It's a stick up! (*Stop! Stop! – ed*)

Joysticks have only one purpose in life – they move your character/gunsight around the screen. So, if they all do basically the same thing, why are there such a plethora of them? Well, everybody's got their favourite 'stick that they can't do without and, unsurprisingly, there isn't really a consensus of opinion that says a certain stick is the best.

So what should you look for when buying a new joystick? Comfort is the essential factor. If you don't feel comfortable with a hand-held stick, then check out the desk-top ones. The following guide will give you some idea what to look for. Read on and you'll be able to walk proudly into Tandy and say "I'll take that one please". What's more, you won't be disappointed when you get home...

CHEETAH BUG £14.99

If hand-helds are your style then check this one out. It sits comfortably in the palm of your hand and you'll have no trouble reaching the two Fire buttons and autofire switch. The shiny black Bug looks good too and the fire buttons click reassuringly. We prefer sticks that let you know when you've wasted a bullet. At £14.99, this is a mid-price stick that's good value for money.

CHEETAH EXTERMINATOR £6.99

It's cheap and it shows. The Exterminator is so light that that whenever you get a bit vigorous you start worrying about the stick snapping. Save up for another couple of weeks, it really is worth it.

CHEETAH MACH 1 £12.99

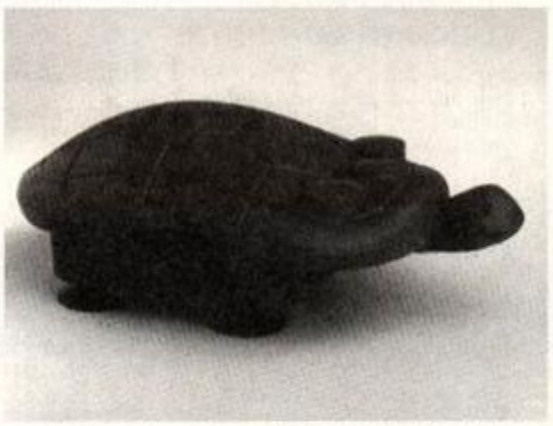
A step up from Cheetah's Exterminator, this is virtually double the price and infinitely better.The Mach 1 boasts four fire buttons, two at the top and two on the base, and the suckers really work. The only problem is the stick is a bit too short for comfort.

CHEETAH STAR PROBE £14.99

Again, this one has four Fire buttons in the usual places and, whereas the Mach 1 was too short, the Star Probe is just right. This one, though, doesn't feel too stable.

CHEETAH TORTOISE £9.99

A completely ridiculous joystick that shamelessly targets itself at the younger gamesplayer. The Tortoise is so tacky that, in a funny kind of way, we almost like it. Still, facts have to be faced and the Tortoise is incredibly plasticky and it feels soooo fragile. The buttons are all at the front of the Tortoise, press them and old Torty moves up and down in an alarming manner. No doubt you could get used to this, but is it really worth it?



KONIX NAVIGATOR £15.32

The Navigator's another of our faves and it now comes in three different varieties. The common-or-garden Navigator is a black hand-held with blue trimmings and it's ace. Hold the 'stick and your Fire finger will immediately rest comfortably on the trigger. Everything about this 'stick is perfect. And, what's more, for an extra 11p you can get the Navigator Hot Shot, which is grey with red bits and,

for no extra cost, there's a Limited Edition Navigator which is grey with blue trimmings. What a choice!

KONIX SPEEDKING £11.23

This is another Bug-type stick. It's reliable, comfortable and dead snazzy. The original Speedking has just one Fire button but for no more moolah you can also get one with two Fire buttons. Mind you, it's a bit like pot luck 'cos it doesn't actually tell you on the box whether the stick inside has one or two Fire buttons.

SPECTRAVIDEO STING RAY £13.99

All the sticks in Spectravideo's Ray range are colour-coordinated in blue, red and black. The Sting Ray is a hand-held with a handle and the obligatory mass of microswitches (basically the joystick's reflexes). Microswitches are an odd business; go into a shop and pick up any joystick and the box will tell you that it has microswitches. A joystick without microswitches is about as common as a stone wheel.

Anyway, the Sting Ray has microswitches, a

■ **Spectravideo's rapidly-expanding Logic 3 range – the real star is the Sting-Ray.**

Rapid Fire switch and isn't that far removed from the Konix Navigator.

SPECTRAVIDEO MANTA RAY £13.99

Basically The Bug all over again but bigger. The Manta Ray is far too bulky for our liking and, even after a month or two of use in the office, the Fire buttons are still stiff.

SPECTRAVIDEO ALPHA RAY £11.99

This is the cheapest of Spectravideo's new table-top range and it's exactly what you'd expect from Spectravideo. It looks like a gear stick and the Fire buttons are placed at the top of the stick. Like all the other Rays, it has six microswitches and a Rapid-Fire function but, being cheaper, it's not as bulky as the other two table-tops. A manageable stick.

SPECTRAVIDEO SIGMA RAY £13.99

Moving up, we get the Sigma Ray which has two additional fire buttons at the the base of the 'stick. This means that the base is bigger and, therefore, more unwieldy. It's not as bad as most sticks of this ilk, but it's not super either.

SPECTRAVIDEO GAMMA RAY £22.99

No, this really is too much. Over the top, or what? The Gamma Ray is a great big thing with, get this, a digital counter stopwatch! Basically, it's the Sigma Ray with a huge base and added features that, when you look more closely, aren't exactly essential. Don't do it kids – for 23 quid you can buy a perfectly good joystick and have enough change to buy the new Ride album.

SPECTRAVIDEO QUICKJOY MEGA STAR £27.95

And it get's even more ridiculous! The Mega Star looks exactly like the Competition Pro Clear with an extra button. In other words, it's see-through. Great, eh? now you can see the seven microswitches in action and admire the smooth movement of the steel shaft. It might move well, but so do the cheaper sticks.

SPECTRAVIDEO QUICKJOY FOOT CONTROLLER £24.99

Ideal for driving games, we suppose. Initially, this could prove difficult to get to grips with. If you're willing to persevere the Foot Controller could conceivably help you improve your scores and, according to the press release, help you get the girl of your dreams. It's all a bit too complicated for us though.

DYNAMICS COMPETITION PRO 5000 £14.95

The Competition Pro is a mid-size table-top 'stick with two fire buttons on the base and a straight stick with a knob at the top. We don't like them because the stick always feels pretty stiff and you really don't feel like you're getting any movement out of it. Still, the fact that they've been around for so long (about nine years) must mean that plenty of other people like them. Give it a quick waggle before you buy.

POWERPLAY CRUISER £10.99

These table-tops are quite similar in their basic design to the Competition Pros. Like those, the Cruisers come in a variety of colours, but they're far more streamlined which makes them much easier to control. Of all the table-tops, these are my favourite.

SPECTRAVIDEO QUICKJOY JETFIGHTER £13.99

Hmmm, it's a table-top mushroom coloured stick with autofire and fire switches at the top. It looks horrid, the base is really bulbous and the suckers are a bit on the useless side. Ugh!

ULTIMATE SUPERSTICK £31.95 (EUROMAX)

This is a giant table-top jobbie with four Fire buttons – two each for left-and right-handed users! There's a variable-speed autofire knob which seems to work on some CPC games but not others.The Superstick is a bit of a lump, but solid and suprisingly effective to use.

Autofire anguish

Due to some incredibly techie problem with the CPC's joystick port (something to do with too low a voltage, we're told), ordinary autofire joysticks don't work. What a pain! The only one we've found so far that does work (only on some games, though) is the Ultimate Superstick.

WHERE to go

If you have difficulty getting hold of any of these 'sticks in the shops, write to or 'phone the manufacturers for details of your nearest stockist. No doubt they'll also be pleased to help with any specific enquiries.

Cheetah ×0222 867777
Norbury House, Norbury Road, Fairwater, Cardiff CF5 3AS

Dynamics ×061 626 7222
Coin House, New Coin Street, Royton, Oldham, Lancs OL2 6JZ

Euromax ×0262 602541
Bessingby Industrial Estate, Bridlington, N. Humberside YO16 4SJ

Konix (see Spectravideo)

Spectravideo ×081 900 0024
Unit 27, Northfield Industrial Estage, Beresford Avenue, Wembley HA0 1NU

Powerplay ×045787 6601
Slackcote Lane, Delph, Oldham, Lancs OL3 5TW

the buyers guide GAMES

Footie Games

Strap on your finest industrial strength shinpads and get ready for the whistle – here comes the complete low-down on the football games that have lit up the CPC...

We could give you a complete history of football here, from the Whitsuntide 200-a-side folk football games of 18th century Derbyshire to the present day. How come? Because Adam P did the history of football for his degree, that's how come.

But we won't bore you. Instead, we'll jump several hundred years of enclosure acts, rules being drawn up in public schools, the rise of professionalism, etc, and take you straight to the late 1970s and the first appearance in the amusement arcades of the game *Pong*.

■ **Here's *Pong*, the first computer game. Er, actually we drew this on *Advanced Art Studio*, but this is what it looked like.**

***Pong* was the first** computer game of all time, and it was supposedly a football game. It consisted of two bats, two goals and a ball (well, some of the elements of football there at any rate). It soon became the main game on the first range of home computers, the Binatone TV games consoles. (Remember them? Thought not.)

The first home computer soccer game as we know them was a lovely little jaunt called *Matchday* (89%, *AA2*). It featured an overhead view of the action. The first of the management games was *Football Manager* (69%, *AA1*). As for the arcades, it took the 1990 World Cup to really get footie coin-ops going.

Most football games are released to tie in with World Cups or European Championships. The dodgier incarnations have included *World Cup Carnival* (0%, *AA11*), US Gold's cynical re-packaging of Artic's *World Cup* (68%, *AA1*). Unfortunately the Goldies forgot to point out on the cover that it was the same game!

And then there was a little jaunt called *Peter Shilton's Handball Maradona* (38%, *AA17*) – apparently the title is something to do with the 1986 World Cup. Then there was the Codies' dire *Street Gang Soccer* (43%, *AA45*) and a whole host of crap homegrown-style management games.

Fortunately, for every ploppy footie game out there, there's a half-decent one lying around too (a lot of these are on the new Soccer Stars compilation). Hurrah!

best footie game

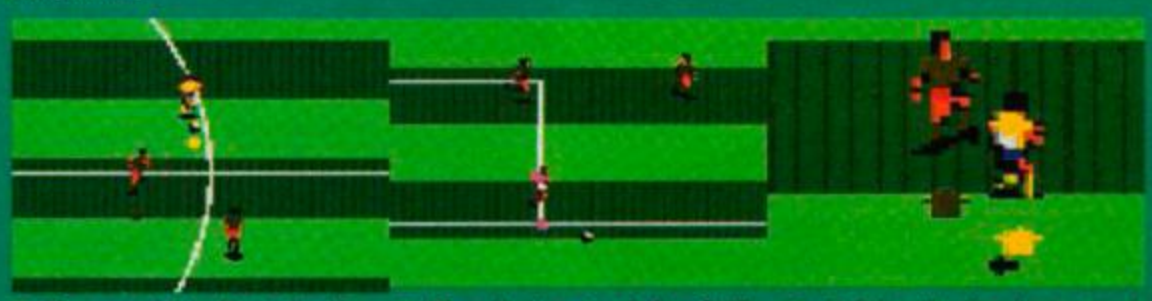
Italy 1990

(US GOLD)

Released in June 1990 to tie in (not surprisingly) with the 1990 World Cup, *Italy 1990* is an excellent game. The sprites are sharp, the scrolling is smooth, and the action is fast. Very fast. Ultra super-fast with extra fastness on the top.

All of the 24 teams from Mondiale '90 are included, and the players' shirts are all in the right team colours (hurrah!). You can also select your squad from the (more or less) real World Cup squads. Excellent for re-living all those memories of the summer of 1990.

It's the speed that really makes Italy 1990 the game that it is, but excellent playability, some decent graphical intermissions, and some excellent noises, all add to the experience. (Also available on the *Super Sim Pack* compilation.)



■ **The world's first footie club was Hallam from Sheffield (founded 1853).**

■ **The first set of football rules were drawn up at Cambridge University.**

■ **Bolshevik leaders used football games as a cover when training guerillas.**

top 10

1) ITALY 1990
(US GOLD)

Is this fast or what? *Italy 1990* – the fastest football game ever seen. It plays a treat too. **88%** (AA58)

2) EMLYN HUGHES INTERNATIONAL SOCCER
(AUDIOGENIC)

Brilliant. A footie sim that lets you play a decent passing game. Nice one Mr Squeaky-Royalist. **93%** (AA45)

3) GAZZA 2
(EMPIRE)

Available on any format, including cartridge. The sprites are tiny, the view is overhead, the play is left to right, the game is great. The first Gazza game (*Gazza's Super Soccer*) was total plop though. **88%** (AA65)

4) KICK OFF 2
(ANCO)

The top 16-bit pass-em-up is also one of the best Amstrad games. Looks a bit like *Gazza 2*, only you play from top to bottom. **86%** (AA63)

5) GARY LINEKER'S HOT SHOT
(GREMLIN)

The third 'name licence' in this week's America's Top Ten, *Hot Shots* comes second only to Italy 1990 in the speed stakes. **81%** (AA45)

6) MICROPROSE SOCCER
(MICROPROSE)

The home of simulations turned its hand to football, and this was the result. Two-colour graphics meets blistering gameplay. **87%** (AA45)

7) 11-A-SIDE SOCCER
(CODEMASTERS)

One of the games off the Codemasters *4 Soccer Sims* pack (now available on budget), this one has also been on a few Quattro packs. **81%** (AA40)

8) FOOTBALL MANAGER 2
(ADDICTIVE)

The top management game for all you footie freaks, *Football Manager 2* will get you hooked with great ease. **72%** (AA36)

9) MANCHESTER UNITED EUROPE (KRISALIS)

The latest soccer game to make the grade, *MUE* has a neat icon-driven menu, a lot of strategy elements, and great game sequences. **73%** (AA75)

10) 5-A-SIDE SOCCER
(CODEMASTERS)

Another one from *4 Soccer Sims*, this one's got a very small indoor pitch which makes for constant end-to-end action. Hurrah! **81%** (AA40)

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Mad. We've gone completely mad. Just look at what we've got lined up for you in the May issue...

How a game is made

Part one of a detailed in-depth look at how a commercial game is put together. How is it written? Who has the ideas? How can I write a program for release? Find out next month.

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In next month's *Buyers' Guide* we look at some WP packages available for your machine, and discover all the different things they can be used for.

Striker and the Crypts Of Chaos

The most controversial CPC game of all time? In our special review feature we talk to the programmers and some of their opponents, and give you the chance to try the game yourself with a playable demo on the covertape.

Readers' Poll results

So what was your favourite film of last year, *Robin Hood – Prince of Thieves* or *Terminator 2*? Is your fave pop star Michael Jackson or Bryan Adams? And is Adam Peters more of an idiot than John Major? All will be revealed – those 1991 poll results in full.

Cartridge games round-up

A complete guide to all the games you can get for your GX4000/Plus. Which ones are brilliant? Which are crap? And is the GX4000 dying out?

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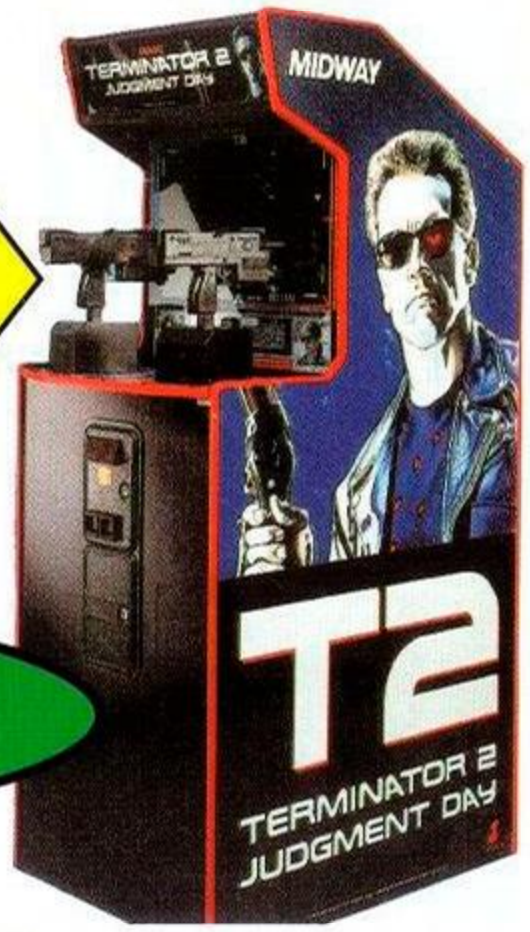

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