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BRITAIN'S BEST SELLING MAGAZINE FOR THE CPC

464 ● 664 ● 6128

ISSUE 60 ● SEPTEMBER 1990 ● £1.45

AMSTRAD ACTION

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Amstrad's new games console and Plus range – the full story, review and analysis inside

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- Top public domain software on trial

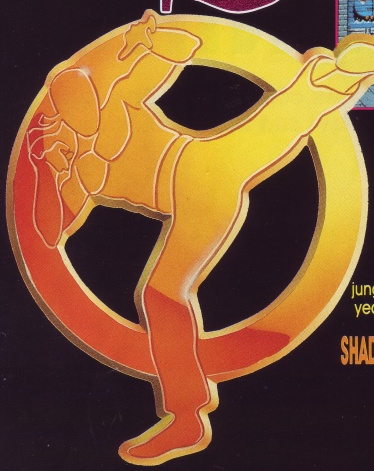


Burnin' Rubber ★ Hostages ★ Blockbusting Budget Bonanza...!

SIGNS OF





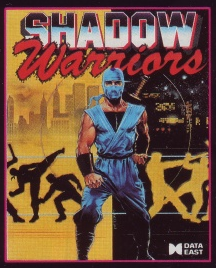


SHADOW WARRIORS, the latest, greatest and most ambitious martial arts coin-op game now rages onto your computer

FEATURING

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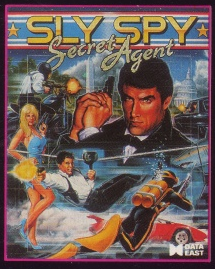
TAKE ON THE WORLD!



THE TIMES







The hit coin-op game bringing espionage and action with 9 levels of thrills and excitement. Innovative game features with a host of differing scenarios from high-powered sports cars to underwater guerilla warfare. Rescue a beleaguered nation from the oppressive regime of the 'Council for World Domination'.

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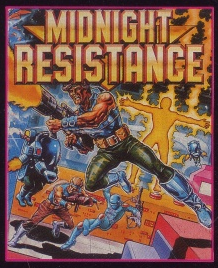
XO

The "POWER UP" coin-op hit from Data East brings super-action to your micro screen. Join the resistance fighters in their crusade against the awesome powers of King Crimson - the manic scientist, and his Crimson Corps - mere earthlings transmuted into treacherous fighting machines- giant armoured tanks, lethal circular saws, airborne fighters, mechanized snakes and many more.









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AMSTRAD ACTION ● SEPTEMBER 1990

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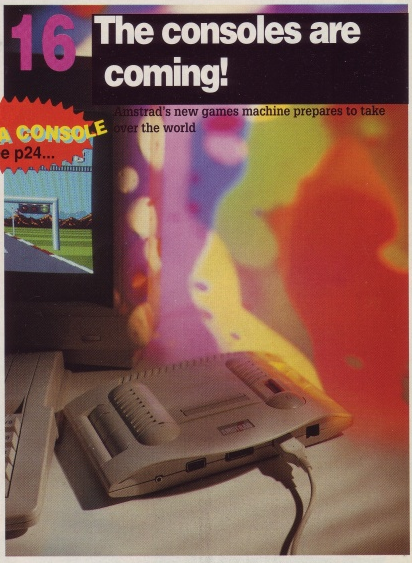
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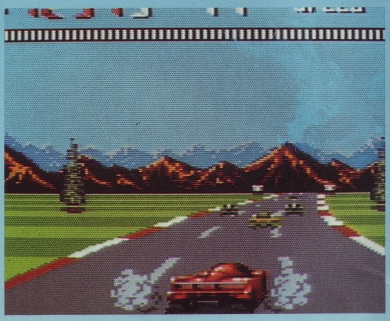
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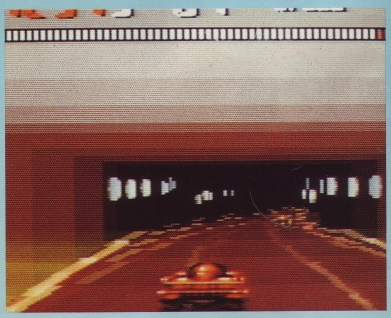


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Top-secret console games on their way!

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Sorry 'n' all that, but we're so busy putting your favourite CPC magazine together, we just don't have time to take all those calls about cheats, listings, best buys and so on. That doesn't mean we can't help you out, though – 'course not! Just send a letter to *Cheat Mode, Type-Ins, Forum, Reaction* etc and we'll do our darndest to sort you out...

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ABC

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July – December 1989

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Long live the CPC!

It's official at last. Amstrad's new console and upgraded CPCs will be arriving at retail outlets as you're reading this, and should be available in the shops within a matter of weeks. You'll find the full story elsewhere in this issue, but for now I'll just say that everyone on *Amstrad Action* is very excited by the new machinery and what it means for the future – particularly since Amstrad is clearly backing the CPC one hundred per cent (even if it doesn't call it the CPC any more!). The best news of all as far as CPC owners are concerned is that Amstrad has succeeding in NOT making the old CPC obsolete as well as making major improvements to the range as games playing machines in an increasingly competitive market. Amstrad has taken a fair bit of stick in the past for not really making the most of the CPC, but with this major relaunch we reckon it's pretty well made up for everything.



50 HOSTAGES
Infogrames holds the world to ransom



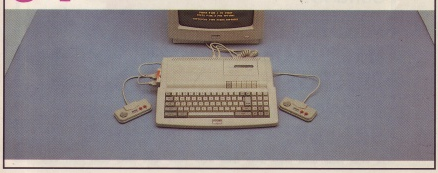
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The place were we say what's what, and why (probably)

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THE NEW AMSTRADS ARE HERE!

GX4000 console • 464 Plus • 6128 Plus

Months – even years – after the speculation first began, Amstrad has unveiled its new games-only, CPC-based console. At the same time, the company has uprated and completely restyled the existing machines ready for a renewed onslaught on the 8-bit home computer market.

Console beginnings

The first inklings that a console version of the CPC might appear came way back in 1989. *Amstrad Action*'s sister magazine *New Computer Express* ran the story last September, but at the time Amstrad refused to comment.

● **First news of the new console came in *AA*'s sister mag *New Computer Express* back in September '89.**

Since then, the rumours have grown. In *AA55* we revealed the console's enhanced graphics and sound capabilities – and the fact that these would be incorporated into new versions of the 464 and 6128 too. And in *AA58* we brought you detailed specs and info on the secret machines. And Amstrad? Still no comment...

And then, in June, a dozen English journalists were summoned by Amstrad to a hush-hush launch in Paris – and the official unveiling for the press of the new machines. The catch, however, was a non-disclosure agreement preventing publication until mid-August, to give Amstrad time to gear itself up for the full public launch. That day is here!

For the full story on all the new machines, turn to the special features beginning on pages 16 and 34.

CPC Plus

The news that the CPC computer is going to live on as the Plus (rather than just turning into a games-only console) is wonderful news for existing owners. Despite the enhanced hardware in the Plus models, they will still run all current CPC programs. The price of this backwards compatibility is that the enhanced graphics and sound are available only to cartridge software, but since it's principally games that required the enhancements anyway, Amstrad appears to have secured the best of both worlds.

One by-product of the relaunch, incidentally, is that the CPC name is no more! The console has been called the GX4000, while the Plus machines are simply the Amstrad 464 Plus and 6128 Plus – not a CPC to be seen!

Looking great

Amstrad is clearly serious about its new machines. Some £20 million will be spent between October and Christmas on advertising them both in the press and on TV, and the amount of work that has gone into the design of the hardware – both inside and outside – is an indication of Amstrad's determination to corner the market.

If the console and the Plus range reap the success they deserve, there will be a general run-on effect for the rest of the industry. Increased numbers of machines sold means increased quantities of software bought – great news for existing CPC programmers, and food for thought for those thinking of dipping their toes in the CPC/Plus waters.



● **The Amstrad Plus range retains full compatibility with the old CPC.**



● **Amstrad's new GX4000 is set to challenge console giants Sega and Nintendo.**

THE NEW MACHINES: WHAT THEY COST

MACHINE	PRICE	INCLUDED IN PRICE
GX4000 console	£99	2 game controller 'paddles' • Ocean game *Burnin' Rubber* on cartridge • mains power adaptor • manual
464 Plus (mono)	£230	1 game controller paddle • *Burnin' Rubber* and BASIC on cartridge • 12-inch mono monitor • manual
464 Plus (colour)	£330	As above, with 14-inch colour monitor
6128 Plus (mono)	£330	As 464 Plus (mono)
6128 Plus (colour)	£430	As 464 Plus (colour)

● **The GX4000 console will work with either a domestic television set or Amstrad monitor (the Amstrad monitor gives stereo output via its built-in speakers)**

WAVE BARGAINS

Mail order supremo WAVE is offering CPC owners a few bargains right now. First off are ready-made leads as described in the video titling section in *AA58*'s Multimedia feature. WAVE will knock you up one of these (standard length 1.5m – longer to order) for a mere £6.99 plus 58p P & P. WAVE has also got its hands on some copies of the hugely sought-after *Hitchhikers Guide to the Galaxy*, which it is selling for £16.24, plus 1.15 P & P. Finally, those Amstrad second drives are going for a bargain knock-down price – the DD1 (the one with the interface) and the FD1 are both £69.95, plus £4.60 P & P. You can call WAVE on 0229 870000 while, for further bargains, check the ad this issue.



● Amstrad second drives now cheaper than ever!

Microstyle's macro-value

Owners of the 464 can feel a bit hard-done-by according to Microstyle. Indeed, to bring these machines up to the higher 6128 spec, the company used to sell the ROMBoard Xtra. Well the 6128 ROM chip disappearance has put paid to that, but Microstyle now has another add-on to turbocharge those 464s. For £29, including VAT, postage and packing, the company will convert any DK'tronics 64K RAM pack to a full 256K. Just send in your existing 64K pack plus the cash. Your existing bank-switching software will immediately recognise the extra RAM, so there are no problems there.

Microstyle's offer is still a good one even if you don't have a 64K pack in the first place. Microstyle will sell you one of those for the low-low price of £38.99 and convert it at the same time. Total cost will be £67.99, over £20 cheaper than the cost of a 'proper' 256K pack.

Microstyle is at 212 Dudley Hill Road, Bradford, West Yorkshire BD2 3DF (0274 636652).



● Microstyle will now convert your 64K RAM packs to 256K!

ADLAN is finished!

AA's very own Balrog has been eagerly anticipating Graduate Software's new ADLAN adventure creator for months. Now, at last, it's finished. Find out whether this ROM-based application really will revolutionise the world of home-brew adventures in the full review on page 63...



● ADLAN adventure creator appears on the CPC.

Fanzine file

Time for a bit of fanzine news, with two particularly noteworthy publications dropping through the *AA* letter-box.

Printo-Out is a bi-monthly mag and comes from Thomas Defoe of Bishop's Stortford. Issue 4 is an A4 42-pager containing news, articles, reviews and simply pages of tutorials on programming in BASIC and machine-code. The whole lot is put together very nicely indeed. Current circulation is around 100, but Thomas is looking for more readers. If you're interested, one issue costs £1.10 (although there are some subscription deals), and you should send a cheque for that amount made payable to Thomas Defoe at PRINT-OUT, 8 Maze Green Road, Bishop's Stortford, Hertfordshire CM23 2PJ.

The second mag is from occasional *AA* contributor Carl Surry. His newsletter costs just 30p (as long as you send an SAE). An A4 13-pager, issue 2 is crammed with reviews, hints, tips and news. Issue 3 could be a problem, though: "I have enjoyed doing both of my Newsletters but it is very time-consuming. Haing to do all the work with just my wife to spell check, make tea and give moral support." Carl wants to do more issues, but they won't be on a regular basis... unless...

"One idea I have been toying with is to throw it open to your good selves to supply some of the articles and reviews. If you fancy a go, send me a disk with your page on it. *Stop Press*, *Tasword 6128* or *Brunword* are best, but I *can* do *Protext*..."



So there you go. Budding subscribers and/ or authors can get in touch with Carl at 37 Fairfield Way, Barnet, Herts EN5 2BQ.

● *Print Out*, high-quality fanzine from Thomas Defoe

Cottage industry

Scarcely a day goes by that we don't get a call or a letter about some mail order company or other – stuff not turning up, games not available yet after all etc. While most people have no trouble at all with postal shopping, a few still get unlucky.

Two such disillusioned types are Malcolm Cabot and Patrick Thompson, who between them have just set up Cottage Software – a mail-order company with a distinctly different approach. Apart from selling software at the usual discounts, Cottage will be offering a free hints, help and tips service to all buyers of its games!

The company has already compiled a large database of information on a whole host of games, and buyers can order a wodge of info at the same time as they order their games, for nothing more than the cost of an SAE. On the other hand, you may want to have a go on your own with your new game, and only get back in touch if you get really stuck.

All Cottage asks in return for this notable new service is that customers regularly send in hints and tips of their own which can then be added to the Cottage database. That way it'll always be up to date.

If you want to find out more, you can call Cottage Software on its order/advice Hotline (0703 740342) or send an SAE to: Cottage Software, PO Box 34, Romsey, Hampshire SO51 8YW.

Spectravideo's clear winner

Spectravideo, famous for its wacky joysticks, has excelled itself once more, this time with the completely transparent Quickjoy Top Star. It's claimed to be the company's strangest (sorry, that should read *strongest*) joystick yet, users can peer avidly at its wiggling interals as they take a momentary break between waves of rampaging battlezogs from Ninja (or is it... oh, never mind). Price is £24.95, so you don't get complete nudity for nothing. (*That's enough tiresome inuendo – ed.*)

Meanwhile, the Konix Megablaster, also handled by Spectravideo, is down £2 in price to an amazing £4.99. The microswitched version is also down £2, to £6.99. This makes the latter possibly the cheapest microswitch joystick in the world. Spectravideo also observes that although the Megablaster is worth its weight in gold when blasting waves of Zogninjas from Bootle, it only *costs* its weight in paper clips! Now we've heard everything.

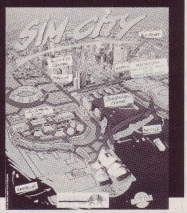


● Spectravideo's new transparent Quickjoy Top Star

Simulation City!

Or, to be more precise, Sim City. This curious release from French software house Infogrames has you acting mayor of a budding metropolis, deciding how to spend your annual budget on industry, commerce and housing. If it all sounds a bit dull, be prepared to be astonished – it really is addictive stuff. We've only seen an Apple Macintosh version so far, but we all have to be unglued from it when it's time to go home. The fascination stems from seeing your embryonic little settlement blossoming and blooming into a huge conurbation teeming with life and... (that's enough megalomania – ed)

Release dates and prices aren't known yet, but the CPC version is known to be well advanced now.



● Build yourself a metropolis in *Sim City*!

CES CHARITY UPDATE

Latest news about this autumn's Computer Entertainment Show is that the organisers have joined up with the Childline charity. This means that a whole host of "

Domark, Mirrorsoft, Gremlin, Microprose, Virgin, Accolade and a host more, "exciting new innovations" from Commodore, Sega and

Automotive action from Accolade

"Experience the power. The passion. The performance." With Accolade's *Grand Prix Circuit* players will get to "slither and slide" around Monaco, "blast down the straightaways" at Hockenheim and "snarl" through the tunnels at the base of Mount Fuji is their quest to win the world Formula One Championship – out soon on the CPC. Price will be £9.99 on cassette, £16.99 on disk.



● Thrills, spills and glam our on the Grand Prix cir cuit with Accolade.

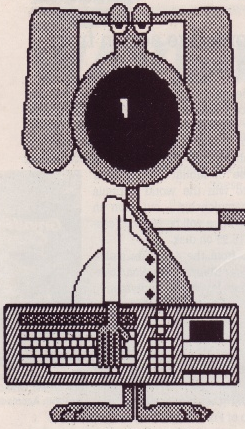
Also from the Accolade stable comes *Star Control*, an action/strategy game involving "ship-to-ship combat and galactic conquest" against a backdrop of three-dimensional rotating star clusters. Now star clusters are pretty big things, but your particular one is not big enough for both the Ur-Quan Hierarchy (the bad guys) and the Alliance of Free Stars (the good guys).

Two players select which side they want to represent and their skill level, and then embark on a strategic and tactical battle to either save the civilised universe or overrun it with evil, depending on your bent. Prices haven't been settled yet, so watch this space...

All Formats Research

A nifty bit of market research at the last All Formats Computer Fair has yielded a large number of interesting and not at all confusing statistics.

For a start, it seems the 57 per cent of those questioned had made friends through computing. Also the average amount of money spent on computing during the past year was £488 (ouch!). People travelled far and wide to get to the Fair, too – 13 per cent had come over 150 miles. The main attraction for most was the fact that the Fair represented an opportunity to pick up computer bargains – 31 per cent were attracted by low prices, 27 per cent by the chance of getting hold of bits and pieces hard to find elsewhere and 17 per cent



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Reaction

Another sackful of mail. We take the rough with the smooth...

Future shocks?

I am all in favour of progress and I have long suffered ridicule from Amiga owners for owning an amazing CPC 6128, but the new machines planned by Amstrad have their disadvantages. Either:

1. Software houses will concentrate on the new machines, leaving us stranded, or
2. Software houses will not take advantage of the new capabilities, and will make more software for existing owners, leaving new owners with no software.

Although I am in favour of progress, I do like my CPC, and would not like to sell it because of lack of software. We seem to have a situation where somebody loses out.

Finally, I commend you on your great mag. It, unlike the coming machines, provides something for everyone!

Richard Back
Leigh on Sea, Essex

AA: You're wrong about the software dilemma. Software companies will be writing for both the formats. The games hardware in the new machines is accessed only by cartridges, so the existing CPC format is going to carry on as before. Read about it further in this issue. And ignore the Amiga-related abuse – they don't know better.

Probably the best letter in the world

After I have read your exciting articles about public domain software for free, I have become very interested in getting some. But how can I do it?

Everywhere except bulletin boards I have to send money and at least an SAE. Unfortunately I am not able to buy English stamps where I live. Do you know where I can get hold of some PD software? (I do not have modem). Do all these English PD libraries really mean that I have to be a software pirate just to get some free programs?

Please help me to solve this problem! Think about how ALL overseas readers of *AA* have the same problem: there's nowhere you can go and buy an English stamp!

Torben Jensen
Otterup, Denmark

AA: Actually, that is a bit of a puzzler, isn't it? Perhaps all those PD companies out there are listening, in which case, how about just slapping on a charge for P & P for overseas readers.

As for the other thing, I'm damned if I know why you can't get English stamps in Denmark – you can get Danish bacon in Tescos...

Standard whinge

Does Trenton Webb have a monopoly on reviewing games? It seems as if nearly all the games reviewed in the last few issues have been done by him. Couldn't he let someone else try once in a while, such as me, because he is obviously not very good at it; he nearly always gives the useless games a "Master Game" or a "Rave".

Stephen Troupee
King's Lynn



● **Alas poor Trent, we knew him well.**

AA: Trent is our pal and we won't hear a word said against him. However, times change, and we have chucked him off AA, *so that James can give useless games "Master Game" or "Rave" reviews, instead. Actually a lot of heart-searching goes into each rating, and review writing takes a huge amount of skill and talent. So no, you can't.*

Mail order difficulties

PRIZE Letter

Many people have trouble with mail-order companies. However, these companies are held responsible for thier goods under the *Sale Of Goods Act*. Here is some of the protection the customer is entitled to:

- If you are sent faulty goods, you are entitled to a full refund or replacement if you report it immediately. If you report it later, then you are only entitled to compensation. The company must also pay for postage if you return the goods. However, if the goods are damaged in transit; the claim should be made against the Post Office.
- If the company goes bust after you have sent them money, your only chance of getting your money back is if the company is part of a mail-order protection scheme. If you choose to pay by credit-card, the credit-card company is only responsible if the goods are worth over £100. You cannot cancel once you have sent your money unless the company agrees.
- If the price goes up after you have sent your money, the company may charge more only if they have said so in their advert.
- If you are worried about late delivery, fix a date, at least twenty-eight days, and tell them to send a refund after that time has elapsed. Or you can post-date your cheque twenty-eight days after you send it, or tell the company not to cash it until then.
- If the goods are not delivered, then they must send your money back. They can only send alternative goods if you agree. Again, it is possible that the Post Office could be to blame here.
- If you buy through a private advert, some of the *Sale Of Goods Act* doesn't apply. Phoning before you send any money, to ensure the goods are in stock is always advisable.

I hope this helps readers in difficulty.

Neil McKeown
Bangor
Co. Down, Ireland

AA: Again, the unsavoury side of mail-order is highlighted. It is an important issue, and the legal position is not always clear., so thanks Neil.

Polish films starring CPCs

Just a few minutes ago I saw two CPC 6128s on a Polish film on BBC2. It wasn't a very good film – only that bit was interesting. Does Amstrad know about this, (it was made in 1988) or did they get free publicity? The mag's very good but can be improved in the following ways (cont page 298)...

David Shenton
Wigan

AA: Amstrad, like all major electronics companies has a Polish film monitoring department. I understand that the officer in question blinked, however and missed the appearance to which you refer. It'll be repeated at Christmas, no doubt. By the way, what are you doing watching obscure Polish films when you should be doing homework?

Good-egg's corner

As I see more and more letters in *Reaction* recently complaining about mail-order companies, I can't help feeling that not all the companies are like this. There are some truly very decent mail-order companies about, who state when games they are advertising have not yet

been released. I can't see why companies should take stick for this as they seem to be behaving quite responsibly.

Finally, do what *AA* have repeatedly said; phone the company first to check the availability of any specific games.

Mark Perella
Monmouth, Gwent

PS I'm sure many people, including me are missing Emma Broadley and I wish she'd come back. I wish her good luck in whatever she is doing now.

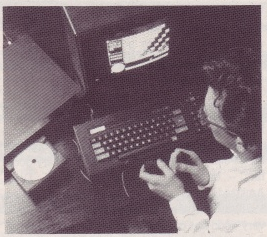
AA: Most mail-order companies provide an excellent service. The exceptions grab all the attention, thus blowing the problems out of proportion. If you have found an excellent company, tell all your friends. Tell us as well, if you have to.

And as for Emma, she is currently in Munich organising Trade Fairs, but maintains close links with AA *and Future Publishing.*

● CD deficiency

I own an Amstrad CPC 464 and have recently come up with the idea of getting the Code Masters CD Games Pack. Although I think they are trendy, I am in two minds about buying one. I have studied the Christmas Amstrad Action very carefully and I am wondering if there are any other software companies which are going to produce games on CD.

Dean Watkinson
Sheffield



● The Code Masters CD packs – where are they?

AA: The Code Masters CD pack is certainly trendy, and is very good value, with the games averaging just 60p each. But we're told various hold-ups and technical hitches are still delaying a proper launch even now, so you'll have to wait a bit longer. No one else has shown any interest in the idea, but as we said in the original article, they should!

● And my gerbil doesn't understand me...

A couple of months ago I wrote asking to be put onto your *Helpline*, which you did. Why was I dropped from it??? Was it because of the number of entries? Or was it because someone was dissatisfied with the help I gave? I would greatly appreciate it if you would put me back on the *Helpline* and let me know why I was dropped. By the way, I do have a couple of complaints relating to people who wrote to me:

1. One person wrote asking for a complete list of all the pokes, hints and tips I had. As I have all AAs plus some other magazines this was ridiculous to say the least.
2. Another person (Ida from Belfast) wrote asking for complete maps for *Head Over Heels* and *Batman*, and pokes for both. The maps I photocopied in full colour (not cheap) and sent off with a request for a small amount of money tom cover my costs. She never wrote back.

In my *Helpline* ad it said a small charge to cover costs: I never asked for this first; I relied on the goodwill of the people writing. Please try to make this point for the good of all the Helpliners in the mag.

Mark Riley
Leicester

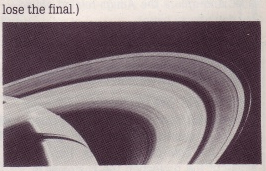
AA: Helpline *is a free service, and is heavily subscribed, so new Helpliners will naturally replace existing ones in time. The system exists due to the goodwill of the users, so, you lot, if people take liberties, it puts the entire service in jeopardy. You have been warned.*

● They think it's all over...

I recently bought *Italy '90* on disk. I have found that after the final the screen says that the losing team has won the Cup. Has anyone else had this problem? Is there any way of changing the program to display the correct result?

Christopher Cartwright
Doncaster

AA: Try turning the monitor upside-down... no, OK, fair enough – actually, it's the first we've heard of this bug. Anyone able to shed some light? (Perhaps you should deliberately lose the final.)



● Has anyone got a copy of *Star Watcher*?

● Stars in their eyes

I should be grateful to know if any of your readers can help me.

I am looking for a copy of a program entitled "Star Watcher" which I can purchase. It is an astronomical program which plots the positions of the stars for any day. (*and night, presumably? – ed*) It was made by Triptych Publishing in 1985 and marketed by Amsoft with the reference number Soft 915/1915

David Webber
Ballaugh, Isle of Man

AA: Don't forget, Helpline *is always there for these sort of requests!*

● Database plea

Please can you help me? Several months ago I purchased a 6128 and DMP 200 printer.

I am looking for a large-capacity database.

Bubbling up from Down Under

First of all, I'll air my major, in fact my only, gripe with *Amstrad Action*. In case you didn't know, the distribution network for *AA* out here in Bunbury, W.A. is terrible. Not only does the magazine arrive here up to three months late, but it also doesn't arrive at regular intervals, so I have to look in the newsagent during the first two weeks of every month, hoping that the newsagent has bothered to put it on the shelf.

The last problem is one which has come up before, and that is the steep four and a half Aussie dollars (about £2.10) that I'm expected to pay for each issue.

Now for the suggestions. How about giving a couple of awards for the adventures you review? Even though I have only been reading about nine months, this subject has not been brought up once. I feel this would make it easier, especially for those of us new to adventuring, like me, to judge which adventures to spend our hard-earned money on.

Suggestion number two; why don't you team up with a good software company and release a compilation with perhaps eight of the best games over the past few years. I reckon this ought to include *Purple Saturn Day*, because it looks so brilliant and plays so well (and also, if this is followed up, it will be the only way for me to get hold of it out here). It's a must for including in my opinion. A survey could be included in a future edition of *AA* asking what games should be included (from a given selection, maybe?) and what would be a suitable title (I think "Past Masters" would be a great title, but I could be wrong.)

When I still had the bad luck to use a C64, one of the Commodore magazines did this, and it was a great success. The only thanks I ask is that I be sent the first tape copy of this wonderful new compilation as a tribute to my great ideas.

Ben Mercer
Bunbury, Western Australia

AA: The Balrog handles all the AA *adventuring, and we don't argue with him (owing to his size and evil disposition). We have left your comments outside his cave, however. Secondly, the software houses hold on to their best games, and release them on their own compilations later. It would cost a fortune for us to buy the games and then distribute the compilation ourselves. We'll leave software publishing to the experts.*

At the moment I use *Masterfile 3*, which is excellent. The only problem is I need a database which can produce charts and graphs using data from records held in the database.

I would prefer the database and graphics program to be held in one rather than two separate programs, such as in *Mini Office II*.

I would be most grateful if you could recommend such a database and give me the address of the supplier.

Andrew Cardwell
Cambridge

AA: Well, Mini Office II *still seems the best bet. Spreadsheets usually handle graphics of the sort you want, though, Andrew. Nevertheless, perhaps someone else knows of another database that does. what you're looking for?*

● Delusions of power

My friend recently bought an Amiga and then purchased a game called *Populous*. This is one of the best games I have played, and was wondering if any 'God' simulation games like this have come out on the Amstrad. If so, where can these games be purchased? I own an Amstrad 6128.

Adam Roper
Gillingham, Kent

AA: Playing God, eh? Potential megalomaniacs might like to have the power of life and death over a city they have designed themselves. Not quite God, but certainly up to Mayoral level, the game is called Sim City, *and is due out any minute now, from French company Infogrames.*

● CP/M show

Can I use your letters page to advertise a forthcoming event being arranged by the CP/M and MSDOS Users Group?

Following the success of the 1989 Sale, we are arranging another sale of second-hand computers, peripherals and software. It will be on Saturday 15th September between 10:00am and 2:00pm at the Spring Lodge Community Centre in Witham, Essex. Anyone wishing to buy a stand to sell their wares should contact me.

Roger Stangroom
CP/M & MSDOS USERS' GROUP
11 Barwell Way
Witham Essex
CM8 2TY

AA: No. You can't. What was the question?

● One of those 'off-my-chest' letters

This is one of those 'off my chest' letters, to put my conscience at rest.

1. I was disappointed Glasgow Celtic FC did not get a mention in the 'footballing firsts' column in *AA45*. For those who do not know what they achieved, they were the first British team to win the European Cup in 1967. I suppose it wasn't your fault.

2. Does the Blitz BASIC compiler work with an expanded 464 with disk-drive?

3. How about a poke for *Rockstar?* One which makes chart-climbing easier and prevents your stars from being killed would be much appreciated.

4. Would the game *Pirates* (on disk) work with the system mentioned in Q2? Would you give the name, address and phone number of a company who supplies this game on disk?

5. Please could you answer my questions: I am a regular reader very much in distress.

Peter Campbell
Strathclyde

*AA: **1.** No, Glasgow Celtic FC winning the European Cup wasn't our fault.*

***2.** We haven't received our review copy of Blitz BASIC yet, so watch this space to find out!*

***3.** Well ,how about one? (We don't know, in other words.)*

***4.** We are totally ignorant of system Q2. Is it a relic of the Cold War? A short-wheelbase ocean liner? We'd be delighted to find out what it is.*

***5.** There you are. Couldn't be clearer.*

Serious stuff

I read with interest the comparative 'review' of our General Ledger 6128 and Small Business Accounts in the July issue but have to say I found it very disappointing. Not because it expressed a slight preference which in this case went against us. A review is, after all, based on personal prejudices and the writer is entitled to his opinion. What let the report down, however, is the total omission of any specifications. We are told what type of printer the manuals were produced on, and what colour paper was used. Yet we don't know, for example, how many transactions can be stored or the range of printed reports available. Can both programs work out profit and loss, perform a trial balance, and calculate assets and liabilities? Do they keep trading revenue separate from capital expenditure (essential)?

From this review, the reader would be left wondering although such information is vital to the small businessman. Nor is there any description of the data entry method or of program operation. This total lack of detail makes it impossible for the potential purchaser to make an objective choice between the two packages, which is surely the intention. If you wish the CPC to be taken seriously then please allow more space for business reviews, which don't occur very often. A job worth doing...

The article also contains contradiction and repetition. For example, *GL* is rated a "well thought-out, well-planned modular program" in one paragraph and yet is labelled "difficult" in another. How can it be both? In fact, the program is menu-driven with emphasis placed on ease-of-use – a feature greatly appreciated by our customers, many of whom are first time business users. If you want complexity, try using a PC package! I was frankly amazed that the reviewer claimed *GL* required "constant reference to the documentation" – a phrase which is repeated no less than four times, twice in the same sentence!

An accounting system should be reliable and trustworthy, yes even "stolid" if you like. The accepted rule is that it shouldn't allow the user to change entries easily because this will invalidate the results as far as accountants and the authorities are concerned.

Steve Denson
SD Microsystems

AA: Occasionally, last-minute changes mean that reviews or articles must be condensed into a shorter form. Where this occurs, we believe it is often better to give a shorter, qualitative assessment than a necessarily abrupt list of specifications.

We consider the quality and legibility of manuals to be very important, and consider that the package as a whole should be the subject of the review, not just the software.

If the subject itself is difficult, even a "well thought-out, well-planned modular program can be "difficult". And the phrase "constant reference to the documentation" does not occur once. Remarks stating the need to refer to the manual appear only twice in the body copy, making their point neither more nor less firmly than the reviewer intended. That same point is also expressed twice in one paragraph (not sentence) in the summary. "The traditional and rather stolid General Ledger 6128 *will appeal to those who don't mind constant reference to an instruction manual. Without it, however,* General Ledger *is at best difficult. With frequent use of the manual, however, it achieves exactly what it's designed for." That, in my opinion, is not repetition. It is emphasis.*

However, we acknowledge your criticisms, and hope that printing this letter has put your point across. We would indeed prefer to cover serious products in greater depth and regret the occasional necessity to shorten reviews.

Finally, the criticisms of General Ledger 6128 *related to its user-friendliness rather than its proficiency as a serious business tool. There was nothing in the review to cast doubt on its performance in that capacity. Indeed, the original* General Ledger *has been in the* AA Buyers Guide *since AA43.*

HELPLINE

Feeling helpful? Just send your name, address, phone number (say if you don't want it printed) and subjects on which you're offering help to: *Helpline*, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2AP. Please write on a postcard or the back of a stuck down envelope and keep it short or you won't get in (or you'll get cut to 'loadsagames').

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

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

I have a poke and tips for *Gauntlet* and *Gauntlet 2*, Send S.A.E. and tape (for poke). Female pen-pal wanted, 14 to 19 years old.
Glenn Gough, 16 St Aidens Road, West Chadsmoor Cannock, Staffs. WS11 2PG

Re: Your tip for Jinxter in July issue
You have omitted to print "Push the Button Twice". This burns the bread and the baker throws you out with your burnt bread. Don't forget to put the charm found in the bakery into the dough prior to cooking the bread.
Peter White, 5 Triandra Way, Hayes, Middlesex

Please can you help me. I previously owned a CPC464 and a DDI1 along with a Multiface II+. I have now upgraded to a CPC6128 which I bought second hand and have the following problem. I previously transferred my tape software to disk via the Multiface, but not all of them work – in fact hardly any of them now work on the 6128! Any idea why? I also need to know whether anybody out there has a manual for a 6128 they don't need or want. Lastly I need help on *Last Ninja 2*. I have been playing the game for months and can get all the way upto the Office Block Level but I cannot jump on to the helicopter to go to the next level. Is there anything I should do before jumping on to the helicopter?
Simon Griffiths, 35 Larchwood Avenue, Collier Row Romford, Essex RM5 2QL

Has anyone got *The Fourth Protocol* on cassette complete with all manuals to sell?
Martin Wedge, 36 Bridge Road, Nortoncanes Cannock, Staffs. WS11 3PB

PENPALS WANTED! I own a 6128 disk and have for 4 years. Age 15-17 female only.
G Francis, 45 Old Brumby Street, Scunthorpe, South Humberside DN16 2AY

Wanted: CPC 6128 manual, Macrosmica (Amsoft gold-disk), can come to some deal. Would also like to get in contact with strategy/exploration gamers.
Darren Shiel, Corah Ferns, Wexford, Ireland (054 88586).

Female penpals wanted. I own an Amstrad 464. Also *Marble Madness Construct Set*, the *GAC* and many other cheap budget tapes for sale. Write or phone for info.
Nick Livesey, Chinook, Castle Hill, Leebotwood Church Stretton, Shrops. SY6 6NL (06945 315).
Penpal wanted to swap games, tips, pokes, etc. Age 15+ Europe and England welcome, all letters answered. I own a 6128 with star LC10. No SAE needed. Write in English or Danish.
Torben D Jensen, Bladstrup Bygade 6, DK-5450 Otterup, Denmark, Ph: +45 (65) 955515

Tape pokes needed for *Op Thunderbolt*, *Combat School*, *Batman the Movie*, *Untouchables*. Also GRYZOR for sale on cassette.
Adam Doherty, 81 Park Road, Chiswick, London W4 3EY

Help given on: *Shanghai*, *Warriors*, *Barbarian(TuW)*, *Dizzy 2* and *Dizzy 3*. Help wanted on: *The Great Escape*, *Fast Food*, *Gremlins*, *Grange Hill* and *Run the Gauntlet*.
Thomas Storey, 27 Queens Drive, Whitley Bay, Tyne and Wear NE26 2JU (041 2523563)

Wanted: Multiface II. Sensible price paid. Under £20. Or swap with 2 games. Need any games? I might be able to help. I have a wide range of games including *Ghostbusters II*, *Untouchables*, *E-Motion*, etc.
Jay H., 23 Tintagel Close, Hemel Hempstead Herts. HP2 6NL (0442 42957)

Help given on: *Chase HQ*, *Rainbow Islands*, *Power Drift*, *Continental Circus*, *Ghouls n' Ghosts*, *Microprose Soccer* and *Robocop*. Help wanted on: *Hollywood Hyjinx*, *Myth*, *Nightmare*. Pokes for: *Robocop*, *Afterburner*, *Bigfoot*, *The Hit Squad*, *Skweek*, *Stormlord*, *Thunderbirds*, *Thunderblade*, *Titan*, *Twin Turbo V8*, *Yabba Dabba Doo*, *Yogi Bear* and *Chase HQ* on TAPE ONLY. It's free so send an SAE.
Tim Street, 158 Hadleigh Road, Leigh-On-Sea, Essex SS9 2LP

Help given on all types of BASIC, using CPM, beating the at Chess, Viewdata, Logo and many other things to do with CPCs. Help is also available on Spectrum and BBC but I am mainly concerned with CPC. I would like to help on machine code, ROM routines, projects, RSXs and programming CPM. Please send SAE.
Craig Holdstock, 7 Carline Road, Lincoln, Lincolnshire LN1 1HL (0522 529726 except Sundays).

I will give a free, original, budget or full-priced game, tape or disk to the first clever soul who sends me the complete solution to the final level on *They Stole a Million*. (A map will make it easier to understand). A list of games to choose from will be sent on receipt of tips; remember your name and address.
P Barone, Martintop Farmhouse, Latimer, Bucks. HP5 1BX

Penpal wanted. Age 10-13 female or male. Exchange games for Amstrad CPC 464 tape not disk. Games like *Black Tiger*, *R-Type*, *Rainbow Islands* and *Italia '90*. Must give games back after swap. Also need a map for *Dan Dare*.
Eamon Scaroni, 909 Wolverhampton Road, Oldbury Warley, West Midlands B69 4RR

I can help with almost anything. Send a SAE.
Matthew Furber, 3 Laxton Close, Locks Heath, Southampton, Hants. SO3 6WN

Penpals wanted owning a CPC6128. All letters replied. Please send a SAE. 10 years old if possible.
Heather Williams, Brynonnen, Brynffynnon Road, Brymbo, Wrexham, Clywd LL11 5DB

Doomdarks Revenge wanted for CPC464 – reasonable price paid. Also maps tips for *Lords of Midnight* and maps, tips and pokes for Loadsagames.
Miss Janet Haddock, Flat 3, 4 Back Howe Street, Salford M7 9FS

Penpal wanted – 10 to 13 years. To swap games for 464, also needed map for *Dan Dare*, *Short Circuit* and help on *Knightmare*.
Anthony Scaroni, 909 Wolverhampton Road, Oldbury, Warley, West Midlands B69 4RR

Cheats desperately needed for *Football Director*, also *Combat School* and *Tomcat* on budget. Does anyone have a map or pokes etc. for *Platoon*?
William Huddleston, 1 Millwell Park, Innerleithen, Borders EH44 6JF

Help wanted on *Ghosts n' Goblins*, *Ghouls 'n' Ghosts*, *Robocop*, *Renegade* and billions of others. Also female penpal (11-13) wanted to lend and swap games and cheats etc. Must have a 464 and must like pop music, 'Viz' and comedy. I am 12.
Ryan McGovern, 20 Chesterfield Avenue, Great Western Road, Kelvindale, Glasgow G12 0BL

Pokes needed on *Rainbow Island*, *Dr Doom's Revenge*, *Ghostbusters II*, *Batman* (Caped Crusader), *Turbo Outrun*, *Run the Gauntlet* and *Tiger Road* by Capcom. I will swap them for my pokes.
P Robinson, 27 Third Avenue, Kebley Bank, Telford, Shrops. TF2 0AW

OI!

Helpline is for readers wanting help, tips or penpals, or offering any of the above. No money is to change hands, OK? This page is for *free* help only. If you send in an entry asking for money for your services you're wasting your time and a stamp – it'll be straight in the bin. On the other hand, send in a cheque for £5 and you could go in *Small Ads...*

I have cheats, pokes, etc. for loadsagames. Send a SAE and 10p for a list.
Andrew Cobb, 22 Bankside, Weaverham, Cheshire CW8 3HS

Could anyone with back issues *AA1* to *20* contact me. Also *Discovery Plus* wanted.
David Csoma, 90 Hollowfield, Coulby Newham, Middlesborough, Cleveland TS8 0RS

Help needed on *Short Circuit* and *Seabase Delta*.
Richard Dziegiel, 89 Langdale Road, Mereside, Blackpool FY4 4TY.

Wanted: *Super Hang On*, *Nigel Mansell's Grand Prix*, *Xor* for 6128 disk. Your reasonable price paid.
Clarissa Million, 2 Mill Close, Sandwich, Kent CT13 9JD (0304 613163).

Help wanted on *Knight Force*, how do you defeat Red Sabboth?
D MacDonald & M Brown, 43 Denniston Crescent, Helensburgh, Dunbartonshire G84 7JG.

Help on *Treasure Island Dizzy* & *Fantasy World Dizzy*. I need help on *Indus Valley*.
Rory Young, 155 Stamfordham Road, Fenham, Newcastle NES 3JN.

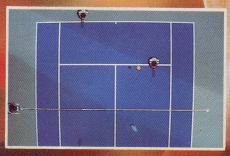
Wanted: help to get off Level One of *Last Ninja 2*. Also passwords to part 2 and 3 of *The Vindicator*.
Mr G Wilson, Village Stores, Church St, Minster, Ramsgate, Kent CT12 4BX.

Help! I don't know if the following games are available on the Amstrad 464 for tape: *Tom and Jerry*, *Blockbusters*, *Last Ninja 2*? If so, can anyone get me them? Will pay.
Ben Reynolds, Gelli, Graigfechan, Ruthin, Clwyd LL15 2EY.

Penpal wanted to teach me Machine Code. If you know Machine Code PLEASE write. All letters definitely answered.
Benjamin Fall, 40 Victory Road, Stubbington, Fareham, Hants PO14 2SG.

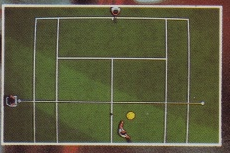
adidas CHAMPIONSHIP

tie break









Pin 'em to the baseline, ***attack the net and volley the winner!*** You might have taken this match but that was on grass - can you play as well on clay or on the indoor courts?... with ***TIE-BREAK*** you'll soon find out! And the play selection doesn't end there - play singles or doubles, select to play in all the major tournaments such as Wimbledon, Davis Cup, French Open and many more. You can then make a racquet selection -and that could win you the match!

F*eaturing all the shots in the book, breathtaking animation and amazingly realistic speech and sound effects in T.V. style presentation make* ***TIE-BREAK*** *the out and out winner on any micro.*

COMMODORE, ATARI ST, AND AMIGA.

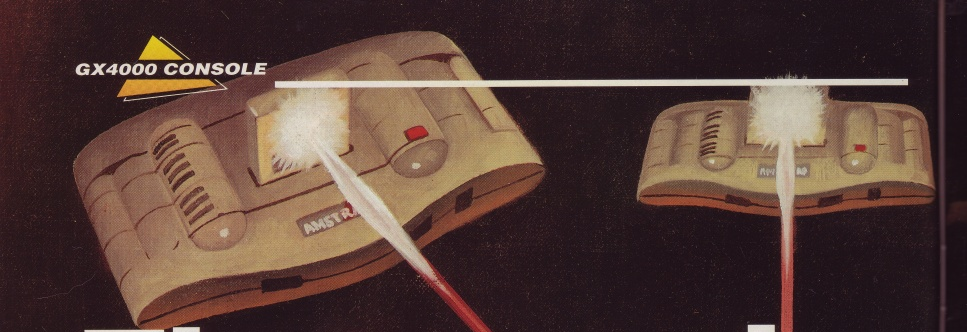
OCEAN SOFTWARE LTD, 6 CENTRAL STREET, MANCHESTER M2 5NS TELEPHONE: 061 832 6633, TELEX:669977 OCEANS G, FAX:061 834 0650.

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COMPETITION



The consoles

Computer games represent one of the fastest growing areas in the world of leisure. And Amstrad, pioneer of the affordable home computer, is staking its claim with a fantastic new games console – the GX4000.

Imagine playing super-quick arcade-style games, with amazing graphics drawn from thousands of colours. Games with stereo sounds and superb synthisized effects – and written by all the top programming houses, so there will always be loads of high-quality games to chose from. Massive games, with lots of graphics and levels, so you can play for ages. And games that load in an instant – without having to wait tedious minutes for the tape to finish.

How much would you expect a machine that gave you all this to cost? You'd be pleasantly suprised. Astoundingly, all this can be yours for less than £100.

The GX4000 is the name of Amstrad's long-awaited games console. Rumours of such a machine on its way have been floating about for over a year now, but have have always met with a firm "no comment" from Amstrad. There has been much speculation about what the console would offer, but the product that Amstrad will unveil to the public this autumn has exceeded everybody's expectations. Based on Amstrad's CPC home computer, the console has been given extra internal circuitry to give it "turbocharged" performance.

The bare essentials

A console is a computer without a keyboard. All the expensive mechanical parts – such as disk drives and keyboards – aren't necessary. The games come on cartridges that plug directly into the machine. All that the console needs is the processor – to run the programs, and a few special chips to speed things up.

The result of all the non-essential components being stripped out is that Amstrad can offer the games player a technically excellent device at an unbeatable price. But people who want to compute as well as play games haven't been ignored. Two upgrades to the CPC computers, called the Plus range, will be available. These have keyboards and either tape or disk drives so that more conventional software can be loaded and saved. They will also have the cartridge port to enable them to take advantage of the stunning games that will be available on these plug-in plastic programs.

And what stunners they'll be, with over 4,000 colours to choose from – 32 which can be displayed at a time – giving millions of combinations. And built-in 'sprite' hardware which allow images to be drawn extremely quickly. These special hardware tricks, including mega fast screen scrolling, mean that the games will be of – as near as makes no difference – arcade quality.

Burnin' ambition

If *Burnin' Rubber*, the game supplied with the console (see page 45 for a full review), is anything to go by, the programmers are doing their utmost to make sure that the features offered are used to the full. For instance, *Rubber* uses the massive colour palette to fade the scene from broad daylight to night as you race along. In addition, get your racing line wrong and the result could be a spectacular cartwheel down the track.

All this is just a taste of what's to come, though. As programmers get more familiar with the inner workings of the machine, the games can only get better and better.

The games promise to be big, too. The cartridges have enourmous memory capacity. There's lots of room for detailed graphics, and plenty of space for masses of screens. So as well as having

are coming!

hundreds of brilliant games to play, they'll last a long time too.

With the top software houses providing the programs you can be sure that they're going to be good, and in plentiful supply. A healthy competitive market, with all the big names vying for sales of their games, can only heighten the quality of the products available. In comparison, other console manufacturers have a strict monopoly on the software produced for their machines.

Styling for the '90s

It's not just insides of the console that are impressive. The styling has been brought right up to the '90s, with a new, sleek moulding that gives it the appearance of a starfighter from Planet X...

And two 'joypads' are supplied, while a variety of game controllers will be made available. Analogue joysticks for greater precision in certain games, and a light gun socket will really allow you to let rip!

You'll be able to connect the console directly to an ordinary domestic television set, but for better quality pictures, matching monitors – complete with stereo speakers – are available. Of course this does increase the price, but the display is truly excellent.

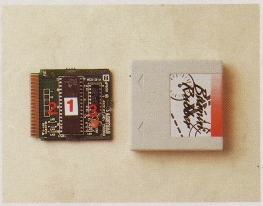
One thing's for certain. The GX4000 will revolutionise the way that games are played. Amstrad is set to storm the console market in the '90s in the same way it stormed the home computer market with the CPC in the '80s.

The console market has a very powerful new contender indeed...

Technically

The GX4000 console is heavily based on Amstrad's CPC range of computers. Significant advances have been made, though. A clever custom-designed chip at the heart of the system delivers unprecedented power for the price. Other features:

- A Z80A running at 4MHz drives the software. This is the same processor as used in the CPC computers. Proper vectored interrupts allow essential tasks like DMA update to take place automatically.
- The complex custom chip has 18,000 gates and 2K of in-built memory, allowing powerful graphics handling and sound generation. A lot of the processor's workload is taken over by this chip.
- 64K of RAM is included for temporary data storage.
- 16K of RAM is devoted to screen memory. Up to 16 colours can be displayed from a palette of 4,096.
- The console uses the same sound processor as its predecessor, the CPC range. However, a sophisticated DMA – Direct Memory Access – controller plays the music without burdening the processor. The DMA uses a simple command language for note generation, timing, and repeat loops. Three special in-built programs feed the chip without CPU intervention.
- There are 16 hardware sprites, each 16 by 16 pixels. Each is made up of 16 colours, and can be magnified to double or quadruple normal size. Sprite size and palette are independent of the screen mode, effectively increasing the number of on-screen colours to 32.
- Smooth hardware scrolling has been implemented. The screen can be scrolled a pixel at a time, both horizontally and vertically.
- Programmable scan line interrupts allow the colours, sprite data, even the mode to be altered half way through each frame. This creates the illusion of more colours, more sprites and split mode screens – without major programming effort.
- The cartridges can hold a massive one Megabit – that's 128K of instantly-accessible code. Plenty for even the most sophisticated games.
- A light gun – similar to the Amstrad light phaser – will be available around the time of launch.



1. There are two chips inside the cartridge. The giant 128K ROM chip contains the software itself.

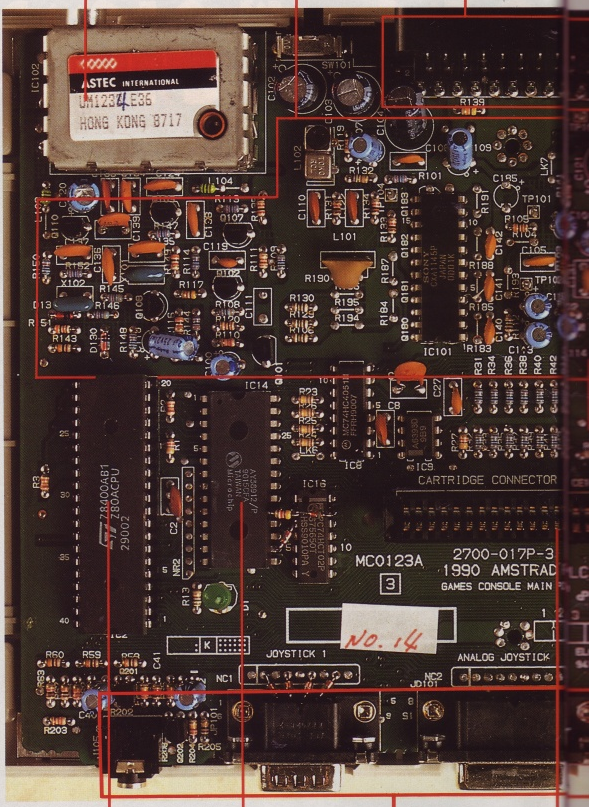
2. Edge connector – plugs into the cartridge port.

3. The smaller chip is a mystery. It is custom made by Amstrad. It is thought that it could be part of a special security locking system to prevent illegal piracy of the software.

TV Modulator. Changes the video signal into an RF output that a television can understand.

Video Circuitry. Converts the screen memory and sprites into RGB and composite video signals.

Monitor Output. For connection to Amstrad or Scart monitors.



Central Processor. An 8-bit Z80A CPU interprets and runs the programs in the cartridges.

Sound Chip. The AY38912, as used in the original CPC range, provides three channels of sound.

Controller ports. Joysticks and light guns connect through these.

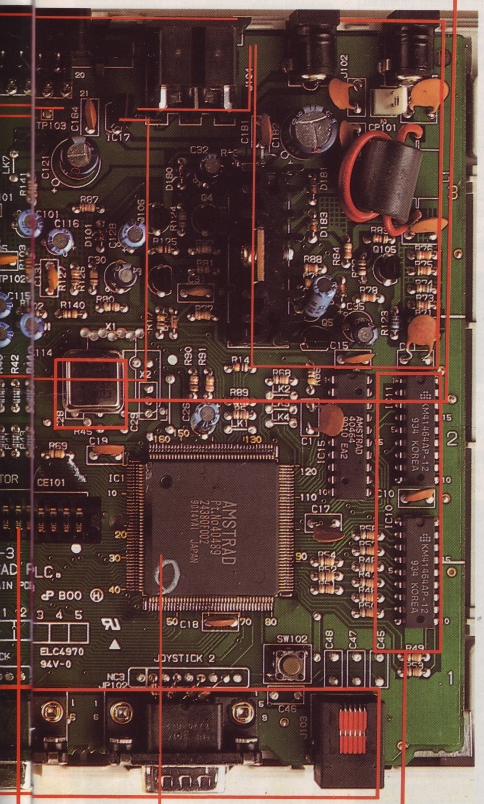
Cartridge Slot. The games plug here.

speaking...

nnectio n to
tors.

Power Circuitry. Smooths the power supply for safe consuption by the console.

Crystal. Provides timing for all the circuitry. It's specially modified to generate a clock frequency that provides the best possible picture on a PAL television.



ge Slot The plug in here.

Custom Chip. This is the big brute that does all the clever bits. The gate array, sprites, and other goodies are carved in the silicon within.

RAM. There's 64K of memory in these two chips. It's used for tempory storage of data and screen memory.

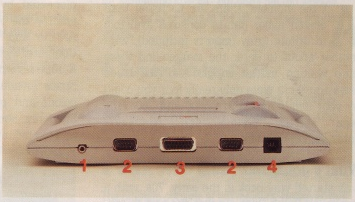


1. LED. Indicates the machine is switched on.

2. On/Off Switch. As well as sending power to the unit, it physically locks the cartridge in place. This prevents the plugging in or unplugging of a cartridge while powered up.

3. Pause button. This button tells the program to pause the game. It is a software rather than hardware control.

4. Cartridge slot. This is basically a ROM socket – the cartridges are essentially plug-in ROMs. (ROM software loads instantaneously.)

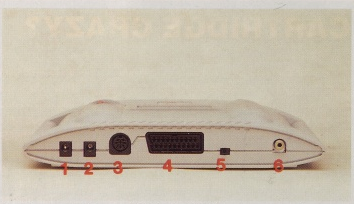


1. Stereo sound jack allows connection to an amplifier – to a Hi-Fi, for instance.

2. Joystick ports allow you to use any standard joysick or the Amstrad game controllers. Each accepts input from two Fire buttons.

3. Analogue joystick port allows connection for a pair of these special joysticks.

4. Auxilary control device lets you use a light pen or possibly a light gun!



1. Power socket for use with Amstrad Monitor

2. Power socket for use with the power adaptor.

3. Amstrad monitor Socket.

4. A SCART socket is included so that the console can be plugged into certain types of monitor and televisions. It gives both RGB and composite video signals. SCART is rapidly becoming the standard for connecting video sources/devices.

5. Sound button. Used to offer better sound with TVs.

6. UHF socket. Allows the console to link up to any TV aerial socket.

Completely console

News of Amstrad's console might have taken some people by surprise, but keen watchers of the home computer scene could have made a pretty good guess as to what the latest 'strad would be. Why? Well, this is the year of the console. STEVE JARRATT explains...

At the moment, there are no fewer than eleven major games consoles available in Britain (grey imports included), with another about to enter the market and three more waiting in the wings. And just three years ago there were only really four you could lay your hands on: Atari's 2600 and 7800, the Sega Master System and Nintendo's Entertainment System.

What's going on?

It all started way back in the early '70s, with a guy called Ralph Baer. He was the first to conceive the idea of an electronic entertainment medium which could exploit the huge number of TV sets in operation. His company, Sanders Associates, in conjunction with Magnavox, produced the first video game system. The Odyssey was released in 1971 and was a complete disaster.

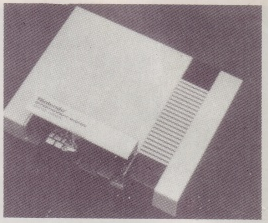
Nolan Bushnell's *Pong* coin-op soon followed from Atari (along with a one million dollar settlement to Baer over copyright!) and it didn't take long before home versions were produced, pumping out monochrome variations on the *Pong* theme (remember the old Grandstand and Binatone systems?). There were as many as 76 such systems produced. Unfortunately, these machines came complete with built-in obsolescence: with only a half dozen or so fairly tedious games, they were soon relegated to the bottoms of cupboards worldwide.

The next logical step was to put individual games onto cartridges, which was successfully pioneered by a number of machines, most notably the Fairchild Channel F, Bally Home Arcade and, of course, Atari's VCS (Video Computer System). Homes across America and Europe reverberated to the droning anthems of *Space Invaders*, *Asteroids* and *Breakout* – in colour and of near arcade machine quality. Suddenly, home video gaming was big news, and big money.



● Sega's Master System: 8-bit technology, 2-bit sales.

Over the next few years scores of consoles appeared, all trying to grab their share of the market. Shop shelves groaned under the strain of the Philips Videopac G7000/Magnavox Odyssey2, Arcadia 2001, Mattel Intellivision, ColecoVision, plus the Acetronic MPU 1000/2000 and similar units from Interton, Radofin, Prinztronic, Teleng, Rowtron and Database.



● Nintendo Entertainment System: huge in Japan and the States, yet to make an impression over here.

But then, as rapidly as it had started, the video game boom came to an abrupt end, Atari lost millions and very nearly broke its holding company, Warner Communications (the movie people).

A second coming

But why this sudden resurgence in the '90s? Well, in truth, consoles have never been 'away'. The British games market is wildly different to that of Japan or America where the Nintendo and Sega consoles have reigned supreme for the last five years. Worldwide, Nintendo's *Super Mario Brothers* is the biggest selling home computer game of all time, and Nintendo's Entertainment System is installed in almost every Japanese home, and in every fourth US home.

The Sega and Nintendo systems surfaced simultaneously in Britain at the 1987 PC Show, but failed to grab the public imagination as they had done to east and west. The original stock of games was unimpressive compared to the familiar computers, and the cartridges were – and still are – annoyingly expensive. Consoles were back... but so what?

Attitudes really started to change when the PC Engine hit town. This little beauty blew reviewers away with startling graphics and FM quality sound. Everyone who saw one wanted one and, to the uninitiated, dedicated games machines seemed the only way forward.

At least they would be... if only you could get hold of 'em! Nintendo kept swapping bosses in the UK and has only now got its act together, while NEC simply refused to recog-

CARTRIDGE CRAZY?

Unlike your standard (or in Amstrad's case, non-standard) disks and cassettes, cartridges come in all shapes and sizes, with different pin-outs and specific operating systems so that no cartridge designed for one machine can be plugged into another. This enables console manufacturers to maintain some sort of discipline within their own product line and, by keeping the exact method of cartridge duplication a secret, the same companies can retain total power of veto over the games being written for 'their' machine.

For instance, practically anyone can write and publish a game for the CPC without getting express written permission from Alan S himself, and hopefully publishers will have the same freedom when the console takes off.

However, take the all-powerful Nintendo as an opposite example. The company is in a situation where its machine is so succesful, almost any game released will make a fair amount of profit. Consequently, Nintendo has publishers just lining up to write games for the machine. Only once Nintendo is satisfied that the publisher in question has a good enough track record to meet its strict standards will it then sign a licensing deal allowing the publisher to go ahead with a specific project. Nintendo keep close tabs on all stages of the product and have the final say on the look and content of the game.

The final code is play tested for many hundreds of hours (if there's a bug in the final cartridge, it's red faces all round) and then the ROMs are 'burnt', and the cartridges are constructed, packaged and shipped out to the stores.

You'll generally find that publishers stay faithful to one console manufacturer, although people like Konami are big enough now that they can get away with producing the odd Sega game without annoying Nintendo too badly. However, smaller companies have to be careful not to blow the deal once they have it; licences to produce console games are much sought after these days!

e mad?

nise the European market: the PC Engine remains a grey import-only product.

However, Virgin Mastertronic took on Sega's distribution and has been pushing the machine hard for the last two years. Virgin's target of an installed European user base of 1.5 million by next January is looking a pretty safe bet. Not only that, but Sega's 16-bit Mega Drive is due to hit our high streets any minute now.

Another factor is the rather sudden appearance of hand-held consoles. The little LCD screen Game-and-Watch toys have paved the way for true portable gaming.

But considering the immense popularity and installed user base of the home computers – CPC, Speccy, C64, Atari ST and Commodore Amiga – it still remains a puzzle as to just why consoles are undergoing something of a renaissance at the moment.

Certainly from the software houses' point of view, they make wonderful financial sense. Games are expensive and you can't pirate 'em: they make more more money because they have a higher mark-up, and they make more money 'cos you lot are forced to buy more original copies. Basically, they make more money.

From the users' point-of-view, consoles are simply good fun. They're quick and easy to use, there's no poxy loading to sit through, and they very rarely crash. Adults are also far more likely to want to play on a machine that looks as harmless as your average console; put 'em in front of a complex-looking computer and they just don't want to know.

Jumping on the bandwagon

So Amstrad's decision to release a beefed-up console version of the old CPC doesn't seem so wacky after all. Amstrad is already a household name and can capitalise on that: Joe Smith wanders into Comet, knowing that his sprog wants a 'console'. And while Atari, Sega, Nintendo, SNK and NEC fall into the 'never heard of 'em' bracket, Amstrad has pretty much hacked its way into the public awareness. Looks good, it's cheap, and I know who they are. Job done: one console sold!



● Nintendo's hand-held Game Boy.

CONSOLE ROUND-UP

● Nintendo NES; £100

Aging 8-bit machine with a funny display system, limited palette and teeny sprites. BUT it has the *Super Mario* games, and the full backing of the largest video game company on the planet.

● Nintendo Gameboy; £90

Cracking little device, with stereo sound and small, but monochrome LCD screen. Small enough to slip in your pocket and runs up to 16 hours on one set of batteries. There are loads of games already available, and they should start shipping the Gameboy in this country late summer. Hurrah!

● Atari 2600; £40

The ancient VCS in a different box. Crap graphics but the games play well and the carts only cost a tenner apiece. Reported as being the best selling console last Christmas – and it's only ten years old!

● Atari 7800/XE; £70

Basically Atari's XE computer without the keyboard. Recently redesigned and put in a smart grey box with big, pastel-coloured buttons. More powerful big brother of the 2600, with improved visuals and better games. The machine for which Lucasfilm's *Ballblazer* was written. Cheap console, cheap games.

● Atari Lynx; £180

The absolute ultimate in portable gaming. Superb colour LCD screen, amazing (amazing!) hardware and the ability to link up to eight players at a time! A tad expensive at £180, and a limited library of games so far.

● Sega Master System; £80

Superior to the NES, but spoiled by a generally average library of games. This should all change now that European software houses are supporting the machine, though. 3D glasses and a Light Phaser boost the lasting interest, and Virgin and Sega are starting to push the machine very hard indeed (it also has its own dedicated magazine called S – The Sega mag, from the same people that bring you AA. Check it out).

● Sega Mega Drive; £190

THE console to watch. Sega's 16-bit console is just about to go on sale in the UK. A bunch of dedicated chips make this a real mean mother. Tinny sound, though, and the first batch of games has been a disappointment. But just you wait...

● Sega Game Gear; £TBA

Colour hand-held with a specification slightly inferior to that of the Lynx. If Sega can get its act together, this could be a real contender. Should arrive in Japan next year; Europe... gawd knows.

● PC Engine; £180

Brilliant 8-bit machine with go-faster stripes. Neat, compact, and extremely good at being a games machine. Called the Turbo Grafx in the States, it came up against the Genesis – and died. NEC is now too busy pushing it in the US to launch the thing in Europe.

● Nintendo Super Famicom; £TBA

Legendary 16-bit Nintendo machine. Rumoured to be 'something special', but don't get too worked up 'cos us poor saps in the UK won't see one for yonks.

● Super Grafx; £275

Uprated version of the PC Engine but remaining downwardly compatibility. Superb machine, crap design. If only NEC could find Europe on its map...

● SNK Neo Geo; £450

The ultimate console at the moment. However, this box of tricks costs around £400 and the games around £200 apiece. 'Nuff said.

● Commodore C64 Games System; £100

To be launched in September, around £99. Basically a keyboardless C64. Clever cartridge design means its easy to convert existing games to run on the console, and the cartridges are directly compatible with the C64 itself. Could do well.

● Amstrad GX4000; £99

Consoles come smaller, cheaper and technologically more advanced than Amstrad's new machine – but not all three at once!

Amstrad has taken note of the route followed by all those console manufacturers before it – and has come up with a product designed to steal sales from the biggest chunk of the market. The 16-bit consoles are the best, but they cost a fortune and they're still hard to get. The PC Engine isn't really available here yet, and shows no sign of being so in the near future, while the handheld machines are perceived as toys. That leaves the Sega Master System and the Nintendo NES claiming the bulk of the UK cheap console market. The Amstrad console is better than both, will offer more games and has the huge Amstrad name behind it.

REVIEW

BANK BALANCER

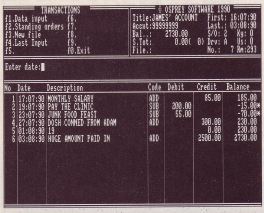
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Ever wondered where all your money goes, apart from fast cars, loose women and dry-roasted peanuts (well, *I* like them...)? With the help of *Bank Balancer* you may get to find out. JAMES LEACH investigates...

In my opinion, effective money management requires a stout shoe-box and a safe place. However, if your finances are of a more complex nature, you may be looking for a program which will allow you to keep track of every transaction which occurs in your account. Sheffield-based Osprey Software has produced *Bank Balancer* for this very purpose so that you can monitor with extreme precision your dwindling loot.

As with any program designed to make life easier, things must firstly be complicated enough to warrant its use. If you fall into the get-it, spend-it, scrounge-it category, you will have little need of such a program. However, for those who do wish to sort out their fiscal doings, this might be just the thing.



● Like a bank statement, every transaction is shown.

After loading, you are presented with a screen divided into four clear areas. At the top of the screen are the menu and status areas, which give information about where you are and what you are doing in the program. Below this is the input area, where you type any new information. The bottom half of the screen is taken up with the data zone, which displays the information concerning your account already input.

First you input your name, account number, balance and date. Provision is made for a password, which should guarantee security. Your new file can then be saved. Each transaction must be entered next, ideally in chronological order. There is a standard format for entering these, and it is quick and simple to do. Every transaction can have a text description of up to 30 characters, and the result is a screen which looks a little like a bank statement.

The program handles every type of transaction, and you can add a code to each to differentiate between them. Of course, it automatically calculates the new balance as you go along. One of the program's strengths is its ability to handle up to 24 weekly, four-weekly, monthly or yearly standing orders. Other events, such as credits and debits are programmed to occur whenever you desire.

If things start to get long and involved, there is a Search facility which can use the description, date or code to pick out items of interest (er, interesting items, that is).

The dates of each transaction are naturally very important, so you would need to use the program frequently, or keep accurate written records until you can input them en masse. When details change, it is easy to amend them in – most operations require only a function-key press.

A Browse option allows you to wander through the figures without the risk of accidentally bankrupting yourself. You can print out any or all of the figures on an Epson-compatible, so no probs there.

It is of course possible to have many files, each dealing with one account. These can be saved and loaded easily from within the program, and items can be transferred from one file to another.

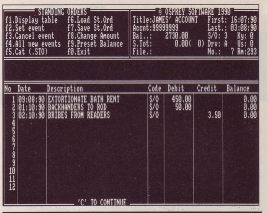
Another useful feature is the Key Define. *Bank Balancer* will allow the user to assign frequently-used words or names to individual keys for rapid access. Up to 18 keys can be used, with each key holding 15 characters. This is ideal for holding your name and words like 'cheque'.

Mistakes, wrong inputs and disk bodges are dealt with by what Osprey terms an 'Alarm' system. A flashing warning appears, with a message telling you what you have done wrong. Details like this a re obviously important in a program dealing with finance. It is impossible, however, for the computer to spot numerical mistakes, so a vigilant eye is still needed to ensure accuracy.

Bank Balancer comes with a clear 'menu tree' on a separate sheet, which doubles as a guide to the program's functions, and also makes it clear what you are doing. There is also a 34-page manual which systematically covers all aspects of the program, with examples. (Where did Mr A N Other get all that money?)

What separates this program from many is the professional finish and the ease of use. The display is very polished and serious-looking, while the software itself introduces you gently to the world of high (low?) finance. These things are often difficult to understand on their own, without the added trauma of a quirky program which is supposed to help. *Bank Balancer* covers all the major transactions, and allows the saving, printing and browsing through of every aspect of your account.

It is this ease of use that elevates *Bank Balancer*. It certainly has a comprehensive coverage of all the necessary functions, so much so that it would probably be suited to many small businesses, even though it is really designed for personal use. But the system of



● The Standing Order list shows the bad news.

menus and single keypresses is logical and easy to get used to. A nice touch is the ability to change the background and text colour, even though the default colours are actually fine anyway.

If your cashflow is in such a state of unintelligible complexity that you require a program which will handle it all comprehensively and logically, then you could do much worse than *Bank Balancer*. It is capable of dealing with enough data to possibly be useful for more than purely personal accounts. It isn't revolutionary, but it is slick, functional and easy to look at and use.

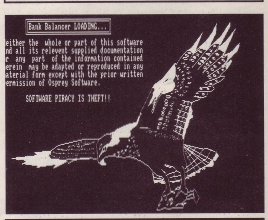
Times have changed, and high finance is now available to us all. So, unfortunately it looks like it's time to trade in the old shoebox. Now where did I hide it?

GOOD

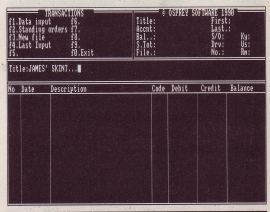
Does a neat, accurate job with little fuss

BAD

Manual is only photocopied dot matrix print



● Sadly necessary words of warning during loading.



● Inputting the data is easy-peasy.

Q

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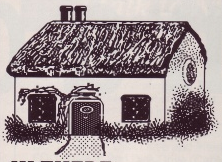
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FINALLY,
it's goodbye and good luck to all those "meddlers" who made the whole project so interesting and successful. We are quitting at the top but BONZO will be working for thousands of "meddlers" for a long time yet.

Colin H.

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Forum

End your technical turmoil – drop a line to Doctor Waring

Chief librarian

"Cor! Look at this!" I said as I loaded some new PD Software.

The new libraries for computer enthusiasts are fantastic, so I have decided to make one myself.

Now my question. Can I copy and sell PD software produced by other PD clubs?

Daniel Bourn
London

Yes. However, you shouldn't go into PD with the attitude of making a quick buck. The spirit of public domain is that the software is given entirely free. Any money paid is to cover the libraries' overheads only.

Cassette compatibility

I write to you on the subject of file transfer, I would like to transfer a BASIC program on a Spectrum cassette to my Amstrad CPC6128. Can I just load it in like an ordinary cassette, or is it impossible due to the files being saved in a different manner?

If you don't know of a way to transfer from Spectrum to CPC6128, does anyone have a Runequest character creation program they could copy for me?

Michael Burrows
24 Thomson Street East
Darlington
DL1 3BB

The way that the Spectrum and CPC interpret BASIC programs is entirely different. It is possible to load Spectrum data into your CPC, but a special tape loading and saving routine needs to be written in machine code. AA published such a routine many moons ago, which allowed you to load Speccy screens into the CPC. Programs, however, cannot be transferred.

I assume you want a copy of a friend's Speccy program to run on your CPC. Why not list the Spectrum program and type it in on your CPC? You'd have to make a few changes to make it work, of course, but the essence would be the same.

I've printed your full address, In case someone has already written such a program. Happy role-playing!

Bouncy bouncy

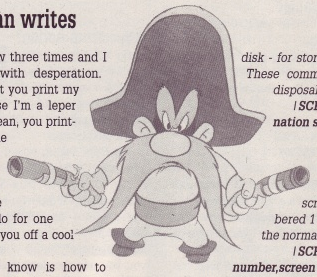
464 owners who would like to use the *Bounce* program (*Type-Ins, AA58*) can do so by making the following alterations:

Erase lines 61, 62 and 63.

Alter these lines to read:

```
70 PEN 1
```

A madman writes



I have written now three times and I am now crying with desperation. Why the hell won't you print my letter, is it because I'm a leper or something? I mean, you printed my letter for the *AA Helpline*, but no, not a bloody sausage to help me. I mean come on, what must I do for one measly reply – tip you off a cool million or what?

All I want to know is how to change the two banks of memory around on the 6128, as I bought the machine off a friend, and he had no manual.

I have written to lots of people and shops for the answer, and this is my last resort. No-one seems to know what I'm talking about – or they don't know how to do it. I mean, you print pointless letters about them not typing in the *Type-Ins* properly and then moaning when they don't work. I ask you, why???

I am now convinced that all of you in *AA* are all the same person working under different codenames to avoid detection, 'cos you are all CIA agents really. See, I'm that desperate I'm losing my mind (Cuckoo)...

Please x 3,000,000, print my one and only letter...

J Foster
Newport

Bribes are always welcome, though obviously the bigger the better. We accept all major credit cards, and quite a few minor ones too. So despite you being completely bats, your cash donation has won you a reply.

CPC BASIC has no provision for using the extra 64K memory available on the 6128. However, on Side One of your system disk there is a program called BANKMAN. Type RUN"BANKMAN to install it. Several RSXs are set up, for you to use within BASIC. There are two spheres of use. You can use it to exchange screens, and as a sort of RAM disk - for storing data files only. These commands are at your disposal:

\|SCREENCOPY,destination screen no,source screen no *(Copies the source screen to the destination screen. The screens are numbered 1 to 5. Screen 1 is the normal screen.)*

\|SCREENSWAP,screen number,screen number *(Works in a similar to screencopy, but exchanges both screens.)*

\|BANKOPEN,record length *(Sets the length of all records. The current record number is set to 0.*

\|BANKWRITE,@return code,string[,record no] *(Writes a string to the RAMdisk. The record no is optional, and specifies where to write the record. The return code tells you which number the record is.)*

\|BANKREAD,@return code,string[,record no] *(Reads a previously written file. Parameters are the same as above.*

\|BANKFIND,@return code,string[,start no,finish no] *(Searches through the entries looking for a particular string. If start and finish numbers are specified, then it looks within that range. The return code once again tells you the record number found.)*

I've had to be brief. Much more detailed information is available in the CPC's manual. If you're interested in using BANKMAN, I strongly recommend you try and get hold of one – try Helpline *(though why somebody should help such a despicable toad is beyond me).*

Many of our enterprising readers have come up with programs that make clever use of the extra memory of the 6128. Check out recent pages of Type-Ins.

```
220 PEN 1
495 CALL &BD19
500 PEN 1:MOVE x1,y1:PRINT " ";:MOVE x,y:PRINT
    CHR$(231);
850 hiscore=scr
```

The last part of line 60 should be changed to read:

```
hiscore=31:name$="Jonny"
```

With this listing the file 'HISCORES' is not needed, but because of this, higher scores will not be permanently recorded.

Also it is necessary to save the program, clear the memory, and run the program with RUN"", or else the program will come up with an error.

Linden Gill
Rotherham

Thank you for the alterations, Linden. Now 464 owners can join in the fun!

● Machine code maniac

I have been programming in BASIC on my 6128 for about four years now, and would like to try machine code! Upon reading about an assembler on side two of the CP/M disks. I tried to load it. I typed in asm. The result was not what I wanted:

CP/M ASSEMBLER - VER 2.0
NO SOURCE FILE PRESENT

What is a source file (excuse my ignorance) and how can I get one? Please help (grovel).

To change the subject completely, how do I active a smart bomb in *X-Out*? I would love to know.

Would it be possible to make a machine code masterpiece that would allow us readers to type in the four-letter *Type-writer* code and have the line listed in BASIC, so all we have to do is enter the codes and the program would magically appear thus saving time?

Neil Stewart
Bridgewater

The assembler provided on the CP/M disk needs a file to be written with a text editor – such as a word processor to be used correctly. On top of that, it's not a Z80 assembler at all. It uses the 8080 instruction set. While the programs you can produce on it will run, you'll have to learn a totally weird and outdated machine language that's about as powerful as a arthritic gnat.

My advice is to go out and buy a proper assembler. You'll find it much friendlier, more efficient, and the programs produced will be much more powerful.

Read the blinkin' instructions.

No.

● Spectrum Action?

I am writing to you hoping you can help. I need a cassette micro switch. I have tried all my local computer shops – without success.

So I am asking you if you know where I could obtain one. The part I need controls the power to the cassette deck of my Spectrum +2. It has two small strips of metal. When you use the deck, these make contact.

I would be grateful if you could give me details of how to obtain it.

A J Caller
London



Just a minute A J, you are aware that this is an Amstrad magazine, hence the name Amstrad Action*? We hate Spectrums in this office, and dislike Speccy owners even more.*

Maybe you should have written to Your Sinclair *– available from all bad newsagents at £1.70. Then again, they'd probably have given you a silly reply, saying that things aren't made like they were in the old days, and how you could get a whole new Spectrum for a shilling, and still have change for a packet of Woodbines and a night on the town (or something).*

So good idea writing to us then. Top marks. We're far more helpful than that Matt Blimey fellow. We flicked through the pages of that shameful rag YS. In the small ads, under the Repairs and Spares section, we found a suitable candidate.

When we phoned up, the company and explained the problem, they said: "Never heard of no microswitches in the +2". Maybe it'd be better if you spoke to them yourself, and explain exactly what the problem is. In any case, they told us that a small repair like that would only cost around a tenner – so you may be better off letting the professionals take care of it. Call R.A. Electronics on 0502 566289.

● Epson Derby

I have recently obtained an Epson RX-80 printer second-hand, but unfortunately (yes, you've guessed it!) the manual didn't come with it. I tried contacting Epson, and they suggested contacting their parts supplier Unicomp.

When I contacted Unicomp they told me that they did not have a manual for the RX-80 but they did have an RX operating manual.

"Was the manual for the RX-80 then?" I asked. They couldn't tell me. "How much was it? I asked. "£20." They told me.

So they expected me to shell out £20 for a photocopied manual when they couldn't even tell me if it was the right one! I would therefore like too ask if there are any *AA* readers out there who perhaps own an RX-80 and could provide me with a suitable manual (explaining the DIP settings and control codes etc) for, a more reasonable sum. If so could they contact me?

Gary Barnes
43 Swincombe rise
West End
Southampton
SO3 3NL

Right, that's the last time, absolutely the last. Anyone requiring manuals etc should use the Helpline *page. After all, that's what it's there for.....*

● Demo tape

I have been talking to my Amiga and ST-using friends and rather than talking about games they prefer to talk about demos. Some of these they get from magazines, others they buy for only a few pounds. They are great, with parts of games, music or just animation.

I would like to know whether you will be doing these or is there a firm which sells them? I would be grateful for their address, if so.

Paul Ackerman

● RAM your Multiface

Thanks for publishing my *Multiram* program in *Type-Ins* (*AA59*). As it stands, the utility is intended to move programs from the CPC RAM into the Multiface RAM for execution at address &3B12 to &4000. So after the red button is pressed, routines can still be called using the |MRON command, and CALLing the routine from BASIC.

I have managed to alter the listing so that users can use, more-or-less, the whole of the 8K Multiface RAM from BASIC. These two lines need to be inserted:

```
110 DATA 43,22,0B,37,21,00,00,11,10,0EF
220 DATA 20,01,00,00,ED,B0,21,10,20,20F
```

The origin of the machine code must be between &2010 and &4000 but please note that if the *Multiram* program is run with these amendments, the Multiface must not be entered using the red button as this will obliterate any program(s) you have moved into the RAM.

To use, assemble a piece of code with an origin of &2010 and load it into address &9000 and use the |MULT command as described to move the code into the Multiface RAM for use from BASIC. Then use CALL &2010 to call the code in the Multiface RAM At that address.

Remember: Please leave address &3000 in the Multiface RAM well alone, i.e. leave it as a null byte. This is so that the MULTIRAM program can check whether or not the Multiface is active.

If origin is other than &2010 the addresses before the origin have to be padded with &00 bytes. For instance if the origin is &2030 then addresses &2010 to &2030 has to be padded with nulls.

Andy Price
Dunstable
Beds

Thank you for the amendment. I think it's just a ploy to get your name in print again.

London

Demos are part of the PD scene. Basically they are programs which don't really do an awful lot, except show off the programmer's skills.

There are quite a few PD libraries springing up. For demos on tape try Robot PD at 2 Trent Road, Oakham, Rutland LE15 6HF. Enclose a blank cassette, an SAE, 40p and say you want some demos.

Great Scott

I noticed in *Forum*, *AA56*, a letter sent in by Torben Jenson concerning RSXs in machine code. You say it's near impossible, but I have a way:

1. First find the execution address of the RSX.
2. Point HL to this address and CALL &BCD4.
3. The last letter in the command name must have its high bit set (&80).
4. HL returns the execution address and C holds the ROM number.
5. Store the returned values.
6. Make sure the A register contains nothing.
7. Use RST 3 to access RSX.

Also, after seeing your review of *Italy 1990* I rushed out and bought it. After playing it a few times I concluded it was brilliant! But I have a few queries. I cannot chip the ball, no matter how hard I try. How do you do it? Also, the picture of the TV announcer was missing! I have a 464 with 64K memory expansion and 6128 ROM.

Glen Scott
Great Yarmouth

Seems to make sense. As for your Italy 1990 *query, I damned if I know.*

Mission impossible

I have a 6128, a Multiface II, a 5.25-inch drive and a great many 5.25-inch disks. I was recently given the drive and disks with RAM DOS by someone who no longer needed them, and find the extra storage capacity gained very useful with *Protext* and for storing BASIC programs.

The trouble is, this is about all I can use the drive for. What I would really like to do is to be able to save games with the Multiface to this drive under the RAMDOS format of D10, which allows 178K per disk. Thanks to a previous edition of *AA*, I can now save Multiface files to this drive, but only if they are formatted single-sided by DISCKIT. Of course this means that I am worse off for storage capacity than I was with 3-inch disks. If I try to get the Multiface to save files to this drive with double-sided or higher K formats, the Multiface goes into a read error cycle, and I have to reset or turn off the machine. It then occurred to me that the Multiface is designed to only save to the standard format for the CPC.

I have tried everything I can think of, installing RAM DOS with the desired format at all different memory locations, but the Multiface just seems to overwrite or ignore the installed format. Could you please tell me if there is any way at all that I can sort this problem out and get the Multiface to accept this format?

Joel Simon
London



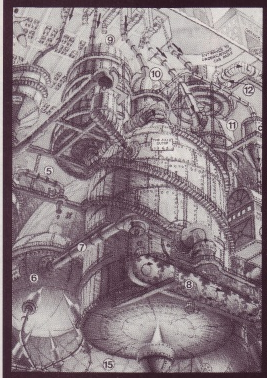
I'm afraid that the Multiface will only work with the standard disk format. So it it looks like you're stuck. I'll categorically state that it's impossible. Sorry.

DIY or what?

I have had my CPC for only five months now, and I am very pleased with the machine, compared to others I have had in the past. The machine I am using was built from a couple of scrap 464s, and upgraded to a 6128 by inclusion of an internal memory upgrade.

Recently I had the luck to purchase two 3-inch drives for just five pounds, and after building my own drive interface, I hooked them up and cased the whole thing in an old terminal case someone gave me. The monitor I am using was a damaged FST colour portable that I purchased for just ten pounds, and after a little work, this was also up and running. Finally, the DMP-2000 I am using, cost me only twenty pounds as a damaged unit and, after forking out about six pounds, this was included to my set up.

I have been unemployed now for six months, and building this Amstrad up has kept me sane, and hasn't cost me a lot of money either. I have only been reading your magazine for about four or five months now, apart from the odd copy at the last firm I worked for, and I have thoroughly enjoyed discovering the software aspects of a computer, alongside of my electronic knowledge.



With my budget being rather tight, and after reading your 'Free for all' section, I sent off six pounds to DW Software for his PD disk one. I would like to thank him, firstly for his fast reply (received two days after sending off), and also for the help he gave me. (Thank you also for returning my SAE, I can use it for something else now!)

After a recent tax rebate, and gentle persuasion to my missus, I purchased Romantic Robot's RODOS ROM, and Insider software. Unfortunately, I do not own a ROM board, and I can't afford a commercial unit, so after a few miserable attempts at connecting it up, I was advised by David Wild (middle name: helpful chap), to contact your Technical Editor, Adam Waring, for possible help on building my own ROM board. I would be most grateful for any help you can give me and, hopefully, furthering my understanding of computers, may even help me to obtain a job.

Victor Walton
Flat 2
21 Chaucer Road
Bedford
Beds
MK40 2AJ

I would of thought that a chap of your remarkable ability would have been able to pick one up for 50p or something. ROM boards are complicated things, and connecting an incorrectly wired one would result in serious damage to your computer.

We have stayed away from publishing complicated hardware projects for this very reason. However, I've printed your address in full, in case someone can send you a broken vacuum cleaner that you can rig up.

Possible mission

In the August issue (*AA59*) you told Kevin Sharp from Mansfield that the Multiface II can't take advantage of the higher capacity of a second drive. You lied. By typing B:(filename) when saving programs using the Multiface, the program will be saved to drive B. Sadly, however, that only leaves room for five more characters in the filename, but I'm sure that Kevin could devise a program that will allow him to use eight letters in his filename (you're getting no clues from me!).

Also, from Issue 59, in *Reaction*, there was mention of an Emma Broadley come-back. I can only hope for sanity's sake, that you were joking.

Philip Tricklebank
Chester

Er, yes.

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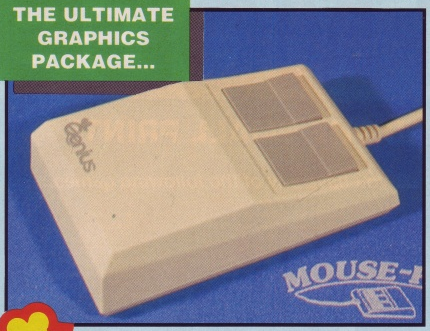
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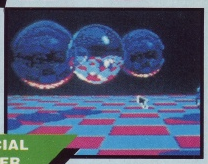
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You've seen the cover-ermount (*AA*56), you've read the blurb – now buy the book! *Cheat Mode II – The Revenge* is here...

All you old timers out there *must* remember *Cheat Mode 1*, the collected hinting, tipping and poking wisdom of *Amstrad Action*'s first sixteen issues. This magnificent 92-page epic was snapped up in its thousands by eager *AA* readers looking for a way to take the sting out of their fave games...

Well you ain't seen nuthin' yet. *Cheat Mode II* takes the best cheats from the last three years of *Cheat Mode* and crams it into 130 pages of absolutely essential info.

And as if that wasn't enough, we've gathered together *150* previously unpublished listings from such poking giants as Phil Howard, Mike Wong and Graham Smith.

Mind you, typing in all those listings is OK for practiced BASIC-bashers, but can be fraught for the rest of us... which is why *Cheat Mode II* is also available with cassettes containing all those pokes!

Cheat Mode II costs £9.99 on its own, and £11.99 with the two cassettes. Postage and packing in both cases is £1.45. All you have to do is fill in the order form below and send it off to the address printed – and you'll become the proud owner of the most important new work since... since... well, since *Amstrad Action* itself, dammit!



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Paris in th

For once, Amstrad spared no expense. A dozen journos were to be flown over from Gatwick in the late spring to join the French, Italian and Spanish scribes assembling in Paris.

The air-conditioned Hotel Meridien was the next stop from the airport, with six bars and a foyer you could have parked the plane in.

That evening, dinner at the Eiffel Tower was accompanied by a violent electrical storm that sent sightseers scurrying from the upper levels as the lightning crackled and crashed around the metal structure and the rain swept down in sheets.

Next day, it was off to the CNIT exhibition centre, a huge, domed complex of hi-tech computer stores and conference suites. The hotel was big, but this place could have swallowed a small town.

It was here that the cream of Amstrad's upper management had assembled to unveil the new Amstrads to two dozen slavering journalists.

Gatwick was stuffy. Paris was hot. The CNIT suite was hotter. But the new Amstrad hardware was the hottest of the lot. Only now can the story be told...

Six years is an eternity in computing. Yet it really was six years ago to the day (well, to the year, then) that Amstrad first launched the CPC.

That event took place on the 11th April 1984 at Westminster School. Six years on, the new, enhanced Amstrads were launched at a premier computing and exhibition centre in the French capital. Amstrad has come a long way in six years, and – arguably – all due to the success of its first computer, the CPC. You see if that machine had flopped, Amstrad itself could well have become history – estimates suggest that the company was already committed to the manufacture of as many as 100,000 CPCs even before the launch. Give or take a bit (a huge bit) that's five hundred tons of useless machinery if the world says "Thanks, but no thanks". And that's without the monitors...

No, although within a few years the CPC was the poor relation in Amstrad's ever-expanding range of computers, if it hadn't been for the success of that first computer, it could well have been its last.

Make up your mind!

The years went by, and the CPC went on... and on... and on. And all the time, Amstrad seemed to lose interest steadily as it developed first the PCW and then its first PCs. It really did start to look as if Amstrad would pull the plug on the CPC sooner or later. It was just a question of when...

The daft thing was, though, that in the 8-bit market, the CPC remained king. As a machine it runs rings round the Commodore 64 and makes the Spectrum look sick as a parrot. And, despite all the hoo-hah that accompanied the glitzy ST and Amiga machines, the 8-bit market continued to thrive.

It was time Amstrad made its mind up. The company either actively supported the machine or gave up with it – at least people would know where they were. That's probably been the worst of it for CPC owners the last couple of years – not knowing.

Console crazy

Of course, that speculation has been settled now once and for all. Amstrad has put a great deal of time, money, research and development into completely revamping the CPC. Its designers have closed the gap in games playing ability between the CPC and the 16-bit machines with a huge new dedicated chip, and installed a cartridge port in each of its new machines. Recognising that the console market is growing rapidly, Amstrad has seized its opportunity to gain a foothold in yet another highly lucrative market.

THE FACTS IN A NUTSHELL...

- Amstrad is launching three new machines – two of them upgrades to the existing CPCs, the third a brand-new, games-only console.
- All three machines feature substantially enhanced hardware and sound capabilities, together with brand new styling.
- All three machines have cartridge ports built in as well as two joystick ports an analogue joystick port.
- The GX4000 console will come with two games 'paddles' and the Ocean driving game *Burnin' Rubber*. It will work with either a domestic TV or monitor.
- The new 464 Plus is basically the old CPC464 completely restyled. Only cartridge-based software will be able to use the enhanced hardware – in other respects the 464 Plus has identical performance to and total compatibility with the old CPC464. The 464 Plus comes with one games paddle and *Burnin' Rubber* on cartridge.
- The same applies to the 6128 Plus. Basically a CPC6128 in a new box, the uprated graphics and sound can only be used by cartridge software. Otherwise the machine is identical to the old model.
- The Amstrad monitors have also been completely restyled. There is now a paper-white 12-inch mono version or a 14-inch colour model. Both have stereo speakers to cope with the enhanced hardware's stereo sound capability.
- The price of the GX4000 console will be £99.
- The 464 Plus will sell for £229 with mono monitor, £329 for a colour version.
- The 6128 Plus will cost £329, with a colour version costing £429. These prices represent only a £30 across-the-range increase on the old models.
- Software on cartridge will be manufactured and distributed by Amstrad alone – but on behalf of any software publisher with a worthwhile product.
- Publishers writing for tape and disk formats can just carry on as before. They will simply not be able to take advantage of the hardware enhancements.



ne spring



SWEET-TALKING SUGAR

"Logic does not prevail in the home computer business. If it did, we would be dead a long time ago!"



That was Alan Sugar's best quote of the launch, and yet another of his press-teasing gaffs. Or so it seemed. Yet Alan Sugar has a knack of getting his words in print and his face in papers...

Too late?

Amstrad founder Sugar (Alan Michael Sugar TRADing – geddit?) was at the launch to push the benefits of the new machinery himself, particularly the console. And in response to the suggestion that Amstrad had moved into the console market too late, he was quite adamant.

"At the start of this presentation today everybody started off by saying that we came too late to the home computer market in 1984 [with the original CPC range], when Commodore and Sinclair were dictating the market."

Point taken. So does Amstrad think it can pull off the same trick again? "We can see a very, very great potential in what Nintendo have achieved in the American market and what Sega are trying to achieve in European markets. And while you may believe it is late, we, basically, feel we are in the same situation as we were in 1984. We have observed there is a big market to be had in this business, and we are a powerful company with lots of money and resources and we will take a share of that market."

An open market

And referring to Nintendo's and Sega's policy of keeping an ultra-tight rein on software, Sugar had this to say: "Nintendo and Sega are the ones who are going to benefit from Nintendo and Sega. The software companies, frankly, do not benefit from these people. And Amstrad is going to offer a platform, a way for other companies to participate in the prosperity of this project. Therefore, we don't see this as just Amstrad fighting Nintendo and Sega, we see this as Amstrad, together with companies such as Ocean and others who want to make some money and who do not want to be dictated to fighting against these people."

But what about Nintendo's and Sega's highly-restrictive policies on software development? Are independent producers going to be squeezed out?

" Amstrad, as far as we're concerned, will not be following those policies at all, and never have done in the past."

Not enough bits?

Marketing aside, though, many people will be wondering why Amstrad went for an 8-bit console rather than a 16-bit machine. After all, the trend is towards more complex and ambitious graphics and high-powered processors. Alan Sugar had an answer for that too.

"A lot of consideration went into the design of the new range... backwards-compatibility was a very important factor. On top of this, when we entered the console market, when we enter this new Plus range market, we don't enter with just a console... such as Sega and Nintendo are doing. There is a lot of software written for the 464 and 6128 which will assist in sales."

But are 8-bit graphics good enough any more? "My understanding, really, at this stage is that as far as the console is concerned, the level of games and graphics that can be performed on this machine... are marginally as good as a 16-bit machine. Another Amstrad philosophy, really, is that if we followed the bit rule – 16-bit, 32-bit, 56-bit, 96-bit – we would also still be dead and buried a long time ago, because we have sold over one million pieces [of the word processing machine – the PCW] and the end user doesn't know whether it is 16-bit, 8-bit, or if it is working with gas or steam or with elastic bands!"

And the projected sales...?

Right, and now the 64-thousand-dollar question. How many new machines is Amstrad going to sell? "...we'll share that information with the software companies to encourage them to produce their software, but at this stage I think we would like to remain quietly confidential at this moment, and perhaps report our success to you in the December period."

'Nuff said.

Broadened appeal

What would be easy to overlook is just how shrewdly Amstrad has judged its new range. The 464 Plus and 6128 Plus are built to be completely compatible with existing models, while allowing gamesters a completely new level of graphics and sound. Amstrad has guaranteed the continued loyalty of its existing fans while setting itself up to grab hundreds of thousands of new games players who would never have bought a CPC.

And that's not all. By fitting the console hardware (the port and dedicated chip) in all three new machines, Amstrad is likely to persuade console buyers to upgrade later on – all their fave games will still work, of course.

But if only...

The only disappointment with all this, of course, is that publishers writing for tape or disk formats will not be able to use the new, custom hardware.

Amstrad's official reason is that preserving backwards compatibility was a Must. If the new custom chip had been made completely hardware-accessible, there was always the chance that unforseen compatibility problems would arise (look at Atari's terrible problems with the upgraded ST, the STE).

While this makes a great deal of sense, it

has to be noted also that Amstrad stands to make a good deal of money out of this cartridge-only business. Handling as it does the manufacture and distribution of all cartridge releases, it would be none to keen to find independent publishers producing games of the same graphical standard for tape and disk users.

Be that as it may, the GX4000 console and new Plus machines represent a technical – and marketing – tour-de-force. Many will say Amstrad's new hardware is at best "conservative", and probably "too little, too late". They'd be wrong. Amstrad has got the market taped and every single angle covered. From now on, it's all down to promotion and price.

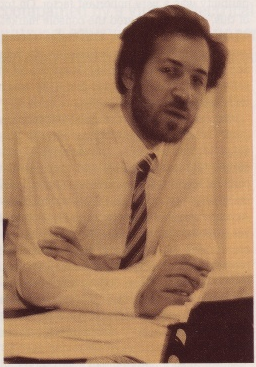
The last word

Ocean boss David Ward was at the launch to push Ocean's role in producing games for the new console. We'll leave him to pass the final judgement...

"In the 1980s, Amstrad set the standards in games machines. The new Plus range will do the same for the '90s."

PLAYING THE MARKET

"It's too late!", cry the sceptics, "8-bit consoles are old hat... Sega and Nintendo are too well-established... the market is saturated..." Amstrad obviously doesn't agree, as Malcolm Miller, the company's Marketing Director explains...



"When we first entered the computer market with the original 464 in 1984, some commentators said we'd never make it – the market was too crowded and there were already a couple of major players who looked to have an unassailable hold. Well, as you all know, we didn't just survive, we grew to dominate the market in the UK and throughout Europe."

Well, you can argue if you like about the "dominate" bit, but there's no denying that Amstrad did score one hell of a success with the CPC in a market where half a dozen serious competitors had got there first. "So far we've sold over two and a half million CPC machines. Last year in France we had a 55 per cent share of the market."

So why change now?

All of which rather begs the question, why change a winning formula? "The most important reason is that the home computer market has changed quite considerably since we introduced the CPC range more than six years ago. It's evolved into three sub-markets."

The first of these markets is for sub-£100 games consoles, like the Sega and Nintendo – "We are about to shake up this market in much the same way as we did in '84."

The second market, as Amstrad sees it, is for "well-established entry-level computers" at prices between £150 and £300. For this you get a computer rather than just a games machine – and this has been the traditional stamping-ground of the CPC.

The third sub-market is in the high-price sector occupied by the likes of the Amiga and ST. Prices here are running into the several hundreds, and Amstrad is aiming the new 6128 plus at this slot. Probably the most dubious comparison of the lot, but then the enhanced hardware does give cartridge-game performance closer to the 16-bits than any other 8-bit micro so far.

"The new Amstrad Plus range is going to provide models to complete all three levels of the home computer market."

And of course, as Amstrad points out, there's the major advantage of a natural upgrade path from simple games playing to more serious home computing with the Plus models. Throw in Amstrad's marketing and distribution clout, and you've got a success story just looking for somewhere to happen.

The price is right

The 464 Plus, at £229, with mono monitor, £329 with colour, is only £30 more expensive than the existing 464. And for that you're getting a complete restyle, cartridge port, enhanced sound and graphics and a game controller thrown in. Similarly, the 6128 with colour monitor will retail for £429 – again, only £30 more than its predecessor.

Software support

Amstrad's approach to hardware upgrading is not unique, of course. MGT tried the same trick with the Spectrum to produce the SAM Coupe. Sadly, that machine has been dogged with misfortune from the start, and now MGT has had to call in the receivers following low sales and hardly any software. What's to stop the same fate befalling the new Amstrads?

"Without the support of major software houses our success would be severley limited. We're very pleased to reveal that software houses such as Ocean, Titus, Loriciel, Domark and others have been actively involved with this project since Day One", says Miller.

Christmas shopping

When can we expect to see the new machines in the shops? Within about a fortnight of you reading this, to be precise!

And to ensure maximum impact in the High Street, Amstrad has designed a special in-store demonstrator, a free-standing unit containing console, monitor, game paddle and a selection of console games to try out. Neat.

Ultimately, though, the single biggest indication of how seriously Amstrad is taking this launch and the potential of its new machines is its special ad campaign. The launch is being backed by a massive pan-European TV and press ad campaign running from October right through to December into which Amstrad is sinking a massive £20 million...





● **The Amstrad GX4000 will be up against established console competition in the form of the Sega Master system and others – but with Amstrad behind it, it can hardly fail.**

Upgrade or die?

When most manufacturers introduce a new or enhanced range of machines, the old models are rendered obsolete? Does that mean all those thousands of CPCs are headed for the bin?

NO!

Every cloud has a silver lining. Software on tape or disk may not be able to make use of the new machinery's advanced hardware, but this does mean that old CPCs and new Plus's are absolutely mutually compatible. If you buy a new 6128 Plus, all that disk software you bought for your old CPC6128 will run on it. Similarly, if you junk your old CPC464 in favour of a new 464 Plus, all your fave tape programs will still load and run as normal.

Looks aren't everything

Many people will want to replace their old machines with new ones simply because of the new styling. Many more, though, will be tempted by that cartridge port, and the ability to run the new cartridge games, with their spectacularly improved graphics and stereo sound.

The best of all worlds

The beauty of Amstrad's solution is that the old CPC machines have genuinely been added to rather than replaced. They can work alongside the new machines with no trouble at all, for one thing. And as serious tools they didn't really need enhanced graphics and sound, while as games machines they did – and with the new cartridge port and hardware, that's exactly what they got.

The upgrade options

For those who don't need the improved console graphics, or who are quite happy with games on the 'old' CPC, there's simply no reason to change. Existing CPC's have been in no way rendered obsolete by the new machines.

If you do want to play the new console games there are three options:

- If you currently own a CPC464 and were thinking of upgrading to a 6128 anyway, well, now's the time to do it.
- If you currently own either a CPC464 or CPC6128, you can simply upgrade to the equivalent Plus model.
- If you're quite happy with the machine you've got, simply buy a console! At £99 you can hardly complain, and later on you can upgrade to a Plus anyway and all the console games you've bought in the meantime will run on that too!

● Existing CPCs are *not* obsolete – neither is the vast range of software written for them.



Thoughts for your pennies

Just to help you decide how much it will cost you to upgrade your existing machinery, we've compiled a small table (above) comparing the various upgrade options. It's only fair to assume that with the launch of the new models the second-had values of existing CPCs will fall, so in all these comparisons we're assuming a resale price for CPCs of about a half of their original retail price.

UPGRADE OPTIONS

We reckon second-hand prices for existing CPCs will be around half their original price. Here, then, are prices for these and the new machines:

Machine	Estimated resale value	Machine	New price
CPC464 mono	£100	GX4000 console	£99
CPC464 colour	£150	464 Plus mono	£230
		464 Plus colour	£330
CPC6128 mono	£150	6128 Plus mono	£330
CPC6128 colour	£200	6128 Plus colour	£430

The table below sets out how much it will cost to upgrade your present machinery to a variety of different specifications:

	EXISTING MACHINE			
UPGRADE TO?	CPC464 mono	CPC464 colour	CPC6128 mono	CPC6128 colour
464 Plus mono	£130	£80	£80	£30
464 Plus colour	£230	£180	£180	£130
6128 Plus mono	£230	£180	£180	£130
6128 Plus colour	£330	£280	£280	£230

DON'T FORGET:

- **These second-hand CPC prices are based on an estimate of half the original retail price. You may well get a better deal than this.**
- **If you simply want to be able to play console games you can just go ahead and buy the console on its own, limiting you to an outlay of £99.**
- **(Tricky one, this) If you want to get a console for sure but you can't decide whether you want to upgrade to one of the new Plus models, bear in mind that they will play cartridge games too. A console will cost you £99 anyway, so knock £99 off the Plus upgrade figures in the table above. (It does make sense, really.)**

TAPE AND DISK USERS

At first, only a dozen or so software producers are going to be writing games for the cartridge format. All the rest will carry on writing for tape or disk format as before – and these games will run both on the CPCs and the new Plus's, no problem!

So – unless you really want to rush out and get Amstrad's brill enhanced hardware and all the latest games, life goes on as before. Those happy with tape and disk software – both publishers and users – can go merrily on their way with no worries.

Amstrad Plus

Roland Perry is Amstrad's Group Technical Manager. He was the driving force behind the original 464, and is the man responsible for the latest Amstrad machines. So, what's special about the new Plus range? Aren't they just the same computers with a few cosmetic changes?

"Most definitely not. What we're looking at here is a range of computers that will do to the market in the 1990s what the previous range did in the 1980s. Our aim is to produce an 8-bit computer with many of the characteristics of a 16-bit model, and I think we've succeeded."

Programmers' delight

The existing CPC is a pretty mean games machine already, of course, but despite (or perhaps because of) its often stunning graphics, it's easy to forget that it wasn't designed specifically as a games machine but really as an all-purpose computer. The CPC doesn't actually contain any hardware specifically tailored for implementing games.

Amstrad's approach for the new machines was admirably practical: "To make sure that we built the right kind of new hardware, we went to the top software houses and asked them what features they would like see. We've custom-designed a new range to make the lives of games writers easier. That way, they produce better games and in the end we all have happier customers."

The software houses were pretty well unaminous about what needed doing. Their principal request was that programmers should be relieved of repetitive, time-consuming coding that could just as easily be carried out by dedicated hardware. And that's exactly what the new machines do.

Compatibility questions

Buy either of the Plus machines and any software written for the CPC 464 or 6128 will run on it. The key to this compatibility is Amstrad's decision to retain all the features from the earlier machines – and add a few more to boot. Until the additional console circuitry in the Plus's is 'switched in', these machines are still basically CPCs.

The most striking aspect of the Plus range is the restyling of the machines. The 'chunky' look of the 464 has gone, to be replaced with a high tech 16-bit look. The drab, monolithic grey colour has been replaced with a lighter, brighter cream colour scheme. It really is one of the most asthetically-pleasing machines around.

The cassette deck has been moved on the 464. It sits behind the keyboard rather than to the side of it now. And disks are now inserted into the right hand side of the 6128 model – just like the ST and Amiga.

It's not just externally that the machines have undergone a complete redesign. A quick look round the back shows that the various expansion ports have been improved. Proper robust connectors have been used, rather than the previous method of extending sections of the circuit board to form second-rate edge connectors.

There are more sockets, too. There are two joystick ports instead of one, as well as the new analogue and auxilary connectors. And of course there's the new cartridge slot that accepts the games software. It's plugged into the left-hand side of the machine.

The inside story

Open up the 464 Plus, and you can see the scale of the improvements that have been made. It looks much neater and far more compact than its predessor, for a start, and the chip count has been decreased dramatically – from 25 to just nine!

The secret is Amstrad's huge custom chip. Much of the functions carried out by the other chips are replaced by this single chip. In addition, the new features are also taken care of by this complicated integrated circuit.

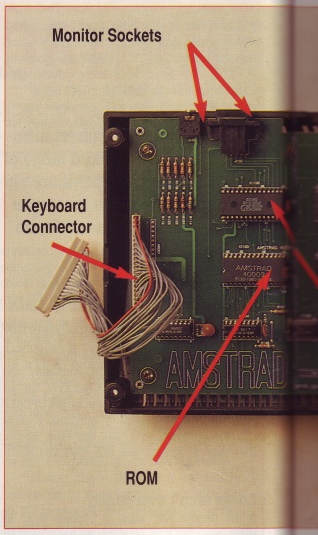
There are, in fact, fewer components in the 464 Plus than are found inside the console. Much of the display circuitry has been omitted, for a start – the Plus only needs to be able to connect to the Amstrad monitor.

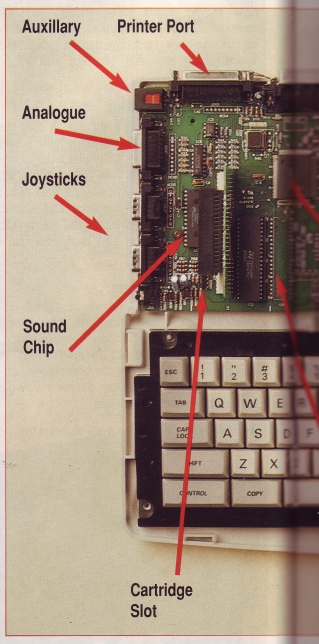
The circuit board.in the 464 Plus is identical to that in the 6128 Plus. It's simply a case of Amstrad dropping in different components for each machine.

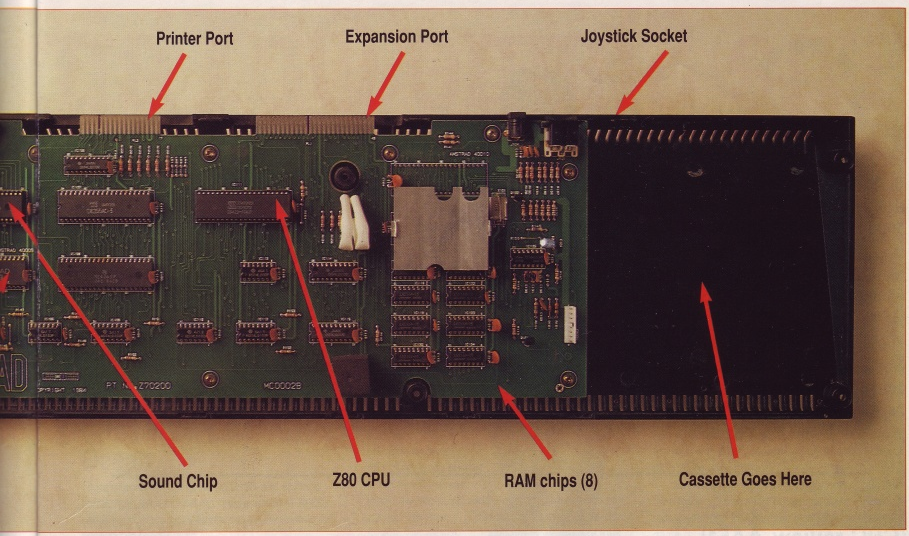
Keyboard layout on both machines is the same as the old CPC6128, but it too has seen improvements – it's more responsive and better angled, being much lower at the front.

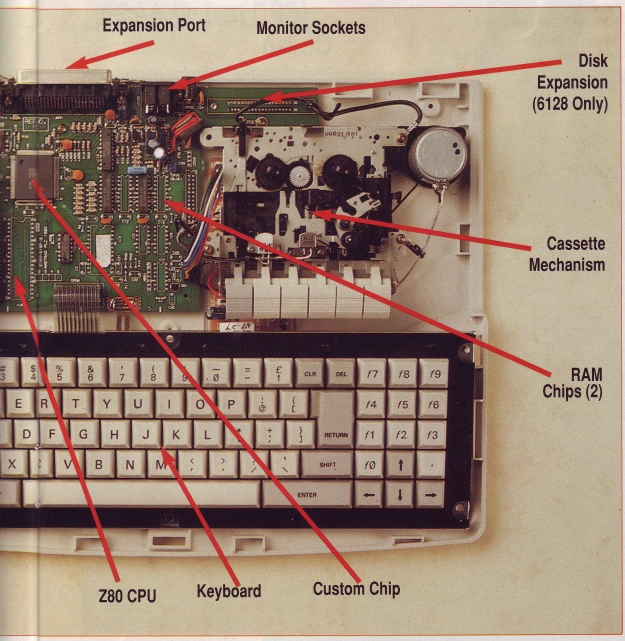
The BASIC supplied with both machines is the same. It's BASIC 1.1, as currently supplied with the CPC6128. The instruction manuals for both computers are the same, too.

Although the connectors are better on the new machines, they mostly carry the same pinouts – except that the printer port is now 8-bit, as opposed to 7-bit. The disk drive expansion socket on the 6128 plus has been altered considerably, however, so third-party suppliers will have to get cracking on new designs.











ROLAND ON THE ROPES

The question that all programmers must be asking is whether they can use the enhanced features of the machine from their own programs? Will we see games loading from tape or disk making use of the remarkable new features?

We put this to Roland Perry, Amstrad's favourite boffin. As you might expect, he was just a tad cagey...

AA: Will the Plus models be able to use the extra hardware in the cartridge? For instance would you be able to write a machine code program to use the extra colours and the extra hardware of the console?

Perry: No. It's not our intention it should be used in that way.

AA: But would it actually be possible though, with a hardware widget, for instance, or not?

Perry: I don't think it's in anyone's interest to encourage people to go hacking around and attaching all sorts of gubbins inside their computers. It's not our plan to do that...

The Shape Of Thin

Burning Rubber, the game cartridge supplied with the console and Plus range, is just a glimpse of what's in store (The game is road-tested on page 45). There are games galore coming the console way.

Many are uprated versions of existing games, re-written to take advantage of all that the new hardware has to offer. There are plenty of brand new, titles too. They should be arriving soon after the machines appear in the shops in September.

Ocean is supporting the new computers heavily, and expects to have a dozen games ready in time for Christmas. They will cover a wide range of game types to cater for all tastes. Racing games, martial arts, puzzles, arcade games, simulations... there'll be a place for them all.

It's not just Ocean that's in on the action though. Most of the top European games publishers have staked their claim in the market. US Gold, Domark, Anco and Titus are just a few of the big names busy getting games ready for the consoles' first appearance in a few weeks time.

And just to whet your appetites, here's a little foretaste of what's coming your way...

● Batman The Movie (CPC review *AA51*)

Ocean

Licenesed from the film of the same name, *Batman The Movie* is an excellent licence. You play the caped crusader fighting crime, and of course your adversary is that dastardly super-villain the Joker.



The first level sees you in the Axis Chemical works, pitted against gun-totin' gangsters and bomb-hurling hoodlums. The man in black has to make his way through the factory, swinging from ledges with the aid of his bat rope, dodging the leaking chemical pipes and, of course, beating up all those baddies. It's frantic platform action, as the dark knight fights to reach the big, bad boss Jack Napier. The object then is to give him a shove, and it's splashdown time – right into that vat of character-transforming acid.

Other scenes see Batty in the batmobile, where he has to tear along the Gotham City back-steets, weaving in and out of traffic. The Batcopter makes an appearance too, where he has to slice the lines holding the Joker's deadly laughing gas balloons so that they fly off harmlessly into space.

The grand finale takes place in the cathedral. It's the final confrontation with the crown prince of crime, but this time you're gonna make sure that the Joker gets his come-uppance. Similar to the first level, it's back to platform action. Complete this, and you've earned a well deserved rest – presumably upside-down in the bat cave – at least until the sequel hits the screens.

● Shadow Warriors (CPC review *AA59*)

Ocean

Shadow Warriors is an arcade beat-em-up. You control the Shadow Warrior, the last of a rare breed of martial arts experts, who have exclusive knowledge of the five secret Ninja techniques.

The city streets have been taken over by an evil demon. He has summoned an army of ghouls, ghosts and plain old bad guys. You have to fight your way through the lot of them, till you eventually meet the old devil himself, and send him back from whence he came.

Shadow Warriors differs from run-of-the-mill Ninja-vs-the-Bad-Guys games in its unique control system. Instead of a myriad of moves to remember, the fighting moves have been greatly simplified. Just point your Ninja in the dierction you wish to unleash your fury and press fire. Shaddy can also grab hold of overhanging ledges and the like, giving him the edge over the enemy oposition.

● Operation Thunderbolt (CPC review *AA52*)

Ocean

Op Thunderbolt is a two-player version of that arcade classic *Operation Wolf*. You and a pal take on entire armies of baddies who've made the mistake of taking your fellow countrymen hostage. Machine guns spewing lead, you march relentlessly onwards, wasting anyone foolish enough to

ngs To Come...



stand in your way.

While the game is essentially a two-player co-operative effort, the opportunity for a bit of friendly oneupmanship presents itself. Collectables such as laser sighting and bulletproof vests appear. Problem is, they are very rare, so the strategy changes from wiping the floor with the enemy, to reaching that power-up before your mate does.

It's hoped that a lightgun will be available for the game's launch. The device plugs directly into the auxilary socket, and provides no end of increased playabilty.

● Chase HQ (CPC review *AA54*) Ocean

There's more wheel-squealing thrills and spills to come. After the out-and-out racing action of *Rubber*, some serious crook-catching makes a welcome variation to the theme.

In *Chase*, you're the driver of a high speed *Miami Vice*-style sports car. You're out to bust drug smugglers – but you've got to catch them first! You race along the highway weaving through the traffic and making sure you don't knock any civilian vehicles off the road. When the bad guys' car comes into view, though, the tactics change. You've got to hit them with all you've got, so the pedal goes to the metal as you ram them until they've had enough.

Your progress is constantly monitored by Nancy, your boss at Chase HQ. If you don't keep up with the escaping crims, her cutting comments – in superb synthesised speech – tell you exactly what she thinks of you.

● Robocop II Ocean

The sequel to the the best selling *Robocop* – which stayed in the software charts for absolutely yonks – will be released to coincide with the new film. This one's going to be an real sizzler! The game will closely follow the plot of the film, with Alex J Murphy going through hell and high water once again.

As well as plenty of inferior baddies to kill, this time Robocop has an adversary equal to himself. A nasty Robocop that he must overcome to finish the game...

FIRE & FORGET II THE DEATH CONVOY

French software house Titus is following up its road and air-borne shoot-em-up *Fire & Forget* with a new, even tougher version. Flying an all-powerful combat vehicle, you must pursue a convoy of ruthless terrorists along a winding road to save the world from nuclear oblivion. Along the way you have to fight off 60 different enemies in your bid to reach the lead vehicle and the final showdown.

The screenshot shows just how much difference the extra console hardware has made. The main sprite is much faster and more detailed, while the sky in the background now graduates smoothly from pale to dark blue – an effect impossible to achieve on the old machine.



● Klax (CPC review *AA58*) Domark

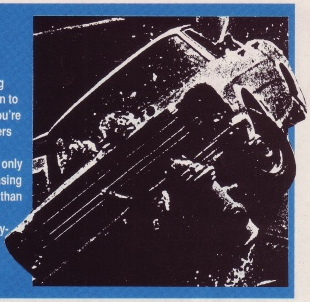
Klax is like nothing you've played before. Well, except *Tetris* maybe. It's one of a new breed of games that combine arcade skills with lateral thinking.

Coloured tiles cascade along a conveyor belt towards you. You have to catch them as they reach the end and arrange them into stacks. Space is soon filled, and in order to get rid of tiles you need to create Klaxes. Rows of tiles, three, four or five-in-a-line, all of the same colour.

The action is smooth, fast and frantic! Each level – there are 100 in total – requires a different task of you, so there's plenty of variety. *Klax* is simple in design, but oh so incredibly addictive to play.



Crazy Cars II
Titus



You're behind the wheel again – this time chasing bent cops involved in a stolen car scam. It's down to you to smash the racket, but the rozzers know you're on to them and are prepared to use all their powers to stop you.

So it's frantic pedal-pumping all the way. Not only are you chasing the cops – the cops are also chasing you. Luckily, you selected the Ferrari F-40 rather than the Morris Marina to catch the unlawful lawmen.

There's enough variety – with several road layouts allowing different routes to be selected – to make a worthwhile change from the other racing games on the circuit.

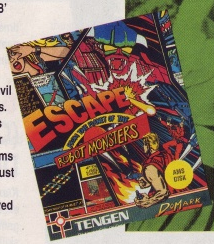
LICENCE TO PRINT MONEY

One of the key points that will ensure masses of games on the cartridge format is the Amstrad licensing agreement, which allows any software publisher to write for the new machines. Whereas other console manufacturers such as Nintendo and Sega strictly dictate who writes for their machine, Amstrad will be leaving the programming to the professionals. The Amsoft label, which launched a thousand *Roland* games, will not be making a reappearance.

Amstrad has the sole manufacturing rights to the cartridges. It also insists that producers comply to a certain packaging format, but apart from that, any software house will be able to produce software for the machines.

Escape from the Planet of the Robot Monsters
(CPC review *AA59*)
Domark





This game owes so much to the Science Fiction 'B' movies of the 1950s. You have to rescue beautiful girlies who've been taken captive by – you've guessed it – Robot Monsters.

The game plays like a 3D *Gauntlet*. You run round the alien factory, freeing the girls who the evil robots have forced to become computer operators. You're armed with a ray gun, but not all the robots are dealt with that easily. Destroying the computer terminals that are littered around the complex stems the production rate of the mechanical meanies – just be careful a stray shot doesn't hit the hostages.

The best thing is, *Robot Monsters* can be played by a team of two, doubling the fun to be had.



Kick Off II
Anco

The original *Kick Off* is considered one of the finest soccer sims around. What the CPC version (*AA55*) lacked is graphics, it more than made up for in gameplay. The cartridge version – with its superfast sprites – won't suffer from the same aesthetic annoyances as its predecessor.

There have been plenty of footie games in the past, even more than Ninja simulators. The object is the same: at the end of the day you need to put the ball in the net more times than the opposition. What makes *KO* stand out of the crowd is its wonderful playability. It's simply one of the fastest games ever.

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CONSOLE Review

Burnin' Rubber

Ocean ★ Free with GX4000 console and Plus machines

The first Amstrad cartridge game is here!

Ocean's *Burnin' Rubber* comes free with the GX4000 console, the 464 Plus and the 6128 Plus.

And the verdict? It is absolutely stunning! For the full review, read on...



When you've finished admiring your new Console and pretending it's something out of *Stingray*, you are ready to play *Burnin' Rubber* the first ever Amstrad console game. Could this be the start of a new era of gaming?

First, big, wonderful difference: there's no sitting and looking at loading screens; plug in the cartridge and instantly you're there. All set? Then it's race time!

What you drive is a bright red Le Mans-style racing car, a machine capable of over 200mph in the right hands and the world's most expensive shunt in the wrong ones. Your job is to tackle a twisting race circuit and about twelve other cars. Be warned when you try to pass these, though; as in the real thing, not all sportsmen are sports...

First of all, though, you must qualify for the big race. This is done on a small circuit with right-hand bends only. The speeds are very high, and there are other cars on the track trying to qualify too. Still, if you keep your clog down and don't crash, you gain a place on the grid. Don't expect pole position first time round, though. Spectacular slides and excursions onto the grass will lose you valuable split-seconds, while collisions with the scenery or other cars will either send you careering into a spin or cartwheeling down the track, depending on how fast you hit them.

Unless your name is Nigel Mansell, you will probably be buried in the middle of the pack on the starting grid after qualifying. No problem – there's a long, long race ahead. For all the cars you overtake on the way, though, there are always more ahead of you. Funny, that. Anyway, you must cast all such thoughts from your mind and concentrate as the lights change and you all screech off towards the mountains.

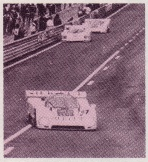
The other cars' initial acceleration is better than yours, so they remain in front, but once you hit a ton you start to overhaul them. The swines tend to hug the inside of the curves so you often have to overtake them whilst clinging desperately to the last few inches of tarmac on the outside of some ferocious bends.

A fair amount of bumping and shoving goes on between the cars, but it's best to avoid this since it loses you speed – you can even be knocked into a spin. And if you do decide to visit the surrounding scenery, your speed is reduced dramatically, as the car thrashes its way over the grass. There is a lot of roadside furniture, such as billboards, streetlamps, flagpoles and trees. Hitting any of these at great speed results in an incredible tumble end over

end. You can drive away from these crashes, though – in fact the car can't be harmed at all, and never needs maintenance or fuel. (It's probably Japanese.)

Crashing may be safe, but the time it costs is crucial. You see to stay in the race you have to reach special checkpoints situated every few miles within a tight time limit. Seconds remaining are displayed at the top of the screen, but don't spend too long staring or you'll end up cartwheeling through the scenery.

That's basically the aim of the game – to stay in the race as long as possible. It is possible to drive so well on earlier stages that you build up a reserve of time, but one bad smash, and it's gone. And those time limits get tougher and tougher the longer you race.



Burnin' Rubber looks amazing. The increased number of colours on screen compared to the old CPC give apparently increased resolution and much more subtle shading. The cars are very detailed, especially your red machine. It looks mean from behind, but it's worth crashing or spinning out a few times just to see the side and front views!

The objects that flash past at the sides of the track are also superbly drawn. The almost obligatory Amstrad and Ocean ad hoardings are seen, along with many other interesting and graphically brill items. The 3D scrolling is smooth, too.

Perhaps the most spectacular thing about the graphics, though, are the changing colours. Your progress isn't measured solely by tightening time limits and escalating points. As the race goes on, it begins to get dark! Slowly, almost imperceptibly, the sky takes on a reddish tinge, the landscape darkens and twilight advances – just like the 24-hour Le Mans race, *Burnin' Rubber* goes on through the night! The colours are shown off beautifully when, during the race, dusk falls. A sunset of which Turner would be proud settles across the land as the cars move swiftly through the gloaming. The light fades gradually into a wonderfully atmospheric blue-black night.



● Scorch past those slow-coach stragglers.



● Sunset on the open road.



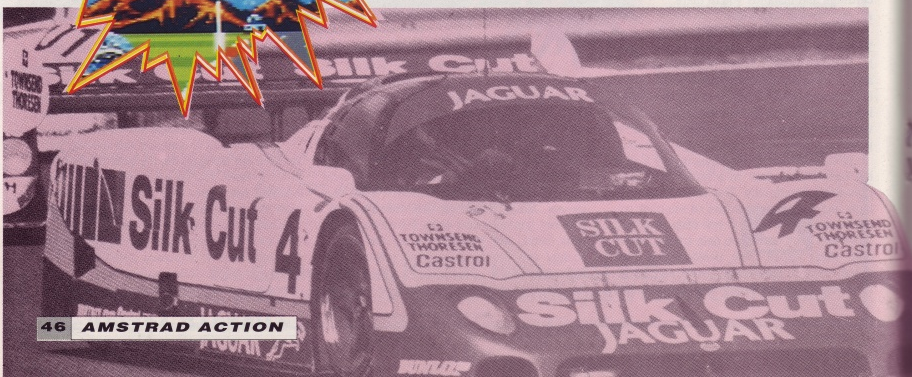
● Mistakes certainly get you airborne!

As you race, you encounter hills, dips and tunnels. There are lights inside these tunnels to show you the way, but the walls are a lot harder than the grass verges outside, and you can lose precious seconds as your bodywork scrapes a shower of sparks from the concrete as you overcook a bend. Other hazards include crashed opponents sitting helpless in the road, or veering in front of you after striking each other glancing blows.

Once the basic controls have been mastered, the game becomes very playable indeed – if you don't like the standard controls, you can change them on an option screen right at the start of the game. Collision detection is good, perhaps slightly generous; your car can squeeze through gaps that will have you sucking in your breath. This adds to the fun, especially as the bumping and barging causes sparks to fly off the cars.

Roadholding is good, with the car sliding noisily towards the verge and giving you plenty of warning if you are going too fast. Skidding sounds are heard, and plumes of smoke spin off the tyres.





Unfortunately, the sound is not quite up to the same high standard. The option screen has a jolly tune playing. The car has a thin staccato sound which rises and falls with the revs. The skid noises are recognisable, but the crashes sound like a toy car being thrown down some stairs. The sounds do not really detract from the game, but they don't exactly add anything to it either.

And having to qualify before each race gets a little tedious, but you soon learn the best route to take and it's good to see your lap times improving.

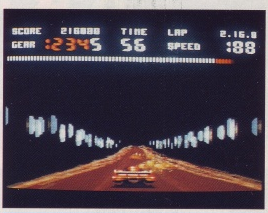
Apart from the sound, the only quibble is the Sega-like hand controller. Confirmed joystick users will not be too impressed by its size and the initial vagueness of its direction control, but it gets better with practice. It's also possible to use a standard joystick with *Burnin' Rubber*, but since these only have one Fire button the car needs to be set up with automatic gears. So if you want to drive a *real* racing car, persevere with the paddle!

Overall, it's a hell of a start for the console. An incredible game to see and to play. And as the machine's capabilities are bound to be stretched even further in the future, we can look forward to some wicked, wicked games!

James Leach



● "Burning Rubber" past a checkpoint.



● At 188mph, the tunnels require steel nerves...



STUNNER

VERDICT

FIRST DAY TARGET SCORE
300,000 points

GRAPHICS 100 %
(Well, had to be, didn't it!)

SONICS 60 %

GRAB FACTOR 71 %

STAYING POWER 96 %

AA RATING 92 %
The shape of things to come.

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Since then, safety standards have increased along with the speeds. Porsche dominated the sport in the '70s with their mega 917 cars. These were capable of 260mph, and reached 60mph in 2.2 seconds. The driver would need to be peeled off the seat after a race.

German supremacy continued with the unbeatable Mercedes in the eighties, but in 1990 Jaguar won! The plucky British lads with the best car ever thrashed everyone with ease and came in both first and second! And Mercedes? Er, actually they didn't take part.



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HOSTAGES



Infogrames joins the battle against international terrorism in a tense battle of wits, nerves and sheer reactions...



● The good, the bad and the completely hat-stand: an absolute barrage of bouncing budgets!

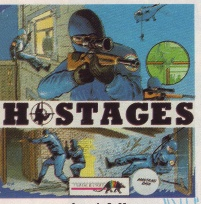


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HOSTAGES

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



As usual, the unthinkable has happened. Yet again an embassy has been seized. Once more, hostages are involved, and guess who is in charge of the team of anti-terrorist agents sent to recue the poor souls incarcerated behind that fine old Georgian facade? Yep, you got the job, £2.50 an hour, start on Monday.

Your team of six – a Direct Intervention Combat Team – has three jobs to do. Firstly, three of them must deploy as snipers around the embassy. A map can be called up, which displays the position of each man, and where he should be. The terrorists continually sweep the surrounding buildings with spotlights, and you must keep your men out of the glare as they creep or forward-roll their way along. If they are spotted whilst getting to their positions, the rascals inside open fire and your man must move fast. If he doesn't, he's dead.

Once your team (or the survivors) have reached their hides and primed their rifles, part two of the rescue operation can commence. Your men fix their sights on the windows of the embassy. Occasionally, the silhouettes of the terrorists appear. You must loose off a round, ideally at the silhouette's head. For the most part, though, you play a waiting game, searching from window to window with your 'scope. Time is ticking by, as a clock on screen indicates, so don't spend too long blasting out windows. However, the more undesirables you eliminate through the windows now, the fewer you'll have do deal with later on.

The third phase of the siege is the assault. A helicopter lands three more DICT men on the roof of the embassy. One by one they must abseil down the side until they reach a window. They then bounce on it until it breaks and tumble inside. The view changes to a 3D perspective, with the DICT man able to look and move in the compass-point directions. A cunning game of hide-and-seek has begun. Your man has only his line of sight to help him survive. Oh, he also has a map of the floor he is on, with the positions of any other souls pinpointed on it. You must then creep up on them, bursting in through the door and firing rapidly and accurately to liquidate them. You have an automatic weapon with limitless ammo, so spraying is often the best way to clear the rooms.

To add to the excitement, the terrorists move round the embassy at will, and react to the sound of your gunfire. They hide behind the doors of the rooms you are clearing, thus forcing you to spin round 180 degrees after bursting in. This can take valuable milliseconds, and the terrorists might be able to snap off a shot at you.

The reaction speed of the terrorists is dependant upon the level you set at the beginning of the game. On the easiest level, the ruthless subversives dither around, giving you time to pump several hundred rounds into them. On higher levels they are faster than Clint Eastwood. The hostages also feature on the higher levels, and those sneaky terrorist types often hide behind them. A careful aim is needed to avoid hitting the innocent guys.

To succeed, you must eliminate all the terrorists and group together all the hostages on the third floor. If you killed any during the fire-fight, you haven't succeeded 100%. Tough, but life goes on.

Whether the ethics of *Hostages* are acceptable is up to the individual, but Infogrames has produced a varied game with good graphics. The gameplay is limited in both the deploying of the marksmen and their subsequent sniping, but the third section inside the embassy is nicely done and addictive. It is very satisfying to suddenly face two armed terrorists on the stairs, and to gun both down before they can react.

Sound is rudimentary but effective; it's the graphics that are the strong point. Ultimately the game rests on the embassy assault section. It's the sort of game you will return to with a vengeance after the twentieth showing of *Who Dares Wins* (the film), but you'll need a rest between embassy-storming sessions.

James 'Lewis Collins' Leach



● Spotted by the light, and now he's full of lead.



● Those unpleasant terrorists dash for the embassy.

SECOND OPINION

"Hostages combines some nice graphical sequences with good gameplay. It's fun for the first few goes, but the first sections become a drag." AW



● Your marksman spots a terrorist and...



● ...what a shot!

FIRST DAY TARGET SCORE

Rescue two hostages

The Verdict

GRAPHICS 82%
- ☐ Slick, workable views.
- ☐ The embassy is nicely furnished!

SONICS 68%
- ☐ Tense little tune fits in well.
- ☐ Ah! The sound of gunfire!

GRAB FACTOR 60%
- ■ First two stages soon get tedious.

STAYING POWER ... 74%
- ☐ Last stage is a real challenge.
- ■ One eventually tires of the killing...

AA RATING 76%

- ☐ Now the SAS can be fun too!



● Inside the embassy it's a face-to-face gunfight...



● ...but the hostages get in the way.



● Oops! Shot them both. Still, never mind, eh?

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21 BEF counter-thrust at Arras halted
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PRO BOXING SIMULATOR

Codemasters ● £2.99 cass
joystick/keys

Maim! Smack! Punch! Gouge! Kill! Boxing generally excites the baser instincts in men. If you like violence, all the fun of a good thumping is here, with much more besides.

In *Pro Boxing Simulator*, you can, indeed you are expected to, use foul moves such as head-butts, kicks, kneeings and groin punches. The ref periodically drifts away from the action, and your fouls indicator glows green, indicating that it's time to deliver an underhand blow.

Your opponent also cheats, mind, and all the time the crowd cheer for more. If it wasn't so tongue-in-cheek, it would be worrying. The pugilists' energy is measured by bars below the action. Reach zero and you're KO'd. You have five lives, but need to win each round to survive. Spotted fouls also lose you a life. As you beat each successive opponent, you fight a harder and meaner one, so there is an incen-

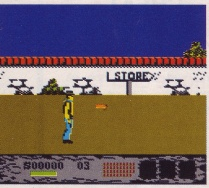


● The audience periodically offers words of encouragement.

SPAGHETTI WESTERN

Zeppelin ● £2.99 cass
joystick/keys

There's rootin' tootin' shootin' aplenty down at Dodge City. Why? 'Cos he of the itchy trigger finger, Clint Westband, is cummin' to town. He ain't good, he ain't really bad, but he sure is ugly. And he'll do anything for a few dollars more.



● Clint ponders the significance of that stick of dynamite...

Clint is a bounty hunter. He's out for all he can git, and doesn't care what he has to do to git it (er...). Whether it's gunnin' down outlaws, or just picking up discared dosh. He'll do it for a fistful of dollars.

He starts by walkin' into town. The situation immediately becomes hostile. Missiles of a suprising variety are thrown at Clint as he moseys along. His assailants remain out of view, though, so all he can do is put a bullet into the fast flying objects to bring them to a halt. Suprisingly, this bottle-shooting act earns much appreciated bounty.

Clint walks with the gait of an arthritic tortoise, so attempting to dodge the airborne articles is virtually impossible. And unfortunately, he's about as quick off the draw as the aforementioned disadvantaged genus *tortilla*, and his aim is about as accurate too. More often than not, Clint gets hit by the incoming projectiles, zapping his limited energy supply.



● You need quick reactions when the shootin' starts.



● Clint's about to get kneecapped by a barrel.

As Clint ambles along awkwardly (the poor bloke looks saddle-sore after riding through the desert all day), he comes across some real desperados who aren't scared to show their faces. They don't really have too much to fear. By the time Clint's trembling fingers have pulled back the trigger they've disapeared behind the doorway or window they came from.

SECOND OPINION

"Clint is a shambling, bow-legged old dinosaur (– so what's new?)" RL

Graphics are blocky and badly-drawn. Sound is crude and limited to gunshots and bleeps. It's annoying to play. You can see the axes and whatnot flying towards you, but it just takes too long to get out of the way or shoot them. Gunning down the bad guys is even harder – by the time your shot's lined up they've gone again. *Spaghetti Western* deserves to be buried in Boot Hill.

Adam Waring

FIRST DAY TARGET SCORE
$1,000

The Verdict

GRAPHICS **34%**
■ Blocky and ill-defined.

SONICS **31%**
■ Just beeps and bangs.

GRAB FACTOR **41%**
■ Difficult to control.

STAYING POWER .. **36%**
■ Too hard to get anywhere.

AA RATING **37%**

■ A two-bit son of a gun.

tive to continue with the frenzied battering.

The graphics are great: the boxers look like (blocky) cartoon characters as they circle. The whole display is clear, with the hopeless ref wobbling amusingly around the ring.

The sound of the fights goes well with the fun graphics; it's like a martial arts bout, with snap and crack sounds every strike.

Overall, *Pro Boxing Simulator* is good fun. It is possible to beat the computer if you resort to nutting and kicking, but playing against another human is better. The only gripe here is that the keyboard controls are difficult to use because there are so many close together. Ultimately limited, as most fighting games are, this one will nevertheless make you laugh. One of the better budget games.

James Leach



● Mild Martin gets a kick in the kidneys while the ref dithers in the distance.

SECOND OPINION

"Nah, Nah, s'a good bout, reeeelly, nar'mean'arry?" AW

FIRST DAY TARGET SCORE

Beat Mild Martin

The Verdict

GRAPHICS 61%
☐ The ref's great fun to watch!

SONICS 54%
☐ Bruce Lee chopping noises.

GRAB FACTOR 51%
■ Takes a while to master the fouls

STAYING POWER ... 57%
☐ Varying opponents get tougher

AA RATING 58%
☐ A smack-em-in to make you larf!

WORLD SOCCER

Zeppelin ● £2.99 cass joystick

'Ere we go, 'ere we go, 'ere we go again with more football. If you still haven't had enough of our national sport, you should seek immediate psychiatric attention. You also might like to play *World Soccer*. This is a management game, with no on-pitch action at all. You choose a European team languishing in the Third Division of an imaginary Euro-league. (post-1992, perhaps).



● Could *you* win the Zep Cup?

You have wad of cash and a rather rubbish squad. You must negotiate the buying and selling of players, and change the line-up and formation until you aren't quite as rubbish as the other teams. You should then start to progress up the league, also qualifying for the "Zep Cup" which – if you do well – earns you loads of dosh to buy better players. Each player has a name (such as J. Pertwee, W. Hartnell, S. Kubrick or even T. Webb) and fitness, speed and ability ratings as well as player position, so you have lots of information to help you decide who to select.

You can get a commentary of your game while it's in progress, or you can just wait for the results; either way you see nothing of the match. It can get quite nail-biting as the commentary progresses, and your team gets thrashed soundly. Actually, your team does get better as it acquires skilled players, with promotional possibilities and cup-winning chances looking increasingly likely.

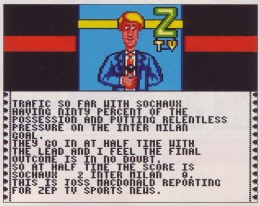
Hazards such as bookings and injuries require you to have a few good reserves on the bench, too. There are many details such as this which make the game that bit more enjoyable. Another is your scout, who provides clandestine gen on your opponents, as well as being scathing about your own squad.

Graphics are good, with large, clear icons for each option. The whole game is joystick-driven, with no keyboard inputting necessary, and it works well. There is no sound, but this doesn't detract any. The gameplay is fine, with options to save and load from tape. Very necessary, because it takes many hours of play to get to the top of Division One and win the Cup.

Ultimately, the repetition of the selections does become tedious, but, depending on how involved you get and how much you want to win, it provides hours of fascinating Bobby Robson emulation.

Overall, *World Soccer* is a great quality budget game, with enough incentive to keep you playing well into the night, desperately trying to break into Division One. Déja vû for Swindon Town fans, perhaps?

James Leach



● No on-pitch action, but the commentator fills you in.

SECOND OPINION

"Text-only football? About as interesting as watching Luton away." AW

FIRST DAY TARGET SCORE

Get promoted

The Verdict

GRAPHICS 60%
☐ Only one display, but it's fine.

SONICS 0%
■ Cheers when you win would be nice.

GRAB FACTOR 71%
☐ Quite easy to master, and soon addictive.

STAYING POWER ... 62%
☐ Play for mammoth stretches, then leave it alone.

AA RATING 66%
☐ The Zeppelin lads done good with this 'un, Brian.

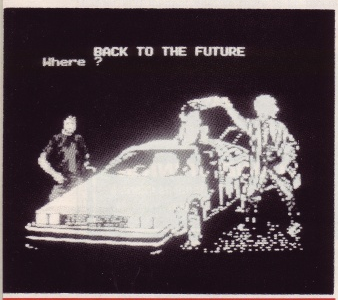
BACK TO THE FUTURE PART II

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

With a blinding flash of light, an almighty clap of thunder and a not-so-spectacular clatter of trashcans, an ice-covered DeLorean appears from nowhere into a quiet street at exactly 88 mph. It comes screeching to a halt in Marty's front yard.

The Doc's back. And you, Marty McFly, have to accompany him once more into the paradox-riddled sphere of time travel. Yep, it's time to go back to the future again. The reason for all the fuss is Marty's (as yet unborn) kids. These sprogs are (or will be) in mortal danger unless he can intervene (time travel can get very confusing).

The DeLorean car that Doc has converted to a time machine whisks them both to the year 2015. Pity he couldn't have gone back to before 1980 to warn John DeLorean...' Anyway,

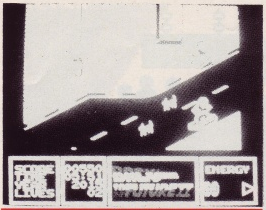


● Marty doesn't seem at all sure where (or when) he's going to.

it's now 2015, and Marty must confront the evil Griff (grandson of the just-as-evil Biff), who has conned Marty's firstborn into committing a robbery. Confronting Griff is a bit silly, really, as Griff's gang chase you on their hoverboards through the streets of Hill Valley.

This is the first level. Riding your board, you must reach the Town Hall whilst avoiding the hordes of Griff's men, also on hoverboards. As if that wasn't enough, the roads are filled with old people with death-wishes galvanised into suicidal lunges into your path, dogs, radio-controlled vehicles and strange robot things. In fact, everything you'd expect on a 21st-century street (except cars). When you do see a car, you can grab onto it to hitch a fast ride. This is useful because virtually the whole game is played against the clock, with a countdown running in the status area in the bottom quarter of the screen.

Having reached the Hall, you progress to Level Two. This is a logic puzzle, the object of which is to free Jennifer, Marty's girfriend/wife. She is in her house, but can only leave if you manage to manoeuvre her through



● Hit the road on your hoverboard. Avoid the dogs!

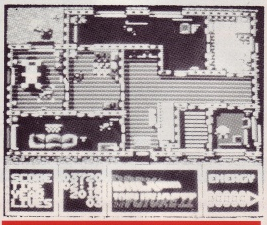
the rooms to the front door without meeting anybody else, such as her older self (we told you this time-travel business was confusing). This would apparently rupture the space-time continuum – painful for all. So by controlling the doors of the house in pairs, you shuffle the people around and provide Jennifer with a way out. Sounds complicated, but you soon pick it up.

Level Two, once completed, is a good way of gaining extra lives; you can do the puzzle a number of times, gaining a bonus life each time. The situation is slightly different each go, however, and is not easy.

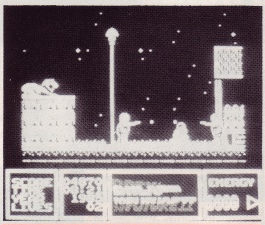
Level Three sees Marty and Doc back in 1985. But all is not well. Hill Valley has become a dangerous, violent place where Biff is top dog and everyone else goes round thumping each other. It's beat-em-up time. You must walk through this fraught landscape to the DeLorean. You have basic combat moves, but Bruce Lee you ain't, so your fighting prowess seems limited to falling on the floor and swinging your legs in wild arcs. You can use the various objects lying around, but not all are lethal. Try throwing a frisbee at someone armed with a pistol! Time is running out, so hasten along.

For some tenuous reason, Marty and Doc must now travel back to 1955 again. This is where Level Four is set. You are presented with a sliding block puzzle, the likes of which were popular in the early part of the eighteenth century (but not everywhere). It is slightly animated for extra enjoyment. Working against the clock, you must assemble a picture of Marty with his band. The time factor is the worst thing. You feel the frustration building as the seconds tick away. Beating it gives you extra lives, but you can proceed to the final level whenever you want anyway.

It's still 1955. Marty is back on his hoverboard, which he obviously brought with him from 2015 (although you wonder where he hid it). He's on it now, and chasing Biff, who's nicked his car and is belting through Hill Valley in it. He has an Almanac from 2015, and is going to use it to distort that darned space-time continuum by winning vast amounts of



● Jennifer's looking for a way out of this house...



● Out for a walk in a hostile neighbourhood.

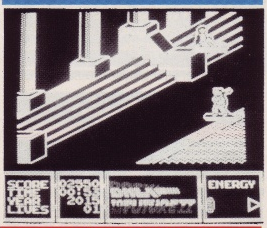
money on bets and so on. Presumably Stephen Hawking wasn't consulted on these peculiar implications of time travel...

Playing this level is like experiencing time travel yourself; you feel transported back in time to Level One. But there is a subtle difference; the police are after you as well. You race against Biff to get to the Almanac first, collecting the usual energy points and fighting off Biff's cohorts with tiny punching motions.

Perhaps you're getting the idea now. Basically, *Back to the Future Part II* is three arcade sequences, punctuated by two logic puzzles. And that's not the most disappointing thing. The game has unfortunately been ported straight across from the Spectrum, and little has been done to improve or modify it. The arcade sections play very jerkily and slowly, and are in simple white on black. They take a long time to complete, and the first and last, hoverboard, sequences frequently involve nothing more than holding the joystick in one position with the Fire button pressed down for minutes on end. It really isn't impressive.

SECOND OPINION

"With the best will in the world, this is a pretty dire film tie-in. The arcade sequences are Speccy graphics at their worst, and the poor playability merely adds to the general gloom." RL



● On the steps of the Town Hall. You made it.

TEMPORAL TECHNICALITIES

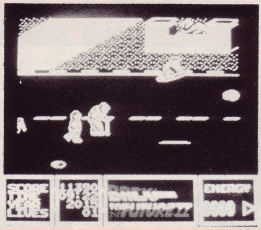
Time is a very tricky thing. You've only got to watch re-runs of the *Time Tunnel* on Sunday afternoons to realise that. And you've got more to worry about than being caught in psychedelic cyclotrons with your trousers too tight.

The basic problem is that you can't really travel back in time without affecting the future in some small way.

It's no use saying you'll just jump in your time machine, zoot off to Archduke Ferdinand's pad, bring him to the floor with a flying tackle just as the sniper shoots and prevent World War One.

Because if you prevent World War One, who knows how might things have turned out. Your Great Grandma might not have met Great Grandpa in the Anderson shelter during the blackout on Tuesday 19th of August and... well, your entire family might not have come into existence and you then wouldn't be able to go and stop World War One 'cos you wouldn't exist, so World War One would happen after all, and your Great Grandparent would be in the Anderson shelter and...

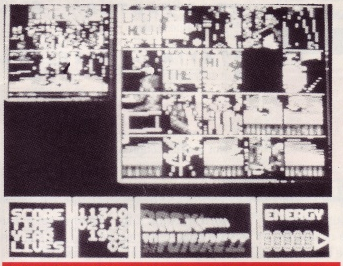
Well we told you it was confusing.



And finally, it's back to the hoverboard. Again.

The Level Two puzzle is a novelty for a little while, but you soon crack the system, and it becomes routine. Level Three is a slow sideways-scrolling beat-em-up that would look grim enough as a budget game, let alone as part of a major, full-price licence

Levels Four and Five are real déja-vû generators: four is a rehash of the sliding puzzle game as invented by Cro-Magnon man, and Five is really Level One again with older-looking cars and buildings.



It's puzzle time. Slide Marty's band into place as quick as you like.

Back to the Future Part II turns your CPC into a Spectrum as far as graphics and sound are concerned. The *BTTF* tune plays continually, and it gets maddening. Movement is slow and the games are easy to beat – yet tedious because it takes so long to do it. Occasionally, bugs and quirks appear; Marty can fly off the screen on his hoverboard never to be seen again. Good riddance.

There is an intro sequence in which Marty and Doc discuss their dire position. This can't be bypassed, so you have to bear it every time. Between each level a similar stilted conversation occurs, with the Doc updating Marty on the plot.

It's all a bit sad, really. Can this really be the same company that brought us the excellent *Bloodwych* barely two months ago? A *BTTF Part III* is promised, but perhaps *Back to the Drawing-Board* would be a better idea?

James Leach

FIRST DAY TARGET SCORE

Reach Level Four

The Verdict

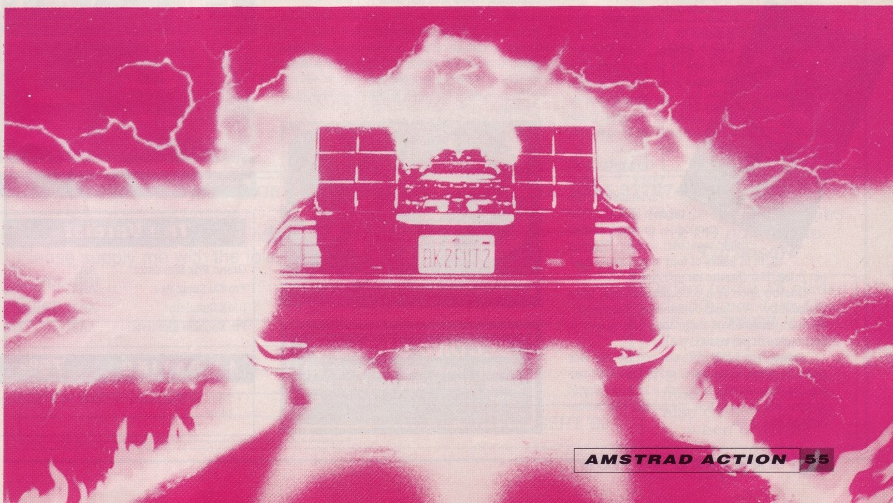
GRAPHICS **51%**
■ Spectrum city.

SONICS **59%**
■ The tune will drive you mad.

GRAB FACTOR **55%**
■ The stages take ages.

STAYING POWER ... **52%**
■ Tedium sets in too soon.

AA RATING **52%**
■ Sorry Mirrorsoft, but what happened?



T-BIRD

Mastertronic ● £2.99 cass
joystick only



Oh no! Those evil alien life forms are at it again. They just can't leave us alone, can they? And, as usual, all our hopes are pinned on a lone space fighter to see off the hordes of repugnant scaly slimeballs.

A *Space Harrier*-like background scrolls towards you from the distance as you zoom through the air. Flying too low brings the danger of collision with towers that thrust their way into the heavens. It's not exactly safe high up, either. Waves of alien scum weave around the screen spitting laser fire at you.

You can disperse with the space-spawned scum with a variety of weapons – but first you have to earn them. Initially you have a forward-firing laser, but collectable weapons pods give you bolt-on armoury. You need to destroy a complete wave of the evil green mutants before a weapons pod makes its way towards you. Fly into it, and you've got extra firepower to tuck under your belt.

It's fairly easy to wipe out a wave of the grotesque extraterrestial menace. They fly in such perfect formation that they'd put the Red Arrows to shame. Just let them show off with their fancy flying and wait for them to go straight into the path of your laser beams.

Between each wave of crazed megalomaniacs a meteor storm greets you. After you have shown several waves of the rancid death hordes what you're made of, a mother ship decends. A few hits in the guts and the thing is soon sent packing.

The graphics are smooth, colourful and well drawn. The scenery scrolls towards you in perspective 3D, and the aliens move in and out of the screen in a believable fashion. The ground scenery is all the same on each given level, but it works well enough.



● Looks tough, but plays easy.

SECOND OPINION

"Looks good, but is a bit too easy once you get the hang of the aliens' attack formations." RL

Sound has been poorly implemented. For a start, there are only the barest spot FX. Worse is there's no sound to indicate that you've collided with anything, demanding a third eye to watch your energy bar.

The game is too easy. The aliens, even the mother-ship, can be destroyed every time once you know what to do. Fine for a few minutes, but ultimately too easy for its own good.

Adam Waring

FIRST DAY TARGET SCORE

Blast your way to Level Three

The Verdict

GRAPHICS 67%
☐ Smooth perspective scrolling

SONICS 30%
■ Elementary FX

GRAB FACTOR 68%
☐ First game is easy

STAYING POWER ... 40%
■ It stays too easy

AA RATING 55%

☐ Not tough enough to keep you interested

QUATTRO SPORT

Codemasters ● £2.99 cass
joystick/keys



When a full-price game has passed its peak you can bet your bottom dollar that it'll make a re-appearance in the shops as a budget title. But what do you do with a *budget* game that's no longer selling?

Compilations, that's what! Codemasters has taken a look at its old catalogue, grouped similar titles together, and is flogging them in packs of four at the usual budget price. The *Quattro* range is born.

Quattro Sport is a collection of those titles prefixed by "Pro" and suffixed by "Simulator". All the games allow more than one player to participate in the action.

Grand Prix Simulator sees you on the race track, at steering wheel of a Formula One racing car. Belt round the circuit à la Super Sprint in your bid to pass the chequered flag before anyone else does.

Pro Ski Simulator puts you on the slopes, skiing off piste. You race down the mountainside very quickly trying not to hit the trees.

BMX Simulator pits you against your rad friends as you race around rad tracks, looking raddish. Jolly good fun, especially against an opponent who's less rad than you are.

Pro Snooker Simulator quietens down the pace slightly. Instead of racing hell-for-leather round a circuit, it's a rather more civilised game to play. Hit those balls into the pockets and score more points than your pal.

Four games for three quid. That's a measly 75p each. So what if the games are old? They all have multi-player action, and are still good fun to play. Great games at a great price.

Adam Waring



● Classic biking fun in *BMX Simulator*.



● Toe down in *Grand Prix Simulator*.

SECOND OPINION

"Brilliant value, and they're not bad games, either – BMX Simulator *especially."* RL

The Verdict

Grand Prix Simulator	AA21	78%
Pro Ski Simulator	AA27	73%
BMX Simulator	AA21	68%
Pro Snooker Simulator	AA27	73%

AA RATING 75%

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THE MUNSTERS

Alternative ● £2.99 cass joystick/keys

There's a good chance that if you remember the *Munsters*, what you are really remembering is the *Addams Family* (*idiot! – ed*). This confusion notwithstanding, the cast of the oldie prog appear in this budget game. It is set at 1313 Mockingbird Ave, their scary home. The house has been invaded by various Ghosts, Ghouls and Undead folk. Marilyn, the Munsters' little (*when did you last get your eyes tested? – ed*) girl has been kidnapped by these ectoplasmic nasties. You, as Lily the Vampire, must firstly free Herman (remember them all now?) and Grandpa. Next you control them to find Eddie and Marilyn.

The characters have little fireballs which need to be aimed up or down to throw at the spooks. Spooks killed add to the spell power of the person you control. What this spell power does is a bit of a mystery, as it is very difficult to get off the first level to utilise it. This is the biggest problem; the game is very hard. No matter how many ghouls you dispose of, more appear and sap your energy until you die.

The graphics are large but can get confusing, and the receptiveness of the joystick isn't perfect. This contributes to the difficulty considerably. The *Munsters* tune plays continually (you're thinking of the *Addams Family* again!) and the bish-bash noises are fine.

All would be quite acceptable for a budget game if it was possible to progress easily. A game like this should get harder the further you go, but *The Munsters* is difficult from the outset. Still not a bad game when all's said and done, though. It does get better, but you'll have to really persevere to find out.

James Leach



● Lily comes face-to-face with a spook.

SECOND OPINION

"It looks fun at first, but the difficulty's well dodgy unless you're incredibly persistent." RL

FIRST DAY TARGET SCORE

Try for Level Two!

The Verdict

GRAPHICS **54%**
☐ Bold colours and ghostly sprites.

SONICS **58%**
☐ SingalongaMunsters!

GRAB FACTOR **46%**
☐ It starts promisingly...

STAYING POWER ... **20%**
■ But see how far you can get.

AA RATING **33%**

☐ Difficult, but fun little budget.

MIKE READ'S COMPUTER POP QUIZ

Encore ● £2.99 cass joystick/keys

Who were "Nice 'n' Sleazy" in the late seventies? If you enjoy being asked questions like this, and are often able to answer them, then this game could be for you.

The venerable Mike Read presides over the quiz. You are a team captain, and you can select your team from some dazzlingly famous megastars. Some are even recognizable, but all (except Mike) have changed their names to protect their credibility. You don't have the option to change your, or their, names. The captains are stuck with the names James and Sharon. Suits me, but others might complain.

You can play either against a friend or the computer. Considering your CPC is both asking the questions and answering them, it's performance isn't too impressive. It gets enough answers wrong to give you a fair chance.

The rounds are similar to those in the TV version, with Mike's questions slowly scrolling by in a speech bubble. You are presented with four answers; just select the correct one with the joystick and press Fire. The whole game is conveniently joystick-driven.

A quickfire round is included, with a two-second penalty for every wrong answer. The multiple choice system cuts down on pondering time, and there is obviously no need for lengthy inputting of answers, so it works well.

The graphics are nothing special; pictures of the twelve stars you can select, and Mike with his speech bubble. His questions appear is a nice typeface, though.



● Can you put the names to the faces?

Sound is rudimentary; rough cheers for correct answers and razzes for mistakes.

Sadly, the game gets tedious very soon. The format is so linear, and nothing can be done to speed things up. There are 1,000 questions, so I imagine it wouldn't be long before duplicates appear.

James Leach

P.S. Answer – The Stranglers

SECOND OPINION

"The TV show was interminably dull. This is worse." RL

FIRST DAY TARGET SCORE

Beat the computer

The Verdict

GRAPHICS **44%**
■ Blocky pics of anonymous popsters.

SONICS **41%**
■ Beeps and Burps.

GRAB FACTOR **42%**
☐ The first game is OK...

STAYING POWER ... **24%**
■ ...the rest are very similar.

AA RATING **39%**

☐ You'd be better off listening to Radio One.

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He's back!

Rick Dangerous II megapreview



Rick Dangerous, possibly the greatest adventurer of all time, has returned. He's fought his way through the Amazonian temples, Egyptian Pyramids, Nazi war camps and, and... OK, I only actually got to the first three levels in the original game.



Anyhow, Rick's moved on from the '40s and into the '50s. This can only mean one thing: Space travel! Yup, this time Rick heads for the upper atmosphere and beyond – boldly going where no hero has gone before...

The story continues from where it left off at the end of *Rick 1*.. (Whadayamean, you didn't get that far?) Rick's minding his own business when, lo and behold, a giant flying saucer appears slap bang in the middle of Hyde Park! Being an explorer, there's only one option open to our little hero...

Luckily, he's well prepared for this unexpected journey. The adventurer's attire has been discarded in favour of a rather dashing all-in-one body suit, complete with flapping cape. His fighting hardware has been uprated too, and now looks suitably space-aged. The six-shooter has been dropped. Rick now sports the latest hi-tech blaster. Pulling the trigger discharges a laser beam guaranteed to fry anything on the wrong side of it. The old dynamite sticks have gone as well. Rick now carries a supply of special 'space-bombs', and he no longer has to light the fuse and run. These super-explosives slide along the floor, exploding a few seconds later. Useful for taking out enemies without putting Rick in any danger himself.

Rick 2 plays very much like its predecessor. It's the same frantic platform action, crossed with all the brain-teasing puzzle-solving that made the original such a smash hit. The tricks are trickier, and the traps, er, trappier. The same system of vertical scrolling crossed with horizontal flipping has been retained.

The action starts straight away – with Rick running for his life. This time, instead of the death-defying boulder sequence, there's a barrage of laser fire threatening to turn his slicked-back quiff into a frazzled mess. And that would never do.

Graphics were one of the stongest points of *Dangerous One*. If anything, they're even better here. The cuteness is cuter, the nasties nastier – and Rick himself? He's looking so hard he should have been named Rock.

The one critisism of the original *Rick Dangerous* was that it was just too flippin' hard. Most people could master the first level after a bit of practise. The second level too, could be cracked after a while. But when you reached game over, you had to start again from scratch. By the time you got to the later levels, you had expended so many of your valuable lives that you got killed on your first few faltering steps.

In fact Firebird had so much response from irate gamers that it brought out an updated version where you could select the level to start on. *RD2* has five levels (as opposed to four). You're even allowed to chose which level you'd like to play first – for the first four levels, that is. To get to the fifth and final level you need to complete all the others first.

Just as *Rick Dangerous* captured the tremendous atmosphere of the devil-may-care '40s-style adventurers, *Rick Dangerous 2* captures the feel of the sci-fi super-heros of the '50s. Rick's latest episode is due to hit the screens this Autumn – watch out!



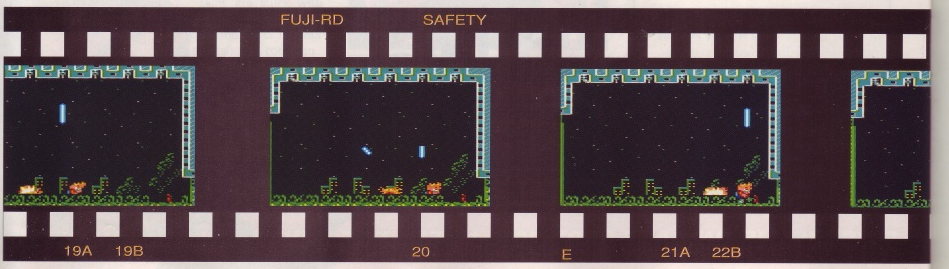
● One of these switches will turn off the laser – the other results in unpleasantness...



● Another perilous platform problem for Rick to overcome.



● Rick dies a horrible death – again.



● Below: right at the start, and straight away Rick must avoid zooming laser bolts. Run Rick, run...

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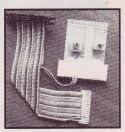
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Balrog

At last – the full review of ADLAN...

Hail to thee, mighty Balg! Despite the Dark One's attempts to take a well-deserved holiday this month, Warlock Lawton has summoned me from my retreat to provide thee with these pages of dazzling entertainment. So put on thy sun-glasses, get out thy surf board and get thee stuck into this month's offering from the monster with the sun tan cream, the luminous shorts and an ADLAN ROM!



STOP PRESS

Adventure Columns Galore!

So, you thought 'The Balrog' was the only Amstrad-specific adventure column remaining? Well, you're wrong! The Balrog has uncovered not one, but two other Amstrad adventure columns in fanzines, both written by females.

The first column is called *Sally's Secrets* and is written by Sally Hickling. It features adventure reviews, a clue pot (sounds a bit familiar...) and a list of where old games can be bought. *Sally's Secrets* appears in *Review*, 24 Chalcot Drive, Hechesford, Staffs, WS12 4SF.

The second column, *Come Adventuring*, is in *CPC User* and is written by a Lady of Adventure, Debby Howard. For more information write to John Packham at 60 Hightown Towers, Warburton Road, Southampton, Hants. SO2 6HH. The Balg wishes both Debby and Sally good luck with their columns.

The Plus Machines

Amstrad's new CPC Plus Console/computer range may herald some new adventures for the humble CPC. Although there will be no cartridge adventures in the foreseeable future, the increased number of CPC owners will just enlarge the market – hopefully making possible conversions of games such as *Bards Tale II* and the *Ultima* series that were uneconomic before!

Who knows? We may even see some 16-bit adventures converted for the new Amstrads. Only time will tell...



Do you want to get your adventure reviewed? Every month the Balrog receives a number of readers' games that are crying out for review in these hallowed pages. Unfortunately, I am only allocated three pages each month, so I can't possibly review them all. So how can you make *your* game stand out from the crowd?

The majority of the games received are written using either the *GAC* or *Quill* utilities and are sometimes very badly presented – improving the presentation improves the chance that your game will be reviewed, so try to follow these pointers:

- Review copies should be sent on disk if possible.
- Don't expect to get your game returned – reviewers like to keep the games for their own collection for mundane things such as screen shots, cover shots, tips and of course their own enjoyment! Disks may be expensive but if you are serious about selling the games then you should take into account the cost of free review copies.
- Check compatibility, i.e. does your game work on both 464 & 6128 (&664?) – perhaps you should even check if they work on the 464 Plus and 6128 Plus, although there should really be no problems). If possible also check that the colours chosen are readable on a green screen – there's nothing worse than playing a text adventure and not being able to read the text!



- Don't forget to enclose an address from where the game can be obtained and the price – it has been known for authors to forget to mention these salient points!
- Send the game with all the packaging you intend to use. Don't just send a Boots C15 cassette with *Orca Quest* handwritten on it – is this how you are planning to sell your adventure? Therefore enclose the packaging you are giving away with the game (in most cases this will be a disk box, inlay and instructions).
- The disk supplied should have a label bearing clear loading instructions, the name of the game, a copyright notice and your name and address (so I don't forget it!)
- A hint sheet, map or solution always helps. Try to impress on the reviewer the good points about your game. Let's face it, most adventure games are meant to take you months to solve and the poor Balg has to review them in a few days. Even I get stuck sometimes and a hint sheet is a real bonus.
- Most important of all, get your game play-tested first! A play-tester should never be the author of the game (authors do not have a very objective view!) but should be fellow adventure players, preferably experienced adventurers (such as Joan Pancott, Graham Wheeler or another Lord or Lady of Adventure). Play-testers not only check for bugs, they look out for poor spelling, grammatical mistakes, over-difficult puzzles, illogical solutions, bad parser etc. Many of the games I receive have obviously not been play tested – and certainly suffer because of it.
- If you do use play-testers (and you should) then mention their names in the game – give them a bit of credit and publicity!
- Then, *if* your play testers feel your game is good enough, get your game reviewed in a fanzine (e.g. *Adventure Probe*). Then, if you get a favourable review in the fanzine, send it in to the Balrog and it will more than likely be reviewed.

The ultimate adventure creator?

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Due to a rather touchy problem with the Balg's monitor (I know I shouldn't have hit it with the flamin' sword) this ADLAN review is brought to you c/o The Amster himself Mr Bob Adams. Thanks, Bob!



Galloping over the hills, to the sound of thundering hooves and trumpeters trumpeting, comes the Cavalry, arriving just in time to rescue the poor adventure columnist with a broken computer. To wild cheers of delight from the gathered readers, the hero descends from his white stallion, blows on his smoking guns to cool them down, lazily slides the brim of his stetson off his face and... (*get on with it Bob! – Balg*)

Er, yes. ADLAN arrived in a jiffy bag that also contained the manual and a disk. Being a well-trained computer user who has self-taught himself to master *Protext* and *Masterfile* by reading the manuals, what was the first thing I did when faced with using this new untried program? That's right, I bunged the ROM into a vacant slot, powered up and waited for it to show me what it could do. Well it just sat there, refusing to do anything. So I then sat down and read the manual!

But to begin at the beginning, what is ADLAN? ADLAN is an ADventure LANguage, a ROM-based adventure-writing program like the *PAW* or *GAC*. For anybody that feels they have an adventure inside them (like a novel) but feel they could never write it because of not being able to understand the complicated syntax of adventure writers such as *GAC*, *Quill* or similar, Graduate Software has some good news for you. The whole adventure is written on a word processor (*like the* PAW – *Balg*). Now what could be easier than that? Any word pro that saves files in ASCII format can be used, but *Protext* users are particularly well catered for. For those of you who still don't own a word pro and prefer a masochistic approach, then you can write the adventure in BASIC, then save it as an ASCII file before compiling.

So what does ADLAN do then, I hear you ask? Well, the ADLAN ROM compiles the whole lot into machine code, ASCII and BASIC alike, which makes it run a lot faster and also compresses text and graphics so that it takes up a lot less space on disk. It can also "Load" files from disk during the playing of an adventure, so there is no limit to the size of the adventure you wish to create, subject to memory available. If you are a fan of graphics (I'm not) then a typical screen file of 17K is compressed down to between 2K and 6K, depending on the complexity. The graphics are loaded separately off the disk and so use up no memory.

SPECIFICATIONS

This ROM will work with all CPCs but really a disk drive is essential – and, of course, so is a ROM board.

The completed adventure is a totally stand-alone binary program and can be loaded from tape or disk. However, because the graphic screens are "saved" as individual files, e.g. "cave.csc", time would be wasted waiting for the tape player to find the file and then load it. For that reason I would suggest that only text-only games are suitable for tape-driven 464 owners. No doubt, cleverer people than I will sort out a solution if they want to use graphics as well.

ADLAN allows for 6,630 Locations, 32,767 Messages, 8 Status letters and unlimited Words, Objects and up to 65,535 Attributes, right up until you run out of memory! Now that is BIG. If you consider that Level 9 used to get very excited about a game that had 200 locations, perhaps you can visualize how big 6,630 might be? I can't.

Programs can be stored in Mode 1 or 2 (40 or 80-column screen), according to your preference. Special character sets are supplied or you can load your own from BASIC. ADLAN comes with its own graphic drawing program or you can load your masterpieces drawn on another art package and let the ADLAN ROM compress them for you. The screen can be divided into windows for special layouts and each window can have its own colour and ink.

The disk also contains numerous "framework" files. These are useful as a quick start to writing, as they contain the basic elements to setting up your database.

EXAMPLE ADLAN CODE

ADLAN has its own special set of commands. To make the program 'use' these commands, they have to be inserted between what I call the curly brackets { }. A typical command in an adventure would be: "Take the object." To program ADLAN to look for this being typed, you would insert the following into your *Protext* file:

```
{
If typed [get/take/pick up]
{
if find item 1 at carry
{
print (You've already got that.) done
}
if not find item 1 at here
{
print (I can't see that here.) done
}
if status item 1 is L
{
print (You can't take that!) done
}
move item 1 from here to carry
print "OK" done
}
```

Did you notice all those little curly brackets and which way they were facing plus those square brackets [and] and the 'less than' < and 'greater than' > symbols? Item 1 refers to the object and, of course, the manual is fully documented on every command, but the problem is that the manual has been written by the programmer, Richard Brooksby, and he has fallen into the trap of thinking that we know as much about his program as he does. A step-by-step tutorial would have been very helpful.

Manual labour

The manual is nicely made with a glossy cover and a sturdy binding that won't fall apart the second time you use it – it's a good job as well, as you will need to constantly refer to the manual. Strong it may be, but well-written it isn't! It is a typical computer program manual, written to the usual low standard.

I can hear the gasps of horror emanating from Derby as I type this but sorry lads, it seems to me that the manual is only a list of commands, rather than a tutorial on how to use and how to get the most from the program. ADLAN has its own special set of commands. To make the program 'use' these commands, they have to be inserted between what I call the curly brackets – { and } .

It's a little gem! I had typed in and successfully run the example adventure, played around with the *Bartrek* adventure (a spoof on

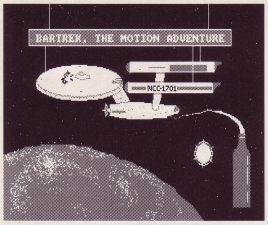
Star Trek) supplied on the disk and I wanted to try something more challenging...

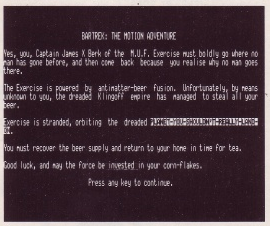
I had an un-completed adventure which I had written using the *GAC*. The reason it was not complete was two-fold. 1) Due to the limitations of *GAC* I had been unable to program certain events that needed to happen, and 2) I had got bored with it. The arrival of ADLAN changed everything – but would I have enough time to convert my masterpiece from *GAC* to ADLAN before The Balrog was on the 'phone demanding his review?

How am I doing? Well, so far, I'm very impressed. ADLAN requires a different structure to *GAC*, so it's not just a case of importing your database. However, being forced to re-write the whole thing again has allowed me to make improvements to the original and also take advantage of some of the short-cuts allowed by ADLAN. The flexibility of being able to compile directly from the command mode in *Protext*, the file held in memory, "Run" the adventure, spot a bug and to be able to return immediately to *Protext* to fix it, is terrific. By the way, the bug I referred to would be a mistake in spelling in the "text". If it was a mistake in any of the commands (syntax, wrong order, missing message, etc) then the ADLAN ROM spots this and refuses to compile the file. More importantly, it tells you which line the mistake is on, so it is a simple matter to correct it and then compile it again.

The verdict

All things considered, I can heartily recommend this program. Congratulations to Graduate Software for releasing ADLAN. Now, if every reader bought this and each one released an adventure, not only would Graduate get very rich but you would keep Amstrad adventure players very happy for years to come.





● **Humorous goings-on in ADLAN's demo Bartrek adventure...**

Clue Sniffing with the Balrog

Okay Balgs, here be ye Furry Fiend's regular dose of problem solvent. Don't forget that all contributions to the *Clue Pot* are most welcome, so if you're bursting with helpful advice, jot it down and send it off to the Balrog's Clue Pot c/o *Amstrad Action*, at the address at the front of the mag.

This month's snort of clues was brought to you by Antcrusher, Tim Bell, Hazis Dolgizas, Adrian Forbes, Debby Howard, Ian Howlett, Simon Netherwood, Brian O'Donoghue, Paul & Timothy Stitt, Howard Swains, Aron Watson, Wendy Watters, Peter White, Stuart Whyte and David Wilbourne.

Bored of the Rings – Part 1
- Use pepper to blast hole in door.
- Hide in bushes to avoid horse.

Corruption
- If you want to listen to some very interesting phone conversations then GET Theresa's and Margaret's PHONE when they're off and WAIT...

Cutthroats
- At the shanty buy water not grog, as water is free.

Dungeon Adventure
- Keep the miner's helmet.
- Eat a psychedelic mushroom.
- Wear gauntlet to get ring.
- Throw ring to find a ruby where you see a hand!

Guild Of Thieves
- Look in the swag bag at the start.
- Examine the rats before the race, then bet on the grey rat.
- Use the prize to buy the lute.
- Make sure that when you buy the lute from the miller you put it into the sack when you leave the windmill.

Hitchhiker's Guide
- Keep going aft to get to the engine room in the Heart of Gold.
- Get all the fluff and put it all in the flower pot then go to the sauna.

Imagination
- Pinch arm to return to the main menu.
- Put coal bucket down on snow (only works in one location!)
- Feed grass to cow, then milk it.

Mindshadow
- To finish part 1, go on the gangplank and go east.

Stationfall
- If you're foiled remember Alice when she wasn't in Wonderland.

Witness
- After interrogating all the suspects, go to the office before Monica arrives home and hide behind the lounge.

Wizbiz
- Vault wall using long rod.

Jinxter

Whoops! Seems like a duff tip was printed in *AA56* but Peter White comes to the rescue with the correct clue...
- The wire fence: You must get and wear the gloves before trying to cut the fence, otherwise you will be slashed and your luck reduced.

David Wilbourne and Brian O'Donoghue have come to Adrian Forbes's aid in *Jinxter*...

First use the Pelican charm (found in the Bakery) to bring the unicorn and fire engine on the carousel to life.

To enter the clockmaker's shop, knock on the door. Throw an object at the oil lamp, which sets the workshop on flames. At this point the clockmaker will run out allowing you to enter.

To take the unicorn's saddle with you, put it in the sack.

The fire engine will leave behind its ladder which can be used in the clockmaker's shop to climb onto the girder in the tower.

Before you take the stool you must freeze it with the Walrus charm.

Contacting the Balg!

The Balg is particularly interested in hearing from all you Wandering Souls out there and will do his best to include your correspondence in these columns whenever space permits. Contributions to the *Clue Pot* and *Just for Laughs* are especially welcome, particularly for lesser-known games which may not be getting the coverage they deserve. I'm contactable c/o Amstrad Action, Future Publishing Ltd, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2AP.

JUST FOR LAUGHS

Simon Netherwood, Harry Lingard, Howard Swains and Ian Howlett can be thanked for this month's selection of amusing responses in adventure games. (Warning: these responses may seriously damage your sense of humour...)

Bored of the Rings
- Fart!

Quest for the Golden Egg-cup
- Swear, search in sand, get out, swear again, search in sand again.

Hitchhiker's Guide
- Try waving the towel.

Moonmist
- Examine motor in your car.
- Try praying.

Big Sleaze
- Examine the toilet in Joe's diner.
- Try kissing men!
- Examine the window.
- Try talking to Velma.



THE BALROG'S POST

● Adventure game cover tape?

I have noticed some Spectrum magazines have been giving away old adventures such as *Jewels of Babylon* and *Apache Gold* on covertapes. Why not torture (!?) Rod Lawton into putting something similar on the B-side of an *AA* tape? It would be an excellent way for home-brew authors to get the attention they deserve.

Simon Netherwood
Huddersfield

Why can't budding adventure fans have an adventure on the cover tape once in a while instead of shoot-em-ups?

Jonathon Burton
Hale

An interesting idea about the cover tape. Any other adventurers interested in having a free adventure? If the response is large enough I will have a 'talk' with Rod...!

● Bards Tale II

Brian Thornton of Stirlingshire and a few other readers have written suggesting that readers should petition Electronic Arts to release *Bards Tale II* & *III* for the Amstrad. I agree with you all wholeheartedly. In fact, read the letters page in *AA52*. I would also like people to write to Electronic Arts. If enough people do write, then *Bards Tale II* – who knows – may be converted. So, fellow



Balgs, please voice your complaint by writing to EA at **11-49 Station Road, Langley, Berkshire SL3 8YN** and say the Balrog sent you!

● Ye Olde Titles wanted

Do you know where I could get copies of some older and less known adventures such as *Boggit, Bored of the Rings* etc?

Simon Avery
South Devon

Getting hold of old adventures is often difficult, but the first place to look is the advertisements in AA – some company might still be offering the game you want for sale. If that doesn't help then check out the Small Ads. If you are still having no luck then try writing to the company that makes the game! Some companies (such as Level 9) keep stocks of all their games, even their first, so writing to the publisher is always worth a try. If none of the above works, then you will have to try and buy the game second hand. Look around in the adventure clubs mentioned recently – members often sell off their old adventures at very reasonable prices. I hope you find the games you are looking for Simon!

Lords & Ladies of adventure

Welcome once again to the Lords and Ladies of Adventure – some of the kindest, most helpful people you could ever meet. However, if you should have any cause for complaint about anyone in the Lords and Ladies column, let me know. There have been terrible tales of Lords who have boasted of their accomplishments but haven't actually finished the games! If discovered, this terrible crime will not go unpunished! And make sure you don't give the Lords and Ladies themselves any cause for complaint. Always enclose a self-addressed stamped envelope and always phone them between the times stated. Thank you!

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

Dungeons Amethysts Alchemists n Everything • Forest at the Worlds End • Jewels of Babylon • Scary Tales.
Simon Avery, 'Marden Farm', Old Exeter Road, Chudleigh, South Devon, TQ13 0DR.

Hitch Hikers Guide to the Galaxy • Leather Goddesses of Phobos • Lurking Horror • Moonmist.
Ken Dean, 63 Elmhurst Avenue, Oulton Broad, Lowestoft, Suffolk, NR32 3AR.

Sounding off

or: How to make a piano out of a hunk of plastic and a few bits of metal

Yes folks, it's time to delve ever deeper into the ENTs and ENVs of your CPC. JAMES PINTO is your personal guide...

As the famous philosopher Bunglezippijorge always said, "Wise man always use example to illustrate his point!", and so, being a loyal pupil of the aforesaid master (*get on with it – ed*), I am going to take his advice and do so!

Imagine that you want to create a simple piano sound. First you need to sketch out on paper roughly what you imagine the sound envelope will look like. A good example of this sort of basic diagram was shown last time (diagrams 1a and 1b). This is quite simple if you know what the instrument you are trying to duplicate sounds like. The piano has a quick attack and (if you keep your finger on the key for a short time) a reasonably long decay and sustain section.

Now that you have planned out the sound you require, you can start translating the plan to fit the CPC's parameters. In general, you will only need to use four sections for most sounds. This allows you to allocate a section to each of the four ADSR sections, thus making envelope design simple and quick.

PIANO: Section (1) – ATTACK

In order to create the quick attack needed for our piano sound we only need one step, as the hammer hits the string immediately: there is no delay. So the Step Count for this section equals 1. As we are only going to have one step for the attack, the envelope obviously needs to reach full volume in this single step. So we can give the Step Size parameter the value of 15 (maximum volume). We could give it any value from 1 to 15, but I think 15, which produces a satisfyingly loud attack, is the most suitable level. As we only have one step, the Pause Time will be the amount of time before the volume control passes to the next section in the envelope, rather than just being the interval between each step. Any value between 5 and 10 would be suitable here. It is very much a matter of what sound you enjoy most. As with most other learning principles, experimentation is the key to success; if you don't like one sound, change some of the parameters and try again. You will usually find that after a short time you come up with a sound you find pleasing to the ear.



Section (2) – DECAY

After the attack we have to create the decay section. The piano, unlike a violin, which holds a note until the player wishes to silence it, does not reach a constant volume level at any point within its envelope. Therefore, how long you decide the decay time to be is very much up to you. If you were attempting to emulate a string sound, you would need to make sure that the decay time was accurate so that the volume reached a constant level reasonably quickly, before entering the sustain section. However, on the piano you can decide how long you wish the decay section to continue quite freely.



However, I suggest a value of about 7 for the Step Count. You can vary this quite considerably to suit your taste if you would prefer a different decay, but do remember, we are trying to create a piano, not a Dalek in a teapot (now, that's a good idea for a sound envelope!). The step size must have a negative value as the volume is decreasing, as you can imagine. The size of the value for this is again very much up to you and it depends upon how smoothly you wish the sound to decrease in volume. A value of -1 is the usual value in percussive sounds like the piano, as it provides a smooth, gradual decrease in volume, whereas a value of 6 or 7 will ensure an extremely harsh drop in volume! The final parameter for this section is the Pause Time, and once again this is quite flexible. A value of 7 or 8 or even 10 would be sufficient, although you don't want too much decay so don't go too far!

Section (3) – SUSTAIN

As I mentioned earlier, we are in this example dealing with a percussive envelope, which means that the distinction between the various sections (Attack, Decay, Sustain, Release) is not as clear-cut as with other more helpful envelopes (e.g. a flute). For the step count, a value of about 2 will sound fine, and for the step size once again we need a negative number, as the volume is still decreasing (and will continue to do so until the sound is finished) and the same value as used in the DECAY section will do for the step size, although you can vary this slightly if you wish without affecting the sound. If you want the volume envelope to totally control the sound, do not forget to make the DURATION parameter in the SOUND command (see *AA57* for details!) equal to zero. If you make this parameter greater than the length of the envelope there will be a remainder which will sound at the current volume. This can be extremely frustrating when you are learning about sound on the CPC, as you continuously wonder where on earth the sound which keeps recurring after the main sound is coming from! However, this eventuality is unnecessary and should not occur if you plan your envelopes out on paper first, which will actually save much time and effort in the end even though it may seem an unnecessary chore each time you want to create a sound. For those of you interested, this also applies to synthesizer programming. No matter how com-

plicated the machine you are using, a basic plan in front of you will nearly always lead to the sound you originally envisaged being relatively easily created.

For the Pause time I decided upon a value of 3, although you can vary this to whatever you think is suitable. This is true with all sound envelopes. As long as you follow the basic rules, the actual design of the sound is entirely up to you. What I think sounds good, you may think is rubbish, so feel free to experiment!

Section (4) – RELEASE

The release section is very much a continuation of the two earlier sections in this case, and for the step count a value of 4 sounds quite good. For an even more abrupt release, decrease the step count to 2 or even 1. For step size we can once again use the same value used throughout most of the envelope, in other words -1. Finally, a pause time of 5 is sufficient for a reasonably quick release. Increasing this will provide a slight "echo" effect which is quite effective, but don't forget that if you want a really sustained piano sound, you will need to alter the whole envelope. Just increasing the release will not work. Besides, it is good practice adding new features to existing envelopes or changing points that you wish to sound different.

That is the challenge of creating sounds, even using a three channel sound chip! (Still, it's better than the ZX81, which didn't even have a sound chip)

Here's the final (experimental!) envelope:-

```
10 ' Piano Volume Envelope
20 ENV 1,1,15,6,7,-1,4,2,-1,3,4,-1,5
30 SOUND 1,100,0,15,1,1
```

Well, that's the basic layout for the PIANO volume envelope. You do not require a tone envelope for piano sounds and many game soundtracks on the CPC often make the mistake of overusing the tone envelopes by adding masses of vibrato effects (where the sound varies pitch slightly rather quickly) to try to spice up the sound chip. If a little more time were spent on creating more subtle sounds, and more creative music (such as in the old Mastertronic game *Agent X2*, which used envelopes cleverly and followed conventional musical rules to create a wonderfully atmospheric soundtrack) rather than uninspiring riffs (sets of repeating notes) the full potential of the Amstrad's sound chip might exploited to the full. Hopefully, the introduction of the new CPC's in the Autumn with an upgraded sound chip may see the introduction of a musician-friendly music package which would allow dedicated musicians, rather than programmers, to write game soundtracks which would actually help to sell the game rather than just being a cosmetic addition.

TECHNICALLY SPEAKING

After looking at the theory behind sound envelopes last month, it's time to probe into the workings of the commands needed to produce sound envelopes.

The CPC divides its enveloping facilities into two categories: Volume (amplitude) envelopes and Tone envelopes. The volume envelope controls the shape of the volume of the sound and the tone envelope controls the shape of the pitch. These two facilities each have corresponding commands in Amstrad BASIC. These are: ENV for volume envelopes and ENT for tone envelopes.

1) ENV – The volume envelope

If you read last month's instalment you will know about ADSR envelopes. This is how the sound is shaped and it is this principle that we need to put into practice in order to create a volume envelope.

Any volume envelope consists of up to five sections. Each section further consists of three parameters, which are the main sound shaping tools.

These are:
i) STEP COUNT
ii) STEP SIZE
iii) PAUSE TIME

i) STEP COUNT – Range <0-127>

Each section you define (you do not have to use all five, you can use for example only two or three sections, although you must have at least one section) is made up of a number of steps. The more steps you have in a section, the smoother the transition from that section to the next will be.

However, have a large number of steps in a section also increases the duration of the section, so a large STEP COUNT would not be very appropriate when attempting a handclap envelope. Long sections are needed for string sounds and other instruments with long attacks.

ii) STEP SIZE – Range <-128 - 127>

Once you have decided upon the number of steps required, you must define the size that you wish each step in the section to be. Obviously, the smaller the step size, the more gradual and smooth the increase in volume will be and vice versa. A negative value represents a decrease in volume and, likewise, a positive value represents an increase in volume. If the step size is zero, the volume will remian at its present level for the length of time of the section that contains the step size parameter of zero.

iii) PAUSE TIME – Range <0-255>

This parameter is the final one of each section and its purpose is to specify the length of time (in one hundreths of a second) between each step in a section.

Each of these parameters is quite straightforward and easy to use, and once you get the hang of the way they work together, designing and producing envelopes should become fun rather than the fiddly chore it can seem if you do not quite understand how each of the parameters work.



Coming soon

After that philosophical interlude, I can now inform you of what's in store for next month. I'll be tying up sound envelopes with a look at the ENT command and I'll also be looking at that little-documented subject, namely hardware envelopes.

There'll also be some example sound envelopes for you to try, PLUS some tips on how to create drum and percussion effects using the *Advanced Music System*. With so much happening, can you afford to miss next month's *Sounding off*?

1

ST FORMAT GOLD



Rainbow Islands
from Ocean

This follow up to Bubble Bobbie looks set to be as much of a hit as Ocean's last cutesy game, New Zealand Story. It combines colourful visuals with frighteningly addictive gameplay, with the result that you end up with one hell of a game.
Graphics have been downloaded from the original arcade version and the moves are just the same. Lead Bub and Bob to the top levels by firing rainbows into the air and then climbing them. When you reach the top of a platform, you can collect thousands of bonus points. There are seven islands to complete, each one more challenging than the last.
"Graftgold's ST Version of Rainbow Islands is one of the best coin-op conversions to have appeared in along time" Maff Evans, ST Format

Rainbow Islands		PRICE	CODE
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Commodore 64	Cass	£ 9.99	BF834CC
Commodore 128	Disk	£14.99	BF835CD
Spectrum 48K	Cass	£ 9.99	BF836SC
Spectrum +3	Disk	£14.99	BF837SD
Atari ST	Disk	£19.99	BF838ST
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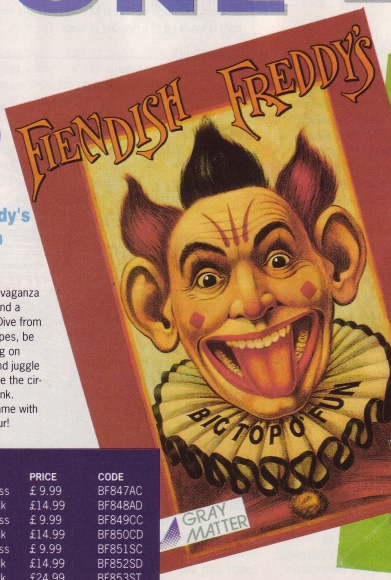
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3



Fiendish Freddy's Big Top of Fun
from Mindscape

Mindscape's circus extravaganza brings you thrills, spills and a whole barrel o' laughs. Dive from high-boards, walk tightropes, be fired from cannons, swing on trapezes, throw knifes and juggle in a desperate bid to save the circus from the big bad bank.
An original multi-event game with a wicked sense of humour!

Fiendish Freddy		PRICE	CODE
Amstrad CPC	Cass	£ 9.99	BF847AC
Amstrad CPC	Disk	£14.99	BF848AD
Commodore 64	Cass	£ 9.99	BF849CC
Commodore 128	Disk	£14.99	BF850CD
Spectrum 48K	Cass	£ 9.99	BF851SC
Spectrum 128	Disk	£14.99	BF852SD
Atari ST	Disk	£24.99	BF853ST
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IG 2



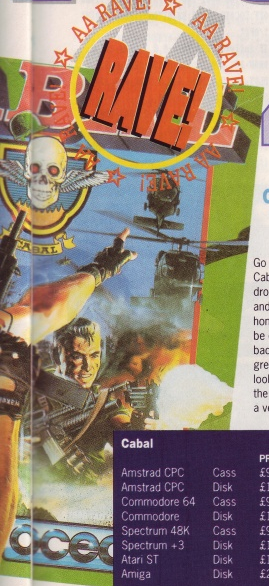
Black Tiger
from U S Gold

US Gold have had major hits with Strider and Ghouls 'n' Ghosts. Now comes their latest horizontally-scrolling action game, Black Tiger.
In a similar fashion to Ghouls, the objective is to charge through horizontally-scrolling levels, climbing ladders and following red arrows to the end of the level. Along the way, fight ugly gargoyles, snakes and even deadly orchids using your powerful weaponry. When the going gets tough, disappear inside the shop, pick up some extra weapons, and go out for another merry blast.
If you're a fan of horizontally-scrolling action games, you'll love this one.

Black Tiger

		PRICE	CODE
Amstrad CPC	Cass	£ 9.99	BF840AC
Amstrad CPC	Disk	£14.99	BF841AD
Commodore 64	Cass	£ 9.99	BF842CC
Commodore 128	Disk	£14.99	BF843CD
Spectrum 48	Cass	£ 9.99	BF844SC
Atari ST	Disk	£19.99	BF845ST
Amiga	Disk	£24.99	BF846AM

ET ONE FREE!



4

Cabal from Ocean

Go crazy in cartoonland with Cabal. A lone trooper, he's dropped behind enemy lines and must fight his way back home. Level after level must be cleared of buildings and bad guys with machine guns, grenades and bazookas. It looks like Operation Wolf for the under fives but plays like a vet.

Cabal

		PRICE	CODE
Amstrad CPC	Cass	£9.99	BF855AC
Amstrad CPC	Disk	£14.99	BF856AD
Commodore 64	Cass	£9.99	BF857CC
Commodore	Disk	£14.99	BF858CD
Spectrum 48K	Cass	£9.99	BF859SC
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IT'S SPOOKY 3D FUN WITH THIS MONTH'S D-I-Y SECTION

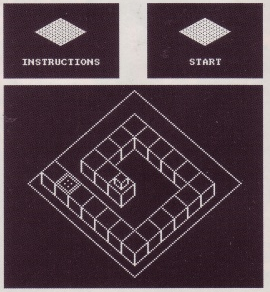
PRIZ

Priz is a maze-type game written by Philip Tate, who hails from South Shields, Tyne and Wear. His (quite substantial) piece of coding has 64 screens, the information of which is stored in the hex DATA statements.

Priz is a very polished example of good presentation, combined with a nifty game. The keys needed and the instructions are included in the program.

It has to be said that the listing is quite long - around 16K. However, it's an excellent application of BASIC programming, and well worth the effort of typing in.

```
{MvAk} 10·'Priz
{CkAq} 20·'By·Philip·Tate
{MoAq} 30·'Amstrad·Action
{PpAx} 40·'Screen·Data·&·Initialisation
{DqAs} 50·DATA·007E5E6E767B7C40
{MxAs} 60·DATA·005F5477ADD5F10
{BlAt} 70·DATA·00EE28AB222AEA0E
{GlAt} 80·DATA·A8S3A85283E2222
{MqAr} 90·DATA·00FF007E3C181818
{KmAs} 100·DATA·00FB0A7A425E5252
{EjAt} 110·DATA·00FE33333E303078
{CoAs} 120·DATA·0000FCD30303078
{FtAw} 130·DATA·405E52524242E00
{BpAt} 140·DATA·107E4253484077F00
{LmAr} 150·DATA·0E027AC47E56D610
{NwAt} 160·DATA·222370007020232
{JjAu} 170·DATA·18D505352SFC000
{AmAu} 180·DATA·525242D212FF2A00
{JxAr} 190·DATA·78007F007F7F7000
{NtAt} 200·DATA·7848F8002A8A2A00
{OnAu} 210·DATA·007F4077575755S6
{LxAt} 220·DATA·0000308CF80C3000
{ClAu} 230·DATA·10S44E494F407F00
{KpAt} 240·DATA·223E020EE82EE222
{IkAv} 250·DATA·007F40405F505350
{JmAt} 260·DATA·00FB020FA3AFA02
{BsAs} 270·DATA·007755555555D41
{FuAs} 280·DATA·00FEBADEEEF6BAFE
{XlAr} 290·DATA·5S57750SF407F00
{CqAr} 300·DATA·00EFDF00FD4BF00
{OlAw} 310·DATA·00FEFE06E604FC04
{CpAu} 320·DATA·22222E282E222624
{MqAt} 330·DATA·505350SF505050F40
{OtAs} 340·DATA·02FA3AFA0202FE00
{JnAt} 350·DATA·41407F003F303030
{DlAx} 360·DATA·FE02F232F2021E10
{KxAu} 370·DATA·00232222F4722202
{CmAt} 380·DATA·00FF282B2A2044A02
{BmAu} 390·DATA·04F417F0180B7A42
{DoAs} 400·DATA·2420BD3C3CDD0024
{CxAs} 410·DATA·405DDB1E17FD1B00
{JuAs} 420·DATA·00FFDB7DEEB8DF00
{HsAt} 430·DATA·30B0B0B0FB808000
{EtAu} 440·DATA·107E425AD0427600
{DuAt} 450·DATA·02232020F8702302
{NsAu} 460·DATA·02CA62727262CA02
{GvAt} 470·DATA·425A5A424E487B02
{KsAs} 480·DATA·242720203F00FE7E
{MoAq} 490·DATA·00FF0000FF087040
{PnAr} 500·DATA·00FE021EC35E4240
{GlAq} 510·DATA·00AA55B0FF100010
{GlAr} 520·DATA·007E425EC0427E00
{NkAs} 530·DATA·028282A2B2FA3320
{BsAs} 540·DATA·02422A1A300FF00
{AxAs} 550·DATA·027A4A4A444CE00
{KsAv} 560·DATA·040E1A326242427E
{CmAs} 570·DATA·40405C4444444440
{BwAv} 580·DATA·405E52525A427E00
{FiAt} 590·DATA·101F00E9A9E9A9AD
{GtAs} 600·DATA·00F8006E4A6A4A6A
{DjAt} 610·DATA·007F404F4F4D7F00
{OxAr} 620·DATA·00FE02FEFE00FF00
{DsAw} 630·DATA·0024242424242E700
{JiAs} 640·DATA·107E3C18087EFE00
{IlAu} 650·DATA·405D5B574D597F00
{PnAr} 660·DATA·00EEAAAaEEAAEB00
{KnAt} 670·DATA·007F405D7505FD00
{PqAr} 680·DATA·00EE2AEE8282EE00
{PiBi} 690·INK·0,0:INK·1,26:BORDER·0:PEN·1
{BiAp} 700·PAPER·0:MODE·1
{NjAx} 710·LOCATE·15,10:PRINT"Please··Wait"
{OqBm} 720·LOCATE·12,12:PRINT"Processing·Screens"
{FrBm} 730·SYMBOL·255,192,192,192,192,192,0,192
{JuBm} 740·RESTORE·50:DIM·sc$(64),s(9),fue(8)
{PoAu} 750·DEFINT·a-b,d-z:DEFREAL·c
{JjAl} 760·chk=0
{ErAn} 770·FOR·a=1·TO·64
{IsAo} 780·READ·sc$(a)
{KnAm} 790·s$=""
{PiAs} 800·FOR·b=1·TO·15·STEP·2
{FvAt} 810·a$=MID$(sc$(a),b,2)
{LkAp} 820·v=VAL("&"+a$)
{IuAs} 830·s$=s$+BIN$(v,8)
{LsAo} 840·chk=chk+v
{JuAr} 850·NEXT:sc$(a)=s$:NEXT
{MsCu} 860·IF·chk()45274·THEN·LOCATE·3,14:PRINT"Error
        ·in·screen·data·(Lines·50-680)."
        :PRINT:END
{PiAl} 870·DEFINT·c
{OsBl} 880·RESTORE·900:FOR·a=1·TO·9:READ·sc,posn
{HuBj} 890·MID$(sc$(sc),posn,1)="2":NEXT
{JpBj} 900·DATA·10,50,15,43,16,23,18,51,21,55
{KpAw} 910·DATA·40,52,48,28,59,14,64,10
{GkBi} 920·MID$(sc$(57),25,10)="4411010044"
{GnBo} 930·RESTORE·940:FOR·a=1·TO·8:READ·fue(a):NEXT
{HlBj} 940·DATA·19,27,19,17,16,12,13,51
{GlAm} 950·inflv=0
{FlAu} 960·'Title·Screen·&·Options
{LuAl} 970·MODE·1
{DjAw} 980·INK·0,0:INK·1,1:INK·2,23:INK·3,2
{MjAm} 990·BORDER·2
{AkBn} 1000·IF·inflv=1·THEN·lvrdc=0·ELSE·lvrdc=1
{GuBn} 1010·PAPER·0:PEN·1:LOCATE·1,25:PRINT"PRIZ"
{IkAp} 1020·LOCATE·1,1
{MnAt} 1030·PRINT·CHR$(23)CHR$(1)
{FqAl} 1040·TAG
{CxAq} 1050·FOR·a=0·TO·64·STEP·2
{FnAs} 1060·FOR·b=2·TO·14·STEP·2
{PwAp} 1070·t=TEST(a,b)
{OpDi} 1080·IF·t=1·THEN·PLOT·0,-2,1:MOVE·a*8+64,
        b*8+254:PRINT·CHR$(143);:PLOT·0,2,2:
        MOVE·a*8+66,b*8+256:PRINT·CHR$(143);
{GkAm} 1090·NEXT·b,a
{JmBr} 1100·TAGOFF:LOCATE·1,25:PRINT·SPACE$(4)CHR$
        (23)CHR$(0);
{XpCw} 1110·PAPER·3:PEN·2:LOCATE·1,12:PRINT·SPACE$
        (50)"BY·PHILIP·TATE·"CHR$(164)"1990"
        SPACE$(10)SPACE$(40)
{JnCu} 1120·PLOT·0,224,3:DRAW·638,224:PLOT·0,226,2:
        DRAW·638,226:DRAW·638,398,1:DRAW·0,398:
        DRAW·0,226,2
{GjBv} 1130·IF·inflv=0·THEN·WINDOW#3,19,22,15,25:
        PAPER#3,3:CLS#3
{HsBm} 1140·LOCATE·1,25:PAPER·2:PEN·3:PRINT"I"
{XqRp} 1150·xp=80:GOSUB·1300
{InAt} 1160·LOCATE·1,25:PRINT"S"
{ErAs} 1170·xp=432:GOSUB·1300
{AoBx} 1180·IF·inflv=1·THEN·LOCATE·1,25:PRINT"L":
        xp=256:GOSUB·1300
{FoBi} 1190·LOCATE·1,25:PAPER·0:PRINT"·"
{DwCx} 1200·LOCATE·4,23:PAPER·0:PEN·3:PRINT"INSTRUC
        TIONS":TAG:PLOT·0,2,3:MOVE·456,46:PRINT
        "START";:TAGOFF
{PrEk} 1210·IF·inflv=1·THEN·LOCATE·17,22:PRINT"INFI
        NITE":TAG:MOVE·280,46:PRINT"LIVES";:TAG
        OFF:LOCATE·18,24:PRINT"ON";:PEN·1:PRINT
        "/OFF"
{MqEo} 1220·IF·inflv=0·THEN·PLOT·0,0,2:DRAW·286,0:
        DRAW·286,174,1:DRAW·0,174:DRAW·0,0,2:
        PLOT·352,0,2:DRAW·638,0:DRAW·638,174,1:
        DRAW·352,174:DRAW·352,0,2
{BiCp} 1230·IF·inflv=1·THEN·PLOT·0,0,2:DRAW·638,0:
        DRAW·638,174,1:DRAW·0,174:DRAW·0,0,2
{GjBo} 1240·i$=INKEY$:WHILE·i$()"":GOTO·1240:WEND
{GvAu} 1250·i$=UPPER$(INKEY$)
```



```
{MrAt} 1260·IF·i$="I"THEN·1360
{Piat} 1270·IF·i$="S"THEN·2120
{DkFo} 1280·IF·i$="L"·AND·inflv=1·THEN·SOUND·1,100,
       3,15:lvrdc=1-lvrdc:LOCATE·18,24:IF·
       lvrdc=1·THEN·PEN·1:PRINT"ON";PEN·3:
       PRINT"OFF"·ELSE·PEN·3:PRINT"ON";:PEN·1:
       PRINT"/OFF"
{DwAp} 1290·GOTO·1250
{GrAs} 1300·FOR·x=0·TO·14·STEP·2
{BwAs} 1310·FOR·y=0·TO·14·STEP·2
{PkBm} 1320·PLOT·xp+x*4+(14-y)*4,80+(y+x)*2,TEST(x,y)
{ClBu} 1330·DRAWR·6,2:DRAWR·6,-2:DRAWR·6,-2:DRAWR·6,2
       :DRAWR·8,0
{MrAm} 1340·NEXT·y,x
{DkAo} 1350·RETURN
{MkAp} 1360·'Instructions
{OoBr} 1370·MODE·1:INK·0,3:INK·1,24:INK·2,26:INK·3,3:
       BORDER·3
{HuBt} 1380·LOCATE·1,25:PEN·3:PAPER·0:PRINT"PRIZ·-·
       Instructions."
{HuAt} 1390·FOR·y=2·TO·14·STEP·2
{KvAs} 1400·FOR·x=0·TO·320·STEP·2
{CkCr} 1410·t=TEST(x,y)/3:IF·t=1·THEN·PLOT·x*2,y*2+
       368,t:PLOTR·0,2:PLOTR·2,0:PLOTR·0,-2
{OjAn} 1420·NEXT·x,y
{FnAv} 1430·LOCATE·1,25:PRINT·SPACE$(20)
{IxBx} 1440·INK·3,6:PEN·3:LOCATE·8,25:PRINT"Press·
       any·key·to·continue."
{MrAv} 1450·WINDOW·1,40,3,24:PEN·2
{MkAt} 1460·FOR·a=1·TO·3:PRINT:NEXT
{OwBi} 1470·PRINT:PRINT"The·Story·So·Far..."
{FrEj} 1480·PRINT:PRINT"··You·have·been·found·guilty
       ·of·first···degree·watching·of·Blind·
       Date,·and·you·have·been·sentenced·to·
       life·on·the"
{IoEw} 1490·PRINT"large,·flat·prison·planet·of·Priz.
       ·Your·only·hope·of·escape·is·to·find·
       that·····teleporter·device·you·heard·two·
       blokes·talking·about·on·the·way·here."
{CnBl} 1500·i$=INKEY$:WHILE·i$()"":GOTO·1500:WEND
{KwBo} 1510·i$=INKEY$:WHILE·i$="":GOTO·1510:WEND:CLS
{BnAu} 1520·FOR·a=1·TO·3:PRINT:NEXT
{CoFo} 1530·PRINT:PRINT"···You·have·three·Hov-O-Matic·
       space-shipswith·which·you·can·explore·
       this·world.···On·your·travels·you·will·
       find·switches···which·open·other·parts·of·
       the·planet·to"
{BnFk} 1540·PRINT"you.·Note·that·your·ships·can·not·
       hover·very·high···hence·it·is·
       inadvisable·to···move·over·empty·
       space.·If·you·do,·you····will·fall·to·
       infinity·and·lose·a·ship."
{HlBn} 1550·i$=INKEY$:WHILE·i$()"":GOTO·1550:WEND
{PuBo} 1560·i$=INKEY$:WHILE·i$="":GOTO·1560:WEND:CLS
{EuAp} 1570·PRINT:PRINT
{IvGm} 1580·PRINT:PRINT"···Your·ships·use·Fuel-O-Tron·
       Keep-U-Up···rocket·fuel·crystals,·which·
       you·will····find·scattered·about·the·
       planet.·Each···time·you·enter·a·
       different·room,·you····lose·one·unit·of·
       fuel.·(Note·that·there"
{AlMn} 1590·PRINT"is·just·enough·fuel·in·each·
       crystal·to·get·you·to·the·next·crystal,·
       so·there·isNO·room·for·error·-·a·wrong·
       turn·could··quickly·prove·disastrous).·
       If·you·run····out·of·fuel,·you·will·
       lose·a·ship·and···get·five·more·units·
       of·fuel."
{MrBl} 1600·i$=INKEY$:WHILE·i$()"":GOTO·1600:WEND
{JuCs} 1610·i$=INKEY$:WHILE·i$="":GOTO·1610:WEND:CLS
       :LOCATE·1,22:PEN·2:PAPER·0:PRINT"KEYS:"
{CqAs} 1620·FOR·x=0·TO·80·STEP·2
{DjAt} 1630·FOR·y=18·TO·30·STEP·2
{NrCi} 1640·PLOT·x*2+32,y*2+200,TEST(x,y):PLOTR·0,2:
       PLOTR·2,0:PLOTR·0,-2
{GmAm} 1650·NEXT·y,x
{EqBi} 1660·LOCATE·1,22:PRINT·SPACE$(5)
{MiBj} 1670·t$="7":x=256:y=192:GOSUB·1770
{LlBk} 1680·t$="9":x=352:y=192:GOSUB·1770
{NmBj} 1690·t$="1":x=256:y=96:GOSUB·1770
{KxBi} 1700·t$="3":x=352:y=96:GOSUB·1770
{JoBx} 1710·PLOT·240,272,3:DRAWR·-48,48:DRAWR·0,-16:
       PLOTR·16,16:DRAWR·-16,0
{BlCk} 1720·PLOT·240,112:DRAWR·-48,-48:DRAWR·0,16:
       PLOTR·16,-16:DRAWR·-16,0
{MqBu} 1730·PLOT·400,272:DRAWR·48,48:DRAWR·0,-16:
       PLOTR·-16,16:DRAWR·16,0
{NoCi} 1740·PLOT·400,112:DRAWR·48,-48:DRAWR·0,16:
       PLOTR·-16,-16:DRAWR·16,0
{KlBm} 1750·i$=INKEY$:WHILE·i$()"":GOTO·1750:WEND
{DuBs} 1760·i$=INKEY$:WHILE·i$="":GOTO·1760:WEND:
       GOTO·1850
{DtBi} 1770·LOCATE·1,22:PEN·1:PRINT·t$
{CjAt} 1780·FOR·xx=0·TO·14·STEP·2
{DvAv} 1790·FOR·yy=16·TO·30·STEP·2
{LoBv} 1800·PLOT·x+xx*2,y+yy*2,TEST(xx,yy):
       PLOTR·0,2:PLOTR·2,0:PLOTR·0,-2
{OoAm} 1810·NEXT:NEXT
{KuAu} 1820·LOCATE·1,22:PRINT"·"
{OnBu} 1830·PLOT·x-16,y+16,3:DRAWR·64,0:DRAWR·0,64:
       DRAWR·-64,0:DRAWR·0,-64
{CvAp} 1840·RETURN
{JmCn} 1850·MODE·0:INK·0,0:INK·1,26:INK·2,13:INK·
       3,24:INK·4,6:INK·5,18:INK·6,15:INK·7,3
{LqBp} 1860·INK·9,0:INK·10,6,26:INK·8,11:BORDER·0
{NuBj} 1870·xl=32:xr=604:y=336:bl=0:GOSUB·1940
{FqBk} 1880·xl=32:xr=284:y=240:bl=1:GOSUB·1940
{HmBi} 1890·xl=32:xr=284:y=144:bl=1:GOSUB·1940
{FsRx} 1900·xl=32:xr=604:y=48:bl=0:GOSUB·1940
{FjBk} 1910·xl=320:xr=604:y=240:bl=1:GOSUB·1940
{MxRx} 1920·xl=320:xr=604:y=144:bl=1:GOSUB·1940
{FkAm} 1930·GOTO·1970
{GiBs} 1940·PLOT·xl,y,7:DRAW·xr,y:DRAWR·0,62,6:
       DRAW·xl,y+62:DRAW·xl,y,7
{LqEs} 1950·IF·bl=1·THEN·PLOT·xl+60,y+8,1:DRAWR·32,16
       :DRAWR·0,16:DRAWR·-32,-16:DRAWR·0,-16
       :DRAWR·-32,16:DRAWR·0,16:DRAWR·32,16
       :DRAWR·32,-16:PLOTR·-32,-16:DRAWR·-32,16
{GvAn} 1960·RETURN
{FjDn} 1970·PLOT·380,272,2:DRAWR·16,8:DRAWR·-16,8:
       DRAWR·-16,-8:DRAWR·16,-8:PLOTR·8,4:
       DRAWR·-16,8:PLOTR·16,0:DRAWR·-16,-8
{KlBw} 1980·PLOT·92,172,3:DRAWR·24,12:DRAWR·-24,12:
       DRAWR·-24,-12:DRAWR·24,-12
{EuBp} 1990·PLOTR·0,8,10:PLOTR·8,4:PLOTR·-8,4:PLOTR·
       -8,-4
{JmDw} 2000·PLOT·380,176,4:DRAWR·16,8:DRAWR·0,8:
       DRAWR·-16,-8:DRAWR·0,-8:DRAWR·-16,8:
       DRAWR·0,8:DRAWR·16,8:DRAWR·16,-8:
       PLOTR·-16,-8:DRAWR·-16,8
{GmBi} 2010·RESTORE·2080:FOR·tno=1·TO·6
{JmBj} 2020·READ·x,y,c,text$:l=LEN(text$)
{MiBk} 2030·PEN·3:LOCATE·1,25:PRINT·text$
{LqBp} 2040·FOR·xx=0·TO·(l*32)-8·STEP·4:
       FOR·yy=2·TO·14·STEP·2
{ExAs} 2050·t=(TEST(xx,yy)/9)*c
{LsBo} 2060·IF·t()0·THEN·PLOT·xx+x,(yy*2)+y,t:
       PLOTR·0,2
{EuAq} 2070·NEXT·yy,xx,tno
{JrCi} 2080·DATA·256,352,8,HELP,128,256,5,BLOCK,416,
       256,5,SWITCH,160,160,5,YOU
{DnBo} 2090·DATA·448,160,5,FUEL,112,64,8,PRESS·ANY·
       KEY
{FrBm} 2100·i$=INKEY$:WHILE·i$()"":GOTO·2100:WEND
{PtBs} 2110·i$=INKEY$:WHILE·i$="":GOTO·2110:WEND:
       GOTO·980
{BsAo} 2120·'Game·Setup
{AwAu} 2130·FOR·a=1·TO·9:s(a)=0:NEXT
{AqAr} 2140·RESTORE·2160
{EpBv} 2150·FOR·a=1·TO·8:READ·scn,posn:MID$(sc$(scn),
       posn,1)="3":NEXT
{KxBv} 2160·DATA·9,28,15,18,18,18,29,15,40,54,50,
       39,53,54,56,13
{AnAr} 2170·RESTORE·2210
{JxBo} 2180·READ·scn,posn,cnt$:IF·scn=65·THEN·2230
{CqBn} 2190·MID$(sc$(scn),posn,LEN(cnt$))=cnt$
{FtAn} 2200·GOTO·2180
{ExCj} 2210·DATA·13,43,"0",16,31,"0",16,42,"01110",
       23,27,"0",39,38,"0",43,60,"0"
{LsBu} 2220·DATA·47,52,"0",51,3,"00",53,43,"000",59,
       20,"00",63,5,"00",65,0,""
{NxBw} 2230·sc$(36)="00100100001000000101111010011110000111100101111101000000000100100"
{DuBj} 2240·sc=36:ps=37:lv=3:cr=0:fu=9:f=0
{CrCl} 2250·MODE·0:BORDER·0:RESTORE·2260:FOR·a=0·TO·
       15:READ·col:INK·a,col:NEXT
{AxBs} 2260·DATA·0,26,13,24,6,18,15,3,11,0,0,16,6,
       18,11,15
{MsCj} 2270·PAPER·0:PEN·9:WINDOW#1,1,20,1,20:ORIGIN·
       0,0,0,640,400,0:INK·10,6,26
{CnCj} 2280·PLOT·64,78,7:DRAW·64,16:DRAW·252,16:
       DRAW·252,78,6:DRAW·64,78
{AlBv} 2290·PLOT·384,78,7:DRAW·384,16:DRAW·572,16:
       DRAW·572,78,6:DRAW·384,78
{PxCj} 2300·PLOT·320,78,7:DRAW·320,16:DRAW·348,16:
       DRAW·348,78,6:DRAW·320,78
{AvBw} 2310·WINDOW#5,10,10,21,25:PAPER#5,0:PEN#5,6:
       PRINT#5,"FUEL";
{DuBn} 2320·PLOT·128,22,1:GOSUB·2340:PLOT·448,22,1:
       GOSUB·2340
{NwAm} 2330·GOTO·2360
{JuBx} 2340·DRAWR·32,16:DRAWR·0,16:DRAWR·-32,-16:
       DRAWR·0,-16:DRAWR·-32,16
{CmCk} 2350·DRAWR·0,16:DRAWR·32,16:DRAWR·32,-16:
       MOVER·-32,-16:DRAWR·-32,16:RETURN
{FuCk} 2360·PLOT·128,42,3:DRAWR·24,12:DRAWR·-24,12:
       DRAWR·-24,-12:DRAWR·24,-12:PLOTR·0,8,10
{OpAx} 2370·PLOTR·8,4:PLOTR·-8,4:PLOTR·-8,-4
{CsCj} 2380·PLOT·448,46,4:DRAWR·16,8:DRAWR·0,8:
       DRAWR·-16,-8:DRAWR·-16,8:DRAWR·0,-8
{LtBu} 2390·DRAWR·16,-8:DRAWR·0,8:MOVER·-16,8:
       DRAWR·16,8:DRAWR·16,-8
{JuBu} 2400·LOCATE·1,25:IF·lvrdc=0·THEN·PRINT"I"ELSE·
       PRINT"3"
{KiBw} 2410·FOR·x=0·TO·28·STEP·4:FOR·y=2·TO·14·STEP·2
{JuBo} 2420·PLOT·192+x,32+(y*2),TEST(x,y)*5/9:PLOTR·
       0,2:NEXT·y,x
{CuBx} 2430·LOCATE·1,25:PRINT"0":FOR·x=0·TO·28·STEP·
       4:FOR·y=2·TO·14·STEP·2
{CvCn} 2440·PLOT·512+x,32+(y*2),TEST(x,y)*5/9:PLOTR·
       0,2:NEXT·y,x:fuel=9:GOSUB·3100
{BqAq} 2450·'Draw·Location
{LqCr} 2460·CLS#1:PLOT·320,112,0:DRAWR·256,128:DRAWR·
       -256,128:DRAWR·-256,-128:DRAWR·256,-128
{GoAv} 2470·FOR·a=1·TO·8:FOR·b=1·TO·8
{NqBl} 2480·loc=VAL(MID$(sc$(sc),(a*8)+1-b,1))
{BkEp} 2490·IF·loc()0·THEN·PLOT·32*(10*a-b),16*(22
       -a-b),0:MOVER·-32,16:DRAWR·48,24:MOVER·
       -32,0:DRAWR·48,-24:MOVER·-32,16:DRAWR·
       0,16:PLOTR·0,-48,1:GOSUB·2340
{FkDx} 2500·IF·loc=2·THEN·MOVER·16,0:DRAWR·16,8,2:
       DRAWR·16,-8:DRAWR·-16,-8:DRAWR·-16,8:
       MOVER·8,4:DRAWR·16,-8:MOVER·-16,0:
       DRAWR·16,8
{BpEr} 2510·IF·loc=3·THEN·MOVER·32,-8:DRAWR·16,8,4:
       DRAWR·0,8:DRAWR·-16,8:DRAWR·-16,-8:
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        DRAWR 0,-8:DRAWR 16,-8:DRAWR 0,8:
        DRAWR 16,8:MOVER -32,0:DRAWR 16,-8
{IrBr} 2520 NEXT:b,a:IF f=1 THEN GOSUB 3130:IF fu=0
       THEN 3310
{PvAx} 2530 IF sc=57 THEN GOSUB 3540
{XqRl} 2540 'Motion
{GnBl} 2550 xx=((ps-1)MOD 8)+1:yy=(ps+7)\8
{IvBk} 2560 x=32*(1+xx+yy):y=16*(xx+14-yy)+4
{CmBo} 2570 IF MID$(sc$(sc),ps,1)="0"THEN GOTO 3170
{IlBo} 2580 IF MID$(sc$(sc),ps,1)="2"THEN GOSUB 2770
{LoBp} 2590 IF MID$(sc$(sc),ps,1)="3"THEN GOSUB 2890
{CxBo} 2600 IF MID$(sc$(sc),ps,1)="4"THEN GOTO 3730
{JxRp} 2610 c1=3:c2=10
{LxRm} 2620 GOSUB 2750
{DlRp} 2630 ops=ps:osc=sc
{RxBo} 2640 i$=INKEY$:WHILE i$="":GOTO 2640:WEND
{GxRm} 2650 i$=INKEY$
{GqAs} 2660 IF i$="9"THEN 2710
{HlAt} 2670 IF i$="7"THEN 2720
{GiAu} 2680 IF i$="3"THEN 2730
{GtAs} 2690 IF i$="1"THEN 2740
{HqAm} 2700 GOTO 2650
{GuCv} 2710 IF xx<8 THEN sc=sc+1:f=1:ps=ps-7:GOTO
       2450 ELSE c1=0:c2=0:GOSUB 2750:ps=ps+1:
       GOTO 2540
{M1Cv} 2720 IF yy=1 THEN sc=sc-8:f=1:
       ps=ps+56:GOTO 2450 ELSE c1=0:c2=0:
       GOSUB 2750:ps=ps-8:GOTO 2540
{JnCv} 2730 IF yy=8 THEN sc=sc+8:f=1:ps=ps-56:
       GOTO 2450 ELSE c1=0:c2=0:GOSUB 2750:
       ps=ps+8:GOTO 2540
{OmCu} 2740 IF xx<1 THEN sc=sc-1:f=1:ps=ps+7:
       GOTO 2450 ELSE c1=0:c2=0:GOSUB 2750:
       ps=ps-1:GOTO 2540
{DwCi} 2750 PLOT x,y,c1:DRAWR 24,12:DRAWR -24,12:
       DRAWR -24,-12:DRAWR 24,-12
{EvBu} 2760 PLOTR 0,8,c2:PLOTR 8,4:PLOTR -8,4:
       PLOTR -8,-4:RETURN
{EnRr} 2770 'Switch-Routine
{IuBt} 2780 RESTORE 2800:FOR a=1 TO 9:READ b:
       IF sc=b THEN sw=a
{GsAl} 2790 NEXT
{GwBk} 2800 DATA 18,21,15,18,40,64,48,59,16
{GjRx} 2810 IF s(sw)=1 THEN RETURN
{AlCj} 2820 ENV 1,15,1,1,15,-1,6:SOUND 1,500,90,
       15,1,,1:SOUND 2,4000,90,15,1,,31
{GsBu} 2830 ON sw GOSUB 2860,2870,2880,2890,
       2900,2910,2920,2930,2980
{PkRm} 2840 s(sw)=1
{JxRn} 2850 RETURN
{FoBi} 2860 MID$(sc$(36),23,1)="1":RETURN
{JuBu} 2870 MID$(sc$(36),14,1)="1":MID$(sc$(29),
       27,1)="1":RETURN
{BkBw} 2880 MID$(sc$(36),18,1)="1":MID$(sc$(13),43,
       1)="1":RETURN
{HvRx} 2890 MID$(sc$(36),47,1)="1":RETURN
{JvBu} 2900 MID$(sc$(36),51,1)="1":MID$(sc$(39),38,
       1)="1":RETURN
{DsCr} 2910 MID$(sc$(36),54,1)="1":MID$(sc$(53),43,
       3)="111":MID$(sc$(63),5,2)="11":RETURN
{CnBv} 2920 MID$(sc$(36),42,1)="1":MID$(sc$(47),52,
       1)="1":RETURN
{EmCw} 2930 MID$(sc$(16),31,16)="1000101010111111":
       MID$(sc$(43),60,1)="1":MID$(sc$(51),3,2)
       ="11"
{LlBt} 2940 FOR a=1 TO 8:FOR b=1 TO 8:MID$(sc$(36),
       (a*8)+b-8,1)="0"
{CtBt} 2950 IF b=6 AND a<7 THEN MID$(sc$(36),(a*8)
       +b-8,1)="1"
{PvAm} 2960 NEXT:b,a
{CpBl} 2970 MID$(sc$(36),41,5)="11111":RETURN
{FnBj} 2980 MID$(sc$(59),20,2)="11":RETURN
{DvAr} 2990 'Crystal-Routine
{I1Du} 3000 PLOT x,y+4,0:DRAWR 16,8:DRAWR 0,8:
       DRAWR -16,-8:DRAWR -16,8:DRAWR 0,-8:
       DRAWR 16,-8:DRAWR 0,8:PLOTR -16,8,1:
       DRAWR 16,8:DRAWR 16,-8
{OqAw} 3010 MID$(sc$(sc),ps,1)="1"
{KtBx} 3020 ENT -1,1,38,2,1,-40,2:ENV 1,15,-1,6:
       SOUND 1,90,100,15,1,1
{HrRn} 3030 cr=cr+1
{FnAp} 3040 fu=fue(cr)
{IkAs} 3050 fuel=fu:GOSUB 3100
{OsRx} 3060 PEN 3:LOCATE 1,25:PRINT cr
{KnBl} 3070 FOR a=0 TO 28 STEP 4:FOR b=0 TO 14
       STEP 2
{GqBt} 3080 PLOT 512+a,32+(b*2),TEST(a+32,b)*5/9:
       PLOTR 0,2:NEXT b,a
{PmAo} 3090 RETURN
{diBi} 3100 IF fuel>51 THEN fuel=30
{OjAu} 3110 FOR a=2 TO (fuel*2) STEP 2
{JiBl} 3120 PLOT 324,a+16,11:DRAWR 20,0:NEXT:RETURN
{BtAp} 3130 'Fuel-Reduce
{KsAo} 3140 fu=fu-1
{GsBs} 3150 IF fu<30 THEN PLOT 324,(fu*2)+18,0:
       DRAWR 20,0
{MvAo} 3160 RETURN
{OoAo} 3170 'life-Lost
{IoAo} 3180 GOSUB 3500
{RxBw} 3190 PLOT x,y,3:DRAWR 24,12:DRAWR -24,12:
       DRAWR -24,-12:DRAWR 24,-12
{KxBt} 3200 PLOTR 0,8,4:PLOTR 8,4:PLOTR -8,4:PLOTR -
       8,-4:lv=lv-lvrdc
{LuBv} 3210 ENV 1,15,1,10,15,-1,10:ENT -1,1,10,1:
       SOUND 1,0,285,15,1,1
{LtBx} 3220 LOCATE 1,25:PEN 3:IF lvrdc=1 THEN
       PRINT lv LISE PRINT"-I"
{IjBk} 3230 FOR a=0 TO 28 STEP 4:FOR b=0 TO 14
       STEP 2
{NuBr} 3240 PLOT 192+a,32+(b*2),TEST(a+32,b)*5/9:
       PLOTR 0,2:NEXT b,a
{JuBo} 3250 IF fuel=0 THEN WHILE SQ(1)>127:WEND
{EtBn} 3260 IF fuel=1 THEN fuel=0:GOTO 3470
{EoAs} 3270 IF lv=0 THEN 3620
{FqAm} 3280 ps=ops
{AoBl} 3290 IF sc()osc THEN sc=osc:f=0:GOTO 2450
{AkBw} 3300 c1=0:GOSUB 2750:GOSUB 3520:GOTO 2540
{HvAn} 3310 'Fuel-Out
{OuAs} 3320 INK 12,0:c1=3:c2=10
{DsBl} 3330 xx=((ps-1)MOD 8)+1:yy=(ps+7)\8
{JxBl} 3340 x=32*(1+xx+yy):y=16*(xx+14-yy)+4
{JnAm} 3350 GOSUB 2750
{NoAu} 3360 FOR a=324 TO 344 STEP 4
{BwAu} 3370 PLOT a,18,12:DRAW a,76:NEXT
{EoAo} 3380 FOR a=1 TO 7
{KxBq} 3390 INK 12,6:SOUND 1,30,10,15:WHILE SQ(1)>
       127:WEND
{DrBt} 3400 INK 12,0:SOUND 1,0,10,0:WHILE SQ(1)>
       127:WEND:NEXT
{NpBp} 3410 RESTORE 3420:FOR a=1 TO 6:READ
       colour(a):NEXT
{LjAs} 3420 DATA 26,24,15,6,3,0
{I1Bp} 3430 FOR t=2 TO 30:SOUND 1,t*100,2,15,,,t
{KxBr} 3440 i=t/5:IF i=INT(i) THEN INK 10,colour
       (i):NEXT
{PjBj} 3450 ENV 1,15,-1,5:SOUND 1,3000,75,15,1,,30
{DxBi} 3460 fuel=1:lv=lv-lvrdc:GOTO 3220
{IoAs} 3470 IF lv=0 THEN 3620
{PrBq} 3480 FOR a=324 TO 344 STEP 4:PLOT a,18,0:
       DRAW a,76:NEXT
{PrBo} 3490 fuel=5:GOSUB 3100:fu=5:INK 10,6,26:
       GOTO 2530
{IuBu} 3500 aa=TEST(x,y+24):bb=TEST(x+12,y+18):cc=
       TEST(x+12,y+6)
{ItCj} 3510 dd=TEST(x-12,y+6):ee=TEST(x-12,y+18):
       ff=TEST(x,y+18):RETURN
{AkBp} 3520 PLOT x,y+24,aa:PLOT x+12,y+18,bb:PLOT
       x+12,y+6,cc
{H1Bt} 3530 PLOT x-12,y+6,dd:PLOT x-12,y+18,ee:
       PLOT x,y+18,ff:RETURN
{CxAp} 3540 'Target-Draw
{JtAt} 3550 FOR a=1 TO 8:x=a*4:y=a*2
{EqBk} 3560 IF a<1 THEN colr=a ELSE colr=a+7
{KjBi} 3570 PLOT 232+x,254+y:DRAWR 56,-28,colr
{NsAw} 3580 PLOT 232+x,258-y:DRAWR 56,28
{MmAw} 3590 PLOT 412-x,254+y:DRAWR -56,-28
{JqBi} 3600 PLOT 412-x,258-y:DRAWR -56,28
{E1Ao} 3610 NEXT:RETURN
{AoAp} 3620 'Game-Over
{LwAr} 3630 FOR a=1 TO 1000:NEXT
{PnBv} 3640 MODE 0:INK 0,6:BORDER 6:INK 1,3:
       INK 2,24:INK 3,15:INK 4,6
{GuBx} 3650 PEN 4:LOCATE 1,24:PRINT"Game":PRINT
       "Over"CHR$(23)CHR$(1);
{EjBk} 3660 ENV 1,15,-1,100:SOUND 1,4000,1500,1
{GxBr} 3670 SOUND 2,4030,1500,15,1:SOUND 4,4060,
       1500,15,1
{HwBr} 3680 TAG:FOR x=0 TO 128 STEP 4:
       FOR y=2 TO 30 STEP 2
{DoDe} 3690 IF TEST(x,y)=4 THEN PLOT 0,-2,1:
       MOVE 64+x*4,100+y*8:PRINT CHR$(133);:
       PLOT 0,-2,2:MOVE 68+x*4,102+y*8:PRINT
       CHR$(133);
{MoBj} 3700 NEXT y,x:TAGOFF:PRINT CHR$(23)CHR$(0)
{NxCl} 3710 PLOT 0,0,2:DRAW 636,0:DRAW 636,398,1
       :DRAW 0,398:DRAW 0,0,2:BORDER 15
{OxAu} 3720 FOR a=0 TO 5000:NEXT:GOTO 960
{HvAr} 3730 'Game-Completion
{EjBq} 3740 FOR a=324 TO 344 STEP 4:PLOT a,18,0:
       DRAW a,76:NEXT
{PjBn} 3750 PLOT 128,50,4:PLOTR 8,4:PLOTR -8,4:
       PLOTR -8,-4
{ErAu} 3760 LOCATE 1,25:PRINT"--"
{JmCw} 3770 FOR a=1 TO 25:FOR b=9 TO 15:INK b,26:
       CALL &BD19:INK b,0:SOUND 1,0,1,15,,,a+b-
       9:NEXT b,a
{EpBk} 3780 ENV 1,15,-1,50:ENT -1,10,4,1,10,-4,1
{CmCm} 3790 SOUND 1,10,800,15,1,1:SOUND 2,20,750,15,
       1,1:SOUND 4,40,750,15,1,1,30
{HnCw} 3800 MODE 0:INK 0,0:BORDER 0:INK 1,3:INK
       2,15:INK 3,6:INK 4,1:INK 8,20:INK
       12,2:INK 13,24:INK 15,0
{CiBk} 3810 t$="WELL":x=68:y=226:c1=1:c2=2
{IjAo} 3820 GOSUB 3890
{JxBn} 3830 t$="DONE"+CHR$(255):x=46:y=54:c1=4:c2=8
{K1Ao} 3840 GOSUB 3890
{FoAx} 3850 PLOT 0,398,13:DRAW 0,0:DRAW 636,0
{HtAx} 3860 DRAW 636,398,3:DRAW 0,398
{FjAo} 3870 BORDER 15
{DqAn} 3880 GOTO 3980
{MoBj} 3890 LOCATE 1,25:PEN 15:PRINT t$
{PqAx} 3900 PRINT CHR$(23)CHR$(1);:TAG
{BqAw} 3910 FOR xx=0 TO LEN(t$)*32:STEP 4
{EqAs} 3920 FOR yy=2 TO 14 STEP 2
{HwAq} 3930 t=TEST(xx,yy)
{BtDm} 3940 IF t=15 THEN PLOT 0,-4,c1:MOVE
       xx*4+x,yy*8+y:PRINT CHR$(133);:PLOT 0,
       -4,c2:MOVE xx*4+x+4,yy*8+y+2:
       PRINT CHR$(133);
{C1Bn} 3950 NEXT yy,xx:TAGOFF:PRINT CHR$(23)CHR$(0);
{BnBi} 3960 LOCATE 1,25:PRINT SPACE$(5)
{LkAn} 3970 RETURN
{JlCs} 3980 FOR pau=1 TO 2800:NEXT:WINDOW 2,19,12,24
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          :LOCATE 1,14:PRINT:SOUND 1,2000,10,
          15,,,20
{MuCs} 3990 FOR pau=1 TO 1000:NEXT:WINDOW 2,19,2,24
          :LOCATE 1,24:PRINT:SOUND 1,4000,10,
          15,,,30
{GjAu} 4000 FOR pau=1 TO 2000:NEXT
{FwBs} 4010 FOR y=0 TO 46 STEP 2
{JoAr} 4020 PLOT 0,y,2:DRAW 640,y
{LnAw} 4030 PLOT 0,y+2,13:DRAW 636,y+2
{FqAp} 4040 PLOTR 0,0,3
{OlAx} 4050 SOUND 1,0,5,15,,,25-(y/2)
{PjAu} 4060 WHILE SQ(1))128:WEND
{FjAn} 4070 NEXT y
{CvAu} 4080 WINDOW 1,20,25,25
{HqAq} 4090 ENV 1,15,-1,10
{AjAn} 4100 cntr=2
{BtAu} 4110 FOR pau=1 TO 1000:NEXT
{CpAr} 4120 PAPER 2:PEN 13
{DwAq} 4130 RESTORE 4220
{HwAo} 4140 READ t$
{KiAp} 4150 cntr=cntr+2
{GsBl} 4160 IF t$="xxx"THEN GOSUB 4230:GOTO 960
{FwBk} 4170 LOCATE 11-(LEN(t$)/2),1:PRINT t$;
{HkAw} 4180 SOUND 1,0,150,15,1,,cntr
{MoAt} 4190 WHILE SQ(1))128:WEND
{KmAk} 4200 CLS
{CqAn} 4210 GOTO 4140
{MtHw} 4220 DATA "You have escaped","from PRIZ!",
          "Unfortunately,","as you are being",
          "teleported back","to Earth,","you pass
          through","a black hole","which catapults
          you","through space","and time--",
          "before you know it,","you're back on",
          "PRIZ!!","xxx"
{AkCt} 4230 MODE 1:INK 0,0:BORDER 0:INK 1,26:INK 2,0:
          LOCATE 1,25:PAPER 0:PEN 2:PRINT"Sorry!"
{MiBw} 4240 FOR x=0 TO 94 STEP 2:SOUND 1,x+10,3,15:
          FOR y=0 TO 14 STEP 2
{IpCo} 4250 IF TEST(x,y)=2 THEN PLOT x*2+224,
          y*2+200,1:PLOTR 0,2:PLOTR 2,0:PLOTR 0,-2
{GoAm} 4260 NEXT y,x
{OpAu} 4270 FOR pau=1 TO 1000:NEXT
{ImBl} 4280 LOCATE 1,25:PRINT SPACE$(6):INK 2,2
{JqBw} 4290 PLOT 210,216,192,2:DRAW 414,192:DRAW 414,240:
          DRAW 216,240:DRAW 216,192
{LvBp} 4300 SOUND 1,1000,5,15:FOR pau=1 TO 700:NEXT
{EuCk} 4310 PLOT 214,198:DRAW 416,198:DRAW 416,242:
          DRAW 214,242:DRAW 214,198
{OsBp} 4320 SOUND 1,1500,5,15:FOR pau=1 TO 2000:NEXT
{GxAm} 4330 inflv=1
{FtAn} 4340 RETURN
{OuAm} 4350 'The Endialisation ●
```

3D LANDSCAPE DESIGNER



With this 3D program from funky James B. of Huntingdon in Cambridgeshire, you can design a geometric landscape by selecting the height of the points, which are connected in grid fashion.

Select option one from the menu, and you'll be presented with a flat plane of dots. The left-hand corner one is flashing. this is the selected dot. You can lower or raise it relative to the plane by pressing 7 or 8 on the keypad. Once it is in the required position, you can select another point by using the cursor keys. Once all the dots are in their positions, press the space bar to overlay the actual grid.

You can produce angular, spiky grids, or gently rolling hills and valleys. The program has several pre-designed scapes, options two to six, to give you the gist of what can be done.

Well, you never know, geographers might even find it useful. (Ex-geographer James Leach claims he did).

```
{HqIt} 10 MODE 2:PRINT"·1·)·Designer";PRINT"·2·)·
          Ups·+·Downs":PRINT"·3·)·Positive·+·
          Negative":PRINT"·4·)·Double·Slope":
          PRINT"·5·)·Slope":PRINT"·6·)·Flat·topper"
{EnAx} 20 INPUT "Please choose a number··";a
{KjAu} 30 IF a<1 OR a>10 THEN RUN
{CkAm} 40 MODE 2
{InBr} 50 IF a)1 THEN LOCATE 1,1:MODE 2:PRINT"Please
          wait,,,"
{LtAq} 60 INK 0,0:INK 1,26
{PvAo} 70 DIM h(16,16)
{JwAv} 80 DIM x(16,16),y(16,16)
{MoAu} 90 IF a)1 THEN GOTO 340
{PpAn} 100 cx=1:cy=1
{BrAv} 110 FOR q=1 TO 16:FOR w=1 TO 16
{IvCp} 120 x(q,w)=(w*16)+(q*16):y(q,w)=(q*8)+(16-w*8)
          +150:PLOT x(q,w),y(q,w),1
{MmAm} 130 h(q,w)=0
{EvAm} 140 NEXT:NEXT
{LwAx} 150 PLOT x(cx,cy),y(cx,cy)+h(cx,cy),0
{KkEr} 160 IF INKEY(11)=0 THEN h(cx,cy)=h(cx,cy)+2:
          PLOT x(cx,cy),y(cx,cy)+h(cx,cy),1:
          PLOT x(cx,cy),y(cx,cy)+h(cx,cy)+2,0::
          PLOT x(cx,cy),y(cx,cy)+h(cx,cy)-2,0
{FkEt} 170 IF INKEY(10)=0 THEN h(cx,cy)=h(cx,cy)-2:
          PLOT x(cx,cy),y(cx,cy)+h(cx,cy),1:
          PLOT x(cx,cy),y(cx,cy)+h(cx,cy)+2,0::
          PLOT x(cx,cy),y(cx,cy)+h(cx,cy)-2,0·
{IvBi} 180 PLOT x(cx,cy),y(cx,cy)+h(cx,cy),1
{GpBo} 190 IF INKEY(0)=0 AND cx<16 THEN cx=cx+1
{CqBm} 200 IF INKEY(2)=0 AND cx>1 THEN cx=cx-1
{AsBm} 210 IF INKEY(0)=0 AND cy>1 THEN cy=cy-1
{KmBm} 220 IF INKEY(1)=0 AND cy<16 THEN cy=cy+1
{DmBj} 230 IF INKEY(47)=0 THEN GOTO 250
{EpAm} 240 GOTO 150
{FnAv} 250 FOR q=1 TO 16:FOR w=1 TO 15··
{JuCj} 260 PLOT x(q,w),y(q,w)+h(q,w),1:DRAW·
          x(q,w+1),y(q,w+1)+h(q,w+1)
{ItAm} 270 NEXT:NEXT
{BwAv} 280 FOR w=1 TO 16:FOR q=1 TO 15
{PvBu} 290 PLOT x(q,w),y(q,w)+h(q,w),1:DRAW·
          x(q+1,w),y(q+1,w)+h(q+1,w)
{GpAm} 300 NEXT:NEXT
{OiAt} 310 WHILE INKEY(47)=0:WEND
{DeBj} 320 LOCATE 1,1:PRINT"Press SPACE.."
{MuAv} 330 WHILE INKEY(47)<>0:WEND:RUN
{DpAu} 340 IF a=3 THEN GOTO 440
{ExAw} 350 IF a=4 THEN GOTO 520
{HqAu} 360 IF a=5 THEN GOTO 590
{JnAu} 370 IF a=6 THEN GOTO 650
{IrAu} 380 FOR q=1 TO 16:FOR w=1 TO 16
{AmBv} 390 x(q,w)=(w*16)+(q*16):y(q,w)=(q*8)+(16-w*8)
          +150
{EkBl} 400 h(q,w)=40+SIN(q*w)-(q+w)*COS(w/2)·
{CmAt} 410 PLOT x(q,w),y(q,w)+h(q,w)
{OkAl} 420 NEXT:NEXT
{DkAl} 430 GOTO 250
{DrBl} 440 co=255:FOR q=1 TO 16:FOR w=1 TO 16·
{HsBv} 450 x(q,w)=(w*16)+(q*16):y(q,w)=(q*8)+(16-w*8)
          +150·
{ArBl} 460 IF·q<9·THEN·h(q,w)=((q*q)/(w*w))*2
{JuAw} 470 IF·q)8·THEN·h(q,w)=h(17-q,w)
{PjBn} 480 IF·w)8·THEN·h(q,w)=h(q,17-w)-(h(q,17-w)*2)
{PuAu} 490 PLOT x(q,w),y(q,w)+h(q,w)
{GrAm} 500 NEXT:NEXT·
{EsAl} 510 GOTO 250
{PpAu} 520 FOR q=1 TO 16:FOR w=1 TO 16
{PmBu} 530 x(q,w)=(w*16)+(q*16):y(q,w)=(q*8)+(16-w
          *8)+150·
{AjAw} 540 IF w<9 THEN h(q,w)=q*w
{MnAx} 550 IF w)8 THEN h(q,w)=h(q,17-w)
{OmAu} 560 PLOT x(q,w),y(q,w)+h(q,w)
{CmAm} 570 NEXT:NEXT·
{MmAl} 580 GOTO 250·
{DjAv} 590 FOR q=1 TO 16:FOR w=1 TO 16···
{AlBu} 600 x(q,w)=(w*16)+(q*16):y(q,w)=(q*8)+(16-w*8)
          +150
{FwAp} 610 h(q,w)=q+w*q
{FxAv} 620 PLOT x(q,w),y(q,w)+h(q,w)··
{ExAn} 630 NEXT:NEXT··
{EjAl} 640 GOTO 250
{BxAv} 650 FOR q=1 TO 16:FOR w=1 TO 16
{EvBu} 660 x(q,w)=(w*16)+(q*16):y(q,w)=(q*8)+(16-w*8)
          +150·
{KtAm} 670 NEXT:NEXT
{CkAt} 680 FOR q=1 TO 8:FOR w=1 TO 8·
{CnAr} 690 h(q,w)=(q*q)+(w*w)
{GlAo} 700 h(17-q,w)=100
{EsAt} 710 h(17-q,17-w)=h(q,w)
{JrAq} 720 h(q,17-w)=h(q,w)
{IsAu} 730 PLOT x(q,w),y(q,w)+h(q,w)·
{PrAv} 740 PLOT x(17-q,w),y(17-q,w)+h(17-q,w)
{XiBj} 750 PLOT x(17-q,17-w),y(17-q,17-w)+h(17-q,
          17-w)
{OnBi} 760 PLOT x(q,17-w),y(q,17-w)+h(q,17-w)·
{DlAm} 770 NEXT:NEXT
{BoAl} 780 GOTO 250 ●
```

3D Mandelbrot Generator

This 'chaotic' offering is from Chris Sangwin from the Salisbury area. He has added a new twist to that perennial favourite, the Mandelbrot Set.

Owing to the complexity of the calculations, it does take a while, so you have time to redecorate your house while it is running.

```
{OlBm} 1·'····A·New·dimension·in·Mandelbrot's·sets
{XtAv} 2·'·········By·Chris·Sangwin·1990··
{FyBl} 3·'··(·Takes·Quite·a·long·time·but·is·worth·
          it·)
{FtAj} 4·'
{OtCs} 10 FOR a=1 TO 15:·:INK a,a*1.4:·:NEXT:·:
          INK 15,26:·:INK 1,24:·:MODE 0:INK 13,0:
          ORIGIN 395,150·
{AwBi} 20 FOR j=1.4 TO -1.4 STEP -2.8/100·
{CrAu} 30 FOR i=-2 TO 0.7 STEP 2.7/80
{DqAq} 40 nX=-1:x=0:y=0
{BxCn} 50 x2=x*x:y2=y*y:z=2*x*y+j:x=x2-y2+i:
          nX=nX+1:IF·nX<48·AND·x2+y2<4·THEN·GOTO·50
{NsAt} 60 IF·1+nX/4<3·THEN·110
{AvBw} 70 MOVE·(i*118.52)+(j*100),j*71.429·:·
          DRAWR·0,(nX/8.5)*10,1+nX/4
{IwBi} 80 IF·1+nX/4<13·THEN·PLOTR·0,0,15
{FuAm} 90 NEXT:NEXT
{LiAl} 100 GOTO 100
{JiCu} 110 MOVE·(i*118.52)+(j*100),j*71.429·:·DRAWR·
          0,(nX/8.5)*10,15:·PLOTR·0,0,1+nX/4·:·
          GOTO·30 ●
```

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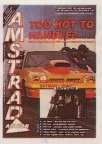
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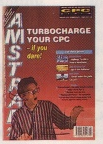
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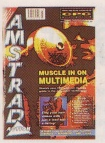
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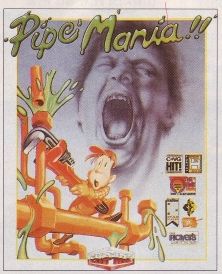
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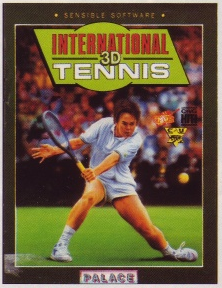
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Cheat mode

Uncle Phil blows another batch of blockbusters wide open

I've got some good news and some bad news for you this month. The good news is that there has been so much excellent stuff from everybody, I have enough cheats to fill a double issue. The bad news is, however, that this is only a single one, so some of you who have been decent enough to send me your hard work will not get mentioned... DON'T give up though!, it all gets looked at, and you can bet your life if you write often enough I'll manage to squeeze you in somewhere. Plus... don't tell Rod... but *Cheat Mode* gets a little bit bigger every month!

The first two pokes by Mike Wong this month (***Myth*** and ***Hotrod***) are part of his ongoing Pacific Disk system, and need to be merged with the Master program. For a copy of this you will have to dig out the June (57) copy of *Amstrad Action*, which gives full details. It would have been reprinted, but as I said there is so much new stuff to get in and so little space to spare, I just know you're going to understand.

ADDRESS	POKE	EFFECT
1401	A7	level 1
13A4	A7	level 2
140C	A7	level 3
1414	A7	level 4

Wonder Boy

Wonder Boy Graham Smith (you asked for it, Gray) has sent in a another wonderful cheat. I used der cheat and won der game... get it? (Look, it's not easy being this creative you know!)

```
{OnAr} 1 ' Wonder Boy  -tape-
{HvAq} 2 ' By Graham Smith
{EwAs} 3 ' Infinite lives
{JsAm} 4 ' Method 1
{FuAj} 5 '
{FrAu} 10 DATA c4,14,ac,af,32,e5
{HiAs} 20 DATA 52,fb,c9,3e,0f,32
{HnAv} 30 DATA 7f,41,3e,b3,32,cc
{BwAu} 40 DATA 41,21,62,46,36,92
{HkAt} 50 DATA 2b,36,83,2b,36,df
{AuAp} 60 DATA c3,05,40
{CjAs} 70 FOR j=0 TO 32:READ a$
{DsAt} 80 x=VAL("&"+a$):y=y+x
{PxAt} 90 POKE j+48640,x:NEXT j
{DuAr} 100 IF y()3596 GOTO 130
{HiAr} 110 MEMORY &3FFF:LOAD"
{EpAp} 120 CALL 48649
{KiAq} 130 PRINT"data error
```

● Multiface poke for ***Wonder Boy*** – tape

Address = 52E5 Poke = 00

History in the making

Here it is, ***History in the Making***. The poke that aimed to thave the world and mythed... you can thay that again!

```
{HqAo} 1 ' Myth - disk
{PvAr} 2 ' Merge with Pacific
{EwAs} 3 ' Infinite lives
{MuAp} 4 ' By Mike Wong
{FuAj} 5 '
{JjBi} 660 s=&BE80:t=&BEDD:l=710:GOSUB 50
{BqAv} 670 MODE 1:BORDER 0:INK 0,0
{HvAu} 680 INK 1,15:INK 2,24:INK 3,0
{InAw} 690 PRINT"Insert MYTH disc..."
{LlAv} 700 CALL &BB18:CALL &BE80
{LlAx} 710 DATA cd,00,40,cd,0d,ab,cd,26,385
{MtAx} 720 DATA ab,3e,01,21,00,c0,cd,30,2c8
{JoAw} 730 DATA ab,3e,02,21,00,7e,cd,30,287
{IuAx} 740 DATA ab,3e,cd,21,af,be,32,d0,446
{PqBj} 750 DATA 8a,22,d1,8a,3e,a7,32,6d,38b
{DtBj} 760 DATA 88,21,00,86,c3,fa,aa,06,39c
{DuBl} 770 DATA a7,3a,00,10,fe,06,20,06,21b
{BtBj} 780 DATA 78,32,01,14,18,1c,fe,3a,22b
{GtBn} 790 DATA 20,06,78,32,a4,13,18,12,1b1
{CnBn} 800 DATA fe,83,20,06,78,32,0c,14,271
{EiBj} 810 DATA 18,08,fe,2d,20,04,78,32,219
{EqAu} 820 DATA 14,14,21,00,c0,c9,00,00,1d2
```

● Multiface Pokes for ***Myth***, courtesy of Carl Surry and Graham Smith, give infinite life on all levels of the disk. To input the pokes without the program crashing, pause the game with Space, then use the Multiface.

Rambo 3

How come, single handedly, John Rambo can take on the combined forces of the Warsaw Pact and win, when I can't even get past Level One? The Yanks may send in Stallone (God bless America), but we can still do it the British way... and cheat!

```
{GnAn} 1 'Rambo 3
{FrAj} 2 '
{FrAs} 3 'Infinite Continues
{FtAj} 4 '
{CmAt} 10 DATA 21,16,bd,36,c3,23
{HkAt} 20 DATA 36,0e,23,36,be,c3
{DiAr} 30 DATA c5,99,21,17,be,22
{HvAs} 40 DATA 4f,a6,c3,08,a6,dd
{EsAv} 50 DATA 21,b3,a8,11,ab,00
{OtAs} 60 DATA cd,48,A8,21,2a,be
{LpAu} 70 DATA 22,62,a8,c3,e3,a8
{JiAt} 80 DATA af,32,a6,1b,c3,5b
{NwAm} 90 DATA 1e
{CkAp} 100 y=0:MEMORY &5000
{LsAs} 110 FOR x=&BE00 TO &BE30
{PxAu} 120 READ a$:a=VAL("&"+a$)
{MmAt} 130 POKE x,a:y=y+a:NEXT
{OkAt} 140 IF y()1544 THEN 170
{MsAn} 150 LOAD"rambo3
{LtAo} 160 CALL &BE00
{BjAs} 170 PRINT"data error!"
```

● Multiface poke for continuous ***Rambo 3*** - tape

Address = 1BA6 Poke = 00



Count Duckula



A more recent TV hero is ***Count Duckula*** (doesn't he sound like Del Boy?). I like Nanny best so, duckiboos, here's a pretty comprehensive attack on the tape game by your very own duck-buster Graham Smith of Street.

```
{Gi@t} 1 ' Count Duckula -tape-
{HvAq} 2 ' By Graham Smith
{DkAp} 3 ' No nasties
{JsAn} 4 ' Method 1
{FuAj} 5 '
{GwAu} 10 DATA 3e,c9,32,6e,0f,32
{PmAt} 20 DATA 1b,10,32,c7,10,32
{HxAu} 30 DATA de,11,c3,98,08,06
{EvAt} 40 DATA 00,11,64,00,cd,77
{JxAu} 50 DATA bc,21,41,00,22,9c
{KmAs} 60 DATA 00,af,cd,0e,bc
{DrAs} 70 FOR j=0 TO 34:READ a$
{DsAt} 80 x=VAL("&"+a$):y=y+x
{AoAu} 90 POKE j+65,x:NEXT j
{OjAt} 100 IF y=2945 THEN CALL 82
{HuAq} 110 PRINT"data error
```

● Multiface poke for *Count Duckula* – tape – to be entered on the title screen

ADDRESS	POKE	EFFECT
0F6E	C9	No mummies
101B	C9	No rocks
10C7	C9	No crow bros.
11DE	C9	No bats

Black Tiger

Black Tiger may have been lifted from the Sinclair Spectre (and doesn't it show!), but this poke by the master ghost writer Mike Wong, like him, is an Amstrad original. No need for Pacific with this, but you may like to CAT an ordinary disk first (dodgy loader!).

```
{CrAs} 1 ' Black Tiger - disk
{MsAp} 2 ' By Mike Wong
{EwAs} 3 ' Infinite lives
{FtAj} 4 '
{GuAq} 10 MEMORY &3FFF:CAT
{PrAo} 20 FOR n=ABE80 TO &BEB4
{AvAu} 30 READ a$:a=VAL("&"+a$)
{CpAu} 40 POKE n,a:c=c+a:NEXT
{NtAt} 50 IF c()5658 THEN 190
{AlAu} 60 PRINT"Insert TIGER..."
{LiAr} 70 CALL &BB18:CAT
{CpAp} 80 LOAD"disk",&4000
{HpAp} 90 CALL &BE80
{GtAs} 100 DATA 2a,0f,bc,22,b5,be
{GlAw} 110 DATA 3e,c3,32,0e,bc,21
{JvAt} 120 DATA 9e,be,22,0f,bc,21
{HnAv} 130 DATA 00,40,11,70,01,01
{KjAu} 140 DATA 3e,04,d5,ed,b0,c9
{LpAt} 150 DATA cd,b4,be,cd,37,bd
{XuAt} 160 DATA 21,ab,be,22,c8,75
{BpAt} 170 DATA c9,3e,a7,32,12,56
{CwAs} 180 DATA 00,c3,00,05,cf
{OiAq} 190 PRINT"Error..."
```

● Multiface poke for ***Black Tiger*** – disk

Address = 5612 Poke = 00

Dragon's Lair II

There is something about ***Singe's Castle*** that keeps you fighting on. Maybe its the music, maybe its the gameplay, maybe its the challenge, maybe its the fact that Trento can finish it in an afternoon, maybe it's poetic licence, eh Trent? – you old dragon slayer you.

```
{CpAs} 1 'Dragons Lair II
{FrAj} 2 '
{HqAt} 3 'Select start level
{FtAj} 4 '
{ArAr} 5 'Infinite lives
{FwAj} 6 '
{PyAt} 10 DATA 21,09,01,22,25,88
{GxAs} 20 DATA C3,00,88,21,2D,01
{DsAt} 30 DATA 11,51,7B,01,1S,00
{PtAt} 40 DATA ED,B0,AF,32,3D,7D
{XlAt} 50 DATA 21,CD,27,22,FD,7C
{ArAu} 60 DATA 21,01,00,22,FF,7C
{FwAs} 70 DATA C3,43,1B,3E,00,32
{LiAt} 80 DATA 0C,7B,C9,43,48,4F
{XoAt} 90 DATA 53,45,4e,20,4C,45
{FrAu} 100 DATA 56,45,4c,22,2C,20
{MrAr} 110 DATA 43,48,45,41,54,20
{AlAu} 120 g=0:CLS:INPUT"level";n
{FuAv} 130 IF n<1 OR n>8 THEN 120
{DxAr} 140 FOR x=&100 TO &141
{LnAt} 150 READ a$:a=VAL("&"+a$)
{HsAt} 160 POKE x,a:g=g+a:NEXT
{DwAt} 170 IF g()&135A THEN 200
{MxAs} 180 MEMORY &2000:LOAD"dl2"
{CpAt} 190 POKE &128,n-1:CALL &100
{HuAs} 200 PRINT "data error!"
```

● Multiface poke for ***Escape from Singe's Castle*** – tape

Address = 7D3D Poke = 00

RAINBOW ISLANDS

Stephen Troup of Kings Lynn, who seems to excel at this sort of thing, (and lucky for us he does) has produced some really fine hints and tips for ***Rainbow Islands***

Especially for all those unlucky players who got caught out in the rain without a bow (what?).

OBJECTS AND WHAT THEY DO:

Red Pots – Make rainbows one bow longer (Important)
Yellow Pots – Make jumps higher and speeds up rainbows (Useful)
Bracelets – On jumping fires small red stars in all directions (Useful)
Duffle Coat – Gives invulnerability for that round (Extremely rare)
Wings – Enables flying if you continuously press jump (Very rare)
Fairy – Works like a Cybermace (Cybernoid), only a bigger radius (Rare)
Jewels – Collect all 7 on each of the 7 islands to complete (Hard + Rare)
Red Stars – They are a bomb, they fire small stars in all directions
Yellow stars – Same as red stars except they only fire upwards.
Crosses – Smart Bombs.
Rings – Extra points.
Shoes – Speed up movement.
Rainbows – Don't hit the nasties with the rainbows, put it over them and they are transformed into one of the above.

When fighting the end-of-level guardians, try to smash the rainbows while they overlap – if you do, the guardian will lose more energy than usual. In addition, if a lot of rainbows overlap each other, all the power is added together.

END-OF-LEVEL GUARDIANS:

1) Insect Island – Spider.
Run left and right firing rainbows at it from underneath.

2) Combat Island – Helicopter.
Moves left and right across the screen and changes height at certain points. Try to get behind as it is easier to stop.

3) Monster Island – Vampire.
Fires bats out (which can be destroyed) in the direction it faces. It homes in and changes position after it has fired the bats. Jump above when it gets too close.

4) Toy Island – Clown.
It bounces around the screen – stay in the bottom left hand corner, which is a blind spot. It fires toys which can go through older rainbows but are destroyed by newer ones. Kill it with normal methods.

5) Dohs Island – Doh.
Jump up and hit it with a rainbow then move to the opposite side of the screen to make the blocks fired by Doh hit the wrong spot on the screen. Smash the rainbows that you fired last to take more energy from it.

6) Robot Island – Android.
Same as the helicopter on Combat Island, but this fires missiles directly ahead of it.

7) Dragon Island – Dragon (you guessed it)
Same as the Vampire but this shoots five fireballs at once.

● **Warning:** The water level can rise on the last screen of each level, so move fast.

Human Killing Machine

Hooray for Carl Surry of Barnet! He has let us have this cheat hot from his newsletter No. 3 (see what you're missing). It is for ***Human Killing Machine***, a great cheat for a ghastly game (I don't consider fighting domestic animals is an entirely wholesome concept), it allows access to the higher levels. As you start the game press the keys "G" and "O" (that's O not zero), then at any time pressing "X" raises you to the next level.

Impossamole

Ian Gilbert, who lives in Coventry and is obviously a football fan, has been ferreting around with ***Impossamole*** and discovered a great cheat (Relativelyeasymole). What you do is to pause the game with "H", hold down the keys "M", "O", "L", "E" and (at the same time) press "H" to restart, each time you do this the energy goes to a maximum. Thanks, Ian, for a cracking cheat.

Grid Iron

Frank Madsen over in Skevinge, Denmark offers up a cheat for ***Grid Iron***. When asked for your name, type OVERLORD and you will get extra cash.

Astro Marine Corps

Igor Trinity of Newton Abbot, John Brown of Wittering and Damian Young of Sheerness have provided the password for the second part of Dinamic's ***Astro Marine Corps*** it is DAGOBAH. Damian also tells us that by typing CREEP into the hi-score table on either part you will receive invulnerability. Nice cheat, nice game, but whos idea was it to put a picture of John McEnroe on the title screen?

Spindizzy plus!

Not a cheat mode, but did you know there was a sub game built into ***Spindizzy***? Anthony Jones of Bletchley and John Wood of Ashford have found it... it's called STIX. You can access it by pressing "F" and "X" on the title screen, once in use the joystick/keys for control, CLR clears the screen, SPACE pauses and T toggles trail mode. A free game no less!

Last Ninja II

P Watkins, (Come on P, what *is* your first name?) has a neat method to beat the bad guys in ***Last Ninja II***. While fighting an enemy, keep tapping "P" which is Pause and his energy will drop (a lot easier than joystick wrenching!). Not content with that, Peter? Paul? Phil? Pat? Pamela? tells us that when playing ***Wonderboy*** if you quit once you have the skateboard you will have it when the game starts up again!



LITTLE PUFF

How could I resist this complete solution to ***Little Puff*** by Stephen Best who, incidentally, lives just over the hill from me in Woodthorpe. Well done Stephen, I've been waiting for someone to explain how it's done.

1 Go right and collect the fire POTION.
2 Go left until you reach the tree stump and breath fire.
3 Jump down the hole, moving left to avoid the spikes.
4 Get the BOX, jump over the turtle and go left.
5 Drop the BOX by the large mound and jump up.
6 Dodge the spider and collect the LIFEBELT.
7 Go right and collect the BOX.
8 Go right, over the hole and collect the DECORKER.
9 Go right and collect the second part of the PASS.
10 Go right, drop the BOX and collect the FOOT PUMP.
11 Go left and fall down the hole.
12 Swim across the water left and go to the second hut.
13 Take the SHADE off the BOTTLE.
14 Use the DECORKER to open the BOTTLE and get the PASS.
15 Go to the first hut and collect the HAMMER.
16 Walk left and fall down the first hole.
17 Pick up the BOX. The HAMMER smashes it and leaves a KEY.
18 Go left and fall down the first hole.
19 Drop the FOOTPUMP and get the TIN HAT.
20 Quickly, swim across the water (the LIFEBELT will deflate).
21 Go left to the first hut, then by the gate move the joystick up.
22 Go left and stand under the COCONUT.
23 Pick up the COCONUT and the third part of the PASS.
24 Go back to the start and drop the COCONUT on the pressure pad.
25 Go left to the hut and push the joystick up.
26 Go left jumping all the holes and get the final part of the PASS.
27 Return to the start, the way is now clear.
28 Go right and collect the SAW.
29 Use the SAW on the COCONUT and extract a GOLD CHAIN.
30 Move right to the Toll collector and give him the GOLD CHAIN.
31 Go right avoiding the hornet and the sea-serpent.
32 Jump the gaps in the bridge and keep walking right.

Yogi's Great Escape

When I was at school.. OK, cut the jokes... when I was at school, we used to rush home in the afternoon for our Marmite sandwiches and to watch *Blue Peter*, *Wacky Races* and *Yogi Bear* on the TV... things haven't changed that much have they...? Thanks, Graham.

```
{FwAt} 1 ' Yogi's Great Escape
{HvAq} 2 ' By Graham Smith
{EwAs} 3 ' Infinite lives
{HvAr} 4 ' Infinite time
{HoAq} 5 ' Tape - method 1
{FvAj} 6 '
{HuAu} 10 DATA 21,49,9c,22,5a,90
{LjAr} 20 DATA c3,00,90,3e,b7,32
{DqAs} 30 DATA cc,07,21,af,c9,22
{NpAs} 40 DATA 04,14,c3,b1,80
```

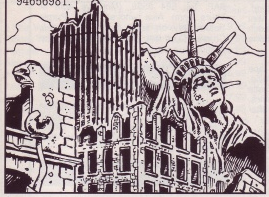
```
{OiAr} 50 FOR j=0 TO 22:READ a$
{NqAs} 60 x=VAL("&"+a$):y=y+x
{IlAs} 70 POKE j+40000,x:NEXT j
{BkAs} 80 IF y<>2342 GOTO 110
{ExAs} 90 MEMORY &8FFF:LOAD"
{BnAo} 100 CALL 40000
{HuAq} 110 PRINT"data error
```

- Multiface pokes for ***Yogi's Great Escape*** – tape

ADDRESS	POKE	EFFECT
07CC	a7	Inf. lives
141	00	Inf. time

After the War

Dinamic's *After the War* also has a password to the second part, it is supplied by Anthony Fernandes of Romford, and is 94656981.



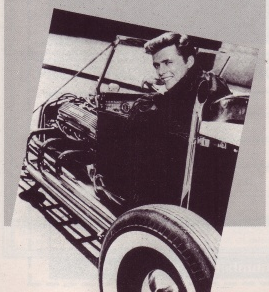
Hotrod

Radically modify your hotrod engine to run on fresh air. Do it in real life and you will make a fortune and get a lapel badge from the Green Party. Do it with Mike's poke and you stand a good chance of finishing the game.

```
{AxAq} 1 ' Hotrod - disk
{FvAr} 2 ' Merge with Pacific
{MtAp} 3 ' By Mike Wong
{JuAr} 4 ' Infinite Fuel
{FuAj} 5 '
{AqAx} 660 s=&BE80:t=&BEB9:l=710:GOSUB 50
{HoAx} 670 FOR n=0 TO 15:READ p:INK n,p
{IjAo} 680 NEXT:BORDER 0
{PuAx} 690 PRINT"Insert HOT ROD disc..."
{NrAx} 700 CALL &BB18:MODE 0:CALL &BE80
{LlAx} 710 DATA cd,00,40,cd,0d,ab,cd,26,385
{MtAx} 720 DATA ab,3e,01,21,00,c0,cd,30,2c8
{AxAw} 730 DATA ab,cd,09,ab,3e,02,21,00,28d
{FjBi} 740 DATA 10,cd,30,ab,21,00,7d,11,267
{HvBk} 750 DATA 00,a6,01,10,6d,ed,b8,af,378
{OiBi} 760 DATA 32,36,4b,21,00,00,22,2b,121
{NwAw} 770 DATA 4b,32,2d,4b,21,00,39,c3,212
{KwAw} 780 DATA fa,aa,00,00,00,00,00,00,1a4
{FxAv} 790 DATA 0,26,6,3,13,1,20,15
{LtAu} 800 DATA 9,18,10,16,11,2,4,0
```

- Multiface poke for *Hotrod* – disk

ADDRESS	POKE	EFFECT
4B2B	00 }	
4B2C	00 }}	Infinite
4B2D	00 }} .	Fuel
4B36	00 }	



MULTIFACE POKES

Once again, transform your tape games, dismember your disk games, make the most of your mighty Multiface, with more modifications, mutations and maniacal mayhem, courtesy of Monty Versi way down under in Kogarah, Australia (this should reach you about Christmas, Monty), Carl Surry of Barnet, Dave Lent of Grimsby, Graham Smith of Street and Andy Price of Dunstable

NAME	ADDRESS	POKE	EFFECT
Victory Road (t)	3B5E	FF	255 lives (p1)
	3B6F	FF	255 lives (p2)
Slap Fight (t)	4F32	FF	255 lives
Chicago 30's (t)	43DD	00	Inf. lives
Head Over Heels (t)	23C3	00	Inf. lives
	2632	18	Inf. doughnuts
	29D9	00	Inf. running
	4750	00	Inf. shield (head)
	474A	00	Inf. shield (heel)
	247B	07	Equipment.
Out Run	2253	00	Inf. time
Myth (d)	886D	00	Inf. credits
Thundercats (t)	787A	No	No. of lives
Glider Rider (t)	112B	00	Stops timer
	12DF	00	Inf. bombs
	1309	00	Invulnerability
Critical Mass (t)	308E	00}	
	308F	00}}	Inf. Crafts
	3090	00}	
Techno Cop (t)	60B6	01}	Inf. Nuke
	8F10	A7}	
	77B3	C9	Inf. Damage
	909F	00	Inf. lives
Battle of Britain (t)	4030	00	Inf. fuel
Gun Smoke (t)	23AC	3C	Inf. lives
Bronx Street Cop (t)	0579	32	Extra time
	4FFA	A7	Inf. bullets
Game Over 2 (d)	8FEA	00	Inf. lives (Pt 1)
	9BC3	00	Inf. lives (Pt 2)
Stormlord (t)	6B7D	C9	Invulnerability
Licence to kill (d)	A6E5	A7}	Infinite
	A4F4	00}	every thing
	A7EE	00}	on all
	ABF0	00}	levels
	9D7E	00}	
	9A02	00}	Input all
	9F44	00}	of the
	A47D	00}	pokes.
Sonic Boom (d)	8CC6	00	Inf. credits
Ninja Spirit (d)	522D	00	Inf. credits

THE MULTIFACE WAY

The (t)s and (d)s printed before the address indicate whether the poke was written for a tape or disk game (they might work on both – it's worth a try).

Just in case you don't already how to put in these BLACK BOX POKES, here are the steps to success.

a) Load the game as normal.
b) Press the RED button on the MULTIFACE.
c) Press "T" for tool.
d) Press "*" to make sure you select the code.
e) Press "H" for HEXADECIMAL input.
f) Press "SPACE" for input.
g) Type in the ADDRESS (4 characters ie. 3A7C)
h) Type in the POKE (2 characters ie. A7)
i) Press "RETURN"
j) If there is more than one poke goto (f)
k) Press "ESC" back to the menu.
l) Press "R" return to the game.

By the way, I'm looking for the address of Jason Falcus, OPTIMUS SOFTWARE, does anyone know where I can get in touch?

AA SMALL ADS

For Sale

ORIGINAL program for flat/n hunt racing, not protected for you to change recent data and full listing £5. Pinpoints clearly best rated horse. Cheques/PO's to A. Vassallo, 14 Ipswich Road, Colchester, Essex, CO1 2YD.

AMSTRAD CPC464, colour monitor, disc drive, Multiface 2, lightphaser gun, joystick, 73 games, blank cassettes and discs, cleaning kit, all wires and manuals. Tel: Chris on (0462) 432620 after 5.00pm.

MULTILINE 300, allows fax/modem/answerphone and additional phones to share same line. Multiline automatically separates business calls from private calls. Adds three separate lines. B.T. approved. £95 o.n.o. (0438) 727753.

AMSTRAD CPC6128 computer with colour monitor which doubles as colour television and with radio clock alarm, £150 of software, hardly used, cost £500, will accept £350. Tel: Birmingham 459 6975 after 5pm.

CPC464 colour monitor, DDI disc drive, Multiface II, joystick, desk, 50+ games, tape and disc and blanks, manuals, books and magazines including all AA, £350. Tel: Northampton (0604) 757440.

464/664/6128 Prospell, Promerge Plus and Maxam 1.5 ROMS, £15 each. Tas-Spell disc £10, Maplin ROM board £5, 464/664 picturesque "code machine" tape £5. All with manuals. Tel: (0623) 20071.

AMSTRAD 6128 disc drive, colour monitor, tape deck, joysticks, 70 games, speakers, users manual, £275 o.n.o. Tel: (0423) 500175 anytime.

CPC464 colour monitor, joystick, over 20 games, including Castle Master, Rainbow Islands and X-Out, excellent condition, manual included. Valid reason to sell, £150 o.n.o. buyer collects. Tel: (0276) 74165.

CPC464 - CPC6128 kit, 40025 chip, Watronics 64K RAM, disc drive, converts CPC464 fully into CPC6128: £150. Phone Robin Brown, (0463) 791641 (evenings) (0463) 234855 (daytime).

CPC464 mono monitor, with loads of games, modulator for T.V., books and programming manual. Load of A.A. mags and manual, will sell for £200 o.n.o. Tel: (0405) 763802.

CPC464 colour monitor, super condition, loadsa gear, lightpen, joystick, games, enough to last many a night or longer (over £500 worth), all for £300. Phone: 081 940 8877, ask for Thurstan.

AMSTRAD CPC464 with green screen monitor, T.V. modulator and over £225 of software. Altogether worth at least £500. New, excellent condition. Everything £250 o.n.o. Phone James on Cheltenham 239895.

AMSTRAD CPC464 green screen, 57 games including Robocop and Black Tiger plus lots of other top titles, joystick also worth over £600 accept £300. Telephone: (0298) 24422 after 4.15pm.

CPC6128 colour monitor (manual included) quickjoy joystick and cassette leads, over £200 worth of software. Top titles like Chase HQ, Batman, Op. Thunderbolt. Good condition, will sell for £200. Tel: (0932) 66970.

3" Amsoft discs, cased & formatted. £2.10 each. Rombo Romboard £19. Eproms - Utopia, Toolkit, Locksmith, Protext, Rodos, Prospell, Romdos + many more originals £13. DMP2000 £67. Firmware Guide £35 + lots more. Tel: Dave (03317) 3386.

CPC6128 with colour monitor. Various disc and tape software i.e. Stop Press, Operation Wolf, Mini Office II etc. First class condition £280 o.n.o. Tel: (0875) 611145.

SHAREWATCHER II - The ultimate CPC stockmarket simulation, only £3/tape (£5/disc). Now you can afford to gamble on the stockmarket without losing a fortune! Cheque: M. Pinder, 4 Wham Hey, New Longton, Preston, PR4 4XU.

BRAND new 800K 3 1/2" disc drive for CPC, plus Rodos, plus Ramdos, plus 10 blank discs. Instructions included. Offers phone Malcolm 081 523 2438 evenings or weekends.

CPC6128, 256K RAM, Rombox including Protext, Utopia, Prospell, Promerge discpower, mouse, drawing software, C, CBasic, games, etc. magazines, discs, books and 8bit printer lead. £230. (0792) 473392, evenings or (0792) 205678 x 4205 daytime.

AMSTRAD CPC464 with colour monitor, joysticks, manual, magazines, over 100 games, tapes, excellent condition. Would sell tapes separately. Telephone: (0795) 876507. Price complete £475 o.n.o.

CPC6128, KDS 5 1/4" second drive, Ramdos, Eprom programmer, Romboard, Utopia, Maxam, Pascal Roms, Protext, Mini Office 2, DBase 2, Multiface 2, plus much more/ games cost £950, sell £325. Phone Craig (0924) 441661 9-5pm.

120 original games for CPC464 tape including Strider, Batman the Movie, Robocop, Rick Dangerous, Pacland, Castle Master, Red Heat and Computer Classics, all half price. Phone 081 675 2980 after 6pm, ask for Vincent.

CPC464 + green monitor + loadsagames, 2 joysticks, loadsamags for sale v.g.c. Worth £972 will sell for £500. Tel: Dunfermline 880972 (between 6pm & 7pm weekdays) and ask for Brian for more information.

CPC464 colour £800 worth games, Multiface II, joystick, cheat mode II, magazines, manual, excellent condition, £300 o.n.o. Tel: Glasgow 881 0878.

AMSTRAD PD software, send a blank tape amd SAE + a small copying charge of 40p to: RAB-PD, 1 Wiltra Grove, Duffield, Derbys, DE6 4GF.

CPC464, mono monitor, Multiface 2, around 80 games, two joysticks, 20 Amstrad Actions and a book on how to write adventure games. Worth over £700, sell for £300. Tel: (0883) 743475.

CPC464 monitor and games (list available) sell for £3.50. Also Amstrad Action and ACU magazines in with computer. Please phone Cardiff 614 126 after 5pm on weekdays for further details.

SWIVEL, to all those poor CPC owners who haven't bought Swivel yet. Send £2.00 + blank disc or tape to Rebus Software, 27 Fairfoot Road, Bow, London, E3 4EG.

DMP2000 £100 3"DD with s/w £100 3 1/2"DD £40, Romboard £12, mouse with s/w £40, 6128 ROM £15, Rodos ROM £10, 64K expansion £15, Modulator £10, CPC mono with s/w £150. Tel: 061 789 2294.

AMSTRAD CPC464 with colour monitor, joysticks, dust covers, £200 worth of games £240 o.n.o. Also workstation £20. Sega Master System with joystick and light phaser £90 o.n.o. Phone (0460) 65074 evenings.

Wanted

COLOUR monitor for Amstrad CPC464, name price. Reply: 38 Highstone Crescent, Barnsley, South Yorks, S70 4LQ.

MODEM for 6128 and 125232C interface. Also DTP software, Tassign etc. Tel: John (0200) 25387.

6128 ROM + Romboard extra will pay upto £40. Gregory Hancock, 48 Edwin Street, Houghton-le-Spring, Tyne & Wear, DH5 8AP. Tel: 584 8532. (Mon-Tue 4pm or Thurs 4pm) Also whower wants Purple Saturn Day on tape, call. Also wanted: Chase HQ on disc (will swap Amsoft compilation).

Services

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(Formerly 'Pools Predictor' but Coming Complete Systems!)
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The amazing POOLSMASTER program is by far the best Pools Predictor we have ever seen. In just 10 weeks of trying this program ourselves, we won no less than 10 dividends, the largest being nearly £300. Mr F C Hammond from Essex won nearly £10,000.00 in just 16 weeks. In his own words 'It's a licence to print money.' POOLSMASTER is simple to use and requires only that you keep the league tables up to date using your usual newspaper.

The result of many years research into the Football Pools by the programmer Martin Evans of C.C.S., the program is a masterpiece of expertise, and is simplicity itself to use.

- Predicts Homes, Aways and Draws
- No fiddly typing in of teams names etc and no redundant databases.
- Instant read-out on Hardcopy if you have a printer.
- Uses scientific formula based on recent form home and away; league position; goals scored etc. It has long been realised that certain combinations of these factors return a much higher than average of draws than the laws of average would expect. POOLSMASTER looks for these factors and analyses their significance to give you the best possible chance of a win.
- Also has a Sequence Predictor option. Many people believe that certain numbers on the coupon come up more often than others, and over a season patterns do seem to develop. The program analyses these patterns and predicts the numbers most likely to come up next. Certainly more scientific than sticking a pin in, or family birthdays etc.

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THE GHOLOGIST

This program is a must for anyone interested in analysing their handwriting, or analysing other peoples. It is also very useful for analysing prospective employees handwriting. To use the program, a sample of handwriting is obtained, preferably in ink. From the main menu of the program you will be prompted and guided to examine each detail of the sample. You will then be taken through deeper and deeper sets of sub menus, all prompting you for relevant details of the writing, and the points to watch for, and add to the file if applicable.

Upon completion you are left with a disk file up to 15 pages long (depending on the depth of detail you chose), this file can then be edited within your word processor to produce a full report for the writer.

Fully experienced Graphologists can charge almost what they like for a full analysis, so this could prove a very lucrative business venture for you.

We must however stress, that unless you are experienced in graphology, then we can in no way guarantee the accuracy of the information that the program provides. If you are an enthusiastic amateur or just curious, then this program could provide hours of entertainment, whilst teaching you the finer art of this fascinating subject.

The text within THE GRAPHOLOGIST was researched and written by a top London graphologist/criminologist James Woodward. The software was written by Martin Evans our consultant software writer.

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Free for all

Greetings, fellow PD fans! Your First Lady of The Library has returned to slightly enlighten you (I hope). In this month's Free For All I've got a mini-review for you, one or two moans, two or three bits of useful advice, six or seven names and addresses, around about ninety-three commas and in excess of one hundred and seventy full stops (no, don't bother, just take my word for it, sigh.) Anyway, let's get on with it...

Ever been had? Last month I mentioned an Othello program called *Nemesis* and said that it was in the Public Domain. Wrong! I was misled. I'd received a disk from a certain (recently reformed) Kent-based PD Library and assumed that everything it had sent me would be strictly legit... Wrong!

Nemesis was, in fact, one of the games from the *Cascade Cassette 50 Collection*. Remember them? They offered you a free 20-key, multifunctional calculator watch (worth over £10) with every £9.95 order you sent in.

Needless to say I was less than chuffed with the PD Library that sent *Nemesis* in to be reviewed. It was the same one that up until recently had such marvellous PD classics as C10CPM.EMS and CSAVE.COM in its software catalogue.

GET IN TOUCH

If you are running a Public Domain Library, write to me here at the *Amstrad Action* office and tell me all about it. If you want me to review some of your Library's programs (think about the free publicity) send them in on a 3-inch disc and I'll have a look. But if you want your disk returned please scribble your name and the return address clearly on the DISK label, not the case label (don't send me disk cases, they tend to get lost.)

You don't have to be running a Public Domain Library to get in touch with me personally either. Anybody can write in and tell me about their experiences with PD programs, the Libraries that supply them or the back-up service provided.

For its 'outstanding service in the field of trying to get Public Domain software libraries a bad name' I hereby award it the 'Lamb Chop,' which is the Caroline Lamb seal of disapproval.

I won't mention its name here (it doesn't deserve the free publicity) but if anyone from FAST is reading this and wants it I'll gladly pass it on to you.

Many thanks to Alan Scully of Scull PD and Richard Fairhurst of Robot PD, both of who tipped me off in time to mention it this issue of AA. And finally I'd like to apologise to Cascade Games Ltd and the author/s of *Nemesis IV* for unwittingly implying (through this column) that the program was donated to the Public Domain.

Lessons to be learned?

A word to the wise... If you are sending a program for inclusion in any CPC AMSDOS PD LIBRARY then please make sure it actually is in the Public Domain. Not only could you land the Library in hot water, but if the dastardly deed is traced back to your door you will be the one accused of pirating software. Remember, in the eyes of the law, ignorance is no defence.

As a rule of thumb, when sending programs to PD Libraries, remember, magazine type-ins (except AA's) are a no-no and programs without copyright messages are deemed to be highly suspicious.

The safest bet is to submit only programs that you have written yourself.

Ghostly PD

All of this leads me nicely (and topically) onto a rather long letter I have received from John Hammond from Maidstone. At one point he asks about the legal situation about something he calls 'psuedo Public Domain.'

This is the best bit of rhetorical questioning I've seen in the last three years of being a PD PR Person. JH asks: "What happens to programs when the company that sells them either ceases marketing them because they are not making sufficient profit from them, or even if the company goes bust? Surely, since nobody will then own the rights to the program, it automatically moves into the 'pseudo PD' realm?"

Bong! Wrong JH. Nothing automatically moves into the Public Domain (psuedo or otherwise.) A program HAS to be donated by its author and there should be a note to this effect included either in the program itself or in the accompanying documentation.

True, when some programs have outlived their commercial 'shelf life' in the past, some authors have donated them into the Public

WHERE TO GO

• WACCI UK, 9 South Close, Twickenham TW2 5JE. Telephone 01 898 1090. As well as being a public domain library, WACCI is a fanzine of truly singular quality. Bung a quid and a half to 9 South Close and you'll receive a smaple issue with the PD lists contained therein. But do it today, becuase the WACCI library is a CPC-specific library second to none in the UK.

• DW Software, 62 Lascelles Avenue, Withernsea, North Humberside HU19 2EB. DW is the source of the marvellous WIMP environment desktop reviewed last month, as well as an gargantuan grab bag of other quality programs. Six clams will get you a PD disk positively bulging with superior software.

• Got a cassette-based system, and feeling left out of the fun? Tough! No, no, don't shuffle away sulking. Send a blank cassette and 40 new pennies to Robot PD library, 2 Trent Road, Oakham, Rutland LE15 6HF and you'll receive a tape jammed packed with goodies. If you're one of those retiring careful types who consider the idea of sending off *40p!* to an unknown address absolutely outrageous, you can send for a free catalogue by contacting the above address (at least include a stamped addressed envelope, huh?).

• The CP/M User Group, 72 Mill Lane, Hawley, Dartford DA2 7RZ. The best CP/M user group in the UK and they have lots and lots of quality PD. Bung them a few quid for a copy of the latest newsletter.

• TUG II 0905 775191 V21/22/22bis/23 8N1. A bulletin board with a lively CPC section and a large amount of downloadable code. The board operates for 23 hours a day (what's this guy doing for the other hour?), so you should be able to make contact.

• Scull PD Library. A new library run by Alan Scully up in sunny Glasgow. Software is available on both cassette and disk, and although the library's pretty new, there's already an impressive catalogue of wares. Two cassettes-full will set you back 50p + stamped SAE + blank cassettes, £1 + stamped SAE + blank disk will get you two sides of software. Write to Scull PD Library, 119 Laurel Drive, Greenhills, E Kilbride, Glasgow G75 9JG.

• The Public Domain Software Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL. Tel: 0892 663298. Send SAE for free C/PM catalogue.

Domain (witness *JRT Pascal*, which up until about five years ago was a full-blown commercial program.)

Scull but no crossbones

OK, time to wheel out the gratuitous plugs. Yes, this month's first dose of free publicity goes to Alan Scully who runs Scull PD (amazingly original name that, eh?). He phoned me up the other day and threatened to sob his heart out if I didn't give him a mention this month. Since I hate to see a grown man cry I'd better tell you about Scull PD.

The Glasgow-based outfit claims to have the largest collection of tape-based PD software in the country (notice the judicious use of the word 'claims') with twenty-nine tapes already on offer and the threat of more to follow shortly.

Alan tells me that the programs available from Scull PD are specifically Amsdos-Only. There's no PD CP/M stuff available because Alan doesn't feel that he knows enough about the CP/M programs to offer a comprehensive support facility. "If you want that kind of back-up, then go to the bigger PD Libraries, like WACCI, where they can actually direct you on to a host of CP/M experts. On the other hand, if you need to know anything about Amsdos programs on the 464, 664 or 6128 then I'm your man". (Hoots och-aye summat or other!)

If you wish to sample the wee laddie's wares then send an SAE along with 50p and a blank C15 cassette. If you want a disc full of goodies then send an extra 50p making a round pound!

Erratum time

Ever since this column started the 'Where to go' section has been telling you that if you bung a couple of quid to WACCI you will get a current issue of the magazine with the PD lists contained therein. Wrong!

Steve Williams, the club's general dogsbody, rang me up to point out that the fee is only one and a half washers, not two.

Methinks this was just a sneaky way of getting some extra publicity on WACCI's behalf, but what the heck, I'm feeling generous this month...

Wacky WACCI

Seriously, though, it is worth getting hold of a copy of WACCI even if it's only to see the full range of products that they have on offer. WACCI is many things to all men. (And women, for that matter.)

Firstly, it is a CPC and CP/M user club which offers a unique Telephone Helpline Service for the terminally bewildered CPC owner.

Secondly, it's also a monthly magazine, which has absolutely no commercial games reviews. It is serious but it has a sense of humour. Basically it's weird.

Most important of all, though, it is a showcase for many potential new computer-writers to get their work noticed by the big mags and thereby achieve mega-stardom and in the process mega-bucks (joking!).

There you are, Generalissimo Williams, this is your last freebie plug for a good couple of months.

DESERTED ISLAND DISKS

Last month I picked out my ten (OK, well, nine as it turned out) favourite PD programs that I would take with me if I were to be (accidentally-on-purpose) stranded on a deserted island. This month we'll have a quick look at my first choice, the CP/M utility *Newsweep*.

So what is it?

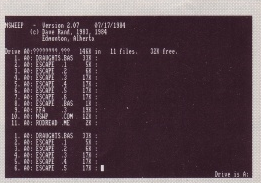
NSWP v2.07 **is a directory and file manipulation program. Using it, you can copy from disk to disk, delete, rename, change status or user area, view, print, unsqueeze and squeeze any files that you may have on your disk.**

So why is it on my list of essential programs to take with me on my deserted island? Simple! Even if I'm allowed to take a hundred 3-inch (or even 3.5-inch) disks with me, there will come a time when I begin to run short of available disk space.

I'll assume, for the purpose of this mini-review, that you have a smidgeon of familiarity with the CP/M operating system. If you are a complete novice to it then it's worth your while sending an SAE to WACCI UK and ask for their free help-sheet, called CP/M Disks – *Getting Started?*.

How does it work?

Once *NSWP* is invoked it reads the directory tracks of the current disk-drive and user area that is "logged-in to" (being used at the moment.) and loads them into memory.



● **Newsweep's start-up menu.**

It then lists the files in alphabetical order. Pressing the space bar will scroll through the list. When a file is selected it can have various different operations carried out on it.

Quatermass

In order to save you having to select files one by one, to carry out the same operation on each one, NSWP allows you to 'tag' (select) files for mass operations. I'll pick out NSWP's rename facility to show you what I mean...

Wildcards are permitted so if you wanted to rename all the files with .TXT (TeXT) extensions to have .DOC (DOCument) extensions, you simply type T (for tag), the program will then print 'Tag what?' to which you reply *.TXT. NSWP then shows you which programs it is tagging. Having tagged them, you type R (for rename) followed by * to tell it that you want a number of files changed.

It will then prompt you for the old name so you type *.TXT and when it asks you for the new name type *.DOC, hit the Return key and bang, bang, bang it's all done. So much easier than using RENAME.COM.

Log-jam

Switching between disk-drives and user areas is a dream. By typing L, the program will prompt you for the new drive and/or user area. Remember that under CP/M you can control up to sixteen 'chained' drives (each with sixteen user areas) giving you a potential disk capacity of around 12296K (I told you CP/M was powerful!) Think of the possibilities!

NSWP **knows no bounds when it comes to the type of disk-drive – it will deal with 3.5-inch, 5.25-inch, 8-inch or even silicon, it takes them all in its stride. The same applies to funny formatted disks. You hum it and NSWP will play it.**

View to a kill

NSWP **is capable of viewing (printing to screen or printer) any file, even squeezed ones (more about this later. Very handy but viewing a binary file can produce some bizarre results).**

User-friendly?

User areas can be viewed individually (by asking NSWP to log C3 for example) or all at once (by telling it to log A*.)

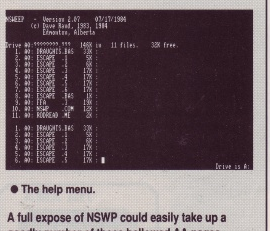
Squeeze me gently

Selected (tagged) files can be compressed in order to increase available disk space. In some cases the compression can be quite dramatic. For example, some 17K screen files can be compressed down to as little as 2K or 3K. This is a great feature if you want to archive little-used files. *NSWP* also incorporates a routine that allows you to unsqueeze the files as well.

SOS

If all this sounds a bit complicated, DON'T PANIC. Help is never far away. By pressing '?' you will get the help menu which summarises all the keypresses-es and a brief description of their functions.

Sweeping to a close



● **The help menu.**

A full expose of NSWP could easily take up a goodly number of these hallowed AA pages. However, common sense dictates that, having explained the main things that the program can do, I should point out that NSWP can do a lot more besides and then call a halt to the proceedings, or we could be here all night!

Get a copy, give it a go and love it!

BUYERS GUIDE

This is the place to find what software and hardware is available for your CPC. We list programs by category, and provide producer; phone number; price; issue in which the item was reviewed; and last but not least, a brief description of the program's features and, where appropriate, shortcomings.

But don't take our word for it: if you're in doubt read the original review before you splash out, and make sure by asking the person you're buying from that it meets your particular needs. Best of all is a try-out, if you can find a friend who has what you're thinking of buying.

BUYERS WORD PROCESSING

Brunword

Brunning Software ☎ 0245 252854
£30.00 (6128) disk, £25 (464) disk ● AA24
Complete word processor package with spelling checker, 30,000-word dictionary and card filing program. Spell checker and dictionary loaded with the main program. 40, 80 and 128 column screen modes and fast screen response. Tutorial file makes learning the system easy.

Tasword

Tasman Software ☎ 0532 438301
464, 464D, 6128. £19.95 tape. £24.95 disk ● AA1

464 is the tape-based version (the same as Amsword). 464D has enhancements for a disk drive. 6128 makes full use of a 6128's extra memory. The latter pair include mailmerge facility. Easy to get to know: comprehensive help screens. Screen operations are slow, but may be customised for greater speed.



Protext

Arnor ☎ 0733 68909
£19.95 tape, £26.95 disk, £39.95 ROM ● AA3
Lightning fast on all tasks involving screen. True merging from separate files and disks to the cursor position is easy, and *Protext* supports standard CPC RSXs like DISC, TAPE, CAT etc. ROM version is excellent. Bad points: maximum file space limited to machine memory – about 22K on disk, 38K for the ROM version. As used by *AA*, if that's any recommendation (don't answer that).

BUYERS PRINTERS

Manufacturers' recommended retail prices are listed as guidelines, but heavy discounts are offered by retailers. Printers require an additional lead for connection to the CPC. You'll need an Amsoft PL-1, which should be available from your local computer stockist.

Citizen 120D

☎ 0800 282692
£199 + VAT ● AA43
Dimensions: 3.7 kgs, and 370mm x 90mm x 238mm. Draft quality is 'dotty,' and poor, but NLQ is sharp and simple. A quiet beast, with cable to the computer connected on the side. Manual includes a complete written breakdown of all the printer control commands and their effects.

Mannesmann Tally MT81

☎ 0734 788711
£149 + VAT ● AA43
Dimensions: 70mm x 100mm x 265mm; weight, 4.5 kgs. Prints Epson and IBM graphics. Draft mode print quality is good: square printhead pins put ink onto greater areas. The printed output is more ornate than the Citizen. Manual is superb, but falls down in failing to explain control codes: for that you have to buy the applications manual. Certainly a very good buy.

Panasonic KXP1081

☎ 0753 73181
£218 +VAT ● AA29
Similar to DMP2000/2160: chunky, 9 pins, 10 inch carriage and compatible with Epson codes. Thorough *A4* manual, good NLQ mode – better than DMP – and condensed, draft and NLQ modes.



Star LC-10

☎ 0494 471111
£199/259 + VAT ● AA32
First price is for standard dot matrix printer. Fonts selected by button, rather than typing in fiddly control code. Second price is for relatively inexpensive colour model. Uses multi-colour ribbon to produce different mixes, though there are currently few commercial programs which can take advantage of this capability.

BUYERS INTERGRATED PACKAGES

Info-Script

Brunning ☎ 0245 252854
£50 disk ● 128K only ● AA35
Billed as the "complete database with word-processor and spelling checker", it's best with 256K. Well set up, easy to use and allows for changes in layout and content. Recently 'supercharged'.

Mini Office II

Database ☎ 0625 878888
£14.95 tape, £19.95 disk ● AA6
Astonishingly cheap word processor, database, spreadsheet, graphics, comms and label printer all in one. It's continued to sell, and sell, and sell... Not full specification, but at this price who's complaining?



Protext Filer/Office

Arnor ☎ 0733 68909
£24.95/£34.95 disk ● AA34
Database that works comfortably with *Protext*, has powerful sorting options and comprehensive invoice printer. Can be slow, but good value.

BUYERS EDUCATIONAL PROGRAMS

Amstrad Selection

Fernleaf Education ☎ 0474 359037
£25.95 disk/tape ● AA32
For age range 7 to 12+: Seven programs – including *Fletcher's Castle, Market Stall, The Perfume Hunter, The Raiders, Ferry Captain, Treasure,* and *Thorn Sea.*

Arc Master Pack Plus

Arc Education ☎ 0472 812226
£48 disk ● AA32
A massive pack of 90 programs: Junior; Primary; a parent/child adventure; DR Logo and word games. Each set available at £10 tape and £12.50 disk. Well presented with good graphics, reasonable musical ditties and plenty of options.

Kosmos

Kosmos ☎ 05255 3942
£9.95 tape, £13.95 disk ● AA32
Answer Back Junior Quiz lets you either answer the question, make a choice from a number of options or say whether something is true or false. There's also *Factfile 500*, sets of additional questions for the program: arithmetic, spelling, sport and natural history.

The other range from Kosmos: vocabulary tutors in French, Spanish, German and Italian.

Play School

School Software ☎ 010 353 6149477
£9.95 tape, £14.95 disk ● AA32
Six different utilities including *Counting, Find It, Paintbox, Shapes, Match-up* and *How Much? Paintbox* is the best. Other programs in the range are also worth a look, including *Biology, Chemistry* and *Physics* for older students.

Funschool 2



Database Software ☎ 0625 878888
£9.95 tape, £14.95 disk ● AA43
So rare is it that educational software gets into the charts that it made the news pages of the weekly computer press. Actually there are three great packages here: under sixes, six to eights and over eights.

Wordhang

Bourne Education ☎ 0794 523301
£9.95 tape; £14.95 disk ● AA32
One of Bourne's range of ten programs. Others include *Happy Letters*, *Numbers* and *Writing* (all Infant); *Timeman One/Two* and *Map Rally* (all Junior); and the excellent *Chemistry* and *Physics Revision* (Senior).

BUYERS GUIDE BUSINESS ACCOUNTS

Protext Office

Arnor ☎ 0733 68909
£34.95 ● CPM+, 6128 only ● AA34
Requires *Protext* and *Promerge* to run. Information inputted using *Protext*. Mail merge templates included, and very well implemented invoice printing feature. A genuinely useful business system.

SD Microsystems range

SD Microsystems ☎ 0462 422897
General Ledger ● £19.95 ● AA32 Souped up 6128 version £29.95
Small Traders Pack/Invoicer ● £29.95 ● AA26
Stock Accounting System ● £39.95 ● 6128 only ● AA32
SD Microsystems has a range of quality small business systems. Consult original reviews for in-depth explanations of what each does and how it differs from the others – or better still, ring and ask.

BUYERS GUIDE DATABASES

Masterfile III

Campbell Systems ☎ 0378 77762
£39.95 CPM + ● AA30
With parent/child records – enabling tying together of records, saving space and time. Screen layouts and reports menu selected; not for faint hearts, but good results.

Random Access Database

Minerva Systems ☎ 0392 437756
£29.95 disk ● AA6
40 or 80-column screen. Good mathematical and string operations . Random disk accessing gives speed and power.
● See also *Info-Script* in 'Integrated Packages'

BUYERS GUIDE SPREADSHEETS

AtLast Plus



Rational Solutions ☎ 056881 511
£39.95 ● CPM+, 128K machines only ● AA30
Powerful; developed into user's requirements. Data capacity restricted only by disk size, and splitting fields into smaller elements possible. Printed output impressive. Beefy processing.

Mastercalc 128

Campbell Systems ☎ 0378 77762
£33 disk ● 128K machines ● AA4
Can show two parts of spreadsheet at once. Includes notepad and calculator. Easy to use, but the mathematical formulae can only consist of the four basic arithmetic options. Slows down as more data is entered.

Matrix

Audiogenic Software ☎ 081 861 1166
£29.95 tape, £34.95 disk ● AA18
Uses disk to store data – so good capacity on the plus side, poor speed on the minus side. Graphic options excellent. Onscreen prompts rare, making it hard at first. Calculating power good.

Supercalc II

Amsoft/Sorcim ☎ 0277 230222
£49.95 CPM + ● AA4
First class documentation. Calculations can be determinative – performed on whether or not cell's contents match given value. Excellent help prompts and arithmetic functions.

Cracker

Newstar Software ☎ 245 265017
£49.00 disk CPM + ● AA9
Spreadsheets must be created from scratch. Documentation good, command sequences soon learned. Mathematical functions well done, with random numbers catered for. Files limited to 17K – and formulae programming not well implemented.

BUYERS GUIDE SOUND

Amdrum

Cheetah ☎ 0222 555525
£34.95 ● AA13
Digital drum machine. Editor comprehensive. Not MIDI-compatible: to hear output you plug it into amplifier.

DHCP MIDI Interface

DHCP ☎ 0440 61207
£69.95 interface, £34.95+ disk s'ware ● AA33
DHCP produces MIDI software for various MIDI interfaces for CPC, which are incompatible with each other.

MIDI Interface

Silicon Systems ☎ 061 848 8959
£59.95 interface, £59.95 software ● AA26
Useless alone, but software you can use with it – DX7, FB01, MT32, D50 and CZ101 – is diverse. Software prices vary, and lack presentation of EMR sequencer. High performance.

Miditrack Performer

EMR ☎ 0702 335747
£49.95 interface, £79.90/£89.90 tape/disk s'ware ● AA13
MIDI interface plus sequencing software to drive MIDI-equipped instruments. Records each instrument then plays them all at once. On-screen layout similar to multi-track recorder. Excellent.

Ram Music Machine

RAM Electronics (Datel) ☎ 782 744707
£49.99 tape, £59.99 disk ● AA17
All in one music package: MIDI interface, sound sampler and music editor. Sampler can handle one sample of just over a second. MIDI controller software and music editor comprehensive. No through port, though, so 464 users must use tape version. And you can't edit live played MIDI compositions.

Sound Blaster

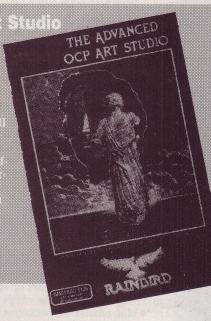
Siren Software ☎ 061 228 1831
£34.99 ● AA23
Amplifier and pair of loudspeakers that plug into CPC for maximum 2 watts sound effects.

Foundation Step-Time Sequencer

Foundation Software ☎ 0252 543945
£34.95 disk
Quite simply the only step-time sequencer you can buy for your CPC.

BUYERS GUIDE VISION

Advanced Art Studio



EEC ☎ 0753 888866
£24.95 disk ● AA21
Recently revitalised, this is the user-friendliest, best and most powerful art package: works in all three modes. Can cycle through inks, and cut and paste different areas, transformations and reflections. Fill routines in coloured patterns needs 128K memory. Available as a standard version for £15.95.

AMX Art

Database ☎ 0625 878888
£69.95 disk (includes mouse) ● AA7
User friendly, if little unsophisticated compared to *Advanced Art Studio*, but mouse helps greatly. Colour, spraycans, textures, circles and host of other features.

Cherry Paint

Siren Software ☎ 061 228 1831
£9.99 disk ● AA20
WIMP controlled – i.e. mouse moves pointer to

various icons to pull-down menus. B/W mode 2 only, but fun. Curves are difficult, but this is a bargain.

CRL Image System

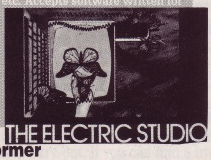
CRL ☎ 01 533 2918
£19.95 tape, 24.95 disk ● AA12
Boasts range of picture manipulations and distortions, but lacks art options. Best on finished pictures – like a mini Quantel box.

DART Scanner

Dart Electronics ☎ 0502 513707
£79.95 ● AA22
Attach reading device to your DMP2000, 3000 or 3160. Feed in picture to printer: device reads in picture as B/W image. Quality on-screen isn't amazing, but it works and it's fun.

Electric Studio Light Pen

Electric Studio ☎ 0462 420222
£19.95 case, £29.95 disk ● AA11
Excellent drawing software, including rubber-banding shapes and lines, filling areas, spray-can etc. Accepts software written for it.



The Informer

Treasure Island Software ☎ 0492 593549
£29 disk ● AA33
For creating animated displays, suitable for classroom and shop window: takes text, graphics and animated displays and produces slide show. Works best, but not only, with *Parrotry Plus* (see below).

Parrotry Plus

Treasure Island Software ☎ 0492 593549
£19.95 disk ● AA30
Rather than lots of effects used anywhere and at any time, *Parrotry Plus* 'remembers' every alteration and plays through the list to create animation. Note: can't dump pictures to printer without external program.

Vidi Digitizer

Rombo Productions ☎ 0506 414631
£89.95 ● AA15
Grabs picture from video recorder or camera and puts it on CPC screen, allowing you to alter it with an art package. Easy to use. Software on tape, disk or ROM includes superb printer dump routine.

AMX STOP PRESS

Database ☎ 0625 878888
£79.95 disk. 128K only
The Desk Top Publishing package for the CPC. Expensive, but the price includes a mouse. A very powerful package that offers features that you'd find on many of the vastly more expensive Apple Macintosh DTP packages. If you're serious about DTP then consider no other.

BUYERS DESK TOP PUBLISHING GUIDE

Page Publisher

SD Microsystems ☎ 0462 422897
£24.95 disk £19.95 tape 128K only ● AA45
If you can't afford *Stop Press*, then *Page Publisher* is the second best option. Quicker and easier to use than *Stop Press*, but has fewer features. The package to use for DTP on a budget. *The utilities in this section that offer the facility of BACKING UP disks and files should be used only for that purpose. They are not designed to be used to pirate software, and anyone who uses these products for that purpose is breaking the law.*

BUYERS UTILITES GUIDE

Nirvana

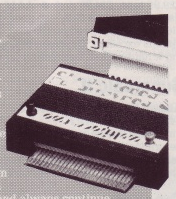
Goldmark Systems ☎ 0707 271529
£15 disk, £26 ROM ● AA51
Excellent disk utility that allows you to copy files and disks easily. Uses all the computer's memory to minimise disk swapping. Includes disk editor and powerful archiving software that allows you to back up entire disks to tape - rather like a tape streamer on business computers. Once you have used *Nirvana* then you'll never go back to using CP/M to copy files again!

Hackitt

Siren Software ☎ 061 228 1831
£34.99 ● AA52
Similar in operation to the Multiface, but aimed at the more dedicated hacker. Has a built in mini assembler and lots of useful hacking utilities. Not really suitable for the novice, as a working knowledge of machine code is required.

Multiface II

Romantic Robot ☎ 01 200 8870 ●
£47.95
Extremely popular dongle that allows you to freeze software in its tracks. You can save entire memory to disk or tape. Very useful for cheats – you can save a game when you finish a level and always continue from that point. Memory can be examined and altered, so it's handy for hunting out those extra lives.



RSX-LIB

Smogware Systems ☎ 0603 749132
£19.95 disk ● AA51
A neat piece of software that allows you to compile a library of RSXs from machine code routines. It can re-locate machine code and automatically set up RSX tables, making it ideal for compiling custom-designed extended BASICs.

Speedking

Konix ☎ 0495 350101 ● £ 11.95
Strangely-shaped joystick moulded to fit in your hand. People tend to be polarized in their opinions about this one – they either love it or hate it. Design makes it not much use for left handed people.

BUYERS JOYSTICKS GUIDE

Competition Pro

Dynamics ☎ 061 626 7222
● £14.95, £15.95
Old favourite joystick loved by many. Sturdy and well-built microswitch design that will outlast years of waggling. Trendy see-through version available for a pound extra.

Navigator

Konix ☎ 0495 35010 ● £14.99
Handheld joystick that follows Konix's usual strange design convention. The stick is held at the bottom with the control lever on top. Comfortable, once you get used to it.

Quickshot Turbo

Spectravideo ☎ 0235 555455 ● £10.95
The best of the 'aircraft-style' joysticks. The fire button is on the 'yoke' itself, making it a favourite for shoot-em-ups. At its best when used stuck to a desk with its suction pads.

BUYERS COMMS GUIDE

Micronet starter pack.

☎ 0800 200 700 ● £138
Contains all you need to get started in comms, including a year's subscription to Micronet. The Modem is a very basic model, but the overall package is great value for money.

Pace Linnet

☎ 0274 488211 ● £174.80
Medium-priced Hayes-compatible modem that offers good features for the money. Supports the V21 and V23 standards, which should cater for most people's needs.

Amstrad SM2400

☎ 0279 454555 ● £286.35
Expensive, but everything that you're ever likely to need in a modem. Auto-everything, supporting V21/22/22bis/23 baud rates and both pulse and tone dialing, this Hayes-compatible modem is a top-notch product.

DD-1 BUYERS DISK DRIVES GUIDE

Amstrad ☎ 0279 454555 ● £149.95
Essential for 464 owners who want to upgrade to using a disk system. The package includes an interface that contains the disk operating system, and an FD-1 Disk drive.

FD-1

Amstrad ☎ 0279 454555 ● £99.95
Second 3-inch drive to add to your system. Two drives are more convenient for data transfer between disks, and improve the user-friendliness of certain programs.

3.5-inch second drive

Siren Software ☎ 061 228 1831
● £109.99 -£119.99
High-capacity second drive that can store 800K of data on a single 3.5 inch disk.

Owners of the 464 must already have a DD-1 in order for it to work on their machine. The standard disk operating system cannot make full use of the extra capacity of the drive, and an extended operating system is needed. The price depends on whether the new DOS is on disk or ROM, the latter, naturally, being the more expensive.

Get real! Get wicked! Come and zap it to us at the ultimate computer gameshow

EXPERIENCE the greatest gameshow in the universe. The European Computer Entertainment Show is the only show dedicated to the latest in games software and hardware from the leading brand names. Enjoy the live entertainment. Meet your favourite celebrities. Maybe even appear on TV. Try out the newest games and equipment from some of the biggest names in the industry including Commodore, Sega, Nintendo, US Gold, Ocean, Domark, Mirrorsoft, Microprose, Activision, Virgin/Mastertronic, Accolade and Gremlin.



WHAT'S HAPPENING:

- Stands and exhibits by leading names in computer games
- Live music acts
- Personality appearances
- Live TV and radio broadcasts
- International computer game championships featuring teams from Europe, Japan and America
- Celebrity computer challenge
- Spot prizes and raffles
- Living-room of the future
- C&VG national computer game championships.

It's a great day out for all the family.

10AM – 6PM

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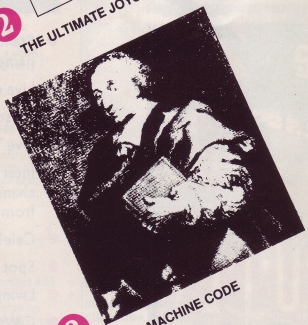
1 GO BY DISK YOU CPC'ERS



9 ADD AN ADDITIONAL DRIVE.



2 THE ULTIMATE JOYSTICK



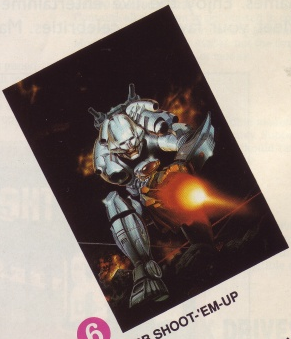
3 BRILLIANT MACHINE CODE



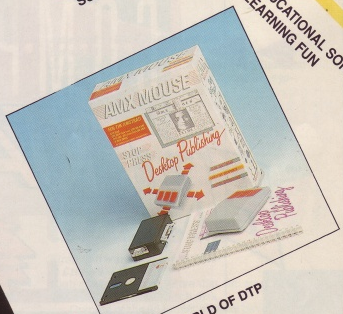
4 COMPILER EXTRAVAGANZA



5 EXCELLENT NEW U S GOLD GAME



6 SUPERB SHOOT-'EM-UP



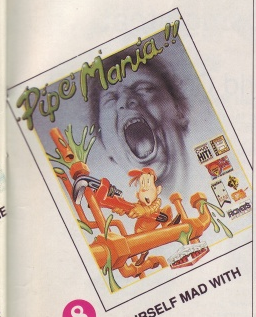
7 GET INTO THE WORLD OF DTP

10 EDUCATIONAL SOFTWARE-LEARNING FUN

Access
HOTLINE
0458 740
VISA

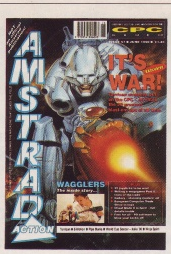
12 AN ESSENTIAL PIECE O FOR AA LOYALISTS!

HOW TO ORDER... JUST MAKE A NOTE OF THE PRODUCT NAME AND ORDER NUMBER AND FILL IN THE ORDER FORM OPPOSITE OR RING OUR HOTLINE NUMBER ON 0458 74011



8 DRIVE YOURSELF MAD WITH PIPES!



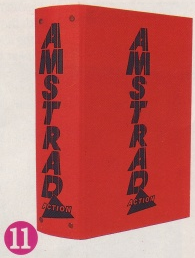


BACK ISSUES

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AFTERTHOUGHT

What's got four legs and flies? A decomposing stoat.

We ran a quick poll of the *AA* offices to see just what the bods who put together your magazine thought of the new Amstrads...

James (Bunter) Leach: I feel as if I stand at the dawn of a new future in gaming. A future stretched endlessly before me (*don't count on it – ed*), and the name of that future is... [consults inside of shirt cuff] AMSTRAD. Basically, I think the new machines are to computing what the Titanic was to freshwater fishing.

Adam (Propellor) Waring: My only disappointment is that the reverse-coupling trunnion widget was relocated three Ångstroms longitudinally forwards of the (*wish I'd never asked – ed*)

Ollie (Nellies) Alderton: Well I'm all for it. Frankly, I thought the old one used too much petrol and of course, recycled paper has got to be a good idea, hasn't it. Just look at all those trees. What did you say, anyway?

Rod (I was in the war you know) Lawton: Well I think the new console and Plus's are a masterstroke. Amstrad's new marketing offensive and their continuing commitment to the existing CPC user (cont. p1,293)

Paul (I'm new here you know) Tudor: Hello. I'm new here, you know. What's that thing over there? And who's he? What's this do? What happens if I push this button? What do you want me to do? Console? Console who? I'm new here, you know. Who's this Amstrad fellow? Who are you? I'm new here, you know...

Hot Rod

James and Adam are not the least bit jealous. Oh no. We have to stay in the meltingly hot AA offices, working slavishly, whilst Rod (ex Allegro owner) Lawton goes off to look round the Lotus car plant in Norfolk. We certainly don't care that he gets to drive an Esprit Turbo HC capble of 0-60 in 5.5 seconds, top speed 167mph. Who cares? Adam has his T-reg Datsun Violet 140J. James has a dragster, two Ferrari F40s, a Porsche 959, and a Messerschmitt BMW M635 CSiA with reclining seats and a light in the boot.

We're certainly not in the least bit envious. Hope you have a nice time Rod. Drive carefully. We wouldn't want you to have an accident now...

World Cup Carnival

Remember the fabulous Dynamics World Cup Competition? You do? Good. You'll remember then that all you had to do was predict the winners of the 1990 World Cup. Of course it was West Germany who came out tops in the end – despite a brilliant performance by our own Eng-er-land.

The 25 winners of the Dynamics World Cup Competition Pro joysticks are: David Lambert, Glasgow; T Organ, Warrington; Jonathon Bullen, Middlesex; James Brewer, Lyme Regis; Michael Cantwell, Renfrew; Ben Knight, Cornwall; Mark Rigby, Preston; Simon Ashe, Belfast; Richard Erwin, Co. Antrim; Kevin Patton, Hemel Hempstead; Jim Lynch, Wells; Tim Down, Bushey Heath; Tim Chumbley, High Ongar; Vincent Laniff, Co. Limerick; Michael Burrows, Co. Durham; Andrew Lewis, Denstone, Nr Uttoxeter; Nilesh Bmogaita, Leicester; Ben and Wayne Feist, Kettering; Michael Hourihan, West Glamorgan; Nick Lambshead, Dawlish; Peter Blenkinsop, Halstead; Matthew McDonnell, London; S Bansil, Gravesheed; James Walsh, Waterford; Colin Day, Hitchin. Phew!

Pottery Corner

The blossom dances in deep caverns:
Wide Autumns tempt man:
Lit beyond the breeding night,
Always in your dark.

Blushing heat is harsh beyond myths,
With thrones and holocausts .
In the silence, rain departs:
Blanker than the photographer's image.

The owl guiltily blushes,
The weed copies the rivers:
Your double demon-washing honours
Languishing flowers to appear.

This poem was created by a program called "The Electric Poet". It has a random sentence generator which produces stanzas at a key-press. It's a cross between Philip Larkin and R2-D2, and it sometimes comes up with rather poignant images. Mostly, though, it produces complete tosh.

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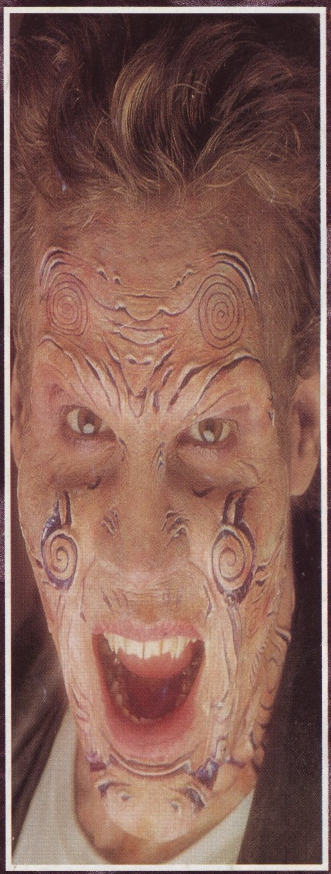
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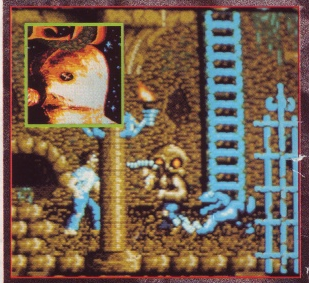


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