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A parfect canversion Ifrem trit popiniar arcatie ymin. Ganterer tria Ballowir Invasion in this oxhliarating tost of your gamp-nlaying skills.


The meanest pursuit game to hif your Screen! IT'S FAST foaturing explasive tirho-hoost. IT'S TOUCH - shoot the villains hut totge their filak!




## . . . HE'S IN TOWN WITH A FEW DAYS TO KILL

AMIGA, ATARI ST, COMMODORE 64/128, SPECTRUM, AMSTRAD CPC, IBM PC \& COMPATIBLES

## AMSTRAD AGIION JUNE 1991

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MUSIC, en MAESTRO....


Unleash your artistic potential with our four-page guide to art on the Amstrad. Plus: a brilliant special offer on Advanced Art Studio


Foundation Software's unique Step-Time MIDI sequencer


Arnor is back into CPC software with a vengeance

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Tet 0225442244 - Fax: 02254460190 Editor Rod Lawlon e Reviews Editor Adam Warigg e Stall Writer Frank 0 ' Connor e Contributors Aler van Damm, Stuart Whyte, Phii Howsrd, Sieve Willama, Janes Pinto e Art Editor Pad Morgan © Additional design Paul Todor \& Pencil Sharpeners Acme Otfice Supplies e
Group Advertisement Manager Simon Moss e Group Deputy



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Advertisement Manager Philip Divenpod - Publisher Jane Richardson Pablishing Assistant Michele Harris 0 Group Publizhing Director Greg Ingham 0 Production Melissa Parkinson e Subscriptions Christine Stacey, tat: O\$St 74511 Q Mail Order Claire Bates, Iet: 045874011 e Circelation Director Sue Harley, tel: 0225442244

YOUR GUARANTEE OF VALUE

This magazine comes from future Publishing, a company founded just six years ago, but which now selts other publisher in Uritain. We ofler:

Better advice. On mbit as pached wily tipa, soppertors and eplenvioy Watides writun by the teet in Fe trethent

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Better value for money, Mows papos, tener

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## HOW TO LOAD THE COVERTAPE



Loading the programs couldn't be easier! Type RUN" (followed by RETURN) and press a key to start the tape rolling. (A shortcut way to get RUN" is to hold down CONTROL and tap the small ENTER key.)
A menu screen will appear in a short time. Select the program you wish to load. Press SPACE to highlight the program you want followed by RETURN to load the program. Spindizzy is on side one of the tape, and is located directly after the menu program. Wizard's Lair and Toolkit are on side two of the cassette. Turn the tope over and rewind to the begining to load these programs.

- If you hove a disk drive connected to your machine you'll first have to type ITAPE to switch the machine to tope loading rather than disk loading. (The I is obtained by pressing SHIFT and ©) The computer will load the next program.


## SPINDIZZY

A strange planet hangs in the void of space. It's unexplored, but not for longl A special mapping probe, Gerald, is beamed onto the planet's surface. Can you unlock its secrets...?

Spindizzy is an isometric 3D affair that simply oozes with gameplay. The objective is simple: exploration. All you have to do is map the 'rooms' that make up the planet's surface. There are a fair few to look at, though -386 to be precise, so it doesn't look like you'll be finished by tea time.

The exploring is
 top who just hap pens to be perfect for mapping planets (though if you get bored you can change the shape to a ball bearing or gyroscope) The problem is that Gerald has to work to a strict time limit - not by any mears enough to see whole planet with. Luckily. there ate plenty of energy giving crystals scattered around. Collect them to extend the amount of time available.

The time limit ticks down naturally, but falling off the edge of the world, or dropping from any great height takes away huge great

## WIFARD'S LAIR

Pothole Pese has got himself into a spot of bother. He's only gone and got himself lost in the Wrard's Lait - an underground network of interconnecting caves, rooms and prssages

Looks like it's down to you to help him escape. Find the four pieces of the Golden Lion which are scatteted over the seven layers of the cave. It's Pete's only hope for freedom.


- Pothole Pete's in a plelle! Don't worry - alt you have to do to escape is find the four bits of lion and avold all the monsters. Yikent
chunks of time, so it's best to avoid it if you pos sibly can.


## - Spindizxy Controls

Spindizzy can be played with keyboard or joystick.

When using a joystick, up moves your probe in a North-Eosterly direction, otc. Fire gives you an extra boost of speed.

The function keys also move you around The direction moved corresponds to the key pressed Use SHIFT to boost your spoed.

SPACE stops you dead in your tracks. Careful, though, it expends onergy.

The cursor keys change your viewpoint. Essential because your view can become obscured.

Press I to change Gerald's shape
Press P to pause the game.

## DISK OFFPR

All the programs on the Amstrad Action covertape are easily transferable to disk. However, owners of the 6128 Plus are unable to cormect a cassette recorder to their machines, and some of you may experience foading difficutties.

We've come to a special arrangement with our duplicators. For a small charge to cover costs, they will supply a disk containing all the programe we're giving away on the tape. If you would like a copy on disk, simply send them your name and address along with a cheque/postal order for E 1.70 made payable to Ablex Audio Video Ltd. Send your orders to:

## AA69 disk offer,

Ablex Audio Video Ltd,, Harcourt, Halesford 14. Telford, Stropshire TF7 4OD.

You may also order previous covertapes from issues 67 and 68 - just make sure that your


## THE NEW, IMPROVED AMSTRAD ACTION COVERTAPE

Amstrad Action's covertape just got better! Though it's always been packed with the best games, demo and utilities, we've managed to make it easler to use, quicker to load, and more reliable.

- Our special custom-written loader ensures that programs load in about half the time than when using the standard Amstrad tape loader.
- It's designed for maximum reliablity under duplication - something that the Amstrad's loader suffers from.
- All programs can be chosen from the menu at the beginning of the tape. The tape-disk transfor program is located here as well - you don't have to search through the tape to find it.

We are striving to improve the theo all the time. In the meantime, have fun with AA Action Pack 31

## Tape Trouble?

We hope that your covertape will Joad fint time. However, having worked with computers for as long as wo have, wo know that things don't alwaye go like clockwork if you have problems looding the tape, try the fol: lowing:

- Try loading at soveral differont volume levels if you'te using an external tape recorder. Computers can be very fussy about the volume they will load at
- Clean the tape heads. This can be done with any commercially available cleanIng kit. Altornatively, use a cotton bud soened in aleolol. Cently no the murfeet of tho heads and pinch rollor to remove that layer of accumulatod grimo.
- Adjust the cassette recorder's head a lion. ment The allgnment screw is locited
fust to the leff of the tape head, and is usually accessible through a simall hole. Rotate it a frection at a time with a foweller's screwdriver. When the crispest sound is heard, the alignment is opot on.
- Sometimes the tape spools can jam or atick at a critical moment. chece the spools in your cassette rotato freoly. if nocossury giving the casing a slight tap againit a table edge just to make sure if. Affer tyying the all of the above. yoit ctill can't get the tape to load then you can return is for a replacoment Send the tape, along with an SAE to:


## AA69 Covertape Rotyrns, Ablox Audio Video Ltd, Harcourt, Halosford 14, Tolford, Shropshirc rity 4ab:

## TOOLBOX

The program it this month's Toobox is Toobit, a collection of utilities to make debugging programs easier and to aid pottering about in machine code.

The utilities are menu driven, and can be accessed easily from BASIC by typing IT or ITOOLKIT. Once the BASIC program has boen run, ittl erase itself from memory, leaving the machine code. The options are

## andiows:

## 1.Disassembler

 converts machine sode in the somputer's memory into 280 mnemonics. Enter the start and end addresses of the memory you'd like to inspect. The ASCII, machine code value and instruction mnemonic will be displayed for each location.2. Memory Edifer - allows you to odit the contents of memory directly, in both hex and ASCII. The cursor can be moved around with the cursor keys - hold shift to move greater distances. Use TAB to toggle between hex and ASCIL Modify the memory by simply typing over the existing information.
3. Memory Lister - displays the block of memory between the start and end addrussos.
4. Compare - matches two blocks of memory. Enter the start and end addresses of the first block and the start address of the second.
5. Fill Memory - fills an area of memory botween the start and end addresses with the byte of your ctolac 6. Move Memory - oppes to memory bexwem your stara and mad addresess to amotener roation
6. Search Memory - sans through the computer's memory for a soquenco of characters or hes codes. You specify the start and end addresses, and what to search for.
7. Memory Map - displays a graphical representation of the entire useable RAM, between 80000 and \&C0000.
8. Quif - returns to BASIC.

- Some of the options will allow you to choose between sending output to either screen or printer. Pressing ESC once will pause the currect process. Twice aborts prematurely.


## But I've got a disk drive...

IF you have a disk drive, you'll no doubt find the prospect of londing everything from tape daunting. Thanks to our special tape to disk transter program. you'll only ever have to lood from the tape once - all programs are transferred easily to disk.
insert a blank formated digk into the drive and the covertape at the start of side one into your cassette player. Connect the REM socket if you have one - rill automatieally stop the tape in the right plicess when accessing the disk drivo.

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

Should you expenence problems you ill be
asked to rowind the tape and try again. Don't panic if this bappens - follow the advice for tape toading troubles.

Both Spindizay and Wizards Lair are fonded by typing:

## Runfasmu

Solect the game you wish to load from the options given. The Tookit is loaded by:

## RUN TOOLKT

We've also arranged a spectal deal with our duplicators. They will supply a disk with all the covertape programs for the bargain sum of ©1.70-trying buying even a blank disk for that See DISK OFFER - this page.

# Amsceme 

## AMSTRAD AXES TOP POSTS

## Amstrad UK's Managing Director and Software \& Peripherals Manager among casualfies


n a move bound to cause speculation about Amstrad's future, the company has axed 37 posts. The bulk of the redundancies took effect at Amstrad's Brentwood headquarters, where 31 stalf members will lose their jobs. The other 6
rendundancies are amongst clerical and wasehouse staII on other premises. The biggest shock was the departure of the managing director of Amstrad UX, Barry Young, but amangat the other bly names leaving the company was Peter Roback, Amstrad's Sottware \& Peripherals Product Manager and loading and Peter Roback light behind the Amstrad are names to leave rollowGX4000 console and new ing Amstrad's redundancies. Plus machines.

## Closing ranks

The changes reflect a reshaping of Amstrad's intemal structure. Barry Young previously headed the Amstrad UK division, which accounted for some 44 per cent of the company's sales. Now, however Amstrad's board, headed by Alan Sugar himself, will now take over all UK business as well as the overseas market.

The current economic recession is being cited as the reason for the redundancies, but Amstrad's fortunes have been mixed for the past few years, culminating in the poor performance, commercially, of the relaunched CPC range. The company has been criticised repeatedly by the press (and not a little by Amstrad

Action itself) for its bungled handling of the new hardware following its launch. The grinefgal problem has been a lack of widespread and high-quality software support, vital for the accoptance of a brand new machine in a competitive market.

However, while the revamping of the six-yeat-oid CPC range was undoubtedly a major commercial venture for the company, the bull of its business is increasingly in the booming corporate PC market. Here, too, Amstrad is meeting stiff opposition from compêtitors. Amsirad's early succegses with low-cost PG clones Tike the PC1512 and 1540 have been followed by incressing palea to the business market, but later machines have been dogged by reliability scares and an increasing lack of competitiveness as other makers leap on the low-cost PC bandwagon.

## Cartridge consequences?

The affect this reshuffe is likely to have on the QX4000 and Plus models and Amstrad owners themselves, if any, remains to be seen. There may well be repercussions concerning the manufacture, distribution and marketing of cartridges, however. As we went to press we learned that certain discussions are in progress between Amstrad and another manufacturer that may reshape the marketing strategy behind both the GX4000 console and cartridge software.

More news on these developments sconl

## United Amstrad User Group Iafest

We've been taken to task by the United Amstrad User Group (UAUG) following their mention in Caroline Lamb's Free for All column in AA68.

First of all, the UAUG does supply free software, but only to members. Secondly, you can't, unfortunately, just send off a blank disk and an SAE to the addresses quoted and hope to get some software back. Instead, for more details about the user group you should send an SSAE to: Tony Baker, 26 Uplands

Crescent, Fareham, Hants P016 7JY.
The annual membership fee is $£ 7.50$, and for this members get the following:

- The bi-monthly group magazine CPC User
- Free public domain software
- A large book-lending library
- Help-line 'officers'
- Company discounts
- Numerous other user benefits

The UAUG is keen to stress its value for money - all its staff are unpaid.


## If's a snip!

Mall-otdet merchant Microenips has moved. The company stocks a wide range of gad. gets and gubbins for the Amstrad range.

Originally a Wallasey store, the firm soon wont into mall order and expanded rapidly, The now premises offers much more room for growth. Micrognipe' retail operation has expanded too; it now also has stores in Birkenhead and West Kirby.

Microsnips' new address is: $\mathbf{2 5 - 2 9}$ Grange Road West, Birkenhead, Mersyside LA1 4BY, tel: 0516500500.

## 3D Construction Kit one brick short!

Domark and Incentive's joint project, the 3D Construction Kit, is nearing completion. It will allow users to create their own three-dimensional environments and games, and is an extension of the Freescape programming techniques used in Incentive's Driller, Total Bclipse and Castle Master. The potential of the software goes beyond games, however, into the serious fields of simulations, computer modelling and education.


Domark says the program isn't yet in a reviewable form, but should be ready for the end of May.

## JOYSTICK MADNESS AT ECTS!

Tbe European Computer Trade Show, beld in London this year, didn't boast much of specific interest to Amstrad owners, but there were more foysticks that we've ever seen before in one placel

The appropriately-name Design Centre was the venue for the show, and it was packed to the brim with excited manufacturers and distributors displaying all mannet of weird and wonderful control devices.

## YEEEUCH!



- Cheetah's new Bug Joystick Is not for the squearnlsht Push in its 'eyes' to prese Firem

Veteran peripheral manufacturer Cheetah, for example, was showing off what has to be the ugliest joystick yet. Called 'The Bug', the dreadfult thing sits in your hand and does indeed bear an uncanny resemblance to an insect. The microswitched 'stick protrudes from the top of the beetle-shaped unit, and the thing's "eyeballs" are the Fire buttons!

Horrible it may be, but The Bug is very comfortable to hold. To own one of these disgusting Litte critters, you'll have to stump up $£ 14.99$

## SKATE CRAZY?

Enjoy skateboarding? Enjoy video games? Want to comblne the two? Cheetah may have the answer. Cailed the Aeroskate, this strange devion is a base unit for your own or Cheetah's skatebourd. Stand on the board, do your best skatestuff, and don't fall off. Cheetah has plans to develop software in conjunction with Titus specifically for the machine.

The software written specially for the unit looks set to include skding, surfing, driving and spooklly enough, skateboarding sims.

We first teported on the Aeroskate back in AA66, but now we've had a chance to try it out we can teport that - believe it or not - the thing works a treat! No price details yot, but well keep you posted.

## WOT, NO BASE?

A fow years ago, a couple of companies experimented with mercury-switched gravity 'sticks. These joysticks had no base and were activated stmply by tating the stick in the direction you wisbed to move. Notoriously unreliable, they were scon written off as impractical gimmicks and vanished from sight.

Cheotah now claims to have perfected the
system, however, and is releasing a controller called Stick ' $X$. It remains to be seen how accutate the new sticks are, but Cheetah seems confident that the new switches are more efflclent and reliable than earlier versions. And the price for all this technology? A mere E.14.99.

## TORTOISE POWER!



- Cheetha's Tortolse joyatick can be operated with only one hand.

Also from Cheetah comes the Tortoise. Shaped just like one of these crusty little creatures, it sits on any flat surface. To operate, you simply use the palm of your hand to titt the shell in the relevant direction - and off you go. Fire buttons, just like the Bug, are the eyeballs. Yuk! Still, at only $£ 9.99$, it's worth shelling out fort (Sorry)

## LOGICAL MOVE



- Logic 3's Manta-ray 'stick is comfortable to use and extremely well made.

Spectravideo has taken new joystick company Logic 3 under its wing, and is pushing its new joysticks heavily. The Sting-ray (again, first described in AA66) has now been available for some time, but it's now to be joined by the new Manta-ray model.

The Manta-ray is unusual in that the base is designed to be held in the hand. The sculpted casing is really comfortable to grip, and there are three Fire buttons, two under your first and second fingers, and the third under your thumb.

Finished, Hike the Sting-ray, in an attractive light bluo, rather than the traditional (boring) red and black, both joysticks are extremely woll put together. The Sting-ray will set you back £14.99 and the Manta-ray is f.12.99.

## THE OLD PRO

Some things never change in the joystick world, and Dynamics' Competition Pro is still soldiering on. At the show, though, the company was displaying its latest variant. The Funtastick Star features a chromium-plated handle and a translucent blue base.

## Treasure Trail results

Did you work out all the answers to our Computer Shoppor Show Treasure Trail (Amscene, AAG7)? In case you didn't. here are the answers:

\author{

1. Dounreay <br> 2. Naseby <br> 3. Ely <br> 4. Norfolk <br> 5. Stonehenge <br> 6. Dike <br> 7. Laxey <br> 8. Abbeys
}

## And your final goal is LANDS END!

Shame on you if you answered all those correctly but didn't enter our competition! Just to remind you, the first prize was a years' subscription to the WACCI user group plus a whole lond of software from fis libraries. Second prize was a pair of tickets to the Computer Shopper Show at London's Alexandra Palace. Here's the list of winners:

## - Ist prize: Robin Brown

- 2nd prixe: Richard Bates, John McPherson, 1 Whatey, A S Bucknall, J E Packham, Mrs J Owen. H Munro, Mr R F Jackson, P Morgan and Mr Tim McCarthy, 35 Elizabeth Avenue, Bagshot, Surrey GU19 5NX


## Tape transfer trouble (part 97)

Just when we thought it was safe... a problem with transferring last month's covertape to disk has become apparent.

The problem, specifically, is with the first program on the covertape, Predator 2's BASIC loader. All other programs transfer without problems.

It only seems to effect some machines = which is why the problem didn't come to light when we tested it. We don't know the reason why this program fails to transfer - it's a perfecly straightforward BASIC file - but we do know how to get round it. Simply type in:

## 1 TAPE

LOAD
IDISC
SAUE "PREDATOR"
Transfer all the other files in the normal way with the supplied tape-disk transfer program. Needless to say, we are very sorry indeed for any teeth-gnashing and hair pulling we may have caused.

We have improved the cassette loading process in an effort to eliminate any similar problems in the future. The tape-disk transfer program is now part of a special, high-speed cassette loader for extra convenience.

In addition, increased reliablity, friendliness and faster loading times will also benefit tape users. Good, eh?


Cails cost 34 p (cheap rate) and 45 p (at all other times) per min incl VAT. For details of winners send SAE to: Pepperoni, Sandylands House. Morecambe, LA3 1DG Please ask your parents permission before you call. Average length of the call is 5.5 minutes.

Got any technical queries? Are you stumped by your computer? AA's very own technical wizard ADAM WARING will attempt to sort it out for you. Or maybe you want to pass on some tip you've discovered to the rest of us? (Send us a good un and you could be in line for a $£ 25$ mail order voucher!) Write to: Forum, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW

## Not half

I am writing to answer the plea for help from Martin Nash from Bristol to print the half charecter in Mini Office II. Type the following before loading the program:

## Key 135, cess(159)

Dress the '' key on the key nad. Before you know it the hall chafacter will appear in your text!

I hope this one will sort out his prob. lem. Now for omo of my own. I own a DDl-1 disk drive. When I load a program it makes a bad noise. I wonder if this is normal?

Stephon Matthows Kings Lynn, Notfolk

That's a fine solution Stephen, much more elegant than my hall haked effort (ho hol)

I wouldr't worm too much about your disk drive. Therle moisy by nature, and whir and clunk a lot anyway, It's probably just as well to keep a back up of all impor. tant data just in case it does decide to do somathing nasty to one of your disks. though!

## Pin money

The bottom pin on my DMP2160's print head does not print. This is not soo much of a problem in capital letters, but when I print a ' $g$ ' in lower case, it comes out like a ' $q$ '

I have checked all the connections, and pin 26 has been cut at the computer end of the cable. My printer is not under guarantee. Please help me, hopefully with a cheap solution.

> Rajineder Sehgal Letchworth, Herts

Bad news, I'm afraid. I don't think think that it's your cable that's at fault, it's more likely to be a problem with the printer.

Each pin is firod' by a small electromagnetic coil in the print head. (There are mine of these in total, one for each pin.) These moving parts inevitably suffer from the effects of wear and tear, and are likely to break down after many years of use. The missing line is probably
caused by the pin not firing correctly
You may need to have a new print head fitted. At any rate the best thing to do is to take it down to the repair shop and get a quote to find out exactly what the fault is, and how much it will cost to fix. Sorry, but Im unable to help you any further than that.

## Mono misforiune

I recently bought a 464 Plus with a paper white monitor with a view to programming using Z 80 . I was rather strapped for dosh at the time and hoped to upgrade to a colour monitor, disk drive, printer etc over a period of time. When I could afford it I approached my local Amstrad dealer to purchase a colour monitor, only to be informed that this item is unavailable on its own. So 1 purchased a modulator which I discovered will not fit the 464 Plus.


- The Plus comes with either a mono or colour monitor. Choose carefully when you buy, though - you won't be able to upgrade fater.

1. Is there any way I could acquire either a colour monitor or modulator to fit the Plus?
2. Will a DDI-1 and Multiface II fit the Plus?
3. Can I use 280 in the Plus?

Having worked on IBM compatibles using MS-DOS and Apple Mac machines I am not too genned up on personal computers, but would like to program on my Plus eventually. I would appreciate any help you could offer.

Brendan Lawlor
Birkenhead

1. Im afraid that neither oolour monitor nor modulator are available Unfortunately it looks like you're stuck with with the mono monitor, though it should be possible to get a lead made up with which to connect your mactime to the modutator you've bought take the pinout diagrams to an electronics store.
2. The DDI. 1 isn't diroctly compatible with the PJus, but modified versions are available from various mail order outfits. For example, Microstyle will supply one for c85. Microstyle, 212 Dudley Hill Road, Bradford, W. Yorks BD2 3DF. Tel 0274 636652.
3. At last some good news! A 280 lies at the heart of your system, so you will be able to learn machine code I look forward to seeing your efforts!


- PD tibraries offer a tape crammed full of programs for free! Be reasonable, though. Stick to computer tapes rather than C120s.


## The lengths they go to

I am writing to you as I'm not sure who to write to. I have a few questions and would be very pleased if you could answer some of them for me.

1. When you send a tape to a PD library what size should it be? I read in your magazine a few months back that a PD library was complaining about people sending in C90s. What size should we send if they do not say?
2. I have a CPC464. I've had it for about 18 months and I love it (don't laugh). What is a CPC? It took me six months to find out what a CPU was.
3. I would buy a book of your Type-ins.
4. A complaint. I like to type in your Type-ins, but if I have my fingers on any print for 30 seconds or so it gets smudged boyond reading when I remove them. Is there anything you can do, apart from telling me to wear gloves?
5. Is it possible for your proof codes to be wrong as I have has a wrong code and the program still works. There was no way I could get the proof code to go the same as yours.

A J Cain
Scarborough, N. Yorks

You chose the right place, AJ. Whatever your problem, $/ \mathrm{m}$ your man

1. Send a computer tape. A C15 or C20 will be fine As long as you're reasonable you'll get a tape filled with goodies in return.
2. I love my CPC too, so there's no need for embarrasment. CPC stands for Colour Personal Computer. So now you know.
3. Hmmm
4. Sorry about the mucky finger problem. You must swoat profusely when typing them in. Must be getting all excited at the thought of all those wonderful programs.
5. It is possible, but very unlikely. We run tho Type-righter program over our Histings just the same as you. The only way it could go wrong is if a character got deleted from the listing in the laying out stage. (Needless to say, we'te very dillgent/) The problom could be caused by an extra space at the end of a line. Type-righter would pick this up, but it would not effect the program working.

## Sam can

I am sure that Craig Hudson (AA65) means well, but his statement that the CPC monitor cannot be connected to a Sam Coupe comes as somewhat of a surprise to both ny CPC and Sum. Thoy have been sharing the same CPC monitor for the last six months and have presented no problems at all. If Craig has a Sam and wants to write to me then I will be quite happy to tell him the pin arrangements and the tequired plugs and leads needed.


## Back to BASICs

I own a CPC6128 and enjoy working with it, but at school I use BBC master which uses a slightly different form of BASIC.

I also use my friend's PC. I am wondering. therefore, if it would be possible to load programs created for the BBC and PC using Microstyle's MFU package. If so would I have to buy an extemal 5.25 inch drive for my CPC?

Cathal Gallager
Carlingford, Eire
I'm not too clued up on the BBC, but unless it has a similar disk format to the PC, it's unlikely that you'd be able to use MFU or 2 in 1 to transfer data.

Besides, the BASICs on the different machines are incompatible. Your Amstrad simpiy wouldn't understand the commands from the other BASTCs, they use different methods to store the information

It may be possible to got somewhere using ASCII files, but there'd undoubtedly be a lot of work involved, and you'd bo restricted to the simplest subset of commands.

I wouldn't bother if I were you.

## A bit befter

In many recont issues it is stated that you can't print characters greater than ASCII 127 on a printer without buying an 8-bit printer port.

Yes you can!
All you do is send ESC *)* to the printer. This sets the MSB (Most Significant Bit) to one rather than zero. Now whatever text you send to the printer will have 128 added to the ASCII number. For example you'd get the square root character if you typed ' $₹$ '.

Please note that to access normal text chatacters (including spaces) again You must send (ESC) $=^{=}$to get it back to normal. To see what is going to come out on your printer, look up the character tables in your printer manual. This system works well with my Star LC-10.
It should work with other printers $t 00$.
A little tip for Protext owners. If you have a wide carriage printer, of If your printer can do condensed mode, you can make the ruler as long as possible by typing ' ' next to the left hand margin and then using hyphens as spaces and exclamation marks as tab positions, create a long line ruler (the screen will scroll if over 80 characters). You must type ' R ' at the end of it.

A tip for people who program their printer from BASIC. Instead of typing in CHikl (27) for the (ESC) code, type CTRL I. It does not state this in the CPC manual.

From CP/M, type CTRL P and after that everything you type will be echoed to the printer. You can use it for disk catalogues, reports on your file copying - anything within CP/M. Pressing CIRL P switches it off again.

A quick way of making CTRL ENIER do something useful is to type KEY "LIST"+CHRs (13). You can replace LIST with anything you wrant.

Mayur Maha Orpington, Kent

Gosh, a positive pile of tips. Ta very much Mayur.

## There's no escape

1 have recently bought a Mannesmann Tally MT81 painter but I have a problem under standing how to send the programming codes to it.

Two examples of codes are (ESC)x(n) which should let me select print quality and (17) which should cause a form feed. When 1 try to send thoses and other codes using PEINT 18 , "CODSS" all I get is an error message. Most of the codes use the (ISC) bit which may bo the problem. Please could you tell me the right way to send them as the manual is useless and I don't want to send off for the applications manual except as a last resort.

Marcus Nixon
Bast Bergholt, Essex


Q Printers are wonderful things. It's a pity that the same can't be sald aboout their manuals. Just how do you get NLQ mode?
Printer manuals are notorious for their unfriendiness. Roplace the (SSC) bit with Chers(27), this is the control code for the escape character.

To change to lotter quality use the com. mand PRINTIS;CHR (27) ${ }^{*} \times 1$ "; The same applies to other commands that use ascape codes.

## Get the pointer

I seem to remember that a couple of months ago fomeone wrote to you asking about pointers, etc, as with my Desk program. (Sorry I can't be more specific, but 1 seem to have lost the issue under mounds of printer paper, disks, etc. You know how it is.)

Woll, I have had a few enquinies along the same lines, and so I thought I would write out some brief instructions on using the Desk machine code in your own programs.

The following are the main PSXs used in Easydos. To enable them type (with the PD1 disk in the drive, or at least a disk with DESK. TOP.BIN on it):

## MENORY AGETF

LOAS "DESKTOP,BIN", ${ }^{\text {P7000 }}$
CALL 27890
If you wish to save DESKTOP.BIN to another disk, insert the other disk and type:

SAVE "DESKTOP. BTN", b, $\mathrm{a} 7000,6749$
Now you will be able to use the following RSXs:
ISNSurovse, ct, ys - this displays the mouse at the character position $\mathrm{x} \%, \mathrm{y} \%$. This must be done before using a IMOVEPOIMIER

You heard the man. If you want your Sam to work on your Amstrad's monitor, then get writing!

P Johns
Rebus Software
27 Fairfoot Rd
Bow
London E3 4EG
12
AMSTRAD ACTION

IWOUEPOINTER, Bx 8 , Bys - this checks once to see if the arrow keys are being pressed, and if so, moves the pointer accordingly. This must be done repeatedly for continuous movement.

IHDDWOSE - this removes the pointer from the screen and restores the background.
So, using these three commands we could have a simple loop to move the pointer around the screen until the copy key is pressed:


- Want to jazz up your programs? Adding a posh ST style front end should should do the trick - thanks to David Wild's Desk utility.

10 $a z=10: \mathrm{b} z=18$
20 ISHOUNOUSE, 10,10
30 WIILE DIKET(9) $=-1$
40 IWOUIPOINIER, Qax, $\mathrm{Pb} \%$ 50 MEND 60 IRDDMOUSE
20 PRINT "Clicked at ";a\%,", "ibx
other commands that can be used in Easydos are:
100.ALERI - this saves the area in the middle of the screen, draws a box, then redefines the area within the box as window i7 which can be used for your own purposes (eg an alert box).
|ALEst. Off - Thits removes the atert box made by IN0.ALERI and restores the background.

INBAR.ON - this saves the top third of the screen, so a menu can be drawn on the top.

IMBER.OFT - this restores the top third of the screen after a INBAR.ON

IDESK - this draws the shaded desktop background.

IBUITON, Bxf - this draws a button at the current graphics cursor and puts the text $\mathbf{x \$}$ into it.

IFokIt - this selects the main Easydos font.
ITWit2 - this selects the alternative Easydos font.

ISWALLIDX1, bd - this writes the string $x \$$ in small $6 \times 6$ characters. IFONT1 of IFoNT2 must have been done previously.

IICOW, xx - this takes the four characters from the main character set from n\% to $n \%+3$ and draws them in a square shape at the current cursor position.

Whilo I was writing, I thought 1 might as well ait my views on the PD piracy thing. As far as Im concerned, 1 am quite happy for anyone anywhere to make copies of my programs. The only condition is that they're not sold for commercinl gain = I have no objections to other PD libraries having them. Surely the whole point of

FD is to be as widespread as possible. If programmers wish to gain reward for their wotk (which is understandable) they should make it shareware or licenceware (a la Budgie on the ST).

## David Wild

Withernsea, N. Humberside
Thanks Davel You're a little star, did you know that? Have a $£ 25$ mail order voucher for your trouble!

The PDI disk is avathable for Ef from David at DW Software, 62 Lascelles Avenue, Withornsea, North Humberside HU19 2EB David says that if you just want a copy of DESKTOP.BIN then he'tl copy it for froo prowiding you sond him a blank formatted disk and an SAE.

## A good hiding

I have a tip that I believe will prove to be quite helpful to your readers. If you want to protect your disk directories all you need is a sector editor. Here's what to do:

- Save a proggie (anything will do - you just need the filename).
- Load your sector editor.
- Edit track 0, and find the program you saved.
- At the start of the filename, insert the control character 21 ( $\& 15$ hex).
- Save the track and exit the sector editor.
- Try to CAT your disk. ALl you should see is the Drive A: user 0 prompt and then just Ready.
That's it. I hope you find it useful.
Akis Xagotaris
Piraeus, Greece
Thanks Akis, and sorry about spelling your name wrong last timef


## Improve your memory

I own a CPC464 and $I$ am studying among other subjocts Higher English and I purchased Mini Office II on cassette to write my essays.

My problem is that sometimes thete isn't enough space to write my essays in one piece because of memory restrictions in the program. Approximately 16000 characters ate made available.

Is there some way of solving this problem, perhaps by purchasing a 64 K RAM expansion and if so how would I go about using it on my Mini Office IT?

William Huddleston Innerliethen, Scotland

A RAM expansion wouldn't hetp, Im atraid, as Mini Office II is not configured to take advantage of the extra memory.
$t$ think your best bet is to ger a now word processor that allows you to use more of your machine's momory.

Protext would be ideal. It's avallable on ROM, which means that is takes hardly any of the computor's mamory. H'I give you around double the spuce to play with. On top of that, it really is a top-notch word processor. (Mini Office is cheap and cheerful, but rather limited in comparison.)

Protext costs $\mathrm{E25}$. You will also need a ROM box to plug the chip into. Order ane with Protext and it cost you an extra $C 20$. You will of
course be able to plug in more ROMs if you wish.

Amor Ltd, 611 Lincoln Road, Peterborough PE1 3HA. Tel 073368909.

## Colourful language

$I$ own an Amstrad CPC 6128 and I'm thinking about getting a memory upgrade. I also have a copy of OCP Art Studio. I enjoy drawing on the program and through experience have become quite good.

If I wish to draw a more colourful picture I have to select the Mode 0 option, but the trouble with this is that the pixel sizes are a lot larger than on any of the other two modes. When I can I try and use Mode 1 or 2 to give a more detalled picture, but mostly this is not pos. sible, due to the lack of colours on screen at once.

If I do decide to got a memory upgrade would this help me with my problem? Will I be able to have the sixteen colours on screen at once in Mode 0 and have the fine pixel size of Mode 1 or even Mode 27 II this is possible how much ' $K$ ' upgrade will I need and how much will this set me back?

## Simon Beamish

Lowestoft, Suffolk
Adding more memory will do nothing to incroaso the resolution of the screen, Im afraid. A fixed area of memory is set aside for the screen and the amount you have for this cannot be altered.

However, Frank has just started a series especially for all you 'arty' types, and he will be covering tricks and techiniques on getting the most out of Art Studia.

## Hot and bothered

Please could you help me with two little queries?

1 would like to know if it is possible to print out a listing in BASIC and if so how?

I have had a Multiface II for about four months. I have regulatly noticed that it gets very warm undemeath after being on for about five or so minutes. Do you know if this is normal or is it a fault?

> A Deane
> St. Albans, Herts

It's dead easy to print out a listing. Simply type LISI is. If you wanted to print directly to the printer use PRINT *8;"Wine's a larst one" for whatever).

Don't worry about your Multiface. Many peripherals generate heat which is dissipated quite sately, making the device warm to the




AllI've just bought one of those dinky little rude men that fit into the window of 2CVs and other cars, and who drop their trousers at rude motorists (almost always male...) and I'm thrilled with the response!

Im also thrilled with the response from all those novice CPCers who've written to me for help. Don't worry, III get around to dealing with all your letters as soon as I can, just as
fast as my little Epson can print them. So keep them coming. Remember, no query is too daft, no problem is too small. But if your problem is a very technical one, you'd be better off writing to Adam 'Prof Waring in Forum...


sPERFECT tephen Moody of Enfield, Middlesex, has a query about printers. He says Tve owned an Amstrad CPC 464 for a number of years and in the past only used it for games. However, I would now like to move on to word processing...Nothing wrong with that Steve, what's your problem? "I would be gratefull if you could tell mobof a low-cost printer which can be used will me he Mini Offlice II word processing pregram -
Simplet At least it's simple in that there ate now dozens of cheap printers on the there ket. It's not so simple choosing between. printers, and if Epson is the top name in go far wrong. The reay an Epson you won't name in the printer world is that such a big codes which are sent world is that the control computer have a become a printer from the standard. All the sotume a kind of industry that their software wortware houses make sure dard. The trouble is, Epson the Epson stan-

## WHAT'S A DISKDRNVE?

Melanie Ricketts from Birmingham has got some questions about disk drives she wants answers to:
"What do they do and what's the point of having one? Are the cheaper ones reliable? Do they come with instructions and are they easy to understand? What does ' 3 -inch disk' mean? Are they different sizes or something? How many games fit on one disk and how do I know when it's full? Are they worth having?"

Phew, what a crop of questions! Disks store programs and data genorated inside your CPC. They're used as a fast and reliable way to store lots of information (much more than a cassette), and retrievo it quickly and without fuss. The point of having one is that you'll be able to save hoaps of programs safely and load them into your CPC without having to wait ages every time.

Right, that's the first two questions out of the way, You got what you pay for, so some of


- WHAT'S A DISK DRIVE? If you want faster loading, or you'd like to use 'serious' programs, then attach a disk drive to your 464.
the cheaper drives may not be quite as well made as the more expensivo offerings. But to be quite honest, most drives have internal components manufactured by the same companies in Japan and Korea and are assembled by firms which just put on theif own names.

All disk drives come with instruction manuals, Some are easier to understand than others but there are plenty of other sources of information, such as AA.

The Amstrad CPC6128 has a disk drive built in, which takes 3 -inch disks. Amstrad also used to make plugr-in disk drives for the 464 which also accepted 3 -inch disks (you can still pick them up here and there). And software compantes produce Amstrad software on 3 -inch disk, 50 this is the size you want.

However, there are other disk sizes you can use. Older office computers such as IBM PCs use the 5.25 -inch disks, but newer models have gone over to the

## BORED

WITHGAMES?

Have you ever beard anything like this? Listen... 'Tm writing to say that I got a CPC464 computer complete with a green screen monitor and there's nothIng to do on the computer". Nothing to do on our favourite computer - I ask you! But wait, there's more... "Will you help me by giving me some ideas? All I do is play games!"

Well' A briltant computer like the CPC at your disposal and you're bored with H1? I can't find enough hours in the day to play with mine. Do you have pocket money? And if so. how much? Even a modest sum will enable you to tap into some really good 'serious' soft-
ware such as word processors d ware such as word processors, databases and
more efficient and reliable 3.5-
inch size. You can buy disk drives that take both these sizes for your Amstrad, but they will only be useful for storing your own data you can't get Amstrad games or serious programs on 3.5 -inch or 5.25 -inch disks.

The number of games you can fit onto a disk depends on what size the games are The 3 -inch disk provides 178 K of storage on each side of the disk (you can flip it over and use the other side when it's full up).

Finally, yes, disk drives are definitely worth having. They don't have the relability problems associated with cassettes and they're fast and relatively cheap. They also open up lots of other computing avenues (serous software such as databasos and the like) with cassette-based
systems.


II you've got
friends, you can write to them with your CPC (and judging by your hand-writing, that wouldn't be a bad idea...). This would enable you to keep a record of all the letters you sent too, because they could be stored on cassette.

You could also write school assignments using the CPC and fust watch those school marks shot up as you hand beautifully presented bits of homework to your teachers beats an apple any day!

Do you collect stamps, Transformers, beer

## $191911+1$ <br> RNTER? <br> exactly cheap! <br> Instead, what you <br> printer which provides Epsont is a cheaper That is, a device which Epson-compatiblity. the same codes as an Encon be controlled by cash. as an Epson but for a lot loss

 No problem Every printer manufacturer to your hard the rising sum is out to lay claim compatible printers cash by offering suitably One of the most popular a poble sums. was the Panasomic popular a year or two ago more than E 100 , the prinin. For not much reproduction and Epson control ored quality been superceded now by control codes. It's and Star, but it's still a good from Citizen deal ins still a good second-hand I hesitate to recommend one printer but would advise you to have a look at the latest mended from the manufacturers recommended above, Citizen (especially the recom- 120 D ). Panasonic and Star. All are good quality.

- A PERFECT PRINTER: Games are all very well, but a printer opens up a whole now world of serious use. Trouble is, which one?
mats, records or posters of Kyle and Jason? Why not keep an electronic catalogue of them using a database and your CPC. Agrain, the necessary software can be had very cheaply from public domain libraries. You'll be able to sort all the data, and keep track of even the biggest collection.

What about some programming? You've seen the BASIC tutorial that Fm running at the moment and you don't even have to spend any money to do that. Just switch on the machine and follow my instructions. Well soon be covering interesting little programs that you can type in yourself and change to your own requirements. And programming at home will help you to get good grades when you start computer studies at school.

And keep reading AA.I It's positively bursting at the seams with ideas for CPCers.

## 句 14

0emember the f from last month? The symbol denotes the word preceding it as a string variable (if you don't know what Im talking about or you've forgotten, re-read last month's tutorial...). An example of a string variable could be PRICES. The semi-colons we were using tell BASTC to leave a space after the first part of the Print statement such as

PRINT Wy acv is sueh a dear little car, but at"; PRICEs; "for a sallon of petrol I nay have to sell it!"
before printing the string variable and the second part of the print statement.

So far we've been entaring BASIC commands directly into the CPC. Normally, however, BAsIC is entered in lines. Each line has a number and the program which is made up of these lines doesn't do anything until we tell it to. For example:

10 Pamt "as is great!:
$2 a$ PaIM ${ }^{*} A A$ is fabl
30 PRDIT "It's really good"
By including line numbers, we've told BASIC to store each line as part of a program. To run the program we type

## RN

and press ENTER or RETURN. The commands in each line are then performed in numerical order. These lines are stored in the computer's memory and won't be lost until you switch the machine off or enter another program with the same line numbers (enter different numbers and theyll be added. in sequence, to the first program).

If the lines of code disappear off the screen (try pressing Enter or Return until the lines have scrolled up and off the screen) you can sce them again by typing

## LISt

## and pressing Enter or Return.

Right. We've met the BASIC commands PRINT, LIST and RUN, here's a few more to get to know:

[^0]MD
The above are all BASIC commands. They cannot be used by you as string variable names or for any other purpose than to instruct the CPC.

Now let's write a little program. Type this into the CPC (it must be copied exactly. BASIC is very fussy...)

10 Print "Here's a little denonstration."
23 PATMT '2x2 is*;
30 privi ane
40230

Now type RUN and press Enter or Return. this is what you II see...

Here's a little denonstration.
axe is 4
Bach line was performed in turn. The first line printed the 'demo' message. The second line printed the $2 \cdot 2$ is' exactly as it appeared between the quotation marks. This line was followed by a semi-colon and that makes the next PRINT statement in line 30 print its output on the same screen line as that of program line 20.

The semi-colon is also used, then, to print several items on the same line.

The information following the PRINT command in line 30 isn't surrounded by quotes so BASIC calculates the information instead and PRINTs the answer:

Did you notice that although line 30 performed a multiplication, we didn't use the ' $x$ ' sign like you do at school, but instead we used the asterisk ( ${ }^{* \prime}$ ). Atthough BASIC uses + (plus) and - (minus) just like in ordinary mathamatics, rather than using the normal divide and multiply symbols, $f$ and * are used instead.

The last line, 40, tells BASIC to stop execution of the program and return to direct mode (i.e. the CPC is ready and waiting to accept more typed information from you), it isn't absolutely necessary to include the END command, because as there are no more program lines, BASIC will stop any way, but it's always good practice to use the command and you'll see why in the coming months.

- That's all for this month. Until we resume, try using the little program above with different mathematical problems. Remember to change the statement inside the quote marks of line 20 and see what happens if you don't include the semi-colon.


# FOUNDATION STEPTIME SEQUENCER 

 (V 4.25)he only step-time MIDI
sequencer you can get for the
CPC has been updated. Musical
maestro JAMES PIMENTEL-PINTO
puts it through its paces...

£35 disk only (requires MIDI interface) Foundation Software 27 Crosters End, Sawbridgeworth, Hertfordshire CM23 ODF Tel 0279725788 after 5pm weekdays or weekends



- Amstrad-owning muslo fans can now get hold of Foundation Software's tatest version of its unique Step-Time MIDI sequencer software...

Those of you who read the Mastering Midi article in AA5O will no doubt remember the Foundation sequencer. Although it got a favourable review and its features were outlined, there simply wasn't enough space to go into detall. So hete is the definitive review of this unique sequencer which has been improved by constant updating by the author.

The main addition to this version is that it now has 12 tracks as opposed to the 8 of the version reviewed in AA50,

## Utferly unique?

The Foundation step-time sequencer (PSTS) is unique because it is the only step-time MIDI sequencer available for the Amstrad range. Indeed, there's arguably nothing quite like it for ANY computer.

A step-time sequencer is simply one which allows the user to enter each note separately using a MIDI instrument and then play these notes in the order determined by the uset, It differs from other soquencers, such as EMR's MIDtrack Porformer, in that notes are not recorded in REAL-TME, in other words live. This allows greater accuracy, as every note is entered as it shoutd be with the correct timing and in exactly the right position. Real-time sequencers usually require a fair amount of editing before a decent final result is achieved and teal-time sequoncers genorally rule out peopte who cannot play a MIDI instrument, as entering the notes in teal time means that they have to be played live. With a step-time sequencer, however, anyone with a bit of musical knowl-
edge and flair, or even someone who just wants to experiment, can create some highly accepsable music.

Step-time sequencers themselves are widely avallable, usually as integral parts of MIDI pack. ages such as Musio:X for the Amiga and C-Lab's Notator for the Atari ST. However, both of these programs require a fair amount of time and effort in order to produce good results and they both assume a fairly detalled knowledge of MIDL, especially Notator which incidentally costs about $£ 475$, putting it fat out of the reach of non-professionals.

The Foundation sequencer is obviously not on the same level as these programs but for around f 30 provides a good entry into the world of step-time sequencing.

The FSTS runs on any of the Amstrads (we mustn't call them CPCs any morel) providing you have a disk drive and a MIDI interface. FSTS supports the three main interfaces: the EMR interface, Datel Music Machine and the DHCP model, If you own a new machine with the new expansion port connector you will noed an adaptor to use these interfaces. W.A.V.E. ( 0229870000 ) supplies one for around $£ 12$.

## Getting going

Once you have connected up your equipment you are ready to go. From the main menu (the first thing you see) you can assign MDI channols, edit patterns, define the song structure and alno play the song. There are also the standard "housekeeping" functions which include loading and saving of songs and also changing screen colours.

The first thing to do before actually writing a song on FSTS is to set the MIDI channels. As PSTS consists of 12 monophonic tracks (which moans each track plays only one note at the same time) you can set a different MIDI channel for each track, as long as your MIDI instrument is 12 voice (or more) multi-timbrat. Most multttimbral equipment is 8 or 9 -voice such as the Roland D series and the Yamaha SYz2. This only means that you will have to set more than one track on the sequencer to the same MIDI channol. This does not affect the music quality because you usually require at least three note chords in the same voice (for example piano or strings). Unfortunately, you will have to be the owner of top of the range exuipment such as the Ensoniq VFX ( 12 voice multi-timbral) or the Yamaha SY77 (16 voice multi-timbra) in order to have a different sound on each track.

Voices are selected by their preset number so, for example, if you wanted a brass sound on track 3 you would look up its preset number in your instrument's manual and enter this num-


- The Pattern Editor.
ber Preset numbers range from 0 to 127. There are two other functions that can be accossed from the MTDIVOicos menu and theso are the control of Auto Accompaniment and Vibtato/Sustain. The Auto Accompaniment control is a software switch for those of you with MIDt instruments that also have an automatic accompaniment section It simply allows you to switch the accompaniment on and off. A simple but necessary feature if you own one of these home keyboartis (such as the Yamaha PSS790).

The final section in the MID/Voices menu is the vibrato/sustain control for each track. This is the one option which is somewhat unnecessary Its purpose is to provide each track with a predetermined amount of vibrato (regular change of pitch - usually quite small amounts) - and/or suctain (holding on of the notes after playing). Unfortunately, this command is global and therefore applies throughout the song, which does not allow for much subtle expression. It is simply a case of either having the effect throughout the song on the chosem track(s) or not at all. This command will be used rately, if at all, purely because of its inflexibuity.

## The Pattern editor

The next step is to actually write the patterns which will be linked together to create the final song. For this you use the pattern editor.

The screen is laid out in a series of columns, rather like a spreadsheet, although to call this a musical spreadsheet would be a tittle inaccutate. The tracks run from the top of the screen to the bottom with the bottom four tracks separated from the others. This is because tracks $8-12$ are officially percussion tracks, which behave in a slightly different way from the other tracks.


- The Song Editor.

These tracks can still be used as normal tracks and there is no audible difference in the final result, so if your composition doesn't tequire any percussion or you just want to utilise the 12 tracks then the percussion tracks perform perfectly as an extra four tracks thereby making FSTS a 12 -track sequencer.

If you do use these tracks as percussion tracks, you can copy just these four tracks from pattern to pattern, thus enabling you to duplicate the same drum pattern on different patterns - an essential function.

Notes are entered using either a MIDt keyboard of, if you are using an expander, the Amstrad keyboard. Notes are not displayed in conventional notation. They are displayed as thei MIDI note values. This may seem confus-
ing at first but with the help of the supplied keyboard map you scon become familiarised with the display. Every time you enter a note it is stored in a keyboard buffer, and the note in the buffer can be entered into the patterm by pressing RETURN. This is a usefut and timesaving function if you need to duplicate a note quickly. Note lengths are dealt with on a beats. per-bar basis, which will appeal to those who cannot read standard music notation. There is a maximum of 16 beats/bar and this can be changed for different time signatures (in order It to do different mythms). The default beats/bar setting is 16 and this cortesponds to the 16 horizontal note positions on each track. A crotchet will take up 4 of these positions (to equal 4 beats, the size of a crotcher) and so if you wanted to onter a Middle C crotchet you would enter the following (remembering that 60 is the MIDI note value for middle C) :

## 60606060

A note-will continue playing until a different note value is encountered. A zero silences the note. An improvement that the author, Chris Owen, has made to the pattern editor in the latest version is to allow the tempo for each pattern to be increased as far as 400 bpm (beats per minute). This is an exceltent addition as allows far more creative pieces to be composed by letting the user create really fast successions of notes in order to create trilts (fast altemating between two or more notes) and other omaments. This facility was apparently implemented after response from a user who required it in order to create an arrangemsent of Bach's Toccata and Fugue (which is incidentally one of the new demo songs on the disk)!

Also provided on the Pattem editor are copy and transpose functions. The copy function simply allows you to copy from one pattern to another whilst the transpose option allows you to transpose (raise or lower) notes in semitones. Volume can also be set for each track, enabling you to set the mix level for the final piece.

## The Song editor

Okay, you've experimented with the pattem editor and you've created a couple of patterns. Now you want to assemble these pattems into a song. You need the Song editor.

This is set out in a grid of 256 bars. Using the cursor keys, you eater the required pattem numbers where you want. So, for example, if you have an intro on pattern 4, you will enter this as the first pattern in the song sequence. Then you will enter the verse pattern, chorus and so on. If you want to ropeat a patterm, simply press ENTER. Once you have edited the song sequence so that you ate happy with it, you can actually PLAY THE SONGIII. To do this, exit the song editor and press space. Some details about the song will be displayed and the current bar, and pattern number will be updated as the song plays.

Hopefully, everything witt have gone according to plan, and you will be hearing some funky grooves pumping from your speakers (whaddaya mean, what speakers?11).


- The MIDI/Voices menu.


## The MIDI song linker

Also included with the package is a separate program - The MIDt song linker. This is ideal for live performance as it enables you to set a song play list and the linker will play these songs in the dofinod order in a chain. You can also sot the linker to pause between each song until you press Space. This program is an excellent lithe utility and should be of great use to budding bands.

## What next?

Foundation Software is already in the process of producing a drum pattern convertor program which will solve the problem of using FSTS songs on different multi-timbral synths whose drum values are different. This will allow FSTS songs written for one synth to be easily converted to another synth. Chris informs me that this program should be finished in about six months' time. No price as yet.

The great thing about this and, indeed, any sequencer, is the flexibility offered. If you play the demo songs on the disk, you will see how it


- The finished song!
is possible to produce songs of any style, from Batoque to Hip Hop and from Ragtime to Heavy Metal. Obviously, the more advanced your MIDI equipment and set-up is, the better your results will be, but the Foundation sequencer is a very capable program for its price. Obviously, it is not aimed at the same market as Performer flot the Macintosh) or Notator (for the ST), but for the amateur musician who wants to produce decent music cheaply, there is no alternative. It is by far the best MIDI program available for the Amstrads.

AA

## GOOD NEWNS

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## To all those with a birthday this month

 Happy birthdayTo all the LADIES with a birthday this month $\mathbf{X X X X X}$ (slurp)

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shoulders above the resr'?
GENERAL
If you just want PC transters then 2N1 is by tar the best if you atso need transferi tofrom the other machinets, then MFU is the
one to have. Both programs run in CPM , not in CPM 22 .

## 6128 ROMS ....... 224.95 <br> includes fitting instructions

## NEWS

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## MS800 LATEST

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We will add more items for your
computor as quickly as wo fost them

Remember the good old days? When men were men, kuights were bold and serious programs for the CPC were plentiful?
Those days bave long since passed, alas, and nowadays the release of serious piece of software is as rate as a good joke in the Little and Large show. Programmers have long since departed to richer pastures leaving Amstrad owners who want to do something other than play games largely unsupported.

One company which has stayed loyal to the CPC as well as catering for other machines, however, is Amor. To prove the point the company has just released a new brand new CPC product - Protype.

Protype is a versatile print enhancer designed to squeeze the maximum print quality from low-cost 9 and 24 -pin printers. But Protype doesn't just stop at being a print enhancer, it carries on to do lots of wonderful things with your printer (a couple of which, initially, seem pointless.)

## System requirement

The program works with the CPC6128 and Plus, and the CPC464 and 464 Plus with 64 K memory expansion and disk dnve. It works, primarily, in conjunction with either the ROM and disk version of Protext, but can also be used with almost any other program which produces printer output (this includes any other word processors or databises that are capable of producing pure ASCII text fles.)

Protype in its most basic form only takes up 350 bytes of computer memory (so there's lots of room left for BASIC programs to play with) but since it makes extensive use of the second 64K bank of memory it cannot be used with programs which also use this area of memory. Unfortunately, this moans that Protypo cannot be used with any CP/M Plus programs.

It is not necessary to have an 8 -bit printer port, Protype is quite happy to bang the whole thing through the 7 -bit port of a CPC.

## The manual

In the past, Amor has gained a reputation not only for the quality of its software bat also for the excellent manuals which accompanied the programs. The Protype manual is no excoption. It is clear, concise and well structured. It is also written for the beginner as well as the 'technobuff.' There are some nice touches for the beginner, like a hexadecimal-to-decimal conversion chart, right through to some advanced information for machine coders who want to incorporate Protype into their own programs.

## In operation

If you are using Protype with Protext on ROM. running the program is simplicity itself. Stick it in the drive, RUN'DISC and Protype gracefully whirrs into action, looks around at your system, configures your version of Protext with its own printer driver, loads the first three fonts and then tells you it's ready.

You now have an extra sot of RSXs to call up, either from BASIC using the bar command or directly from Protext's command line. The thirteon new RSX commands are ADJUST, FREE, TABLE, GAP, LFEED, CPI, CPCM, MIRROR, INFO, PROTYPE, DRAFT, NLO and FONT


Protext is just about the most formidable text processor you can buy. Now Arnor has produced a print utility that gives laser quality from a 9-pin printer. Steve Williams explains...


- You too can have professional looking results with Protype. The printouts used to illustrate this review were all produced using a trusty four-year old Citizen 1200 9-pin printer using a slightly over-Inked printer ribbon.


## £30 disk © Arnor Lfd © 611 Lincoln Road, Peferborough PE1 3HA. Tel 073368909

- but more about these goodies later.

If you don't want to use the program speciffcally in conjunction with Protext then there is an uncontigured version of Protype included on the B-side of the disk.

## The fonts

When Protype is initialised, three print fonts are taken from the disk and put into the computer's memory.

The seven starter fonts included with Protype are:

| Klassik .626 | Medium upright serif |
| :--- | :--- |
| Lucca | .636 |
| Medium italic cursive |  |
| Mikron | .427 |
| Small medium upright senif |  |
| skylite .606 | Light upright sanserif |
| skyKite .626 | Medium upright sanserif |
| shytue 407 | Small dight upnght sansent |
| skybold .646 | Bold upright sanserif |

These can be switched in and out by either using embedded control codes (CNTRL. K, L and M) in the text or stored commands. The latter method is especially handy if the text you are printing out is destined to have more than three changes of font. For example, to print out the text in fig 1 , type the following text into the file:
) $\mathbb{E}$ FONT L KLASSIK, 626
Klassik. 626 Mediun upright serif JX FONT L LOCCA.626
Lueca . 636 Kedion italic cursive
JEX FOWI L Mikron. 427
Mikoan 427 Snall mediun upright serif

IEX PONI L skylite, 6e6
skylite .6EE Light upright sanserif IEX FONT L skykite.626
skakite . 626 Mediun upright sanserif JEX FOWI L skyikite.407
skybite . 407 Snall light upright sanserif IDX FONT L skghold. 646
skybold , WAS Bold upright sanserif
The " $>$ EX FONT L" part is the stored command that tells Protype to load in a particular font from the disk.

## RSXs ef al

Once you bounce Protype into yout computer there are some additional commands available which can be called up by Protext directly or via BASIC using the I (bar) command.
IPROTYPE Switches Protype in or out.
IINFO Displays the Protype status line.
IDRAFT Selects the fast printout.
INLA
IFWIT
IANUST
IFREE
ITABLE
IGAR, A Adjusts inter-character spacing by $\mathrm{n} / 120$ th of an inch.
ILFEED, Set line feed in n/216 inch (9-pin printers) n/180 inch (for 24 -pin printers.)
ICPI, Set nominal pitch to $n$ characters per inch.
Set nominal pitch to $n$ characters per centimetre
IMIRAOR Switches mirror imaging on (or off)

## Super and subscripts

Any section of text may be raised or lowered with respect to the baseline using the printer control codes CNTRL X or CNTRL Y. By using this facility and by swapping fonts you can achieve some interesting results:

## The density of ethanol $\left(\mathrm{CH}_{2} \mathrm{H}_{5} \mathrm{OH}\right)$ at STP $789 \mathrm{~kg} \mathrm{~m}^{-3}$.

## Text ' n ' graphics

Protype also provides line graphics characters, which moans that text, boxes and ruled tables can be produced and mixed in any formatting mode:


Boxes are made easy with Protype




กิ N

Just some of the extra characters available

This is truly amazing stuff, because up until now CPC ownors have been hampered by the fact that they only have a 7-bit printer port. CPC users bad to buy an extra 8-bit printer port in order to access the printer characters available above ASCII 128.

Protype doesn't cover the complete IBM character set (up to ASCII 255) but it does have a load of characters that do not appear. In addition, it's worth remembering that the 8 -bit widget costs in excess of $£ 20$.

## Double Dutch

If you're one of those Euro-Persons that doesn't know his umlaut from his elbow, diacritics are those extra little characters above letters sometimes found in other alphabets (cedillas, graves, circumflexes, acutes, umlauts etc etc). Protype can produce a range of them. The list of European languages catered for is most impressive: Albanian, Anglo-Saxon, Czech, Danish, Estonian, Finnish, French, German, Hungarian, Icelandic, Irish Gaelic, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Soots Gaelic, Serbo-Croat, Slovak, Slovene, Spanish, Swedish, Turkish and Welsh. You can even produce a complete Latin font.

The characters are accessed by pressing combinations of keys. For example by pressing 12 on the keypad an umlaut is produced. Pressing SHIFT and 50 gives an upside down question mark. Typing $f 3$ followed by a small $c$ brings up a copyright symbol.

The number of combinations of potential is potentially quite bewildering even with the quick reference charts. Because of this Protype comes complete with a set of stick-on legends for the keys.

## Output to paper

Printing with Protype is slowww... but then what did you expert? In order to obtain the high quality printout, the print head has to make twelve passes over each line of text If you do want to speed things up you can use the IDEarI command which increases the printout time by a factor of six (but of course the quality suffers.)

Horizontally, 9 -pin printers usually manage 120 contiguous dots per inch. However 240 dot positions are avalable, the print head just doesn't have sufficient speed of response to print them. By making the print head pass over each line of text twelve times Protype manages to raise the dot resolution to $1 / 216$ inch vertically and $1 / 240$ inch horizontally, Compare that with a typical laser printer, which has a resolution of $1 / 300$ inch in both directions, and you can see that Protype really does squeeze out the most from a 9 -pin printer.

## Promerge Plus

When used with Protext, both Protype and Amor's Promerge Plus ROM work by intercepting Protext vectors. With other print enhancers, in the past, this has proved to be a bit of a problem. To get Oualitas Plus to work when it was reviewed three years ago necessitated physically switching out the Promerge ROM. Yup, even doing a IROWON, 7 command wasn't able to satisfy Qualitas Plus (this has since been fixed).

Protype is smarter. It's been told that there is a ROM floating around in Amoldland called Promerge Phus; not only that but it knows all about it. (Well, this is an Amor product after all.) When Protype is initialised it looks around your set-up and checks for Promerge Plus, if it finds the ROM it switches it out and quietiy but confidently takes over its place. You are, however, left with the extended command entry features of Promerge Plus (copy cursor editing, last command recall etc) and they are still avallable from Protext.

If you have Utopia AND Promerge Plus in the back of your machine then you find that the keypad 00 command (INK 0,13:INK 1,0:BORDRR 10 ) is disabled (no great loss.) All the extra commands from if through to 9 are left unchanged.

## Poinfless?

This review started by saying that there were a couple of things that Protype could do that 'initially' seemed pointless. One of these is the MIRROR function. This prints out the high-quality text as if seen when reflected in a mirrorl This is worth a chuckle the first time you use it, but what's the point? Delving into the manual to find out more about 'MIRROR', you find a line that says: "This will be of use in future develop-

Js9n 5 7ol aifl fuods awoH fards paimmengonq io tid

## Grashproef or wher?

Part of the perverted fun of reviewing new software is trying to push it till it 'falls over' or crashes. Protype is rock-steady and if there are any 'undocumented features' (bugs) in the program then they kept themselves well hidden!
monts where, for instance, an Arabic or Hebrew script output is requited." Apart from the idea of someone writing a program which could print out text in Arabic or Hebrew, equally stunning are implications of the words "future developments." Good for Amorl It's nice to see that there is at least one big company that hasn't written off our beloved Amold.

## Price

It's time for a sham intake of breath. Protype costs £30. That might sound a bit steep, but use the program for long enough to find out just what it can do, and that price tag doesn't seem unreasonable at all.

## Conclusions

Amor began its life way back in 1985 'develop. ing' Maxam for the CPC464. It pioneered the devolopment of ROM software Protext, Promerge, Prospell, Utopia, Promerge Plus, Maxam 1.5 have all been carefully researched mega-hits for the serious CPC user.

Amor then went on to develop these programs for the PCW, PC, Atari ST, Archie and the Amiga with equal success.

Unlike many other large companies which made their fortunes on the back of the CPC range of computers and then, when the profit margin dipped too far, Arnor has never forgotten the machine that started its success story and has always continued to support it.

You are either deeply into print enhancers of you're not. If you are then Protype is the best. It's so much easier to use than any other previous print enhancers and has lots of extra features that other programs don't.
f 30 is a lot to cough-up in these days of recession.. BUT, if you want to prociuce highquality toxt from either your own BASIC program or directly from Protext then Protype is the one for you.

AA

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Picture This!
 ou don't need to smell of paint and turps to produce a masterpiece. AA's resident pixel perfectionist Frank O'Connor shows you bow to create electronic art on your Amstrad...
omputing seems to have left its mark on just about every aspect of life. We find computers in the home, in the office and in our libraries, In fact, we are fast approaching a time when computers will be an indespensible part of our everyday lives. Many would argue that that time has already arrived.

A computer can work out your accounts. It can be used to play video games. or generate music. But can it produce art? We know of computers' ability to produoo graphic images, but is an ordinary home micro flexible enough to creato gonuine works of art?


## efficient method is the use of a pro-programmed

 art package.What we aim to do here is take you on a rough guided tour of the facilities available on the Amstrad. Remember, for those of you who
claim you "can's draw for soffee",
 the computer, like a good art teacher, will undoubtedly prove you wrong!

For example, many of the time-consuming problems involved in painting and sketch. ing. such as colouring and shading, can be handled almost instantly by an art package.

For this tutorial, we've used Rainbird's OCP Advanced Art Studio. This package is fast and comprehensive, and just about the best available, It's also a good example of the system and the tools used
cox $x^{3}$

 Amstrad CPC isn't with get your owstrad. And you powerful enough to serliptiont $\mathrm{S}_{\mathrm{e}}$ trad Alepy, troe, produce the kind of broadcast-quality images we see on television. Examples of outstanding visual imagery would include the Smarties commercials and the movies Tron and Last Starfighter. All of these examples use top notch state-of-the-art supercomputers.

The Amstrad CPC and the Cray XMP supercomputer do have one thing in common. They both understand graphics in very much the same way.

The principles involved include such obscure technical terminology as Raster Scanning. Ray Tracing and Scan Line Algorithms. For the purposes of this article, however, you need only know that a computer treats graphics and colour as a section of memory which can be externalised visually on a monitor.

## But is it art?

There are unending arguments about what art is, and the basic crux of the matter is this: if you like it, it's art. If you don't like it, someone else thinks it's art!

Computer art is just as valid a form of art as any of the classics. The advantage it has over other media is that the computer can be used to take shortcuts. It can produce two-dimensional images easily and simulate three-dimensional objects using mathematical techinques faster and more accurate than any human artist could manage.

## Art packagos

Images can be programmed directly into a computer's momory, but a simplet, faster and mose up the creek.
by the majority of graphics packages.
The now common icon system is used, with the user pulling down ontions from a memu har at the top of the screen. Ideally, you should have a mouse. This speeds things up a great deal and makes freehand drawing much easier, However, it's possible to manage with a joystick and a lot of freehand effects can be mimicked using shape-defining options.

## Where do I begin?

The best idea when getting to grips with any art package is to experiment! Read the instruction manual by all means, but if you see an option you don't understand, try it out. Often tricks and bizarre effects can be produced entirely by accident. However, the thing about computer art packages is that mistakes can sometimes be just as difficult to correct on screen as they can on canvas. Unlike a real painting, however, an art package allows you to save the picture at any stage of its development. This process is highly recommended! Save the screen every time you make any large changes to the picture.

Most packages will include an Undo feature, but they only undo your last mistake. If you make more than one error in a row, you could be

If you are just messing about with the various features, then it's no holds barred. Dive straight into the program and do what you like. If however, you aim to produce a masterpiece. then planning is the key.

The best way to plan is to think in terms of hay. ers: If you are drawing a landscape for example, then think of it as a real three


Below is a step-by-step guide to creating a simple picture. You may wish to follow the example given, but it would be just as useful as a technical excercise to create your own piece using similar techniques. Remember,


After deciding what it is you want to draw, get straight to it. The pen function is selected, and you draw your first lines freehand. Drawing in freehand is a lot simpler with a mouse, but exactly the same effects can be produced with a joystick and a little patience. When drawing, always take it slowly.


The next step is to finish the basic outline. In this case it's a graffitistyle rendition of the Amstrad Action togo. When you are happy with this first stage, decide what to do next. In our case we select some tasteful colours and fill the outlines. Remember, if there are gaps, the chosen colour will leak out...


Think ahead. Here, we're adding effects to the letter A using PEN and FILL functions. A good idea if you want to avoid mistakes is to PROTECT the most frequently used colours (in this case green) from being erased accidentally by delicate touch-ups and fills. We all make mistakes from time to time!
though, to save your work at every stage, and be careful when using the Undo function. And if it doesn't go the way you planned, remember, the beauty of computers is that you don't get your hands dirty clearing up!


Similar effects are added to the rest of the picture. Protecting the inks turned out to be a good idea when a misplaced fill threatened to wipe out half of the colour on the screent Uh, oh. A strangely familiar face has begun to form on the right hand slde of the screen. Again PEN is used.


Bart Si..eer, Dave Simpsun's eyes aren't quite circular, and so the
ELLIPSE function is used to make them look a bit bulbous. Eilipses
start at the centre and the final shape is drawn when the cursor is
dragged to the outer edge of your desired ellipse. Qetting them both the same size is a chore, so use COPY.


Tidying up the final image with a couple of sparkly bits on the lettering. Once done, it is time to FILL in the background, Usually backgrounds should be done first, but only one fill is used on this one, so it is placed last. The background is a TEXTURE chosen from a predefined set... and so our masterplece is finished. Simple, eh?

dimensional object. Always define your backgrounds first. Drawing a honzon and mountains after you have coloured and dotailed a nioe little house can be a real pain in the palettel Next, not surprisingly, come the midrange features. In a landscape, these might include hills and trees. Last, and most importantly, come the foreground details and main subjects.

It's very easy to draw over the backgrounds, but again - and it cannot be stressed strongly enough - you have to save the screen before every major change.

People who really can't draw for toffee often find that the stmple, clean system of computeraided ant can release a previousty untapped sense of design.

Even if you have trouble using the simple tcon syitem, remember, imagination and style count for more than technical excellence. Otten, especially using joystick, the darned page just doesent tum out the way you had planned. Dont worry, fust keep going and see what you end up with.

## The finished product

OK, so you get to grips with the art package. You even show signs of improvement, but what to you do with this outstanding pleture?

Printoutl Get yourself a printer. Most domes. tie printers are of the dot matrix variety. These put out a rough approximation of the screen imnge. The image will be in mono and composed of little dots. Not exactly the most attractive option in terms of brightness and life, but they do give a reasonable rendition.

Colour printers can be picked up quite cheaply these days, usually starting at around the $£ 230$ mark. (Check mad order suppliets for the best bargains.)

If this is too much for you to pay to have your greatest work immortalised, however, try your school or local college. You may be able to drag your CPC along and hook it up to their (probably superior) printer.

Or you could just settle for storing your finished images on disks and amazing your friends with your artistic ability whenever they come round

## WE WANT YOUR ART!

Resident art expert Frank o'Connor will bo starting a new graphics series. This is your chance to get your pictures printed and your
fechniques brushed up. Send your works of art to:

Unclo Frank's Studio Amstrad Action
Beauford Court
30 Monmouth Street
Bath
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(Don't forget to enclose an SAE (I you want your disks back!)

# The path 

## B elow you will find a glossary and loose description of the most commonly used computer art terms. And to illustrate it all, a selection of great CPC art, tbanks to our readers...

BRUSHz Brushes can be defined by the user of chosen from a standard selection. In OCP, the brush shapes are the same as the pattern shapes. The advantage of a brush over a pen is that an image can be used to draw with This allows multi-coloured drawing tools to be created

CIRCLES: Circles and ellipses are invaluable shapes when drawing a picture. The circle start point is selecred, and then the next movement of the cursor defines the radius of the circle. Click once and the circlo is drawn. Ellipses are flattenod circles. The same method is used to create them, but this time with two axes.

CUT AND PASTE: This feature allows the user to select an area of a page and move it around, or use small sections as brush shapes. If can be very useful for repairing accidents!

DUMP: Simple - this feature sends the screen image straight to a printer and, bey presto, your best work is immortalised on paper.

ERASER: Fairly self explanatory - erasers simply remove the chosen section of the screen, although it is often possible to avoid this - see UNDO.

FILE: Colour in large or tricky sections of your masterpiece with this function. Different colours signufy its borders. Be careful to ensure there are no gaps for the ink to leak through.

INKS: Ink functions are usually palletrerelated but some packages allow you to 'protect' inks, preventing certain colours from being erased or covered.

LINES: Draw straight lines simply by selecting the start and end points of the line. The computer equivalent of a ruler, if you like.

MAGNIFYING GLASS: Zoom in on small sections of your work for detalled changes. Usually, several levels of magnification are available.

MODE: The Amstrad works in three modes of screen resolution, the rule being the higher the resolution, the lower the number of colours available on-screen.

PALETYE: The range and hue of colours are defined via the palette menu. The Amstrad has a palette of 27 colours but at most 16 can be displayed at once (mode 0).


PEN: You can't do much without a pen. The pen is dragged by joystick or mouse, and leaves a single-coloured line in its wake. Pen shapes can be chosen from menu or defined by the user.

RAYS: Rays are lines that radiate from a central point. Choose a central point, and further cticks will produce lines from that point.

RECTANGLES: Squares and rectangles are formed using a similar method to circle genera-

tion. The size and shape is selected by defining two points on screen.

SAVE: Save absolutely everything you do as often as possible. This way you can afford to make fairly big mistakes. It pays to save - any banker will tell you that!

SPRAY CANS: Spray cans simulate the dotted effect of airbrushes, and can be useful for gradual shading. Experiment with different nozzle sizes and flow rates.

TEXTURES: Sometimes called pattems, textures can be defined by the user or chosen from a selection. They allow textured surfaces such as the brickwork in the tutorial section.

TRIANGLES: Used in the same way as rectangles, only the end result has only three comers!

UNDO: Make a mistake, and the safest method of repair is the Undo function. This simply goes back to the picture before the last change was made. Phew, just as well!

VIEW SCREEN: Removes the icons and windows so that you can view your piccie in all its glory.

WINDOWS: All of the functions used in the best art packages are displayed in windows. and the picture itself is viewed through a window. It's simply a box containing text of pictures.

ZEBRA: There are no features beginning with 2, but you could always draw a Zebra!


## THIE

 Cl
## Fun and games. That's what we like around here. You too? Well you've come to the right

 place, then! This is where you'll find all the bot Now you can chuckie at your computer sctieen with Vlign's nevy game of the comic. Biffi Becon, Buster Oonad and Johmy Fartpants are the stars of a race around Pulchester.

As well as asing their extraotdinary tal ents to cross the finish line fist, there are bonus sections in which the characters attempt to perform syeciality stunts to gain extu points Parp?

You other faveuites also appear in the game Roger Melise (the man on the tellyl is the bost throughout, and cameo appearances are made by Mrs brady the Old Lady, Sid the


## Win! <br> Win! Win!

Impress jour friends and scare your ememies with this tuly excellent lig-sived cardboard cutolt of Biffa Becon

Don't worry if yot don't win Biffa, though. cos there are T-shirts and copies of the $V / i z$ game up for grabs too One for the winner, and ten for the rumers up.

Remember, only one enty per household and get em in by 30th June. Otherwise Biffa will te paying you a little visi

1. Biffa's surname is:
(x) Pocgr?
(V) Scusoges?
x Scrambled Egg on Toast?
2. Fulchester United's amaning fish-tike goolkeper is...
(h) Ev) Gus Pokter
1) Biliy the fathet
A. Sbocio Simuns?
3. Rogor Itrelevant is...
(x) a looughtul and intalligect yourg mon?
(y) the man on tha tolly?
(7) wib6t wibber beep beep
houtond?
Scribble yoar answera on 14 postard and send it 10 : Til have Bifta ootside noo. Amstrad Action, 29 Monmouth Street. Bath BA1 2BW

## APEVING:

## LGHT FANTASTIC

A lightgun and two now games that use it will be available soonl Trojan is the manufacturer of the cartridges for Amstrad's GX4000 console and the Plus machines. The company also produced the Magnum Light Phaser for the CPC, which it has now re-designed to make it connect to the light pen socket on the new machines. Two stonking shooting games have been developed for use with the gun:

- The Enforcer is a gangster shoot-out game. Waste the hoodlums as they shoot at you from cityscape windows.

- Hit the hoods but avoid the civilians in The Enforcer, one of the new light gun games for the ax4000.
- Skeet Shoot has you on the clay pigeon range. Shatter as many of the ceramic disks as possible as they fly through the air before your time runs out.

- Thebonus round in Skeet Shoot. Shoot the Golden Eggs for extra points, but don't hit the silver ones, whatever you do!

We'll tell you exactly what we thought of the games in the next issue! Bam! Bam!

## EUROPEAN SUPERLEAGUE

Ever fancied running your own football club? Not just any club - one of the best clubs in all of Britain, Europe even?
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You'll be up against stiff competition. The computer will controlling seven 'intelligent' managers who also have the same aim.

CDS reckons that its game will leave all other previous management sims standing. It offers a friendly icon-driven interface, state of the art graphics and multi-level gameplay with it's claimed, greater detail and realism than in other programs

is nall-biting stuff as the highlights of the match are brought to you 'live', Will the team Iive up top your expectations?

## WIN SOME SUPERLEAGE STUFF!

To celebrate the release of European Superleague CDS is giving away a bundle of goodies. T-Sturts, mugs, posters... there's ten of each which ten lucky winners will be drinking from, pinning to their bedroom walls and wearing on a summer's day (though not necessarily in that order...)

But you're going to have to know yout stuff, though. Three tough and challenging


- The scores on the doors are brought to you at the end of the ninety minutes. Good game, good game...
questions need to be answered before you can make off with the loot.

But first the rules: only one entry per household and get them in by June 30th. Anyone who fails to obey will be given a season ticket to Milwall and be forced to wear a red and white scarf... in fact, you wouldn't neod a season ticket. You'd only be going the once.

1. How many players in a five-a-side football team?
(a) 11 ?
(b) five?
(c) $137 \%$
2. What do you call the inflatable bag inside a football?
(a) A bladder?
(b) A pancreos?
(c) A duodenum?
3. When did Hull City last win the European Cup?
(a) Only last week?
(b) $1066 \%$
(c) Never?

Send your entries on the back of a post catd to: I liko a good kicking on Sunday afternoon, Amstrad Action, 29 Monmouth Street, Bath BA1 2BW.

## TOK

Duo soon from Ocoan, and looking to be an absolute stumnor, is tho brilliant new cartidge game Tok:

The game features the explotes of the Neanderthal Tols: who's been transformed from a handsome cave dveller into an ugly apelike being:

On top of that, his girlie's been captured by whoever did the despicable deed in the first placo. 1 Lfe was tough tan billion years BC.


This chart is compiled by Gallup Lfal.

O European Leisure Software Publishers Association Lfol. 1991

Fight the drug war single handed or with a pal. Not a briliant arcade Hcence

Boy and giff fighting outfit metamorphosize their way through much mayhem quiet period.

The Turties have at last been toppled ofter a long spell and the number one slot; and by Codemasters unassuming cgs shaped champion Dizryi

And the compilations are still going: strong, too with no less than four of the things in the top tent

Meonwhile, lower down in the hit parade we have a whole hest of new or re-entries...

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e Fred Fixit kicks a little lemming out of the way (all say "aaahhhh.s"). They're a pest because they follow you around, getting under your feet and slowing you down.


- On earlier levels the paint vats are filled automatically, Mere, though. the paint tubes have to be controlled manually. At the moment, you've got blue paint gushing out of the taps.


Factory work is noisy, smelly, dirty and altogether 'omble. It's also boring, repetitive, mind-numbing... much like being lashed to a chair and made to watch episodes of Coronation Street eight hours a day.

Or is it? In Nightshift, factory work is anything but boring.... For a start, you work in a factory that produces little toy dolls (oh joy). And as you may have guessed by now, you're running the nightshift in this toy factory. On your own. That's not so good, because although the huge machine (called "The Beast') is in theory full-automatic, things can and do go wrong. You will often find that the previous shift-worker has left a conveyor belt running the wrong way, or the gas has been ailowed to go out under the resinproducer. There are also little gremlins running ahout the place which, when thay'te not getting under your feet and slowing you down, luke nothing better than to mess up your production line.

Things start off pretsy easy, though. Your first job, on Lavel One, is simply to get the Beast running and turn out a handful of dolls before your shift is over (time remaining is indicated by a flickering candle on the status bar at the bottom of the screen). You'll find whole sections of the Beast blanked off behind metal panels, which means these sections will operated automatically, needing no attention from you, However, what you will have to do is go for a
quick pedal on the bicycle to generate some electricity, then zoom up to the top of the Beast to plug in the resin-melter (by kicking the plug). make sure the gas jet is set to the right level and maybe tighten up a loose bolt. Lower down, you'll probably have to adjust the direction of a couple of conveyor belts, but that's about it. What happens is that the resinboller sends ingredients into a mixer which then spits out little gobs of goo which then get taken into the moulding machines (they produce the two halves of the finished toy) and the two bits are then painted, dried and glued together before going off to the quality-control machine and then off to the packaging department. Phew. Half of this is automatic, thank goodness.

Or at least, it is at first. Zach lovel you are given a production target. Meet it, and you are given the password (huin machine symbols) to the next level. As you advance. the production requirements get tougher, and various bits of the Beast previously under automatic control now need your attention. For example, it's not loug before you're required select the paint for the dolls, and for this you need to first empty the paint vat and then fill it with the right colour paint. Not easy while you're tripping up over


- Fred's seeing stars - he tried to jump too far, didn't he? You don't lose lives through falling, but it does take you precious seconds recover.
gremlins, keeping conveyor belts running in the right direction and stopping your battery going flat..

It's just as well, then, that you've got a box of handy tools to help you out. As woll as a spanner (which you'd expect), you get a balloon (for getting to the top of the Beast quickly), an umbrella (for getting dowr again), a vacuum cleaner (for sucking up the gremins), a moth (for scoffing the little devils) and a match. These tools can also be picked up on the Beast itself, as can an extra-time bonus.

The graphics are Speccy-port-style, but they're solid enough and very colourful. Sound consists of a decont title tune and good in-game effects. These consist of warning sirens to tell you when the Beast isn't producing resin properly, and
three colours - red, blue and yellow - and each has a hand-wheel.
nasty klaxons for when nasty klaxons for when
you produce a duff doll. Very useful indeed, as it happens, because while you're watchfing the production process in one part of the factory. yous can't see what's happening in another.
You can play the part of either Fred or Fiona Fixit (no sexism in this gamel) and your character is very micely drawn, and animated. Let Fred or Fiona drop too far to a platform and they sit there grimacing, dazed by their fall. They also put on a wonderful scowl when they kick gremlins out of the way.

- Just checking that the mould-stamps are working properly. That symbol above you is a balloon, it lifts you up the Beast.
 Tho 1 He you up the Beat


This balloon has
just Nifted Fred to the top of the Beast.

Oh dear, your resin mixture's not boiling. You need to Hight the gas jet undemeath.

This bolt's loose you need to tighten it with your spanner.

Blank metal panels hide some devtish bit of machinery you're going to have to control on a tater level.

The doll moulds currently being made. These are set auto. matically ... at first.

Get this spannert it may come in useful later on.

Turn the handwheels above to squirt a dose of paint from these tubes into the paint mixing vat below.

This switch controls the paint drying fan below. Make sure it's on!

More's where the tops and bottom of the dolls are pul together. The two halves have to arrive at the right time and in the right orden!

Get these conveyor belts running the right way or all your hard work will be ruined.

The quality controller, Keep your fingers erossed at this bit!

The electrical power generatort Keep the battery topped-up by pedalling on the bike...

Your finat hurdle -
the despatch the despatch

The menu bar shows time remaining, the contents of your toolbox and your score so far.


Those terrorists are up to no good again, with fanatical thoughts of world domination on their minds. As usual their evil schemes involve innocent victims being held hostage for things that are nothing to do with them.

This time they've gone a step too far though. One American citrzen too many has had their lives wrocked by the threat pased by terrorists. The time for talking is over. There will be no diplomatic meetings, no bowing to demands, and no secret arms deals.

A helicopter has been downed over enemy tenftory, and the crew are being used as bargaining chips by a bunch of crazy terrorists who've been out in the sun too long. They've also managed to amass a stochpile of Stinger missiles, which you'd best destroy if they're not to be used against the very country that supplied them

It's time for the Navy Seals to go in, kick butt, and get out again, leaving as many terrorist corpses as possible in the time allowed. (Oh yes, mustn't forget to free the hostages...)

Time is most definitely of the essence. Bach section has to be completed within a strict time limit. For the most part, this involves setting explosives atop a crates full of robbed US hardware, and getting the hell out to reach the next


A variety of different weapons can be used to kill the enemy with.
They're packed away in crates found scattered around the complex. This flamethrower is good for cooking their goose. Fry terrorist seum!
stage, killing the bad guys on the way.
There are five members in your team, representing your lives. Bach time a Seal is culled, another takes his place. You come to harm by falling too far, being shot and running out of time. When you lose one of your team the timer is not roset, and you must cary on from where the last chappie popped his size twelves. The missile cases that need to be destroyed act as restart points - when you die you reappear at the last one you attached a bomb to.

Somewhat surprisingly for the hardest fighting force in the World, all these guys are armed with is a weedy pistol apiece. Luckily some of the crates scattered around the place have hidden secrets - Uzis, flamethrowers and grenade launchers. Handy, that.

Navy Seals is a good looker - the sprites are large and well drawn. The terrorists look particularly cool, wearing shades and toting guns. The backgrounds too are well drawn, with the redefined palette being used to good effect.

The animation is excellent on the whole, platforms can be transcended by pulling up on them and somersaulting over the top - a brilliantly fluid action.

The music is spot on too, though this plays only on the titie screen. In the game itself there's the usual batch of rudimentary spot ffocts.
Navy Seals is not an easy game. Careful paddle control is required to outgun the baddies. Usually you'll need to duck down behind a crate, wait till the enemy has fired a shot, and then jump up quick and shoot him before he has a chance to respond. Fluff it and the you're probably dead.

The time limit is extremely strict. Dilly-dally for a couple of moments too long and you'll fall foul of this short span. In this instance you need to start the whole level again from scratch There's nowt


- This is where it all starts. You have to plant bombs on nine missile crates in the three minutes allotted to make it off the first level.

- On the streets of Beruit. Watch out for those soldiers on top of that building - they'll pounce on yer back given half a chance.

e Into the comunications tower through an before you finish this level.
wrong with time limits in principle, it's just this one is particularly unforgiving.

The control system is slightly fiddly. There are a lot of actions to be accommodated on the joypad (incidentally, Plus owners may not redefine the controls for keyboard use). Some actions require a combination of moves, and it's easy to slip up, usually with the result of one life lost.

## IN THE NAVY

TNo, the Navy Seals aren't blue-hued sea
mammals, they're an elite fighting force of trained killers. SEALs stands for Sea, Air and Land - there isn't anywhere that these guys are afraid to go. And if you think the name's a bit soft, it could be worme - thoy could have endod up boing called the Navy SALs instead.

These crack commandos are usod by the military to handle those difficult diplomatic situations. They operate in small groups, each man an expert in his own field.
Formed in the early '60s, the Seals were first
used in Vietnam. They were instrumental in the roscue of American citizens in Grenada. In Panama they ousted Manuel Noriega by playing REO Speedwagon at deafening volume, proving beyond doubt that they're truly ruthless.

Navy Seals is licensed from the Orion Pictures movie. The film stars Charlie Sheen and Michael Biehn as members of the funky fighting force. Unfortunately the film flopped in the States, and so was never put on general release in this country. It's due out on video, though, so if you're desperate to see it (you'd have to be - by all accounts it's pretty dire) you should be able to hire it from your local video rental library in the next month or so.

Tough doesn't mean impossible, however, and after many, many attempts you'll make it off the first level. Of course you then have to face exactly the same problems that you've just overcame. There's not an awful lot of variety between the levels (Ocean gave us a cheat to enable us to see them all, but we're not telling you what it is
 Wonderful graphics and took tike wincr. alse Navy Seals look is excilent, but it's aiso is a Indeed, it is exitiou that time Frank o $o^{\prime}$ Connor far toe killer.: real kilier,"
ha!). Basically it's
the same old story
missiles, kill the terrorists, and get off the level as quickly as possible.

Despite this, though, there's a lot of challenge in the game. Sure, it's very frustrating, but


- Bounding from platform to platform is darn difficult. Despite being a teathal killing machine, only half-hearted leaps can be made.

- A shadowy figure swings across the city skyline. One of the range of movements that your intle chap can make.
there's still something compelling about it that keeps you coming back for more. The difficulty of completeing the levels mean you'll still be playing the game in a month's time, not chucking it into the cupboard after a week. Though you may die (many times) trying, the urge to complete the mission is irresistible. It's hard, but the Navy Seals are harder.


FIRST DAY TAREET SCORE


## NAVY SEALS Van 7 (6)

## GRAPHICS

Nice sprites with some truly 92\% superb quality animation.

## SONICS

81\% some excellent filo music.

## GRAB FACTOR

Vory frustrating at first, but
87\% something keeps you of it.

STA YING POWER...
Six extromoly tough lovels, but all pretly much the some.


You certainly won't be finishing Nevy Seals too quikkly, but it may be a little too tough.


OOK chaps, here we are at the enemy harbour. Our mission is to rescue the prisoner. Let's move!


- Wo must've taken a wrong turning somewhere. Oh well, knock out the comunications tower.

- The map was upsido down and wo've landed up in the enemy barracks. Oh well, kill them all.

- Here we are at last. About time too. Right, where's the prisoner? Kill all the baddlies to find out?

- C'mon, we haven't got all day: There's preclous seconds to got to the US hellicopter. Kili, kill, kill

- All In a day's work for the Navy Scals. It isn't over yet though, th's off to Beruit for more killing:


Persia in age of darkness: war and strife rage throughout the land. The Sultan has left, leading his ammy to a huge battle in foreign parts. His right hand man, the Grand Vizeer, has claimed the throne in his leader's absence. His tyranny knows no limits, and his cvil pervades the very fabric of Persian life. Who can save them from this terrible despot?

You can! A notorious adventurer and womaniser from a distant land, the Vizier regards you as the only obstacle between him and complete power. He has noticed how cool you were at the disco, and saw the way the local babes drooled as you walked past. Your prowess as a swordsman and all round good guy has not escaped his notice.

None of your incredible exploits would bave causod any trouble, but you had to go and uy if on with the Sultan's daughter. The Virier fancies her something rotten, and is /patous of your limitless charm. And so you find yourself locked in the palace dungeon. stripped of your sword, with only the bones of your companions to keep you company.

Jaffar the Vizier (and complete pervert), has used your incarceration in his own twisted plans. He has given the Princess an ultimatum, and only an hour to decide. Marry him; or both she and you (the cool adventurer) will die!

Understandably miffed at this plan, you decide to escape from the clink, rescue the gitl, and hey, why not bump off the Vizier while you're at it?

Prizoo of Persia opons up with a lovely juicy title screen, marred slightly by the rather dodgy title music. An entertaining intro shows the Vizier giving the Princess the ultimatum, and turning the hourglass (shades of Wizard of Oz). Press the Fire button, and it's off into the dungeon.

The game starts with you escaping from the stammet, your cell door slamming down behind you. You then have to guide your sprite through the danger-filled screens of level one.

Your sprite is a little blond dude, wearing


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- That fiendish, twisted, evil pervy the Grand Vizier has locked your main squeeze in the slammer. Whatcha gonna do about it, matey? Kill him, that's what. He deserves it, you know, cos if you let him off, he marries your girl and has you bumped off!
some really sexy baggy pantaloons. Move the joystick left or right, and you run in the chosen direction. Hold the fire button pressed and then choose a direction - the character will take careful, almost stealthy, steps. Soon you will come across an obstacle of some sort, and then you really get to see just what blondie is capable of.

- Uh oht The first screen on level four and all exits are locked. The raised tile at the right of the screen will lift the portcullis.

Walk to the base of a wall and push up on the joystick, and the little Prince of Persia wannabe will scale it in a very convincing fashion. Come to the edge of a dangerous looking drop, and a simple push down will cause Princie babes to hang precariousiy from the edge.

Leaping across chasms is just as simple, and


- The glowing figure is your own ghostt It's a tong story, but relax, he's mostly harmless, although he does steal valuable potions,



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Princle can be made to leap gaps with majestic grace. If, however, you miss the other side by a fraction, pressing the fire button quickly will cause our hero to grab the edge of the ledge. Push up and he will clamber quickly to satety. Phew What a rellet.

When the game starts, you have no sword, so you'll have to search the dungeon to find one. Once found, you have to do two things, find the exit, and beat the ovil henchman who guards it.

Sword fighting is a tricky process, and one that involves a lot of trial and error before you start to leam any kind of technique. You will have to learn though, otherwise bad guys are going to make your life a complete misery.

There are traps absolutely everywhere, including collapsing floors, falling gates, spikes and slamming spiky doors. Most can be spotted long before they actually do you any harm and there are ways of using these traps to your advantage.

Spikes can be avoided simply by walking carefully acress them, and this technique can be used to get closer to the edges of precipices.

There are secret rooms hidden everywhere,


- Sprinting through the omate towers of level four, the tile on the far right must be activated to open a locked door.

and jumping around can often be a fruitful experience. Otten. you will find potions which restore any energy lost in falls or sword lights, but care should be taken when drinking them - as some are potsoned.

The graphics in this game are vory, very good indeed. The way your character moves is the first thing to impress the player. He runs, leaps and climbs just like a real human being, even to the point of staggering when he is suddenly turned around. While there have been smoother animation routines on the Amstrad in the past, there has never been a more realistically motivated sprite.

The programmer apparently spent weeks studying videos of actual human movement, and this dedication has definitely paid off. The graphics look incredible in motion, and are enhanoed by atmospheric backgrounds. Torches flicker in the dank, cold passages and doors slide shut with a creepy clank.

The sound spolis things a little, the tunes are dire to say the least. Spot effects are lovely. though, especially during the sword fights

The game plays like a dream. What it boils


- Our baggy trousered hero faces a very nanty challenge indeed... how to time his run through these plunging blades.
down to is an addictive platform game par excellence, with a good bit of hacking and slashing thrown in for good measure.

First impressions could lead you to believe you were playing the ST version, things look so smooth and detated. The difficulty lovel has been pitched exactly right, with a little more progress being made each time you play.

In short, this is one of the best Amstrad games ever, and itill be along time before you come anywhere near rescuing the Princess. wow!


FIRST DAY TARGET SCORE
Find sword and escape dungeon

## PRINCE OF PERSIA VERDICT

## GRAPHICS <br> $\qquad$ 98\%

 you'll ever see - truly gobsmacking visuals.
## SONICS

Excellent spot tx spoiled by 73\% the extraordinarily duff music

## GRAB FACTOR....... Instant oddiction will drag you -

 into the game kicking ond screaming.STAYING POWER...
Difficult enough to keep you going for quite some lime.


Some of the best graphics and gameplay yet seen on the Amstrad!


- Rats! A plaikeminhlitil out of them. Could come in handy for one of Grandma's stews later. That wasp is threatening the left-hand player (ho ho!)
ave no mercy, show no fear, You face overwhelming odds, but you're the right man for the job. An experienced mercenary, a well trained killer, it's all in a day's work for you.

So what exactly are yon up against? Psychopathic gun-toting terrorists? Er , no. Drooling space fiends from Alpha Contaun? Nope, not quite. A multi-fanged demon from another dimension? Nearly, but that's not exactly right. What you're up against is far worse: croepy crawlies, vermin, and all manner of household pest.

These terrifying beasties have infested every single house in the street, turning a once sleepy cul-de-sac into a place of terror. As the man from Rentokill it's your job to clean them out and make the homes habitable again.


Qottim: The sticky mess on the floor is the remains of a sucessfully squished creature. Yuk?

the life from their tiny lungs, after which their delicate forms crumple to the floor. Squashing them fat is the way to deal with floor-crawlets. Bring your fist down sharply, smearing their frall little bodies across the floor into a film of slimy goo.
You can also zap the little critters, incinerating their flesh and turning them into molten lumps of charcoal as they flutter gently across the sereen.
Watch out for the wasps, though! These jaspers have a sting in their tail and hover annopingly aromd your hands. Swat them oway to get rid of thom. As well as the wasps, some of the other creatures have ways of hurting you too. Mosquitos will bite you given hall a chance. So it's best to grab 'em before they do. Floorbased beasties are just as bad. Frogs' toungues dart skyward, attempting to catch onto your hand. Toy tanks fire mina-


- Arrgghh! Watch out for the frogs - their tongues dart out and swallow your hand whole.

You Won't
Wearing red dungrrees and wellies and spraying pesticides, though. The creatures are killed with your bare hands. In fact that's all you see on screen an eene disembodied hand that floats around following your actions.

A number of methods can be employed to kill the creatures. You can grab the airboume ones in mid air, gently squeezing

ture explosive shelis at you. And when you get hit, stung or bitten, energy is lost from your juice count. Should it run dry then it's game over.
Every time you sucessfully squish an below it turns to your colour. Complete a row of these tiles and you move onto the next inferted room in the house.

There are a fair few actions to accomo-

date on the joystick, and a surprisingly good job has been done. Pressing Fire grabs, Fire and down stomps, waggling waves away wasps, and pressing Fire when at the edge of the screen zaps. This system is intuitve; it's picked up easily on the first play.

Crushing creatures is great fun on your own, but get a second player to join in the fun and it's even better. Here you can work as a team to kill off the advancing animals, or can play against one another by nicking each other's tiles

What an original gamel Exterminator may be an arcade licence, but it's from a machine that's way off the beaten track of ninjas and space fightofs Killing has newer boen sa much funt


FIRST DAY TARGET SCORE Completely clear the first house

## EXTERMINATOR VERDICT

старйcs..... 77\%
but vermin never looked so cute!
SONICS
Hounting sounditrock that $20 \%$ mokes the perfect accompaniment.

GRAB FACTOR
Grisly heme gives the





- That musele-bound bad guy certainly isn't shy. He's dangerous, too, with chainsaws strapped to his wrists...

- Chew on this, punk! Harigan lets 'em have it with a spray of kneecap-shattering machinegun fire.

- Don't shoot! Firing at the Predator only makes him angry. You should be aiming for the guy in the natty pink trousers instead.

 very bad day It's 1997, and just about the hotest summer Los Angeles had ever seen. The place stank, the pollution in the city making things unbearable.

Being a cop in Los Angeles was no easy matter, and for Mike Harrigan things were about to get a tittle more difficult. Two rival gangs were murdering each other on the streets. Young men dying for a few kilos of crack, or whatever the hell they were dealing these days.

Things were getting very heavy indeed. Harrigan remembered when all they had were sem-automatics and flashy Uzis. Now these punks had real hardware. Real heayy artillery.

Corpses had started turning up at the morgue. Not unusual for '90s Los Angeles, but it was the way they'd boen killed. Real bad. Harrigan had never seen anything like it Stinned alive, their spinal columns tom ciean out through their backs, braine gone. It had to be gang related... or did it...?

Predater 2 is the game based on the imag inatively-tited sequel to the original Predator movie. The Predators are, in a nutshell, intergalactic hooray-Henrys. They hunt for sport, choosing only the worthiest opponents. The game itself turns out to be a little less oniginal. Following with a kind of uncanny closeness the lines of top coin-op Operation


- By God it's the Weather Girfst It's raining lead rather than men, though, and you're given the boot if you waste too many civillians.

at very regular points as the screen wire-frame Harrigan in the centre.

Harrigan's mission is to shoot absolutely every criminal in the city. As in Operation Wolf, the bad guys run on screen and start making thinge difficult. Most baddies are armod with very uasty machine guns, although some come a bit closer and try to butcher you with wristmounted chainsaws.

The baddies are sometimes very tricky little fellows, crouching down just as you are about to take aim. Others hide in doorways and cannot be shot. Firing at those critters merely causes them to take cover.

Harrigan is initially equipped with a rather weedy pistol, with which he must knock off any gang members that happen to stroll into his tine of sight. Moving a cursor over the object you wish to blast aims the weapon. Bigger, bettet weapons appear at intervals, and must be shot to pick them up.

Ammo is limited, but more can be picked up scrolls. Don't shoot the good guys. These are for the most part portly Latino girls who stand directly in your line of fire looking scared.

Every now and then, a semi-invisible Predator shows up. If you shoot him he'll take umbrage and unleash a volley of really pokey alien death web.

Don't be tempted to shoot him quite yet, though, as avoiding a fight with him now leaves you with a better chance in the final showdown.


- Should a bultet accidently stray the Predator way then he fires webs of death at you. Shoot them down to stop them getting you.

The decent sprites and backgrounds are let down by poor scrolling and sad animation, but It's easy to see what's going on most of the time. Sometimes, though, it can be difficult to distinguish the crosshair from the background The title music is nice ' $n$ ' scary, and the apot effects are juicy enough

The main problem with the game is the complete lack of variety. The lovels all follow the same basic principle. The baddies don't change in behaviour, and the extra weapons are all very similar.

Overall, a reasonable OpWolf style shoot-em-up, but oompletely lacking in whap nality and variety, Don't believe the hype.


FIRST DAY TARGET SCORE
Reach the end of the first level

## PREDATOR 2 VERDICT

## GRAPHICS

$\qquad$ 76\% Nice, colourful and wel defined but poorly onimoted with duff scrolling.

## SONICS

$\qquad$ 80\% Good inte music and beely
sound effects help the oction along.

## GRAB FACTOR

$\qquad$ 81\% lots of bod guys to kill and d

## STAYING POWER.

.but nothing much changes

69\% as you improve. The loter levels ore too 'somey'.


An unimaginative ond uneriginal game, but woll polished and quite good fun.


- The sprites from legoland are on the march! Pick up any stray cash or drugs as evidence and maim any passers-by.



## OCEAN 띠피 cass, £15.99 disk

ast year, the arcade world was taken by storm. Coin-op manufacturer Williams, a company famous for its early classics like Defender, Joust and Stargate, released a brand new machine.

Nare featured incredible graphics, sampled soundtrack and more blood and guts than any coin-op. The worthy anti-drug sentiments of late, had been taken to the extreme in this coin-op.

You take the role of a law enforcement officer bent on bringing drug trafficking to a standstill. How does this officer set about the task? Does he liaise with the looal youth? Does be lobby members of local gov ermment? Does he hold a syousured walk? Nu. He shoots everybody.

Armed to the teeth with machine gun and rocket launcher, ha haads into the streets and starts killing people. His target, thouph, is one person in particular - the head of the "Mr. Big Corporation", headed by the insidious and evil Mr. Big.

Mr . Big has made a whole pile of cash from human misery and despair, the devil, and if you want to bring him to justice, you have to make your way through ten levels of horizontally. scrolling action before the final confrontation with his royal fatness.


- Oh not Inside Mr. Big's Iab and you finally meet your maker. Who can stop the rampaging drug dealers now?

- Inside the Krak lab and the drug flends start firing hypodermic needles. Destroy the equipment and make your escape.


Your fully tooled-up copper can loose off bursts of machine gun fire, or do serious damage with a rocket launcher. He can jump or crouch to avoid enemy fire, and if he happens to find one, he can drive around in a very well armed Porsche.

The enemy present themselves in various guises. They all have one thing in common, how evor - they are all spaced out on mind-bending drugs. Watch out especially for the crazed PCP addicts. The PCP they have consumed has given
the crazy suckers several timoc before they drop.

Rabid duys attack at various intervals, to0. chewing your vital bits and pieces They cail be tricky to shake off (ouch). and their owners attack while the dogs have you occupied.

Evidence in the form of cash and drugs can be picked up along the way for extra points. Extra ammo and rockets can also be found littering the streats.

The enemy have some fairly pokey weaponry, including a helicopter gunship and


- This guy is trouble. A crazed PCP addict, he takes several shots to kill. The darned loony Just won't die.


LTCME5 DAE LRE तige
R日品
808

- The briefing before the action starts reveals mission details and the suspects you have to arrest. Qet going!
things can get very tough In single-player mode, some sections are dang near impossible, but a second player can join in at any time.

The game uses a joystick to control player one, and keyboard for player two. However, both need to access the keyboard to jump of crouch. and this makes things very difficult.

The graphics are at times ill defined and confusing, although the intro screens are spectacular. The sound and music are nice, but the overall effect is not good. Bullets are often invisible against the garish backgrounds, and some of the sprites are really not far short of diabolical.

Almost all of the features of the original have been included in this version, but the game only really comes into its own in twoplayer mode. Narc is a nice attempt at converting a briliant coin-op, but nothing special.

## tumk



## FIRST DAY TARGET SCORE

## Drlve the Porsche

## NARC VERDICT

## GRAPHICS

$\qquad$
too confusing - wotch out for the chunky spritest

## SONICS

$\qquad$ 80\% bocked up by some meoty tunes.

GRAB FACTOR

- 60\% lime to gain your atfention.

STAYING POWER...
Ten levels, bu all very similor and very boring.

## Rance $60 \%$

A below average conversion of an impressive looking but mediocre coln-op.


- BTTF3's graphics are colourful, but a bit blocky. The drawing and animation of the horse on Level One, however, is excellent.



## IMAGEWORKS 目 £10.99 cuss, £14.99 disk

This is complicated. What's happened is this: intrepid temporal explorers Marty and Doc have successfully gone back to 1955 to stop the unscrupulous Biff from fiddling the future, but on the way back the magic DeLorean is nit by light ning. Marty gets stranded in 1955, the Doc disappears and then turns up in 1855 and becomes a blacksmith. So Marty goes back to rescue him and they both find he (Doc) has been killed, or will have been killed in a few days' time. actually, it helps if you've seen the film (if anything will help).

BTTF3 is split into four sections. In Level Ono, Clara the schoolteacher is on a runaway buckboard heading towards a precipice and you, playing the part of Doc, must charge after her on horseback. Catch up with her before she plunges to her doom, and everything's hunky. dory. Fall off yer hoss, or, horse, too many times, though, and you wont make it and Clara's six feet under. bar hat.

Level One comes in four sections. First of all you get a horizontally-scrolling seen-from-the-side section where Doc is galloping across the desert to save the softie schoolteacher. In his way, though, are large rocks and trunks that have fallen from the buckboard. You have to make Doc's horse Jump just at the right moment If you're not to go sliding across the desert on your hooter. Other hazards include flying crea
tures, arrows and smaller rocks. You can shoot these if you're quick enough, or duck. Get through this first stage and you enter a viewed-from-above section where you race through a canyon dodging bullets and arrows as the cavally and the injuns fight it out. Get

## SECOND OPINION

 "Alrorsolt has done a far howl the game's prederotere il f thew with mig ny loved, predecessor Varied and folly good fun." Atom war in through that and it's into another side-on gallop. The final secton is viewed from above again. You're galloping through Hill Valley, just as the cavalry are taking on bad-guy Buford and his gang.Level Two is very different. You're not sawing schoolteachers any more, but shooting ducks and cardboard cutouts in a shooting gallery, You control Marty's trigger finger and a set of onscreen crosshairs, trying to blast everything in sight as soon as it appears.

Level Three has you pie-throwing instead of duck-shooting. Buford's gang pop their heads out of doorways and windows in the main street, and it's up to you to flatten them with well-lobbed pie-cases. Hit a baddie three times and he's down for good. Mind you, all the time you're trying to down those crusty baddies with the pies, they're shooting real bullets at you! Get through the ple-throwing and you've made it to Level Four. Here you have to run along a steaming train, trying to pick up 'speed logs' left behind by the Doc. Each one increases the train's speed - vital, because being pushed along right at the front is the


- Graphics vary from good to grotty. This seen-from-above section is the worst.
trusty DeLorean, which you have to get up to 88 mph so that you can make your escape...

The graphics are a world away from the ghastly mono Speccy-ports of BTTF2, thank goodness. They're all done in mode 0 , and they're a bit blocky, but there's plenty of colour and the horse on Level One, for example, is really well-drawn and animated. It's a pity, then, that the same horse seen from above in the other sections looks like a tap-dancing log, but there we are... Sound is good too. There's not too much by way of in-game effects, but the tunes are really excellent.

BTTF3 is much, much better than its predecessor. The gameplay in each section is not exactly taxing, but the four levels go together to make a pleasing whole. It's tricky enough, to 0, to keep you going for quite a while... unless you're loading from tape. In which case, it'II drive you spare! Yup, the game's a multiload tape users will end up tearing their hair out.

Most moviegoers reckoned Back to the Future 2 was a pile of old hoo-hah, while BTTF3 was really good. The same applies to Mirrorsoft's licences. BTTF3 is no classic, but it's well put together, enjoyable and chatlonging.

## Rod

FIRST DAY TARGET SCORE

## Complete Level One

## BACK TO THE FUTURE III VERDICT

## GRAPHICS

$\qquad$ 75\% Very blocky, but
nicely animated.

## SONICS.

88\%
No prizes for ingome fe, but 8 great tones.

## GRAB FACTOR. <br> Odd game style at first, and 73\%

 disappointing overhead sections.
keep you going - but not on tape!


It's fun, varied and quite playable. No classic, but a nice little licence.


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## HOW TO GET YOUR ORDER FAST:

## DOMARK



- On the easy levelthings are quite slow and sedate. However, don't get too cocky too early, things have a frightening tendency to speed up rapidly.

At last, Atari's sexy puzzling coinop finally makes it onto the console fand the Plus range for that matter). The original arcade machine was one of a plethora of Tetris rip-offs Actually, "rip-off" may be a little harsh, as Klax is a very good game in it's own right. The ques tion is, how good is the GX4000 version?

The game involves stacking tiles at the bottom of a screen as they fall towards you. Sound familiar? The parallels between Klax and Teuls are easy to spot, but the differences are just as important. Instead of assembling shapes, ats you do in Tetris, you must stack rows of corresponding colours
The colcurs must be piled either vertically, horizontally, or diagonally, and a row of at least three tiles of the same colour is a "Klax" Making a complete Klax makes those tiles vanish, giving you more room in the limited stacking box. Although it is often easy to make such a stack, the computer has ways of making things difficult.


- A klax is a line, diagonally, horizontally, or verically, of three or more tiles of the same colour. Diagonals are hardest, but score most.

At the start of each screen, a set target will be given, it could be as simple as three Klaxs (Klax's? Klaxi? Klaxies?), but it could be something a lot more difficult, tike five diagonals, or ten Klaxs, Often the computer will give you a large target score to beat before it will allow you to see the next Jevel.

The tiles are grabbed as thoy fall, by the small paddle you control. You then move the the paddle to the column you wish

## 

 ing has boen clome to in ifrelt, noth. of the consolo's sperint fo advantage roel ply. If could have features. 4 game great could hove mache is goodAdam Waring to place your captured tile in. Ptess the Fire butwon, and the tile drops into place. Your paddle can hold up to five tiles at once. although dropping them in the right places in the right sequence is another matter. If things start getting on top of you, you can flip the topmost tile back onto the track, giving you either breathing space, or strategic placement.

Great fun can be had by trying to get huge bonuses, by getting large Klaxs, or by making difficult shapes, like the near impossible ${ }^{*} \mathrm{X}$.


- As you progress through the game, the baekground graphics change, as does the speed and number of tiles... aarght

Secret warps to higher levels are available, but things get very difficult, very quickly.

The graphical quality in Klax is of a very decent standard. The tiles tumble convincingly enough, and there are some pretty backgrounds to keep you amused. The colours, very important in this game, work exceptionally well, bat can be a little confusing when a lot is happening at once.

The sound is limited to the bangs and clanks of the tiles, but special mention should be given to the Klax anthem. It stinks. It's not big, and it's not clever, and nobody thinks that the person who came up with this mind numbingly irritating tune is hard or cool. Let's go round to his house and smash all his windows (it really is that bad).

The gamoplay is fun, sometimes great fun, but is marred by the exaggerated inertia imposed on your paddlo, a feature which was not so heavily emphasised in the arcade original. Klax has the kind of long lasting appeal that'll make you want to come back for more. time and time again. A worthy contender to the Tetris throne, but it does have its problems.

One of which is the price. We reviewed Klax on the ordinary CPCs a while back, and looked forward with glee to the console version. All excited we were, squirming in our seats, Uncle Rod had to vell us to sit still and behave. Finnlly it arrived, and believe it or don't, they are both absolutely identical Not one noticeable difference. No change in speed, colour or sound. So can you fustify spending ten, maybe fifteen quid more for the priviledge of instant loading?


FIRST DAY TARGET SCORE
Get to lovel ton, or make an "X"

## KL X 

## GRAPHICS ............ Alractive and functional, with

just a hint of syle.

## SONICS.

Excellent spot $f x$ spoiled

## STAYING POWER... 84\%

 especially with the bonus options.

Just the same as the tape version. It's a great game, but poor value


Remember Tintin? That loveable littie rascal with the stupid dog and the ndiculous quiff? A few minutes of cartoon preceded by a ten minute explanation of what happened in the previous episodes? The diabolical game we reviewed on the CPC quite some time ago?

Infogrames' rather odd licence finally makes it onto carridge, but will instant loading and enhanced hardware features make any difference?

Tintin is a pretty unlucky little chap. While most boys his age are playing footie or snogging girlfriends. Tintin is getting into scrapes with vicious criminals. This time things are even worse than usual. Tintin is about to be launched into space on a penilous mission to the moon.

The evil Colonel Boris has planted bombs on Tintin's rocket, and taken several people prisoner. Your job, as Tintin, is to rescue all of these prisoners, and to defuse the bombs.

The game starts with you fying a tocket into the screen and into deep space. The object of this section is to avoid the asteroids and pick up the energy restoring crystals. You must collect eight red spheres to continue to the next stage.

Once all eight red spheres have been picked up. Tintin suddenly finds himself out of the drivers seat and in the midst of the action. Guide Tintin through a platorm-filled screen, defusing bombs and rescuing prisoners. Instoad of jumping, Tintin has the ability to tum off the ship's artificial gravity, allowing him to float to otherwise inaccessible platforms.

On his way around the many screens that make up the rocket, Tintin


- Tintin lies injured on the floor, below him, the nasty bad guy floats in zero G .

- Tintin accidentally (honest) unleashes a volley of fire extinguisher foam on the hapless and helpless professor.
will have to put out a number of fires, but first he has to find the extinguisher. This extinguisher can also be used as a weapon against the baddies roaming the rocket.

To complete this lovel Tintin has to put out all of the fires, rescue all of the prisoners, and capture the castardly Colonel Boris. Boris is a tricky guy to recognise, never mind capture. When you do spot the shifty looking sucker, you have to sneak up behind him and jump him. Tintin obviously has no sense of honour or fair play. Still, Boris is a nasty crim and he deserves whatever he gets.

The final section is the moon landing. In this bit, you have to regulate the speed of the rocket's engine, and ensure a safe and smooth landing. If this section is handled well enough, you should plop down on the moon's surface quite nicely. All of your remaining energy at this point will be converted into score. Now you can do it all over again...

The main problem with Tintin, and you might think this a minor niggle, is that it is DUFFI


- Tintin is dead! That big nasty man with the gun has wasted our curiously quiffed hero. Even Snowy d̈an't save him now.

- Uh oh, Tintin has forgotten to pay his gravity bill. As a result the Gravity Board have cut him off and zero-G chaos ensues!

The game has very few saving graces, in fact its only good point is a nice intro sequence, which is well drawn and nicely animated fand oompletely misleading)

The gameplay is mind-numbingly tedious, the first section being a bore of truly historical significance. In fact, the first section is simple to the point of stupidity, and serves only to delay the start of the actual game. Once reached, the limitations of the platform section soon become evident.

The whole rocket section seems pointless and dull, and it is very easy to complete.

The presentation graphics are lovely, and so it is a disappointment to discover the actual game screens. The graphics on all levels are chunky, garish and very confusing.

The price point of 25 quid is outrageous, especially for a game which shows no noticeable improvement over its tape-based predecessor. This program should be avoided at all costs.


## FIRST DAY TARGET SCORE

Completo the game!

## TINTIN ON THE MOON VERDICT

## GRAPHICS

$\qquad$ 61\%
When they aren't bland,
61\%
they're garish. Very poor for the most port.
SONICS
SONICS................. 75\% linle to improve, er, atmosphere.
GRAB FACTOR...... $53 \%$
Uimiod interou initioly. marred by pointess and frustrating first section.

## STAYING POWER... 0 \%

death for any gome, especially this one.


If Tintin isn't your number one idol, then don't cross the street to buy this one.

## AOTION TEST



## DICK TRACY TITUS $£ 29.99$ ca <br> \section*{shots at him high up from win}

There's trouble brewing downtown as well as the bourbon. Lips Manlis, owner of the Ritz nightclub, has gone missing in very pecullar circumstances. Now Dick Tracy ain't gonna shed no toars for Lips, after all he's as big a hood as thoy come. But if he doesn't make an appearance scon, all the other gangster will be fighting over his territory - and that spells trouble. What's more, Dick's name has been inscribed in bullet holes on the wall. Looks like it could be something personal...

So Dick sets out, hot on the trail of the missing mobster. Fitst place to visit would logically be the Ritz, the last place that Lips was seen alive. However, someone wants to keep exactly what happened a secret, and Dick's journey isn't going to be an easy one.


- Eat lead scum! Dick can use his fists, his pistol or his machine gun to mow down the hoodfums. Carefut though - some fire back!

The gangsters are out in force, and they ain't scared. The good news is that Dick is amed with a machine gun and revolver. The bad news is that he neglected to bring any bullet5 with him... shmuck!

The baddies are either unarmed, carry pistols or machine guns. Knock out an ammed baddie and you can nick hils ammunition. This is how Dick replenishes his supply. As well as the guys he'll meet on street level, others take pot
 lay Jaws tham anything eise. For a stait, tho systom to switch Dick's weapon is clumsy. Down and Fire Two need to be pressed simultaneously to change. The problem is that in the beat of battle it's difficult to do without coming to a sticky end.

Shooting other gun-wielding guys you come across on the sidewalk doesn't usually present a problem; just duck down as soon as you see them and shoot them. The people that lean out


- That chap in the window isn't going to let you pass easily. Come within a few feet and you'll be under a barrage of dynamite.
of windows and from the top of buildings presents a rather more formidable problem. They fire at you constantly. To shoot them you have to be at an angle of around 45 dogrees. It's inevitable that you get shot ot least once in your efforts to pump 'em full of lead.

Revisit the same area after the screen's scrolled and all the baddies that you've already killed reappear in the same place. Now there's no reason to retrace your steps, but should a cunning traps or woll designod stages. It has far

> more to do with game
dows and on top of buildings.
Dick is dressed in the brightly coloured garb that's made him famous. The whole game, in fact, is bright and colourful. The animation's a Little bit dodgy, though, with Dick waddling. rather than walking his way through the game.

Dick Tracy is a tough game. Not because of
 is mediocre and fails to live up to the hype.


## FIRST DAY TARGET SCORE

## Get to the Ritz

## DICK TRACY VERDC

## GRAPHICS

Nice ond colouful grophics 76\% let down by poor onimation.

## SONICS

Little to choose between the 70\% sound FX or rather grim music.

## GRAB FACTOR <br> Initiol impressions ore goed

DT is recognisoble and easy to control

## STAYING POWER

Pooly thought out game
47\%
design mokes for a frustroting time.


Dick Tracy doesa't play well and isn't going to keep you coming back for more.

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# Cheat Mode 

## Another truck load of games are busted open by top cheat Uncle Phil




#### Abstract

re you stuck on your favourite game? Could you use some help? This is the place! Every month, AA's champion of cheating, Phil Howard, assembles all


 the best hints, tips, pokes, maps and solutions sent in by our readers.Passwords, keypress cheats and maps speak for themselves, but for determined cheaters is also the arcane art of poking...

- Pokes - these are short programs which alter the game as it's loaded. They are developed by hacking specialists to alter such things as the number of lives you have, amount of energy etc.
- Multiface pokes - these work with Romantic Robot's little black box (Multiface). This gadget lets you do clever things which include 'poking' around in a program to change the number of lives etc. It's similar to ordinary pokes, but much, much easier.


Here it is, it had to comel
The complete cheat for arguably the most popular CPC compilation of all time, Codemasters Dizzy Collection. compled by the Street cheat Graham Smith You got infinite evething-you-could-possibly-thinkof to guide Dizzy effortlessly through each of his adventures to date. It's a cracker.

〈KjBj\} 1, D, Diz2y-Collection. By, Grahan-Snith. (Njow) 2, Also-for-original-ganes, except (ExAs) 3.+ (perhaps) Dirzy-4.
(L, jisv) 4,',Dizzy, -Dizzy-3, Dizzy-4-and
(ErAk) $5+1$, Fast-Food $\rightarrow$ infinite-lives.

(JuAv) ?,' flanes, cases-and-sea-createres
(KN1A6t) 8.7 -Save-to-tape, -not-dise.
(Giaj) g,
(BqBj) $18 \cdot$ DATA $-11,60,01,43, \mathrm{~cd}, 72, \mathrm{be}, \mathrm{dS}, \mathrm{eb}, \mathrm{cd}$
 (I×B1) 30 .DATA - $4 e, f e, \lambda f, 28,25,01,17,90,11,85$ (D1Ba) $40 \cdot D A T A \cdot 8 \alpha, 21,27$, be, ed, $00,03,91,8 a, 21$ (EnBi) $50 \cdot D A T A-00, c 3,22,4 b, 3 e, 11,00,40,03,71$ (DLB.j) 68-DATA-be, $21,13,86,36,03,23,36,85,23$ (InB1) $70 \cdot$ DATA $-36,82,21,47$, be, $22,00, a f, 03,80$ ( $B \times B j$ ] $80 \cdot$ DATA-al $, 21,8 a, 8 \mathrm{~s}, 7 \mathrm{e}, \mathrm{fe}, 20,3 \mathrm{e}, 18,28$ (EiBn) 90 -DATA $-86,72,32,92,8 \mathrm{a}, 18,06,32,1 \mathrm{c}, 8 \mathrm{~b}$ (P33) $100 \cdot$ DATA $32,34,8 a, 32,2 e, 01, c 3,40,00,2 \mathrm{a}$ (LUB3) 110.DATA-33, BA,22, 3e,be, 21,37, h4, 36, c3 (XIB1) 120 -DATA- $23,36,7 e, 23,36,7 \mathrm{ce}, 11,00$, bb, 21 (OrBi) $139 \cdot D A T A-40,69, e^{3}, c 3,4 a, 3 a, 21,0 c, 57,7 e$ $($ Snsij) $148 \cdot$ DATA - et, $34,20,03,77,18,14,21,63, a 0$
 (Orkא) 160 :DATA-3a, $35,3 \mathrm{e}, \mathrm{c9}, 32,18,95$, cf
(Inse) 170.FOR. J=48640.10-48797:READ - a
 (LpAx) 198-If $y=15354 \cdot$ THEH-CALL 48640
(Btha) 288.PRINT"data'error

## Garfield's Big Faf Hairy Deal

Not to be left behind in the flood of cheats, Milfords Garret Flynn deals Garfield, the newspaper hero and feline bon viveur, a sound poke in a serious attempt to stop him falling asleep on the jobj
(KKAv) 1, 'GARYIELD'S-BIG-FAT-BAIRY-DEAL
(0oAr) 2-'By-GARRET-FLYWN-1.1.91
(L.3Bj) 3-'(TAPE)-STOPS-RIK-FALLING-ASLEEP

## Multiface pokes for Dixzy Collection: Address Poke Effeet

Dizzy
$9518 \quad$ C9
953 A $00 \mid$
Treasure Island Dizzy

| OPE | 181 | Immunity from |
| :--- | :--- | :--- |
| OBOA | 181 | just about |

Fanfasy world Dizzy
A063 00

## Magicland Dizzy

3E4B 00|
Inf. lives
3E4C C3)

## Fast Food

670C 00 Inf. lives

(P.jeu) $10 \cdot$ DATA. $21,(4,21,11,44,01$ (Equat) $29 \cdot$ DAIA $\cdot 01,00,03$, ed $, b 0,21$ (CUAG\} $39 \cdot$ DAIA $\cdot 94$, be, $22,5 f, 82, \mathrm{c} 3$ (LuAht) 40 - DATA • f $4,01,3 \mathrm{e}, \mathrm{c} 9,32$, ac (Fmir) $50 \cdot \mathrm{DATA} \cdot 1 \mathrm{e}, \mathrm{c} 3, f 0,0 \mathrm{a}$ (FUAS) 69 - N2YORY, $\alpha 1$ FFF: WODE-1 (EnAr) 79-FOR-addr= $=8 B E 80 \cdot 10 \cdot$ ABE9B (CtBj) $89 \cdot$ READ • hyte $\}:$ POKE - addr, VAL〈GuAn) 90 -NEXT addr
(MrAr) $100 \cdot$ WAD" garfield ${ }^{n}$, a2L1F4 (E.jAp) $110 \cdot$ CALL - ABE 58

Multiface poke for Garfield Address 1EAC Poke C9


## Strider II

The tape version of Strider II，the continuing story of a multicoloured acrobat who always manages to be pushing up dasies before he gets to the end of level one（or is that just me？） Stephen Troup from Kings Lynn，（home of the African Violet）has dealt it a deadly blow with infinite lots of stuff．Leave out the lines you don＇t want．
（CkAu） $10 \cdot \mathrm{KEK} \cdot$ Strider $\cdot$ II $\cdot$（IAPE）
（Iia1） $28 \cdot$ REA ．．．．． by
（Pokr） 38 －KDK－Stephen－Iroup
（0．jal） $48 \cdot \operatorname{WDDE} \cdot 1$
（Xtal） $58 \cdot \mathrm{a}=18 \mathrm{E} 88$


（P险1） $88-2=a+1$
（Tva1） $50 \cdot 6070 \cdot 68$
（OwAv）100－DATA．B6，00，11，70，01，CD，77
 （BqAX） $120 \cdot$ PATA－01， $08,45,21,94,01,11$ （OKSA母） 130 －DATA－88， 04,79, AE， $77,23,1 \mathrm{~B}$
（CtAx） 149 －DATA $-70, B 3,28, F 7,21,69, B E$
（CvAS） $158 \cdot \mathrm{MATA} \cdot 22,43,02, \mathrm{C3}, 55,01$
（Ovin） 150 －754－Fokes．
（FvAv）170－19TA－3E，C9，32，02，01
（FnAv） $150 \cdot R E M$－Infinite－Robot－Enersy
（IXAS）199－DATA－3E，C9，32，F8， 01
（0sat） $209 \cdot$ RDr－Infinite－Hunan－Inergs
（Bkat）218－DATA－3E，A7，32， 26,12
（AtAs） $228 \cdot$ RDD－Infinite－IInt
（FnAs） $238 \cdot D A T A \cdot A F, 32,72,81$
〈G1Ar） $250 \cdot \mathrm{FDN}-\operatorname{Inf}$ inite－Lives
（CrAq）250－DATA．C3，40，00，5T
（JuAs）258－RDH－Leave－Last－Line．


## Operation Hanoi

said it was his favounte game at the moment）， and just to see fair play has provided you with invulnerability

Over to the Far East now（getting to be a bit of a geography lesson！）for Operation Hanof． Nothing wrong with global conflict（so long as its somewhere else）．Graham Smith，Street＇s answer to General Schwartzkopf，picks up sand on the liberated beaches of Hanol（on sea）．
（BaAs）1－＇Operation－Basoi－（tape）
（HiAn）2－＇ 3 By－Grahan－Snith
（xtas） $3 \cdot$ ．Infinite 3 ano－elips，
（Pjar）4．＇－greades－d•lives
（TEAj）5．＂
（CaAt） $18 \cdot$ Dath $f 3,2 \mathrm{a}, 03,60,22,1 \mathrm{~h}$
（OAnAv） 20 －DATA－be，21，0e，be，22， 89
（CwAu） $30 \cdot \mathrm{DATA} \cdot 00, \mathrm{c9}, \mathrm{f5}, \mathrm{af}, 32,0 \mathrm{e}$
（0vAt） $48 \cdot \mathrm{DaIA} \cdot 8 \mathrm{f}, 32, \mathrm{b3}, 8 \mathrm{a}, 32, \mathrm{cf}$
（ 0 mAn ） $58 \cdot \mathrm{DATA} \cdot 82, f 1, \mathrm{C} 3$

（ArAt） $7 a \cdot x=V A L\left({ }^{\prime \prime} h^{*}+a t\right): y=y+x$
（OWAL） 80 －POKE $-j+4 B 640, x:$ NDXI $-j$
（Exar） $30 \cdot \mathrm{IF} \cdot \mathrm{yc}$ ） $2851 \cdot 6010 \cdot 110$
（CtAr）100－CALL－48540：RNW＊
（Kuky）118－PRDNT＂data－error

## Multiface pokes for Operation Hanoi tape：

## Address Poke Effect

8AB3 00
8ACF 00
SFOE 00
（GqAP） $1 \cdot 1 \cdot 71 \cdot$ Tornado
（CuAR）2，＇ by－ANDY，PRICE
（Cafq） $3 \cdot \cdots \cdot$ invulnerability
（Ftinj）4．＇
（A $\circ$ At） $10 \cdot$ DATA－ $3 \mathrm{e}, \mathrm{e} 3,32, \mathrm{c} 2,7 \mathrm{e}$
（F1As） 20 －DATA－ $21,0 e, 60,22$, e3
（CXAD） 30 － $\mathrm{PaTh} \cdot 7 \mathrm{e}, \mathrm{c3}, 50,7 \mathrm{e}, 21$
（Jjas）40－DATA－d2，74，22，d7，7e
（P1Ar） $50-\mathrm{DATA} \cdot 21,25,50,11,42$
（Inat） 60 －DATA． $7 \mathrm{f}, 01,08,09, \mathrm{ed}$

（XpAe） $89 \cdot D A 1 A \cdot c 3, c 6,7 e, a f, 32$
（ZoAs）$\$ 0 \cdot \mathrm{DATA} \cdot \$ \mathrm{~b}, 79, \mathrm{c3}, \mathrm{Da}, \mathrm{D7}$
（Pp角） $100 \cdot \mathrm{FOR} \cdot x=16800 \cdot$ T0 -26920
（GvAu） $118 \cdot$ RITAD $-25: a=$ WaL（＂d＂+35 ）
（DkAu） 128 －POKE $\cdot x, a: y=y+a: N E X I$
（ $\mathrm{L}, \mathrm{jat}$ ） $130 \cdot \mathrm{IF} \cdot \mathrm{y}(\mathrm{y}) 127 \mathrm{~B} \cdot \mathrm{THEN} \cdot 160$

（Shan） 150 （CALL -16900
（Dtat） 160 －FRINT＊EZrror－in－cheat＊
Multiface poke for F1 Tornado：
Address 977B Poke 00

## Operation Hormuz

Topical little poke here from Graham for Operation Hormuz（it＇s in the Gulf－come on， keep upl＇The war in the Gulf may be over，but war on the CPC is never ending，and infinite Harriers certainly wouldn＇t be a bad idea this time around．
（PoAq）1．․Operation－Hernuz （CBAn）2，＇（tape）
－

## F 1 Tornado

Continuing the theme of war in the air comes a poke from Andy Price down（up？）in Dunstable． He quite likes F1 Tomado apparently（I think he

If it＇s worrying you that the pokes in Cheat Mode just look like a jumble of signs，squiggles and numbers to you，fear not，that＇s just what they arel Programs， written by specialists to take the control of loading function，alter， and then start the game．What you will need to do，should you want to use one，is：

1）Make sure the routine is written for your format－disk or tape－ they will not generally work with both．

2）Type it in to the computer， making sure there are no errors：
－Typing in routines is always prone to errors，so there are a couple of things which are designed to holp．

The first are the funny numbers within the＂$\left\}^{\text {＂}}\right.$ brackets on the left． They are NOT to be typed in but are a code produced by the TYPE： WRITER program printed in the Type－Ins section this issue，It checks each line as it is typed in and produces a code which can be compared with that printed．

Secondly，all SPACES in the lines have been replaced by dots （which cannot be occessed from the keyboard，by the way），the idea being that it makes them easier to see．Got a DOT？Replace with a SPACE！

Quite often the routine itself will have a built in check on the DATA numbers and will advise you if one of them is typed in wrongly，User： friendly or what？

3）Save the program to tape or disk （not the game tape or disk）so that it can be used again．

4）Put in the game tope or disk and type ITAPE or IDISC．

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

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

（HuAG）3．1，By－Grahan－Snith
〈HnAu〉 4．＇，Infinite－Harriers
（Feaj） 5 ．
（OvAr） 10 －DAIA $\{3,2 a, 04$, D9， $22,1 b$
（EwAu）29－DATA• he，21，13，be，22，04
（OnAu） $30 \cdot$ DAIA $\cdot \mathrm{b9}, 3 \mathrm{e}, 31, \mathrm{da}, 0 \mathrm{e}, \mathrm{bc}$
（DuAv） 49 －DAIA－c9，af，32，69， $2 f, 32$
（ 61 An） $58 \cdot$ DATA $-8 \mathrm{e}, 5 \mathrm{Sb}, \mathrm{c} 3$
（CnAr）60．FOR． $\mathrm{j}=0 \cdot \mathrm{TO} \cdot 26: \mathrm{READ} \cdot \mathrm{af}$

（KuAl） 80 －POKE－j148640，x：NEXI－ j
（Nstar） $90 \cdot \mathrm{IF} \cdot \mathrm{yO}$ ）2604－6070－110
（CtAr） 103 －CALL 48640 ：RaN
（fiuAq）110－PRINT＂data－error
Multiface pokes for Operation Hormux tape：

| Address Poke | Effect |
| :--- | :--- | :--- |
| Ad  Infinite Hamiers <br> 540 E $00 \mid$  |  |

## The Great Oliver Cheats

Due to the sudden te－release of lots of the Oliver Twins＇games in the guise of the Codemasters Quattro compilations，requests from people folled by Philip and Andrew＇s cunning built－in cheats（which incidentally were never meant for us），and a bit of prompting from Carl Surry，here is our complation of the great Oliver cheats． （Any mention of padding with old stuff，and heads will rolll）

## Killapede

At any time press DEL to pause the game，then press A，6，P（Andrew \＆Philip－geddit？） together for extra lives．CLR to restart．

## Super Robin Mood

At any point during the game press the keys A， $6, P$ together and you will get called a chent． Before the sign disappears press（and keep pressed） E for extra energy， K to start the lifts， or H to collect Hearts．The border changes colour so you knose you＇ve cheated

## Ghosthunfers

At any time during the game press DEL to pause，a sign saying＇pause mode active＇will pop up．Type C，O，M，P，L，E，X and the pause sign will disappear，then pressing different keys on the keyboard will move location．Pressing Space will resume play and top up your energy．

## Advanced Pinball Simulator

Press $P$ to pause the game then type H，E，N，L，E，Y．The game will automatically restart on the final letter，you can then manipulate the ball with the keys X，C and J．

## Fantasy World Dizzy

Press down the keys D，Y，L，A，N and SPACE to start the game，then once again pressing C will enter the cheatmode $\mathrm{Z}, \mathrm{X}, \mathrm{K}$ ，and M move loca－ tion．SPACE resumes the game．

## Dizzy

This is a bit awkward！On the title screen press SPACE to start the game，keeping your finger on SPACE press Q to quit，continue keeping your finger on SPACE and the game will restart．Then pause the game with $P$ and type T，R，O，W，B，R，L，D，G，E．After the last letter Dizzy should disappear（if not something went

## Mystical

fiece are some handy esps for playling Mysticat －the now Infogrames game－from Malitices mactuo Mark Ricy of Kiby Muxice．

## Tips：

1 Save sorre magic for the third level in each world You need to beat the Cod at the end of that revel．
2 Buryers incroase your enorgy
3 Avold as many baddics as possible
4．Don＇fireuniess you hive to
5 Whan you got to the first level God，move tight to the top of the Bergen and then cir． clo round in front faing coastanty，then move buck to the oypostio comer of the top．Don＇t move in very close behind him else your energy decreases fast
6．One boit sills a buddo．Seworal beils（fed or bluc of groen fi pot hivent a colour montion）are ngedicd for the same effect：
wrong｜）Use the keys $\mathrm{Z} \mathrm{X}, \mathrm{K}$ and M to move loca－ tion，use ENTER for extra lives，and，use the SPACE to restart in your chosen location．

## Treasure Island Dizzy

On the title screen use the keys $\mathrm{O}, \mathrm{A}, \mathrm{S}, \mathrm{C}, \mathrm{P}$ and SPACE（or joystick FIRE if you are using the joy－ stick）to start the game．Whilst playing pressing C will cause Dizzy to disappear，the keys Z，X，K and M then move location．SPACE（or joystick up）restarts．

## Race Against Time

Pause the game with $p$ and type in L，N，T，E，G，R，A，L．Then you can move location once again using the direction keys X，Z，M and K of the joystick．Restart the game by pressing SPACE／FIRE．

## Hard Drivin＇

A tip for Hard Drivin＇from Stephen Mathews of Kings Lyma．Take the stunt track，and when you get to the big bridge，drive up to it slowly When you get to the top slow right down until it says turn key to start，you will start to go backwards，now look at your score，as the points add up．

## The Munsters

A couple of months ago I promised that you could have a poke for The Munsters．Well bettet late than never（there just wasn＇t room last month）here it is．So perhaps now you can finish the game．

[^1]
（PqAp） $80 \cdot \mathrm{y}$ ：yta：POKE－x，a
（NiAn）SO－NDTI：KDDE－1
（AOAt） $100 \cdot$ IF $\cdot y($ ） 165 LA THEN 140
（CnAP） $110 \cdot \mathrm{KDNORY}$－ 84000
（61 Ap） $120-1000^{*}, ~ 59890$
（ N 9 ho） 130 －CALL－ 49
（Ftkr） 140 －PRINT＂data－error！＊

## Multiface poke for The Munsters： Address 1EE7 Poke A7

## Sim Cily

Mogalomaniscs prepare for a treat，Daniel Maharry of Margate has put together a fow vital tips to ensure contin－ ned lording it over the residents of Sam City．（Woulan＇you just know ho＇d finish it off by zapping the lot Some people are just power mad）．

## Power Stations

－Always put in a remote area or island if pos sible
－The best type is muclear because it doesn＇t cause pollution
－Boar in mind that if you get far enough you will need a second station

## Money

－Don＇t use auto－budget
－An easy way to get a profit each year，in January reduce the tax to $0 \%$ in December change it to $20 \%$ and wait for a budget win－ dow，repeat，ignore＇tax too high＇message．

## Zones

－Any kind of zone functions are better with a road surrounding it
－Try and make residential zones in blocks of about $2 \times 3$ plus gaps for the roads
－Commercial and inclustrial zones built in this way cause pollution，but cutting off power to one or two of the zones for a while reduces this．
－Put spaces between the blocks or else the traffic builds up．Do connect them with a
road but build up your rail network as well.

- Remember to include Police and Fire stationst it is possible to get carried away and forget them.
- Once a substantial area has been built up, save up for an airport. It is more efficient, but of course, very expensive.


## General

- Read the manual and keep it at hand for reference.
- Keep track of the evaluation window. It is a most useful guide
- Once an areas zones have high densities and land values, new zones of the same type nearby get to the same stage very quickly, so try to expand.
- If you get fed up, save your town (if it's any good), then try to completely destroy it as fast as possible using the disaster column, its great fun.


## Teenage Mutant Hero Turtles

Cheats for Teenage Mutant Hero Turtles have come flooding in from all over the country. Colin Scrimgeour of Pitlochry, Steven McLellan of Glasgow, Phllip Dawe of High Wycome. Kim Wan of Reading, Kevin Morgan of Darlington and Rhys Evans of Clydach, to name but a few. Whilst playing the game press down the keys " 0 ", " 0 ", -1 " and "SHIFT" together and the screen tells you the cheat mode is on, you then become invulnerable. Great cheat guys.

Alstair Stewart of Herstmonceux (sounds foreign but it's in Sussex) has completed the terrible Turtles game without the cheat. So, if you want to know the best way to make those firemen suffer (that's what you get for foining the fire service chaps) follow Alis' solution.

## Level 1 - APRIL

Go left, down and right avoiding the tank and the ladder, enter the Jadder by the water, Go down, kill the fireman, go right, jump and kill the bee and the eyeball. Jump over the block and kill the frog. Get the pizza, kill the next frog and jump to kill the bee. Rockstoady appears, hit him twice and retreat. Hit him twice again and jump on the large block, still retreating until he is dead. Go right, kill the eyeball, jump into the door. Kun right avoiding the tank and go to the farthest ladder. Kill the bee, fall down and kill another bee and the fireman. Go right killing four eyeballs, avoid the bees and climb the ladder. Go down into the blue building. Jump onto moving wheels, wait

on the end and kill five things on the ceiling Jump and kill an eyeball. Go right, kill a fireman climb the ladder. Kill a fireman, an eyeball and 2 things on the celling, then another eyeball. Bebop appears, kill him the same way you got rid of Rocksteady.

## Level 2 - THE DAM

Go through the door, right and kill a fireman. Jump, kill and eyeball, drop down. Go right, kill fireman, right, kill frog, climb laddor. Kill both frogs, go left avoiding the bees. Jump up and loft to kill another bee. Go left, kill an eyeball, climb ladder, enter dam.

## Level 3 - <br> SPLINTER

Go left, up and get into the van. Drive right and down towards the ladder, climb down. Drop down, go left to get the ammo from the van. Kill a fireman and jump avoiding the bees. Repeat four times. Change to ammo and enter the van. Destroy the tanks and soldiers, then go through the 3 barrcades. Get out and go right to the RED (what's that look like on a green screen?) building with four on a greenser windows. Drop down, kill 3 fire-
men and one triangle, get pizza, then repeat for other turtles, climb up. Go to the building with 2 doors, enter the left hand one. Drop down, kill three eye-
balls, collect the rope twice. Exit screen and go to the building with 11 windows, Go through the door, right and kill a fireman. Jump, kill and eyeball, drop down. Go right, kill fireman, right, kill frog, climb ladder. Carefully climb the building until the rope is thrown. Climb down the ladder. Kill an eyeball, drop left, kill eyeball, drop, kill fireman. Jump and kill three eyeballs, drop, kill two firemen, climb down ladder. Kill three firemen and jump avoiding triangles. Drop down, kill a fireman, go through the door and enter the bullding. Kill two firemen, one eyeball and one frog, climb ladder. Kill a frog and a bee, go right, jump and kill a bee and an eyeball. Go right and climb the - ladder. Carefully jump buildings and throw the rope. Same as level one for Bebop except jumping the buildings. Rescue Splinter.

## Level 4 - KRANG

Go right to the farthest ladder, the same as lowel 1. Enter the next ladder. Get behind Krang and kill him.

## Level 5 - SHREDDER

Go left, up and left then enter the bullding. Kill Eyeball and a thing on the ceiling Kill eyeball, go left, kill four firemen and an eyeball, descend the tadder. Kill a fireman, avoid the triangle, kill 2 firemen, 2 eyeballs and a triangle. Drop down and kill one fireman, enter the next ladder. Kill a bee, 2 firemen and an eyeball, go left, fump and climb ladder. Enter the building. drop down and kll Shredder. He follows a set pattem so you need to leam it. Use Boomerangs or ninja stars here to speed things up. Read the final message.

# PROTYPE - THE RETURN OF ARNOR! 

## Did you think Arnor had developed their last CPC product?

We must admit, it was starting to look that way. But now we are pleased to announce a stunning new arrival Protype. This provides Protext with the improved printing features that many of you have requested.
We honestly believe that it is not possible to achieve better quality output from a 9 pin printer than with Protype. Just look at the examples below - all printed on an elderly Amstrad DMP 2000!
Protype costs just $£ 30$ and is available on disc only. It works with Protext rom and disc versions and may also be used as a stand alone program.
5 years after its original release Protext remains indisputably the leading CPC word processor. In the February 1991 issue, AMSTRAD ACTION said:
"Without doubt the most complete word processor available for the CPC ... Protext is very much a professional quality program."

Amstrad Action speed tests show Protext to be many times faster than other programs, for example:

| Replace operation | Delete 17 k block |
| :--- | :--- |
| Program $A-94$ secs | Program $A-17$ secs |
| Program $B-74$ secs | Program $B-15$ secs |
| Protext -5 | secs |
| Protext $\quad 1$ sec |  |

## Prices

| Protype | $£ 30$ | (disc, Protext not required) |
| :--- | :--- | :--- |
| Protext + Protype | $£ 45$ | (disc) |
| Rombo ROM box | $£ 20$ | (when at least one ROM is purchased) |


| ROM prices |  |  | Promerge Plus | $£ 20$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | $£ 25$ |  | Utopia |  |
| Protext |  | $£ 20$ |  |  |  |
| Maxam |  | $£ 25$ | Maxam $1 / 2$ | $£ 20$ |  |
| Prospell |  | $£ 20$ | BCPL | $£ 20$ |  |



Liquid293K
(1) Acetic acid ( $\mathrm{C}_{2} \mathrm{H}_{4} \mathrm{O}_{2}$ ) ${ }_{p} \mathrm{Kg}^{-1.96} \times 10^{3}$

Protype is a typesetting print enhancer designed to squeeze maximum quality from low-cost 9 and 24 -pin dot matrix printers. This paragraph shows how Protype can work to a righthand margin.
$\begin{array}{ll}\text { (1) Acetic acid }\left(\mathrm{C}_{2} \mathrm{H}_{4} \mathrm{O}_{2}\right) & 1.90 \times 10^{3} \\ \text { (2) Acetone }\left(\mathrm{C}_{3} \mathrm{H}_{6} \mathrm{O}\right) & 2.21 \times 10^{3} \\ \text { (3) Water sea }\left(\mathrm{H}_{2} \mathrm{O} \text {, salts) }\right. & 3.90 \times 10^{3}\end{array}$

A Ganga común, ${ }^{\text {a Pterocles alchata }} .38 \mathrm{~cm}$ Q con tres bandas en el pecho or faja pectoral castaña

- multiple diacritics (accents) with any letter ( $\grave{\text { ę }}$
- tabulates proportional text / micro-justifies spaces
- 240 DPI ₹ 216 DPI resolution on a 9-pin printer!
- works with all 9-pin or 24-pin Epson-compatible printers
- use from Protext, Basic or machine code
- includes the seven fonts used in this demonstration
- choice of character designs within a font (page or page)
- !ix91 to 9nil o to pripomi 107 zim
- superscript, sub script, underline, b box, (e) encircle
- kerning (spacing of 'difficult' character pairs (AV)

|  <br>  <br> $\leftarrow$-line graphics too $\rightarrow$ <br> OTYPE IS VERSATILE: <br>  <br> nal text / micro-justifies spaces <br> ation on a 9-pin printer! <br> n or 24 -pin Epson-compatible printers <br> asic or machine code <br> onts used in this demonstration designs within a font (page or page) ipomi 7077 im <br> t, underline, b box. (e) encircle 'difficult' character pairs (AV) |  |
| :---: | :---: |
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he Balrog is still trying to recover from a rather freaky birthday party (never invite a Teenage Mutant Hero Turtle)... but, undaunted, he still manages to bring you the latest news and reviews from the misty lands of Adventure...
-ops!
Last issue the Balrog reviewed a game written by Bob Adams called 'Knapped'... except it wasn't! For some reason 'Grue' was missed off - the games real name is 'Grue Knapped' - Sorry Bob!


The Spiro Legacy
$\mathbf{£ 4 . 5 0}$ dise only © Ken Bond 17 Adel Park Gardens, Adel, Leeds, West Yorkshire LS 16 8BN © Tel: (0532) 672278

We Spiro Legacy is the latest game PAWed by that master writer of adventures, Ken Bond. As with all of Ken's games, The Spiro Legacy is disk and text only with atmospheric text and strong puzzles.

The start of The Spiro Legacy starts innocently enough. You are sitting in the dining room of your small mews cottage listening to the Today program on the radio when a large package arrives in the post. Inside the package is an old fashioned door key, and two tetters. one from some solicitors in London and the other from your deceased Uncle Spiro. Now things start gotting interesting... The letter from the solicitor informs you of the reading of the will - it seems your Uncle died in mysterous circumstances but he left almost all his estate to you. This sounds great until you read your Uncle's letter...

You see Uncle Spiro was a famous magician, who had appeared on TV and done many stage shows, but Spiro's letter reveals his secret - his tricks were so fantastic and unexplicable as be used teal magic. Spiro's greatest friend was Sir Richard Maltravers whose castle adjoins your Uncle's to the north.
"..another brilliant adven-
The letter explains how Sir Richard shared Spiro's passion for magic but succumbed to the dark, evil side. Your Uncle expresses a fear of Str Richard and asks for you to enter Maltravers castle and exorcise him. He warns you that this will not be easy Richard will have set many magic traps but your Unclo writes that he has hidden spells fhidden so that Maltravers cannot discover them) which you can use on his own estate. This is your Uncle Spiro's Legacy.

The game comes in two parts - the first being set in your house and Abbeyville (your Uncle's estate) whilst the second is set in the grounds and interior of Sir Richard's castle. Your Uncle cortainly was rich - his house is a real mansion with servants quarters, ballroom, library and music room - quite different to your small cottaget He even had his own 6128 and printer (obviously ho had tastel)

The game is a sort of mixture of other games' plot lines - you've got the magic system from the Infocom Enchanter series and the horror from Price of Magic. In fact a lot of comparisons could be made with these games -
both have a magic system and invoive a rogue magician. However it would be unfair to make direct comparisons - PAW is not really up to the standard of Level 9's or Infocom's in-house systeml (Although 1 still believe it is the best commercially avallable on the CPC).

As mentioned in your Uncle's letter, Spiro has hidden various (usoful) spolls around his house. These spells ate very well hidden - on computer disk, encased in honey and elsewhere - the spells have some strange names as well. all, for some reason, ending in the letter of Hence, you have VIMTO, BISTO and FLYMO amongst others1 To use a spell you must 'CAST FLYMO SPELL ON ME' - the Balg initially had trouble with this as 1 forgot to include the word SPELL but once this was overcome everything went well.

Part two has you wandering around Sir Richard's castle, avoiding the various traps he has set to catch you whilst you ate trying to find and exorcise him. There are two mazes to solve and various other magical and non-magical puzzles to heed or hatt you. Ken increased the level of interaction and made it even better than before - not only can you exam-
ine, look in, look under and look behind, you can now feel in spaces that are dark. So. you could feel up the inside of a chimney or feel behind a seat. As with most PAW games you can also ramsave and ramload and it will understand sentences like: 'fill the bucket with water then place it on the platform' or 'drop everything excopt the copy of Amstrad Action'. However I did find a couple of problems with the parser especially with regard to character interaction - in part two you have to talk to an old crone and ask her questions... The program is choosy about the inputs it accepts.

Once again Ken has written another brilliant adventure - great puzzles, good parser and verbose descriptions - another worthy addition to any adventurer's collection.


# PAW Graphics disk 

## $\mathbf{£ 6 . 4 9}$ (You must send your original PAW disk - but not the packaging! - to be modified) © Gilsoft - 2 Park Crescent, Barry, South Glamorgan CF6 8HD

The Professional Adventure Writer is probably the best commercially-available adventure creator system around but is restricted as you can only creato your games on disk and they had to be text-only... Until now. Those Welsh Wizards of Adventure at Gilsoft have written a package that allows you to add graphics to your PAW games.

You can add graphics to any PAWed game which has 2.5 X or more free memory (so the sottware patch has room to be added). Graphics are uCompressing loaded off disk a la and allowing Magmetic ADLAN so that you can still use nearly all the memory for writing the adventure proper. The graphic window can be anything from two lines deep to twenty (to give you an idea, GACs graphic screen is 17 lines deep). Unilike GAC, though, the graphics must be drawn using an att package such as Advanced Art Studio - you could also use Gilsoft's Mustrator package. Graphics and text are displayed in the Amstrad's 4 -colour, $40-001$ umn mode 1. Unfortunately, this is the only mode possible and there is not a spit mode.

The package is easy to use. You just draw the pictures, write a small text fle (simple to do as the manual is very helpfulf) and then use two CPM programs to first convert the art files to PAW format and then to add the graphics patch to the executable game (The COM file). As the socond program works on the executable adventure then in theory you could add graphics to other people's PAW games as well!

Although the above all seems great, the package does have some major flaws. Graphics files on the disk are not compressed, for a start - a 12 -ine picture takes up 8 K whereas a 17 -line graphic uses 11 K . You can use both sides of your disks but still you can't have any more than 25 graphics when you take into consideration the adventure itself takes up about 40 K . The problem is that if there is no graphic for a certain location then the graphic window is just left blank and no text flows into it. The average PAW game has 70 locations, so that's a lot of locations without graphics. If only graphics flees were somehow compressed so that more could

## Honorary Balrog

The awarding of the title Honorary Balrog is a rare and prestigious honour - it is only given to those Amstrad adventurers who have really excolled themselves in their efforts. Those awarded the title are allowed to put the letters "HBalg' after their name.

The Balrog has the pleasure of awarding an Honorary Balrog award to Ken Bond for his work in the field of adventure writing. Ken has just finished his fourth fantastic game (reviewed above) and has again shown what the PAW is capable of.

Suggestions for Honotary Bairogs are weloome: Who do you think deserves such an accolade? Write to HBalg Nominations, The Balrog. Amstrad Action, Future Publishing Ltd, Beaufort Court, 30 Monmouth Street, Bath, Avon BA1 2BW.
be put on a disk, then this would be avoided.
There are a couple of other minor complaints - you cannot turn the graphics off in a game and you need different graphics for the PCW and CPC versions of a game.

PAW Graphics is a great idea but it's a shame that more thought was not put into it. Comptessing the graphics and allowing text to scroll into the graphic window would make the package a lot better.

## NEWS... NEWS... NEWS... NEWS... NEWS... NEWS...

## Watch out 007!

Topologika have announoed that they will be releasing a new adventure title in the Autumn. This will be the long-promised Spysnatcher by Jon Thackray and Jonathon Partington. price around $f 14.95$ including VAT and availabie for both GPC and PCW (disk only). The theme is obviously inspired by Peter Wright's book Spy Catcher-roview will appear as soon as it is released! For further details ring/fax Brian Kerslake on 0733244692.

## Recreation Re-creation

Is the name of a now company created by Mark Elitingham to market some of the many games that are being released at the moment. Mark has four games to start with and is hoping to expand this list soon. The games are:-

Piease send me copylies of the Professional Adventure Writer with Graphics at $£ 19.95$ per copy.
Name:
Address:

Send the coupon to: GILSOFT, 2 Park
Crescent, Barry, South Glamorgan CF6 8HD. AA69

- AlStrad: A re-relase from way back in 1985, and, according to Mark, this game will become the fingship of Recreation Re-creation-it's meant to be that good. $£ 2.50$ tape, 84.50 disk.
- Tealand: The plot of Teniand is that you must buy a smurf an too-croam (1?) werdl $E 2$ tape, $£ 4$ disk.
- Castle Warlock An interesting one this, and one the Balg is keen to see. Castio Warlock was the first game ever writen by Ken Bond HBalg (yes, even older than the Island!) so (bopefullyl) it should be goodl
- Project X-Microman: is an old commercal release last seen on the Giobal compilation Fourmost Adventures. You play the part of a professor who has been shrunk down to a fraction of his normal size and your quest is to somehow find a way to retum to normal. The game blurb says :...enjoy his battles against a grant mole, a swarm of angry wasps, and, whilst playing, ty and imagine what it must be like being his size for even smaler like Paul Daniels)... - I fust hope a certain famous magician's lawyers don't see that! £2.25 tape, 84.25 disk.
For more details write to Mark at 39 Gargle
Hill, Thorpe St. Andrew. Norwich. Norfolk
NRT OXX.


## Spellbreaker spellbroken?

Spollbreaker, sister magazine to Adventure Probe will no longer be published attor July due to work pressures on the editor. Mike Braisford. Spellbreaker was a great lithe magazine who's solo am was to print clues, maps and solutions as well as the odd interesting article and it will be sadly missed. Mike will however, still be providing a back issue service so, if you'd like to see what you've missed, wnte to him at 19 Napler Place, South Parks, Clenrothes, Fife KY6 1DX

## Tower of light extinguished...

In AASt the Baly reported on a new role playing game from CRL called Tower of Light Unfortunately since then CRL has disbanded and it looks like the Tower of Light will never shine on the Amstrad.

## Graphical PAW

Those nice poople at Gilsoft have decided to offer the Prolcssional Adventare Water and Graphics package (toviewed this issue) at a bargain price of c19.95 for Batrog readers that's 98 cheaper than the RRP. The review in AA28 suld: PAW is floxiblo enough to suit the most ambitioas writer. An excoliont product, well documented and well worth buyingl.... If you want an example of what the PAW can do then look no further than Ken Bond's games The island, The Base, The rest and The Spro Logagy. Don't forget that PAW is disk only

# Clue ith Sniffing the Balrog 

Have you noticed the Cluepot is looking a bit bare this issue? That's because the Balg is running out of clues! So crank up your clue factories and send your hints and tips to: Clue Sniffing with The Balrog, Amstrad Action, Future Publishing Ltd,

Beauford Court, 30 Monmouth Street, Bath, AVON BA1 2AP.

This month's selection of clues is brought to you by: Howard Swaines, Ian Howlett, Simon "Aragorn" Netherwood, Mayur Maha and Hazis Dolgizas - all true adventurers.

## The Big Sleaze - Part 3

- Drive to Chinatown
- Ask Wang to open his shop door.
- Follow killer into bar and shoot.
- Drive to battery park to find Statue of Laberty.
- Examine dog bowl in Brooklyn Heights.


## Boggit

- The sword is in the cauldron.
- Give Lard the duty-free and the key.


## Corruption

- During the interview try to talk abous the powder and not about insider dealing.
- FINAL ADVICE: You could find some inter esting things in the PHARMACY simply be EXAMINing the SHELVES. There's a concert going on from 2:00 to 3:30 on the paved area. If some of the coded hints don't work try entering them without spaces... Try to do as much READing as possible. You get many extra points. There's some cutlery on the alcove table.


## Moonmist

- Have a bath and wear the dinner outfit
- The treasures are:
- Red version: War Club - clean the cane in umbrella stand (foyer)
- Blue version: Skull in the bell (fighting deck)
- Green vetsion: Moonmist drug in the inkwell (office)
- Yellow version: Black pearl necklace on skeleton (secret crypt)
- Get the aerosol can from Bolitho. Use it when you meet the ghost.
- Ask Tamara and Bolitho about the ghost.

Mrs Julia Constable has come to Michael Hill's aid in Seabase Delta -
You must use the correct words, TAKE card from dead man's body, ENTER CAR, FASTEN seat-belt and INSERT card in slot. The car will then go to another station - then UNFASTEN seat-belt and LEAVE car. You do this at each station until the card needs renewing at the Head Office.

Claire Davies has answered Michael Hill pleas for help in Grange Hill: To get the matches; take the paper plane and throw the plane at the matches to knock them off the wall. Keep them, they'II come in handy!

## Help!

Helpl I need somebodyl Help! Not just anybody! Help! You know I need someone... to help me with this adventure problem!

Kay Wheeler (the rarely mentioned partner in
the dynamic Wheeler adventure duol) is having problems with the native in the Secret of Ur. Can anyone help?

Arkham Manor is causing problems for Jon Bingham and Simon Netherwood even with the help of Thomas Christie's map printed in AA66:-

1. How do you get in the manor?
2. What do you do with the bottle, gun, cross, needle, chalk and rusty key?
3. How do you use the gunpowder safely and where?
4. What useful telegrams are there?

Steven Kenny is stuck at the start of Life Termhow do you use the DCS Device?

## CONTACTING THE BALG

 The Balrog is desperate for new contributions to the Cluepot and Just forLaughs sections. To get in contact
with him, write to: The Balrog, Amstrad Action, Future Publishing Lfd, Beauford Court, 30 Monmouth Street, Bath, Avon
BAI $2 B W$ and the post will be forwarded to his dungeon.

## Lords \& Ladies of Adventure

Six new Lords and Ladies join us this month all raring to help you with your adventure problems. Don't forget when writing to a Lord or Lady to send a self stamped addressed envelope and keep phone calls within sociable hours or elsel...

Aftershock * Football Frenzy • Gnome Ranger

- Kentilla * Knight Tyme : Mega Bucks * Rigel's Revenge \& Seabase Delta. Jon Bingham, 10 Cowslip Walk, Amblecote, Brierley Hill, West Midlands DY5 20N.

Fantasia Diamond * Fish • Future Wars \& Guild of Theeves,
Bilbo Baggins, 67 Philip Avenue, Nuthall, Nottingham NG16 1EB.
Grange Hill * Great Escape \& Knightmare. Thomas Storey, 27 Queens Drive, Whitley Bay, Tyne \& Wear NE26 2 JU.

## Star Wreck.

Steven Kenny. Tel (0942) 213195.
Star Wreck.
James Morley, 27 Rowlestone Rise, Greengates, Bradford, West Yorkshire BD10

ODS. Tel: (0274) 616674
Hollywood Hijinx \& Scapeghost.
Gwynn Hopkins, Albion House, Llandre, Nr. Aberystwyth, Dyfed SY24 5BS.

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30 Monmouth Street, Bath, AVON BA1 2AP or balrogêuk.ac.ed.cs.tardis if you have $E$-mail.


AII the programs on the following pages are ones you can type in yourselves．If you reckon you＇re a bit of a whizz at programming，why don＇t you send us your own？Just keep them short，that＇s all．We＇re unlikely to use anything longer than 6 K ，
> and we pay the same for all Type－ins，so you won＇t get any extra cash！

> Send your programs to：Type－ins， Amstrad Action，Future Publisbing， Beauford Court， 30 Monmouth Street，Bath， Avon BA1 2BW

## INLAY CARDS

If you ever wanted to keep accurate records of what you have on tape，then Stuart Clarke from Sprowston in Norfolk has the answer．His pro－ gram allows you to enter the tities and tape counter readings for audio tapes，outputting a neat tape inlay－sized printout to your trusty printer．It is very simple to use and very useful indeed．No more messy scribbles on your tape inlays！

－Keep track（hat）of your tapes with Stuart Clarke＇s cassette inlay designer．Tap in those tune tities to get a neat，printed inlay card．
（FqA．j） 1 ，＇
（BrAs）2．＇，Cassette－inlas－cards
\｛Ipho\} 3,',Stuart-Clarke.
（Fita，$\}$ ） 4.1
（InA9）5．＇ Sertea－Display
（ $F$ vA．j） 6.1
（KVAO） 10 －CLS：MODE－2
（ToAU） 20 －INK $\cdot 0,20:$ BORDER $20:$ INK 1,1
（LuBo） 30 －ORIGIN－0， $0: D R A K-300,8: D R A W-300,380: D R$ 84－0，380：DRAW－0，0．
（MnBs） 40 －MOUE $320,0: D R$ OH $-829,0: D R A H-623,380: D R$维－ $320,380: D 8$ 明 $-320,0 \cdots$

 PRIMT ${ }^{+}$SIDE $\cdot \mathrm{g}^{*}$ ．．
（0nAi） 61 ．
（KsAq） $62 \cdot$＇input－titles
（FkAk） 63.
（EsSt）70－LOCAIE $3,3:$ PRINT＂Enter－nunber of －titl es＇for cside＇$A^{\prime \prime}$ ．．
（GPB1）80－LOCATE 13，4：INPUT＊Maxinun－11，＂，a
（Tr－Bi） $90 \cdot$ IF $\cdot a\rangle 11 \cdot 08 \cdot a<1 \cdot$ THEF－6010－70．
\｛0tBp\} 100-LOCATE-4,7:PRINI'Enter-titles-(nax-2 4－chrs．）－and＂
 －side－ $\mathbf{M}^{*}$ ．．
（FTBO） $120 \cdot$ LOCAIE $3,11:$ PRINT＂IIILE ．．．．．．．．．．．．．．．．．

（KuBi） $130 \cdot$ DIM－sats（11）$D$ DM－sact（11）
（Jofq） $140 \cdot \mathrm{FOR}$－tot：1－70－2
\｛BxAu\} 158 －LDCATE－3，11＋tot：INPUI－sat！（tot）
〈KnBs） 160 －IF LEN（satt（tot）） $24 \cdot$ THEN－SOUND 1,23 4：6010．150．．．．
（AnBk） 170 －LOCATE． $29,11+$ tot：INPUT－5ac $\$(t o t) \cdot$ ．
（HVAn） 180 －NEXT．tot
（NqEn）190－L／NCAIE－10，24：PRINT＂Is－this－0，K，（\％／K「．．．
 0：ELSE，IF $\cdot 0 \mathrm{kI}={ }^{*} \mathrm{~N}^{*}$ ．IHEN $\cdot$ RUN $\cdot$.
（HtBv） 210 LOCATE－43，3：PRINT＂Enter nunber of $t \mathrm{ti}$ tles for $\cdot$ side－ $\mathrm{B}^{*}$ ．．．．
（NuBk）220－LOCATE，$\$ 3,4:$ IMPUT＂Maxinua $\cdot 11, *, \mathrm{~b} \cdot$ ．

〈huBs） $240 \cdot$ LOCATE－44，7：PRINT＇Enter－titles－（nax． 24－chrs．）－asd＂．．．
（Insq） 250 －LOCATE－45，8：PRINT＇counter－nanbers－fo r－side－5＂．
（HqBo）268－LOCATE $43,11:$ PRINI ${ }^{*}$ TITLE $\cdot$ ．．．．．．．．．．．．．．．
（EKBi）270－DIN－shts（11）：DIM－shot（11）．
（BaAq）280 F F R－tot $=1 \cdot \mathrm{IO} \cdot \mathrm{b}$
（CMBi） 290 －LOCAIE $43,11+$ tot：INPUI－sht $\ddagger$（tot）
（AqB5）300．IF LEEN（shtI（tot）））24－IHEN．SOUND－1，23 4：C070－230
（0wB1） 310 －LOCATE $70,11+$ tot：INPUT －sbet $(t o t)$ ．
（HpAn） 320 －KEXI－tot．．
 ）＂．．．
 0：ELSE IF－0k $\left\{={ }^{+} \mathrm{N}^{+}\right.$－THDN－210
〈Jußx\} 350 －LOCATE 43 ，24：FRINIT．．．．．．．．．．．．．．．．．．．．．
（EtBp） 360 －LOCATE 43,24 ：INPUT＂Overall－title＊tti tlet．．．
（EnAx）379－LOCATE－43，24：PRINTE ．．．．．．．．．．．．．．．．．．
（NtBu） 389 －LOCAIE $45,24:$ PRINI＇Set－up－Printer $\cdot \cdots$ Press－ang，key＂．．


（LpBp）410－LWCAIE－46，24：PRINI＊Printing－inlay．．． Please－wait＂．．
（ $\mathrm{K}_{\mathrm{of}}(\mathrm{j})$ ） $4111^{\prime}$

（Bkak）413．＇
（GUAR） 420 －PRINT $-\| 8$, CMRE（15）；
（Kín） $438 \cdot$ PRINT $\cdot \| 8,{ }^{*}, \ldots, \cdot$ ；STRINGI $(68, * *)$

（GUAS）458，PRIMT－18，${ }^{2}, \ldots 1^{1 \%}$ ；
（F1AS\} 460-PRINT-18, CHRs(18);

（Ppar）480－PRINT－18，$\cdot \cdot \hat{A} \cdot \ldots . . . B^{*}$

（FnAr）Se9－PRINT－H8，CKRI（15）；




（ApMq） $540 \cdot \mathrm{FOR} \cdot \mathrm{n}=1 \cdot 10 \cdot 11$



（InA1） $550 \cdot \mathrm{KEXI} \cdot{ }^{\text {n }}$


（NoAr） 590 －titlen＝LEN（titles）
（GpAu） $680 \cdot$ titcent＝INI（titlen／2）
（F jAA） 610 －start $=39$－titcent
（HnBq）620．PRINT：18，CHRs（27）；＂D＂；CHR $5(s t a r t) ;$ CH Rt（72）；CHR（8）；
（DuBk） 630 －PRINT－18，＂．．．｜＂；CHR（9）；titleई；CHRs

9）：＂1＂




（LiAr） 680 －PRINT： $8:$ PRINT－ 88
（DVCi） $698 \cdot$ PRINT $\cdot 18, " \ldots$ Cut $\cdot$ around $\cdot e d g e \cdot$ and $\cdot$ fol d－along－dotted－line－into－case ${ }^{\prime \prime}$－

## CONNECTIONS

Also from Staurt Clatke is a very neat version of the old strategy classic，Connect Four．The object of the game，which can be played by two players，is to line up a row of four counters．

The rows can be made either horizontally， vertically or diagonally．The first player to line up arrow of his counters is the winner．This isn＇t quite as simple as it sounds，and the game should cause more than a few arguments．．． happy playing！
〈GuAn）1．＇Connect－4
\｛GjAo\} 2.'Stuart-Clarke.
〈01A0\} 3,'27/03/91
（Ft $\mathrm{A}, \mathrm{j}\} 4$ 4，
（FuAj）S．
（IoBx）6．＇Set－Screen－Display－and－defaults
（PuAi）？${ }^{\prime \prime}$
（DuAs） $10 \cdot$ PEN－3：PAPER－8：space 3 42
（CXBP） 20 － $\mathrm{KODE} \cdot 1: \mathrm{DK} \cdot 0,28: \mathrm{NKX}-1,5: \mathrm{NKX}-2,5: \mathrm{INX}-3$ $0:$ PORPER－28．
（IoAU）30－PGPIR－12，2：PAPER－11，1
（E．jB，j） 40 －LOCATE－30，1：PEN－2：PRDNT ${ }^{\text {CONNECT－} 4 * ~}$
\｛CuAs\} 58 －MINDON－ $11,30,39,3,13$
（LtAt） 60 －HINDOH－ $42,30,39,15,25$
（MxAt） $70 \cdot \mathrm{HINDOH} \cdot \$ 3,6,21,10,16 \cdots$
〈CuAt\} $80 \cdot$ YOR $n=1 \cdot 70 \cdot 426 \cdot$ STEP $\cdot 60$ ．

（PaAr）10日－MOUE $\cdot 0, \mathrm{n}:$ DRAM -421 ，il
（IIAn） 110 －NEXI－n：PEN－3
 3，1：PRINT $\mathrm{n} \cdot$
（FKA） 130 －NEXT－ H ．
（K×A0） 140 －CLS－12：CLS－ 11
（P1A0） 150 －PDV－3：PAPER－2

〈 0 kAB ） 170 －PAPER－1
〈NrAx〉 180－LOCAIE－31，4：PRINT＂PLAFER－1＂
（Grak）181，＇
（Nsfoc）182，＇Position＇coloured diso
（EtAk） $183^{\circ}$
（walk） $199 \cdot p=1$
（LaAn） $200 \cdot$ PAPER－p
（JiB1） 210 －LOCAIE－31，（12＊p）－8：INPUT ${ }^{+}$Gol，＊＂；col

（0．jBa） 238 －IF－TIST（（88＊col）－
$38,330)>0 \cdot T \mathrm{HD} \cdot \mathrm{C070}-828$
（MnAu） $240 \cdot$ LOCAIE－31，（12＊p）－6：PRINT $\cdot . . . . . .$.
（CjJAn） $259-y=29$
（NnBj） $269 \cdot$ IF $\cdot$ TEST（（ 60 No0 $)$ ）$-30, y)=0 \cdot$ THEN -280
（GtAq） $279-y=y+60: 6010 \cdot 266$ ．
（GnAk）271．
（Kp解）272，＇Draw－diso


Test your strategic skilis against your worse enemies with this rather good two－player puzzling game from Stuart Clarke．

## （FiAk）273．＂

（InAM） $230 \cdot 70 R \cdot n=1 \cdot 10 \cdot 38$
（P1At） $250 \cdot \mathrm{HDVE} \cdot((60 \times c 01)-30)-20,9+20-11$
（I 0 Aus） $300 \cdot$ DREN $\cdot((68 * c o 1)-38)+20, y+20-12, y$
（ BkAn ） $310 \cdot \mathrm{VEXI} \cdot \mathrm{I}$
（0u40）320－space＝space－1
（5khn） $340 \cdot 605 \mathrm{UB} \cdot 370$
（TiBj） $350 \cdot$ IF $\cdot p=1 \cdot$ TFEN $\cdot p=2: E L S E \cdot p=1$
（侄An） $350 \cdot 6070 \cdot 200$
（PtAk）361．
（PiAめ） $382 \cdot{ }^{\text {Nest }}$－for－line－of－Four－dises
（Ouak） 383 ．＇
（ GnRA ） $370-$ FOR $-\mathrm{y}=1 \cdot 10 \cdot \mathrm{~F}$
（ $6 x$ Ags）308－FOR $\cdot x=1 \cdot 10 \cdot 7$
（CuSe） $350 \cdot \mathrm{IF} \cdot \operatorname{TEST}((x * 60)-30,(y * 60)-$

（Wral） 460 －NEXT－$x$
（Fxak）410－NDXI－y
（MoAn）42e－petury

（BICt） $440 \cdot$ IF $\cdot$ IESI $\cdot(b, c)=p \cdot$ NDD $\cdot$ IESI $\cdot(b+60, c)=p$ ． AND－TEST $-(b+120,6)=p-A N D \cdot$ IESI $(b+180, c)=$ p．TSEN－490．．．
 W0．TEST $\cdot(b, c+120)=p \cdot \operatorname{AND} \cdot$ IESI $(b, c+169)=$ p．THEN－4Se．
（DtD j） $460 \cdot$ IF $\cdot$ IEST $\cdot(b, c)=p \cdot$ AND $\cdot$ IEST $\cdot(b+60, c+60)$ ＝p－AND $\cdot$ IEST $\cdot(b+120, c+120)=$ F－AND －IESI（ $b+$ $180, c+180)=p \cdot$ THEN 430 ．

$60, c+68)=\mathrm{F}(\mathrm{O} \cdot \mathrm{TISI} \cdot(\mathrm{b}-120, c+120)=\mathrm{F} \cdot \mathrm{ONO}$ －TEST（b－106，c＋189）$=$－TEDN－450 ．．．
（E）（Ca） $475 \cdot$ IF－ 5 PACe $=0$－TEDF－CLS－13：PAPER－piLOCAT E－9，12：PRINT＂GRID FIUL＂$: 6070 \cdot 570$ ．
（YnAp） 488 －RETURK
（DuAk） 481 ．
（NeAr）482．＇Hinning－Routint
（CuAk） $483{ }^{\circ}$ ．
（KoB．j）45e－IF $\cdot p=1 \cdot$ TUDN．d $26:$ ELSE $d=5$
（ fp Ct ） $500 \cdot \mathrm{FOR}-\mathrm{B}=7 \cdot 10 \cdot 8 \cdot \mathrm{SIEP} \cdot-1$
（LsAv） $510-\mathrm{INX} \cdot \mathrm{P}, \mathrm{d}, 26+50 \mathrm{MD} \cdot 1,30,50, \mathrm{~B}$,
（CuAl） 520 －NEXT－II
（TIAn） $530 \cdot \mathrm{TNK} \cdot \mathrm{p}, \mathrm{d}$
（0sAo） 540 －PAPER－13，
（MaAn） 558 －CLS： 13




（FrAn） $600-C L S: E N D$ ．
（Cuak） 801.1
（FiB．j）602．＇Error－trapping－sub－routines
ONiR，j） 603.
（ $6 \times \mathrm{F} \%$ ）$\$ 10$－PRINT CHRI（ 7 ）＋LOCATE $-30,(12 \mathrm{*p}$ ）－ 3！PRINT＂－OFF－GRID＂ ：POR $-1=1 \cdot 10 \cdot 500$ NDXI 21LOCATE－31，（12＊p）－

3：PRINT－．．．．．．．．．${ }^{*}:$ C070－218
（HNDS）620－PRINI－CHRE（7）：LOCAIE－30，（12＊p）－
$3:$ PRINT - COL－FULL＂ $\mathrm{FOR} \cdot \mathrm{n}=1 \cdot 10 \cdot 560$ ：NEXT a：LOCAIE－31，（12 kp）
3：PRINT＂．．．．．．．．．＊：C010－210 •

## MORSE

Interested in morse code？This program allows you to convert any text into all those weird and wonderful dots and dashes．The program shows these graphically on screen as well as giving off an audible signal．

You could conceivably send correct morse over the airwaves simply by holding a micro－ phone to your Amstrad！It could also be useful for radio hams learning morse．Thanks to Chris Sumner o！Solihull for this one．
（InAt）1．＇－Morse－code－generator
O（vin）2．＇，By－Chris－Sumner－ 1991
（CKCr） 10 ，WoDE $2:$ INPUT，＂Frequency．（ Hz ），＂，freq： $=$ ROUND（129000／／freq）：IF－p）4095－0R－p（4．1月 EN－ 18
（MuDi） 20 －HODE－2：INPUI＊Duration－of－dot－（1／180t
 DV． 20 －ILSE－dash $=40 t \mathrm{ta}$ ．
（DaBp） $30 \cdot D I K \cdot n c(58): F O R \cdot a=0 \cdot 70 \cdot 58: R E A D \cdot n c(a): K$ EXI：MODE $\cdot 2$
 ；if＝MIDt $(1$ int $, 2 a, 1)$ ．


（Iubi）Ge－aaz（ASC（it）－ 12）：$n c=n c($ asa ）：COSUB－ 50 ：IF－is $=32-$ TMD $-P$
 ，${ }^{2}$
OHtAv） $70 \cdot \mathrm{NEXT}$－aa：PRINTH0：PRINTIO：CDT0－40
（ JIBv ） $80 \cdot \mathrm{ncI}=\mathrm{BINF}(\mathrm{nc}): \mathrm{IF} \cdot \operatorname{POS}(10)+\mathrm{LDN}(\mathrm{ncD})) 79 \cdot \mathrm{~T}$ HEM－PRINTE P：PRINTHE，＂）＝＂；
（EpBK） $90 \cdot \mathrm{FOR} \cdot \mathrm{b}=2 \cdot 10 \cdot \operatorname{LDN}(\mathrm{nc} 1) \mathrm{xX}=\mathrm{KIDt}(\mathrm{nct}, b, 1)$
 ＂）） 1 COSUB－170：NDXI：SOWM $-1,1$, dot＊2．5，0 ：RETUSA．
（IqBe） $110 \cdot \mathrm{DATA} \cdot 1,1,82,1,1,1,1,94,54,103,1,1,11$ 5，97
（HKIn） $129 \cdot \mathrm{DAIA} \cdot 85,56,63,47,33,35,33,32,48,56,6$ 0,62
（EDAs） 130 －DATA－1，1，1，1，1，76，1
（D1Bn） 140 －DATA－S， $24,26,12,2,18,14,16,4,23,13,2$ 0,7
（FaBi） $150 \cdot \mathrm{DATA} \cdot 6,15,22,29,10,8,3,9,17,11,25,27$
（FnA．j） 158 ．
 1,1, ，dot， 15 ：SOUND－1，p，1，0：ELSE－SOWN 1 －, $p, d a s h, 15: S O U N D \cdot 1, p, 1,6$
（HrAn）180－RETUNN－

## NUMBER <br> BLASTER

NumborBlaster is a puzzle game from Steve Bennett in Woodhouse Eaves．The object of the game is simple．Numbers advance toward you from the right．You have a column of numbers on the left which can be scrolled up or down using the TAB and CAPS LOCK keys．

Press space when your number matches the one nearest you and hey presto，it vanishes． There are a few nice touches such as smart bombs and accelerating numbers．It does get quite frustrating though，so be wamed

〔IuAk〉 $10 \cdot \mathrm{l}=0=0$
（IIBx） 29 －ENI．－
$1,1,1,1,1,5,1:$ DWP－1， $10,1,1,1,10,0,1,-1$ ， 1：DNI $-2,1,-2,1$
（ $6 x B_{p}$ ） $30 \cdot a t=* *: 1 x z=0: S x=10: 0 \%=1: 2 x=0: p \%=11: x=1:$ $4=0.993$
（GUCi） $40 \cdot \mathrm{INK} \cdot 0,0:$ BORPER $-8: \mathrm{IN} \cdot 1,26: \mathrm{INK} \cdot 2,14: \mathrm{IN}$ $\mathrm{K} \cdot 3,6$ ：PAPER $\cdot 0:$ PEN－1：CLS
（0kal） $50-605 \mathrm{UB}-290$
（CtAr）SO－WhTLE．LDN（AS）（p\％
（Lsfp） $70 \cdot \mathrm{FOR} \cdot \mathrm{CK}=1 \cdot 10 \cdot 5 \mathrm{SK} \cdot \cdot$
（Kn3q） $88-$ LACMIE： $2, \mathrm{pK}+1-$

（DtD1） 90 －IF $\cdot$ NKKY（68）（）－ 1－THEN－ $\mathrm{HX}=\mathrm{Hz} \%+1:$ SOUN $-1, \mathrm{BZW} 2+50,2,7: L O C A$ IE $-11,1,21:$ PRINTH1， $\mathrm{WX} \cdot \mathrm{WO} \cdot \mathrm{P} \cdot 10: \mathrm{IF} \cdot \mathrm{B} \%=10 \cdot \mathrm{I}$

 $1: 50$ TS $\cdot 1,1 \times * 2+50,2,7: L O C A I E \cdot 11,1,1:$ PRI
 － $\mathrm{bx}=-1 \cdot \mathrm{THEN} \cdot \mathrm{b} \mathrm{y}=9$

 RND W10）），1）
 HRI（224）
（CuA1）140－NEXT - C\％

（ GVCP ） $160 \cdot \mathrm{IF} \cdot \mathrm{NDP}((5 \% / 78) \cdot 1 \mathrm{KDN} \cdot \mathrm{sk}=\mathrm{sK}-$ 1：LOCATE $\cdot \mathbf{1 3}, 8,4:$ PRINT $-13,10-5 \% ;$ IF $-5 \%=0$ －THITH－5\％21

－Match those numbers before they reach the edge of the screen．You＇ll have to be fast though，they＇re not exactly slow．
（G9A1） $178 \cdot \mathrm{VDD}$
（KiCn）160－FOR－N $2=1 \cdot 70 \cdot 3,50000 \cdot 2,50,50,5,1,1$ ，NE XT：CLSt2：PRDNIE2：PRINTI2，＂，GME．OVER＂，
 INTB3，＂NEN－HICH SCORE＊ILCCATE－ $33,8,6:$ PR INT13，詻
OHoAu）200．PRDNTA4：PRINT14，＂（ang－key）＂
 ：NDD
（NID1） $220-P A P E R-45,0: F O R-n K=1 \cdot 10-40: K D D O H-15$ ，
 $4,200-\left(\mathrm{n}^{2} * 5\right), 2,7 \mathrm{NEXT}$
（Ktal） $230 \cdot 6070 \cdot 20$
（InAr） $240 \cdot F O B \cdot N=1 \cdot 10 \cdot L E N(A B)$
 MOD－10），1）－THDN－AS＝LETTS（AS，N6－ 1） PI ICHIT（ $\mathrm{AS}, \mathrm{LEN}(\mathrm{AS})-\mathrm{HX})$ ：SOUND $-4,400,30$ $17,0,1:$ LOCATEA $2, \mathrm{p} X+1-$
 HSD－10：LOCATE－ $13,8,2:$ PKINT： $3, ~ z \%$
（LJJAk）260•NEXI
 350.
（Dk角）280．腿TUEA
 HINDOHE2， $12,24,11,13$ ；PAPER土2，1：PENE2，0： HINDOH－13， $26,40,18,25:$ PAPERE $3,2: P E N 13,0$ ：WINDOH $14,22,30,3,5:$ PAPERA4， $3: P E N-34,0$ （CLSI1：CLSE2：CLS13：CLS14
（JJVk） 390 －PAPLE $+13,1:$ PDN $13,0: L O C A I F 3,2,2: P R I$ NT43，＂SCORE＂：LOCATE13，2，4：PRDNT03，＂SPEE D＊：LOCATEA3，2，6：PRINT13，${ }^{*}$ RIGH．＂
（PKCn）310－L0CAIE－13，8，2：PRINT13，0：LOCATE• 33,8 ， 4：PRINT：$\# 3,0:$ LOCATE $\# 3,8,6$ ：PRINT $\ddagger 3$, H\％
（BSEU）32D－LOCATE－8，11：PAPER－3：PEN－0：PRIMT．CKR （131）；＂，＂；CHR1（131）：LOCATE－8，12；PRINT－C HRs（138）；＂，${ }^{\text {，} C H R S(133): L O C A T E, 8,13: P R I N ~}$

（PuAv）339．PRINTII，＂$\cdot 1 \cdot 2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 7 \cdot 8 \cdot 9 \cdot 8^{\prime \prime}$
（Btin） $340 \cdot$ RETURK
（KqBo） 350 － 50 UND $-1,450,30,5,1,2 ; 50$ WD $\cdot 2,225,30$ ， 6，0，2

ONsAk\} $370 \cdot \mathrm{X}=5 \mathrm{ND}$
 $\mathrm{ND} \cdot 7,1009,40,7,8,0,31: 50 \mathrm{R} \cdot \mathrm{nz}=0 \cdot \mathrm{T0} \cdot 20: 0 \mathrm{U}$
 0．8－5TEP．－
 LS－ $12: 2 x:=2 x+59: 6070 \cdot 440$
 $\mathrm{L} \cdot 0 \cdot \mathrm{~K}^{\mathrm{E}}: S \mathrm{~S}=5 \mathrm{~F}, 1: \mathrm{LOCATE} \cdot \mathbf{1 3}, 8,4$ ：PRINI$\cdot 43,1$ B－
 ，Nz：NEXI：6010．430

 $0-10 \cdot 20: S O U N D \cdot 7, K ;+2,5,7$ ：NEXI： $6070-430$

 3：CLSTE：FOR－N0：20－T0．0．STEP：－ 2：SOWD－7，N $12,1,7$ ：NEXI：CDT0－430
 $0.005:$ FOR $\cdot \mathrm{n}^{*}=1 \cdot 10 \cdot 20:$ SOUND -1 ， $\mathrm{m}^{*} * * 5,2,7: \$$ OWND $4,200-(n \times N 5), 2,2$ NEXI
 2：SOUND．7，NX12，1，7；NEXT：C0T0．430
 $0.005: F O R \cdot \omega z=1 \cdot 10 \cdot 20: \$ 0$ WD $\cdot 1, n \chi * 5,2,7: \$$ OUND $4,200-(n X * 5), 2,7: N E X I$

（ 0180 ） 440 －NEND ：RETURN－

－Doctor your disks with Zak Mirt＇s useful util－ ity．It provides a quick and easy way to sort out what＇s on what disk．

## DISC DOC

This useful disk utilities program comes from Zak Hirt in Bristol．The program is quite short， but it does have a fairly extensive range of disk operating features．The features，such as erase and catalogue，are accessed by a keypress from a menu at the bottom of the screen troubles．
〈IIB0〉 1，＇＊＊
（BrAU）2．＇㓋．D．1．S．c．．．D．0．0．t．0．r：＊＊



（Fvaj） 6 ．
（CuCj） $10 \cdot$ DDN－$f 1(12): y=4: x=13$ ：CALL $\cdot$ BBBFF：NODE－ 2 IPEN－1：PGPER－6．．．
 SW以



 EKEKNXXHEFE
＊＊
（Boss） 30 －HINDOH－1，80，5，128．．
 ${ }^{4} 8818$
（Juha） 50 －CLS：IDIR
（Pukx） 60 －LOCATE $\cdot x, y:$ PRINI．＊
${ }^{*}+\mathrm{CKP}$（242）
（PiAp）70．FOR－a $21 \cdot 10 \cdot 200:$ KEXI
（IrBj）80．IF $\operatorname{INGEY}(0)=0 \cdot$ THEN $\cdot 6070 \cdot 140$
（EuEj）$\$ 0 \cdot \mathrm{IF} \cdot \mathrm{IH} K E(1)=0 \cdot \mathrm{THEh} \cdot 6070 \cdot 160$ ．
〈FSBi〉 100．IF－INKEY（2）$=0$－IHEN $\cdot 6010 \cdot 190$
（JqB．j）110．IF INKEY（8）$=0 \cdot$ THEN． $6070 \cdot 210$

〈AvAn〉 $130 \cdot 6070 \cdot 88$
（IIBBj） $140 \cdot$ IF $\cdot y(=4 \cdot$ THD $-y=4:$ C070 $60 \cdot$ ELSE 150
（ItBi） 150 －LOCATE $\cdot x, y:$ PRINT ${ }^{"}$ ，＂： $9=y-1 \cdot:$ COTO 60 （CuBj） $180 \cdot$ IF $\cdot x=73 \cdot$ THEP－6010－80－5LSE－170，
（NtB．j）170－LCCATE－$x, y: P R I N I, * * * x=x+15: C 010 \cdot 60$－
（0Kkd） 180 －804

〈SsBi） $280 \cdot$ LACATE $x, y$ ：PRINT $\cdot *, * ; y=y+1 \cdot: 6070 \cdot 60$－
（L×B j）210－IF $x=13 \cdot$ THE4－G070－68－ELSE－ 228

（FnA0）239－LEI $x=x=13$
（ $\mathrm{N} n \mathrm{BO}) 240 \cdot 70 R \cdot a=1 \cdot 10 \cdot 12: L O C A T E \cdot x+a, y: f(a)=C O P$ YCHRt（ 16 ） $\mathrm{NEXT} \cdot \mathrm{a}$
 E． 260
（EpCq＞ $268 \cdot f \mathrm{file} \xi=f 5(1)+f 5(2)+f(3)+f(4)+f(5)+$
 （12）．
（0tCx）370－LACATE－1，17：PRINT．＊
…．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．

 E．．．．．．．．．．．E．．．．ERRSE ．．．．．．．．．．．．｜＂．．．．．．
（Jr（x）298－LACATE－1，19：PRINI $=1 \ldots \ldots, \ldots,-$
CHANGE USER－UUMBER－．．．．D．－．CHANGE－DRI UE $\cdot \cdots$ A $\cdot \cdots$ ．AYOTHER，DISC．．．．．． $1^{\prime \prime}$
（ $0 \omega C \mathrm{Cx}$ ） 300 －LOCATE－1， 20 ：PRIMI，＊
（atC．j）310－LOCATE－1，21：PRINT．＊．．．．．．．．F．I－L－E． S．E．L．E．C．T．E．D．：．．．．．．．4，FILE！

（E0At） $338-A f=1$ PPER（DNEY $)$
（AICI） $340 \cdot$ IF $\cdot$ A $\$=^{*} \mathrm{R}^{*}+$ TKER $\mathrm{HOSE} \cdot 2:$ LOCAIE $-4,5:$ PRI
NT－＊RONNING．．．．．．．．＂：RUH－FILE $:$ KLH



（MnAu） $388-$ IF $-A 5={ }^{*} \mathrm{U}^{*} \cdot$ THDS－GOTO－640


（COAn） 419 －6010． 339
 ＂cls：11st－48＊＋CHIR（13）：XEY－131，＂els ：rum ＋CERE（13）


－LISTS－PAOGRMM
（GUBn） 458 －LCCATE－3，9－：PRINT－ $12, \cdots$ PRDMT－LIST
（6xin）400－LDCATE－3，11－＋PRINT：＂f3－＊ RUN－PAOCROM
（COBi）470－LOCATE 4,15 ：PRINT－PRESS－ANY－KEY＊
 490．WOAD－fillet
〈0sAa） $498-109 \mathrm{D}$
（NKAi） $508 \cdot \mathrm{NEH}$
（FvBu） 510 LOCATE－2，18：PRINI－
$\qquad$
（MnBt）S20－LOCATE－2，19：PRINT，＊．．．．．．．．．．．．．．．．．．．．．．．

## The Great Type In Disaster！

Apologies must go to all of those poor people who typed in the program Snake last month．Unfortunately the program tries to access a file while it is running．In testing the program functioned perfectly correctly as the file was on the disk supplied by the author．In listing form，however，the file simply isn＇t there．．．whoops！
If＇s easy to be off the culf about these things，but we do realise how much time and pationce is recuired to enter these listings．We do apologise for any inconvenience caused．steps have been taken to ensure that the same thing does not happen in the future．
 ＇ev＂；filef
 －e，：${ }^{*}$ ，nnane！．
 ． 518
（ 0 iAs） $568-$ IREN，manel，file！
 －BEEN．CHANGED－10：＊；${ }^{\text {；}}$ Manel
（lies） $580 \cdot \mathrm{CALL}, \mathrm{BBB} 18: \mathrm{RUN}$
（AvBu） 590 －LOCATE 2,18 ：PRINT－
$\qquad$


（HVAa）610－IERA，9files
 BED－ERASED ！！．．．．
30 －CALL－ $18 B 18: R D$

（LABt） $648 \cdot 10$ CAIE－2，18：PRINT－
．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．
（KvBe）658－LOCATE－2，19：FRDNT．＂，．．．．．．．．．．．．．．．．．．．．．．
$\qquad$
（IJBq）66e－LOCAIE－2，18：INPUI－＂．．．．Change curren t－user＇to ：$:^{\prime \prime}, 0$

 ：6070－700
（Pnalo） $6 \$ 8$－C0I0－648
 1S．NOH：－…＊＊ ， 4
（DxAq）710．CALL－KBB18
（DyA1）728－80N
（L，1Bu）730－L0CAIE 2,18 IPRINT．
＊：REK－78－57aces
（TtBu）740－L0CATE－2，19：PRINT－

（DnBx）750－LOCATE－2，19：INPUI－＊．．．．Change－curren t－drive＇to＇st，drivef－．
 RUN
 ：REN
 PIN：
 －BEDN－CHAKCED－10： $3^{*}$ ；drive！
 TRUN
 ：RUN
 RUN．
 －BEDN－CHANGED－T0－；＂；drivet
（61As）809－CALL－2BB18：RUN－

Welcome to another four pages of readers letters, answered by the ed, Rod Lawton. Sorry, but we can't print all your letters. We usually get about four or five times as many as we have space to print. Rest assured, though, that even if we don't print all your letters, we do read them all...
Just a couple of tips if you're thinking about dashing off a line - don't say "please, please, please print this letter", because it doesn't make any difference (it just makes Rod feel guilty for about 2 seconds). And don't enclose an SAE. There's no time, unfortunately, for personal replies. If we can help you, we'll do so in print.

If you do want to get your views aired, write to: Reaction, Amstrad Action, Beauford Court, 30
Monmouth Street, Bath, Avon BA1 2BW.

The gamesters fight back
In AA67 you printed a letter from Poter Skilton of Kent, implying that all games players are 'crassheads'. I would like to put him straight on a few facts.

1. If it wasn't for games players the CPC would have disappeared around 1986.
2. If it wasn't for games players Amstrad Action would go out of business.
3. And this one's for all you so-called 'serious users': The CPC is a games machine that can also be used as a computer, and not the

## other way round

We, the gamesters, are the lifeblood of the CPC. and it's about time we stood up for ourselves. Serious users like Peter Skiton are in the minority and are rightly treated as such.

D J Thomas Doncaster

Rod: Thanks for putting the other side of the argument! There's a lot in what you say. It's undeniable that the games market is by far the most powerful commercial force behind the continuing success of the CPC, and while I wouldn't necessarily agree that both the CPC
and Amstrad Action wouldn't be around if it wasn't for games, they'd both be in a far weaker position today.

I don't want to start off debates about 'minorities', though. People use CPCs for many different reasons, and we try to reflect them all.

## The console rules!

In AA67, A Sugar from Glasgow said that the console games weren't worth $£ 25$ just because the graphics are better. I dispute this. I have got a 464, 6128 and now a GX4000. Although I have loads of games on the CPC, which one do I play on the most? The GX4000 - and I have only two games for it. The graphics are much better on the new machines, with them updating extremely quickly and without stowing. even when there are lots of them on the screen. The sound, too, is improved, and no more tedious loading between levels, which are also bigger and more detailed than your average CPC disk game. And so on the whole you pay E 10 more and get $£ 10$ more game

Secondly, the sales of the new machine were disappointing over Christmas. I believe this was because there is lots of competition, and Amstrad didn't put it into people's minds that they must have an Amstrad. But also the general lack of games is putting people off, who then go for the far inferior Nintendos and Segas. So once software shortages are sorted out and games reach shops like Menzies, Smiths and the Virgin megastores, sales will pick up.

Lastly. I would say that the GX4000 and Plus machines are the best around. They are miles better than any other 8 -bit in the shops and almost as good as your average 16 -bit (everyone who has seen my console was amazed, even my brother, who owns an Amiga). I am extremely

# Parcillel or serial? Get it right please! 

Could you please clear up the confusion that some readers may be having about your article on the price reduction of the Oitisen 12AD printer (AA67)?

As you know, the Amstrad CPC is designed for use with most, if not all, Contronics-compatible parallel interface printers (both 9-pin and 24-pin models).

What may have confused some readers is the advice that was given in the articlo, where it rays: "but Amstrad owners will need to -spocify a machine with a serial port rather than the parallel version fitted as standard: Could you please clarify this?

Inn McCallum
Saltcoats, Ayrshire


- Should you really specity a serial port for your new citizent Of course not - overyone not - cveryone
knows the Amstrad has a parallel inter. facel (Except, er, me, last month.re)

Rod: I certainly can. I must have left my brains at home when I wrote that Iittle remark, since everyone knows that the

CPC's printer port is a parallel interface. Sorry about that everyone, I hope it didn't cause too much aggro!

## LETTERS

pleased with my GX4000 and I think it is better value and overall better than a Megadrive, so if you are thinking of moving on to a 16 -bit, don't, just buy one of the new Amstrads.

Trevor Johnson
Ashford

Rod: I agree with you entirely about the cause of the poor console sales. If only there had been a proper software base available when it was launched, the GX4000 could have taken on the Nintendo Entertainment System and Sega Master System squarely. As it is, Amstrad faces a long, uphill struggle.

## What's a Multiface? <br> (And make it snappy...)

I would like to know what a Multiface 2 does? I enclose an SAE, so could 1 have an answer this time? Because I have sent a letter before

Orlando Harrison Cartmell Fell

Rod: A Multiface 2 is a little plug-in black box that lets you 'cheat'. Simply by pressing a button you can 'freeze' a program running on your machine and then do all sorts of clever things, like examining the code to find cheats for infinite livos. You can also use it to 'save games' on to disk (not your program disk!) to help you get past tricky sections in a game.

By the way, Orlando (and anyone else reading this), don't sond in SAEs! They're only likely to end up in the bin, wasting you the

## Traitor:

This is your last chance, lovely 6128 people who I used to be a member ofl I have mountains of 6128 -specific magazines chock-full of gripping 6128-specific info piled under my bed now awaiting the knacker's yard. Wacci's, Amstrad Computer Users, Amstrad Actions (a veritable tome) and mucho books at knock-down prices.

Their salvation will be anyone offering 50 p or thereabouts a copy (buy in buik, save money). The men in bright orange overalls will come to take 'em away scon, as the mice have no room for wresting matches under my bed.

All jokes aside, I have an enormous database of 6128 subjects, so if any of your discerning readers has a specfic query I can probably find a mag with an article covering it. I will send a list to anyone who phones or writes to me.

I now own a PC, and can be found lurking in the pages of PC Plus.

Phil (\$yy other computer's a PC) Mortey
11 Kingtisher Road Whittesey
Peterborough PE7 1YY
Tel: 0733204534
Rod: That's outragcoust Fancy using our hallowed pages just to flog off all your redundant gearl Mind you, that bit about being able to help out readers with articles and other info sounds useful. What about it, folks?
cost of a stamp. This is because we simply don't have time for personal replies. And we only have space in the magazine to print a certain proportion of the letters we get, so it's just a case of being one of the lucky ones, I'm afraid!

## Just what I wanfed!

May I point out how pleased I am with the attitude that Amstrad Action takes to please its readers.

Firstly, congratulations on deciding to add a covertape and more colour to the Action Test pages. The colour pages were needed as it is difficult to tell what a game looks like in mono, and although I read AA for the serious side of my CPC6128. I also like buying the occasional game for when I am bored. I go by reviews and my taste of game so I get something worthwhile like Rick Dangerous 2 (hard, but very well programmed - deserves to do well) and not something like Heiter Skelter for my fifteen quid Incidentally, with RD2 I have completed it; and mapped Level 51

The covertape (now boxed) was also needed and appreciated. Many a time I stood in W H Smiths looking at all the other (not official) magazines, wishing like them we also had a covertape or disk on the front.

My wish was fulfiled, excellent nows, because in effect we are getting free former budgets previously around $£ 1.99 \cdot £ 2.99$ (more than the magazine costs) and demos which back up the reviows as you can then see for yourself. Incidentally, Puzznic was bought owing to your Christmas issue. I also like the ease you tapes transfer to disk.

On the serious side, progs such as Typerighter are useful when put on covertapes as they take up only 1 K but have half an hour's eye-straining input. Unfortunately, I'd typed it in the issue before you put it on tape!

Finally, up with budgets! When I bought my CPC6128 I was 14 -ish, and had little money, but 1 always buy the best, so I got a colour 6128. I then couldn't afford many pieces of disk software, so instead I bought a cable to link my old cassette recorder to it, cleaned it (I used methylated spirits) and set that up with my CPC. Then I bought loada budgets from a place called Computerworld and now, because I bought a CPC6128, at 18 it has really paid off. I have bought a Multiface so I am now disk-only, an FD1 disk drive for speed back-ups (extra disk loads) and Tasword, Protext, AMX Stop Press, DMP2160 printer and tuner (so I can watch Neighbours) Anyone have the first episode on video...). I have also built a cable making my CPC6128 stereo, so in effect it is better value than a Plus.

All the budgets load quickly (thanks, Romantic Robot), are cheap and can be poked with ease (Multiface/Cheat Mode). The only complaint I have is: Why stop cassette loading on the 6128 Plus? Software houses lose money on budgets, and we all lose out in the long run as they become smaller in production, prices rise etc. So if Amstrad wants to take the silly approach, making the Plus just a games machine, then it should install a tape facility not just for games but as it is also a cheap stor age system, too. Then others could use covertapes, and games also get free advertising

## No more tripe!

Id like to know why people can't stop wasting space in Reaction with iuterly pointiess tupe. Take AA67:

1. IS ALEX PATRONISING (James Grant), No she isn't. There are many people out hore who have not got a clue about programming, me being one of them, and Alex is teaching us how to use a computer for something other than gamos. Considering how often letters come in about AA turning into a games mag, I would have thought that Mr. Grant would be happy that something was being done to wean us away from playing games all the time.
2. WATCH THAT COKE (Peter Skiliton). III stand my coke wherever I want to. That's part of the fun of being a pinhead gamester: as you so eloquently put it.
3. COVERTAPES (Stephen Frydrych). Bery time a covertape is given out there is a bit somewhere in the mag saying. "if all else falls, send it back and well replace it". So why write in complaining about it? You can't expect every single cassette to be tested before issuo, surely?
4. GET SERIOUS (Stewart Hector). Im sure if you could find a company deal. ing in serious software, which is willing to let it bo handed out free of charge, then the AA team would put it on a covertape. But there is a limit to how good a word processor or DTP program can get, and eventually there will be no more releases as there will be no improvements made. The scope for games, though, is endless. Therefore, more games are released by publishers as demos. How do you release a demo word processor?
5. NO, NO, NO, NO, NO.. 1 (James Neill) Soe above, bat I do agree with your bit about competitions.

'Dolph'<br>Lossiemouth

Rod: Thanks for backing us up, Dolph! We are trying to get some good serious software on to the covertape, but in many ways, all the best serious software has alroady been written! Look at Protext, Stop Press and OCP Art Studio, for example.

The trouble is that although the CPC was originally launched as an all-round machine, the fact that IBM PC-compatibles are now available really cheap (partly thanks to Amstrad itselil), and that they are the standard office and 'serious' machine, all the serious publishers are concentrating on PC software these days. Im afraid the decline of the CPC as a serious machine is slow, but inevitable. It's not the machine's fault, or the publishers fault -it's just the way the computer mar: ket's going.

This lack spoils the 6128 Plus and ocher Amstrad owners' cheap software supplies.

Jason Smith
Canterbury
Rod: You've certainly got plenty of use out of your 6128, haven't you? I agree it's a shame that Amstrad didn't incorporate a tape port in the 6128 Plus, but you could argue that if you wanted to play budget games you should get the 464 Plus. The 464 has actually been revitalised by the launch of the new machines. Whereas before it was very much the poor relation to the 6128, it's now, arguably, the better games machine. This is because it can run the whole range of software, from budget, through full-price (on tape) to cartridge games.

## Play the game!

In Ieply to Paul Crisp's letter of AA67, entitled 'Games too easy?', I would like to point out that Paul may not necessarily be a mean son-of-agamesplayer', he just enjoys playing computer games.

I must sympathise with Paul, though, as many games I have played over the years are just too easy. Sadly, Lotus Esprit Turbo Challenge falls into this category, and I have the ticence to prove it.

The problem is, these games do not live up to the expectations of some poor bloke who wants to stump up the price of a game, only to find it doesn't live up to the ype in a magazine.

What Im saying is that reviewers should spend more time playing a game and stop putting it down because they can't play it. OK. $s 0$ a game might not be great, but give it a chance!

A classic example of this can be seen in AA67. Super Scramble Simulator was given 39\% back in AA47, whereas it now gets 73\%, partly because it's included in a compitation. What you are actually saying is that it's taken you nearly two years to learn how to play it. Didn't you get instructions with the game? Or was it because you couldn't be bothered playing it? I think the answer is pretty obvious.

So come on all you reviewers, pull the finger out and remember, a game is only rubbish if you can't play it.

Derek Milton
Buckie, Morayshire
Rod: I wish you'd make your mind up, Derek. Are you saying we rate games low when we can't play them or high? I gave Lotus Esprit Turbo Challenge a Mastergame because I found it difficult enough to have serious long. term interest. I didn't finish the game, so I don't have a licence, but I have played it for many, many hours. Im not the only one who found it a 'challenge', either. Adam found it tough, James Leach found it tough, even our art assistant found it difficult... I do think you and Paul are in a minority. Evon if you did finish it, as I said to him, was that using the manual gearbox or was that on automatic? And you're completely ignoring the twoplayer mode, which - surely - will last you indefinitely!

And another thing - we don't 'hype' games, Got it? If we think they're good, we

Who needs a Commodore?

Nearly three years ago today I started a campaign with my parents to purchase a Commodore 64, a great machine, and you can't argue with that. Since August 1990 . when I received my first 64, I have had four more! Since then, I have thought, "what the hell.i. Im getting an Amstrad". And what a fine choice it was.

I ended up with a 464 Plus. Not one game has crashed yet, 1 love the machine and Im sure Burnin' Rubber is not far off 16 bit quality

Im not going to jabber any more about this machine, but... YOUI Your magazine is suporb. it makes me proud to own a CPC. You have is balanced out so well, from Balrog to Action Test, and Typeins to Free for All Your stalf
writers are clever, writty, and know how to write with aplomb. I have agreed with all the Action Tests, except for maybe the Double Dragon conversion - I found it a tad too slow and tepid.

I strongly disagree with James Neill in AA67. He was unjust and boring to read. You lot down a Future Publishing do get a slag: ging, don't you?

Fraser Duncan
Dartord
Rod: Thanks for the support, Fraser. Even though we try our hardest to get the magazine just right', it's nice to be told it now and again.
say so, and that's all there is to it.
You go on to say that reviewers should not put down a game because they can't play it. Well if they can't play it, what sort of game is it? They're supposed to be entertainment, not something out of the Krypton Factor. Come to that, we never give a game a low mark without convincing ourselves it deserves it - and that takes as much playing time, if not more, than good games need.

Is Super Scramble Simulator a classic example? No, it's not. Steve Carey thought it was rubbish in AA47, his principal gripe being that it was basically a budget product without the budget price-tag. He didn't like it much for It's own sake, come to that, whereas we did. The biggest factor in the changed rating, however, is due to price. Back then, the game was £15 on disk - now, on the 10.Pack, it's $£ 1.80$ ! At that price we reckon it's a little corker.

Your final remark is the weirdest: "remember, a game is only rubbish if you can't play it". Well, Derek, they can be rubbish either way. We've played loads of games that you can pick up straight away but which are utter tosh, and we've played loads more that have been tricky to get the hang of - and been tosh.

Initial difficulty has never been synonymous with quality.

## Tape-disk transfer made easy

Now see here, ed. While I appreciate that the majority of $A A$ readers have mega $10 s$, you must appreciate that there exists a minority who don't. like ME!

Action Pack with AA67 looks real good, and whets the appetite for all future issues. So here we go, pages 6 and 7... "But Ive got a disk drive". No problem. Go and get a set of leads to connect my extemal recorder (which even has a REM socket) to the Amstrad. Check out the tecorder, turn the volume up and insert a disk.

Now what do I do? See page 6, Itape ready.

RUN - press PLAY then any key. Goody, away she goes. Side 1 loaded, turn tape over, press PLAY and away she goes. Goody. Tape stops. Now what? Screen says the same as before.

Page 7 says wind the tape to the beginning and it'll transfer all the games automatically. OK, do that. It runs through both sides of the tape again, nothing goes onto disk. Screen still

## want Iron Lord! (Even in French)

I was particulatly entranced by the review that you gave in the game Lron Lord in a recent issue of your organ. Inspired by same, 1 tried to force some poor, unsuspecting software company to accept some of my hard-earned cash in exchange for the disk. After waiting some considerable time I read that the game is not being released in this country. My question is in two parts:

1. Is there any technical reason why the game should not operate in the UK?
2. If not, can you please supply the name, address, telephone/fax no of a supplier in France who would be willing to help.
3 I like to delude myself that my rather basic French should enable me to play the game with no major problems.

> Graham Hindle Gt Malvern


- There's no reason why the French version of Iron Lord shouldn't work in the UK. UbI Soft will supply you with a copy if you wish.
Rod: No, there is no technical reason why the game shouldn't work in the UK. If you want to get hold of a copy, you can ring Ubi Soft in this country on 0252860299.
says the same, I can't get out of it. Press ESC, break, does nothing for me. Oh, frustration!

Please could we have an idiot list giving step-by-stop instructions?

Jim Bradley London

Rod: Aha, I know what you've done. To Joad the transfer routine, you first need to run the DISK.TFR program. To do this, you need to wind to the appropriate spot on the B-side of the cassette (if you've got a tape counter, it's about 200 from the start). Type RUN" now and the transfer program will lond. Only now do you wind back to the start and press PLAY. Let the tape run all the way through the first side, then turn over and do the same on that side of the tape. With luck, all your programs will now be saved to disk.

## Shredder - the facts

I have something to point out to you. In AA67, pages 14 and 15, Benjamin Yeoh said that Shredder isn't a rat. The only rat in the film is called Splinter. Shredder is the lump of metal who badly needs a can opener. So E 10 would be very nice.
PS. I think your mag is awesome.

> Adam Girvin
Belfast

Rod: I think the Turtles are a load of cobblers anyway, $£ 10$ would be nice, but you're not getting it. You're not related to John Girvin, are you?

## Mulfi-format madness

I am a thirteen-year-old boy with a craving for a good blast. However, it has dawned on me that certain multi-format magazines overrate Amstrad games, and in some places they vastly overrate them.

For example, in a certain January issue of a mult-format games magazine, they reviewed US Gold's arcude conversion ESWAT. They said, and I quote, "One of the best conversions we've seen on the Amstrad, with all the playability of the other 8 -bit machines, and well deserving of your hard-eamed dough. 88\%."

So, me being out for a good game, and loaded with dosh from Christmas, I decide to go out and buy it. Now, being in the middle of rural Somerset, finding a computer game that you want is somewhat difficult. So, to my great surprise and happiness, when I walk into my local software emporium with seven quid in one hand and a gleam in my eye, I see a pile of yellow and orange boxes. My hopes rise. I walk over there. Yes! They are US GoidI I take a look at the cover. YESI It's ESWATI I look at the sticker on the bottom. YEEESSS! It says the immortal words, "For use on Amstrad CPC Cassette". I promptly slap my hard-earned dough' on the counter, and buy it.

When I get home I promptly tum on the computer and load the game. And... oh dear. What a load of donkey doos. Now here, had I been an adult, I wouldn't have been so annoyed. But, that was all my Christmas money spent on a dud game. And I could hardly take it to the shop and say, "Excuse me, this game's crap. Can I have another one?"

I'm sure that there are plenty of other kids in
my predicament, and it wasn't just ESWAT which was overrated either. One of my presents for Christmas was Turtles, and that to0, from the same magazine, also got a healthy $88 \%$. Yes, I thought it had nice graphics too, and it was my favourite game until I finished it two hours late:.

Anyroadup, time to stop grouching. I love the improvements to the mag. Keop up the good work.

## James Ward Somerton

Rod: It just goes to show you shouldn't read multi-format mags, doesn't it?

## Plus posers

I recently bought a 464 Plus to replace my old 464, and I thought I'd made a good buy. However, there are some things which are bothering me.

1. Why is there no tape counter? This can be very irritating in mult-load games, e.g. after reaching Level Five of Operation Woif I have to reload from Level One as soon as the game ends. If I don't rewind the tape far enough, I have to wait some five minutes before Im told to reload, but if I go too far back, I have to wait ten minutes for Level One to be found. I can tolerate waiting for games to load, but surely not every couple of minutes?
2. Of the 100 or so games I have, 5 go no further than the title screen. There was no problem on the CPC464. Why won't they Joad on the 464 Plus? The games that didn't load were Amsolt's American Football, Amsoft's Sultan's Mate, Codemasters' Death Stalker, Nigel Mansell's Grand Prix and Palace's International 3D Tennis,
3. As a relatively new reader to Amstrad Action, I can't got enough back issues. I have all that are currently available from AA, but if any readers want to part with their copies for a modest fee, I would be pleased to hear from them.
4. Can a disk drive be connected to the 464 Plus?

> A M Lipsey Manchester

Rod: You're right about the lack of a tape counter on the 464 Plus. It's almost impossible to judge the tape position accurately just by peering into the cassette window. We too have come across a few games that don't work on the Plus. We understand many instances of incompatibility are due to programmers in the past carrying out programming short-cuts and 'Jazy' firmware commands. It's only where programmers have not 'followed the rules' that problems occur. Unfortunately, there's not much that can be done about it at this stage, as software houses are unlikely to go to the effort of reprogramming and re-releasing a game just to make it work on the Phus. Finally, it seems it is possible to connect a disk drive to the Plus. You need an adaptor to convert your Plus's Centronics port to the old-style edge-connector (available from WAVE (0229 870000) for about a tenner). Then you need a DD1 disk drive (the one with the interface), but you need to dis-enable the disk drive con-
troller ROM in the interface because the 464 Plus ROM is now the same as the 6128 Plus ROM and has one built-in. (If you have two running at once the hardware gets terminally confused.) If, after all that, you get it working, let us know!

## ORB Sysfems number

I am writing regarding the 'serious' section in AA61. You reviewed PS Headings Plus and I tried to contact ORB Systems to order the disk. The telephone number seems to have been mis. quoted, though (not enough digits?) and I cannot find ORB Systems in the London telephone directory. Can you help me please?

Philippa Morris
London
Rod: Certainly can, Philippa. We printed the correct number in the following issue. It is: 0816908534.

AA

## Covertapes, great - but I've got a 6198 Plusb

I am an ex-owner of a CPC464 and a proud ovmer of the excellent 6128 Plus. I see now there is going to be a covertape every issue. A while ago I would have been ploased, but now my 464 is no more I won't be able to use them at all on my 6128 Plus. I don't want to get a tape 'upgrado' because I only got my Plus for Christmas and, as you say, it would void the guarantee. Is would be a shame not to use your excellent tape. I have been a subscriber for two and a hall years, and your mag has taught me a lot. Please help.

Jeff Scotr
Dunstable
Rod: You want the covertape proggies on disk? Ooooh, well, I dunno... oh, OK then! Yes, it's truel - see the Action Pack pages for the full news!


- Brimiant - the AA Action Pack is now available on disk. Check out the Action Pack pages for all the gen.



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