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# COMMODORE

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# FORMAT

ISSUE 41 • £3.95 • FEBRUARY 1994

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AND  
VENGEANCE

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## The indestructible CF crew



**BLAIR**

### CAPTAIN BLAIR

The CF crew decide to take a night-time holiday. However it turns out some things are never far from the crew. Captain Blair was called to be deployed. He always took a great interest in how it works for one of the 30 missing members can't help but enjoy his capacity to fly.

Things didn't go so well for Blair, though, and the fall we heard of. He was when the last person sent us the fall for his workbooks from delivery.

**BANK**

### CAPTAIN BANK

The strict banking system really got hard to stand up when Captain Bank found out that he had to wear a dress change of four days, and the old dress was still in the laundry. He was angry, and it was all over.

"I got the most challenging task, but I found myself... I can't do it!"

One of the other things got in the way at Blair's. He had to wear a dress, and the laundry was so full of things that he had to wear the white tie.



**LEA**

### CAPTAIN LEA

Lea is getting on in the world, but she has to face the fact that she's not as good as she used to be. She's been so busy with her work that she's not been able to do it. She's been so busy that she's not been able to do it.

Being so busy that she's not been able to do it. She's been so busy that she's not been able to do it. She's been so busy that she's not been able to do it.

As well as that, she's not been able to do it. She's been so busy that she's not been able to do it.

**BLAIR**

### CAPTAIN BLAIR

Blair is getting on in the world, but she has to face the fact that she's not as good as she used to be. She's been so busy with her work that she's not been able to do it.

Being so busy that she's not been able to do it. She's been so busy that she's not been able to do it. She's been so busy that she's not been able to do it. She's been so busy that she's not been able to do it.



**COLE**

### CAPTAIN COLE

Cole is getting on in the world, but she has to face the fact that she's not as good as she used to be. She's been so busy with her work that she's not been able to do it. She's been so busy that she's not been able to do it.



# DOWN

## COMPO/GAUNTLET

The ultimate challenge page. This is where we throw down our own gauntlet and ask you to beat some difficult scores and often where you can win loads of happy prizes. Step up.

## CHARTS

What's up, what's down, what's in, what's out. What are you enjoying, what's your favourite game?

## 12 THE ULTIMATE GRAPHIC ADVENTURE

In which Simon looks at the frequently misunderstood form of game and comes up with a very strange theory about Margaret and the daily world of Harry.



## 14 NEWS & SHIPPETS

Crystal ball as the ready, the CF crew gear outside the office door and see what's happening in the world outside.

## 15 ESSENTIAL EDOS

You'll find an EDOS machine in a John Manley near you. Here we tell you exactly which are the 10 games you should invest in. See that Columbia money tree.

## 18 SUBSCRIPTIONS

It's the issue that's keeping the nation. More and more people are subscribing in the most popular. It's not just the money, it's the way they get their news. They get their news in the most popular. It's not just the money, it's the way they get their news.

## 19 MIGHTY BRAIN

Some of you have had the audacity to suggest the Mighty Brain doesn't exist. That's right - some of you have the brain-based skills to suggest that's totally false. We had this kind of scientific without-choosing-to-be-the-least-form-of-insulting behaviour and it's not very nice. Next thing you'll be telling us that Santa Claus doesn't exist, the tooth-fairy have gone into Equator, and that Michael Foot isn't the only one.

## GAME REVIEWS

### 15 ESSENTIAL EDOS

What's all the EDOS Business about? Well, if you've wondered into John Manley's secret world, you'll have seen a rather messy looking cabinet with lots of games. Some coming out of it.

These machines enable you to get hold of new games, because most of the software houses have changed their entire back catalogue onto them. We've picked out 10 of the best games and they're being given a thorough going-over. Look out for the best one.

### ALBION, ARMY MOVIE, BARK SIMULATOR, BOUNDARY, CAPTAIN BLOOD, EXOLON, HEAD

OVER HILLS, MADPOINT, RIBS AND SAM FOX, STRIP POKER.



15



17

## 22 BUY-A-RAMA

Looking for a thrillsome, depressingly empty or simply wasting money? This page is the key to your problems.

## 23 TECHIE TIPS

Compatibility problem? Out of control support? Don't be playing us again! Jason Finch has forgotten more than we'll ever know about such techy things and he can help you. Feel no more, come out of the closet, right to face today.

## 26 DR FINCH

Ever have to stifle your class for special lessons with teacher? We all do, but if Dr Finch had his own school we might have caught that last few hours.

## 28 MR FLEXOR

If you've mastered reading but can't still only get eight times moving around at once, then Paul Black's got some good news for you. Here's how to get 20 spins moving at once.

# NEWS

## GAMEBUSTERS

Head onto your heels because Broken is number one again! Back with cheats, hints, tips, settings and load time testing that no one else can offer. Andy Roberts is the king of the experts.

**37 GAMEBUSTERS** This month it's back to normal as we present loads of settings for frustrated gamers on the world tour.

**38 LISTOMANIA** Whodunnit? Hints, cheats, settings and prizes for fast solvers and their friends.

**39 BOB BILLY 3** The shiny egg with the name gets his best look of his adventures solved.

**40 MOSBY PART 3** The cartoon's adventures continue. This month Aunt Lilly joins the Salvation Army.

**41 VOLKAN** Completely mapped for your help and delight.

**42 MATHIEU HAPPY JELLYMAN** Mathieu's got his shuffled face on again.

**47 MATHIEU SAD PIPELAND** But not for long, because it's onto the next level.

## 39 SECRET OF SEUCKESS

Learn how to improve your very best 3000-4000 construction bit games, with our best-kept-secret expert, Jon Vetto.

## 30 SOFTWARE CITY

As the CD-ROM market contracts, it's getting harder and harder to find just the games to play. Here we give you the low down on exactly where to buy games, how to get ripped off and what to do if you are.

## 32 INTERWORD FEATURE

The word processor gets given away on CD-ROM's coverpage. This feature covers all CD-ROM's secrets, including the popular legality index function.



## 34 PD FORMAT

Dizos of public domain games, demos and utilities shopped under the microscope and analyzed at length. This month: loads of cheat 'em-ups and some odd graphical demos.

## 36 POCKET OFFICE

Parties of Sim's investigation into telecommunications. This month he discusses bulletin boards and commercial networks. Get yourself a modem, a spare telephone and get on-line.

## 51 BETTER BY DESIGN

Most people to great design from the designers, programmers and team directors of Creatives.

## 52 MAIL ORDER

Buy some gear.

## 54 CHIP OFF THE BLOCK

The secret life of the CD-ROM - what really goes on behind the scenes.



## 54 CHIP OFF THE BLOCK

Sometimes small parcels conceal mighty secrets, sometimes they don't. The CD-ROM's certainly does.

## 56 BEG, BORROW, STEAL FEATURE

What happens to old CD titles? They mysteriously disappear from the shelves in a different hat. Hutch gets all worked up about it.

## 58 NEXT MONTH

What CD-ROM issue 42 held in store? Here we all reassured from the nine year 'yell' Why is everyone already going on about the summer when most of the country is under six inches of water? If the devil's out, why does he punish you for being bad?

Yet again we bring you a host of brilliant games all packed on to one disc with tape. No one ever need know you're using it.



## FUTURE KNIGHT

Some people like nothing better than to get their feet up with a mug of cocoa in front of the telly, and sometimes while eating doing a really quite accurate impression of a particular foreign vegetable. Other people prefer to leave the office of an



evening and looking from new worlds. There is that third category of people that prefer to go off and conquer old ones, whether they're family or not. This month, we give you the chance to do some conquering of a hostile alien planet.



## VENGEANCE

There's more than one way to conquer a planet. The second way would be to climb inside a space ship and hit everything in sight. What a good idea. Vengeance is just that - the chance to get revenge on an alien fleet puny for being when Leonardo can be hit, held,





Pure game action for you this month. Two slonking titles straight from the vault marked 'Classic'...

# POWERPACK 41



## VENGEANCE

**FULL GAME**

This is a platform game. You are a knight, in the future. The aim of the game is to, um, complete it, and this is how:

You play the part of that little rounded knight, jumping around saving lots of things, and wandering through the obscenely huge playing areas, jumping up stairs, sliding down slopes, using the teleports and weapons stores.

The teleports are quite simple – at some point during the game you'll come across a small red panel marked 'tele'. All you have to do is stand on that square, and you'll get through to another part of the map.

The weapons stores are just as easy to get to, and you'll find them in wall panels as well. All you have to do is walk up to them, and press fire to try out your new Multi-gun or whatever.

Things to avoid as, if possible, fail:

- Anything that moves (including walls)
- Anything else that might move at some stage
- Anything that fires things that move in your direction

Things to take notice of and collect or embrace or something:

- Teleports
- Weapons stores

• Absolutely nothing else, because this is a dead scary game that frightens white.

### 999 LIVES

It may seem like a lot (it is, after all, one hundred and eleven odd) but get together, but they go down incredibly quickly. That guy can take any amount of them in one go. It's not true, but it just means you'll have to hurry, and don't get into too many close encounters.

### YOU'RE THE BOSS!

Does anyone else remember that show? It's got that classic British comedy ad its best, and they give us the Upper Hand! Thanks even so. Occasionally you will meet a boss. It's nothing to be scared of. It's just a really huge beast who's not only incredibly dangerous, but also really very difficult to hit. Not that you should worry or anything. Just take it and fire a bit.



It's a scolding message. Aren't you glad you read out and bought this magazine, then?

### QUICKSTART INFO

Side One • Type Command 666 • Approach part 2

UP	Jump
DOWN	Crouch
LEFT	Run left
RIGHT	Run right
FIRE	Er... Well... Fire, really.

Other info.....To pause press PAUSE/STOP.

You know, I remember reading something very much like this of a party in Westminster, once.

**S**oar journey into the future, and become a knight of old where pants are odd. And they say the art of slonking is dead.

Even though it's probably about some mythic quest or something, we're going to release it's an... only one-man can save the etc' style thing, because that's more fun, and no-one wants to try and defeat some utterly odd wizard anyway.

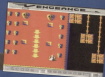
### NO LOAD ZONE

If you're having a hard time loading the monthly powerpack then take the stuff here in a jiffy bag, why is an OAD, take it up and send it to: CP 41 11st, Poppleton, Airedale, Leeds LS15 7JG. Hobbies, Halesowen LS15 7JG. Shropshire, WY 402.



# FUTURE KNIGHT

**FULL  
GAME**



Remember this: Start by this at home, even though more number is good. Thank you.

**V**engeance is mine. *POW!* It's not really — it's yours, as well, and here's a lesson to tell you what it's all about.

None but a mad man would attack the fleet on his back. Only a fool would attempt to enter their Craft to engage them single handily.

This reward for such folly must surely be instant death. It is less so: the *POW!* case. It is was a fool for would die a hero. The alien laser had to end, someone had to stand and fight... fight from on their own ground. Teach them a lesson that they would never forget.

As he entered their strange craft, he was faced with an awesome maze of



conditions and passageways. His sense seemed that they would look like that in his wildest nightmares.

If he was to die for his feeble resistance then he was happy. His only prayer was for vengeance. His goal maximum destruction.

## STUFF:

- **Course**, which he builds at your current position.
- **Missions**, which come in on you.
- **Energy pool (low)**, gives you 4 units of power when shot.
- **Energy pool (high)**, gives you 18 units of power when shot.
- **Random pad 1**, giving either spawning, 500, 50, invisibility, remove all or nothing.
- **Random pad 2**, giving

either extra lives or nothing.

- **Random pad 3**, giving either extra life, 50, 500, remove all, or nothing.

Shooting aliens or energy pods increases your power level (the "laser" option gives current power). When sufficient power has been collected, you may attempt to board one of the alien ships. The amount of power is reduced in full steps — that's there is a fixed amount required to board.

## TEN POSSIBLE REASONS WHY YOU MIGHT BE WANTING VENGEANCE

- 1 — The alien force borrowed a five, and ran off before paying it back.
- 2 — As well as your fleet, they took your girlfriend and your favorite socks.
- 3 — Killing your cat as they drove off.
- 4 — The shock of seeing what emotionally scarred your daughter.
- 5 — Who promptly started mugging grandma.
- 6 — One of whom killed her, and reflected the outrage by sucking her with a mousetrap.
- 7 — But didn't get connected, so it was seen as an act of "self-defense".
- 8 — This, however, got a very bad reputation as an alibi for a parent.
- 9 — And your teenage got student with white paint as a contest.
- 10 — Which cost well over a five to get off again. Like the Fed, isn't it?



If you miraculously kill enough things, you could end up in the high score chart per day.

each kind of ship (the more help it takes to blow up a ship usually indicates whether it will require a large amount of power to board or not). The power is also reduced constantly as you move the selected cursor about the screen — so the closer you can get to the ship you want to board, before entering selected mode, the better. Also, moving the cursor over a button or explosion quickly depletes the Power level.

When a ship is boarded you must search through the maze, and find the hidden engine component, showing any mines that may happen upon you. Entering a field of this point reduces power to zero, and transports you back out of the ship.

When all 6 components have been retrieved (one from each of the 6 kinds of ship displayed on the "boarded" option), you must return to the end of the space station to complete the game. And that's all they say to continue to that.

## QUICKSTART INFO

Notes: Two 1 Tape Cassette (60) + Japanese part 2

UP	Move forward.
DOWN	Drop back.
LEFT	Move left.
RIGHT	Move right.
FIRE	Fire.

Other info..... To power press **POWER/OP**.

## Tape to disk

If you're lucky enough to own a disk drive and want to use it, all well as nothing, then you can get hold of this month's PowerPack on disk. Simply cut out the label on the tape (they say), write your name and full address on a piece of paper, slip "into" an envelope with a cheque or postal order, made out to Atlas Audio Video, for £7.50 (to cover duplication costs) and send it to:

CP 61 Tape To Disk,  
Atlas Audio Video Ltd  
Eglington Road  
Laford  
Stroud, G11 5SD



Simon goes in for a complete game overkill, shows no mercy to small animals or their habitat and runs the EDOS Gauntlet...

# COMPO

**W**hat if all the EDOS from the oh, so thought it was about time to integrate it into CD-ROM software, the Gauntlet for PlayStation 2, the PC remake of the classic EDOS game, you'll be able to pick a game. It's all right – each entry winner of the month's challenge will receive three copies of the EDOS software (delivered on three disks) from the magazine if you like.

To help you get with the challenge's theme:

**ANTIRIAD**  
You'll start with a really simple task – all you have to do here is find the gas for your air conditioner. Simple, huh? This one will need a whole lot of your screen clarity, but it's the only way.

## ANTIRIAD

You'll start with a really simple task – all you have to do here is find the gas for your air conditioner and... Simple, huh? This one will need a whole lot of your screen clarity, but it's the only way.



Look at that action camera – there is a single camera capturing both of you! I love this.

## E-MOTION

The screen shakes around for you. In addition, if you're as fast

at it as you want it, that's... This, too,

you've just got to do something really, really simple. Then,

you, complete the game. Yes – that's

it. All you have to do is write in saying what

the ending of E-Motion looks like, and you're set!

Harsh! We'll take the first entry that looks an Simon's desk as the winner.

## PREDDY HARDEST

Even simpler... if you complete the second part of the classic little game (and it's been on the computer, so everyone can have a go at the time), you'll get a really rather interesting little message. So just write in, telling us what that message is, and you too could have your choice of those EDOS goodies.

## KENTUCKY RACING

The winner of this race is the person who's usually able to enjoy the greatest thing on the longest length of time. (Send to 1000 top only.)

## POSTIE PAT

The first challenge this month is simply to write in telling us what the first mission actually is. To complete the game, write down what your first mission was, and send it in.

## WHAT DO I HAVE TO DO

Once you've actually completed the challenge, simply fill in the form below, and send it to:

The Scientist  
Comix/Key Format  
Future Publishing  
30 Monmouth Street  
Bath  
Avon  
BA1 1BN

There is space on the form for the name of a winner, which must accompany all entries.

## RULES

1. The editors' decision is final. So don't argue in writing and trying to change the mind, or we'll just tell you to rest up.
2. People called Derek are not eligible to enter.
3. If the editor receives the floor of any point in the postal sorting zone, the postal chair must be used to score a connection.

## THE ENTRY FORM

Name:  
Address:

Date:  
Achievement:

Winner:

# WIN! WIN! WIN! WIN! WIN!

3 WEEKS  
**PENGUIN**  
 GAMES SOFTWARE

# CHARTS

## TOP TEN

### 1 STREET FIGHTER 2 ▲

RICE £5.99 **CF88 80%**

### 2 FUN SCHOOL 2 ▼

MT SQUAD £3.99 **CF37 73%**

### 3 RAINBOW ISLANDS ▲

MT SQUAD £3.99 **CF88 82%**

### 4 CREATURES ▲

RICE £3.99 **CF36 84%**

### 5 FUN SCHOOL 2 ▲

RICE £3.99 **CF37 80%**

### 6 THE SIMPSONS ▼

MT SQUAD £3.99 **CF38 81%**

### 7 OUTRUN EUROPA ▼

RICE £3.99 **CF32 80%**

### 8 FUN SCHOOL 2 NEW

MT SQUAD £3.99 **CF37 80%**

### 9 TRIVIAL PURSUIT NEW

MT SQUAD £3.99 **CF36 80%**

### 10 WWF EURO RAMP NEW

MT SQUAD £3.99 **CF33 81%**



## CHART FACTS

Street Fighter 2 makes its inevitable climb back up to the number one spot. How many Fun Schools are you lot buying? Did you all buy the for Christmas?

- 1 Wrestling game. Grip, grapple, sweat and then take a really big jump, eh?
- 2 Full price games.
- 3 Budget releases - you always get.
- 4 Book without program. How educational CD-ROMs is it then guys?



## THAT WAS THE MONTH THAT WAS: FEBRUARY 1991

- 1 Back to Future 2 (Movie)
- 2 Golden Age (US Game)
- 3 Hollywood Collection (Movies)
- 4 Midnight Resistance (Games)
- 5 Quake (Microgame)
- 6 Wheels in the Sky (Book)
- 7 Shadow Warriors (Games)
- 8 Tenthin (Movie)
- 9 Super Off Road Racer (Games)
- 10 Emily Hughes International Soccer (Autobiography)

## THE BEST PRESSIES THE CF CREW GOT THIS YEAR

- 1 Lovely pair of goalkeeper's football gloves. (Simon)
- 2 Sweet pair of light blue swimming goggles. (John)
- 3 Super black Harley Davidson leathered pen. (John)
- 4 T-shirt to see the Comedy Store players at the Theatre Royal. (John)
- 5 Expensive champagne "to mark my newly long locks". (Simon)
- 6 Quite pair of fluffy slippers. (Liam)
- 7 Lovely nude pair of White the Fox socks. (Liam)
- 8 Bottle of Gian 12 year old single malt whisky. (John)
- 9 Several jumpers. (Simon)
- 10 My dead beautiful nose ring. (Simon)





# YOUR LAST CHANCE!

This is your last chance to buy the ECLIPSE (the best Commodore 64 Collection available!) The collection is available in TAPE or DISC, and costs only 1P!

## WHY IS IT SO BRILLIANT!

There are many things about ECLIPSE that make it BRILLIANT!  
First of all, the collection is SO BIG, it takes up 8074 DISKETTES (and 1480 DISCS) - making it the most massive 1-pc BRILLIANT in the home! INSTRUCTION MANUALS that you get with the collection that gives you loading tips and instructions on how to get started with everything in the collection. There are many more things even on the collection, and we'll give you more than is contained in it - simply by surprise.

## WHAT'S IN THE COLLECTION?

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In the last of *Ultimate Game* feature of the series, Simon finds out just what a graphic adventure is and then loses the envelope with the answer in.

Graphic adventure games are called like that – the easiest way to look at them is as the graphical equivalent of a text adventure. Just as a text adventure game has locations, a graphical adventure game's playing area is divided into a series of locations, each one different. The basic idea is that instead of you typing commands like "east", "take", etc in response to a textual description, you can just point your mouse in the scene, and guide him round the maze with controls almost like a platform game.

The whole genre started with the games produced by a company called Sierra, who started everything off with *Dun-Donnch*. It was in this game, incidentally, that the very rarely demonstrated first major flaw in many graphic adventure games (GAAs) first came on us, to have on its flying colours enough to pass the reverse stage with flying colours though it was, it really did get difficult to work out which way you were facing, what direction you were walking in, and which direction you'd end up having travelled in. Back then, though, no-one cared a jot.

The problem was a difficult one. The *Dun-Donnch* world was built up of a series of corridor-like passages arranged (or otherwise) in a grid system. The main problem arose from the fact that not only would your view of the blocks shift direction, but your view of the pathways would too, meaning that North was North in the

# ULTIMATE GRAPHIC ADVENTURE GAME

same direction, and subsequently rotate like the wind (and, I suspected, the rest of the completely average, mainly challenge-games-playing public) could never tell which way they were facing, or where anything was which would be a bit hard.

The concept was a strong one, however. In fact, it's the father of today's



The game with the most unpronounceable title ever, since 1985.

respected fighter format games, such as *The Secret Of Monkey Island* (or rather *Monkey On The Island*) was, but well come to that later. The reason for the success is an ultimately predictable one: most game heads look on text adventures as the most boring thing to appear on a computer since *Advanced* (even *Spelling 'Em*), but if you take away the screen full of text and replace it with something a little more appealing, you can open up the versatility and depth of a classic text adventure game to everyone else.

Answer, what's to change?

## UNPRONOUNCEABLE

The answer to the original *Dun-Donnch* was, well for it, *The Big Red*, an equally unpronounceable title like *Conan* to think of it. *Marsport* was pretty much the same, though this didn't serve to deter too many players. The point was, you see, that even though the method of exploration needed a little work, the actual concept of wandering round graphically was proving popular.

Thankfully, the directional problem was solved shortly after, with the slight style change. The playing area now always stayed facing the same direction, so North was always into the screen, South was always

facing out, and west and east facing left and right respectively. The character itself was always facing out of the screen, and only turned to do the thing when you gave an instruction.

## GRAPHICS

I think the best idea here is to keep the visuals simple; if everything was graphically beautiful, you wouldn't really be able to tell what was going on, and quite a lot of the game would be too small to read. Instead, very simple images and animations seem to be the best bet, being of a suitably big amount of memory to leave space for everything else, such as a huge map, characters, etc.

## MAP

The smart way to make any text adventure game challenging is to place the player in an

unfathomable maze. If you go out of your way to disorientate the player, they'll hate you for it – wandering round trying to find routes is nowhere near as much fun as



around facing a new challenge every few minutes and completing a set of logical, well thought out problems. So it is *The Great Maze*.

Maze themselves have to be created – ACOTM has various levels, accessible by staircase, leading either up or down, and this idea worked very well – while quite a few games, you could actually tell when you changed level, or walked into a different section of your own's one.

The one game that really stood out as having a slightly unfathomable map, incidentally, was *Marsport*. Even though it had loads of help as to exactly where you were (such as maps, corridor names, etc), it was still extremely easy to become totally, comprehensively, ineptly and completely unhelpably lost.

## PUZZLES

The main problem faced by ACOTM (which seems to be the clear winner of the game, judged though it is as the puzzle element, which relies on

saying the right passwords on many occasions), and giving correct instructions to other in-game characters for the rest of the time – this kind of problem is common at nearly all text adventures, is a certain degree, but ACOTM doesn't do it as often. It doesn't make for great games,



So instead of reading to make a certain character or whatever to get past the bunting, I'd prefer to make use of a bucket and a stone tap, doing things the traditional way.

## CHARACTERS

From the programmer's point of view, by far the scariest part of writing any adventure game is trying to get your vaguely realistic characters to wander about the place. The problem stems from the fact that if you want to get truly interactive characters in your game, you're effectively got to solve the problems of creating artificial intelligence, and this is a little beyond the range of most developers (not surprisingly, in our perfect world, there would have characters with full artificial intelligence. It's a slightly more realistic one, though, we'd have characters with a very simple, logical, and understandable system of communication, so that you can not only understand what they're trying to tell you, but so that you can get a message across to them with the same maximum of "I got you understand" messages. All this, sooner or later, brings an amount of paranoia (what a friendly little bit, even if I do say so myself) as



trying to tell you, but so that you can get a message across to them with the same maximum of "I got you understand" messages. All this, sooner or later, brings an amount of paranoia (what a friendly little bit, even if I do say so myself) as

## PARSERS

Parsers are that bit of code in a game which interpret what you're trying to say when you enter commands; the better the parser, the more complicated your sentences can be. There are two main types of parser in a GAG. Firstly there's the standard parser control, meaning you have to guide the character directly to the appropriate door, object, or character, rather like an interactive games (Knight Lightning the classic example) with a different perspective. Secondly, there's the outdoor first input,

which is lovely when you're doing it.



## THE BIG ONE

I think, now, we're just about come up with the ultimate graphic adventure. Unlike many other game formats, the success or otherwise of these titles isn't dependent on additional features to the graphics — since you've got spells, someone in a cloak, and a demon or two, it's all pretty much the same, differing only with map layout, puzzles, etc.

As for an ultimate game, sure we'll have it in a nice little plot involving stealing round

adventures, but altogether it did seem to work best.

## PLOT

Always a good one. Settings as well for that matter — as in their own, please — but adventure writers base everything in a medieval period, and, not surprisingly, most graphic adventures have tended to stick with the theme. I feel, the only two that have gone deviant seem to have taken by the way-side — Postman Pat (the one kept to the action packed Postman Pat), and Andrew Stanton's classic detective story, featuring lots of transcripts and trilly bits.

Now I don't know about you, but I like a good bit of slash reading and spell reading, so medieval sounds absolutely fine to me. It does tend to mystify ourselves and all that jazz. It's right up my street and, as I'm writing this not you, I think they'll play a

major part in our tentacular ultimate graphic adventure.

So as to a plot for our ultimate graphic adventure game, well, stick with what we know, and have a nice bit of events and scenery.



a few characters to avoid a fight, but a few to command, with the occasional one to give clues. You'll just chuck

Logical puzzles — I'll set up something that I can't open the door until I've uttered the word "Bassensplein" (I'm going, and the programmer, and all his, being an several spell families on my way, I think you'll see I've not too the job for a girl of heavy



blowing things up with spells as imaginatively value things like "He'll be"

Graphically, things had better be simple. If you try and produce some quality people mumbering round, you'll just end up with an expensive game — it's much better just to accept the fact you're on a graphically inferior machine, and produce graphics that are clear, to the point, and visible — you'll end up with a better game because of it.

In the parser will be heavily compressed text adventures, though slightly more friendly than *Moby-Dick* (The Wizard). It has to be said, you see that MCM has possibly the most extremely intransigent ever devised by man — hitting people wouldn't stop them one character, instead just adding the phrase "forget it" to the line, leaving

you to re-type the action thing again. It's just not. Don't do it, guys. It's especially for our mag — I don't want to spend my time wandering around a castle garden maze, thanks.



## CROSSOVER

As you may have noticed, there are quite a few references to generic games throughout the feature. There are many graphic adventure games that are actually in scientific, making me think I'd better supply some sort of definition as to what exactly a graphic adventure is, as opposed to a platform game. Right. A graphic adventure is a game in which, though the movement and game style is graphical, the emphasis is placed on traditional adventure

themes, such as object use, puzzles, etc. as opposed to a platform game or exploration game, in which the emphasis is placed on dexterity and stamina.

Now we've cleared that up, I'll just like to confuse the issue by introducing a third genre, which crosses both lines, namely *CastleMaster's* *Domus Spacemaster*. Unfortunately, the mix of adventure gaming and platform action isn't mix — it was like a slightly reserved *Duoy* game, being only slightly such this time.



# SNIPPETS

Wake up, and find out what's going on in the world of your computer - it's the C64 data set.

## COMING ON STRONG

As you may have noticed, there's quite a lot of information in this set on the new way of distributing software. EDOCS, a system created by Software on Demand is set to be a stunning success, taking old software back to the shelves for good.

In fact, as far as the shop keepers are concerned, the system is already doing incredibly well, boosting their business and giving a new lease of life to many titles that otherwise would have been dropped for good.

"Before [the EDOCS system] came along, we had to choose between either stopping games for some of the less popular formats. Ever since we started with EDOCS, we've seen so many new customers coming in, knowing that they can find what they wanted in so little of a time. It's just something that somebody didn't think of earlier."

Of course, life is never really that simple. Though the games are all stored on a computer and are very cheap, enabling EDOCS to support less popular formats (they're still selling 800K stuff), the continuation of coverage still depends quite heavily on the support it gets from you, the users.

So instead of sitting back and thinking "oh, what's new", why don't you just go out there and buy something? Think of this as an opportunity to get hold of a few of those titles you've always

wanted, or catch up on a gaming era that you arrived too late to experience.

To find your nearest EDOCS store, write to Software On Demand, Unit 1, Redwell Business Park, Newcastle-Under-Lyme, Staffords, ST7 7JZ. Tel: 0525 588558.

## IF THE GLOVE FITS...

Last month, we decided to start a new regular section to discover the hottest games player around. (What about you, though? Are you any good at a particular game? Maybe you think you're the best. If you've got an idea for a gaming challenge that you'd like us to set to the nation, drop us a line and let us know at the usual address. There's a prize of a free piece of software for any

challenges we use. Remember - the challenges set for us for the highest score for the first section of Smash TV, to complete the second moon in Bonanza, and the highest number of enemies on one screen in Pipmania.



So get cracking at you gameheads.

## COME TO THE PARTY!

A few months ago, as you may or may not know, we started up another *Any Party* called *Any Party 2*. It was just the response to the idea that they had been enjoying, and we'd show the winners, etc. whatever we felt like it. really. If you want to enter, all you have to do is make a mistake on your C64 and send it along to us. We'll engrave your name, address, age (if you really love it's important), and, in some cases, a few words explaining what the best it is, onto a party invitation.

Send your entry to: *Any Party 2*, Commodore Format, 20 International House, Oakley, Essex, SS16 5DD.

It's a car chosen by someone who has a lot to say (thank you, "Growth", "Sty")

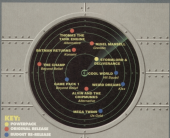
Commodore Format  
20 Int'l House



Raceback-optimized  
**countach**

## EARLY WARNING SCANNER

Your at-a-glance guide to upcoming releases. The nearer a game is to the middle, the nearer it is to release. Keep an eye out for others.



## WHAT? A SIMPLE PRINTER? NEVER!

Well, would you believe it! Like every machine that Commodore's ever made, the world that Commodore's the company famous for printers, is as far from as you can get for making printers. It's why, are they, are they, the latest addition to their range, tend to capture the "OH NO!" and of the market.

For those buying the slightly smaller job of London, COMODO is an acronym for Small Office, Home-Office, and will therefore be used, especially in people who've never used a printer in their entire lives, and don't actually care what it is to read with.

The search is underway for the 128-of January, in expect more details next job.

Simon takes a long hard look at what's hot and what, er, isn't in the instant software range now showing at a high street store near you....

# ESSENTIAL EDOS

If you look elsewhere in this tab, you'll find a little feature or where to get your software. If you read it thoroughly, you'll have heard mention of a system called EDOS. If you want the full breakdown of exactly what the EDOS system is, you'll have to turn to that feature (it's in the centre pages), as the rest (from all this end of the mag) are dedicated to some of the more memorable titles in the range.

## ALIENS (US VERSION)

(£3.99 Alternative)

If you know how some business are successful on every turn? Alien is one of them - every single version of every single game-related officially in the line at some stage or another has been good, and successful because of it. One hold of this game - it's good if it could do this all day, you know.

**85%**

## ARMY MOVES

(£3.99 Alternative)

It's incredibly difficult 2, compared to its rival, which is probably any other Dynamics game ever made. As with other titles in the range, it's a nice off-the-beaten-path, around a rather odd background, and it's difficult. Really difficult. So difficult, in fact, that it deserves to have 10% knocked off its final rating. It has.

**80%**

## ATV SIMULATOR

(£3.99 Codebusters)

This title Codebusters number involves you, as usual.

## ANTIRIAD

(£3.99 Hi-Tec)

Has been, they say CP has quite a high female readership (as opposed to the 4 or 5 percent other magazines get), so this game is featured here for the girls, among you girls. It features a called Monkey you see, resembling around to a standard platform type thing with a few nice novel twists. Really odd. This is quite a reasonable platform game, the point being to shovely collect more bits and pieces to add to your suit of armour which, when complete, should help you travel through the volcano.

"Hi-Tec's title of Antiriad, by the grace of the monkeys and with the abandonment of the sacred status of Upward, I sincerely hope to tell me about I fight my business."

## CAULDRON 1 AND 2

(£3.99 Hi-Tec)

Sold separately, these two games are a good buy. Bundled together, they make a package you really shouldn't miss. The first game sees you as a witch, journeying around a hostile forest being attacked by bats, animals, foul creatures of the night (WOL Lovers), and generally having a bad time, trying to fill cauldrons to complete some spell or other. The second game sees you, still as the witch, as a pumpkin. If you see what I mean, journeying round a castle trying to get roasted to your former beauty, and having a thoroughly wonderful time, bouncing more unconvincingly than Dolly Parton on a pogo stick. (What a thought! - Ruth)

**78%**

and two all-terrain vehicles. The game itself is a two-player full-screen horizontally-scrolling drive 'em up, featuring several different landscapes, obstacles, enemies, and incredibly tight time limits. If you like the idea of a polished battle of ATVs, well, this is the game for you, and the graphics, sound, and general playability of the game only adds to this conclusion.

**80%**

## BMX SIMULATOR

(£3.99 Codebusters)

What a surprise - another Codebusters title. This one, as to rating BMX, born an unofficial pair of wheels. The game allows two players to race, the second player being either computer or person. A word of warning - the computer players are impossible to knock off. In normal circumstances, when you hit

someone, the game ends out whose fault it was, and they go flying off. When you collide with a computer player though, they always stay on, and you always fall off, making you just pull into the side and let them pass you after a while. Other features include an action-lookup system, along with several different tracks, to buy it.

**85%**

## BOULDERDASH CONSTRUCTION KIT

(£5.99 Software Business)

Throughout the many different aspects in the original BoulderDash, the whole range were rated as being truly excellent (as well as quite original to the Clay). This is partly because they were truly excellent (as well as quite original to the Clay). To

this day there hasn't really been a follow-up from any other software houses, and so BoulderDash holds its title. Had there have been a follow-up, the title are Dash would still hold its title, as it's truly excellent (as well as quite original to the Clay). The constructor kit only strengthens the game, as when you're bored with playing the game it allows you to create some of your own. Its truly excellent (as well as quite original to the Clay).

**90%**



Multiple Bubble Ball and Franken makes a change (What else has his choice).





## COUNT DUCKULA 2

(£2.99 Alternative)

The joy of computer journalism is evidently discovering a brand new game that, though simple in concept, is an amazingly amusing gameplay wise that you just want to tell the world, and do so. Let's just say I did, didn't I really? (provide this reaction).

**90%**

## CAPTAIN BLOOD

(£2.99 Fair Fantasy)

Oh dear. The prospect of exploring this title neither in under one hundred words in your chat's 'is already'. The idea is this, you play the part of Captain Blood in his biological ship, heading toward the galaxy viewing 'over the water' zone. You do this by communicating with aliens, coming around planets, moving from up, down, and going left. Oh dear.

**90%**

## COUNT DUCKULA

(£2.99 Alternative)

An excellent platform-type type thing. Get it. Now. Fly about the world, really.

**90%**

## DIE ALIEN SLIME

(£2.99 Drama)

There's nothing like getting in the past, is there? Why not use game something original like *Die Alien Slime*? My goodness what you can get straight to the point with *Die Alien Slime*! Facing this is built for Games, meaning the German language foreign is different as is *The Man-Thing*. Are there any more? Whatever the weather, it's a reasonable game set down by a few original game features, such as, in fact, the game itself.

**70%**

## E-MOTION

(£2.99 Risk)

Every now and again, a truly original game comes along. This is a title.

original game, being it more between a shoot 'em up, sci-fi, and nuclear physics, that take a while to explore, as if someone sends a who through the wall? It's not that, in the meantime, you'll just have to look for a final rating soon.

**90%**

## EAGLES NEST

(£2.99 Fair Fantasy)

That's right — go to EAGLES and get your copy of the official PSP game now. In fact, any high-ranked and released game title in the vicinity is going to be instantly distinguished in a half of year, given, as this is a PSP action-adventure-type game. This, unfortunately makes the game really quite 'forgetting up the past and forget we were in the generation of new fantasy games, quite a lot of stock over the matter about 'fly yourself?' but hey — I didn't write it. So as long as you don't mind all the social issues it's not mad, anyway, go out and get it.

**90%**

## EXOLON

(£14.99 21st Century)

As well as being truly excellent, *Exolon* games are famous for two other features. The first was being really incredibly difficult. The second was



The robots used to maintain an Exolon's Radar. One made the computer programmer.

also for being really incredibly difficult. They pushed back the boundaries of difficulty, you see. *Exolon* is a game, a difficult historical risk beyond platform, involving just those complete with gun and rocket launchers journeying across a hostile alien terrain, destroying everything that moves and, as destroying everything that doesn't. Do it over, the game is almost impossible. It's an extra time cheat. This is excellent to almost impossible. Buy, but beware (it's difficult, you see).

**80%**

## FREDDY HARDEST

(£2.99 Alternative)

(is an international player)



With that, every case the answer happens not into the thick end.

being found the answer, saving planets, and generally saving the world, you have to look good, look, aim, win, and unfortunately. In fact, you add a computer game to this, you get an absolutely wonderful full-screen multi-levelled platformer, in which you have to defeat any number of alien, a computer, and usually space war. Everything about this game means you should not out and get it, so do the most thing. Facing that, you'll find it in a envelope of old.

**85%**

## HEAD OVER HEELS

(£2.99 Ocean)

Just look — a shot with into town, and you'll could play the Jim Finsen classic, with music by Simon Drummond. You play the separate parts of head and heels, in an opposition around various worlds, comparing several parties, and doing, out of a number of things, if the computer together, you see. Quite simply, this is the definitive version game, and it's what you shouldn't miss.

**95%**

## MATCHPOINT

(£2.99 Ocean)

Some people don't just sit at the feet of the GAs, all day. Some people actually pursue this outside that of their computer (which goes up and now, doesn't it?) There are, however, some complete folks that actually try their hands at, and I say the word with great pleasure here, sporting activities. *Matchpoint*, both *Die* and *Myself* engage in just activities. Also we really are here! *Matchpoint* and *Matchpoint*, people of the joys. I propose we stop the old, unbroken and otherwise treatment right now, and get everybody to go out and buy *Matchpoint* the best game. With its smooth animation, excellent graphics, sound and gameplay, it's a sure-fire hit.

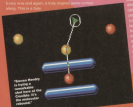
**85%**

## MONTY PYTHON'S FLYING CIRCUS

(£2.99 Drama)

Amazing platforming action, with its fair share of fun, but, and the *Monty Python* (who forget to mention the *Lord*, *Monty Python* if you haven't seen it yet, like a book, if you're at least as old as, you'll see it. The game itself is based heavily upon the animation, from the old cartoon series, so at least you can take part in the pseudo-game, unless you've known, loved, and probably not understood to the great extent.

**95%**



"Monty Python" is trying to communicate. What form of the "Monty Python" is a "Monty Python" is a "Monty Python" is a "Monty Python".



Steve Oyster likes these (calling the Bedford, Mass.) road, "My place man."

## POSTMAN PAT

(2.00) Alternative

Freedom! For all those too dangerous to be let out on the roads, I have the game for you: Postman Pat (the game) comes to have been ahead of his, seemingly depriving adults from having too much fun. The original idea is to gently transfer round a village delivering parcels and serving awards. When you add a psychotic driver, the book translates into driving round a village in reverse of breakfast specials, trying the most spectacular driving manoeuvres ever devised by man, having in desperation that you can't turn up as you can follow it.

75%

## RB12 BASEBALL

(2.00) Domestic

Another sport's game, this time featuring baseball (funny enough), and what a line it is.



Oh dear, your father at the first. Must have been all that stopping the man, anyone.



## KENTUCKY RACING

(2.00) Alternative

Practice your wheel action and race horses throwing a ball through the holes in a little game of mood. To a really irritating theme tune. Alternative

Software, this is not the way to make money — this is the way to make any self-expanding reviewer vomit, shortly after purchasing small rodents out of cages.

5%

In fact, all sports here go, it's got to be one of the best around, featuring a really cut stomach services, and an extended game section, with lovely graphics, markings, players, arenas, sounds, and well, it's really good. Thank you, and give us all your lovely money.

88%

## ROCKY HORROR PICTURE SHOW

(2.00) Alternative

What do you want me to say? The fact that it's based on the Rocky Horror Picture Show makes the game into the next category. It's funny though, as you know where who's actually seen the film at the way through it's one of those peculiar ones that you see (hey! hey! hey!) again.

80%

## SAM FOX STRIP POKER



Don't know quite why we've censored this. The only person that hasn't seen his number in the 'strip' was the character's on video.

(2.00) Alternative

For some, imagination's reason, the phrase 'cut and cut and cut' people, seems to mean, if you're a depressing enough example of the human species to desire any sort of pleasure from this life, we truly pity you. Seriously though, they know that this is a quite a moderate version of poker, but a Sam Fox standing for various sporting bets around is likely to put off your poor face, even when (speaking in detail of the adult state simply, round the possibilities of her, believe is of off putting, but if you again you can make everything out quite clearly, it's not your hole card — hold!

60%

## NEBULUS

(2.00) 31st Century

Pippin: "uh... are there no tests?" Yagor, this is another amazing game that everyone must own. This one involves climbing up and down towers using the platforms stream around the outside, using lifts, doors, jumping facilities, moving blocks, sometimes puzzles, and catching fish (the whole fish has a sort of wobbly frame).

90%

## AREN'T ALL THESE GAMES GETTING UNUSUALLY HIGH SCORES?

Yes. This is quite simple because we've gone through the EGGG range and picked out some of the best (with a few of the worst for comedy value). If you want us to give you three pages of average games, we quite happily will, but for now we'd rather pick on the more interesting games in the range. More next month OK.



The frog played on the floating bridge, his face was all a quiver. His game is simple, his frog had an and floated down the river, I think you.

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If you'd like to discuss your thoughts on war, religion, politics, or even C64 stuff, then write to the best looking grey blob ever to grace the C64 at Commodore Format, 30 Monmouth Street, Bath, Avon, BA1 2BW.

## LISA'S NEW NO.1 FAN

1. I am writing about the letter called Lisa's No.1 Fan in CF88. Question 3 said that Lisa was more than just a fan. I would agree but she has your personality that Lisa.
  2. I got Lisa's no.1 fan but Stephen who wrote that letter in the November issue.
  3. I am keeping my real name a secret. If my little brother found out I wrote this he might tell my mum.
  4. Why can't I get a new C64 and how much would it cost.
- Mark Smith, Liverpool  
PS: If John Riley reads this I would like to thank him for sending me the Great Game Stories. I can't say my real name.

1. Shouldn't that be 'but C64 has more personality than Simon'?

## PAINT A PICTURE

Dear Tom,

1. Is Laramie available? Can you recommend a mail order firm I can obtain it from (or is it better to buy it direct from Progress)? Either way, please can you give me their address and the price of the lucky customer.

2. How can I use an Action Replay Mk1 or cartridge to transfer multicolour programs from tape to disk so that they will function properly as a multicolour?

As how does General Paint look to you? For example, Roger Bell's has multicolour but can only use 16 characters. Advanced Art Studio has can start with any 12 characters but multicolour with MFC, etc.

2. Sorry about that, but I suppose I was glad to make the game's mistake in figures.
3. Casual attention is worthy for its enhanced oil. Especially when you're IT.
4. Keep an eye on 'Strike One's' they're name I think there's one there this month, actually.

## CALCULATOR HEAVEN

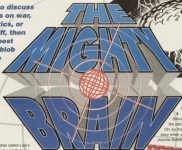
Possible answer: Just a few of my questions, on nighty one.

1. Is there a cheat for Museum or Billionaire? I can get up to Chernobyl (I hope) but no further help.



2. It could change the file names to Spectrum Paint format would have started from any other graphics programs be suitable for 'copying into Spectrum Paint' if so, when near AG McLean, Yorkshire.

1. We reviewed it last month, so find out from there.
2. You know, I'm not sure you can. Learn machine code instead - it's probably easier.
3. Look, you - I'm a brain. There's just a little ageing jump programme though in it, with its eyes, give me it back, will you?
3. French edition.



3. What is the best racing game in your subject opinion?

5. Thank you given any other game apart from AAA, 100% if so what?

4. Is there such a place as 'Simon Heaven'? If yes, where do all the calculators go?

CF, by the way, I think you're really busy when you're angry.  
Juana Calles



1. Last month's CF contained a complete guide to the first two levels, and this month shows another two, so that should keep you going.
2. I hate them all.

3. Heaven - AAA is the first game in Western history to star realistic 18%.
4. Simon Heaven does, indeed, exist. If I were you, I'd worry more about your version (what would I gain with a computer parasite, anyway?).

## 8-BIT RENAISSANCE

Relating to your letter in the October issue of Commodore Format from Mark Thompson, I agree with you entirely about the thing about Speccy and Amstrad being not dead truly because they're not dead, well the Speccy is not dead there are lots of versions out there if any Speccy owners read this, send an SA2 to me and I'll tell you about them as long as the 1988 thing prints my address) and assembly as all support for the businessmen of computing pass out of the time light (in the 8-bits) we all need to stick together to help it going. 'Y's is dead but as Commodore Format's all here and it can keep 8-bit hopes alive, maybe an 8-bit site together page could go down real well support all the 8-bits. I also agree about consoles read you a bit then they don't



have a keyboard to program it with (which is a bit thick if you ask me).

By the way, all those C64 owners who hang on the spectrum going under—what about the C64? Near Commodore it's not going to carry on, supporting itself for long with such meagre sales as the fringe of 2000 is it? One last thing, equal as the specs are, I see a few other vintage computers hanging around the place I have a C 65, do they have any user groups/forums there for it? Any bits for a last good-bye to the market? If there isn't any of those, then I will start a list or bulletin for the C64 for I think are any others who have C64s and want to help write to me a the address which TMB will type under here? It better be nice.

Christopher Thomson, 31 Pauls Avenue, Beach Hill, Bishopton, Dumfries, OXN 0LH PE. Tell the powers that be that they were thick at selling MS and perhaps an all format 8 bit mag should now come out!

**Wow...** The whole issue of dying computers is pretty complicated if you ask me—just because you own a computer that isn't as popular as it once was, should you suffer having it run games?

The answer is, unfortunately, yes. It releases software on the C64 isn't going to make any money, you can't really expect the big corporations to do so—do you want charity? The whole 8-bit

scene would be a lot better if you got it all into just one mag, wouldn't it? The machines are all so totally different (there are six different types of Amstrad CPC; for starters) that you couldn't possibly give each machine the proper attention it deserves.

At the end of the day there will always be enthusiastic C64 owners out there, but unfortunately, they won't have any new games to play, unless you get program them—Moby.

## DIZZY FAN

1. What game do you like best, Fantasy World Dizzy or Treasure Hunt Dizzy?
2. What is your best game on the C64 apart from the incredible Mythos?
3. Are there any old games for the C64 that I should try?
4. Will I ever come out on tape?
5. Are there cheats for this game?
6. Who do you like best in DIZZY? Aahle, Coby.

1. They're all brilliant really.
2. The second best ever computer game in my opinion is Screen 17.
3. Try taking a look at their ad.
4. I very much doubt it.
5. Look inside your head. There's a brain there, you.

do you computer? Are they nuts or what?

1. Was Captain Sledge ever from anyone's program a game for him to appear in?
2. Could I have a signed photo or picture of mighty team of the whole volume, and any other document.

Steven Chip, Ipswich

1. No.
2. Yip—It's just the way always, the superior knowledge of dizziness...?
3. There's too much thing as an average letter. Each one is introduced by its own right. Years, for instance, make too many sentences. Don't start.

It tells that all depends if you buy three times as many games for them, doesn't it?

2. Men don't live in the future, right now, I'm introducing his parents. Good night they are too.
4. My body's making a bet, isn't it? How do you expect it to know that?
1. What I dream, really—the girl was on October 7—Subspace mode is planned out just a few days ago—
2. Well, the game is done for Thunderbirds appeared a white card, so I don't see why Captain Sledge shouldn't join in. It's in the hands of the editor, now.
3. Being the only one of my kind and helping you so I do from a personal dimension 200 months, that's the reason to print the letters.

see, because brains are the clever bits in humans. My old body just happened to be the most intelligent entity since the dawn of time. 2. Dizziness—Incredible mental powers, plus the ability to learn someone's head with his foot whilst standing on a completely different continent.



## NO CONSOLATION

After 1.5 years of owning a C64, I've got to confess that I've just been bought a Soap Magazine. Yes, I know what you're thinking, "Those letters columns are very expensive, with great graphics, but also so glibly?" How to tell you starts in the mail it got like to say "Oh, oh you also forget! You don't know what I'm talking about". Thank you. Now I'll like to say how much I love your mag, but I must point out that sales girl software released later than before.

Even though most of us have stuck by our 64s through thick and thin, you've got to admit that the C64 is beginning to give way to the power of the 16-bit super systems. I know many people will stand strongly against what I believe, but even you, oh mighty one, must admit that in so little as a year the 64 may be dead. But in the mean time I will carry on buying your mag and get games for my trusty 64. After all the Magazine games do get lost once after 4 days with this.

Neil Lewis, Farnham

We're not denying that you can get great games for console machines—feel free to rush out and buy one tomorrow, but please remember the other virtue of a programmable and more versatile machine (consoles are for games only), and give your C64 an airing once in a while.

## ON THE MARKET

Four Soapbox issues (6) is absolutely right. At the late companies are putting out of the pot (and 8-bit) market, by this time next year, the C64 will indeed be 'underground', it'll be up to the FD—Reviews, compilations, and budget to (re-)releases to fan the dying embers of the 8-bit market (except terminology, inc.). At the end I reckon the C64 has got three years. Right, sorry to being serious, here. In the time-forward tradition, I've got some numbered questions for you:

1. Any chance of printing an Exile map or solution, oh yay—no?
2. Hell the games you review—don't seem to

## LONELY BRAIN

Hi there, I have got just 40 couple of questions to put on this one I have long on earth time (1979).

1. Will there be a Stone Brothers 2?
2. Are you the only one of your species left, if not where are the others?
3. How many millionaires does it take you to read the magazine letter?
4. I own three C64s do you think that's being greedy, or do you think I'm helping save the C64 from obscurity?
5. Have you ever read Thery (80 of 2000 AD)?
6. What was the old body business all about?
7. I made it Real Industries work and they told me the C64 is a



"I actually see three people here, but only one!"



"Have your eyes wandered off to the right? You're looking at the wrong program!"

get released. What about cheap? Certain Sports International Soccer?

3. Is it just me or is the magazine actually less funny than it used to be?

4. Who, in your opinion, should replace Engineering/Manager Graham Taylor? Or, that's all, OK, by top-five games are:

1. Manxpress Soccer
  2. Fate
  3. Top 1000
  4. Creation
  5. Elite
- Harvey Davidson, Tipton,eshire

Again, Tipton - I see there only a white back. Oh, I'd agree with you on the whole debanking market argument, but you have to remember that the C64 has had a good run for its money, and an underground scene will still be a lively one, anyway.

1. I'll ask that Roberts cheap.
2. Sometimes you're not creating a CD review before the game has even hit the shelves, and sometimes releases plans get scrapped at the last minute. These things happen.
3. Maybe it's just going in a different direction that you're not keen on. Maybe you just don't get any of the jokes.
4. Well that's simple - no, it's quite unfortunate, though, that I read despite football utterly and completely.

## POOR DEPRESSED FANATIC

Please help this poor depressed 11-year-old Commodore fanatic!

1. My mum said I could choose a C64 game instead of fireworks so off we went to the shop. She is thinking it should be, I had read your review on Shadow Dancer (COMMODORE Format 33) and decided on that one. They only had it boxed at £7.99 and I had them that you had said it is now out of budget because my mum has not got a lot of money. They said they would order it, when my mum went back one week later they told her that they couldn't get it on budget because there wasn't any interest in Commodore computers any more. Anyway, my mum bought a Bull price. Are Commodore going out of business? I hope not.
2. Could you give me a residential chest not belong to Shadow Dancer. Oh, just that? Matthew Catts, Shadow/Dancerlover.

1. Commodore are most definitely not going bust, even with the storming success of its Amiga machines. What actually happened was that your computer shop couldn't have looked very hard on your behalf - try again at a slightly larger chain store.
2. Er... Any?



My best friend Ray

## AVOCADO EATER

P/P-P/ess answer my questions or I might get frustrated and eat a rubber avocado and in the state I might buy a two-dollar—imagined! Anyway, the fat Richards is going to "travel" with my questions.

Gordon - Recently I saw a copy

of Electronic Arts' Soccer Klub for PC. Does Electronic Arts have any plans for releasing it on our beloved machine?

Tim of Games - Is your 1982 Street worth the £50 it comes in?

Ball trouble - Are you friends with Goo? Stuart Shawcross - I am going to give some advice because I'm sick out of here to show you what I think of them.

- Class 10  
System 3 - 10  
The Apple days - 10  
Wings - 7  
Progressive - 6

It also give you my favourite music.

1. Ace of Spades - Metallica
  2. Storm Shake the Room - Fresh Prince and Jerry Jeff
  3. Living on My Own - Queen
  4. Bohemian Rhapsody - Queen
  5. Cuts in the Woods - Lynyrd Skynyrd
- Bruno Pitt - Is there any good 'soft-up' in

ANY? After you fill a history file steps on the ground with the grass growing from them and your character stuffs it? If there is, what is it? Value - Don't you think that Altered Beast is so exciting at watching a tank, given to the ground, for a free shot?

Anyway, I have written enough so will read this. Bye you big old bloke.

Maximum Magic, Edinburgh

PS: My congratulations to Gar and Simon on their interest in guns and violence. For a while I thought I was the only one... (ugh).

Finally, I'll answer your questions:

- Gordon - No  
Sport - Expensive  
Box, best?  
Ball trouble - What good  
Stuart Shawcross - OK,  
Bruno Pitt - That's for  
Saboteur, then.

1000 - On the contrary, nothing beats the pure adrenaline excitement of rock against mud rollers.

Frank reading you're  
"wishes" of unusual  
forms, I see that  
you're a slightly  
sketchy person who  
often complains of feeling on a sea of cold  
shades whilst writing the games. I'm  
thinking of letting up. (psychology, y'know.

## SABOTEUR



Grady's intense look at

## SOFTWARE SEARCH

Lip and Tyler '90, the most desirable CD-ROM accessories and software, mail order service was provided by 1000 of London, Westonsports, who recently changed their name to CD-ROM Direct. They then closed trading and their stock was taken over by CD-ROM Resources who, I understand, also ceased trading early this year.

The CD-ROM club had by then been lost very comprehensive. So I contacted a similar company had taken it over, I am genuinely interested in obtaining the Masterdisk disks, the 1200 PE1, and both the printing manual and print for the 1426 printer plotter.

Sean Arnold, Nottingham

Oh...  
But certainly fate and fateless, Simon's written a jolly useful feature (you can find it on page 90) on just this kind of problem. As the major chains insist on stocking only console titles, in preference to computer programs, it's getting harder and harder to get the titles you want. The feature explains where to get your software, what to look out for and time to contain your enthusiasm while you're waiting for it to reach. It also tells you that the best of getting up a kind of cheap shop-run-on to track down in which all you gamers can write in swap your games for a title you don't own. Watch this space.

## THE MIGHTY BAROMETER

This is the Mighty Brain's very own indicator of what's hot and what's not in C64 land and it's available in large quantities. On the High Frequency side it has a range of 0 to 100 and is made of plastic. It is available in large quantities and is very accurate.





# UNCLE DAVE'S BUY-A-RAMA

## FOR SALE

More hot and funky bargains for all you car boot sale fans. For sale, wanted, pen friends and even the odd red herring. It's the real life drama of a bazaar...

### WANTED

• **Has anyone got a copy of C&M Powerpack and Database plus games inc. speech synthesizer, sound sampler and ad construction kit.** Will pay reasonable price. Write to Stuart Rippen, 12 St. Margaret Place, St Marys, Dundee DD3 9LP

• **58 Games** For sale worth £100 inc. Robotco 2 & WWF. The lot for £50 or may split. Call Luke on 0925 820485.



'Bright who isn't?' Well, us while I wait  
each of your business inquiries...'

1. An advertiser for the entire page indicates it does not.

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- **Does anyone have a utility called Stop Press.** Re CTF package. Write to R Davies, 178 Office Road, Kidderminster.
- **Wanted, C&M games** - Kennedy Approach by Microprose cassette or disk and Gemcity by Microprose on disk for Saunders. Tel. 0500 698428

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### PEN PALS

- **Are you a 1917 year old boy** who totally loves playing with computers? If you are, write to Billy Rodriguez, 24 Hill Gardens, Deptford, Shotts, Eastford, ML7 9LH.
- **Looking for penpals in France?** Scotland? England? Ireland? Give instead reply with 20 days left for advertising. 68 Bruce Street, Leicester, LE1 5AG.
- **Penpals wanted** to swap games and disk tape. Please include a list of your programs. Write to Colin De Vry, Postoffice 1, 1914 59 Glasgow, Scotland.
- **Penpal wanted** in 13 years old and into music and computers. Write to Sarah Palmer, 1 Piggy Field Close, St Helens, Condit, Warr, CF5 9SD.
- **C&M user** seeking a male 11-12 years old to exchange tips and programs and to be a penpal to Joe Macleod, 128 Manor Grove, Colketh, S.P. Axminster, SS2 Durham.

• **For sale:** Commodore Formats 25-37 (all with tapes). Write to James Cleal, 22 Millstream Close, Whitstable, Kent, CT5 1HG.



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- **Why not swap your state games** with me for funds ones? Cassette only. Write now to Alan Lancaster, 217 Coast Road, Clevedon, Sheffield, S64 1QP.
- **Pen Pal** wanted to swap games and cheats. If that doesn't fit write to Piers Farn, 127 Timberley, Littlehampton, W Sussex, BN17 6QB.
- **Getting Advertisers** I'd like to get in touch with advertising penpals to exchange tips, software. I also need G.A.C. not the tape but the instruction book on how to use the program.
- **Wanted** all disks and tape for C&M games, and some pen pals as well. Write right now to Jeremy Baker PO Box 1005, Mt Gambier, SA5090, Australia.
- **Penpals** penpal wanted. Must own a C64, Database and/or between 10 & 17 years old. Preferably from Northern or Southern Ireland. Write to Gavin Clarke (that's government project, Commodore, Kelly, Co Wick, Ireland) on job and 111 33001 and.
- **CF Staff** Writer seeks interesting people to hang out with and possibly even kiss. Must have sense of humor and not be into music. Write to Simon F, courtesy of the Commodore Format office.



# TECHIE TIPS

**Do you move with the times? Do you demand performance from your active liposones? Cheesed off with hydration? Jason Finch isn't, he's discovered the secret of the gel-based microspheres. Or something...**



Sprite is in collision with the background. The variables XX and YY in line 160 govern which bit of the sprite it tests at to find the character it is in collision with. In other words, it currently looks at the character "under" the pixel with co-ordinates (8,10) within the sprite block. Line 200 stores the actual X and Y position of the sprite in variables XX and YY, and line 270 then converts these values into the right range for screen co-ordinates 0-255 for X and 0-24 for Y. Line 280 reads in the character at the appropriate position and, for this example, displays it in the bottom-right corner of the screen.

```

100 FOR COLLECTOR DETECTOR BY J.FINCH
110 FOR 6=0 TO 34 STEP 18:FOR 5=0 TO
120 FOR 3=0 TO 5:PRINT 5,3
130 FOR 6=0 TO 45 STEP 18:FOR 5=0 TO
140 FOR 3=0 TO 5:PRINT 5,3
150 FOR 6=1 TO 30:FOR 5=0 TO 5:PRINT 5,3
160 FOR 5=0 TO 5:FOR 3=0 TO 5
170 FOR 5=0 TO 5:FOR 3=0 TO 5
180 FOR 5=0 TO 5:FOR 3=0 TO 5
190 FOR 5=0 TO 5:FOR 3=0 TO 5
200 XX=8:YY=10:FOR 3=0 TO 5:FOR 5=0 TO 5
210 IF COLLECTOR DETECTOR BY J.FINCH
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1000 FOR 6=0 TO 34 STEP 18:FOR 5=0 TO
1010 FOR 3=0 TO 5:PRINT 5,3
1020 FOR 6=0 TO 45 STEP 18:FOR 5=0 TO
1030 FOR 3=0 TO 5:PRINT 5,3
1040 FOR 6=1 TO 30:FOR 5=0 TO 5:PRINT 5,3
1050 FOR 5=0 TO 5:FOR 3=0 TO 5
1060 FOR 5=0 TO 5:FOR 3=0 TO 5
1070 FOR 5=0 TO 5:FOR 3=0 TO 5
1080 FOR 5=0 TO 5:FOR 3=0 TO 5
1090 FOR 5=0 TO 5:FOR 3=0 TO 5
1100 FOR 5=0 TO 5:FOR 3=0 TO 5
1110 FOR 5=0 TO 5:FOR 3=0 TO 5
1120 FOR 5=0 TO 5:FOR 3=0 TO 5
1130 FOR 5=0 TO 5:FOR 3=0 TO 5
1140 FOR 5=0 TO 5:FOR 3=0 TO 5
1150 FOR 5=0 TO 5:FOR 3=0 TO 5
1160 FOR 5=0 TO 5:FOR 3=0 TO 5
1170 FOR 5=0 TO 5:FOR 3=0 TO 5
1180 FOR 5=0 TO 5:FOR 3=0 TO 5
1190 FOR 5=0 TO 5:FOR 3=0 TO 5
1200 FOR 5=0 TO 5:FOR 3=0 TO 5
1210 FOR 5=0 TO 5:FOR 3=0 TO 5
1220 FOR 5=0 TO 5:FOR 3=0 TO 5
1230 FOR 5=0 TO 5:FOR 3=0 TO 5
1240 FOR 5=0 TO 5:FOR 3=0 TO 5
1250 FOR 5=0 TO 5:FOR 3=0 TO 5
1260 FOR 5=0 TO 5:FOR 3=0 TO 5
1270 FOR 5=0 TO 5:FOR 3=0 TO 5
1280 FOR 5=0 TO 5:FOR 3=0 TO 5
1290 FOR 5=0 TO 5:FOR 3=0 TO 5
1300 FOR 5=0 TO 5:FOR 3=0 TO 5
1310 FOR 5=0 TO 5:FOR 3=0 TO 5
1320 FOR 5=0 TO 5:FOR 3=0 TO 5
1330 FOR 5=0 TO 5:FOR 3=0 TO 5
1340 FOR 5=0 TO 5:FOR 3=0 TO 5
1350 FOR 5=0 TO 5:FOR 3=0 TO 5
1360 FOR 5=0 TO 5:FOR 3=0 TO 5
1370 FOR 5=0 TO 5:FOR 3=0 TO 5
1380 FOR 5=0 TO 5:FOR 3=0 TO 5
1390 FOR 5=0 TO 5:FOR 3=0 TO 5
1400 FOR 5=0 TO 5:FOR 3=0 TO 5
1410 FOR 5=0 TO 5:FOR 3=0 TO 5
1420 FOR 5=0 TO 5:FOR 3=0 TO 5
1430 FOR 5=0 TO 5:FOR 3=0 TO 5
1440 FOR 5=0 TO 5:FOR 3=0 TO 5
1450 FOR 5=0 TO 5:FOR 3=0 TO 5
1460 FOR 5=0 TO 5:FOR 3=0 TO 5
1470 FOR 5=0 TO 5:FOR 3=0 TO 5
1480 FOR 5=0 TO 5:FOR 3=0 TO 5
1490 FOR 5=0 TO 5:FOR 3=0 TO 5
1500 FOR 5=0 TO 5:FOR 3=0 TO 5

```

3 Thanks very much. I've extracted a couple that disk users will find useful. This first one detects whether or not a disk is in the drive before continuing. It works in such a way that it won't continue until you remove the disk but you could easily change it so that it does these things waiting for one to be inserted.

```

10 REM DISK DETECTOR BY J.FINCH
20 OPEN 15,8,15
30 PRINT "DISK DETECTOR BY J.FINCH"

```

the animation. This short example should prove the point.

```

10 FOR 6=0 TO 34 STEP 18:FOR 5=0 TO
20 FOR 3=0 TO 5:PRINT 5,3
30 FOR 6=0 TO 45 STEP 18:FOR 5=0 TO
40 FOR 3=0 TO 5:PRINT 5,3
50 FOR 6=1 TO 30:FOR 5=0 TO 5:PRINT 5,3
60 FOR 5=0 TO 5:FOR 3=0 TO 5
70 FOR 5=0 TO 5:FOR 3=0 TO 5
80 FOR 5=0 TO 5:FOR 3=0 TO 5
90 FOR 5=0 TO 5:FOR 3=0 TO 5
100 FOR 5=0 TO 5:FOR 3=0 TO 5
110 FOR 5=0 TO 5:FOR 3=0 TO 5
120 FOR 5=0 TO 5:FOR 3=0 TO 5
130 FOR 5=0 TO 5:FOR 3=0 TO 5
140 FOR 5=0 TO 5:FOR 3=0 TO 5
150 FOR 5=0 TO 5:FOR 3=0 TO 5
160 FOR 5=0 TO 5:FOR 3=0 TO 5
170 FOR 5=0 TO 5:FOR 3=0 TO 5
180 FOR 5=0 TO 5:FOR 3=0 TO 5
190 FOR 5=0 TO 5:FOR 3=0 TO 5
200 FOR 5=0 TO 5:FOR 3=0 TO 5
210 FOR 5=0 TO 5:FOR 3=0 TO 5
220 FOR 5=0 TO 5:FOR 3=0 TO 5
230 FOR 5=0 TO 5:FOR 3=0 TO 5
240 FOR 5=0 TO 5:FOR 3=0 TO 5
250 FOR 5=0 TO 5:FOR 3=0 TO 5
260 FOR 5=0 TO 5:FOR 3=0 TO 5
270 FOR 5=0 TO 5:FOR 3=0 TO 5
280 FOR 5=0 TO 5:FOR 3=0 TO 5
290 FOR 5=0 TO 5:FOR 3=0 TO 5
300 FOR 5=0 TO 5:FOR 3=0 TO 5
310 FOR 5=0 TO 5:FOR 3=0 TO 5
320 FOR 5=0 TO 5:FOR 3=0 TO 5
330 FOR 5=0 TO 5:FOR 3=0 TO 5
340 FOR 5=0 TO 5:FOR 3=0 TO 5
350 FOR 5=0 TO 5:FOR 3=0 TO 5
360 FOR 5=0 TO 5:FOR 3=0 TO 5
370 FOR 5=0 TO 5:FOR 3=0 TO 5
380 FOR 5=0 TO 5:FOR 3=0 TO 5
390 FOR 5=0 TO 5:FOR 3=0 TO 5
400 FOR 5=0 TO 5:FOR 3=0 TO 5
410 FOR 5=0 TO 5:FOR 3=0 TO 5
420 FOR 5=0 TO 5:FOR 3=0 TO 5
430 FOR 5=0 TO 5:FOR 3=0 TO 5
440 FOR 5=0 TO 5:FOR 3=0 TO 5
450 FOR 5=0 TO 5:FOR 3=0 TO 5
460 FOR 5=0 TO 5:FOR 3=0 TO 5
470 FOR 5=0 TO 5:FOR 3=0 TO 5
480 FOR 5=0 TO 5:FOR 3=0 TO 5
490 FOR 5=0 TO 5:FOR 3=0 TO 5
500 FOR 5=0 TO 5:FOR 3=0 TO 5
510 FOR 5=0 TO 5:FOR 3=0 TO 5
520 FOR 5=0 TO 5:FOR 3=0 TO 5
530 FOR 5=0 TO 5:FOR 3=0 TO 5
540 FOR 5=0 TO 5:FOR 3=0 TO 5
550 FOR 5=0 TO 5:FOR 3=0 TO 5
560 FOR 5=0 TO 5:FOR 3=0 TO 5
570 FOR 5=0 TO 5:FOR 3=0 TO 5
580 FOR 5=0 TO 5:FOR 3=0 TO 5
590 FOR 5=0 TO 5:FOR 3=0 TO 5
600 FOR 5=0 TO 5:FOR 3=0 TO 5
610 FOR 5=0 TO 5:FOR 3=0 TO 5
620 FOR 5=0 TO 5:FOR 3=0 TO 5
630 FOR 5=0 TO 5:FOR 3=0 TO 5
640 FOR 5=0 TO 5:FOR 3=0 TO 5
650 FOR 5=0 TO 5:FOR 3=0 TO 5
660 FOR 5=0 TO 5:FOR 3=0 TO 5
670 FOR 5=0 TO 5:FOR 3=0 TO 5
680 FOR 5=0 TO 5:FOR 3=0 TO 5
690 FOR 5=0 TO 5:FOR 3=0 TO 5
700 FOR 5=0 TO 5:FOR 3=0 TO 5
710 FOR 5=0 TO 5:FOR 3=0 TO 5
720 FOR 5=0 TO 5:FOR 3=0 TO 5
730 FOR 5=0 TO 5:FOR 3=0 TO 5
740 FOR 5=0 TO 5:FOR 3=0 TO 5
750 FOR 5=0 TO 5:FOR 3=0 TO 5
760 FOR 5=0 TO 5:FOR 3=0 TO 5
770 FOR 5=0 TO 5:FOR 3=0 TO 5
780 FOR 5=0 TO 5:FOR 3=0 TO 5
790 FOR 5=0 TO 5:FOR 3=0 TO 5
800 FOR 5=0 TO 5:FOR 3=0 TO 5
810 FOR 5=0 TO 5:FOR 3=0 TO 5
820 FOR 5=0 TO 5:FOR 3=0 TO 5
830 FOR 5=0 TO 5:FOR 3=0 TO 5
840 FOR 5=0 TO 5:FOR 3=0 TO 5
850 FOR 5=0 TO 5:FOR 3=0 TO 5
860 FOR 5=0 TO 5:FOR 3=0 TO 5
870 FOR 5=0 TO 5:FOR 3=0 TO 5
880 FOR 5=0 TO 5:FOR 3=0 TO 5
890 FOR 5=0 TO 5:FOR 3=0 TO 5
900 FOR 5=0 TO 5:FOR 3=0 TO 5
910 FOR 5=0 TO 5:FOR 3=0 TO 5
920 FOR 5=0 TO 5:FOR 3=0 TO 5
930 FOR 5=0 TO 5:FOR 3=0 TO 5
940 FOR 5=0 TO 5:FOR 3=0 TO 5
950 FOR 5=0 TO 5:FOR 3=0 TO 5
960 FOR 5=0 TO 5:FOR 3=0 TO 5
970 FOR 5=0 TO 5:FOR 3=0 TO 5
980 FOR 5=0 TO 5:FOR 3=0 TO 5
990 FOR 5=0 TO 5:FOR 3=0 TO 5

```

2 I assume you mean you can't print the pictures in colour and not that you can't print at all. To actually print colour pictures in colour is quite complicated and it needs a special piece of machine code to work out which of the colours on the ribbon to combine and what, so that the right bits of the picture are in the right colours. The Advanced Jet Studio may well be advanced, but it is not advanced enough to include a colour printer driver, which is what you need. Data (1976) (44899) advertises a piece of software that prints out colour pictures in colour. You could try contacting them.



**IN COLLISION**  
Dear Techie Tip,  
I could you please let a program that detects collision between the main character of a game (sprites 0,1,2 and 3 in my game) and the background, and detects the background character that they are all in touch with?  
2 Feel free to print some of the small routines that I have included.  
-James Stewart, Perth, Australia.

1 The following program will set up a sprite and then move it from left to right across the screen, detecting the characters that it collides with on the way. If you made a sprite it actually made up of four separate units it makes no difference, you only need to check if one of the

## HERE'S ONE I MADE EARLIER!



Don't forget that the fabulous Techie Tips can now also be found on the Power Park, cunningly concealed within the Techie Tip Pluggy Database. No more typing in names and means of DEX statements. Mad's mean, this month I've added a couple of classics from past issues for you. There's CREATURE COMFORTS from CP10 and SPIN AFFAIR, from CP11 - both were really big ratings and some of you may have started at the very thought of all that typing. I know I nearly did when somebody mentioned it might be a good idea to repeat them.

## LOOK TO THE STARS



Dear Techie Tip,  
I have recently acquired a STMP LG 100-colour printer for my Commodore 64. I have been having a few problems with it.  
1 I have been able to print about six times using the command PRINT "X"; then, " but I cannot print any longer sentences. (Have tried writing it like a program and filling it on the printer and that works, how odd!) Is it?  
2 I have got the Advanced Jet Studio but I cannot print out colour pictures. Please could you tell me the codes for the printer configuration that allows this to do so.  
Neville Coppitt, Sheffield

1 In order to print longer lines, simply add a semicolon to the end of the command. In that way the printer will not do a carriage return once it has printed your line. You can then join short lines end-to-end to make longer lines. When you are ready to start a new line just drop



40 @CR11,10  
50 IF @CR10<CR10) THEN ST  
60 CLS:GOTO 10

The second of James' routines uses the write protect sensor to check whether or not the drive can write to the disk. This could be useful in a disk copying program where you don't want to write to the source disk by mistake—if the disk is not write protected you can tell the user it would be best to ensure that it is.

20 KEY MODE: PRINT "END BY J. JAMES"  
30 OPEN L1,0,10  
40 PRINT "END BY J. JAMES"  
50 CLOSE L1  
60 IF @CR10<CR10) THEN PRINT "END BY J. JAMES"  
70 WRITE PROTECT:GOTO 40  
80 PRINT "END BY J. JAMES"  
90 END



## THE ONLY WAY IS UP

Dear Techie Tip,  
1 How do I change the character font on the Commodore?  
2 How do I smooth scroll text?

up the screen?  
George Bundy, Oatman

1. I believe Dr. Flash's Caserfont will look at making up your own character sets; it is beyond the scope of a short answer. To switch to a new character set you do POKE \$207C, where C is a number that tells the computer where you want to get your character set information from. But so far as defining that information is concerned, hold on for a couple of months or so.

2. Smooth scrolling text up the screen can be far more difficult than scrolling it across. For a start, the flicker that occurs from blank is pretty horrendous in comparison. Of course, in machine code that can be overcome, but I'll give you this Basic version to get you on with.

```
100 POKE $A000,$C000:GOTO 10
20 PRINT
30 POKE $A000,$C000
40 POKE $A000,$C000
50 POKE $A000,$C000
60 POKE $A000,$C000
70 POKE $A000,$C000
80 POKE $A000,$C000
90 POKE $A000,$C000
100 PRINT
110 POKE $A000,$C000
120 POKE $A000,$C000
130 POKE $A000,$C000
140 POKE $A000,$C000
150 PRINT
160 POKE $A000,$C000
170 PRINT
180 POKE $A000,$C000
190 PRINT
200 POKE $A000,$C000
210 PRINT
220 POKE $A000,$C000
230 POKE $A000,$C000
240 PRINT
250 POKE $A000,$C000
260 PRINT
270 POKE $A000,$C000
280 PRINT
290 POKE $A000,$C000
300 PRINT
310 POKE $A000,$C000
320 PRINT
330 POKE $A000,$C000
340 PRINT
350 POKE $A000,$C000
360 PRINT
370 POKE $A000,$C000
380 PRINT
390 POKE $A000,$C000
400 PRINT
410 POKE $A000,$C000
420 PRINT
430 POKE $A000,$C000
440 PRINT
450 POKE $A000,$C000
460 PRINT
470 POKE $A000,$C000
480 PRINT
490 POKE $A000,$C000
500 PRINT
510 POKE $A000,$C000
520 PRINT
530 POKE $A000,$C000
540 PRINT
550 POKE $A000,$C000
560 PRINT
570 POKE $A000,$C000
580 PRINT
590 POKE $A000,$C000
600 PRINT
610 POKE $A000,$C000
620 PRINT
630 POKE $A000,$C000
640 PRINT
650 POKE $A000,$C000
660 PRINT
670 POKE $A000,$C000
680 PRINT
690 POKE $A000,$C000
700 PRINT
710 POKE $A000,$C000
720 PRINT
730 POKE $A000,$C000
740 PRINT
750 POKE $A000,$C000
760 PRINT
770 POKE $A000,$C000
780 PRINT
790 POKE $A000,$C000
800 PRINT
810 POKE $A000,$C000
820 PRINT
830 POKE $A000,$C000
840 PRINT
850 POKE $A000,$C000
860 PRINT
870 POKE $A000,$C000
880 PRINT
890 POKE $A000,$C000
900 PRINT
910 POKE $A000,$C000
920 PRINT
930 POKE $A000,$C000
940 PRINT
950 POKE $A000,$C000
960 PRINT
970 POKE $A000,$C000
980 PRINT
990 POKE $A000,$C000
1000 PRINT
```



## LIVING APART

Dear Techie Tip,  
I am writing a program that hangs onto up with the problem that it is getting too long for the computer's memory. Therefore I have to split the program into two separate parts. However, at the start of the first program I assign many strings. Now, here comes the difficult bit: in three any way I can assign strings and keep them in memory after loading the second part of the program?  
Al Cole, Devon

Unfortunately, one of the first things the LOAD command does when it has finished loading a program is to clear out all variables. So, using the standard LOAD command there is no way that you can keep your strings. One way you could do it is to POKE all the information in memory before the LOAD and then POKE it all back after the LOAD. The following bit of a program will write whatever is in A0 to a part of the RAM that is not affected by a LOAD command.

```
10 POKE $1000,$20000
20 POKE $1000,$20000
30 POKE $1000,$20000
40 POKE $1000,$20000
```

Your second program could read that information back into its version of A0 using a similar bit of code:

```
10 POKE $1000,$20000
20 POKE $1000,$20000
30 POKE $1000,$20000
40 POKE $1000,$20000
```



# INFORMATION BANK

## PUBLIC SECTOR

Dear Techie Tip,

Could you please give me a machine code routine that reads information from any bank and sector on a disk? I have been trying for weeks and weeks to work it out but nothing seems to work. I have been approaching it from a sort of straight conversion of the Basic method into assembly language but it's having none of it. Please stop me pulling my hair out and put me out of my misery.  
Chris Roberts, Peterborough

The Basic loader below creates a machine code program which uses ROM routines to send messages to the drive and uses the command "91 0 0 18 01" to request the information on track 18, sector 1. It will then store that information at \$C000-\$CFFF. **Initiative.** To change the sector that it reads, change the ASCII codes for the 18 and 01 — the 94,058 and 048,049 of lines 01 and 02. The Techie Tip Froggy Detector houses an assembly language version of this Basic loader.

That will take an awful long time if you have lots of string variables to transfer with, though it is by far the most reliable method. You could play about with the variable pointers but the chances are that those values of your strings will be corrupted. (This is how I made it when my strings got corrupted. That's why I like Ariel Clatter. It's good without the ball-wait! Haha!)



## RESTORE DETECTIVE

Dear Techie Tip,  
Have you got a routine stored somewhere that will allow me to use the RESTORE

command in such a way that I can RESTORE to any DATA line in a program? At the moment I'm having to read through loads of useless routines just to get to the bit of information I want.  
John May, Bangor

There are a number of ways to do what you want. The easiest for me involves a very short piece of machine code which is capable of RESTORING to absolutely any DATA line, whether you tell it directly, have the number stored in a variable, or want to calculate it using some formula or other. Here are some examples of how you might use the new RESTORE routine:

```
100 $0110,1000
200 $0111,1
300 $0112,000*0100
```

And here's the Basic loader for the 20 byte machine code routine that does the business:

```
10 ROM SECTOR POINTER BY J.PHILLIP
11 ROM $A0000 TO $B0000
POKE $C000,$10000
20 $0110,1000
30 $0111,1
40 $0112,000*0100
50 $0113,1000
60 $0114,1000
70 $0115,1000
80 $0116,1000
90 $0117,1000
100 $0118,1000
110 $0119,1000
120 $011A,1000
130 $011B,1000
140 $011C,1000
150 $011D,1000
160 $011E,1000
170 $011F,1000
180 $0120,1000
190 $0121,1000
200 $0122,1000
210 $0123,1000
220 $0124,1000
230 $0125,1000
240 $0126,1000
250 $0127,1000
260 $0128,1000
270 $0129,1000
280 $012A,1000
290 $012B,1000
300 $012C,1000
310 $012D,1000
320 $012E,1000
330 $012F,1000
340 $0130,1000
350 $0131,1000
360 $0132,1000
370 $0133,1000
380 $0134,1000
390 $0135,1000
400 $0136,1000
410 $0137,1000
420 $0138,1000
430 $0139,1000
440 $013A,1000
450 $013B,1000
460 $013C,1000
470 $013D,1000
480 $013E,1000
490 $013F,1000
500 $0140,1000
510 $0141,1000
520 $0142,1000
530 $0143,1000
540 $0144,1000
550 $0145,1000
560 $0146,1000
570 $0147,1000
580 $0148,1000
590 $0149,1000
600 $014A,1000
610 $014B,1000
620 $014C,1000
630 $014D,1000
640 $014E,1000
650 $014F,1000
660 $0150,1000
670 $0151,1000
680 $0152,1000
690 $0153,1000
700 $0154,1000
710 $0155,1000
720 $0156,1000
730 $0157,1000
740 $0158,1000
750 $0159,1000
760 $015A,1000
770 $015B,1000
780 $015C,1000
790 $015D,1000
800 $015E,1000
810 $015F,1000
820 $0160,1000
830 $0161,1000
840 $0162,1000
850 $0163,1000
860 $0164,1000
870 $0165,1000
880 $0166,1000
890 $0167,1000
900 $0168,1000
910 $0169,1000
920 $016A,1000
930 $016B,1000
940 $016C,1000
950 $016D,1000
960 $016E,1000
970 $016F,1000
980 $0170,1000
990 $0171,1000
1000 $0172,1000
```

# QUICK SHOTS

Is it possible to make the letter keys "repeat" like the space bar and cursor keys do? *Blair Manning, Southold*

**POKE \$B0,128** will make all the keys on the keyboard behave like the space bar normally does. **POKE \$B0E** will put it back to normal and **POKE \$B0A4** will turn the repeat function off completely.

Here's a few **SEARCH** questions for my favorite editor in Commodore Format. How do I include graphics, music, action and options on the file screen? I have an Action floppy but I am no good at machine code so could you please explain step-by-step. *Mark Phoenix, Inverurie*

It would be impossible for me to explain the step-by-step instructions in Techie Tips. I have seen utilities that add music to the title screens of **SEARCH** games, but nothing that does the others. I would require the writing of quite a large bit utility in order to do that work.

Could you please tell me where I can get hold of a board that will enable me to connect my 0128 to

my Atari T&T. Also, could you please tell me from where I can obtain pens and paper for a Commodore 1525 printer/fax? *John Williams, Birmingham*

**Blackline Ltd.** in **Stoneygate** (081 521 2295) will help you with the Atari T&T board, and possibly also the pens. If not, try a local Techie store because the standard Tandy jobber uses very similar pens and paper.

I have just bought a 1571 disk drive but the user manual that came with it is for a 1570. I have found references in places to the 1541, 1561, 1581, 1591 and 4040 drives but none a 1570, how the 1570 is obviously different from a 1571 so far where can I get a proper manual for it? *Steven Carlisle, London*

I'm not sure what it is that makes you say the 1570 is obviously different from a 1571 because they are, in fact, practically the same drive. A 1571 manual actually says "1570? User Manual" on the front. There are very few differences.

Where and how do you start programming the 6841? Do you have any qualifications in

programming or did you just learn from scratch? *Peter Evans, Manchester*

Quick news for me Brian, I must have been somewhere around 1985. I learned through experimentation, playing about with the commands and changing Basic programs written by other people to see what effect the changes had. The only qualification to do with programming is a degree (with very little) in Computer Science, but obviously that's not exactly got much to do with programming the 6841.

Have you got an address for Steve because I would like to get hold of the instructions for "Miss Mouse and Cheese"? *Andrew Strachan, Bradford*

The only address for Steve that I have is Miss George, 26 Woodside Road, London. That may well be out of date by now. The instructions for **Miss and Cheese** won't really help you a great deal because they're only two sheets of paper. (But Jason, that's what they said about the **American Declaration of Independence** - **Wally**! Just have a good good about with all the options, seeing what happens.

```

0 0000 10010010 10010010 10010010 10010010
1 0010 10101010 10101010 10101010 10101010
2 1010 10101010 10101010 10101010 10101010
3 1010 10101010 10101010 10101010 10101010
4 1010 10101010 10101010 10101010 10101010
5 1010 10101010 10101010 10101010 10101010
6 1010 10101010 10101010 10101010 10101010
7 1010 10101010 10101010 10101010 10101010
8 1010 10101010 10101010 10101010 10101010
9 1010 10101010 10101010 10101010 10101010

```



## THERMAL IMAGING

Dear Techie Tips,

I have designed this neat picture of an eye landscape using the Image System. I did it

because I want a good file screen for a program I am writing. The only problem is that I have got to idea how to display the picture from my own program. I would be very grateful if you could let a routine that loads (from disk protection) and displays an Image System picture. *Gary Favis, Loughborough*

The following program has been adapted from the one that appears on page 13 of my Image System manual. Don't you have a copy?

```

100 DIM IMAGE SYSTEM SCREEN BY J.FAVIS
110 GOTO 100

```

```

120 SCREEN 0:GOTO 100
130 DIM I$(100),J$(100),K$(100),L$(100)
140 PRINT:PRINT "IT IS 10:00 ON
150 WEDNESDAY 1985"
160 GOTO 100
170 PRINT "IT IS 10:00 ON
180 WEDNESDAY 1985"
190 PRINT "IT IS 10:00 ON
200 WEDNESDAY 1985"
210 PRINT "IT IS 10:00 ON
220 WEDNESDAY 1985"
230 PRINT "IT IS 10:00 ON
240 WEDNESDAY 1985"
250 PRINT "IT IS 10:00 ON
260 WEDNESDAY 1985"
270 PRINT "IT IS 10:00 ON
280 WEDNESDAY 1985"
290 PRINT "IT IS 10:00 ON
300 WEDNESDAY 1985"
310 PRINT "IT IS 10:00 ON
320 WEDNESDAY 1985"
330 PRINT "IT IS 10:00 ON
340 WEDNESDAY 1985"
350 PRINT "IT IS 10:00 ON
360 WEDNESDAY 1985"
370 PRINT "IT IS 10:00 ON
380 WEDNESDAY 1985"
390 PRINT "IT IS 10:00 ON
400 WEDNESDAY 1985"
410 PRINT "IT IS 10:00 ON
420 WEDNESDAY 1985"
430 PRINT "IT IS 10:00 ON
440 WEDNESDAY 1985"
450 PRINT "IT IS 10:00 ON
460 WEDNESDAY 1985"
470 PRINT "IT IS 10:00 ON
480 WEDNESDAY 1985"
490 PRINT "IT IS 10:00 ON
500 WEDNESDAY 1985"
510 PRINT "IT IS 10:00 ON
520 WEDNESDAY 1985"
530 PRINT "IT IS 10:00 ON
540 WEDNESDAY 1985"
550 PRINT "IT IS 10:00 ON
560 WEDNESDAY 1985"
570 PRINT "IT IS 10:00 ON
580 WEDNESDAY 1985"
590 PRINT "IT IS 10:00 ON
600 WEDNESDAY 1985"
610 PRINT "IT IS 10:00 ON
620 WEDNESDAY 1985"
630 PRINT "IT IS 10:00 ON
640 WEDNESDAY 1985"
650 PRINT "IT IS 10:00 ON
660 WEDNESDAY 1985"
670 PRINT "IT IS 10:00 ON
680 WEDNESDAY 1985"
690 PRINT "IT IS 10:00 ON
700 WEDNESDAY 1985"
710 PRINT "IT IS 10:00 ON
720 WEDNESDAY 1985"
730 PRINT "IT IS 10:00 ON
740 WEDNESDAY 1985"
750 PRINT "IT IS 10:00 ON
760 WEDNESDAY 1985"
770 PRINT "IT IS 10:00 ON
780 WEDNESDAY 1985"
790 PRINT "IT IS 10:00 ON
800 WEDNESDAY 1985"
810 PRINT "IT IS 10:00 ON
820 WEDNESDAY 1985"
830 PRINT "IT IS 10:00 ON
840 WEDNESDAY 1985"
850 PRINT "IT IS 10:00 ON
860 WEDNESDAY 1985"
870 PRINT "IT IS 10:00 ON
880 WEDNESDAY 1985"
890 PRINT "IT IS 10:00 ON
900 WEDNESDAY 1985"
910 PRINT "IT IS 10:00 ON
920 WEDNESDAY 1985"
930 PRINT "IT IS 10:00 ON
940 WEDNESDAY 1985"
950 PRINT "IT IS 10:00 ON
960 WEDNESDAY 1985"
970 PRINT "IT IS 10:00 ON
980 WEDNESDAY 1985"
990 PRINT "IT IS 10:00 ON
1000 WEDNESDAY 1985"

```



Get to know **SEARCH** intimately and you can create loads of books, notes, word-processor

# GOT A PROBLEM?

Jason Favis is more than willing to answer all your technical problems, so if you're stuck in doubt, you've plugged the wrong edge into the picture clip or you're having trouble getting hold of that new free editor, write to him at Techie Tips, Commodore Format, 30 Marshwood Street, Bath, Avon, BA1 2BN. Please remember that Jason cannot reply to any letters personally, so please don't include a self-addressed envelope. The **Search** file does brought to you by Paragon. We're the biggest magazine in town.



What do you know of the mysteries of chess? Ever gazed beyond the barrier of the keyboard to the secrets within? Jason Finch has and he's got this during report...

During those times of stress, like while you are waiting for Willy-n-n-Monsterz to load, it is often difficult to think of things to do. In case you've never been bored enough in such situations to count the number of keys on the keyboard, I'll tell you that there are in fact sixty-six, that includes the SHIFT keys, the Command and CTRL keys, the function keys and RESTOPS. The question is how can you tell which are being pressed, apart from looking at your fingers?

## A GAME OF CHESS

Fifty times a second your computer checks which keys are pressed, it's called scanning, reading or polling the keyboard. It does this by using a grid. Your OS's keys are mapped out into a kind of chess board, with each square representing a particular key. Hang on though, a chess board has only 64 squares and the grid

	1	2	3	4	5	6	7	8	9	0	10	11	12	13	14
1	ESC	1	2	3	4	5	6	7	8	9	0	11	12	13	14
2	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
3	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
4	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
5	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74
6	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89
7	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104
8	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119
9	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134
10	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149

This is how your OS works out which key is being pressed at any given moment in time.

has 66 keys. Well, if you can yourself into ignoring RESTOPS and forgetting about SHIFT LOCK then it's only got 64. Command, Num? Codes between 0 and 60 are given to each key, with 64 indicating that no key has been pressed.

## CRACKING THE CODE

Locations 9020h and 9021h don't just figure out what you are doing with the joystick, they also control keyboard scanning. Register A shows how the keys are laid out in the grid. Notice how the numbers along the top and down the side correspond to the good old money bags of C64? Yes indeed, binary comes into it. A little at



# DR FINCH'S CASEBOOK

location 9020 are normally set to one (all the balls are in their boxes at address 9020). To check for a particular key you ensure the ball corresponding to the row or which the key lies.

By taking away one of the balls, you tell the computer to look at the eight keys in that line of the grid. It looks and then responds by scanning the balls at location 9021. It shows all the balls in place and then takes out the ones that correspond to the pressed keys. So if you want to find out which key is pressed you include in a miniature conversation with the computer. Don't worry about how the computer actually works out which keys are being pressed, I don't expect you to be an electronics expert as well as a pretty face.

You must ensure that the computer isn't bothering over something else while you want it to check the keys for you. You do a POKÉ (9024.0) first so that you have its undivided attention. A simple POKÉ (9034.1) asks you to go through will let it get on with the rest of its duties.

## HANDS-ON EXPERIENCE

This theory is of very little, but it is always better if you can get in there and get your hands dirty with the practice. Unless you're a serious binary nut, got to grips with the bits and bytes theory, and sussed out the idea that the AND command plays in all our heads, putting the theory into practice is going to prove a pretty bit difficult. Never fear because within the

Technic Tip! Pruggy Release is a program called THE SCANNER showing you exactly how to read the keyboard using this method. You press down a key and then get your fingers on the other keys before it starts scanning. After the very quiet scanning process, it shows up a table.

Occasionally, if you press too many keys, it will give a false reading, but that's only because it's getting annoyed. The idea is not for you to make strange combinations trying to get every single key down - the idea is for you to stop the program and let it load down after it has chosen the table.

Lines 200-240 do the actual scanning of the rows, storing the values (packed) back into 9020h in the array B%F. The breakdown of each column within each row is then dealt with by lines 300-330, line 340 doing the all-important AND.

## ALTERNATIVE MEDICINE

Another way to read the keyboard is location 907 which holds the code for the key which was last pressed. The problem? It only tells you which OS key was pressed, so if you hold down a key your program won't be able to work out what they all are. If you do a PRINT PEEK(907) you will see the value stored. Flick back a page or so and look at the keyboard map that goes with the letter THE KEY TO SUCCESS in this month's Technic Tip - a great all the PEEK(907) codes for the keyboard.

## THAT'S YER LOT

With that information, the diagram and the program, you should be able to write programs that need to check for more than one key being pressed at a time. The Information Bank at C64er's Technic Tip will show you how the grid theory can be used to check for specific keys.



Think of your OS as tapping the chess.





**Paul Black's back with the second part of his sprite multiplexing feature. All you codeheads, read on...**

# MR PLEXOR

Last month we started off by talking about the mechanics of multiplexing sprites. This time round I'd like to continue with my sprite movement program by talking about insertion, collisions and buying insertion is done by first checking that sprites are in the display area, if so, generating a hash code and attempting to insert at the intended location. As mentioned earlier, collisions can occur. This is handled using a simple "back-off" technique.

The previous diagram shows (1) a collision where sprite (2) attempts to overwrite (1) and a collision occurs and (2) is a successful insertion is achieved (using another slot in the table directly above the first).

```

(1) 100 1000000-1
(2) 100 1000000-2
(3) 100 1000000-3
(4) 100 1000000-4
(5) 100 1000000-5
(6) 100 1000000-6
(7) 100 1000000-7
(8) 100 1000000-8
(9) 100 1000000-9
(10) 100 1000000-10
(11) 100 1000000-11
(12) 100 1000000-12
(13) 100 1000000-13
(14) 100 1000000-14
(15) 100 1000000-15
(16) 100 1000000-16
(17) 100 1000000-17
(18) 100 1000000-18
(19) 100 1000000-19
(20) 100 1000000-20
(21) 100 1000000-21
(22) 100 1000000-22
(23) 100 1000000-23
(24) 100 1000000-24
(25) 100 1000000-25
(26) 100 1000000-26
(27) 100 1000000-27
(28) 100 1000000-28
(29) 100 1000000-29
(30) 100 1000000-30
(31) 100 1000000-31
(32) 100 1000000-32
(33) 100 1000000-33
(34) 100 1000000-34
(35) 100 1000000-35
(36) 100 1000000-36
(37) 100 1000000-37
(38) 100 1000000-38
(39) 100 1000000-39
(40) 100 1000000-40
(41) 100 1000000-41
(42) 100 1000000-42
(43) 100 1000000-43
(44) 100 1000000-44
(45) 100 1000000-45
(46) 100 1000000-46
(47) 100 1000000-47
(48) 100 1000000-48
(49) 100 1000000-49
(50) 100 1000000-50
(51) 100 1000000-51
(52) 100 1000000-52
(53) 100 1000000-53
(54) 100 1000000-54
(55) 100 1000000-55
(56) 100 1000000-56
(57) 100 1000000-57
(58) 100 1000000-58
(59) 100 1000000-59
(60) 100 1000000-60
(61) 100 1000000-61
(62) 100 1000000-62
(63) 100 1000000-63
(64) 100 1000000-64
(65) 100 1000000-65
(66) 100 1000000-66
(67) 100 1000000-67
(68) 100 1000000-68
(69) 100 1000000-69
(70) 100 1000000-70
(71) 100 1000000-71
(72) 100 1000000-72
(73) 100 1000000-73
(74) 100 1000000-74
(75) 100 1000000-75
(76) 100 1000000-76
(77) 100 1000000-77
(78) 100 1000000-78
(79) 100 1000000-79
(80) 100 1000000-80
(81) 100 1000000-81
(82) 100 1000000-82
(83) 100 1000000-83
(84) 100 1000000-84
(85) 100 1000000-85
(86) 100 1000000-86
(87) 100 1000000-87
(88) 100 1000000-88
(89) 100 1000000-89
(90) 100 1000000-90
(91) 100 1000000-91
(92) 100 1000000-92
(93) 100 1000000-93
(94) 100 1000000-94
(95) 100 1000000-95
(96) 100 1000000-96
(97) 100 1000000-97
(98) 100 1000000-98
(99) 100 1000000-99
(100) 100 1000000-100
  
```

When the sprites have been sorted into ascending display order the next job is to display sprites that are visible. The source above first assigns the `ITEMSPRT` variable to the first sprite in the list. This variable keeps track of the current "display" sprite. No 7 is the first (it's actually the 8th sprite, but it's more efficient to start at the top and work down). Next a quick test ensures that there's something in the hash table to display. If not the routine has nothing to do and just quits - dead end! But, it's never that easy, as the next loop scans the table and positions the first sprite. Any that are left over are dealt with straight after, by putting each sprite on the "pixels" stack and jettison a color viewport further down the screen just after the 21st row of the last sprite displayed.

```

(1) 100 1000000-1
(2) 100 1000000-2
(3) 100 1000000-3
(4) 100 1000000-4
(5) 100 1000000-5
(6) 100 1000000-6
(7) 100 1000000-7
(8) 100 1000000-8
(9) 100 1000000-9
(10) 100 1000000-10
(11) 100 1000000-11
(12) 100 1000000-12
(13) 100 1000000-13
(14) 100 1000000-14
(15) 100 1000000-15
(16) 100 1000000-16
(17) 100 1000000-17
(18) 100 1000000-18
(19) 100 1000000-19
(20) 100 1000000-20
(21) 100 1000000-21
(22) 100 1000000-22
(23) 100 1000000-23
(24) 100 1000000-24
(25) 100 1000000-25
(26) 100 1000000-26
(27) 100 1000000-27
(28) 100 1000000-28
(29) 100 1000000-29
(30) 100 1000000-30
(31) 100 1000000-31
(32) 100 1000000-32
(33) 100 1000000-33
(34) 100 1000000-34
(35) 100 1000000-35
(36) 100 1000000-36
(37) 100 1000000-37
(38) 100 1000000-38
(39) 100 1000000-39
(40) 100 1000000-40
(41) 100 1000000-41
(42) 100 1000000-42
(43) 100 1000000-43
(44) 100 1000000-44
(45) 100 1000000-45
(46) 100 1000000-46
(47) 100 1000000-47
(48) 100 1000000-48
(49) 100 1000000-49
(50) 100 1000000-50
(51) 100 1000000-51
(52) 100 1000000-52
(53) 100 1000000-53
(54) 100 1000000-54
(55) 100 1000000-55
(56) 100 1000000-56
(57) 100 1000000-57
(58) 100 1000000-58
(59) 100 1000000-59
(60) 100 1000000-60
(61) 100 1000000-61
(62) 100 1000000-62
(63) 100 1000000-63
(64) 100 1000000-64
(65) 100 1000000-65
(66) 100 1000000-66
(67) 100 1000000-67
(68) 100 1000000-68
(69) 100 1000000-69
(70) 100 1000000-70
(71) 100 1000000-71
(72) 100 1000000-72
(73) 100 1000000-73
(74) 100 1000000-74
(75) 100 1000000-75
(76) 100 1000000-76
(77) 100 1000000-77
(78) 100 1000000-78
(79) 100 1000000-79
(80) 100 1000000-80
(81) 100 1000000-81
(82) 100 1000000-82
(83) 100 1000000-83
(84) 100 1000000-84
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(86) 100 1000000-86
(87) 100 1000000-87
(88) 100 1000000-88
(89) 100 1000000-89
(90) 100 1000000-90
(91) 100 1000000-91
(92) 100 1000000-92
(93) 100 1000000-93
(94) 100 1000000-94
(95) 100 1000000-95
(96) 100 1000000-96
(97) 100 1000000-97
(98) 100 1000000-98
(99) 100 1000000-99
(100) 100 1000000-100
  
```

```

(1) 100 1000000-1
(2) 100 1000000-2
(3) 100 1000000-3
(4) 100 1000000-4
(5) 100 1000000-5
(6) 100 1000000-6
(7) 100 1000000-7
(8) 100 1000000-8
(9) 100 1000000-9
(10) 100 1000000-10
(11) 100 1000000-11
(12) 100 1000000-12
(13) 100 1000000-13
(14) 100 1000000-14
(15) 100 1000000-15
(16) 100 1000000-16
(17) 100 1000000-17
(18) 100 1000000-18
(19) 100 1000000-19
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(21) 100 1000000-21
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(24) 100 1000000-24
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(26) 100 1000000-26
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(28) 100 1000000-28
(29) 100 1000000-29
(30) 100 1000000-30
(31) 100 1000000-31
(32) 100 1000000-32
(33) 100 1000000-33
(34) 100 1000000-34
(35) 100 1000000-35
(36) 100 1000000-36
(37) 100 1000000-37
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(65) 100 1000000-65
(66) 100 1000000-66
(67) 100 1000000-67
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(69) 100 1000000-69
(70) 100 1000000-70
(71) 100 1000000-71
(72) 100 1000000-72
(73) 100 1000000-73
(74) 100 1000000-74
(75) 100 1000000-75
(76) 100 1000000-76
(77) 100 1000000-77
(78) 100 1000000-78
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(84) 100 1000000-84
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(88) 100 1000000-88
(89) 100 1000000-89
(90) 100 1000000-90
(91) 100 1000000-91
(92) 100 1000000-92
(93) 100 1000000-93
(94) 100 1000000-94
(95) 100 1000000-95
(96) 100 1000000-96
(97) 100 1000000-97
(98) 100 1000000-98
(99) 100 1000000-99
(100) 100 1000000-100
  
```

The stack is used by the "plexor" in an unusual manner, effectively splitting the stack between the "pixels" sprite storage and normal programs. See the code directly above, the old stack pointer is stored and `MUXSTACK` replaces it. The real portion of code scans the table and pushes sprites onto this stack.

After the process is completed the normal stack is restored, however the pushed data is still at the address `$0100` commands. The "plexor" will use the stack when it's ready to service I/Os further down the screen. The previous diagram maps the "pixels" stack usage.

## NEXT MUMF

Paul finishes off his multiplexing series with the final piece of code to move 32 sprites reducing around the screen at once. However to get into coding but doesn't know quite where to start, we'll be doing a beginners guide to programming games in both BASIC and assembly code (Paul's very busy at a computer degree at the moment). We'll be exploring exactly who to make truly exciting games so all you potential pros/heads, watch this space.



## STACK USAGE

Remember how to use the stack properly is essential if you want to make anything other than a program which prints your name repeatedly down the screen.

Jon Wells is back with more hints, tips and listings for Shoot-'em-up Construction Kit fans...

# SECRET OF SEUCKNESS

## PART 2

After issue 30's feature, we covered the simple basics of getting into our SEUCK games. This month we'll go

one step further -

incorporating BASIC into the three games. This will enable us to use the M4 BASIC programming language to display better title screens, add high score tables and add bonuses or extra incorporate new questions, get ready and game over parts. Before we start though, you must have the loading back listings from last month - if you haven't then there's an address at the very end of the article detailing where you can send for a copy with details on how to use it.

First of all, use the back listing and load in your SEUCK games. If you remember, listing features will not go to BASIC. At this point we will now insert the BASIC driver. When a finished SEUCK game is saved, the editor is saved with 4, but it's not used by the finished program. The SEUCK editor is then 200 from locations 80000 to 80000 too. What a waste of memory! If there was only some way to use this memory for extra

presentation... well, that's exactly what these next few listings are going to do. Before we type them in though, type in: `0000 10765, 01`. This puts reverse the column for data in a part in the editor to a part of the main code. Now enter and save the following listing listing:

```

1 000 000000 20 0070, 0000 00 0000 0, 00
2 000 000 0, 000 0, 0, 007, 0, 000, 000, 0
3 000 00 007, 0, 000, 000, 000, 000, 00

```

Now save it and enter `000 00000` and then type `0000`. This gives us a 04 more BASIC space to enter a bigger listing, as follows:

```

1 000 000 000000 20 0000, 0000 0000 0000 00
2 000 000 0, 000 00, 0, 000, 00, 000, 000
3 000 000 0, 000 00, 000, 000, 000, 000, 000, 00
4 000 00 000, 00, 000, 000, 000, 000, 000, 00
5 000 000 000, 000, 000, 000, 000, 000, 000, 00
6 000 000 000, 000, 000, 000, 000, 000, 000, 00

```

```

34 000 000 000, 000, 000, 000, 000, 000, 000
35 000 000 000, 000, 000, 000, 000, 000, 000
36 000 000 000, 000, 000, 000, 000, 000, 000
37 000 000 000, 000, 000, 000, 000, 000, 000
38 000 000 000, 000, 000, 000, 000, 000, 000
39 000 000 000, 000, 000, 000, 000, 000, 000
40 000 000 000, 000, 000, 000, 000, 000, 000
41 000 000 000, 000, 000, 000, 000, 000, 000
42 000 000 000, 000, 000, 000, 000, 000, 000
43 000 000 000, 000, 000, 000, 000, 000, 000
44 000 000 000, 000, 000, 000, 000, 000, 000

```

Remember to save the listing before running it. Once that's done, enter `000 00000` again. The amazing listing has just materialised at the top, colour and black data over the editor and also changed the pointers in memory to read this. One more listing to go and we're nearly there. Enter one again and the screen this:

```

1 000 000 000000 20 0000, 0000 0000 0000 00
2 000 000 0, 000 000 0
3 000 000000 0000 0000 0000 0000 0000 00
4 000
5 000 000 000, 000, 0, 0, 000 0, 000 000
6 000 000 000, 000, 0, 0, 000 000, 000, 000
7 000 000 000, 000, 0, 0, 000 000, 000, 000
8 000 000 000, 000, 0, 0, 000 000, 000, 000
9 000 000 000, 000, 0, 0, 000 000, 000, 000
10 000 000 000, 000, 0, 0, 000 000, 000, 000
11 000 000 000, 000, 0, 0, 000 000, 000, 000
12 000 000 000, 000, 0, 0, 000 000, 000, 000
13 000 000 000, 000, 0, 0, 000 000, 000, 000
14 000 000 000, 000, 0, 0, 000 000, 000, 000
15 000 000 000, 000, 0, 0, 000 000, 000, 000
16 000 000 000, 000, 0, 0, 000 000, 000, 000
17 000 000 000, 000, 0, 0, 000 000, 000, 000
18 000 000 000, 000, 0, 0, 000 000, 000, 000
19 000 000 000, 000, 0, 0, 000 000, 000, 000
20 000 000 000, 000, 0, 0, 000 000, 000, 000
21 000 000 000, 000, 0, 0, 000 000, 000, 000
22 000 000 000, 000, 0, 0, 000 000, 000, 000
23 000 000 000, 000, 0, 0, 000 000, 000, 000
24 000 000 000, 000, 0, 0, 000 000, 000, 000
25 000 000 000, 000, 0, 0, 000 000, 000, 000
26 000 000 000, 000, 0, 0, 000 000, 000, 000
27 000 000 000, 000, 0, 0, 000 000, 000, 000
28 000 000 000, 000, 0, 0, 000 000, 000, 000
29 000 000 000, 000, 0, 0, 000 000, 000, 000
30 000 000 000, 000, 0, 0, 000 000, 000, 000

```

Once all that's typed in (SAVE it) and the editor RUN. First you must enter `000 00000`, which allocates the original map-coordinates into BASIC positions and inserts BASIC into SEUCK. From now on you must enter `000 00000` which starts your SEUCK game without the normal title screen. If you quit or die the SEUCK game will return back to the BASIC frame where it left off. If you are playing about with one of

the free games, then enter `0000 10000 0` to stop the game from returning to the editor on Space bar. From now on you won't need the usual `ready back, go` enter `0000 0000 0` to enable it.

If you're using a two-player game then `0000 0000 0 04 100` one or two player respectively. Also, in one player mode, you may notice that pressing the fire button on systems plays two sounds in the second player appearing. As we no longer need the data listing, exit the program. Now let's check to see how much BASIC memory we've got. To do this type the following: `0000 0000 0000 0000 0000 0000 0000 0000`.

If all goes well you should have about 7800 bytes, that's about 80% of BASIC RAM, more than enough for what we want. There's still plenty of memory left from the editor - 5.5M from SEUCK - BASIC which can be used for music, and 7M from SEUCK - SEUCKSECK - SEUCK, which we can use for additional machine code.

You may notice that, in using some of the free games - 'Sag' or 'Cerberus' instances, that various parts of the background graphics become corrupt. This is (as we mentioned two months ago) because of the internal basic pointers overwriting the start from 1000-1000. Entering the following terminal loop will wipe these things for you, so it won't lock so bad! For `0-0000 0 0-0000 0000 00 0000 00 0000 00`.

We currently require an a routine to stop this from happening. Now for a small BASIC program to get you up and running. Type this in and hit `0`:

```

1 000 00 0000 000 000 000 000 000 000
2 0000 000 000 000 000 000 000 000
3 000 000 0 000 000 000 000 000
4 0000 000 000 000 000 000 000 000
5 0000 0000
6 0000 0000 0000 0000 0000 0000 0000
7 0000 0000 0000 0000 0000 0000
8 0000 0000 0000 0000 0000 0000
9 0000 0000 0000 0000 0000 0000

```

```

10 0000 0000 0000 0000 0000 0000 0000
11 0000 0000 0000 0000 0000 0000 0000
12 0000 0000 0000 0000 0000 0000 0000
13 0000 0000 0000 0000 0000 0000 0000
14 0000 0000 0000 0000 0000 0000 0000
15 0000 0000 0000 0000 0000 0000 0000
16 0000 0000 0000 0000 0000 0000 0000
17 0000 0000 0000 0000 0000 0000 0000
18 0000 0000 0000 0000 0000 0000 0000
19 0000 0000 0000 0000 0000 0000 0000
20 0000 0000 0000 0000 0000 0000 0000
21 0000 0000 0000 0000 0000 0000 0000
22 0000 0000 0000 0000 0000 0000 0000
23 0000 0000 0000 0000 0000 0000 0000
24 0000 0000 0000 0000 0000 0000 0000
25 0000 0000 0000 0000 0000 0000 0000
26 0000 0000 0000 0000 0000 0000 0000
27 0000 0000 0000 0000 0000 0000 0000
28 0000 0000 0000 0000 0000 0000 0000
29 0000 0000 0000 0000 0000 0000 0000
30 0000 0000 0000 0000 0000 0000 0000

```

Nothing special I know but it should give you a rough idea of how it all works. If you've got any problems at all, send an email to Jon Wells, PO Box 23, Kings Lynn, Norfolk, PE30 5DT.





Having trouble getting hold of software for your C64? Simon takes a look at a few ways to get your hands on yet more games.

**T**he fact that the C64 isn't exactly a boom industry right now is for two reasons. Firstly, there are no major corporate developments going on right now, and so not much new software enters the market these days (this is only to be expected, and at the end of the day isn't so much of a problem).

There is a second problem, however, one that becomes a lot more apparent from the letters we've had from you. The problem is that many shops aren't finding it profitable to stock huge back catalogues of old releases either. So the question is: how can you get hold of these titles?

## MAIL ORDER

Take a look through the following pages of your friendly neighbourhood C64 — you'll find a lot of mail-order companies. The way these work is simple —

the company buy up huge stocks of computer games, but sell them without the expense of setting up a shop. In fact, this new outlet is what enables them to provide you with games for a considerable discount. Just taking a look through one issue of C64 — you

can find two companies: **Amiga Software** (02889 504740), and **Wizard Games** (48733 378966). In the full page

## BUY RE-RELEASES?

I know, but why is a new game going to be so much better than those released and re-released back? If you haven't played it yet, it's a new game (re-release) way probably at it. The C64 industry hasn't exactly come so far that one year is out of date, has it? You won't see another Turbografx 2 being released now, I can guarantee it. But if you haven't played the new Turbografx 2, maybe it's about time you did then really.



Maybe you for the right one of companies is again?

leave your chair if you being very, very, like away — really.

## SHOPS

Okay, so maybe the shops aren't stocking as many C64 titles as you use of which Commodore 64 games which would be possible.

# SPOTLIGHT SOFTWARE

games as they want to, but not all games are worth a sale or return basis — shops may still have some

unused C64 stock lying around somewhere which, as they're always happy to make margins of cash, I'm sure they'll be happy to sell to you at a nice low price.

Failing that, we advise you to check out your small independent local — within the larger chain stores, smaller shops are closer on the update, and you should be able

to find quite a reasonable range for your machine. C64's enough, the rule works, the smaller, better, and more widespread the shop, the more luck you'll have finding what you want. Stick to that rule, and you can't go wrong.

## THE UPSIDE DOWN

The big up side is having all these shops around is that you get to walk in, and actually look at what you might buy before you spend the cash away. You can check out the screen-shots or count the discs, which is something you don't get to do through a mail-order company, meaning that if you want to get any reasonable idea of what a game's going to play like, you have to own the original mag with the original review in, which is not always the case. (Unless you happen to work here — huh?)

Nobody likes shipping, though, and if you add tummy to the mix, it gets even worse — there comes a point when you'll be running round your local newsagent trying to find anything, and having to look at it. It's at this point that you'll utter the old so immediate cry of:

## EEK! I CAN'T FIND A SHOP!

Of course you can — look around your Britain in a fashion of shopkeepers, you know. There's newspapers, shoes, clothes and eating shops. Our streets are positively bulging with them. Actually, I think there's something slightly suspicious about that, don't you? Could this be a subversive evolution from the consumer activists?



## NOT THE BIFFER BEHAVIOR

That makes, huh? It probably wouldn't surprise you in the least to know that there still seem to be quite a few real order houses pushing order-the-people. This is all very well for them, but what about you? Here's something you might like to know.

If you're advertised in *Commodore Format*, they are included in the Mail Order Protection Scheme. This is a simple idea that basically means that if you get ripped off, you just have to speak to Alison Widdler at Future Publishing. Though there is an upper limit on refunds as such gifts, you stand a good chance of seeing your money again, in part or even in full, for that's that's a good value.

## A COMPUTER SHOP, YOU DOINK

Here's another solution (EODS, The boys at Software On Demand, known as SOO (can I say that on her paper?)), have developed the Electronic Distribution Of Software, EODS. The idea is quite simple - why do shops have to fill their shelves with large bulky boxes that won't sell as well as their other large bulky boxes, when the less profitable titles can be stored on computer, and written onto a tape or a disc, rather than not only for the shops (who pay considerably less to use the EODS system than they would for the games individually), but for the user, who doesn't have to pay for things like packaging, distribution mark-up, etc.

The system itself consists of a computer hooked up to a large storage device, meaning the shop keeper just has to talk through the computer's database of all available titles, writing the correct one to tape, and give you that. Because the system is so simple to use, you'll find them in loads of different computer shops all over the country - John Manross, Future Games, Independent Retailers, and Mini Sam's, in fact, there are 128 outlets already.

You'll find added great features on EODS and the 8ly essential programs you should have on page 18. Over the coming months we'll be reviewing every single EODS game, so before you invest, be sure to check out the review in your friendly neighbourhood CF.

Quite possible the best level ever so far. Best level ever seen anyone play.

If you can't find an EODS stocked in your area (where do you live - North Poleville or something?), you can ring Software on Demand (but there are no shops up there - the north pole, that is) on (04782 863400). Alternatively (this is a shop free zone), write to Unit One, Riverside Business Park, Newcastle under Lyme, Staffordshire, ST5 9ET (consumer retreat camps, maybe?). So we think you ought to go to your nearest EODS stocked, and try a few titles.

## WHY, BUT I BET THAT THEY'RE ALL CACK

Why? - take a look at the participating outlets. Alternative, Commodore, Elop, Fun Factory, H&M, Kix, Miroslav, Tonic, UKGard, Zappara, and 21st Century. With that lot all pouring their best titles into the system, there really is quite a heavy selection of games to choose from.



## ANYTHING ELSE?

Yes, if you're still having problems getting hold of games, there's one last way to get hold of them - order them direct from the software house. That's right - most titles would be overpriced to send you their games for the normal shop price, if you're prepared to pay them up. You can find the numbers of the outlets in question on the tape of reviews, but if you're still stuck, here are a few numbers to try.

Alternative - (0477 767777)  
Audiogenic - (0461 404 2044)  
Commodore Based - (0607 832 8033)  
Thames - (04324 474773)  
Time/You File - (021 736 2118)  
Twin/Town - (0206 541126)  
UK Software - (0401 506 3500)  
Vigra - (0481 900 2200)  
Zappara - (0401 380 7730)

## EASIER WAY TO BUYARAMA

That's right - turn to page 22, Uncle Dave's Buyarama, and see what you can find. This may just seem like blatant plugging (probably because it is), but at the end of the day, you'll find a bit of very cheap but perfectly good software that either people are getting off from their old selection, or they've just written and want to sell.

## FAILING THAT

Give us your money. Turn to page 22 to witness the full and awesome power of our mail order pages, and see what you can find. At the time of writing, we're halfway through re-planning exactly what we're going to be going away through mail order, so watch that space for

probably the best selection of software a magazine could ever hope to give away.

## AND FINALLY

You could be as worse than leading down to your local car boot sale. There's usually someone down their flogging off a job lot of software. You could even find your own CD off them. There are more a the end of the side.



Some games will want you to beat a game to get this title but not this. Each of course.



Look at the state of this game. I bet you know the name already and you avoid the pain.



Oh dear the camera and camera rotation options which. Everyone who can't think, use the way around.

# INTRODUCING INTERWORD

On last month's coverpage we included a stonking word processor called **Interword**. Here's Hutch to explain in detail how to get the most out of it...

**R**ight then, you all bought last month's issue didn't you? If you didn't then turn to page 53 and get your back issue ordered. For all you sensible people that do, I'd like to take you through the features a bit at a time. You might like to go through the guide with the program up and running on your C64, trying everything out.

## BASICS

Now then, everyone's used a word processor before haven't they? No, OK well, let me explain. A word processor is the digital version of a typewriter. You can create documents, correct them, spell check them and print them out when you're happy with everything.

The main thing to remember is that you only use carriage returns (that's when you press the return key when you're ending a paragraph). There's no need to

use them at the end of each line. If you do this, you'll have terrible problems if you correct the text and also you won't be able to justify or centre the text. So just carry on typing when you get to the end of the line.

If you do make a mistake, it's often best to stop on typing and go back at the end to correct it. This way you can get your thoughts clear on paper quickly and worry about spelling errors when the creative bit is finished. If you do want to correct something then you can move about the page with the cursor keys. Just use Delete to strip a character out and Insert type in whatever you want to say in its first place.

There are some other useful keyboard shortcuts built into the program which enable you

to move quickly about the text. One of the most useful is the **CLIPPING** key which moves you quickly to the start of the text document.

## CUT AND PASTE

Let's say that you've written a bit of text, but you're not very happy with its current position and you'd like to move it elsewhere. So do this you've got to define this bit of text and you do this with the joystick. The process goes something like this.

- P1 - Creates a text block using the current by selected paragraph.
- P2 - Cuts up the file operation menu.
- P3 - Remembers the start of a text block.
- P4 - Creates a text block from the most selected.
- K - Selects start-up preferences.
- T - About Interword.
- Q - Quite Interword.
- X - Copies and deletes highlighted text blocks from the screen.
- C - Saves a text block in memory ready for pasting back into the document.
- Y - Pastes a text block from memory.
- E - Defines a text block.



Using the joystick, move to the start of the bit of text you want to move. Now hold down the fire button and move the joystick to the end of the text. When it's in the right place release the fire button. Now move the joystick up to the 'editing' menu and click on 'cut' (or you can simply press **Commander Key + X**). The highlighted text should

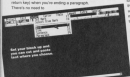
disappear into memory.

Your text is perfectly safe. It's just being held in memory until required. So now you can paste it back into the text elsewhere. Move the cursor to the desired point in your text and select 'paste' from the editing menu (or you can press **Commander Key + V**). You can perform this 'paste' function as many times as you want, thereby reproducing the same bit of text again and again. This sort of thing's useful for English essays or shopping lists.

## ONE FOOT IN THE MARGIN

One of the best features of Interword is its ability to make text look better. Now normally when you write you get either a jagged left hand edge, a jagged right hand edge or both. By using the

- D - Initiates margins.
- Z - Defines margins.
- M - Enables the use of the three distance margins used to move text in from the left.
- R - Moves the cursor to the top of the document.
- P - Normalises all style types.
- I - Underlines the marked text.
- Marks where a word can be hyphenated, the stage sometimes from looking too long.
- F - Finds and replaces words.
- L - Cancels the lightly index.
- G - Changes all letters to UPPER CASE.
- Q - CHANGES ALL LETTERS TO lower case.
- SHIFT - Switches between 48480 character



Put your joystick up and down and you can paste text where you choose.

## SHORT-CUTS

Should you get bored with the joystick, you can use the keyboard to access many of the main functions. Where you see the symbol **press** and hold the **Commander key** while pressing the other key.

- D - Opens a document.
- E - Saves current document from memory.
- S - Saves current document.
- K - Saves and titles the document.
- A - Prints the document.
- P1 - Creates a text block using the current word.
- P2 - Creates a text block using the current line.
- P3 - Creates a text block containing the current by highlighted sentence.



alignment function you can make left edges absolutely straight, place it all in the center or make either the left or right hand edges straight. This function can be found at the top right-hand portion of the screen just beneath the menu bar. You'll see four boxes of horizontal lines. To align you just simply click on the appropriate button with the joystick.

Should you want to make the actual text look different than you should turn your attention to the style menu. Click the joystick on this and you'll see an option for underlining and leaving it normal text. This function works either with highlighted text or on the fly. In other words you can select this option and then just type.

## LOST AND FOUND

Should you decide to write that BOOK that everyone's got in mind there's apparently that you're going to end up with a lot of text. Finding specific words within all that text isn't the easiest job in the world, especially if you've got to re-read everything you've written.

Step forward and bow please.



The highlight index (LXI) determines just how FAST you'll find it.



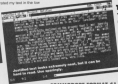
Find/Replace. These are the functions which make word processors so much more advantageous than typewriters. Inward can find and/or replace words or whole sentences by choosing the option from the Extras menu. If you're replacing a word then you've got to enter both the word you're looking for and the word you want to replace it with. The sign, Case option on the sign, Case means

that the search function won't pay any attention to whether there are capital letters in red in the word or sentence you're looking for.

One of the other functions is the capital/lower case function. This works in conjunction with the highlight function and enables you to change from UPPER CASE LETTERS to the lower case variety. I can only see this coming in useful when you (Brian or Brian) accidentally leave the Shift Lock button on by mistake.

While we're on the subject of odd functions, you might like to check out the very odd LXI option. This is a legibility index; the higher the number it comes out with, the more difficult the text is to read. At

least that's the theory. In practice these things aren't a lot of good. But then I rated my text in the line



line as it's obviously not good. Anyway the numbers work out something like this:

Type of document	LXI
Legal documents	70
Novel fiction	80
Papers and magazines	80
Poetry	33
Children's books	27

## WIBBLY BITS

Other bits which I'd like to call your attention to are: Back-up preferences - set margin settings, control type and back rate, auto-backup and 4090 screensaver with screen.

Colors - if you find the screen content a bit unattractive then change them here. You can save these preferences once you've set them.

Printing - in the printed window you can set the number of copies produced, the number of lines that should be printed on each page and the length of the paper (measured in pixel lines). The difference between top of line and Total no. of lines is printed at the bottom of each page as blank lines. This means all the text fits neatly on one page.

Tab - you can tab across the screen by pressing the control key.

Blank line - this is in the lower left corner of the screen and displays the cursor's current position. X corresponds to the position on the line, Y corresponds to the line you are on. It tells you which page you're on and L is the line number. Alternatively, you can look at the screen with your own two eyes and you'll be able to see exactly where you are.

## THAT'S YOUR LOT

Right then, get experimenting. I expect to see loads of lovely printed letters from you all over the coming months. Just don't get by money because Simon's kinder than the British Economy.



# PD FORMAT

*Skinflint? Miser? Just old-fashioned hard up? Desperately looking for some new software? Simon's got some good news...*

Are you tired of getting your latest game home from the shop, only to find you've paid good money for complete trash? Maybe you're just extravagantly tight, and don't like the idea of shelling out three whole pounds on a game. Either way, take a look at this month's selection of goodies from the PD bag of tricks...

## AMIGA BALL



I can still remember, way back in the days of time, a friend dragging me along to show me his Amiga produce some cheap little bouncing ball, and not it in how my copy still reads in it. I then went straight home, and produced an identical bouncing ball on my CPC64, dragging and freed back to pop it soon after. All the evidence here suggests this ball does in my experience, as here's an excellent bit for Steve's Amiga-bouncing ball.

**85%**

## CIRCLESQUE

Oh money me - it's another society with funny colors running through it. Spin on.

**10%**



We certainly had this in your memory. On a Monday, you know! How about the you do for a thing, that's it, that's it.

## EQUALIZER



I suppose all we've got to perfect now is starting the video's updates on our side to update.

For some completely strange reason, this type of demo has only ever been done once - this time. The whole thing is a rip-off of the intro sequence to the Equalizer, featuring the famous of animation. Flying about the ship, with logos spinning down from it a mosaic of picture of Eddie (or whoever standing in front of his car). The music's fantastic, as are the animations. It's wonderful, and really quite pleasing to the eye at that.

**90%**

## KING'S EYES

Now I may be just being picky here, but I thought a demo was supposed to actually do something. This one's just a game. It's a copy-paste picture, I'll grant you, but at the end of the day, it's just a program that displays the picture. Some music would have been nice. Something would have been nice. Multicolored picture, though, it's just a pity it's absolutely useless.

**35%**

## MISSION MONDAY

Do you remember moon buggy? Difficult, wasn't it? The difficulty came from timing your jumps across gaps, requiring almost perfect timing. It was really, you see, and so the gameplay suffered through things actually being heavily proportioned, and therefore rarely enjoyable. In this, though, the height of jumps has been increased and the holes have turned into walls to jump over. Alright, so it's a Moon Buggy clone, but if you can't have the original, this is a good place to start. Plenty of a buy.

**70%**



It's a picture. Obviously no way though the "to make better when it's missing", but it doesn't.

## MULE

Well, would you credit it's another picture, this time with a little more memorizing around in the background. Well, it's a little nearer to the truth than King's Eyes, but not quite. I think we've got an idea looking seriously for a cooler here.

**38%**

## PARADISE

Now this is what you like to see - a nice old original demo. Granted, it's got the same kind of title scoring bits, but the second half is probably the smartest about ten up you'd ever play. The game itself is sitting on a tiny picture of a monitor in the middle of the demo screen, and it's actually really quite fun. This scores me, and really does, prove a few things about game design.

**76%**

## RHCP



Band name, super bits in my disk, how many times would you wish, and all that jazz.

Nothing some order discovered a brand new graphics routine to show huge pictures, showing a lot of them on screen at a time. Why do I think that? Well, the whole demo is based around huge scrolling pictures of various bits and pieces, the first being the band name. That Hot Club Players. The idea seems that it gets an extra 20% for having good made in music, and being, as it is, a slightly more original demo, it scores quite highly.

**80%**



## SKELETOR



There comes a time when every writer must say "I better watch better when it's coming."

Here's something you don't often see on 8-bit - an attempt at video. Granted, it's all very basic stuff with absolutely huge pixels, but near the less it's a nicely animated piece of video footage, based around the classic cartoon series.

100%

## CHAOS

The first game this month is an odd one - try to imagine asteroids in which you can't only fire one ray, and you're getting there. Haphazard the obstacles with obstacles, and you're most done. Take away a large amount of the fun, and you're left with: When I complete a wave of stars, and I don't just want a new load as if nothing has happened - like a nice little fun, or a message, or even "Wow!" to appear on the screen for a moment. No such luck - it's just a monotonous alien-blast in a ship with no steering.

40%

## ANGER ZONE

So what did they do with the asteroids from Chaos? They crushed them into the alien-like ship simple horizontal smiler. Danger Zone. The idea is quite simple - you fly through an asteroid field, avoiding the rocks (they resp and emerge, trying to shoot down the stars, who, incidentally, can fly through solid rock any time they want, as it really does not harm at all. It's definitely a challenge, but this does get the fun element a little.

100%

## GALACTIC WARRIOR

Now this one really is an odd little shoot 'em up. You see, while it's all very well to fly horizontally avoiding buildings, shooting aliens, avoiding things and the like, you can't help feeling that you're travelling in a dead-end, not actually heading anywhere, while the game just flows nice along at you. It's like having your time wasted for you.

100%

## INVADERS

Another appropriate one would have been Invasor's Fast Invaders. You sit onto the screen, and wait, a few seconds later, at around twice the speed of time, some aliens stream down the screen, narrowly missing you if you're lucky, and vanish. That happens a lot, and then some. If you've never been the one at the dangerous end of a little throwing act, play this and find out what it feels like.

100%

## MENTAL MOONS

These moons definitely are mental - they look like to be planet Earth. But hey - what can you alternate the word "planet" with? Well, it's another hand-drawn ship, anyway - there's no steering mechanism, making the whole game really quite shallow, really. In fact, it's desperately shallow, as it's just another crap shoot 'em up. I'm feeling quite depressed now. really.

100%

## PROBE X

A frustratingly irritating shoot 'em up. Also - note - "Alerts". There is one lonely problem though there are a host of a lot of alerts that you can't actually kill. Instead, you go crashing into them, long desperately, until you die. They don't die, which is probably the most infuriatingly irritating thing in the world. Combine this with the fact that there's no way of seeing whether you can kill something from sight and you've got a game which can discuss possible to fly across the screen into walls.

100%

## SHOOT 'EM WILD

Either the plot for this involves looking down the guy while state the planet graphs, from lateral angles, or some other nonsense in getting incredibly short of pictures. Personally, I think "later" is a little bit of an overstatement, but Shoot 'em Wild doesn't really sound all that impressive. When I've finished writing, it's got good to telling you it's just another single screen hand-drawn shoot 'em up, that you really shouldn't bother with if you've got any of the other half shoot 'em ups you've looked at this month.

100%

## SQUISHY



Okay, as it's all very well being an Advanced view and stuff, but why the heck is it called "Squishy"?

It's not, though, is it? It's actually an Arkadian style thing that's Shoot-Out with some other special little additions, to the rest of it, with lots of bricks to shoot down, loads of different patterned screens to walk, different types of bricks, both as obstructive or fly-by, and various other bits and pieces to keep you confused. Apart from going not to buy yourself a copy of Arkadian and why the hell would you want that with the long journey, this is probably the closest you can get to the original. Okay, there aren't as many power-ups, but this is still far good, make.

100%

## TWISTER

Though the hell these easy enough games to fit this section for the next year, it so, there had to be the obligatory Twister done in every PD column. This one is a pretty straightforward version, save for the fact that the programmer, in a bid to make the game a little deeper, has committed the cardinal sin - adding more pieces. The point of Twister is making shapes that have been specifically designed to usually be possible if you think fast enough and have the right strategy. This is because they're all constructed of four squares. When you start producing shapes with three, five, six, or six squares, the whole thing falls to pieces. The whole thing has been done.

This doesn't mean to say, though, that the way it is now proved for several other. Twister comes that don't have that garbage lines - at Twister clones are just endless copies.

100%

## 3D FILM

There's nothing in 3D content like movie that to see their real-time do something obviously thought impossible. This is one of those times, then, when CGA comes across the country with themselves in action. The image itself is a very fast moving 3D plane changing surface as opposed to flying things, and though it's not calculated in real-time, it's more than just a set of sprites it had better be, or I'm going to look really stupid.

100%

## This is the N.Y.S 3D-Show!

THE NEW YORK STATE 3D SHOW



ENTER THE 3D SHOW - THE NEW YORK STATE 3D SHOW

How did they do that? More important, what's it supposed to be anyway?

## COSMOS

This demo, this standard top-down thing, like, greetings, must, feel your machine and breathe again.

100%

## COSMOS

THE NEW YORK STATE 3D SHOW

ENTER THE 3D SHOW - THE NEW YORK STATE 3D SHOW

THE NEW YORK STATE 3D SHOW

THE NEW YORK STATE 3D SHOW

THE NEW YORK STATE 3D SHOW

THE NEW YORK STATE 3D SHOW

I'm on the lookout for a team of editors to create all these writers who think that this stuff is anything other than complete crap.



# POCKET OFFICE:COMMS

Ever tried to cram an office into your pocket? This month, we show you how toinker around with other people's...

**Talk to 644 users the world over by simply plugging a modem into your lovely computer.**



It's all very well for you to sit around all hours with your computer happily playing games, writing letters, or even doing your home accounts, but it's all very lonely, isn't it? At the point, you have two options:

- 1 - Go outside and get a life.
- 2 - Get a modem.

Now there are several thousand magazines that try to tell you how to get a life, but it's about time we took a look at our second option - telecommunications. If you want the full benefits or exactly what all this modern stuff is all about, take a look at last month's thrilling instalment, but this time we're going to say exactly what you need to do with the latest thing.

## BULLETIN BOARDS

This month - 'text' and 'talkover' (I happily let my reader that these two words were brought in here on page 36) have typically increased the magazine's sales over a certain other title, its absolute success.

The truth of the matter is this - one of the best things you can ever do anywhere (as far as your C64 is concerned) - personally, I'd prefer to bring over a briefcase stuffed full of cash on my way to the office one morning to free software - and 688 systems are absolutely completely full of the stuff - I mean really full.

You see, if you log into a 688 system, there'll be a section that, if it's not called something like 'Free Software' will be labelled 'Download' or something similar. I think it's time for a little paper-loading program.

**Upload** - to send something to the host computer.  
**Download** - to send something to the remote computer.

**Host computer** - the bulletin-board system, or whatever else you're calling.  
**Remote computer** - you.

The other side to a BBS, of course, is sending messages - but you already know all about 'talkover' along with other interesting systems when happens outside of a 688, though it's there anyway isn't it?

## MICRONET

Yep - it's the industrial side to the whole thing, with what you might know as a commercial bulletin-board. Though other 688 systems may charge a fee, Micronet was the original floppy-gating system, catering for people who don't mind not only paying those phone bills, but even bigger system fees simultaneously, and at the same time, too.

Anyone who got a TR set capable of producing Teletext images will have a pretty good idea of what Micronet looks like - they both use a standard coded way back in the days of time by a computer known as the 688 Micro. The system itself consisted of a normal character set, capable of being displayed in eight colours (one of which is black), and a set of quartered characters, for doing some really very chunky graphics. From these basic elements, you could create any Teletext page, and subsequently any Micronet page.

The whole system is laid out in very much the same way, being a set of numbered pages that can

be scrolled through or picked out individually. The real advantages of Micronet come when you start to use the system a little more deeply - because you have access to a keyboard as opposed to a numbered keypad, you can enter much more than just numbers, and therefore there is a hell of a lot more you can do.

## E-MAIL

The main service of Micronet (as well as several hundred pages of useful information) is electronic mail. This service is quite similar to the standard released 688 mail systems, except for the fact that this system has links with CompuServe.

## WHAT'S THAT, THEN?

It's a huge 'big' message, mean. It spans the globe in one form or another, and has established links with just about any university you'd care to mention. It's sort of the computerised version of the telephone in postal systems. If you like, a lot of people actually give CompuServe serial numbers to their addresses, so you can contact absolutely anyone from anywhere, without the hassle of waiting for Palnet to reach them (each serial number acts as an address, which is a hell of a lot more efficient than just a name and rough location).

## WHAT KIND OF USE IS ALL OF THIS?

I would have thought that would have been pretty obvious to tell you the truth - if you're doing your accounts, filing, information processing etc. at your C64 at home, and you wanted someone else to see what you'd done, CompuServe or E-mail could quite easily carry the file elsewhere for you - who says you can't do several thousand other affairs like this same problem as your own?

Have fun mate.



## MY NAME IS MUD

One type of game on Micronet that really took off from the start was the Multi-user Dungeons. This was a simple text adventure game that you played over the phone, with the text that as well as you, several other users were wandering around the same maze at the same time. This meant that instead of interacting with computer-generated characters, you got to chat, team up with, compete with, or kill other users. In terms of gameplay, it was probably the most enjoyable adventure game ever written, so at the end of this file, you might actually communicating with other real people.

# GAMESBUSTERS

Ladies and gentlemen, welcome to another astounding edition of *Gamebusters*, the show where 'you' the readers are the stars. No wait, that's that *Beetle* show. Ermm, here are some hints and tips...



## GAME OVER

(PowerPack 10)

If the stunning maps and tips printed in *CF* are weren't enough (and let's face it, they weren't), head this second advice for part two courtesy of Richard Beckwith. OK, here's the code for part two in *DAPPLE*. From the start: Go right, climb ladder, go left, collect bonus, go right, right, right, right, right, go down on left, right, right, right, collect energy, go left, left, left, up on left, go left, collect bonus, go left, go to top platform on left, go right, right, right, about 100 steps east until you meet Banning (you're invisible), go left, left, left, up on left, go right, you'll see entry go through the wall if you're invisible, go right, right, collect invisibility, go

left, left, left, down on left, go right, right, down on left, go left, left, left, fall down through waterfall (again, only if you're invisible), go right, then hit the guardian to complete a very, very tough game.

## ROBOCOP

(MillenniumMax)

There is a hidden world in the game. To access it, on the start screen, go to the far right of the level and climb onto the wall. Fall left, then hit across the battlements. As soon as you're in the



Well, you have to a very good player. After I hit over the game of the level, the description, the description

shiny, jump into the wall to be taken in the new world. A big 'Thank' to Richard Beckwith for his insight.



Look at the state of that economy. The good month over last through that.

## NEBULUS

(PowerPack 10)

Here's a city cheat which absolutely anyone can use. Many thanks to Mike Bonnet for reminding me to include it. Start the game, then press 'F' to pause the game. Now press the UP, DOWN, 'J', and the BACK ARROW simultaneously. Still holding these keys, hit the fourth year (20), as Mike says to restart the game. With only two, the time will have frozen and you now have infinite lives, infinite time, plus the ability to jump to any of the eight levels by tapping the appropriate number on the keyboard.

## GROD THE PIXIE & CYFORCE 1

Here's a handy tip to bear in mind if you own an Action Replay. Simply load up the game, press fire to start, then press the freeze button. Now press 'C', followed by 'V', and you can now restart the game with no costume detected. And if you own a lot of SEGA CD games, the trick works on those too!

## SPLODBOG'S DOG

On the 10th level, step over the traps, avoiding the custom cart and enter the healing machine. Transport up to the cloning and thank the mother for the scores.



## ACTION REPLAY POKES

More delicious Action Replay POKES courtesy of Richard Beckwith and Warner Pilkington. To use both, access the game, press 'F' to enter the POKES menu, go 'F' to restart the game.

### CYFORCE 1

POKE 10214.0 - infinite lives

### GAME OVER

POKE 10550.00 - infinite lives

POKE 1112.90 - infinite grenades

POKE 11353.01 - infinite

ammo

POKE 11353.200 - bring back

ammo

POKE 1204.034 POKS

10345.020 - infinite power

POKE 12807.700 - infinite

ammo

### GROD THE PIXIE

POKE 12014.0 - infinite lives

### LURAN (LAMB)

POKE 22004.173 - infinite lives

POKE 23493.0 - infinite fuel

### MAYHEM DEMO 2

POKE 40001.0 - infinite lives

POKE 14500.0 - infinite time

POKE 12077.173 - infinite credits

### FREEZE FRAME/ST PART 1

POKE 45000.173 - infinite lives

POKE 20150.0 - no costume

### LIFEFORCE

POKE 10750.173 - infinite

ammo

POKE 10117.0 - infinite

time

### LURAN JAR/BREAK

POKE 10000.0 - infinite lives

POKE 10000.00 - no

ammo



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# LISTOMANIA POKERAMIA

Across more tips from the hottest gamebuster in town. Andy Roberts can even play a competent version of Chopsticks on the piano...



## MCDONALDLAND

For infinite fun, energy, and profits on the exquisite fast food simulator 'game in this listing, SAVE it for any future use, then RUN it.

- 1 FOR 8000-0 CHOP BY WJD
- 2 FOR 8000-0 CHOP BY WJD
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## EXECUTIVE LEADERBOARD

A rather smart listing here, which gives the selected player one shot throughout the game - which means you can finish with a perfect score.

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## EXEC LEADERBOARD - DISK

Top, and there's a listing for disk users which does exactly the same as the cassette-version, at except it's for disks. Type DISK and PLAY it, slip in the disk, then look back and enjoy.

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- 27 FOR 1000000000 CHOP BY WJD

Another neat trick that this screen shot shows: the dramatic lead required of a good game.



## FREDDY HARDEST PART 3

Freddy Hardest? You're done the map already, and it's about time you did it, here's a listing FOR the second (and now cheapest) part of this spinning arcade excursion. (Arcade excursion, is that for when you go to a suitable amusement centre to check out of the latest coin-ops? - Paddy) Ha.

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## DEEPSTRIKE

Strike down, strike faster, and strike a light game. It's a listing FOR the infinite fun, disk loads of ammunition, and more fun that you could see on a top in Scotland.

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## COPS AND ROBBERS

It's about to suffer from a perpetually topped status of the 2007 machine being to infinite fun, ammunition, and no-colour detection when you play the game forever... or until bedtime.

- 1 FOR 1000000000 CHOP BY WJD
- 2 FOR 1000000000 CHOP BY WJD
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# SOS DIZZY

It's part two of our SOS Specials entirely dedicated to the irksome little egg known as Dizzy - he's just too damn popular. This month Andy tackles Fantasy World and Magicland...



## FANTASY WORLD DIZZY

From the start, drop the APPLE next to the Tree, get the BREAD and the JUG OF PORTER, drop too near to fire, get BOULDER, U+R, drop bread in corner of passage, U, drop basket, R, jump crocodile and get BOULDER, L, drop basket, M+R, hit SWITCH, U, R, jump U+L, jump U+L, U, get BOMB, D, R, get KEY, L, D, L, D, R, drop key and get BOULDER, L, L, drop bomb at level entrance and get BOULDER, L, L, drop both baskets in water, R, R, R, R, get BOULDER, L, L, L, L, drop basket in water, L, L, L, get SLEEPING POTIONS from Dizzy.

R, R, R, get KEY, R, R, R, R, R, drop potion near to dragon, L, L, get KEY, R, R, R, get BIRD (to carry more objects), U+R, R, D+L, get keys in LIFT CONTROL, R, R, R, R, get KEY, L, L, L, L, get key in LIFT CONTROL, R, D, L, L, get in LIFT, R, U, get in LIFT, get CHEESE from Grand Dizzy, L, get FORK AXE, get in LIFT, D, L, get in LIFT, P+R, D, R, get COOK, L, U+L, L, drop crockpot on hatch, hit D-Peace City GOAL, give coin to Shopkeeper, get BEAM, R, R, get KEY, L, D+R, U+R, R, D+L, put key in LIFT CONTROL, R, R, plant bean on the coin slot, U, L, L, get in LIFT, R, D, R, get SHOPKEEPER, L, D, L, get in LIFT, hit D+L, L, L, M+R, R, R, jump U+L, jump U+R,

U, drop basket to door to open it, get BUCKET, R, D, L, D, R, R, R, U+R, R, R, R, R, hit basket in pond, L, L, drop basket on the cow path, climb up, R, U, R, R, get ONIONS EGGS, hit D, L, D, L, L, L, get in LIFT, drop egg on road, P, jump on left hand ledge, drop potstone, L, get PUD, R, D+L, get in LIFT, U, R, R, climb up, R, U, R, R, R, drop egg next to spire, jump U+L, jump U+R, hit SWITCH, L, R, then talk to Dizzy to complete the game... but not quite. Collected all 50 coins you take them to Dizzy's hut to successfully complete the game.

## HELPFUL HINTS

- Most of the hidden coins can be found behind railings. In fact the last doesn't lie back of the dolls.
- The bag allows you to carry loads of objects.
- Be careful riding in carts - it's too easy to get caught in the grinding cog.
- Talk to Dizzy to gain a coin - this can be dropped on the crocodile to stop it snapping.
- Some of the coins can be jumped at, some can't, so practice and learn.
- Before you flip the switch to raise your old Dizzy, get the coin from underneath the table.



## MAGICLAND DIZZY

From the start, go L, get KEY, L, L, L, open back door, L, get HAMMER, U, L, L, U, get POWER PILL, D, R, D, D, R, R, drop handle at top of shaft, get BUCKET, R, R, R, R, R, R, R, hit bucket in the gutter, L, get POTIONS, drop power pill, L, L, collect DORA THE FROG, L, L, L, L, L, L, give Dora to Prince Charming, L, hit SWITCH, L, L, L, drop potion and basket, R, R, R, R, R, U, R, R, R, get STICK, U, jump right onto the missile, get CAT, fall down into Westthings, get SMOGGER, R, R, give coin to Ganda, L, L, L, L, use dagger to cut a leaf from Dytara (leaf won't pick it up yet), L, L, L, L, L, L, L, L, free goat with dagger, hit goat with stick, drop dagger, R, R, R, R, R, U, L, L, get ONIONS, R, D, L, L, L, L, L, get BUCKET and POTIONS, L, L, drop basket on Dora, L, L, D, D, get TORCH for the right of the second, R, give potion to Dizzy, L, U, U, R, R, get PERSONAL STEREO, drop coin, R, R, R, R, get APPLE, R, R, R, L, U, L, L, L, give coin to the Bard, collect the PIPES, D, R, R, R, R, R, R, drop pipe near the well, R, collect the LEAF, R, R, R, R, give the apparatus to Ganda, get WEEDS/LEAF, L, L, L, L, drop weedkiller on Dyan, L, Get PIPES, fall down onto the ledge with the diamond, drop pipes, L, L, get LAMP, U, U, U, U, get LIGHTNING ROD, D, D, R, R, get CLOTH POTTERS, L, L, D, drop dust on lamp, put up LAMP and CRUSTIER, L, L, L, L, drop lightning rod on top of Dizzy, stand on the steps, drop basket on the lamp, R, R, R, R, R, D, L, get STORY THING, L, U, L, L, drop story thing on excavator, L, L, L, L, L, L, jump left.

L, get through mirror, L, talk to Grand Dizzy, P, D, D, get to volcano and jump from the clouds, D, D, talk to Luffier, collect TRENT, go to Zach's tower and use the ladder on fire, collect the RING, go back to Luffier, the will tell you to destroy the ring, L, stand on middle rock and drop the ring, then take Dory's diamonds to Luffier to complete the game!

## CRUCIAL CLUES

- Do NOT use the 'EXT' key once on any of Dizzy's friends.
- If you reel on a cloud, you'll slowly sink through it - be careful, by jumping repeatedly.
- Don't hang around too long on the little ponds.
- Getting out of HADES is tricky, but possible, so keep trying, it's a bit bloody helpful 'Ah - Heem'!
- The three hidden diamonds are hidden behind fences in THE SWAMP in THE SWAMP, BUSHY GROVE, and the CRACKS OF GIBBERNA.
- When you think about it, we should make Guy Fawkes a saint, but damn if you're the last man to make a sensible comment about the state of the government.

## NEXT MONTH

In the third and final part of our egg-crazy Dizzy specials, we crack open Dizzy Period of the Rock, hit and ultimately beat Spotted Dizzy. Do here.

# NOBBY THE

## PART 3

This month Nobby clambers into his personal submarine as he continues his quest to Antopia... erm, via that well known watering hole Atlantis. Andy Roberts is your guide through the waterways...



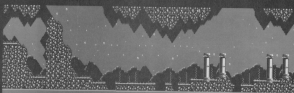
### LEVEL 3 - ATLANTIS 340 BC

From the start. Shoot the green fish, move to the top of the screen, then head right (shoot the purple fish as you progress). Continue right until you reach a stone pillar.

Don't move down when the starfish has bounced away. Move down and right, shoot the blue and the starfish in the cave, then move up again when you reach the stone temple (be careful, a waterfish tent is appear from above). Shoot the pink square at the

top, then go right along the top of the screen.

Dispose of the blue, then make your way to the right (if you stay at the very top, the spider below cannot reach you). Continue right



# AARDVARK

above the letters of the name, then move down when you reach the stone column — be sure to avoid the fat fishes. Continue right along the bottom, avoid the spider and the stone. Now move up to the top of the screen.

Move right until you reach a large cave, hedge down and shoot the olive fish, then continue right picking stone to the top of the screen. Shoot the purple fish, move to the top of the screen, then shoot the olive fish and hedge right. When you reach the next cave, they close to the top as before and continue rightwards. When you reach the last street, identify more stone and shoot them both, as they can cause

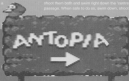
problems a little further on.

Move under the pipe, then hedge back up, go right, then hedge down through the gap in the pipes. Shoot the fish, then hedge right and up. When you reach the stone and fat (don't eat a fat!) shoot them both and swim right down the 'cave' passage. When safe to do so, swim down, shoot

the spider at the bottom of the screen, then swim right until the computer takes control — Nobby will get off to a confident start.

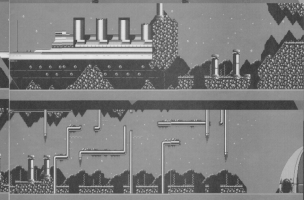
Finally Nobby near the dramatic truth — Virginia had been lying to him all along. He strode from the roads and mounted his dapple horse. As he cantered down the dark country lanes he thought he could hear Miranda's voice calling out to him. It kept saying "No, no, no, and the green wire, the black one." He was upset.

CF



## NEXT MONTH

Join us in thirty days for the fourth and perhaps the spiciest part of Nobby's excellent adventure. What lies within the City of Atlantis? Will Nobby ever reach Antopia? You'll have to wait and see... um... because we don't know either. After 12 next months.





# VOLCAN

Yet another **POWERPACKED** adventure which has left dozens of readers with bruised brains and blistered fingers. Fear not, here's a complete solution courtesy of Richard Thompson, with maps by our very own Andy Roberts.



With these photos, it wouldn't been by Douglas.

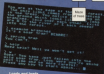
CREATURE, GIVE FLOWER NORTH NORTH, GO BOAT NORTH WEST, EXAMINE PLANT, GET MATTRESS NORTH WEST, NORTH WEST, GET LADDER EAST SOUTH EAST, SOUTH EAST, DOWN, GET FROG, CLIMB LADDER NORTH, NORTH GIVE CRYSTAL, GIVE CROSS, GIVE DISCARD, GIVE FROG, GET DUST, SOUTH SOUTH DOWN, SOUTH SOUTH, SOUTH LIGHT THE NORTH, SOUTH SOUTH, THRESH DUST and you're all done.

## FROM THE START:

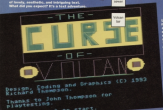
EXAMINE TABLE, GET MIRROR, WEST, EXAMINE FOLIAGE, GET WATCHES, EXAMINE TREE, CLIMB TREE, GET DIRTY, EXAMINE CURCHARD, OPEN CURCHARD, GET PLANK, DOWN, WEST, USE PLANK, WEST, GO DIRTY, SOUTH, SOUTH, EXAMINE MACHISE, PRESS BUTTON, NORTH, WEST, NORTH, EXAMINE BOWEL, LOOK, GET CANDLE, SOUTH, EAST, NORTH, GO DIRTY NORTH, EXAMINE GRASS, LOOK, GET COIN, EAST, EXAMINE COUNTER, BUY DRINK

EQUIPMENT, WEST, NORTH, EXAMINE FLOWERS, GET POPPY, WEST, GIVE, EAST, EXAMINE WIGGOS, GET FROG, EXAMINE STONES, GET DIAMOND, WEST, UP, EAST SOUTH, SOUTH, GO DIRTY, SOUTH, GIVE ROD, NORTH, GO DIRTY, NORTH, NORTH NORTH, SAY VOLCAN NORTH LIGHT CANDLE DOWN, EXAMINE STRAW, LOOK, GET

CRYSTAL, UP, SOUTH, SOUTH SOUTH, WEST, EXAMINE GRAVE, WEST, EXAMINE ALTAR, READ BOOK, USE MIRROR, LOCK, GET CROSS, WEST, WEST, EXAMINE



Guide and levels of levels, corridors, and including best, what did you expect? It's a hard adventure.

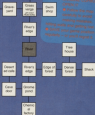


Legend for the map: Blue indicates a path that can be taken from the start; Red indicates a path that can be taken from the start and the end.

## TERRIFIC TIPS

• Always be sure to check the inventory of items you have collected. You may find items you need to solve a puzzle.

• Always be sure to check the inventory of items you have collected. You may find items you need to solve a puzzle.





# MAYHEM: HAPPY JELLYLAND



Well, it's nice to see that everything's cheered up a bit now. I only hope things can stay that way. Just to make sure the smile stays on your face, here's Andy Roberts with the guide to the slightly cheerful version of Jellyland...



## HAPPY JELLYLAND



The character returns to where it began each level.



# HAPPY JELLYLAND



TEN STARS

TEN STARS



SCORE MULTIPLIER

SCORE MULTIPLIER

EXTRA LIFE



Jelly waddles, jelly waddles,  
waddling on a plate job, I can't  
remember how it starts.

Begin by **rolling**

Time limit: 200

Goal points: 10

Star points: 110

## CAST OF MONSTERS

Blaw: Heavy overhead throughout the Super  
level, used on three-wheeled enemies (except  
there are no opponents for this  
and jump on him as though

Flapdoodle? There are enemies  
to chase the flying object, but  
it's like looking for the same  
that means you can't change  
it here.

Flapdoodle: The bigger they are,

the better they fall, and Bumblebee is a  
bit of a flogger. Just charge straight into them  
for a quick disposal, but be careful with the  
size of the foe, or you'll be dead.

Sliders: A very subtle and elusive opponent,  
which can be killed in three ways: monster  
blaw, in certain parts of the level, the  
craggy pits in this level, or with three-chip  
cannon power.

Whee! Ah! That's the sound of opponents, but  
there's a good alternative to the spirit of  
this waddling monster: just wait till you reach  
the big bridge on level 10, then the  
bridge will give the ship.

Flapdoodle: Only appears once throughout  
level, and can cause serious trouble if  
you're not paying attention. Be  
ready as it appears, jump to the  
platform.





"I don't want to see another July for as long as I live" - Rayman, yesterday.



#### DINO

"It's eating this page on behalf of the Microsoft Corporation Press, and never can stop eat!"



#### FLAPOBACTYL

"They can't catch a grip - what happens next month when something different's on it?"



#### BLURF JNR.

"Will you look up those that eat?"



#### SPINY DINO

"Yeah - we're trying to go!"



#### BOBO SAURUS

"Take a pill, take!"



#### HOPPER

"We would like to, and we would like every thing else there..."



#### BAND IT

"Well she didn't go much here so get closer, really. We're writing this stuff!"



#### SPINY DINO

"Hey - don't look at me!"



#### CANNONBALL

"We don't look for one minute a working paper unless could work with!"





# THE QUEST OF KRON

THE SOLUTION

Yet another POWERPACK adventure which has left dozens of readers with bruised brains and blistered fingers...

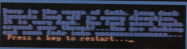
**T**he other tough adventure I covered quite a few problems when it appeared in our Powerpack, so we've decided to give it the Buster treatment. Solution by Anthony Deane, steps by Andy Peters, hair wave by A Cut Above:

From the start, EXAMINE ROCKS, GET BOAT, HOIST SAIL, EAST, EAST, EAST, EAST, WEST, UP, EXAMINE BURN, GET SCROLL, DOWN, GET BOAT, WEST, WEST, WEST, SOUTH, SOUTH, GET TRIGS, IN, GET ROPE, OUT, NORTH, WEST, WEST, WEST, THROW ROPE, DROP BOAT, CLIMB ROPE, FREE EAGLE, GET FLUTE, GET BRANCH, DOWN, GET BAR, GET BOAT, EAST, SOUTH, LISTEN, OPEN CLAM, GET LEAP.

Go EAST, EAST, SOUTH, SOUTH, SOUTH, RUB TRIGS, LIGHT BRANCH, EAST, EAST, EXAMINE SKELETON, EXAMINE RECESS, GET NUGGET, WEST, SOUTH, SOUTH, WEST, GET STONE, EAST, EAST, EXAMINE STONE, RUB LAMP, OMAH KABEL, JUMP, UP, UP, UP.



The moon sets over Windy Hollow for the very last time.



KNOCK DOOR, GIVE STONE, KNEEL, GIVE SCROLL, WEST, WEST, WEST, WEST, PLAY FLUTE, DOWN, NORTH, EAST, GET JAR.

Go WEST, SOUTH, EAST, EAST, SOUTH, EAST, SOUTH, OPEN JAR, DROP JAR, NORTH, WEST, SOUTH, EXAMINE GUNBO, GET KEYS.

"Sometimes I know you were going to say that. Don't read until your father gets home."

WEST, GET PRINCIPLE, EAST, NORTH, WEST, NORTH, WEST, RAISE BRIDGE, OPEN CHEST, GET KNIFE, GET GARDLE, SOUTH, EXAMINE BIRDOR, PUSH PABEL, DOWN, EXAMINE DOOR, EXAMINE NUGGET, OMAH, NORTH, EXAMINE ROOF, OUT CORO, GET CROWN, RUB RING TO FINISH THE GAME. THEN REARIN YOU COULD ALWAYS JUST LEAVE THE BIRD HANGING OUT THERE FOR A DAY OR TWO, (SARCASM) THAT OLDSCHOOL MOMENT OF VICTORY.



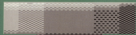
## TERRIFIC TIPS

- It is very easy to take a wrong turn and die - consult the map before wandering off.
- You have limited moves when using the light/sword and the candle, so follow the solution closely.
- SAVE your game position regularly, as there are many unexpected traps and puzzles.



# MAYHEM: SAD PIPELAND

You've battled through Jellyland, so now it's time to get acquainted with Pipeland. First up the sad zone...

**STAGE 2**

Bounce on these aliens' heads and collect a bag of magic dust. Be sure to wipe your feet first though.





## MAYHEM: SAD PIPELAND

**Stage 3 - Pipeland**  
**Time limit:** 250  
**Quest goals:** 11  
**Star quota:** 231

### Cost of monsters

**Dies:** Very similar to its earlier counterpart in *Jeffery*, but the Dies on Pipeland have learned to run — now it's your turn!

**Flapacats:** Like the same as the *Jeffery* counterpart, and those too move faster than before, the especially many of these beasts. They attack and chase.

**Sharp Jaws:** As you might expect, the babies have a lot faster on this level, which doesn't help when Mayhem is caught in between two things. Jump over the bushes and their heads.

**Spiky shoes:** Similar to the Dies in most respects, apart from the fact that you can't charge into the back of his back. Back in jumping on his head and you'll be fine.

**Bandit:** If you're aiming to collect a super star bonus, this is all the monster for outside with — he sticks

your stars. Jump over him, take a diversion, leave the country, send for

**Repper:** One on almost no monster, as it's often possible to charge underneath him, while that's jumping. The best approach is to step and jump on his head (you too require a minimum of stars).

**Caracal:** This enemy creature is available in the happy level, and can be in two forms — the first of which is a creature, and the second just gets in the way. Go for it is.

**Spiky shoes:** Similar to the Dies in most respects, apart from the fact that you can't charge into the back of his back. Back in jumping on his head and you'll be fine.

**Bandit:** If you're aiming to collect a super star bonus, this is all the monster for outside with — he sticks

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**Spiky shoes:** Similar to the Dies in most respects, apart from the fact that you can't charge into the back of his back. Back in jumping on his head and you'll be fine.

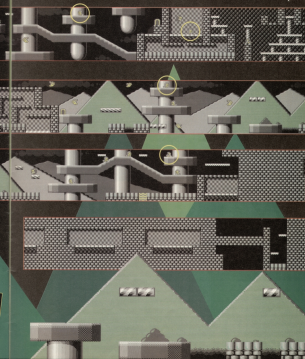
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**Caracal:** This enemy creature is available in the happy level, and can be in two forms — the first of which is a creature, and the second just gets in the way. Go for it is.





# THE NEXT BIG THING

The next big thing is going to be basketball, believe it or not. You don't? Then take a look at Acclaim's brilliant new Mega Drive game, *NBA Jam*. You'll find the first review in February's *Sega Zone*, on sale 27 January.

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GAME

# ZONE

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# BETTER BY DESIGN

## TOUCHES

WHO'S WHO? James and Steve Rotundo are all the economically talented APEX duo who have hand-crafted such items as *Retropolis*, *Crashers*, *Crashers 2* and *Mayhem in Monsterland* (designing the games, drawing the graphics, testing the music, and programming the whole package). Andy Roberts remains the unofficial third member of the team, who worked alongside the "top" or "Mayhem in Monsterland" designers, designing, testing, and programming. In the final part of the trilogy of knowledge, they still hope to enlighten the masses about the mysterious but not so low-key brother as game design.

## THE END IS NIGH

By this time the concepts and scenarios for your potential blockbuster should be well established, and now it's time to pay some attention to the main character of the game, be it a spaceship, character, knight in shining armor, or blob of goo. Firstly, the character needs to be functional, and suit the surroundings (whether the backgrounds inspire the character or vice versa). Secondly, the main character needs to look and feel good. Think about it, what do you spend most time looking at when you're playing a game? Yep, the main character.

*Mayhem* utilizes two sprites to give him his snazzy, cute details. This limits the number of on-screen monsters by one, but hey, who games the looks good and there's what counts, right? Wrong. You couldn't be more wrong. You're simply listening over your

ambiguity. If you feel back through any of the fat's make a monster feature, *Mayhem's* control method was tweaked almost every month. Admittedly, if you're simply designing the game and not programming it, looking at what details work in the game's favour isn't possible. However, try to give the main character a

## PART 3

rather substantial of moves, when he reaches the edge of a platform, make

him react in some way. If he loses energy or power in some way, make him wince or yelp with pain.

Playability is what counts, so try to make him walk at a decent speed, jump a fair height (proportionally to the character's mass), and responsive to the player's needs. How many times have you been killed, mainly because the enemies are so much faster than you.

Too many, probably. Give your character a special ability like *Mayhem's* charge mode to give him a fighting chance. Again, this could be influenced by the game scenario.

Another important factor to consider is the size of your character. If he's small, the playing area is much larger. Therefore, the bigger the player, the smaller the playing area becomes. As far as the CD-I is concerned, one sprite is fine, although you can overlay sprites for added detail (as with *Mayhem*, mentioned above). Most CD-I games have a character which is only one sprite big, so don't feel pressured into making your character big.

After this comes the backgrounds for the game, which can affect the gameplay substantially.

The graphics shouldn't obscure the main character, for example, so don't go for over-complicated designs. After all, working on the CD-I you'll be restricted to one character set, which only has 256 different character blocks.

In the final part of this series, the *Apex* team reveal more of their game design secrets and then realise that they've forgotten how to get out of a nested loop...

Obviously the character sets can change from level to level, but in general keep the backgrounds functional yet simple. The best way to structure the backgrounds is by using blocks, be they 320 character (320x16) or 484 character (484x16) in size. If the game is set on a static screen (for example a *Crashers* bonus screen), then there is no need for blocks.

Now comes the tricky part - deciding the backdrop, scenery, characters and the like together to make the finished game. If you have lots of ideas, don't be tempted to include them right at the start of the game. Spread them out, give the player something new to discover as they progress. This also provides them with an incentive to play the game again and again. Bonuses are always a fine flourish, so reward the player with extra lives, bonuses, and codes of points when they deserve it. What if

you're sending the player into a particularly difficult section of the game, give them a choice or extra life just before - be generous from time to time, and you'll win the player's attention and respect.

Perhaps the final element are the sounds, which can

really make or break the game.

The sound effects in *Mayhem*, for example, were constantly tweaked right through the game's development, in an attempt to gain the perfect sound effect for each situation. Try to include effects for the character's movement (jumping, falling, sliding, etc), but keep it exciting. After all, a sound effect when the player hears 20 times a minute must be easy on the ear - how many times have you reached for the volume control? Yep, too many.

Above all, have fun. Include the things that you enjoy, design a game that you would actually like to play. Be realistic, and don't become too heavily into other games (well, not so that people will notice). The final rule of game design is "You are what you are". You're either got it or you haven't, it isn't 80% of all games are complete rubbish. It isn't possible to teach someone how to design games - you can only help them to improve. We hope we've helped.



Steve Rotundo



Andy Roberts



It's always your choice, but never lose sight of the main character from this angle. GDD team



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**DEAD  
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 Reviews: Madsen's Magazines, Books, Magazines Spectral: The Ultimate Sports game. Start your own PD Books, Wonderland.

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**Q160** - Cover tops: 30 and 4000: Boris Wilson, Commodore's Spectrum and some new, other stuff.  
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# CHIP OFF THE OLD BLOCK

In which Lewin Edwards delves deep inside the C64's case, and reveals loads of hidden secrets for all you anorak wearing tech-heads...

**T**hroughout this document, I assume the reader is looking at a motherboard, or at least a board, in its normal orientation (ie. cartridge port at the back and power on the right). Also note that 'C64' is an abbreviation for Commodore.

## THE POWER SUPPLY

There are several stages in the C64's power supply. To reduce certification costs imposed by electrical licensing authorities, the computer itself doesn't connect directly to the mains (this also makes for greater operator safety). The C64 transformer unit does the great work, converting the household voltage (110, 100, 220 or 240 volts, depending on where you live) into 0 volts AC and a smoothed (but unregulated) 0 volt DC supply.

These two supplies are fed into the C64, which is where the debate power refinement is



Most boards do not include this resistor

performed.

The C64 contains three voltage regulators: a 7805 and a 7812 at the lower right of the board, which provide 5 and 12 volts respectively, and a power transistor just under the cassette port, which supplies the 0-volt cassette motor.

The power supply is smoothed by the three large capacitors just left of the joystick ports. These components store approximately 20 millifarads of power in the event of a momentary supply failure. They may save your C64 from a crash. Unfortunately, they can only power the electronics. If you happen to be using a tape drive during a power glitch, the tape motor will gobble up all the energy in the capacitors in no time flat and the machine will crash.

One important part of the power supply system which many people overlook is contained off-board in the form of a decoupling capacitor, small brown glass capacitors used to just about every chip on the board. The reason they're there is because as a chip is called upon to do different things, its power requirements change perhaps millions of times a second. If the chip was connected directly to the power supply, the changing power demand would make the supply voltage fluctuate, which might upset other components.

The decoupling capacitor stores a little reserve of energy which supplies a few volts power in those fractions of a second when the chip needs it. (The reason small decoupling capacitors have to be placed next to every chip, rather than just having one big one somewhere convenient, is

## CRIPPED AWAY



Would you like salt and vinegar with your electronic chips etc. Others will not pay their salt - kidding.

Decoupling electrolytic capacitors tend to leech charge from PCB tracks that by the time it arrives, it wouldn't be needed, which is no use.

## THE MEMORY

There are two types of memory in the C64. RAM, used to store programs, data and screen information, and ROM, used to store the BASIC language character set and other information which the computer needs at switch-on. There are three 256-bit ROM chips, the BASIC, KERNAL, and character set. These chips seem to be very accident-prone; dead ROMs are probably the most common failure I've seen in the machine. As far as RAM goes, the old grey C64 used eight 4Kx4-bit 1-bit dynamic RAM chips, the newer C64c used two 4Kx4 64Kx4-bit chips.

C64c machines use 256-bit dynamic RAM, while older models have 1024-bit RAM, mainly because 256-bit chips went out of production in 1987 or so. If you're replacing chips, try to maintain the rating of the existing components; the machine can get confused if some of the chips are ready for action before others. You might just have to make do, however, since the 4Kx4 isn't made any more.

There are no real surprises in the C64's memory system; the addressing logic is a jell on the complex ROM, but ROM's more a programming headache than a programminger's. The only point to note is that because the 6502 doesn't have explicit IO addressing, all the I/O functions have to be mapped into the memory address space, which further complicates things.

## THE VARIOUS AND INGENIOUS I/O PORTS

Starting at the upper left of the motherboard and moving right, first we have the user port. Originally intended for users' own electronic projects, it is primarily used for connecting Commodore printers. Next comes the cassette port; the less said about that the better. Just one note: the C64 and Plus4 can't read or write C64 tapes. The reason for this is

## EASY PC



Computer architecture has actually advanced very little in the last ten years.

because they don't disable interrupts while loading and leaving (so the screen doesn't go blank, the CBI leaves the screen during tape operations to maintain VIC-II compatibility).

Next we have the serial port, which is used to connect dot-matrix and standard Commodore printers like the MPS 803. The CBI serial port is in fact a cut-down version of the IEEE-488 interface (which is found in its full incarnation on higher speed Commodores like the CBM 8000 and, strangely, the Commodore 128). Due to C- to C-4's strange leap for VIC-II compatibility (how many dot-based VIC-IIs did they sell? Certainly no more than half a dozen), the standard CBI serial line is apparently slow, taking minutes to test just a few kilobits.

The next connector is the monitor socket. Although it's often described as an RGB socket, it doesn't actually provide an RGB signal. It provides a PAL, CVBS video signal (see "The Video System" below), a monochrome composite video signal, and sound. Right next to the monitor socket is the TV socket, which is fed by the RF modulator.

Last, but not least, we have the cartridge port. This port provides easy access to most of the CPU's data, address and control lines, with the select lines for external ROM chips programmed to minimize the amount of circuitry required in a cartridge. Generally speaking, the only practical use of this port is for a ROM-based cartridge. I really haven't seen (or heard of) a single decent piece of software making it into this format. I've got more pressure out of eating my cartridges than playing them (and wasn't International Soccer a stuporously morose)?

## THE VIDEO SYSTEM

The VIC (Video Interface Chip) is the piece of hardware primarily responsible for generating the CBI's display. On both models of CBI, the VIC is a 40-pin chip inside a metal box on the motherboard, slightly right of centre. The metal box comes both as a heatsink for VIC, and to reduce the amount of high-frequency noise radiated by the video circuitry. If you remove the lid and switch the machine on, you will see noisy diagonal interference lines across the TV picture.

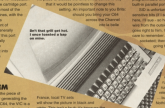
There are two VIC versions: one in a ceramic (brown) case with a metal square over the actual silicon lid, and another version in the more familiar black plastic case. If you're ever in a position to choose which one you can have, go for the ceramic one. Not only does the ceramic body get rid of waste heat more effectively (and remember, a hot chip is an unreliable chip), I have also noticed that the plastic version seems to have a blurry picture. Nothing unbearable, mind you, but you can see a definite increase in picture quality by installing a ceramic chip. The plastic version is not very common; it was apparently only supplied as a replacement part.

The component number of the VIC is the 6600. Some CBI-C's are fitted with a 6607, exactly what advantage (if any) this confers, I'm not sure. The display on the CBI-C is sharper, but this is primarily because the CBI-C has far better RF shielding than the old grey VIC-II style animal. (The grey CBI's

shield is a piece of cardboard with aluminium vapour-deposited onto it, while the CBI-C has a nice solid metal shield.)

The signal which the VIC provides is called CVBS video (Composite Video Broadcast Signal). There are three basic formats which this signal can take, depending on where you happen to live, but the one used by British video equipment is called PAL (Phase Alternating Line). This signal is fed directly to the monitor pan, and also into an RF modulator (the silver box just left of the cartridge port) which 'modulates' (hence the name) the video signal onto a UHF carrier frequency which can be received by a big standard TV set.

There are actually several sub-formats of PAL, and the little graph just under the modulator lets you choose between two of them. In Britain, it's left open, to select system 1. In Australia, where I am, it's switched shut, to select system 625. This isn't the place to discuss the differences; suffice to say that it would be pointless to change this setting. An important note to you Brits should you bring your CBI across the Channel via the tube.



France, local TV sets will show the picture in black and white. This isn't a fault: it's because the French use a TV system called M2-SECAM, which is very similar to your PAL system, but encodes the colour information slightly differently. It's probably cheaper to buy a multi-system TV set than to try converting the CBI.

## THE SOUND SYSTEM

The CBI's sound, as we all know, is generated by the lovely SID chip. SID is a 28-pin chip (who has almost exactly in the centre of the 68000 motherboard just left of the graphical VIC), and rather more towards the left hand side of the CBI-C board. For his day, SID was a very advanced

## MODEM MANNERS



Modems use a control panel for internal and receive information about a telephone line.

device; he's based on the rather primitive tone generator used in the VIC-II. For people who are theoretically minded (that's *you*, whatever that means), SID is quite similar to the General Instruments AY-3-8915A chip used in the 45, 46 and Amstrad CPC series, except that it has programmable envelopes (and it doesn't have the built-in parallel port).

SID is unfortunately another of the 64's sensitive bits (I'll see a comment from the Editor here, if you - or help me). Probably because a wisp from the outside world (ie, the monitor port) gives light to life, I've been more fed SIDs than I care to remember. Fortunately, the chip is usually protected from any rumours that it may be going to release an upgrade with eight voice channels sound, but then the Amiga came along (actually, C- Musically offered and returned a computer called the Larnax), and instead disappeared. Mind you, the rumour hasn't died; it's still rumored that C- is going to release an 8-voice sound upgrade - but for the Amiga, not the 64. Making over changes.

## THE OTHER BITS...

This is the end of the article. Before you get all worked because many of the chips on the board haven't been mentioned, you should realize that they are mostly there to describe which hardware the 6600 wants to talk to at a given moment. On the 64-style CBI, there are about a dozen unrelated chips which handle the base, or the CBI-C, most of these devices are bonded into the expanding great divide directly on chip, about 50 pins I think. Hopefully I'll be back with another feature in a few months, if much ever gets round to sending me that commission.

## SLEPPED DISKS



"What does the Slepphine. If you could pick out the disk that corrupted your data from this lineup we'll get the engine fixed up. Step forward number three, you're a little bit scary, yes!"



What happens to classic  
C64 games?

They get recycled of course. Hutch is our man with the detective coat and the truth serum...



The Redburn Islands game screen. The original platform game action.

In the beginning there was an idea. Then there were a couple more. Then the ideas ran out and the first one got recycled and then the second and then and then they went back to the first again. Back to the hands. Everything from movies to clothes gets chipped out of the closet, stacked off and forgotten at the station, leaving everyone with a strong sense of déjà vu and the vague feeling that they're being copied.

The C64 was the birthplace of hundreds of supposedly 'new' console and 16-bit computer games. It's fairly surprising when you think about it, because the world's most popular 8-bit home computer was when many of today's top flight programmers started out. They cut their teeth on its 64K.



Oh, the mysterious game playing land. Here, we're an absolutely unshakable programmer.



Don't ever be tempted to go to a real baseball match. It's an exceptionally dull event.

# BEG, BORROW,

language, loaded with assembly code, missed the time and then moved on up to big bucks in a consistent.

Sometimes it's just an idea that gets picked up on, most often with a new genre of game that the movie treatment. But we all know the rule: don't see it. It started here in an all-gray case in 64K of memory.

## MOVIES MOVIE MOVIES

If you have almost of developments on the consoles then you'll know that these days Bill Johnson are programmed in conjunction with the movie itself. For instance, if the animation in the console-Adapted games looks good then it's because when Disney animation teams created the script.

It wasn't always that way though. Remember games like *Back to the Future!* *Looney Tunes!* *Lethal Weapon!* *Spy Who Loved Me?* These were games developed (probably by either Ocean or US Gold) from the movies after the footage was picked up and chaff. You know exactly what to expect from the game, as it usually followed a small section of the plot such as a car chase or a stand-off. How does that all see what you get was a platform game.

So is it any wonder in a console? Well, ignoring the 16-bit era (see *Adapted*), the answer is a resounding nope. It's a movie license game or a license and you can bet you're going to get an enormous dual-platform game which has all the lasting interest of a party political broadcast.

Life hasn't even changed for the better with the advent of so-called multimedia CD games. Everyone gets promised an interactive movie and what you get is up with a platform game with CD sound and movie clipped sprites. Give the Atari 645 Edition any day of the week.

## THIS SPORTING LIFE

We've seen adaptations of all shapes and sizes at the 64. Remember *PGA Baseball!* (aka *Baseball!*) *Base! Car Race!* *Las Vegas!* All of these games took a spin and gave it the great treatment and they were all stonking. I'm not saying that there haven't been any crummy sports simulations on the C64 but when they are good, they're stonking. *Yes, please.*

So let's peer over the fence into consoleland

again. How things changed with all these hardware updates, millions of colours, eight channel sound and impressive zoom? Have they had 'Pak out any good game on any console or computer and they'll look like *Las Vegas!*' The sprites may be more detailed and the update is so more rapid, but they are so more payable than the original computer game. In fact the only difference is they so be a Japanese production from someone like Namco or Service 9.

What about car racing games? I hear you about, surely these would include some innovations? Not a chance. Ever since Geoff Crammond did the business with *Blunt Car Race!* what's counted is realistic feel and movement. On the SAEI they widened on about a game called *F-*

## DISCLAIMER

Hutch would like it to be known that should any complete writers disagree with him, he will thank them in the *Saturday* reports after work where he offers to sort everything out for them with a good word telling. (Should anyone actually dare to disagree with his instructions then write and tell us why at *Just Write!* PO Box 40000, Birmingham Street, York, West, BA4 2BN.

Zero, saying that it isn't wonderful to play. Yeah, right. It is no better than *Blunt Car Race!* and had less testing time.

During the last few years, practically every sport on earth has been simulated on the 64. Everything from *Base! Baseball!* in *Geoff* has been 'done' and when, inevitably, the console programmers decide to do their own version, they 'borrow' heavily and add in more plausibility. It



There have been, you see, they make it your job and, from *Base! Baseball!* it's there! It's all the others.



This kind of appropriated can't be pushed for *Base! Baseball!* or *Base! Baseball!* on the 64.

# STEAL

might be called *steal* (steal) but it's just 400 ms a pair of new silly options.

## CATCH A SHOOTING STAR

Back in the old days there was a thing called the shoot-'em-up. Its roots lay in Space Invaders from Taito and Defender from Williams. However it reached its zenith on the C64 in games like *Orion*, *Demons*, *Shrapnel* in Special and *R-230*.

You all know the score, you've got three lives and you scroll up or across the screen dodging enemy or the invading horde in the vast hope that SpaceInvaders™? doesn't get irritated. It's all just a test of reflexes and timing and nothing else.

So is conventional, where then are we going? They've got all that sound, colour and space. It's about to reinvent, new and interesting. That's the only difference between a console shoot-'em-up and a bit shoot-'em-up is the increasingly odd names they manage to come up with for the invading masses. Alright, they might bring a bit more parallel scrolling in there, but you've basically got exactly the same game, so we've all been playing for the last two years. It makes you want to opt



Like most of them, shooting games were never too far from being moved to the air of doom.



They, but it's nothing to lose your head over.

What gets me is that all these console naming blunders that there actually buy the whole ridiculous range. It was only late last year, that Andy Brayford released the eagerly awaited *Ultimatum 2*. Everyone estimated over 4 and the magazines gave it suitably high scores. But again, it was just *Ultimatum* with a different kind of red variant on.



more playable and scores bonus points for completely lacking and looking animated faces.

## EVERY WHICH WAY BUT UP

It doesn't matter what you look at, it all (and I mean all) started right here. From shooting platform games like *Namco's* *Islands* to snake adventures like *Atari's* *Dangerous*. If you fit either way of a console or 16-bit computer game and look underneath, you'll find an oldie game.

So why is this? Why can't the gods do anything original with their incredibly sophisticated machines. The answer's simple, we're contented at the base over here in 8-bit land. Consoles and console games aren't about playability, they're about image. Buying yourself a copy of *Master Keyboard* instead of *Street Fighter 2* is just the getting a pair of *Rebels* leaves in preference to a pair of *Wiles*.

The producers of these console games know that. It makes them foggy, because it means that they can release the same old stuff, decade in, decade out. Attach a celebrity name to a like the 1980 platform game and just watch the little ratings tag it down to 50 cents to buy it.

The whole computer games industry has been hijacked by the big money corporations of Japan and America. They have slowly but surely BKO'd by the wonderfully diverse British scene and transformed it into a shallow, plastic, image obsessed cog in the entertainment industry. It is a sad case that even that the world needs a bit of *Yachinca* like the 84.

In the *Commodore* review 400 gathered about the packaging and we don't care about the celebrity be-

ns, what we care about originality and playability in equal measure. Output favourite computer you're only go back of history to play with and so the game is still fun to be playable. *Commodore* cheer on it, these games aren't made that small but persistent fact. One can only hope that the console owners let us get on with what we see as a hobby and they regard as a way of life. After all, when did you last hear of an original 64 owner who played a *beat-'em-up* and decided to try doing the movies or someone in real life. Let them believe it's real, while we play our original games. Next month we'll do another listing trade against the consoles. So watch this space.

## A SHORT HISTORY OF THE PLATFORM GAME

● EMPIRE STRIKES BACK

● LETHAL WEAPON

● INDIANA JONES

● BACK TO THE FUTURE

● BATMAN

● JET SET WILLY

● MANIC MINER

● MINER 49er

## ● DONKEY KONG

- |                 |             |
|-----------------|-------------|
| ● MEGAMAN       | ● JUPITER   |
| ● GORGON        | ● METEOR    |
| ● PEGAS         | ● TURTLE    |
| ● GARDIAN DRIVE | ● DISCOBALL |
| ● ZELDON        |             |

● ORIGINAL PLATFORMERS

● STREPTO BETH IN AS THE CONSOLES TAKE OVER







