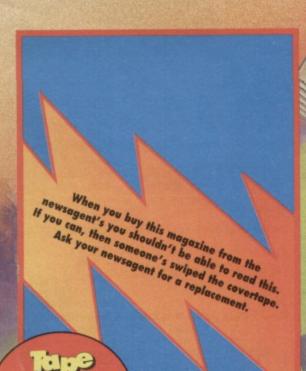


Shock news!
PC giamis
ESCOM relaunch
the C64 - full

story inside!



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New BASIC programming Review Sword of Honour Plus PD rated, techie tips, GEOS, ROM coding, news



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July 1995 Issue 58

COMMODOR

6 News special: C64 reborn!

ESCOM, the second largest European PC manufacturers are to relaunch the C64 in the developing countries. Simon Forrester gets out his atlas and looks at the implications of this announcement.



8 MINIMINIMINI

Take yourself to the edge, a very sharp TODO TODO edge. We have five copies of the spectacular beat-'em-up Sword of

Honour to give away. Turn to page 8 to see how to win a copy NOW!



13 1993 and all that

No sooner said than favourite Commodore story teller, Simon Forrester, sits himself under a tree takes out his big picture

book and begins.

'Once upon a time...'.
And all because one curious CF reader asked Simon to tell him more about the history of the C64.

HE POWERPACK...

Top, far left, and left: Capture - a

Capture

Simply board Capture may be, but it's never dull. Capture is a game of strategy and skill. Move



your tiles around: preferably on to squares which are already occupied by your opponent. Well, do you have any cause to be nice to him or her?





Trashman

'Trashman, oo-oo it's the trashman.' Didn't the Beatles sing a simply fab song about him? No? It was the tax man? Oops.



Above, Trashman. A game which delivers.

best leave that subject to the Internet then (see News, page 3). They do say that where there's muck there's class. though it depends on the strategy and neighbourhood whose bins you are

REGULARS

3 News/ **C64 Scene Directory**

Did you win a JiffyDOS upgrade. A Shoot-'em-updestruction Set? And, what's what C64-wise?

4 The Mighty Brain

You ask. We give as good as we get. No, better.



15 Back to BASICS

You are under mortarboard attack from Simon Forrester who is determined to teach you BASIC.

16 Buy-a-rama

Sold on the idea of CF classifieds? You should be!

20 Contact points The fanzines, the clubs, the lowdown.

23 Next month:

What you can look forward to in CF59.

24 CF back issues

Keep up with the issues that were.

REVIEWS

17 Sword of Honour

It's spectacular. It's a beat-'em-up. It's got ninjas.

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Squarescape, Superstrike, Spacewar and SEUDS.

12 Public Domain

Succumb to Lethargy and Contraflow.

SERIOUS

Go faster gripes? You can speed up your printing.

9 True ROM-antics TALK, LISTEN, UNTALK, UNLISTEN.

21 Techie tips

Stuck? Glue yourself to techie guru Jason Finch.

Commodore Format August, on sale from: Tuesday, 11 July 1995



Taxing questions

Purple Training, a London-based business training group, and Ernst & Young (accountants) bring the world free UK tax help over the Internet.

Tax Net, the new site, provides an interactive guide to 95/96, answering such frequently asked questions (FAQs) as: Why is it that the money I get is taxed when I receive it, taxed when I spend it, taxed when I save it and taxed when I die?

Find the tax site at http://www.purple.co.uk/purplet/tax.html
Or obtain FAQ lists by e-mailing faq@purple.co.uk.

It's dynamite

e!

q.

The world can never have too many independent fanzines. Hardened C64 fans will undoubtedly take

the chance to expand their collections with the recently-launched *Dynamite 64* disczine.

The fanzine will cover all things 64-related, and costs £1.25 or 75p+disc.

Philip Davies, 16 Heol Ganol, Bryncenydd, Caerphilly, Mid Glamorgan CF8 1AS.

Top Internet action

Those of you who screamed when you received your first Internet access bill will be pleased to hear of CompuServe's new pricing scheme.

The organisation offers three free hours of unrestricted Internet access per month in the cost of membership (£6.50 per month). This system, which could save you as much as 87% on your CompuServe bills, offers free access to 120 basic services, including: news, weather, sport, and other such handy information.

CompuServe = 0800 289378.

More software!

Everglade made their name selling a comprehensive list of C64 titles at good prices by mail order. They are still operating and taking orders for C64 software.

Everglade, 68 Tefford Street, Inverness IV3 5LS.

You can be serious!

Electric Boys Entertainment Software is channelling its energies into the serious end of the market. Russ Michaels says:

"It's obvious that most die-hard Commodore users are only interested in serious use of their computers, for example, hardware, GEOS and productivity software, so this is what we will be concentrating on."

Did you win the CF55 SEUCKcess compo? The question was: What does SEUCK stand for? The answer is 'Shoot 'em up construction kit' and Joseph O'Sullivan, Leixlip; Robert Thomas, Abingdon; Thomas Smith, Upminster; C Drummond, Whitehaven; David McKay, Ballymena; Christopher Cook, Richmond; Peter Miles, Bath; Gerald Price, Clacton; N Wilson, Wallasey; R Springett, London SW4. Each wins a copy of Alf Yngve's Shoot 'em up Destruction Set. Jan van den Hemel, Antwerp, unravelled the SAIMIED TAUNTER FOCATES clue to reveal the United States of America and wins a free upgrade with JiffyDOS and free installation courtesy of EBES. The question was: from which country does the JiffyDOS originate? So now you know.

Commodore Format

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C64 Scene



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- c/o Frank Cassidy, 55 High Bank Road, Droylesden, Manchester M35 6FS ICPUG (Independent Commodore Products Users Group)
- 45 Brookscroft, Linton Glade, Croydon, Surrey CRO 9NA SEUCKERS
- 12 Arthur Avenue, Caister-on-Sea, Great Yarmouth, Norfolk NR30 5PQ

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- = 01353 777006
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Tell us!

Tell us about your club or when if details change. Write to C64 Scene directory, Commodore Format, 30 Monmouth Street, Bath, Avon BA1 2BW or e-mail us putting 'C64 Scene' in the subject line.

Please enclose an SAE when writing to the organisations listed.

Ordering PD

If you've never ordered PD software, write to a few libraries enclosing an SAE and asking for a catalogue. Some only stock disc-based software, so state whether you own a disc drive. Look for the letters after the names in the C64 Scene Directory: (T) means the company stocks tapes and (D) discs.

Taking a break from a successful lecture tour, the Mighty Brain answers yet more of your missives.

Not long enough, pal

I have been buying CF since issue 3, so I think I must be your longest reader.

1 What happened to Art Editor, Lisa Kellett? 2 What ever happened to all the C64 games that were never sold?

3 Why don't you put old Powerpack games on the Powerpacks, like Beyond the Forbidden Forest? 4 My three fave Powerpack games are Mean Streets, Beyond the Forbidden Forest and Crystal

5 Who is the new Editor? Mark Cartwright, Worcester

Firstly, I Patel from Leicester also wrote to us this month, and he's been a reader since issue 1. Besides, you're only 5'9".

1 Lisa currently makes the pages of Gamesmaster magazine look beautiful.

2 Hmm... Good question. There are thousands of copies of the old Atari VCS ET game buried in a desert somewhere in America, as it worked out cheaper than breaking them down for parts. However, as far as this lump of neurotransmitters knows, old C64 games end up in boxes at mail order warehouses, waiting to be sold.

3 You've been reading the mag since issue 3 so why do you want us to repeat Powerpacks? 4 Oh.

5 We walked around the Future Publishing offices here in beautiful, Georgian, Bath, hauling people out from under desks to ask:

"Are you now, or have you ever been, the Editor of Commodore Format?" Eventually Karen Levell owned up to being the current incumbent. TMB

The real culprits

What's going on with C64 owners? You complain of a lack of C64 software, when software companies are closing because of poor sales!

If you want the games, support the companies, if not then it's you who are to blame. Stephen Renehan, Dublin

You've hit the nail on the head there, Stephen. There are far too many people getting annoyed at the lack of good software who, when something worthy is released, don't buy it anyway. Computers are only successful if you make them successful, and they only die if you let them. The software companies aren't to blame for pulling out of a market that isn't financially viable, the C64 owners are to blame for not supporting the companies while they're here. TMB

Rawhide

Apart from yourselves putting software on the tapes, I buy most of my games from second-hand stalls at Sunday markets for prices that are so cheap it's a crime. People can complain that there aren't many new games around, but there are a lot of games from the 80s that most C64 owners haven't heard of or seen, let alone played. Why don't you take an in-depth look at some of the years of the 80s and cover the games reviewed? P Brooks, Liverpool

Could the world stand another games round-up? Come to think of it, your idea's a good one - each month we could take a chunk of the C64's history and examine it closely, looking at the different games, serious programs and hardware add-ons that were around... In fact, turn to page 13. Now! TMB

A short lesson

Dear Commodore Format,

I finally decided to open your letter today (Easter Monday). You don't speak English, do you? Let me make myself clear:

"I DO NOT WANT ANY PRESS RELEASES OR FREE PRESS FOR SIXTY FOUR MAGAZINE IN COMMODORE FORMAT!"

Understand? If I want press, I'll advertise and pay.

LS Bebbington Editor, Sixty Four Magazine

What a command of language!

What phraseology!

What dominance!

What a surprising lack of manners!

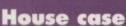
If my super-intelligence has taught me one thing over the years, it's that people who think of themselves as above common courtesy aren't worth our time.

Sure - we promise we won't mention Sixty Four Magazine again.

Gladly. TMB



This month's covertage is packed with more goodness and vitamins than two dozen oranges and a helping of marrowbone jelly. Oh, and all the basic game types are represented. Phew!



Shaun Pearson, West Sussex's own SELICE has provided us with the mo Sorry, House Case is not on this month's Powerpack. We'll keep trying...

aroundeed, unusually for SEUCK games ckage is perfectly capable), you ontinually travel upwards - use for cover and strategic value our way to the next villainous stroy him.

able part about the game is that to look incredibly like Cher. You thing, I suppose.



You mean you've never played a dustbin man simulator before? It's all very simple, really. You use either your joystick or keyboard to guide your dustie around the map, collecting the bins on request and emptying them into the back of your cart.

This odd little gem of a game comes courtesy of Chaos Software, as part of their Chaos Collection, five discs full of the best PD ever, yes.

For your copy of the Collection send a £6 cheque/ postal order for £6 to Alan Crosson, Chaos Software, 14 Cairngorm Crescent, Barrhead, G78 2AW.

Don't rubbish Trashman until you have bin there, emptied that and had to disinfect the T-shirt.



Spend your days and nights on the tiles playing Capture, an Othello-like game of strategy.

Capture

Chess nuts will like this one. Capture is a simple board game designed with strategy in mind. You can think of it as Othello, which, in fact, it is. Oh yes.

The game starts with an oversized chess board. On this sit red or green tiles, or empty space. You take turns to move a tile up, down, left or right over a distance of two squares and score points by sliding over an enemy square. There are also occasional bonus titles you can slide into to bump up your score.

The only rule is that you can't land on an occupied square - at the start of the game, the tiles are laid out to prevent all-out carnage straight away.

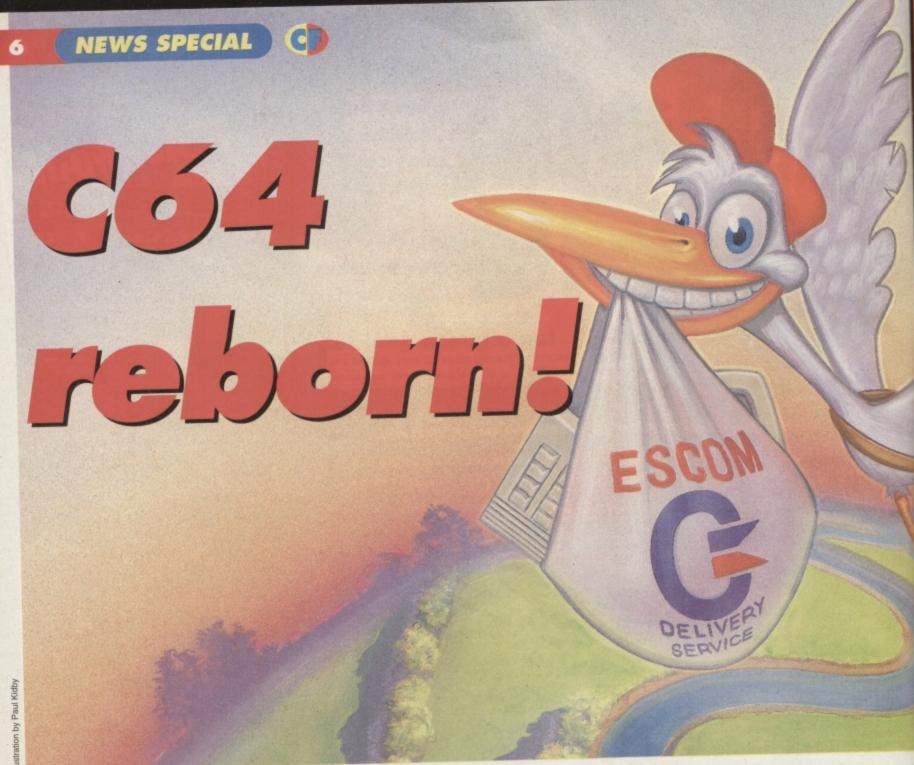
If you are having trouble loading this month's Powerpack plonk the duff tape in a Jiffy Bag, slip in a tape-sized SAE and send it all to: CF58 Tape Replacement Service, Ablex Audio Video Ltd, Harcourt Halesfield 14, Telford, Shrops TF7 4QR.

This month's Powerpack is also available on disc. To get the disc version simply cut out the token on the tape inlay card, write your name and full address on a piece of paper, pop 'em both in an envelope with a cheque or postal order, made out to Ablex Audio Video, for £1.50

Monumental goings on. It's a grave business. To find out wot's up doc play House Case yourself.

(to cover duplication costs) and send it to: CF58 Tape To Disc, Ablex Audio Video Ltd, Harcourt Halesfield 14, Telford, Shrops TF7 4QR.

July 1995



If we were to tell you that the C64 is about to be relaunched across the globe, you wouldn't believe us, would you? Industry confidante Simon Forrester says prepare to be amazed!

hough the C64 made Commodore what they are today, and generated the sort of cash needed to research, manufacture and release newer machines, the company haven't supported the format for a long time. Commodore concentrated, instead, on a 16-bit range of Amigas. So, when the company filed for liquidation on 19 April, 1994, C64 owners didn't bat an eyelid. But what was the reason for liquidation?

"We've been saying for some considerable time that we have a cash flow problem and that we require external investment for the business to continue in a viable nature," explains Colin Proudfoot, the joint Managing Director of Commodore UK.

Indeed, the figures would tend to back him up – the \$55m profit in 1988 dropped to zero and below. In fact, in 1993 Commodore managed to lose

\$356m, a figure that could

cause serious problems if the various people owed money by the company decided to cash in their chips.

"We were hit largely with the C64. It has been a very successful product for Commodore for a number of years, but those revenues died," says Colin Proudfoot.

But why liquidation?

The word 'liquidation' implies abject poverty and desperation, which is misleading. At the time it was a measure taken against the losses of the US computer giant. The plan being to find an investor with a large

Who are ESCOM?

ESCOM Computers are the second largest European PC manufacturers. Founded in Germany in 1983 ESCOM were launched in the UK in 1993. In March 1995 ESCOM bought up the Rumbelows chain and also began opening concessions in Office World out of town stores. In 1994 ESCOM had a group turnover of £960m.





amount of money to spend in a matter of weeks to get the company back on its feet producing a new line of stronger, more powerful Amigas.

The advent of the PC, Macintosh and Power PC put an obvious strain on the otherwise flawless sale of the Amiga. They challenged the rise of the Amiga to dominance - although it was fast becoming the most popular machine in the Western world, the race was far from over.

What Commodore weren't expecting was a year of speculation, investigation, bargaining and tendering, culminating in a New York auction on 20 April, 1995.

A contender?

At the time of the liquidation, rumours flew about the possible buyers for the company. The list of potential purchasers included: Amstrad, Atari, Philips, Hewlett Packard, Samsung, Sony, Nintendo, and any other company that fitted the profile of 'young, free, single



and laden with enough cash to float the Titanic'.

By the time the sale came about, there were three main contenders:

 Creative Equipment International Creative Equipment International, the company responsible for the US distribution of the Amiga, banded figures like \$24m around the Internet, showing all the signs of a customer who knew what they wanted. CEI were, throughout the race, probably the only bidders to make their intentions clear.

• Dell

You'll have heard the name before, or seen it embossed on the front of some extremely powerful PCs. The American company certainly had the readies, as well as the technology to take the Amiga a few steps further.

• ESCOM

To be guite honest, the German-based PC company surprised most people with its interest in the company. The strong Commodore following in Germany may partly explain the bid, but ESCOM have other interests as well - who do you think bought the recently defunct UK chain of Rumbelows stores?

The good bit

While the main prize of buying Commodore is the Amiga, the company aren't ignoring the

machine that made that machine possible - the C64. Though the life of the C64 in the US, UK and Europe is over as far as multi-million pound industry is concerned, the machine is to find a new lease of life in Eastern Europe.

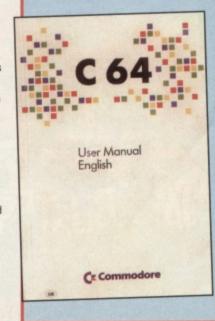
It is being launched as a first computer for the masses who won't find Amiga (or even IBM) technology readily available for reasonable prices. Such mass-market sales are not beyond

the bounds of credibility, and ESCOM have clearly thought the matter through. Rapidly changing countries such as Russia and the former East Germany have been so immersed in western culture and, more importantly, language (the C64 speaks English, after all) that the machine will complement the company's location and strategy perfectly.

What does it mean?

What does all of this mean? Well, a C64 revival will benefit just about everyone, including...

- Independents Those companies that have been supporting the C64 so avidly during recent times are in an obviously strong position. The Electric Boys, EBES et al, already have ties in Europe, some being based overseas. With a million extra people on the customer base, these companies will be able to use their profound knowledge, understanding and talent for the machine at the speed of someone who doesn't have to restart a business. They will be able to simply redirect the work they are already doing.
- Software houses Though it's unlikely that the large-scale computer software industry will begin production on new titles for the machine, expect to see a large amount of old software made available again, if only through import back from Europe to its western home.
- Serious software The other thing you have to remember about the target customers for the C64 is that they're in rapidly developing countries where businesses are starting up all the time. The sheer number of people already using their C64s to run small businesses will happily back up the idea that the machine could be invaluable to anyone else with a need for Mini Office 2.
- You With a resurgence in C64 support, you can expect advantages to sticking with the machine for so long. And, in an attempt not to out-price itself, the software that is released for the machine now will, undoubtedly, be cheaper than the original UK sales prices. ESCOM will concentrate on quantity of sales for profit (as well as the extremely low cost of cassette duplication on that scale).
- Commodore Format Who knows? You might even see a German version of CF!



Waiving the rules: the C64 is set to be refloated and to move into new waters.

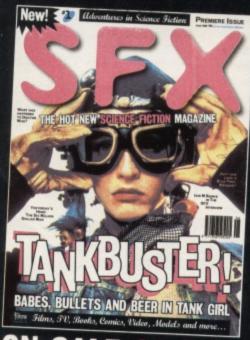


RESISTANCE IS USELESS!



HAS DOCTOR WHO GOT A FUTURE?

FIND OUT IN ISSUE 1 OF SFX,
THE SCIENCE FICTION MAGAZINE



ON SALE 23 MAY

ulure

Choice Cuis win

IT'S A GREAT GAME, YOU KNOW. OR YOU will if you turn to page 17 of this month's wonderful issue where you find a review of

Sword of Honour, the latest game from Electric Boys Entertainment Software.

Following in the C64's tradition of excellent beat-'em-ups, Sword of Honour follows the adventures of an insane, blade-wielding maniac wandering around the countryside destroying everything he comes across.

What makes Sword so great is that you sword of Honour: a ninja fest with great sound and graphics.

What makes Sword so great is that you can explore a vast playing area and visit new and interesting locations while enjoying

full access to a set of moves akin to the beat-'em-ups you know and love. However, we're well aware of the fact that there are a lot of C64 owners out there who frankly don't have the cash (or who are waaaaaay to tight) to cough up for a copy of *Sword of Honour*, which is a pity. It's an exceptional game (we awarded it 93%) and it deserves to be seen by everybody.

And you can win one!

Because we're all overly generous, warm and thoughtful people here on *CF* and because the folks at EBES are always happy to help, we're giving away five free copies of the game, if you can answer three simple questions...

- 1 In which country did martial arts begin?
- 2 What's the highest rating a ninja can achieve?
- 3 If a train leaves Manchester at midnight exactly and travels at a constant speed of 80mph to London, at what point will it pass the half-hourly shuttle between Birmingham and Derby travelling at a lesser 60mph?
- 4 We're only kidding about question 3, you know.

Where to send it...

Send your entries marked 'Horrific mutilation – we love it all' to Commodore Format, 30 Monmouth Street, Bath, Avon BA1 2BW,.Or you can fax them to us on 01225 446019. If you really want to you can even e-mail your entries to us at of@futurenet co.uk

All entries must be received by *CF* by Tuesday, 1 August, at which point we'll draw five lucky winners. The editor's decision is absolutely final, and employees of Future Publishing, EBES, and people called Derek are not eligible to enter. Neither are people who live in Coventry, for no reason other than it's dull.

Or buy a copy...

If you can't wait until August you might like to buy a copy of Sword of Honour. It costs £9.99 on 5.25-inch or 3.5-inch disc only, and it'll see you in good stead through the winter months.

So send along a cheque or postal order to EBES at 917b Brighton Road, Purley, Surrey CR8 2BP, #fax 0181 668 7595. Why not enclose two first class stamps to receive full details on the entire range of EBES software.

TRUE ROM-ANTICS

Jason Finch TALKs on and on. You can chose to LISTEN, too. Or even UNTALK and UNLISTEN.

TALK

Routine name: TALK

Function: Command a device on the serial bus to talk

Call address: \$FFB4 (65460)

Parameter passing: Accumulator Prerequisite routines: None Error reports: READST Stack requirements: 8

Registers changed: Accumulator

Description: To use this routine first load the accumulator with the device number. As ever, this should be between 0 and 31 and should be the configured number of the device in question. For example, a printer is usually device 4 and a disc drive is normally 8 or 9. The device is then converted into a talk address and this is transmitted as the command

on the serial bus. I have to admit that I used to think that TALK was to do with getting the computer to speak English! The TALK and LISTEN stuff is to do with the computer, not with you!

Example: You want to command the printer, device number four, to talk to the computer.

LDA #4 JSR TALK

UNTALK

Routine name: UNTALK

Function: Command all devices to stop talking

Call address: \$FFAB (65451)

Parameter passing: None Prerequisite routines: None Error reports: READST Stack requirements: 8

Registers changed: Accumulator

Description: This routine simply transmits an UNTALK command on the serial bus which means that all devices that have previously been set to TALK stop sending data when this command is received. You cannot choose which specific device you wish to send the command to. Simply call the routine with JSR UNTALK when required.

Routine name: LISTEN

Function: Command a device on the

serial bus to listen

Call address: \$FFB1 (65457)

Parameter passing: Accumulator Prerequisite routines: None Error reports: READST Stack requirements: None Registers changed: Accumulator

Description: This is the opposite of TALK and commands a device to receive data rather than transmit it. The accumulator must be loaded with the device number before calling the routine. The routine then sends the command along the serial bus and the specified device becomes ready to accept information transmitted along the bus.

> Example: You want to command the disc drive, device eight, to receive information on the serial bus. So, set the accumulator accordingly and then call the routine.

> > LDA #8 JSR LISTEN

UNLISTEN

Routine name: UNLISTEN Function: Command all devices

to stop receiving

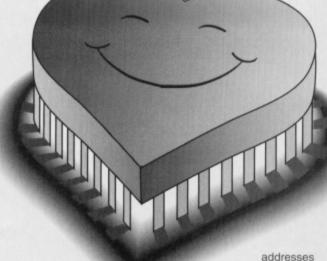
Call address: \$FFAE (65454)

Parameter passing: None Prerequisite routines: None Error reports: READST Stack requirements: 8 Registers changed: Accumulator

Description: This routine transmits a command on the serial bus which means that all devices on the serial bus stop receiving data. Only devices that have previously been commanded to LISTEN are affected. Call this command when you have finished sending information to a device. This allows the serial bus to be used for other purposes. Call the routine with JSR UNLISTEN when all information has been successfully received by the device.

Secondary addresses

You can send secondary addresses to the serial bus after a TALK or LISTEN command. Secondary



are normally used to give setup information to the device.

For example, you would send a

secondary address of 7 to a printer to instruct it to print in lowercase characters rather than uppercase and graphics. The two relevant commands are TKSA and SECOND. Send whichever is appropriate immediately after the TALK or LISTEN command.

Routine name: TKSA

Function: Send secondary address to a device after

Call address: \$FF96 (65430) Parameter passing: Accumulator Prerequisite routines: TALK Error reports: READST Stack requirements: 8

Registers changed: Accumulator

Routine name: SECOND

Function: Send secondary address to a device after

LISTEN

Call address: \$FF93 (65427) Parameter passing: Accumulator Prerequisite routines: LISTEN Error reports: READST Stack requirements: 8

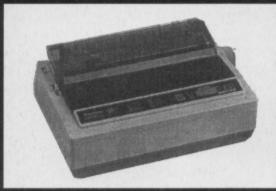
Registers changed: Accumulator

Both routines work in the same way hence just the one description of what the routines do. Load the accumulator with the secondary address and then call TKSA after a TALK, or SECOND after a LISTEN.



Good resolutions

How can you make GEOS print faster and better? Andy Fisher has the hardware, the program and, more importantly, the necessary know-how...



The Panasonic KX-P1150 provides high-quality printing, is GEOS-compatible and costs £159.

Get connected

GEOS is a graphics-based system and most printing is done graphically – meaning it is slow!

To speed it up, you could:

- attach a printer with a serial cable to the same port as the disc drive (or the back of your disc drive if you have a lot of equipment); or
- use a parallel cable such as the geoCable (produced by Berkeley Softworks) to the user port.

If you have done either of the above, GEOS uses a special file called a printer driver to interpret the data from the applications and to send the proper commands to the printer. *Trading Post* sell the C64/C128 Printer Interface for £29.99 including p&p, and, although the geoCable is no longer produced, Electric Boys Entertainment Software (EBES) sell two types of cable for parallel printing via the user port.

The types of cable are:

CMD's geoCable II which is an updated version of the original. Instead of being a direct Centronics to user port link it is split into two parts. The interface plugs on the user port, and has a switch to allow you to change between two devices (perhaps two printers, or a printer and a modem). The cable, £29, is a standard PC printer cable, attaching to the Centronics port on your printer

Please note that...

Perfect Print LQ does not work with the following printers: MPS 801/802/803 PET 1515/1525/1526 Seikosha GP100VC/180VC Epson GX80

If your printer has Epson or IBM compatibility it works with PPLQ and GEOS.

and the 25-pin port on the interface. geoCable II comes complete with software, and is compatible with GEOS, Action Replay and other applications.

The Electric Boys' own parallel cable for the user port which costs just £19. With it you get the connecting cable (which attaches to the user port and the printer) and software but without the pass-through port to allow more than one device on the user port.

Banish printout blues

Now your printer is attached to your C64 and your GEOS masterpiece is complete. But you are disappointed with the result so what can you do?

Previous solutions have included double or quadruple strike printing, with each line being printed more than once. From Germany, via CMD in America, comes Perfect Print LQ For GEOS (PPLQ) to solve your problems.

There are two parts to PPLQ...

 The first is a new set of printer drivers called High Quality (HQ) Drivers. These are designed for

This is the standard GEOS print quality using the "Ormond" font 24 point size, as you can see the main problem with the quality is the fact that you can see the individual pixels and the gaps between them, which can be very annoying if you want to produce a professional looking document.

This is the same font and point size but printed in one of perfect print LQ's medium quality HQ drivers (3 passes), a vast improvement.

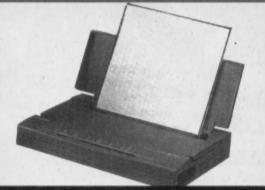
Top: standard GEOS print quality. Clear but not as good as the Perfect Print LQ for GEOS, bottom.

geoPaint, geoPublish, geoCalc, geoChart and geoFile, although they can also be used in geoWrite and hundreds of PD and Shareware utilities.

High Quality Drivers use between three and six strike printing to extract the highest possible resolution from your printer. The result is a better printout, without the streaks and the line effect that can spoil your work.

• The second part of PPLQ is the LQ Print System. You use this when you want the best output from geoWrite. The LQ Print System is a separate application and is started from inside geoWrite. It replaces the standard print options.

Using a configuration file, LQ Print swaps the low-density fonts on-screen for specially defined LQ Fonts that boost resolution. You get more than 240 dots per inch (for nine-pin printers and 360 dots per inch for 24-pin), compared with the standard 80 dots per inch. This is the highest quality printout which you can get from a C64 that has either a nine- or 24-pin



Cannon BJ10SX, £229. Want better printouts? Try this printer. The ink jet is almost of laser quality. dot-matrix printer.

Perfect Print LQ comes on two discs, with the HQ Drivers, the LQ Print System, LQ fonts and a collection of font utilities to help edit and create LQ fonts. There is also a very well-written 60-page manual which contains lots of advice on how to get the best out of your setup and offers detailed help should you encounter problems.

Visual reality

Electric Boys also stock extra font discs – the PPLQ Font Collections 1,2 and 3, plus the Border Fonts collection. And, if you are looking for a printer, the Electric Boys can help with that, too. Choose between the Panasonic KX-P1150 dot matrix, £159, (pictured top left) and the superb Canon BJ10SX bubblejet, £229, (illustrated top right) for very high quality printing. You need a parallel cable for use with GEOS (as described earlier). Both printers are fully compatible with the Perfect Print LQ system.

Further information from...

EBES, 917b Brighton Road, Purley, Surrey CR8 2BP, \$\pi/fax\$: 0181 668 7595. When writing for details of this, or any other EBES products, please enclose two first-class stamps.

Trading Post, Victoria Road, Shifnal, Nr
Telford, Shrops TS11 8AF \$\pi\$ 01952 462135.

NEXT MONTH

to know) all about fonts...

Wait just 2.6 million seconds to read the next thrilling GEOS column, including a review of geoChart, together with (probably more than you ever wanted

GAMEBUSTERS

Smooth the rough corners of Square Scape, wage Spacewar and still have the energy to take a shot at Superstrike under the tutelage of Andy Roberts.

SQUARE SCAPE 2

(POWERPACK 55)

If last issue's cheat listing (for infinite lives, time, and moves) barely improved your square-shuffling skills, here's another chunk of handy solutions for the next

LEVEL 11

DOWN, RIGHT, DOWN, LEFT, DOWN, RIGHT, DOWN, LEFT, DOWN, RIGHT, DOWN, LEFT, RIGHT, UP, LEFT, UP, RIGHT.

LEVEL 12

DOWN, RIGHT, DOWN, LEFT, DOWN, LEFT, DOWN, RIGHT, DOWN, RIGHT, DOWN, RIGHT, UP, RIGHT, UP, LEFT, UP, LEFT, UP, LEFT, UP, LEFT, UP, LEFT, DOWN.

LEVEL 13

RIGHT, DOWN, RIGHT, UP, RIGHT, UP, LEFT, DOWN, RIGHT, UP, RIGHT.



UP, LEFT,

LEVEL 14

UP LEFT,

DOWN, UP,

UP.LEFT.

DOWN, RIGHT.

DOWN, RIGHT,

RIGHT, DOWN,

DOWN, RIGHT,

Overcome the block in Square Scape 2 while collecting tokens.

LEVEL 15

RIGHT, DOWN, RIGHT, UP, DOWN, LEFT, DOWN, RIGHT, DOWN, UP, LEFT, UP, DOWN.

LEVEL 16

DOWN, DOWN, DOWN, RIGHT, UP, LEFT, UP, UP. LEVEL 17

RIGHT, DOWN, RIGHT, DOWN, LEFT, DOWN, RIGHT, DOWN, LEFT, DOWN, LEFT, UP, LEFT, DOWN, RIGHT, UP, RIGHT, UP, LEFT, UP, RIGHT, DOWN, LEFT, DOWN, RIGHT, DOWN, LEFT, UP, RIGHT, UP, LEFT, UP, RIGHT, UP, LEFT, UP, RIGHT, UP, LEFT, DOWN, LEFT, UP, RIGHT, UP, LEFT, UP, RIGHT, UP, RIG

LEVEL 18

RIGHT, DOWN, RIGHT, UP, RIGHT, UP, LEFT, DOWN, DOWN, RIGHT, DOWN.

LEVEL 19

RIGHT, DOWN, RIGHT, DOWN, LEFT, DOWN, LEFT, UP, DOWN, RIGHT, DOWN, LEFT, UP, RIGHT, DOWN, LEFT, UP, RIGHT, UP, LEFT, DOWN, RIGHT, DOWN, LEFT, UP, LEFT, DOWN, LEFT.

LEVEL 20

DOWN, UP, DOWN, DOWN, LEFT, RIGHT, UP, LEFT, UP, RIGHT, RIGHT, UP, LEFT, RIGHT, DOWN, LEFT.

SUPERSTRIKE

(POWERPACK 56)

An unmistakable Alf Yngve classic, both in terms of playability and, er,dying quite frequently. For a googleplex of lives, type in this listing, SAVE for future use, then RUN it.

0 REM SUPERSTRIKE CHEAT BY WAZ 1 FOR X=516 TO 554:READ Y:C=C+Y:POKE X,Y:NEXT

2 IF C3942 THEN PRINT "DATA ERROR":END 3 POKE 157,128:SYS 516

4 DATA 032,086,245,169,019,141,207,003 5 DATA 206,208,003,096,087,065,090,169

6 DATA 032,141,013,010,169,002,141,014 7 DATA 010,076,230,003,169,142,141,192

8 DATA 091,141,208,094,076,013,0083D **SPACEWAR**

(POWERPACK 56)

Another exceedingly playable but excruciatingly difficult Yngve shoot-'em-up, made ever so slightly easier thanks to this splendid listing. You know the score – just type it in and kick some alien botty.

0 REM 3D SPACEWAR CHEAT BY WAZ

1 FOR X=516 TO 554:READ Y:C=C+Y:POKE X,Y:NEXT

2 IF C3836 THEN PRINT "DATA ERROR":END

addictive

3 POKE 157,128:SYS 516

4 DATA 032,086,245,169,019,141,207,003

5 DATA 206,208,003,096,087,065,090,169

6 DATA 032,141,013,010,169,002,141,014

7 DATA 010,076,230,003,169,142,141,138 8 DATA 092,141,154,095,076,013,008

STRIKE FORCE HARRIER

(POWERPACK 56)

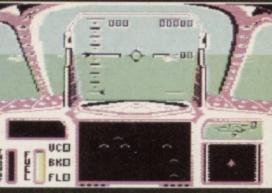
Not the easiest flight simulator, so here's a listing POKE for infinite fuel, chaffs, and ammunition.

0 REM SF HARRIER CHEAT BY WAZ 1 FOR X=516 TO 561:READ Y:C=C+Y:POKE

X,Y:NEXT

2 IF C4602 THEN PRINT "DATA ERROR":END 3 FOR I=1 TO 3:READ W\$,W:PRINT "INFINITE ":W\$::INPUT X\$

4 IF X\$="N" THEN POKE 540+(5*I),W 5 NEXT I:POKE 157,128:SYS 516 10 DATA 032,086,245,169,019,141,207,003



It's tough but it's popular. Use our POKE to reach even more horizons with Strike Force Harrier.

11 DATA 206,208,003,096,087,065,090,169 12 DATA 032,141,013,010,169,002,141,014 13 DATA 010,076,230,003,169,000,141,173 14 DATA 038,169,096,141,224,040,169,173

15 DATA 141,112,038,076,027,008 16 DATA AMMO,8,FUEL,206,CHAFF,206

SHOOT-'EM-UP-DESTRUCTION-SET (PSYTRONIC)

Start the game and press the 'Freeze' button, then press 'K' to enter the sprite killer. Now press 'C' to select both. When the 'occurrences' message appears, press any key to exit, then 'F3' to restart the game with no collision detection. Remember, that this cheat works on any game created using a SEUCK kit including Superstrike and 3D Spacewart

DOKASSINOLISIS

Simply freeze the game, press 'E' to enter the POKEs (press RETURN twice after the last POKE), then press 'F3' to restart the game.

SUPERSTRIKE

POKE 19305,142

POKE 20089,142 - Infinite lives3D

SPACEWAR

POKE 19305,142

POKE 20089,142 - Infinite lives

STRIKE FORCE HARRIER

POKE 9325,96 – Infinite fuel POKE 8700,173 – Infinite chaffs

POKE 8761,0 - Infinite ammo

Send us your sendables!

If you have any maps, cheats, tips, solutions, POKEs, or gameplaying tricks up your sleeve, pop them into an envelope and send them to Gamebusters, Commodore Format, 30 Monmouth Street, Bath, Avon BA1 2BW. Or you can e-mail them to us at cf@futurenet.co.uk, putting 'Gamebusters' in the subject line.



Try ingesting a 'luckvirus' to pick out some top-notch PD software or read Andy Roberts' award-winning reviews. It's your choice.

LETHARGY

(COSINE)



Don't be overcome by Lethargy, go on in.

If you've been a keen disciple of the PD and demo scene for years, you may recall a group called Cosine, who were active in the early 1990s. Then, as members departed for machines and pastures new, Cosine, ceased to be.

Jason Kelk, author of the super puzzle game Reaxion, has resurrected the group with the help of a few chums. Previously under the monicker of TCM (The Cybernetic Man), Jason now sports the handle TMR (The Magic Roundabout), and has plenty of talent to share with the C64 scene.

Letharay is Cosine's first demo for over three years, mainly due to extreme laziness., hence the title. The demo kicks off with a 'Cosine Inside' logo, which parodies the 'Intel Inside' logo seen on a million TV adverts. Next comes a simple bitmap picture, which changes colour as a sprite-based scrolling message bounces over it. Simple but effective.

Part three boasts another colourful DYSP scroller, plus the soon-to-be ubiquitous rippling logo (known in the trade as Tech Tech). Part four is a static scroller, which may sound like a contradiction in terms, but it is actually a scrolling message on a background of pseudo TV static. After a brief section of character-based plasma (as seen in demos such as Europe and Best of Trinomic) comes a traditional mixture of sprites, logos, scrolling messages, and raster bars - just like the good old days.

Part six is a little old-fashioned too, with its sideways moving logo, simple four-layer parallax, although the 'plasma' rippling behind the scrolling



On-screen this is not static: a scroller works its way up and down, like the brushes in a car wash.

message is a simple but effective trick. The next section is inspired, though, and features a screen ported over from Deluxe Paint on the Amiga, complete with scrolling message and sinus effects.

The penultimate binary installment is in the form of another wibbly logo, accompanied by a clear and intriguing IFLI picture. The final section is the credits.

Lethargy is a technical masterpiece which displays a wide variety of well-worn techniques. And that is the problem really, as you've probably seen similar effects before. However, it is well put together, and also features plenty of remixed music and a 80% handy IRQ loading system.

Recommended, but by no means essential.

CONTRAFLOW

(COSINE)

Not content with rising from the grave with Lethargy, Cosine haven't rested on the proverbial laurels, indeed Contraflow demonstrates even more technical



Contraflow: even more technical flair, professionalism and well-orchestrated music.

flair, professionalism, and well-orchestrated music. After the demo has loaded and the screen fades off amid various flashes and bangs, the first part begins. This is a little disappointing, as it's just a simple bitmap picture (albeit one accompanied by dozens of sprites and a scrolling message).

Contraflow is one of those demos which, once booted, runs on its own, loading each section as required. However, even though the next part loads in while you are still watching the previous section (what? - Ed), you can't actually see the next part until the scrolling message has finished. Personally, I don't mind, but I'm sure that people with shorter attention spans will tire of it quite easily. Thankfully, TMR has included a handy quickstart menu allowing you to select the bit you wish to see ...

Roll out the barrel:

This is a technically flawless part, featuring 'sideborder barrel scroll'. Basically, if you can imagine text written on a cylinder which is slowly rotating you might just grasp the concept. It's imaginative, refreshing, and superbly executed.

The kiss of death

This is another simple, bitmap picture which also manages to be atmospheric and well drawn. It is accompanied by another long scrolling message. You could always listen to the music.



So what's for dinner tonight then, love?

Let's get technical

You might have encountered raster bars before, but this section boasts the world's first 'thermal' rasters. As the bars rotate and overlap, the colour intensity (or brightness) increases accordingly. Needless to say, screenshots can't do them justice.

Along with another simple bitmap and a neat rendition of the Human Race music those Cosine boffins have squeezed in one more wibbly logo.

Splitting headache

This starts off as a little joke, as you are treated to a 'vertical' raster split. Impossible, you might think. Well, yes it is, and soon enough the split zooms back to form a huge checkerboard effect, extending into the side and bottom borders. Not the best zoomer in the world, but the first to use the borders for impact.

It's all over

As with Lethargy, this final part is the credits section, and also contains a mountain of greetings for those with egos larger than a blue whale (that'll be you then, Andy - Ed). This part features a nice ripple effect when the pictures (depicting the various demo sections) fade in and out.

Contraflow is a superb demo in terms of technical finesse and originality. The music, a mixture of original tunes and remixes, is also excellent. However, the flow of the demo is restricted by the enormous scrolling messages, which even with the Quickstart option, still tarnish an otherwise brilliant demo.



That was the



Reservoir Dogs bloodied the cinema Reservoir Dogs bloodied the cinema screens. 1993 was also a classic year in CF gaming history. Simon Forrester reminisces.

Simon noticed that the blob of grey matter that hangs around the office was looking particularly depressed. "Hi there Brain, what's up?", he asked.

"P Brooks of Liverpool wrote to me, asking why we don't take a look at each year of the C64's history." The icky blob moved closer blocking the escape route.

"So why don't you?" asked Simon, nervously.

"So why don't you?" repeated the blob.

"I've, erm, got a, deadline. That's right, I haven't got the time - gotta rush."

Simon got up to leave. The brain didn't move. "Only the games that score 90% or above, then."

Cool World

Ocean ● 85% ● CF28



Cool World: large, colourful and smooth. You may never feel the same way about doodles again.

Ocean's cartoon-based graphic adventure is large colourful, and smooth. Armed with a pen, you must stop the doodles piling through the portal they've created in your living room.

Their plan is to tip the balance between the two worlds by taking as much into their world as they can, and leaving as many doodles as possible in our world. The idea of being invaded by doodles isn't all that

scary, but the portal leads back to their dimension. This opens up a whole

cartoon town to explore, one which is packed with obstacles that tax your brain, your reflexes and most probably your nerves (that's what makes the game so great).

The only let-down is the slight lack of lastability, as it all tends to get a bit samey after a while - when

you've jumped on one lift, you've jumped on them all but it'll definitely last long enough to give you hours of fun roaming the streets of a truly Cool World.

First Samurai



First Samurai: enormous levels, fantastical beasts and lots to explore, collect and power up on.

The high scoring games always seem to be platformers, for some reason. First Samurai sees our young hero bounce around enormous levels filled with foul, fantastical beasts to have a lot of fun killing. It is the classic platform game with plenty to explore, collect and

The weighting feels right (your character moves, jumps and falls realistically), the levels require timing, reflexes and lateral thought and the occasional, enormous, meaty stupidly over-hard, bad guy is thrown in for good measure.

In fact, the only thing that let the game down was a lack of music, as the only sounds you could hear were the swishing of a truly enormous sword, and the screams of anything that got in its way.

Gunship

Microprose ● 93% ● CF36



Gunship: a 3D, blow-'em-up, flight simulator in which you fly a helicopter in sets of missions.

Making a surprise break from the page of platform games, Gunship is a flight simulator, in which you get to fly one of the most famous types of helicopter, the Gunship (not surprisingly). Like all flight sims, it's a 3D game

with simplified flight controls and set of missions, in this case the missions being to blow lots (and lots) of things up.

Of course, flying a helicopter isn't easy - there's a lot to master in the way you move, dive, soar, and unleash the several tons of highly explosive and utterly hostile weapons attached to the thing. The game obligingly gives you a lot of things to fire at (not all of which are enemies), and an enormous amount of other planes and helicopters to do battle with in

the skies while you attempt to avoid the volleys of missiles from the ground. Gunship is a game of skill, practice, and learning.

Having said that, there's a great sense of realism to Gunship, as you can play it safe and fly a helicopter, or spend your time dare-devilling around a landscape, careening into the sides of mountains, buildings or even

the ground. You'll die, but you'll laugh as you burn.

Mayhem in Monsterland Apex Boys ● 100% ● CF38

Mayhem in Monsterland: an excellent platformer and utterly playable romp through level after level.

Yeah - I know. Giving a game 100% caused such wars in the office that Hutch (the Commodore Format Editor at the time) still bears the scars Clur left on him. Everyone agreed the platformer was excellent, though. CF followed it from its creation to the finished game, a pretty, manic and utterly playable romp



through level after level of cutesy graphics.

You play Mayhem, a dinosaur who's faced with the task of overthrowing the rule of evil cast over his world by collecting the magic on each level to turn the sad worlds back into happy ones. This involves navigating (at high speeds) a fairly straightforward landscape filled with some truly odd dinosaurs, which range from killer spiky slugs to enormous blobs on legs. Should your timing fail, the world is plunged into sadness.

The emphasis in Mayhem is on speed. If you haven't got a copy, get one now. No, right now it's the most fun you can have with your shoes on.

Nick Faldo's **Championship Golf**



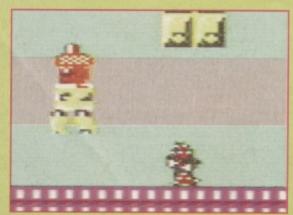
Nick Faldo's Championship Golf: an excellent sim which makes golfing a science and you a pro.

Ah - why not relax on a quiet Sunday afternoon with a quiet stroll around a golf course?

Grandslam's licence of this classic golfer's name scores so highly because it makes golfing a science. You have complete control over angle, swing, curve and strength, which is necessary to navigate the realistic courses the game contains. Also, apart from being a truly excellent golf simulation, it is graphically good enough to stop you ever getting your shoes dirty with the real thing.

Robocod

Kixx ● 93% ● CF33



Robocod: contains more fun-packed levels than you can count even with your socks off.

When Clur Hodgson wrote the review for James Pond: Robocod, she correctly observed that fishing is a truly boring way to spend your time. Robocod shatters this illusion by containing more fun-packed levels than you can count with your socks off. The



Rainbow warriors: that's Mr Pink on the floor or is it Mr White? What's certain is that it's 1993.

overall objective being to use your cyborg fish to save Christmas from the clutches of the evil Doctor Maybe.

Doing this involves romping around the Doctor's castle, exploring the many rooms filled with giant marshmallows, evil little creatures and toys so dangerous Anne Robinson would go cardiac.

What made Robocod so great was the sheer amount of things the little fish could do - as well as walking (quite a 'feat' for a fish, I'm sure you agree), he could swim, jump, stretch, and even fly planes.

Restart points and a good learning curve makes Robocod fun yet challenging, so if you're new to games this is definitely a good one to try.

Sleepwalker

Ocean ● 90% ● CF33



Sleepwalker: not so much a game as a twist. It's a puzzler as well as a platform game. And great.

The official Comic Relief game isn't so much a game as a twist - it contains all the things you'd expect to find in a platformer (Really? Another one? - Ed). but in the wrong order.

The star of the game is Lee, though you don't actually control him - he's sleepwalking across the town rooftops, saved only by his dog Ralph (by the way, that's you, that is).

Armed with only a club, it's your job to guide Lee safely home using the roofs, lifts, platforms, switches, doors and telephone wires (springs, basically) that you find on the way.

What makes Sleepwalker great is that it's a

puzzler as well as a platform game. Although the playing area is massive and explorable, the only way to get Lee to safety is to work out what he's going to do, where he's going to wander, what's going to hurt him and how you're going to stop it.

This is all played out in a pretty comic style with Ralph being abused in unimaginable ways. Sleepwalker is a must for dog haters everywhere.

pped at

		Score
	37	
		81
Fist Fighter		
Football Manager 3		
Shadow Dancer	33	
	32	79
Suburban Comman		
		87
	32	
World Class Rugby		81
	33	



Down but not out: Street Fighter scored 80%. One of the great games of 1993.

1992... Advent of the European Union, but much more importantly, the year that saw such classic titles as Creatures,

International Tennis, Crystal Kingdom Dizzy and Somebody Dice That Brain. Till then..

Back to BASICS



Want to do more with your C64 than use other people's software? Have you thought of trying programming, but find machine code too difficult? Simon Forrester says start with something a little more, well, basic.

The C64 has no trouble working with BASIC. When you first turn on your machine and get the 'ready' prompt, you're being asked for a BASIC command. A lot of the time you use the automatic keypress RUN", but there are a lot of other things you can do...

Try giving commands!

Turn your computer on, type in the following line and press Return:

PRINT "Hi there!"

If all went well, your C64 should have printed the text on to the line below your command (yep – that was a command, folks). At a very basic level, you've just given your C64 an instruction.

What's a program?

Typing in an instruction is one thing, but it is limiting in that you can only instruct your C64 to do one thing, then stop. A program is a list of instructions that the C64 can work through carrying out the next instruction when it finishes the first. The instructions are placed in a list, each given a number.

Here's a program to post a letter:

- 1 Put letter in envelope.
- 2 Write address on envelope
- 3 Lick stamp.
- 4 Stick it to envelope
- 5 Walk to postbox.
- 6 Put letter in slot.

This is all very straightforward for you to understand (though your C64 wouldn't have a hope of following it). Still – it gives you some idea of how a computer program works.

The C64 starts at instruction 1 and works through to 6, never skipping or missing out a stage.

Let's look at a program the C64 understands:

10 PRINT "YOUR AGE, PLEASE:"

20 INPUT A

30 IF A>20 THEN PRINT *CONGRATULATIONS -

OUTSIDE WEMBLEY STADIUM"

40 IF A<21 THEN PRINT "NO HOT DOGS FOR YOU,

The first thing that you will notice is that you have dropped 1, 2, and 3 in favour of 10, 20 and 30. This isn't compulsory, but it allows you to insert extra

commands numbered 11, 12, 37, and so on, in case you want to add to your program later. Anyway, you can type this straight in to your C64, numbers and all, before typing RUN.

This program serves that much sought-after purpose of determining the rites of passage of London's hotdog vendors. You simply need to enter your age and hit Return, before discovering

your true calling in life.

How does it work?

Let's go through those commands in the same order as the C64, and see what it is being asked to do.

10 PRINT "YOUR AGE, PLEASE:"

You have already seen the PRINT command – it displays whatever is inside the speech marks that immediately follow it.

20 INPUT A

Can you remember any algebra? The INPUT command allows the user to enter information (for example the user's age). It's followed by the letter A, because that's how you want to refer to the number the user entered.

30 IF A>20 THEN PRINT "CONGRATULATIONS
- YOU'RE OLD ENOUGH TO HOLD A HOTDOG
STAND OUTSIDE WEMBLEY STADIUM"

This command makes use of the age entered, by saying: 'If A is bigger than 20, then display...'

40 IF A<21 THEN PRINT "NO HOT DOGS FOR YOU, MATEY" This command does the same thing, saying: 'If A is smaller than 21,

FOR L= 10701 5766

then display...'

simple?
And there
you go – you
have just written
your first BASIC
program. You
may not
understand it
all totally now.

but you have just have a speedy introduction, so stick with the series and become a boffin at BASIC.

Next month:

Take it a bit easier next month, when Simon helps you look properly at variables (that letter A) and unleash the true power of a programming language by setting up equations to simple (and over-complicated) tasks.

In the meantime, why not try messing around with the program you've already typed in and see if you can work out how to:

- alter the age at which the program makes a decision (whether you can hold the hotdog stand). [30 and 40]
- change what the program says when you've typed in your age. [30 and 40]
- change the variable used to store the age entered [20 to 40].

The numbers in [square brackets] after each task give you a clue as to which lines of the program to change. Simply retype the line as you would like it to read and, hey presto! you have overwritten the old one. However, don't forget those line numbers, though...



BUYAAAAAA

No need to sell your soul if you want to buy kit for your Commodore. Use the grid and you can advertise your wants or wares, free!

FOR SALE

- 100+ games. One per SAE. No further charge. Just wanting to get rid of them. A J Barker, 10 High Street, Farsley, Pudsey, West Yorks LS28 5LH.
- C64 games for sale, including Supremacy, Silent Service and Blues Brothers, Please send SAE for list to W Edmunds, 80 The Coverdales, Barking, Essex IG11 7J2.
- 40 C64 games including Creatures,
 SEUCK, Last Ninja III, Smash TV. All tape.
 £36. Buyer collects. Streetly area
 121 353 5626.
- C646 with 1541 MK11, disc drive, joystick, Light Gun, Datel colour printer driver, printer lead, parallel printer interface, loads of games, discs and mags, boxed as new £195 ONO. Paul Dunkin, 8 Holbrache Road, Oswestry, Shropshire ₱ 01691 657080
- Original software, no copies, disc and tape for C64 and Spectrum. Also magazines, some with tapes. SAE for list. 35, Nottingham Road, Nuthall, Notts NG16 1DN.
- The Ultimate Commodore Diskzine, £1.50 for double-sided disc. Cheques payable to Paul Cresham, at TUCD, PC Software, 61 Inverary Road, Wroughton, Swindon SN4 9DL.
- The Ultimate Commodore Diskzine is a double-sided disk. One side contains the diskzine and the other is full of software. Price only £1.50. Cheques payable to Paul Cresham, at TUCD, PC Software, 61 Inverary Road, Wroughton, Swindon SN4 9DL.
- C64 games for sale from 75p including Code-Master titles and many more.
 Interested? Contact Denise, 48 Eastern Ave, Chippenham, Wilts. Send SAE!
- C64 complete with datasette, manual joystick, leads and some games. £25.

 □ 01843 822513.
- Lots of C64 stuff. Send a blank disc and a 20p coin to S Douglas, 6 Bloswood Lane, Whitchurch, Hants RG28 7BJ.
- For sale! 100 5.25-inch high density discs. £18, incl Pep labels without disc sleeves.

 Matthew = 0181 524 4326.
- For sale! 100 3.5-inch high density discs.
 £45, incl Pep labels. Matthew

- # 0181 524 4326.
- C64 games, many classics, le Frankie/H'wood, Manic Miner, Kikstart2, Wizardry, etc. Various prices. Gary
 0161 4773379 (leave message or call after 6pm)

WANTED

- C128D, mouse and Lightpen. Will buy separately or together. I will pay postage.
 John, 36 Holt Street, Hartlepool, Cleveland TS24 7OL.
- An old issue of Commodore User from around 1989-1991 with Auf Wiedersehen Monty, POKE listing. Fu Sang Li
 □ 0181 450 9288.
- Action Replay cartridge VI and games for C64 (old and new games welcome). Hans Hanssen, Achter Het Klooster 1, 6373 EB – Lanograaf – The Netherlands (ZL).
- Wanted, 3D Construction tape, version 1.
 Will pay £5 or swap for some of my C64 games. Must be in good condition. Stephen Cope, 22 Jenks Road, Wombourne
 WO5 OBL
- Does anyone have the 3D Construction Kit manual? Will pay under £2. } Jamie ☎ 01709 860962.
- Help! I'm desperate to get hold of Frogger and Bumpin Buggies. No reasonable price refused. Please make my mum happy.
 Ray = 0116 2338151.
- Sim City, Judge Dredd game, Creatures, Creatures II. Prefer disc. Must have instructions. G Sutton, Tigh-Na-Sith, Main Street, Guildtown, Perthshire PH2 6BS.
- Help! Somebody has to have Speedball and Supremacy on tape for C64. Will pay low price. Must work. Scott # 01785 815278.
- 1541 MK2 power supply unit (not drive itself). Disc games, Maniac mansion, Space Rogue, Project Firestart. Reg Guy, 28 Barrett Road, Southport, Merseyside PR8 4PG

 © 01704 563702.

User Groups

Miscellaneous

Fanzines

COMMODORE FORMAT

- Wanted! Emulators for the C64, C128. Send to Matthew, 19 Garfield Road, North Chingford, London E4 7DG, © 0181 524 4326.
- 22-year-old C64-er wants to meet other owners socially. Likes musc not discos, also art and eating out.
 □ 0181 203 7183. (London).
- Wanted C128 and mouse and Light Pen.
 Will buy as separate items or all in one. John Fox, 36 Holt Street, Hartlepool, Cleveland TS24 7OL.
- Jack the Ripper (CRL), Daffy Duck (Hi-tec), Circus (Channel 8 Software). Will pay up to £7 each. Alex Dijkstra, Margrietenlaan 27, 4382 TE Vlissingen, Netherlands.
- Head alignment kit for C64 needed as soon as possible. Tom Abbott, 3 Laburnum Court, Ushaw Moor, Durham DH7 7NA 20191 3732772
- Issues 21/1-17 Commodore Formats. Any
 Zzap 64s, Great Giana Sisters, Airwolf 1+2,
 Ugh!, Last Ninja2, Jet Set Willy 2. Gary
 0161 4773379 (after 6pm).

USER GROUPS

- Ipswich PD now has well over 50 discs!
 At great prices! For catalogue, send £1.50 or disc and SAE to 61 Spring Field Lane,
 Ipswich IP1 4EW.
- SEUKERS now over 240 games. For the latest list send an SAE to SEUCKERS, 12 Arthur venue, Caister-on-Sea, Great Yarmouth, Norfolk NR30 5PQ.
- C64/128 PD software on discs.

 Send blank disc and SAE for catalogue, also C64 ad service; Ipswich PD, 61 Springfield Lane, Ipswich, Suffolk IP1 4EW.

 GEOS: the recovered archives library of GEOS software not by Berkeley Softworks.
 Send SAE and blank disc to Chris Freeman, 54 Downing Road,
 Dagenham, Essex RM9 6NB.

SWAPS

- Amiga A500 with mouse and games will swap for C64 with 1541 disc drive and printer. Old shape 64 if poss. Also wanted Starion. Write to: Philip Riding, 160 Capel Road,
- Forest Gate, London E7 0JT.

 Gameboy and Tetris for 1541 disc drive,
 Neil Grayson, 13 Hillcrest

Avenue, Scarborough, North Yorks YO12 6RQ.

PEN PALS

- 30-year-old Canadian seeks pen pal or two from across the pond. All respondents replied to at least once.
 C128 and GEOS user.
 Scott Dutton, No. 4 739
 15th Avenue SW, Calgary, Alberta,
 T2R ORB, Canada.
- □ (403) 244 7966.
- Female pen pal, age 15/16 wanted by boy to swap games. If you like Star Trek write to Peter Weir, 59 Kennington Road, Kennington, Oxford OX1 5PB.
- Disc contacts wanted for PD swaps, and pen pal. Also, to help with new group 'Avalon', coders needed but ALL letters will be answered. Guaranteed. Write today! HAL2000, 14 Bromsgrove Road, Halesowen, West Midlands B63 3JL, United Kingdom.

MISCELLANEOUS

 C64 contacts wanted for anything C64-related. I buy and sell games, programming hints, pokes and tips.

	LADE	K ADS FORI	N	Your name	=	
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For Sale						
For Sale Wanted						

51/917 101011

Cross two of the best ever 64 games and what happens? You get Sword Of Honour, a beat-'em-up spectacular. Andy Fisher is your guide to a new game with added ninjas.

Shogun Yuichiro is in trouble! His family sword, the Sword of Honour has been stolen, and now Shogun Yuichiro faces a threat from the evil Toranaga who wants to rule all Japan. You are a brave ninja warrior who has been hired to bring back the sword and to defeat Toranaga.

If you are thinking that this sounds like another Last Ninja game, forget it! Sword Of Honour is actually better, bringing the fighting and exploration styles of the Last Ninja and Barbarian games into one of the biggest 64 games ever.

Control of the black-clad ninja is straightforward. Moving the joystick without pressing the Fire! button makes him jump; launch a flying kick; move around the screen and, most impressively of all, perform a forward or backward roll along the ground to get out of the way of opponents or deadly obstacles such as a fire-breathing dragon.

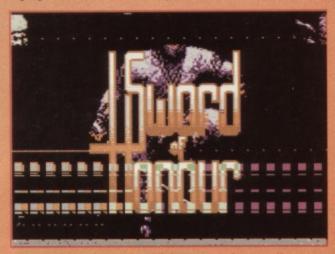
Pressing Fire! accesses the combat moves, which differ according to which weapon you are using. When you find them you can choose between shurikens

(throwing stars), claws, chain or sword, and perform different moves with each.

Stop hanging around on the first screen. You look mean, mood, and magnificent, so get out there and start fighting.

Which way?

Exploring the game is easy. Pushing forwards and backwards moves you in or out of the screen, along pathways or into doorways of buildings. And, when you achieve all the tasks in a level, the exit appears highlighted on-screen with a big arrow.



Give us the details!

Without a doubt, the graphical variety of Sword Of Honour is better than anything you will have encountered in previous beat-'em-up adventures. This game contains more than two megabytes of graphics.

> Each screen is loaded separately from disc in just a couple of seconds, but this means that a tape version would be impossible. If you think that it sounds too slow, bear in mind that the Last Ninja games took up to five seconds to draw each screen - and little touches make them beautiful. Look out for details such as broken bars and planks on a bridge, or a view in a forest where you can see a temple on the mountainside above you. Then follow the path out of the screen and climb up to

Player animation is smooth and is also full of detail, from the way your sprite draws his sword ready for combat, through to the deadly flying kick.

Sound deserves a mention. The introductory and title screens have two great pieces of moody oriental music. The in-game sound effects are also a treat. From the sound of birds and insects in the forest, to the crashing torrents of a waterfall, the care and

attention lavished on this game is apparent.

The mixture of puzzles and obstacles is immense and more interactive than previous games. For example, you come across a samurai guarding a temple. Via the message box at the bottom of the screen he says:

"It is a hot day. Beware of the sun." Perhaps he is suffering too much from the heat, and needs something to cool him down. In fact, perhaps he needs the fan you found in a house further up the path.

The range of characters is even more impressive, from meditating monks to ronin and heavily armoured samurai. Some of the clues are a little cryptic, so if you can solve them get writing to Andy Roberts at Gamebusters with your hints and tips. The interaction with other characters, from fighting to trading objects,

makes this game a (sword) cut above the rest.

To conclude: Prestige Entertainment (from Germany) have done a brilliant job creating the atmosphere of medieval Japan and have produced a very tough and playable game in the process.





SWORD HONOUR

PRICE: £9.99

writing, please enclose two first-class stamps for details of this and other EBES products.

OTHER INFO: It is fully compatible with the FD drives and JiffyDos (for faster loading cartridge based fastloaders like Action Replay also work), and you can install the 3.5-inch version on CMD hard drives or RamLinks.

To get to grips with



...read through all these weighty tomes

...and you'd be talking in computer gibberish for ever more

the PC you could...



...or you could just read *PC Guide*

...and risk your arm muscles wasting away

Let's get a few facts straight. Nowadays everyone knows you don't have to be a boffin to use a PC. Everyone also knows that PCs are the biggest thing to hit the home since the video cassette recorder. So the big question is why do all computer magazines talk to readers as if they're experts? Answer – they don't. Not anymore. PC Guide talks to you like real people and we talk about the things that you're interested in – we don't get bogged down with databases and we don't fill over 50% of the magazine with dull reviews. Instead, we'll introduce you to new PC applications, show you how to get more out of your PC and solve any problems that come up. In short, we'll make your PC a dream to use.

Don't miss *PC Guide*, on sale Thursday 8th June. It's the business.







Andy Fisher hunts far and wide to bring you clubs that cover the world, and one specifically for GEOS users.

Get in touch with

Frank Cassidy at the

address shown in

enclosing an SAE.

users of GEOS.

your best bet is to

get in touch with

For Australian and New Zealand

Contact Corner.

Join the club

Looking for help, advice, news and contact with other 64 users? Yes, then this column is for you. Also, if you run a club or fanzine, contact us! Write to Clubs/Fanzines, Commodore Format, 30 Monmouth Street. Bath, Avon BA1 2BW or e-mail us at cf@futurenet.co.uk putting 'Clubs' in the subject line.

Commodore Zone

The latest issue of Commodore Zone comes complete with a voucher for a tape/disc containing programs relevant to each issue. And if you want to write (anything from news to reviews) for CZ, send it on paper or disc now to Commodore Zone, 34 Portland Road, Droitwich, Worcs WR9 7QW.

Antipodeans on top

One of the biggest 64 markets outside the UK and America is Australia and its neighbour New Zealand. If you live in either of the latter you have a massive choice of clubs and magazines, from regional groups to those with members worldwide.

Your first point of contact should be John Buckingham, creator of the Register of 64/128 User Groups. This home-made publication is updated every year and the information is presented clearly and concisely. (It is produced using GEOS). Send a 75 cent stamp, or International Reply Coupon).

You need friends

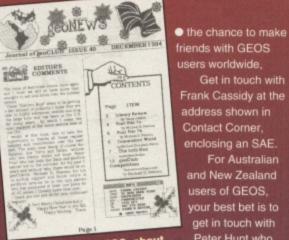
Another way to get in touch with users worldwide is through the American club which is actually called Meeting 64/128 users through the mail - an exciting title for an interesting club. I recommend you send for membership details before you join. (The cost of overseas membership was \$22 last year.)

GEOS – join the club

One of the most popular utilities ever released for the C64/128 was the GEOS range - as you know if you have been following the regular CF GEOS column since CF52 (anyone for a back issue or two?). Still available exclusively from EBES in the UK (buy from other sources at your own risk), there is strong support for users in the form of geoCLUB UK.

Formed back in 1991 by dedicated GEOS user Frank Cassidy, the club has gone from strength to strength. Membership is £9 for a full year (starting January), for which you get the following benefits:

- monthly newsletter, GEOSNEWS, which is always full of interesting and informative articles, plus news and special offers:
- technical help from experts and experienced users access to more than 300 discs of fonts, graphics. and GEOS programs in the GEOS Software library. (At £1.25 for a double-sided disc it's great value.);
- contacts with companies and individuals worldwide, offering you the chance to buy hardware and software that is generally somewhat difficult to get hold of (plus second-hand bargains);



Produced with GEOS, about GEOS. It must be GEONEWS.

branch of geoCLUB UK.

As well as geoNews and access to the software libraries, there is an additional newsletter produced just for Australian readers, which saves the expense of airmail from the UK ...

A sense of adventure

Sadly many clubs and fanzines catering for adventurers are in decline. Red Herring plus the Adventure and Strategy Club have disappeared during the past year.

Adventure Probe

This is a monthly fanzine (£2 per issue/back issue) covering all formats and has been going since 1986. Adventure Probe contains more than 50 pages of hints, tips and humorous article plus telephone helplines, and more, including exclusive software.

Adventure Coder

Advenutre Coder is now published on an irregular

Adventure Coder: packed with hints and tips.

basis (price £1.50/issue, £1/back issue, in the UK).

Aimed at those who write games rather than play them, each issue is packed with hints and tips from routines for use with utilities (such as GAC)

to ideas for puzzles and unusual objects.

Contact corner

Adventure Probe. c/o Barbara Gibb. 52 Burford Road, Liverpool L16 6AQ

Adventure Coder c/o Chris Hester 17 Hill Foot Shipley **West Yorks BD18 4EP**

geoCLUB UK 55 High Bank Road, Droylsden, Manchester M35 6FS

GEOZ (The GeoClub contact for Australian and New Zealand GEOS users) c/o Peter Hunt 70 Betula Street Doveton Victoria 3177 Australia

Meeting C64/128 Users Through The Mail 1576B County Road 2350 E St Joseph IL 61873 USA

Register of C64/128 User groups C/O John Bucking ham PO Box 244 Warilla NSW 2528 Australia

Enclose an SAE or, if you are writing abroad, to send an International Reply Coupon (from Post Offices) when contacting clubs. You could also say you saw the club in CF.

For all adventure games fans a round-up of some of the many specialist fanzines and groups, and more!

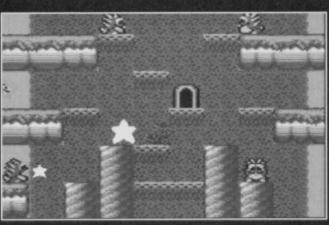


even blank ones, that you get when

Jason Finch tries to palliate a reader's printer/plotter pen-ury, alleviate the problem of line-like sprites and assist with assembler. And all inside this month's deadline.

A clear sprite

I have some sprites stored at locations 8192-16191 and don't use the bitmap screen. They are for a BASIC game I am making. But, as the program gets longer, the sprites turn into the line type ones, or



Mayhem has a scroller with a bug in the VIC chip. Use this bug to open up borders to make your sprites appear there.

No plot without pens

Could you please tell me of any company that supplies pens for the Commodore 1520 printer/plotter? Andrew Hickie, Newtongrange

There used to be quite a few places that did this sort of thing but unfortunately I don't know of any specific companies that now stock the pens and paper for the 1520.

You could check out your local Tandy store if you have one. I suggest going there because the standard Tandy plotter uses pens that look uncannily similar to the ones used by the Commodore plotter.

So, try taking one of your 1520's pens along, find a helpful-looking person in the shop - preferably

Jamie Winder, Doncaster. This happens because BASIC programs start in memory at location 2048 and grow upwards as you enter more lines. In

this happening please?

you first turn on the computer.

Can you give me a program or POKE to stop

practice the first byte is actually stored at

2049, but ignore that for now. So anything about 6K starts to overwrite the graphics area in bank zero of memory.

I have spoken about switching banks in previous issues of CF and you could

check out that line of things. This means that your sprites and screen information would move right up high in memory to above the 32768 mark

Another way you can protect graphics data is by setting POKE 52,A/256:POKE 56,A/256 where A is the start address of your sprite data. This prevents them from being overwritten by variables once you're program is up and running. However, if

it really is more of a problem with the length of the program, you could try moving Basic up. Done this with POKE 44,A/256:POKE A,0:NEW where A is the location of the start of your Basic

program. The best answer would be to locate graphics memory up a bit further which gives you around 24K of programming space without having to worry about sprite corruption.



mentioned that the scroller for Mayhem and Creatures uses a bug in the VIC

chip. Can you tell me more about this please? 2 Can you give

me some information

about interrupt timing. Certain programs use interrupts for scrolling, music and many other things and I am baffled as to how they manage to fit all of that in without making the screen flicker or run slowly. I have read the Flicker Fixer

> question in CF55 but that does not help if the interrupt program is too long. G Cassidy, Stockport

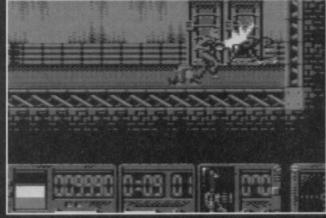
1 You probably know how to open up the upper and lower borders of the screen

to allow sprites to appear there. It is also possible to effectively remove sections of the left and right border. Both tricks use bugs in the VIC chip to get the effect.

The left and right border is opened up by shrinking the screen to 38 columns and then expanding back to 40 columns almost immediately. However, you need

> to do this at precisely the right point on the raster scan or it won't work.

The bug that achieves the scrolling uses location \$D011, or at least it usually does. By latching on to a raster line near the top of the screen, waiting for a tiny fraction of a second and then storing a specific value in \$D011 you shift the screen a bit



Sprites are wonderful things. Jamie Winder ('A clear sprite') might be able to produce them to this quality.

someone who works there - and ask him or her: "You got one of these, mate?" and see what sort of response you get.

to the left or to the right. How far the screen moves depends on how long you wait and on the value you put in.

You also need to plot the screen in a weird way. If you freeze Mayhem with an Action Replay cartridge you see that part of the screen which should be on the left actually appears on the right when the game is stopped. To achieve the smooth scrolling requires precise timing and a great deal of trial and error, unless you check out someone else's code.

I suggest you find a demo that uses the same technique; you often find that the coder has manipulated this bug in the movement of large logos or large coloured areas of the screen. 2 The idea, when writing raster interrupts that have tight timing schedules, is to write code that is



as fast, but not necessarily, as compact, as possible. For example, if you wanted to clear the screen quickly, you would do LDA #32 followed by one thousand STA instructions to locations

> LOAD ERRO LOADER

LOAD ER

LOAD ER

LOAD ERR LOAD ERROR IT

LOAD ERROR I

LOAD ERROR LO

1024 to 2023. This would be performed in around 4000 clock cycles.

You can do the same thing using indexed addressing of the sort STA (\$FB),Y (where the address is stored in \$FB/\$FC) which could take up to three times that number of cycles, and, therefore, three times the amount of raster time is consumed. There is no way to fiddle the timing. The only way around it is to write code that is fast rather than compact.

If you check out the demo I wrote for Logyk Software (published many moons ago) you see that the main screen features music, a scrolling message, a bouncing address, a moving logo, some changing text. You also LOAD ERROR LO notice that around one third

of the screen is a vertical scroller. There was literally no raster time left and the routines had to be written and rewritten in order to squeeze out every last bit of inefficient code. Details on the number of clock cycles taken by each instruction can be found in most machine language books.

Selfassembly

I am interested in machine language and so when I saw one of your machine language listings I typed it in as I type in a BASIC program. However, when I

ran it I got a Syntax Error in all the lines.

Please tell me what I am doing wrong. Christopher Cook, Richmond

You have typed in an assembly language program and the computer does not know how to interpret that

on its own. You need an assembler such as Turbo Assembler or 6510+ which was published on the Powerpack when my machine language tutorial started. Try loading up 6510+ and then entering or loading the program that you have typed. Then enter ASSEMBLE and press the Return key.

You should now find that the computer then does its stuff. The normal RUN command is only for use with BASIC programs that have normal Basic commands like PRINT, IF..THEN and GOTO.

Bargain basement

True blue: this is what you should see when you switch on a healthy C64. The rest is up to you

Last week I picked up what seemed to be a real bargain from a car boot sale. It was a C64 with loads of accessories and software.

> However, when I got it home and tried it out, I got a blue screen and loads of strange characters at the top of the screen. The first line read "BNLLNDNRD 64 BCRHB V2" and the prompt said "RDCDX" instead of what the manual says which is "READY"

Was this such a bargain after all and can it be fixed? Carol Taylor, Blackpool

You could try finding someone else with a C64 and swapping the power supply units. The PSUs can die or malfunction, causing the C64 to receive less than its required amount of voltage. Sometimes this has very bizarre effects like those you have described.

The wording along the top should actually be "COMMODORE 64 BASIC V2" and it is surprising how close to the original your version is; the letters are generally out by only one character rather than completely random. However, I have heard cases where a new PSU cures this type of problem. Alternatively, you can take it to a shop and have it

looked at by a technician.

The moral of this story is: beware of electrical bargains at car boot sales. Items are often on sale there because the people selling them know that you're unlikely to be able to find a convenient power socket in the middle of a field and therefore you won't find out the goods are, in fact, faulty.

Music maestro

How do you insert music into programs? Could you write a simple player so that I can see how it is done please. I would prefer a machine language version as it is a machine code program that I need it for. Paul Dawson, Wigan

A machine language version is really the only solution. However, a simple one is not possible

To keep the music data files to a minimum, music players rely on sequencing techniques and rather complicated ways of accessing the information that eventually constructs the tune.

Most players are written so that you initialise them with a JSR to one routine and then you set up a raster interrupt to JSR

> another routine every raster scan. This ensures that the timing is accurate. You should find

player comes with any music discs that you get hold of. Then if you wish to incorporate anything into your own programs you simply load in the music and the player and then use the JSR technique that I just mentioned.

Techie blips?



In coming issues of Commodore Format look out for articles on ● comms;● DTP, including scanning and printing;● everything you can possibly add to your C64 to make it bigger, better and brighter; • your C64 as a home office (including using spreadsheets and databases); • art package tips; and • a review of Turbo Assembler. So stick with us and send in your tips and torments now to Techie tips, Commodore Format, 30 Monmouth Street, Bath, Avon BA1 3JR or e-mail them to us at cf@futurenet.co.uk putting 'Techie tips' in the subject line.



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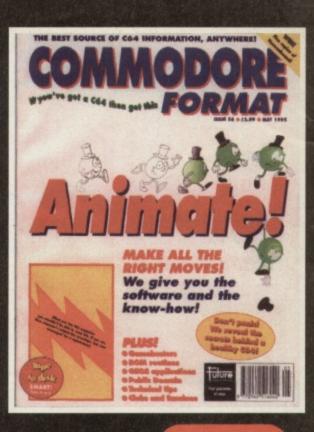
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How did the software shape up? How did the hardware hold out? What PD is worth persuing? It's all in CF.



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CF44 Power Pack: Camage, Mayham Mega Mix Part 1. Gamebusters: Mayhem,
Nobby, Future Knight. Reviews: Penguin Tower, Archetype, Time Crystat Specials
Making music, PD library list, dary of a game: 10th Dan.

CF46 Power Pack: Bonecruncher, Complete level of Mayhem, Quadraped
Texataways music demo. Gamebusters: Mayhem, Stormlord, Wizball,
Camage. Reviews: Squarescape, Escape From Arth, Wilberforce.

CF48 Power Pack: Tit (CodeMasters), City Bomber demo, Repel,
Wizard's Pet. Gamebusters: First Samurai. Reviews: Lions of the Universe,
Bobix, Super Nibbly.

Bobix, Super Nibbly. CF49 Power Pack: Fantasy World Dizzy, Penguin Towers demo Gamebusters: Legend of Sinbad. Features: What C84 products you should spend you Ω64 on; How to create new colours. Review: Fred's Back 3. CF50 Power Pack: The Original Dropzone, Heavenbound demo, plus Chaos and Galaxians. Gamebusters: Wizard's Pet, Cool World and Tit. Reviews: Heavenbound, Cashman Compilation and Zzzz. Special leature

Top 50 games.

CF51 Power Pack: Steg the Stug, Deadline demo, plus Mutthack.

Gamebusters: Dizzy Previews: Amorphous & Mega Force. Special feature: C64

Vs The World.

CF52 Power Pack: Mega Force, PD Extravaganza Gamebusters: Dropzone

CF52 Power Pack Mega Porce, PD Extravaganza Gamebusters: Dropzone player's guide Special feature: GEOS.

CF53 Power Pack games: Mind Maze, Darkest Road Demo: Bee 52, Artris Special feature: Sshhl: Listen – the CF guide to making noise on your C64.

CF54 Power Pack games: Spaghetti Western Simulator, Antifriction, overload Demo: Amorphous Special feature: C64 bargain hunter – where to go for the best second-hand deals and how to recognise them when you see them.

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CF55 Power Pack games: Square Scape 2, Sceptre of Baghdad, Stars and Rings. Special feature: Grin and repair it! part I. If your C64 looks as if it's about to give up the ghost read this! This' being practical advice on caring for your computer's peripherals. Also: SEUDS comer, the newest SEUCK games form Postopic's Software, and Well 'ard II. form Psytronic Software, and Well ard II. Russ Michaels on the CMD hard drive.

CF56 Power Pack games: Harrier, 3D Space
War, Superstrike, Darkest Road Part 2. Utility:
FROST. Special feature: Get animated! Jason
Finch uses this month's powerpack utility. FROST,
to put life into your sprites. Also: Grin and repair it, part

II. Is your C64 sick? Don't despair, diagnose and repair, says Jason Finch, and tells you how; Plus GeoCalc - a graphics-based spreadsheet.

CF57 Power Pack: Sound Tracker, Slayer of the Damned, Colouration, Minotaur.

Specials: Enter the domain - the top 50 PD titles. Also: Make music with a Sound Tracker 64 program. Gamebusters: Antifriction. Sceptre of Baghdad, Step the Slay. Stars and Rings. Squarescape 2, Lemmings, Amorphous.

Review: Access Denied.



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