

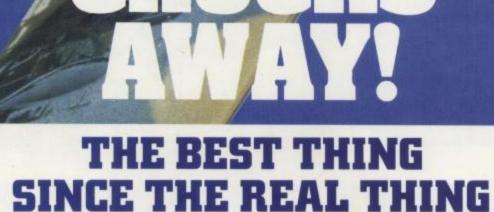


Russian And Read The Review!

SCOOP

SPECTRUM SMASHES-WINTER SPORTS/SABOTEUR/TOMAHAWK/TAU-CETI FAIRLIGHT-THE CASTLE MAP/DROID WARS-KILLER LISTING GAMES REVIEWS OPROGRAMMING OCHARTS OL SOFT WARE GUIDE





A Spitfire flight simulation set in 1940. Ground features and realistic air combat.

Spitfire⁴⁰ is available from W H Smith **\$**, Boots **\$**, and good software stores everywhere.





Target: To rise through the ranks of the RAF elite to Group Captain, VC,... DSO, DFC

COMMODORE 64

DISK

95

0U

Mail order and catalogue requests to: Mirrorsoft Ltd., Maxwell House, 74 Worship Street, London EC2A 2EN Tel: 01-377 4644 Trade orders to: Mirrorsoft Ltd., Purnell Book Centre, Paulton, Bristol BS18 5LQ.



THEIR ONLY HOPE WAS YOUR PROMISE TO BRING THEM BACK ALIVE.... BEACH-HEAD II

BEACH HEAD IL.

INTER CO

INCREDIBLY REALISTIC VOICE SIMULATION

ONE PLAYER PLUS TRUE HEAD-TO-HEAD TWO PLAYER FACILITY

HIGH RESOLUTION ANIMATED GRAPHIC SCREENS

OVER 100,000 PEOPLE CAPTURED THE BEACH-HEAD IN 19845 DARE YOU RETURN IN 1985??!!

best game. Iake its wa ZZAP 64

AMSTRAD 9.95 disk \$14.9 SPECTRUM 48k cassette £7.95 11 screens on this



The continuing saga pits allied forces against the cruel dictator who escaped the destruction of the fortress with remnants of his army and prisoners captured during the land battle. Produced for the COMMODORE 64 and coming to a computer store near you!

IOW YOU CAN EXPLO With the Graphics Suite from Print 'n' Plotter.

If you're interested in producing great graphics with your Spectrum, then these programs are designed with you in mind.

And you don't have to be an expert. Even with no programming knowledge the programs will enable you to produce fantastic graphics to use in every piece of software you write.

Or you can use them just for the fun of producing computer art. Each of the programs are inter-active and together they form the most accomplished graphics toolkit you will find on the market today But you can also use each of them separately, as each are self-

contained and cover a specific area of graphics programming With Print 'n' Plotter's 'GRAPHICS SUITE

everything is made so simple you won't believe it

Justa few of the things you can do ...

PAINTPLUS (GRAPHICS SUITE 1)

If you want to produce fantastic screen graphics or UDG's on your Spectrum, then you will find PAINTPLUS not only a complete graphics toolkit . . . but also the simplest to use at every level.

Facilities include: DRAW, PLOT, ARC, CIRCLE, FILL IN SOLID OR PATTERNS, FILL IN OVER MODE, DRAW RADIALLY, ARC RADIALLY, ENLARGE TO EDIT, PAPER WASH, BOX DRAW and so on

As well as drawing, PAINTPLUS has a tremendous UDG section. It also has UDG "grabbing" from screen as well as full facilities for defining, saving and loading UDG sets. The Organiser section of the program

enables you to automatically store multiple screen graphics or multiple UDG banks.

PAINTPLUS comes with a demo of screens, animation and alternative character sets, plus a copy of Print 'n' Plotter PICTURE BOOK 100 pages of instructions, hints, tips, listings and related graphics information.

SCREEN MACHINE (GRAPHICS SUITE 2)

SCREEN MACHINE is the graphics manipulator.

Use it when you want to take your graphics and turn them into professional machine coded data for use in BASIC or M/Code programs.

For instance SCREEN MACHINE will compress the

memory consumption of your graphics to cram even more into the computer's memory -

As well as memory compression, SCREEN MACHINE allows you to put your graphics through a series of highly-sophisticated

graphics manipulations. These include ENLARGE, REDUCE, RELOCATE TO OTHER PARTS OF THE SCREEN, STEP AND REPEAT, BLEND SCREENS TOGETHER, RECOLOUR SELECTIVELY OR GLOBALLY, FLIP SCREEN, etc.

And SCREEN MACHINE also has a dedicated Text Compiler - ideal for anyone who uses lots of text for instructions or menus on screen

SCREEN MACHINE also comes with a copy of PICTURE BOOK and a demo that's so good you can't believe it.

ART-O-MATIC (GRAPHICS SUITE 3)

Ever wanted to produce screen graphics for Adventure Games, Educational, Training, or Scientific programs and run out of memory because the graphics handling consumed too much memory?

If so, you need ART-O-MATIC, Print'n'Plotter's great new graphics compiler. With ART-O-MATIC you can draw, define and

store an incredible number of screens or parts of screen in your programs as compiled instant machine code which is usable from BASIC or M/C.

The exact amount of compression possible depends on your graphics, but up to 99% is possible and an average of 85%-90% is usual. ART-O-MATIC is a complete graphics

drawing program, so you can produce your works of art and compile at the same time.

The instruction book and demo that comes with the program show you everything you need to know about cramming great graphics into your Spectrum.

SPRITE MACHINE (GRAPHICS SUITE 4) There have been a number of programs called Sprite Generators. Most of these are selfcontained and not a great deal of use to people who want to use Sprites in their own programs. SPRITE MACHINE is different. This program

was written with you in mind - whether you are a professional, amateur or beginner.

There's never been a simpler Sprite program to use. All you have to do is draw your Sprite and then choose from a fantastic range of options to get it doing what you want.

You can: animate your Sprites, choose any direction and starting position, adjust speed, adjust height, choose running time, decide on edge actions such as bounce, wraparound, reflect or stop, make intelligent decisions like strike and collision actions, colour your Sprites or take colour from the screen, trace or nontrace, etc.

The program comes complete with a cursoroperated Sprite drawing board and catalogue/ store function.

Instruction booklet and demo are included with the program.

Now you can have professional Sprites in every program you write.

ORDER NOW OR ASK YOUR LOCAL COMPUTER SHOP!

Send to: Dept YS Print 'n' Plotter Products Ltd. 19 Borough High Street, London SE1 9SE Credit Card phone orders: 01-403 3622 Please send me the following:

	Paintplus	@£9.95	Screer
--	-----------	--------	--------

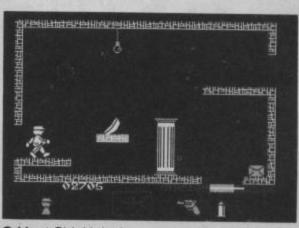
.....Sprite Machine @ £9.95

Machine @ £8.25

Art-O-Matic @ £8.25

I enclose remittance in full Please bill my Access/Barclaycard/Visa No.

I enclose 17p stamp for details of products. Name Address. Prices include post & packing for U.K. delivery. Overseas orders please add 20% for additional handling and post. OU CAN EXPLOIT Unu



 Meet Sid. He's the guy who's starring in Alphabatim's new game Robot Messiah. And the company's so proud of Sid that it's given Frontlines two hundred signed Robot Messiah posters. Signed by who? We hear you cry. By authors Christian Urquart and Mike Smith, of course, - the ones with the worndown fingers.

And we're gonna dole out all those love-ely colourful piccies to you. All you've gotta do is solve the riddle below. We've even included a few clues for the hard-of-thinking brigade.

My first is my fourth, and also my last. My second is in bang but not in blast.

My third and my fifth initial VAL/LEN. My sixth and my seventh follow an 'N'.

My last is in true and also in love.

My whole can be found in the screen shot above.

Right, we're looking for an eight letter word and your best bet is to start at the bottom and work up. Simply fill in the answer with your name and address on a postcard and sent it to Mensa, sorry, Robot Messiah Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE. Get those entries in by 31st January or you won't stand a chance.



Boys and Freedom.

• No, it's not just a careless whisper! Melbourne House has released Wham!

The Music Box. It's a two-channel synth that needs no hardware - impres-

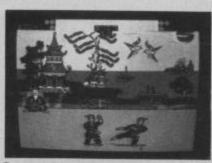
sive, huh? Rather less than impressive are the five example tunes on the tape

by none other than the pretty popsters themselves. Load 'em up before you go-go - and listen to Club Tropicana, Young Guns, Careless Whisper, Bad

The Music Box has been used to develop commercial tunes - Fairlight

f'rinstance. Give that a quick listen and you'll hear what The Box of tricks has on offer - without having to suffer the desperate duo's warblings.

Phizzz, burrrp, brzzzzz.... Now arriving at platform 3 is the 125 from Cheetah.... Tickets costing £8.95 are now available Phizzz, brzzzzz, burrrp. (To be read with a peg on your nose.)



System 3 has ten freebie copies of its latest rave International Karate to give away. But if you want one you'll have to be quick! The buck doesn't stop there, though. System 3 is also offering a £1.50 discount on the game exclusively to YS readers

How does it all work? Send off your five gold coins (Postal Order or cheque) to System 3 and if you're in the first ten orders your money'll be refunded and you'll get a copy of the game. Pretty mega eh?

For all those doubting Thomas's, Fred's, Dave's... there's no catch. All you've got to do for a discount is snip out this piece of prose and send it off with your readies to prove you're a dedicated YS reader. Post it to 'I'm a dedicated Your Sinclair reader' Dept, System 3 Software, Southbank House, Black Prince Road, London SE1 7JS. Now you too can travel the world kicking the living daylights out of anything that moves

"Where's my left sock?"

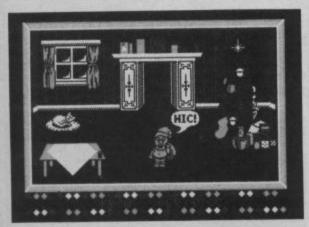
says zaa-nee programmer Stephen Cargill who's just written Fighting Warrior. The camel just came for the ride.

 If you're the sort of person who quivers with fear, cowers behind the sofa and covers their face with their hands whenever there's a late night horror on the box then Domark's new game just ain't for you. That little shop of horrors, Domark, has

That little shop of horrors, Domark, ha turned the gruesome film *Friday The 13th* into an

Friday The 13th into an arcade extravaganza that promises to be full of surprises. It's a shame that as you only get to play the good guy — boring! On the other hand, Jason, the resident psycho has all the fun tearing around a holiday camp brandishing a knife that's permanently attached to his arm. That arm starred in the film considerably more than the rest of his body. Sounds absolutely yummy!





It's a Christmas cracker from Virgin – Santa claws his way into the software charts with the first re-usable computerised Chrissie card. Perfect for those doddery dears who persist in sending you the same pair of socks year after year. Just load it in to see Santa delivering the pressies and supping his sherry. It even plays a merry Yuletide jingle – bang goes those Silent Nights, eh?

• Buy a Nightingale modem between now and February 1st and you could win an amazing return trip to the Big Apple. You'll get six nights of terror in a New York Hotel plus £400 to bribe the doorman to let you out. Wackee!

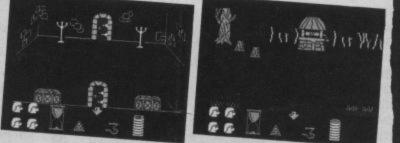
EVERYONE'S A WALLIS

• Reduce speed and altitude... We're going in for the winners of our Dambusters compo of Your Spectrum issue 18!

Your Spectrum issue 181 David Gilchrist, Basingstoke; C Hankins, Gwent; A Chambers, Preston; J Lowe, Blackpool; G S Tattersall, Cheadle; M Abid Ali Khan, Sunderland; J Davies, Stockport; Robert Taylor, Chesterlield; Shyam Vyas, London NW2; Michael Monah, London SE11; A Cooke, Cheselbourne; Mrs C Welsh, Glasgow; N J Sutton, Oxford; Andrew Geddes, Buckie; Mr L Honeyman, Glasgow; L Braybrook, London E15; Jason Kiner, Camberley; David Noone, Warrington; Ian Munslow, Buxton; J Walsh, St Annes On Sea; Alexander Stivaros, East Didsbury; Sean McKenzie, Mid Glamorgan; June Wilson, Birkenhead; Neil McDonald, Aberdeen; M. O'Sullivan, London SE26.

Right, de-briefing over. Back to normal duties...

SCOOP! SCOOP! SCOOP!



What an exclusivel We've managed to get a preview look at Alphabatim's new game Darion — Child Of A Stargazer and, boy, is it hot. Written in the same style as Robot Messiah by the same writers (funny that!) it takes place in a village full of bumpkins who reckon that only the child of a stargazer could possibly topple the tyrannical rule of the Evil Warlock. (Any stargazers' children out there who want to have a crack at toppling the Ed? Troubleshootin' Pete).

You play Darion and you've got to set off in search of the Transformer Spell that'll eventually change you into a real man. Once that's done it's off again in search of the eight pieces of the amulet — your only weapon against megalomaniac Warlock. On your travels through the rather rustic woodlands,

On your travels through the rather rustic woodlands, villages and undergrowth you'll collect lots of lovely spells. These'll come in very useful in your attempt to get past the gargoyles and castle guards. Once you've infiltrated it's off with the Warlock's head using the amulet, of course. And that, as Barry Norman would say, is that. Or is it?

So we've given you all the gen, you've seen the pictures and now you wanna buy it! Sorry, *Darion* won't be out until February, so you're just gonna have to wait....

Welcome to the column that gives you the gen on what's happening in the Spectrum world — the who, what, when and where.

First off there's a rumbling that CRL 'the dream makers' next game is to be called **It's In Chaos**. What it's all about and how far away it is, is still under wraps (could it be set in CRL's offices?) but keep your eyes glued to **T'Zers** for further info...

Rumours have it that Electric Dreams Software is currently negotiating the rights to Spielberg's new blockbuster **Back To The Future**. Electric Dreams says, "We know nozzing", in fact it even denies all knowledge of the film — we'll see!

Commando's being sold in West Germany under a different name — Space Invasion. And the reason, well I think its got something to do with the war, but don't mention it

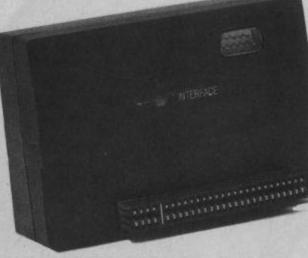
There's over ¼ million Spectrums in America apparently it's a real cult out there — you know, like Macdonalds. Not a lotta people know that! 'Cept me of course.

No-one could accuse Ultimate of talking endlessly about its games prior to their release. Getting anyone there to talk at all is nigh on impossible. **Pentagram** is still on target for release before Christmas but more than that I can't say — 'cos I don't know. You may even have a copy of the game before you read this.

Firebird has been opening its purse again and bought OCP's Art Studio package which is due to be released just before Christmas. Did you know that Hewson Consultants' sales are up by 60 per cent compared with the same period last year? This is mainly due to the success of Southern Belle, Paradroid and

Dragontorc. On second thoughts, did you really want to know?

CRL has discovered a way of bringing down unemployment in this country — how patriotic. It's taking on YOP scheme programmers to help with its new gamés. Could this mean that CRL will be bringing out a new range of budget games?



• It seems Cheetah really is changing its spots 'cos it's slashing the price of its joystick interface to an amazing £9.95. Can you really miss such a bargain? No? Call 'em on 01-833 4909.

• Fork out £9.95 on a copy of Level 9's new game Worm In Paradise and you'll get a poster free. You won't even have to worm it out of 'em! A-maze-ing!



"Can you . . ." Okay, I'll be with you in two ticks. "Pete, will you . . ." Look, I've got to write the column. "Over here, Pete . . ." Oh no, unless I get a moment to myself I'm not going to get the chance to write to you, let alone have my afternoon doze.

Phew, that's better — peace and quiet at last. No-one's going to think of looking for me here and it's another first for YS. Well, how many other columns have been written in the loo?

Things have been pretty hectic of late. I dunno whose idea it was to increase the size of the mag. All I know is that my comfy chair quotient has plummeted for the month — you could say the bottom's dropped out of that market.

But enough of the chatter. Let's look back to issue 20 of Your Spectrum where Tony 'Slim' Samuels' Samsynth program had some of you more than a little foxed — sort of Sam Foxed, eh? Okay, please yourselves. Not only did we hide the start address somewhere that you'd never ever think of looking for it but we also left the checksum



• Wow, it's dayglo Dynamite Dan author, Rod Bowkett, sporting the latest in lurex 'pass the sunglasses' jackets, while still trying to convince his 'admirers' that posing as Rodin's Thinker makes him similarly intelligent. Cor, ain't he dynamite?

off altogether. Bit of a jolly wheeze, what? No! Well, the start address is 64750 and the checksum is 37771. Sorry 'bout that!

More aggro from **Jill Hunney** from Watford over Ian Ravenscroft's POKEs for *JSWII* that appeared in *Your Spectrum* 20. She reckoned that they didn't work. Well, err, actually Jill, they *do* work. They're *supposed* to reset your Spectrum (Haw, haw!). Okay, it's not that funny but it's still the best thing we could think of doing to *JSWII!*

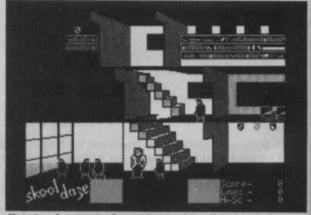
Sshhh! I hear footsteps outside. Time for a bit of quiet typing . . .

Off now to sunnier climes — if only! Israeli reader, **Ram Dagan** writes in to point out a problem with the *Edit Key* program published way back in the July ish. In line 10 you have to substitute 65133 with 65142 and in line 40, 11802 should be replaced by 12697. Without these changes, it seems that the last routine will crash the Speccy. Hmmm, back to the manual lads!

Oh no, I think I've been rumbled! "Peter, are you in there?" Right, out the window ... stuck ... Oh Gawd ... "C'mon out we've got you

surrounded." Just time to tell you . . . bout what's happening to the

column. Unfortunately, I'm just not going to have time to carry on with the phone-in helpline as I can't guarantee being in the office all the time — I might just be in the loo! So, if you have any programming problems or you've spotted **BANG BANG** something odd about a program in the mag, write to me at From The Hip, YS, 14 Rathbone Place, London W1P 1DE and I'll sort you out in the column — if you see what I mean. "Right, we're coming in." Top of the world, ma! **TROUBLESHOOTIN' PIERRE.**



Eric is what we in the trade would call an anorak. Why? 'Cos he managed to swipe the skool rekords in Microsphere's Skool Daze and the dum dum is now after putting them back in the sekwel Back To Skool. And he's got to pit his wits against girls! Grooo! S'pose we'd better pool our poket money and kome up with the £6.95 to buy it.



• A quick shufti at Dean Electronics' new Super Champ joystick may give you the idea that the lead's not long enough to clear the user port. Not so. It's got one of the longest leads ever. Ten feet carefully wrapped up the joystick's own insides. But the biggest surprise about this new aide-de-high-score is the price — $\Sigma 6.95$. More gen on (0344) 885661.



Here's lan 'fame doesn't affect me, even though I'm about to be interviewed on the radio' Flory, collecting the 250 quid prize money from Print'n'Plotter who fronted our Castle Rathbone Compo in Your Spectrum 14. Ian put £50 in the bank and, horror of horrors, spent the other £250 on a Commie 64 — well he won't get a very high interest rate on that!

That's the last time we go out of our way to organise a compo for you lot.



US Gold has just produced its own compilation tape featuring a bevy of Speccy hits, including *Raid Over Moscow, Flak, Blue Max, Hunchback II* and *Rocco*. Did you spot a few of these that aren't by US Gold? Funny, so did we!



Ain't he a little dahling, possums? Chris Smith of Saga is desperate to tell you about his combined printer/interface package. Can't talk right now, eh Chris? Well don't you worry your pretty little head about it, 'cos we'll tell 'em, won't we? Buy a Saga LTR1 printer and Chris will give you £10 off the Kempston Centronics E interface. If you don't trust us you'll have to call him on (04862) 22977. What a little possum. Saga Systems is boasting about its new Sound Boost, and why not? It stamps out Speccy whining by diverting the sound output to the TV as well as having a Save/Load switch and cassette connectors. This little art of noise will cost a cool £9.95 but it does save you strapping the Speccy to your lughole à la walkman style very uncool. Ring (04862) 22977 to sound out with Saga.

hat place your mother warned you about, St Bride's school for young 'ladies' has just installed a bit of high technology — a phone. Providing St Bride's receptionists have read the bit in the manual entitled 'How to answer' you should be able to suss out more of their Secrets if you ring them on 010 353 75 42030. Don't expect a serious answer though...



Quick, for Pete's sake do a U-turn. Yikes, the hit car's closing in, oh no... Can't explain too much at the moment except that it's Durell's new game, *Turbo Esprit* available soon. Arrrrggghhh, it's gonna get me!



Ding Dong! Fairlight II calling. It looks likely that the follow-up to The Edge's smash-hit Fairlight will come with a ROM attachment much like the one on Mikro-Gen's Shadow Of The Unicorn. All that's certain is it won't be the Mikro-Plus. And if you were looking forward to playing Fairlight II, called A Trail Of Darkness, before

Chrimble, brace yourself for a disappointment. Bo Jangeborg, its Swedish programmer (hurdie, hurdie, ho) is too busy putting the finishing touches to his updated version of **The Artist**, to get cracking on **Fairlight II**. You'll have to sit tight till January.

The follow-up to Ariolasoft's

Panzadrome is really wet — well it's called Aquadrome! The

Ramjam Corporation's busy writing the game at the moment but the release date has yet to be announced. Still, it's a dead cert that it'll slide down the slipway before Ramjam's long-awaited successor to **Valkyrie**

17. Three Days In Carpathia has already stretched into weeks and now months. Is a change of title imminent? Three Years In Carpathia!

Years In Carpathia! Talking of the Carpathia complex, this month finally sees the release of

Tomahawk, the chopper simulation that took eighteen months to get off the ground. Plus, shock horror news is now reaching us that Swords and Sorcery by PSS is due for imminent release, after only a couple of years in development. Just hope it's not a rushed job!

Heh, guess what? I've seen the pre-production copy of **Mother Of Charlotte** by System 3. It was going to be called **Mother Of The Harlots** until some not so bright spark realised what it meant. It's a 3D maze in space and the player has to rush around beating up snakes and the like whilst trying to avoid rampant women. We can't publish any piccies, though, 'cos we'd get done under the obscene publications act.

Beyond has been bought out by British Telecom much to Buzby's delight. It's beyond the pale as far as those magazine chaps at EMAP are concerned — I mean, how will they get to see all those games first?

Teresa Maughan

We'll take you bey

QUICKSHOT II AUTO RAPID-FIRE JOYSTICK

SPECTRUM INTERFACE

ond the Spectrum.

SPECTRUM UPGRADE KIT

URBO INTERFACE

Four great new add-ons from Ram, Number One in everything for the Spectrum...

TURBO INTERFACE - NEW LOW PRICE

Our unique Turbo Interface outperforms any Spectrum interface – it works with ROM cartridges, 2 standard joysticks, and there's a full expansion bus at the rear. The Turbo supports Kempston, Protek and Interface 2 software and loads from a cassette – or instantly from a ROM cartridge. It really makes the most of the Quickshot II's fast action, and with its unique power safety device and a new Reset button, it's even more amazing value at just £18.50.

QUICKSHOT II AUTO RAPID-FIRE JOYSTICK

The famous Quickshot II is the top games joystick, with a sleek trigger fire button for quick reactions, an auto fire switch for continuous shooting and a new, improved grip. Revolutionary built-in stabilising suction cups mean a sure, firm grip – a snip at \pounds 9.95.

SPECTRUM INTERFACE

Boost the power of your Spectrum, or Spectrum +. This Kempston-compatible interface gets the most from your games – electrify your enemies with real power and lightning-fast reactions right under your fingertips. Costs just £9.95.

SPECTRUM UPGRADE KIT

If you've a 16K Spectrum micro, this handy and inexpensive add-in kit boosts the RAM memory to a powerful 48K, so you can run the latest and greatest software, the most exciting games around – and expand your own programming possibilities! Only £21.95.

Where can you get your hands on Ram's amazing Spectrum add-ons? You can see them at branches of Boots, Menzies, Spectrum Group computer centres, and good computer stores everywhere. Or return the coupon below.

To: Ram Electronics (Fleet) Ltd (Dept YS), Unit 8, Redfields Industrial Park, Redfield Lane, Church Crookham, Aldershot, Hants GU13 ORE. Credit Card hot line: 0252 850085. (Access & Visa).

Please send me

-	Spectrum Turbo Interface(s) at £18.50
2	Quickshot II Joystick(s) at £9.95.
	Spectrum Interface(s) at £9.95.
	Spectrum Upgrade Kit(s) at £21.95. (Please state issue 2 □ or 3 □)
+£1 per	order P+P(£3 Overseas) TOTAL £
lenc	lose cheque/postal order 🗆 charge my Access/Visa
~ -	
lame_	Expiry Date//

Address_

Telephone

24 Hour despatch for credit cards and postal orders (7 days for cheques.) All products are fully compatible with the Spectrum, Spectrum + and Sinclair Microdrives.

Postcode.

Ram Electronics (Fleet) Ltd (Dept YS), Unit 8, Redfields Industrial Park, Redfield Lane, Church Crookham, Aldershot, Hants GU13 ORE. Tel: 0252 850085.



Trade and export enquiries welcome

THE GAME OF A LIFETIME*

Available for Commodore 64, Spectrum 48K and Spectrum +. Coming soon: Amstrad and MSX.



Firebird is a Trade Mark of British Telecommunications plc. Elite is a Trade Mark of Acornsoft Ltd. © Acornsoft 1984 © BT 1985

*Zzap! 64 Magazine

Are You Taking Your Spectrum Seriously?

THE DECK

MACHIN

CODE TES

TOOL

13-1-1-5

619.4

CHESS

TURK

THE

Your Sinclair Spectrum is a powerful computer, not just a games console. Oxford Computer Publishing unleash that power to make your Spectrum useful and help you perform important tasks. The Manager series of business programs has thousands of satisfied customers over the last three years. Your Spectrum can do jobs normally associated with business computers many times the price. The Utilities were written to create our own application software. They are offered to you

BUSINESS PROGRAMS ADDRESS MANAGER

A professional address, filing and retrieval system, with full screen editing. Stores up to 350 addresses on cassette and up to 6000 addresses on floppy disk. (In separate files) 32 column format – \pounds 8.95 \square 80 column format – \pounds 19.95 \square **NEW** K-DOS tape/disk cassette – \pounds 29.95 \square SP-DOS floppy disk – £29.95

FINANCE MANAGER

Stores and reviews practically all business and domestic accounts. Completely menu driven for ease of use. Stores up to 250 names on cassette and up to 6000 on floppy disk. (In separate files) 32 column format – $\$8.95 _ 80$ column format – $\$19.95 _$ **NEW** K-DOS tape/ disk cassette – $\$29.95 _$ SP-DOS floppy disk – £29.95

STOCK MANAGER

Features full invoicing, sales totals, price lists and re-order requirements and comprehensive Master File with full breakdown of stock and VAT. Stores up to 600 product lines on cassette and up to 6000 on floppy disk. 80 column format – £19.95 **NEW** K-DOS tape/disk cassette – £29.95 SP-DOS floppy disk – £29.95

VAT MANAGER

If you wou

Name

Address

A

Will check gross and nett values of a period's sales plus exempt totals and up to 8 classes of transaction e.g. standard rate, import/export etc. Calculates VAT paid and received and hence the nett tax payable/ receivable

32 column format - £19 cassette - f £29.95

FULL SCREEN EDITOR/ASSEMBLER An essential tool for writing Machine whether you're a beginner or an exper Includes full screen input, comprehens documentation, sophisticated express
detailed catalogue – please tick box. [

Please make cheques/postal orders payable to **OCPLtd**

Chequ	e/PO N	Num	oer

Access/Barclaycard number

(please delete)

Signature

CASINO

ROYAL

WORD MANAGER

This word processor has

FULL SCREEN EDITOR/ASSEMBLE

been designed for "user friendliness". The following features should particularly appeal to users of the "Tasword II" program, with which it is text compatible. The software includes an address filing supplement with screen editing Extra features include:

- Simple "single keystroke" insertion facility.
- The cursor can be moved on to start a new paragraph by a single keystroke. TAB key also available.
- The program works with cassette tape, Sinclair Microdrive, Opus and other disk systems.
- Texts can be printed out on any line length up to 128 characters.
- Text blocks of any length can be
- transposed, copied or deleted.
- The OCP program can print out text while another is being written or edited. The Word Manager – £12.95 Disk Versions - £19.95

UTILITIES

MASTER TOOL KIT

This versatile program gives you a renumber feature, string - search, a real time clock, a graphics generator and alarm plus many other features that'll change your Spectrum into a 'full spec. machine'. Master Tool Kit - £9.95

TOR/ASSEMBLER

ol for writing Machine Code beginner or an expert. en input, comprehensive sophisticated expression

VIDEO POOL All the fun and challenge of pool at your fingertips. 1 or 2 people play using joysticks or keyboard. Excellent graphics, sound and colour add to the game's reality. Video Pool-£5.95 (**Not** Microdrive

compatible)

Please send your order to: Oxford Computer Publishing Limited 77a Packhorse Road Gerrards Cross Buck, SL9 8PQ



as proven reliable programs that have stood the test of our own usage and become industry standards. The classical games are realistic simulations of proven widely played 'real" games.

See your local dealer or order direct by indicating the items required, by ticking boxes, complete the coupon and return the advertisement. Alternatively, phone the OCP Hotline on (0753) 888866, stating your Access or Barclaycard Number.

evaluator, SNAKE demonstration mode, extra microdrive facility etc. It also drives 32 and 80 column printer interfaces from the same cassette.

Full Screen Editor/Assembler - £12.95 NEW K-DOS tape/disk cassette – £29.95 SP-DOS floppy disk – £29.95

MACHINE CODE TEST TOOL

Test and Display Machine Code instructions as they're written. This versatile program can co-reside in your Spectrum with the Full Screen Editor/Assembler to provide a complete Machine Code environment. Features Hex: Decimal conversion routine, character generator, etc. etc. Machine Code Test Tool – £9.95

GAMES

CHESS-THE-TURK

The ultimate chess challenge. 6 levels of play, 'Blitz' chess, printer output, plus real time clock and alarm. Chess-the-Turk – £5.95 CASINO ROYAL

Two way program featuring Roulette and Pontoon. You're allocated money to win – or lose - a fortune. Plug in Microspeech adds realism and both games are fully explained through a comprehensive on-screen menu. Casino Royal—£5.95

Simply The Best

Amount payable £

Wafadrive, Opus and other media versions of our programs will be available in the near future. Contact us for further information on 0753 888866.

Add a new dimension to your Spectrum

SPD1 Disk & Printer Interface

- NEW-SNAPSHOT feature copies practically all tape based SOFTWARE direct to Disk.
- Uses standard BBC type Drives and Printers.
- Simple commands such as SAVE * "name"
- FREE Disk full of UTILITIES and HELP

68FX2 Professional Keyboard

A rugged high-quality printed keyboard with 68 full travel keys, full space bar, numeric and cursor pads and many individual keys.

LMT Products offer professional quality and ease of use at a price you can afford.

Imagine having almost a MEGABYTE of storage on floppy disks, using FULL SIZE Daisy or Dot Matrix printers all coupled with a REAL Keyboard, making Computing a pleasure.

Both products are separate but for a combined price of £125 you have BOTH -SAVING £15!

I would like to ORDER/receive information on...

SPD1 Disk & Printer Interface In: E89.95 Inc. VAT Disk Drives and Printers (1: E89.95 Inc. VAT Disk Drives and Printers (1: E49.95 Inc. VAT Nat

Combined Keyboard/Mertace PACK (II £125.00 inc. VAT

I enclose cheque/postal order C charge my Access/V

Your Spectrum's best friend!

LMT Computers Limited South Street Commercial Centre Bishop's Stortford, Herts CM23 3AL PHONE 0279 506801/54437

Please allow up to 28 days for delivery.



Quantum Leap into the world of the QL. Catch up on all that's new...



umours about the appearance of an upgraded QL have been rife in the

computer industry over the last few months. Dubbed the QL Plus, some say it'll be a Macintosh clone while others reckon it'll have a colour monitor and 3.5" disk drive to replace the existing microdrives.

Sinclair Research hotly denies all this, of course, and a spokesman told *Frontlines*, "The QL is a perfectly good machine and is selling like hot cakes." He went on "We've never had such a popular machine and you should pay no attention to current rumours." Even *Frontlines* had to smile — the QL more popular than the Spectrum?

Current rumours aside, Uncle Clive himself was recently collared at a business machine show and admitted that he was thinking about bringing out his own business unit. Shame he hasn't told anybody else at Sinclair Research as they all seem to be in the dark about any developments — or maybe it's a case of 'mum's the word'.

In fact, Sinclair Research doesn't seem to know the official line either. Another spokesman commented, "Nothing will be launched until next year." Hmmm, maybe Sir Clive's going to bring out a turbo driven C5 instead!

Believe what rumours you like but one thing's for certain you can never be sure until it happens.

Digital Precision recently launched a bevy of software

products for the Sinclair QL. Its major new release is

Supercharge described as 'a state-of-the-art SuperBasic compiler'. It can translate any SuperBasic program

automatically and directly into machine code and speeds up Basic by factors between 20 and 200. Supercharge comes complete with a 40,000 word manual and costs £59.95.

The QL Sprite Generator is a complete games design system that allows you to have up to 256 sprites and planes of movement, automatic sprite collision detection, sprite reversal and high speed action. Not only that, it also requires no machine code knowledge and costs £24.95.

Digital Precision's other releases include Super Astrologer, a computerised horoscope priced at £24.95, QL Super Arcadia, two action packed machine code programmed arcade games at only £15.95 and QL Super Backgammon also £15.95.

If you want any further information give Digital Precision a ring on 01-527 5493.

Master Blaster is the new offering from Compugem. Dreyfus the dread, a galactic assassin has had to retire due to ill health and the position of Master Blaster is now up for grabs. You must successfully complete twenty levels in the game in order to become the Master Blaster supreme. Master Blaster costs £9.95.

Compugem is also working on a couple of other arcade extravaganzas for the QL that'll probably be available early on in 1986.

Microdeal is soon to hit the market with a pre-Christmas package of aerial games and peripherals.

The might of *Flight* will soon be winging its way to the shops. A realistic flight simulator — it's based on a single engined, nosewheeled light aircraft. Full instrumentation is provided and a comprehensive view from the cockpit. At £9.95 it sounds a goodie.

On wings of a different kind, *Eagle* is a very similar QL version of the arcade blockbuster *Defender*. In *Eagle* much mega-collection of objects and shoot 'em skills is required! At £8.00 Microdeal reckon it's top value and another feather in its QL cap. Its new £4.95 joystick interface might be just what you need to make the most of these games.

Sales manager Neil Struthers, when asked whether customers had problems loading microdrives, commented "90 per cent of telephone queries concerning loading difficulties can be solved very easily. It's usually because they've not unplugged all peripherals."

SUBSCRIBE TODAY and see what you're missing!

Are you having to go on a right royal walkabout in pursuit of your copy of YS? Well, now it's do or Di time. Simply fill in the coupon below and send it (by Royal Mail) to Your Sinclair Subs, 14 Rathbone Place, London W1P 1DE. Miss out and you could end up looking a right Charlie!



SUBSCRIPTIONS: PRIORITY ORDER FORM

Π

Π

I would like to subscribe to <i>Your Sinclair</i> . Please start my subscription from theissue	
Please tick appropriate boxes: One year £12 UK and Eire One year £15 Europe One year £25 Rest of the world (inc. Mars) enclose my cheque/postal order payable to Sportscene Specialist Press Ltd for £	
Please charge my Access/Visa/American Express/ Mastercharge card number Delete where not applicable)	
Signature Credit card orders cannot be accepted without a signature)	
Name	
Address	
Postcode Phone No	
Send the completed form with payment or credit card number to: <i>Your Sinclair</i> Subs, 14 Rathbone Place, London W1P 1DE. DE. If you don't want to cut up your magazine, use a hotocopy of this coupon.	



Hey, would it really freak you out to know which games are the bubblers, the breakers, the busters and the golden oldies? Well, freak out 'cos its all here in the YS Hit List.

Chart Chat 1

This month's number one, Fairlight from The Edge, entered the chart five weeks ago and has soared through the weekly rankings from number eight, to number six and four, and has occupied the No. 1 slot for the past two weeks.

Set in a castle, *Fairlight* is an adventure game complete with stunning 3D graphics. The Land of Fairlight is smitten by plague, famine and pestilence (sounds like our office. Ed.) Your job is to rescue a magician from the castle Avars, whose Book of Light can restore *Fairlight* to a happier state.

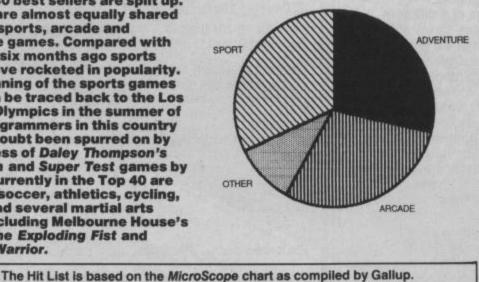
The Edge plans to release the second part of the Fairlight Trilogy, The Trail of Darkness, early in 1986, we'll have to see how well this one does.

This Month's Top Ten Titles

Positi	n Last month	Weeks in Chart	Title/Publisher
1	8	5	Fairlight/The Edge
2	2	8	Way of the Exploding Fist/Melbourne House
3	1	5	Daley Thompson's Super Test/Ocean
4	-	3	• Fighting Warrior/Melbourne House
5	-	1	Shadow of the Unicorn/Mikro-gen
6	-	3	 Bored of the Rings/Silversoft
7	3	6	Now Games/Virgin
8	5	9	Frank Bruno's Boxing/Elite
9	4	8	Nightshade/Ultimate
10	-	2	Sorderon's Shadow/Beyond

Slice of the Cake

The pie below shows how this month's 40 best sellers are split up. Honours are almost equally shared between sports, arcade and adventure games. Compared with the chart six months ago sports games have rocketed in popularity. The beginning of the sports games boom can be traced back to the Los Angeles Olympics in the summer of 1984. Programmers in this country have no doubt been spurred on by the success of Daley Thompson's Decathlon and Super Test games by Ocean. Currently in the Top 40 are snooker, soccer, athletics, cycling, cricket and several martial arts games including Melbourne House's Way Of The Exploding Fist and **Fighting Warrior.**



1(6) 2005 (60) 10 p (8) MicroScope is the weekly trade paper of the microcomputer industry. If your computer store doesn't display the latest MicroScope chart, get him to call Mark Salmon on 01-631 1433 — we'll send him a copy every week.

A P. Addama	STATE REPORT OF A DESCRIPTION OF A DESCR
Las	t Six Months
10000000	ourites
1000000	Title/Publisher
1	Daley Thompson's Decathion Ocean
2	• Softaid Softaid
3	Booty Firebird
4	Ghostbusters Activision
5=	Starion Melbourne House
5=	Knightlore Ultimate
7=	Shadowfire Beyond
7=	• Spy Hunter US Gold
7=	Way of the Exploding Fist Melbourne House
7=	• Airwolf Elite
-	Months Ago
1	Daley Thompson's Decathion Ocean
2	Sherlock Melbourne House
3	• Beach Head US Gold
4	Monty Mole Gremlin
5	Kokotoni Wilf Elite
6	• Full Throttle Micromega
7	• Sabre Wulf Ultimate
8	• Match Point Psion
9	Lords of Midnight Beyond
10	Jet Set Willy Software Projects
the second se	Months Ago
1	Jet Set Willy Software Projects
2	Fighter Pilot Digital Integration
3	Chequered Flag Psion
4	Manic Miner Software Projects/Bug-byte
5	• Bugaboo (the Flea) Quicksilva
6	• Hunchback Ocean
7	Atic Atac Ultimate
8	• 3D Ant Attack Quicksilva
9	• Flight Psion
10	• Fred Ouicksilva

£

DI

P

A

YOU ARE TRANSPOSED INTO A STRANGE COMPUTER GENERATED UNIVERSE. YOU MUST DO BATTLE WITH THE ROM ROBOT, TANKS AND RANDOMISERS IN YOUR MISSION TO REACH THE PROCESSORS OUTPUT PORT.

ORDER YOUR COPY NOW! To: INSIGHT SOFTWARE. 117 HIGHER PARK ST., THE FINGERPOST SHOPPING CENTRE, ST. HELENS, MERSEYSIDE, ENGLAND, WAS 1AG

Signature

AME (BLOCK LETTER DORESS									
OUNTY									
lease send me									
enclose a chequel	P.O. for £ .	 					Card and		
OU MAY ORDER E	Y ACCESS	VISA		BY POST	OR R	ING			
RING OFFICE HOURS Tease debit my cre	Phone: 0744	 ALC: NOT THE OWNER	-						
ccount No.	and the second	TT	TT	TT	-	T	-	-	

FOR SPECTRUM 48K £7.95

INSIGHT SOFTWARE. 117 HIGHER PARR ST., THE FINGERPOST SHOPPING CENTRE. ST. HELENS, MERSEYSIDE, ENGLAND. WA9 1AG.



Check out your chance to fly on the world's favourite aircraft, flown by he of the world's favourite add on m

Crikey, it's fantastique, wonderfuel, a-maz-ing, thrilling and simply sooper! What is it? Is it a bird, is it a plane? You got it in one — it's a plane and it's this month's MegaCompo, that's what!

Now if you're a supersonic airline pilot this compo ain't for you. 'Cos a ride in supersonic Concorde down to the Bay of Biscay and back wouldn't make you bat an eyelid. But ... if you're any normal human being you'd probably give your right arm to be on board. Just to spell it out Saga Systems and Ram Electronics have put their respective heads together and come up with a magnificent prize for readers of Your Sinclair — yup, two tickets to fly on Concorde to the Bay of Biscay. You too can experience the thrill of travelling at twice the speed of sound, not to mention the big boom!

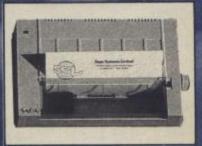
G-BOAG

Yippee, eh readers? Not only that, Saga and Ram, being generous to the last, are also providing a Saga 3 Elite keyboard, a LTR1 letterquality printer, a Style graphics package and a Saga Sound Boostes the second prize The five runners up will get a

Even the second prize is like sticking your head out while Concorde's in flight — if takes your breath away! There is a Saga 3 Elite. LTR-1 Printer (picture here), a Saga sound boost and a Style Graphics package



Ram turbo interface and Ouickshot II joystick. How's that for a compo? Now here's the toughie you've all been dreading — it's interrogation time!



 Don't go away now, there's more! Five runner-up prizes of a Ram Turbo plus Quickshot joystick are there for the taking!

he world's favourite airline, in the world's favourite magazine, courtesy ^{la}nufacturers. Now we're flying!

BRITISH AIRWAYS

Concorde was bought by two co-operating airlines. British Airways was one of them, which was the other?

 How fast will you be flying when you break the sound barrier?

Fill in the coupon below, stick it on a postcard and send it to Fly Me Compo, Your 'we take more care of you' Sinclair, 14 Rathbone Place, London W1P 1DE. And make sure it drops into the Ed's lap by January 31st.

WING COMMANDS

1. Employees of Saga Systems, Ram Electronics and Sportscene Specialist Press who try to enter will be chucked out of the plane without a parachute. 2. Entries must be on the back of a

postcard or sealed envelope, or we'll get you to open the rotten things. 3. Entries must be received by the and of January or else! 4. Anyone found arguing with the Editor is either brave or stupid

Okay, I'm not a supersonic pilot, so I'd love to enter your compo.I reckon that the airline involved with British Airways on Concorde's launch was
and the speed of sound is
Name
Address
Postcode

Fly Me Compo, YS, 14 Rathbone Place London W1P 1DE

Seissors are Dangerous. Use a scalpel instead, sorry – photocopy



All screens as seen on Commodore 64

£7.95

Can Softwor A

HEALTH WARNING: BOUNTY BOB CAN SERIOUSLY DAMAGE YOUR SANITY!



YOUR SINCLAIR, 14, RATHBONE PLACE LONDON W1P 1DE

JEKYLL AND HYDE

Okay the game's up. Your little secret is out! You might as well admit it — the Editor and Troubleshootin' Pete are both the same person. I mean how else could Pete reply to one of the Ed's inserts in an article?

Hah, well you can't pull the wool over my eyes and if you don't want me to spill the beans you'd better make it worth my while to keep my mouth shut. And don't try to do anything silly like escape in your turbo driven C5, 'cos if you look out of the window of your cosy little office you'll see I have posted men with rayguns, ready to shoot at my command.

Don't say I didn't warn you! Mooney Wahooney The Intergalactic Trade **Commission, Planet of** Altair.

Hmmm, an interesting one, this. I don't think we're the same person but just to make sure I'd better check it out with Pete. What d'you think Pete? Ed. Hang on a tick while I have a look. Thigh bone's connected to the leg bone, leg bone's connected to the back bone ... I think I'm missing a bit in the middle. It's tricky to tell in this light what with working in an office that makes the black hole of Cirius Major seem like a summer's day in the South of France. Troubleshootin' Pete. It's okay, I've got your middle bit! But that means . . . we are ... Troubleshootin' Ed.

BOARDTALK

I'm writing to inform you of the opening of my Bulletin Board for Spectrum and BBC users. Here are the details:

Spectrum Bulletin Board

Name ARCNET
Tel(0226) 292118
Sysop Keith Burton
Baud 1200 Half Duplex
TimesMon, Thurs, Fri
9 pm till 10 pm Sunday 11.30 am to
12.30 and 4 pm to 5 pm
Ring BackYes
(Auto answer available soon)
PasswordYes
(New users can use 12345)

This board is one of a number of boards being run on a Spectrum/microdrive set-up so don't expect the rapid

response that you get on disk based boards. At the moment the board is Speccy and BBC only and requires special software to access it. You can get this from Micronet:

Spectrum Spectacular pages BBC Page 810622321

The system has Prestel-like frames and uses full colour and graphics. The areas include CUG's Sig's, hints and tips, Chat mode, Message to board, Private mailbox (like Prestel mailbox) and several Autoupdating pages. Users can leave messages on these like a notice board that can be read by any other caller. **K** Burton

Barnsley, S Yorkshire

The interest in Bulletin Boards has rocketed since lolo's article in Your Spectrum 20. If anyone else knows of any good BB's for Speccy owners, send us the info and we'll pass it on. Ed.

FISTFUL OF BUGS?

Whilst playing Way Of The Exploding Fist my friend and I were happily beating the hell out of each other when we were returned to the demo mode. We tried again, thinking it was our fault when after another few seconds it happened again. After many games we found that if you press keys D, H, K and Break at the same time whilst on a two-player game, you'll be returned to the demo.

Now it could be our copy that's not up to scratch otherwise it's a genuine, first rate bug - yippee we've

found one. If so, how much do we get for spotting it and when will the Porsche arrive? From two members of the 'We also think **Gollum deserved** everything he got' Society. Chester

PS Who is Gollum anyway? PPS Don't let the Ed write silly little comments on the letter.

Oh goodie, does that mean it's my turn to write silly comments on your letter. Like, fancy not knowing who Gollum is! (Who is he then clever clogs? Ed). I shall ignore that. Also are you and your friend octopusses? How else can you reach all those keys at once? Your Porsche is in the post. **Troubleshootin' Pete**

YOU CAN'T BEAT IT!

The Beat magazine (a freebie from HMV shops) announced that Frankie Goes To Hollywood (the game, that is) is now available for the 49K Spectrum. So much for Sinclair's pledge of no new Spectrum before Christmas! James O'Neill Worthing, West Sussex.

Frankie Goes To

●THE LONG-AWAITED Frank computer game for the Commodore 64 and 49k spectrum is finally available (Ocean Software, £9.95). Da Ward, director of Ocean

That'll teach you to nip off while our backs are turned and read these ill-informed rags. 'Ere Pete, what's a K? Ed.

GET RATTED

I demand compensation. "Oh yeah, what for?" I hear you ask. Well, last month (Your Spectrum 20) I turned to the review of The Rats, having been enticed by the revolting picture on the front cover. Having read the blood splattered pages, telling the gruesome tale of 'rats gnawing at Ferris' body', 'gnawing at his bones' and 'ripping mouthfuls ...' I mused to myself, out loud, that I might buy the game. Oh, that I'd kept my big mouth shut. The result of my innocent remark? It paniced my thoroughly terrified Speccy i nto having a heart attack. Well, it blew its CPU actually. I blame this entirely on you. If you hadn't published such a gory review my poor ol' Speccy wouldn't be under some surgeon's screwdriver.

Right this is what I want. 1. A solemn promise that you won't publish anymore gore, like pictures of Troubleshootin' Pete.

2. Something that'll reassure my Speccy when it eventually returns to the land of the living - preferably nothing furry that eats human flesh and squeaks. And I don't mean one of T.P.'s socks.

Stephen Fodder Southampton, Hants.

D'you know, I was wondering why I'd started taking a smaller and smaller shoe size. Nah, it couldn't be my socks - 1 washed 'em out at the end of last yeaaarghhh . Troubleshootin' Pete.

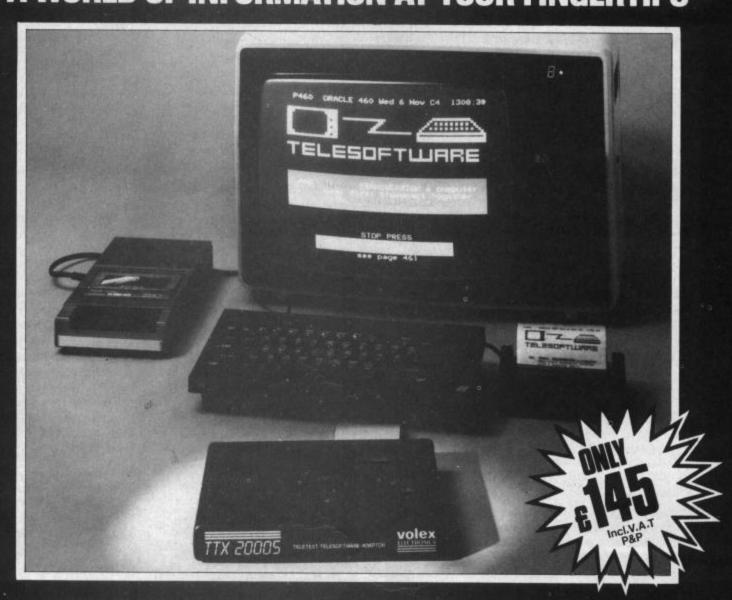
MEGABRAIN

I'm amazed at the mentality of some of your readers. I am, of course, refering to the letter from Richard Relf in the November issue. If Mr Relf had more than half a brain he'd have realised that what Pete was trying to show was how the actual addresses for the display file were calculated.

There can hardly be a Speccy programmer in the



THE WOLLS TTY 20005 • FREE COMPUTER PROGRAMS • INSTANT SPORTS RESULTS • CONSTANT T.V. UPDATE • ALL FREE FROM ANY T.V. VIA THE VOLEX TELETEXT – TELESOFTWARE ADAPTOR A WORLD OF INFORMATION AT YOUR FINGERTIPS



TELETEXT

is extra information available day or night whilst television transmitters are on air and without any charge and can now be enjoyed without the need of having a special Teletext T.V. set. All you need is to plug in your VOLEX TTX2000S Adaptor to receive 4-Tel from Channel 4, CEEFAX or ORACLE services.

TELESOFTWARE

is the name for computer programs which are broadcast as Teletext. Thus they may be loaded "OFF-AIR" into your Spectrum instead of being loaded from, say, tape or microdrive. 4-Tel is Channel Four's Teletext magazine and they are now broadcasting FREE telesoftware. Because of the special nature of teletext these programs are frequently updated – so you will not see the same thing each time you run the program.

EASY TO SET UP AND USE

As simple procedure tunes the VOLEX Adaptor to your local teletext channels. All loading of Telesoftware is via an index page on 4-Tel which the Adaptor will automatically find and display for you. Absolutely no modification is necessary to T.V. or computer. A comprehensive manual being supplied.

STORING PAGES

With the Volex Adaptor it is possible to send received pages to your printer or to Microdrive for storage and later recovery.

THE VOLEX TTX2000S

IS THE ADAPTOR APPROVED BY CHANNEL FOUR T.V.

l enclose cheque/PO, pay	FORD, M5 2XH. TEL. 061-736 5822. able to VOLEX ELECTRONICS ARCLAYCARD/VISA number:
NAMEADDRESS	
พิดดดดด	



country who isn't already aware of the ROM routine at 22AAh. If our friend had sat back and thought he would've realised that Pete's diagram was the algorithm used in the ROM routine and that understanding the algorithm would enable him to write faster and more varied pixel address calculation routines. **Seb Dacre**

Cricklewood, London

Your cheque's in the post, Seb. Troubleshootin' Pete.

CLUB SANDWICH

Despite the sceptics I believe in the C5 — so much so that I am now using my customised C5 'Sputnik One' as a mobile sandwich board in the Greater Manchester area.

If C5 Promotions continues at its present rate of success I intend to customise more C5's for promotional usage.

I see the C5 as having great potential as a low cost cheap to run personalised fun buggy and want to open a specialist C5 shop offering a customising service. I'd also like to start a national C5 owners club. **Nev Foaris**

Ashton-under-Lyne

Yes, despite the sceptics I too believe in the C5. Everyone else at YS just laughs at me. I know it sounds incredible when I tell people that I had a close encounter with this little white electric vehicle that looks like a large shoe built of washing machine parts. But I did. And there was this little green man driving it. One day the world will believe me. Ed.

SOFT ON THE END

Hi. Just a note about your piece in Frontlines entitled 'I saw a mouse, where?'

First, we haven't actually made our plans about The Artist/Artist II public yet, as you know. But there are a couple of possible misconceptions your piece may have given rise to. First, you're, shall we say, on the right lines when you describe The Artist II ... a pointing device,

keyboard use option, printer dump options, icons, menus . . . hum, yes things like that.

But we have to be quick to correct you, for no-one here at SoftTechnics (no-one alive that is) has ever commented that they feel that OCP's offering is better than The Artist! Shame on Mr Everiss of OCP for saying so.

And a second point, we are

not yet stating when The Artist II will appear, or even whether it will be a separate package, or run with Artist I. So watch this space... one thing we will guarantee though — we will see that everyone who buys The Artist will get full support on upgrades if they join the SoftTechnics Connections. SoftTechnics

Customer Support Division

Hang on a sec, I'm the only one allowed to do commercials around here! What we now want to see is whether Bruce Everiss names names and tells us who at SoftTechnics spilled the proverbials. Is that person now dead? And was it of natural causes? Do people at SoftTechnics have names that can be named? It's time the world was told! Da-daa! Ed)



Ta for such a wonderful, splendiferous, fabaroony mag. Every month, I glance through its pages, looking at, what was it ...? 'Fantasising over features ... marvelling at machine code ... revelling in reviews ... lusting over listings ...' and trainspotting the bugs!

'Tis the third time I've written in about your inadeq ... inedk ... minor hiccups. Now who, I'd like to know, ruined an otherwise perfect ish 20? Troubleshootin' Pete? The Ed? Andy Pennell? Small though the brains of these loonies may be, surely none could make such a stupid mistake as that which proudly displays itself on page 24.

For here is the sooperdooper compo entry form, complete wiv a dotted line to which we must apply those sharpened cutting utensils (scissors to you!). Trouble is, when you've cut down the dotted line, you're left with nuffin' more than a small strip of paper about 1 cm wide ... The stupid line's on the wrong side of the page! If



... Anybody who has entered the Samsynth program in Your Spectrum 20 may like to try 5 for the wavelength and 50 for the depth control. It sounds like a drunken bee! David Sellen

East Hanningfield, Essex

... Is the Ed any relation to Kevin the Gerbil? (Yes! T.P.) (No!! Ed) Paul Weller Reading, Berkshire

... as the owner of an Opus Discovery disk drive, I'm trying to start a users club for the Netherlands. Would any UK Discovery users like to contact me to exchange information and so on? D C Kruithof Boeierkade 6 2725 CH Zoetermeer The Netherlands

you don't believe me, just look! Hanestly . . . Now this one must earn me a Trainspotter Award! Paul Taylor Peterborough

PS I don't feel sorry for

Gollum. PPS Have you ever tried Hex on Toast for breakfast? (Breccy wiv your Speccy, eh?)

Dear (he who writes the witty comments) Ed. I hereby claim the Trainspotter Award. You have made the terrible slip up of putting the dotted line with the mad scissors on the wrong side of the competition in Your Spectrum 20 (cue witty comment from Ed). (Ooh er, sorry I was dozing there ... um ...er ... pass the scissors and I'll just cut that bit out. Ed).

Hallinics Domadam Universe 32a

PS Who is this Erauqs type person?

PPS I think it's only fair to tell you that I have a Protonic Enmostic Extremely Violent Energy Disrupter (PEEVED) gun aimed at your office and I'll not hesitate to fire if I don't get the award.

Oh come on, you did do it on purpose — didn't you? 1 refer, of course, to page 24 ish 20. You know, the compo with all those stars on it. Running down the left-hand side is one of those dotted lines that are meant to be the guidelines for cutting the page out. Well, I've sussed you! You thought you could con us intel . . . intellic . . . brainy people into sending the little white strip down the left hand side of the page, I claim a YS first. I believe I'm the first potato to write to you. As a resident of Easton-in-Gordano I was shocked that the Ed should accuse Matthew Exley (the amazing new Easton superstar since winning the Trainspotter Award in Your Spectrum 20) of making up the name of the villageI So, shocked was I that I had to go and talk to Angus the Brick. Nuff said. (More than enoughI Ed). Sammy Spud

Easton-in-Gordano

... aark, aark, my name's T.P., what's your problem? What's come over me? Nowt. I've just (train) spotted the most classic printing error ever. Have a squint at From The Hip (ish 19). Now look at the two hundred and eighty-eighth word. Got it? Ha ha. (One hundred and sixty-five, one hundred and sixty-six, one hundred ...T.P.)

lan Fisher Barbourne, Worcestershire (saucey devil).

didn't you?

This would mean, of course, that no-one would win the compo and so the judges wouldn't have to count all those stars. I saw through your evil plan from the beginning — to deprive us of a Star STX-80 printer so T.P. could have it himself!

Well, I'll tell you what. If you hand over an illustrious Trainspotter Award I'll tell no-one. Deal?

Anyway, brill mag (creep, craaawl). How about some more on comms — I liked the Bulletin Board article in ish 20. Keep it up! Jeremy Doyle Englefield Green, Surrey

Hmmm, three candidates for the Trainspotter Award this month. All of them have spotted the same cock-up in ish 20. Problem is, how are we going to pick the most deserving candidate for the supreme accolade of a YS Trainspotter Award?

It's about time Paul got something if this is the third time he's written in — but this time it'll be the sole of my boot. Call me a loony, indeed! As for Hallinics you can't frighten me with your gun. Made up name, made up gun. And anyway we can't afford the postage to Universe 32. So, it looks as though Jeremy's this month's trainspotter supremo. And if anyone dares to suggest he only got the award by dint of a final bit of crawling at the end of the letter - well, they'd be dead right! Ed. I'm still trying to find cut who printed the mag on the wrong side of my dotted line ... Art Ed.

I'm an operator at ଦ୍ଧ Prontaprint and use a Spectrum to update a Lilliput Sales Ledger. After months of trouble-free working my microdrive has now decided not to Verify 25 per cent of the cartridges which is obviously causing a lot of problems. Why should this be?

John Williams, Grimsby.

Well John, this usually occurs because the microdeve ROM doesn't completely erase the file header and reads the old header instead of the new one. The best remedy is to change the name of the file regularly and copy the results to a new microdrive so that the old one can be reformatted (which clears all the headers) before reuse. Apart from this, the only other person who can cure it is Sir Clive.

I've just bought an ଦ୍ଧ Interface 1 and would like to know how to wire the RS232 socket to Save and Load like a network? A Blackmore, Boston.

The Interface 1 is fine if you directly connect the two computers together but it won't work with a modem. Use the 'B' channel to Save and Load and make sure that you have the RX and TX pairs correctly connected. The distant computer must have a CTS connected so that it doesn't send info when the Spectrum is busy doing it's own internal thing.

Sob Sob. I've blown up my ZX Spectrum by using an Interface 2 on it. What can I do? R Capson, Dorset.

Sounds like you've blown up the ZTX 651 or 650 transistor. Try and get another one fitted and see if that brings your Speccy back to life. Be careful when connecting the Interface 2 as this might have a fault on it. Marshalls of Edgeware Road, London stock this transistor if you have problems getting one. If it still doesn't work I'm afraid it's going to need the old Red Cross treatment. Stick it in a jiffy bag and send it off to your local Speccy repair man for major surgery.

My poor old Spectrum has lost its voice and I miss it - help. M Owenn, Dyfed.

Try replacing the loudspeaker with a 1 inch diameter speaker of about 8 ohms. If that doesn't work try

I've got two Spectrums, ଦ୍ଧ an Interface 1. microdrives, printer interface and monitor connected up. A wonderful system you might think. Yes, but I'm getting a very noisy picture - can you help me?

Brian Davies, Aldershot.

Well, with all that lot connected up I'd say you need a better power supply. Your best bet would be to take the video connection from the modulator input and cut the track to the edge connector. This'd reduce the noise from the peripherals. Even better, put it through a 1000 uf capacitor as an additional filter.

I'd like to connect my P Spectrum to a monitor that requires a composite video signal but how on earth do you do it? D Shotten, Belmont.

This is actually covered in Your Spectrum 3 but for those who can't get their hands on a copy, here's how you do it! Connect the inner wire to pin 15B (underside counting from slot side) and the outer wire to pin 14B of the edge connector. If you've got an issue 1 or 2 machine, connect up the two solder spots marked 'VID' with a piece of wire inside the Spectrum first.

Help Help Help! I can't use the 'P' and 'Q' keys Ω on my Spectrum when my Alphacom printer is connected. Chris Oliver, Staffs.

Seems to me, Chris, that the printer is overloading the data line D0. I'd send it back to get it looked at.

Ummmm . . . er . . . I've a P slight problem . . . yer see. Well . . . it was like this. I took my tape recorder to pieces because I was having loading problems, and yes, I did know how to put it back together, but I lost the screws. I had a bright idea and super-glued it back together again but it still didn't work! I then bought a new recorder and it works fine on my friend's BBC but, you guessed it, it doesn't work with my ZX Spectrum. Help!

Pete Taffs, Luton.

Oh dear Pete, what have you done? Since you've checked everything inside the Spectrum there's unlikely



to be a fault there but have you checked the tape leads to the Spectrum? Also don't forget to leave the Mic lead out when loading and if all else fails try reading Melbourne House's Spectrum Hardware Manual by Adrian Dickens, price £6.95, as it contains some useful circuit diagrams. And to think Pete advises other Speccy owners every Saturday in a shop!

your man . . .

How do I get A4 (80 characters) listing from my Interface 1 and how do I count the lines? **G** Saunders, Hertford

The only way that I can think of, off the top of my head you understand, is to print the program to the screen (using PEEK in program area). Then use SCREEN\$ to look at the line on the screen and LPRINT the resulting characters, counting them as you go. When you reach 80 Chr\$



or an Enter character send Chr\$ (13) to print a new line. You'll have to convert the line number's first two bytes to a four digit number. Any Chr\$(14) encountered indicates you skip the next five bytes. Counting the lines will be easy as you can make a note as each Chr\$ (13) is issued to the printer.

What limitations are ଦ୍ଧ there on the number and type of peripherals that can be attached to my Spectrum?

Jim Grimwood, London.

: The limits on the Speccy's expansion port are roughly 300 ma on the 9 volt power supply and a max of two devices to pick up address and data lines. You'll need a larger power supply and a buffered motherboard if you want to add more - I don't know of any commercial supplier of these. Does anyone out there know better?

My ZX printer spits out blank paper, though it still line feeds, and it won't stop until I pull the plug. What's wrong? John Swan, Edinburgh.

It sounds as though the printer's writing okay but is having trouble reading its status, that is whether it's busy or not. Check the read connection and make sure the writing stylus is poking out of the printer slot as this could be causing the problem. If that doesn't work go see a specialist.

I would like to use a Y home-built AY-3-8910 sound chip to imitate the Fuller sound box. How do I do it? Mark Robertson.

D: The addresses are Control port 95, data port 63. The clock frequency is between 1 and 2 MHz and can be generated from a stable 555 IC. Hope all that helps.

How can I print things P which normally go to the screen to the printer without changing the print statements?

Carl Howes, Eastbourne.

Well Carl, you can either COPY all the screen at various points in the program or change channel 2 to channel 3 (LPRINT instead of PRINT). If you aren't using Interface 1 you can do this by POKEing 23743,80. POKEing 23743,83 will restore printing to the screen.





ast month good of YS brought you a preview of *Rasputin* in the shape of programmer Paul Hibbard's Storyboard. Now, Io and behold, good of new YSbrings you a preview of the game in the shape of four playable screens. And, give or take a pixel, it's not unlike the storyboard except for one detail — Paul neglected to mention how #"!!"I hard it is!

Of course you wouldn't expect it to be easy. Your quest is to destroy the jewel of the Seven Planets which has kept the soul of mad monk Rasputin, the kind of guy gets religion a baaad name, alive. The bauble is hidden away in the dimensions of the netherworld, a sort of supernatural housing estate for assorted nasties, spreading off a main courtyard and linked by spells cast by the Lords of Chaos.

Now this is some task even for a Super Crusader who closely resembles the knight from the Daily Express's masthead. So, as well as dodging the best selection of oddballs seen this side of Castle Rathbone, there are secondary objectives, such as discovering the Eyes of Heaven spell that'll black Rasputin's evil eyes as well as opening further boxes containing magic to neutralise his power.

Not that sword play is neglected. In many cases it's a good idea to clear a screen of wandering monsters before exploring properly. Be warned though — not only do the greeblies return when you re-enter a screen but if you come into contact with them, or take a fall, they'll flock back too. And talking of falls, at some stage you're sure to find that the netherworld is cruising at 60,000 feet and you haven't got a parachute. Luckily the clouds act as lifts and whisk you back at the cost of a life.

Once you've hacked and slashed to obtain unimpeded progress, make for the boxes with suns on the side. Jumping onto all of them causes a psychedelic display from which emerges a four headed monster (see, I said this was like Castle Rathbone) shooting rays from its eyes. Slay this and you get a new spell to add to your armoury. Then you can move off to seek one of the stones engraved with a letter of Rasputin's name but be warned, getting those makes everything else seem simple!

game to get into and you'll spend your first few plays just working out what can and cannot be done — as well as what lies behind some of the Seven Planets' more extraordinary masonry (Winner of the Infernal Architects Award 1985) in this respect it's very much like Ultimate's products — never giving anything away. It's also got the same sort of 3D view, though seen from a slightly lower angle which can cause problems. Take good care of the squared floor and how many (audible) footsteps it takes to cross one unit and you should avoid making too many trips down to cloud nine.

So there's an unavoidable Ultimate comparison but before the boys at Firebird send me an ultimatum (Ho, ho), I must say that this is a decided advance, with larger sprites and some very smooth animation. There are some really amusing critturs in there, as well as some maddening nuisances plus the truly malevolent presence of the villain

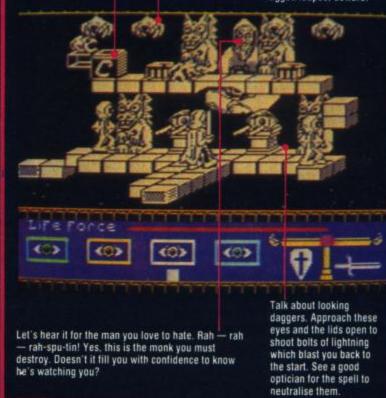
All that jumping may remind you of platform games but here the landscape is solid and incredibly well realised. Just as the dimensions of the netherworld spread from the central, circular highway the game has great depths. This one could take months to solve — it's certainly not for the fainthearted. But most of you now have the opportunity to test your mettle against the infamous mad morik, and if the challenge of these four screens whets your appetite then rush out and buy the complete game because it's ten times as large and contains a whole host of nasty traps that'll test your timing to the limit!

Part Box Game..... Publisher. Price.....

Game Rasputin Publisher Firebird Price...... £7.95 Joystick Kempston, Interface II, Cursor Keys....... Turn Left/Right — Q/W; Walk — O; Jump — P; **RASPUTIN** Starry, Starry INIGHT

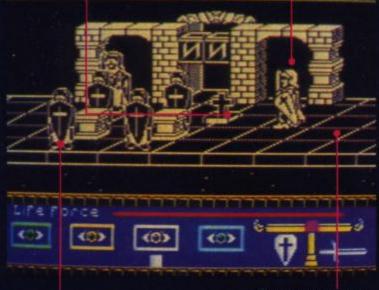
Last month, you saw the storyboard. This month, you've played the demo version. Now it's time to read the full review! Rachael Smith rights the wrongs of the mad Russian monk in Firebird's hot new megagame, Rasputin.

At long last, the aim of the quest. That's the third letter of Ras the Russian's name and all you have to do (all?) is get up there and you're an eighth of the way to a set and success. Ah. Horace vs The Spiders — one of my favourites. Down come the webby wonders, just where you want to be standing, so unless you fancy an eight legged toupee, beware!



The demo version of Firebird's Rasputin is only available with copies of YS sold in the UK. Unfortunately, it is impossible to send the tape abroad. Old soldiers never die they leave neat little graves instead. And as contact's still deadly it's better to avoid combat altogether when you can.

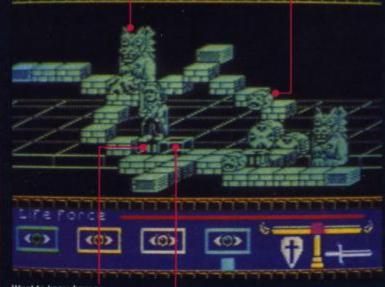
It's the caped crusader! Control is by the (love it/ hate it) turn clockwise or vice versa. That takes some getting used to before he walks the way you want. And fighting really calls for careful timing if you're to slip in the fatal thrust.



Call out the guard. Take advantage of their initial state of suspended animation because pretty soon they'll be marching up and down and indulging in a little swordplay — with you as target. The netherworld's main street is neatly paved, but those parallel lines also help you steer a course through all the obstacles Don't fall off the edge though

These goggle eyed gargoyles won't remain stony for long. Like all good dragons they've got a breath problem that makes napalm look cool. Note how inconveniently they're placed, making you wait till the heat's off.

They look like big frogs. hop around like fleas and have a grin you won't forget as they cause you to restart the screen and they're rather too short to hit easily at ground level.



Want to know how a Wham record feels? The turntables move in steps not smoothly. The secret of jumping off is to wait till you're a quarter turn before your destination then leap.

Observe the course taken

by the nasties. The balls

marker beneath the boxes

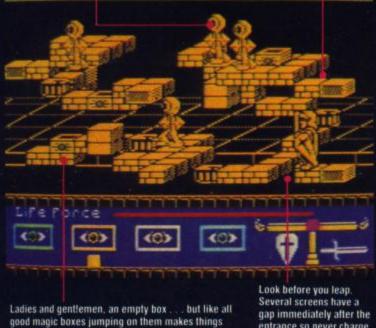
indicates the interior

decoration for the dimension.

Ignore this apparently innocuous box at your peril! As if by magic it'll return you to where you entered the screen and at the same time diminish your life force. Frustrating. eh?

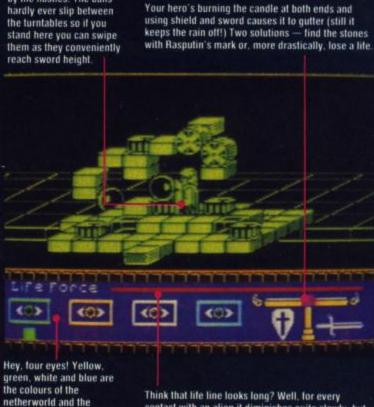
The toffee apple with the eye is a cyclops, and though he's dumb he'll still diminish your life force if he collides with you in his aimless vanders

Nobody gets out of here alive — or at least not easily. Flashing boxes represent exits and even when a screen has five of them like this, it's obvious the inhabitants prefer you to stay.



Ladies and gentlemen, an empty box... but like a good magic boxes jumping on them makes things appear — like a monster from the dark side of Rasputin's mind. Kill it for a reward.

entrance so never charge straight in. This one's particularly bad - you'll have to perform an extended leap to clear it.



Think that life line looks long? Well, for every contact with an alien it diminishes quite slowly, but if you fall to the clouds it's cut off even shorter depending on the size of the drop.

From the black and white pages of a dusty book emerges the colourful and gripping adventure of



DING

Save the world of "Fantasia" in this thrilling adventure. Cast as the hero Atreyu and aided by Falcor, the Luck Dragon, you face the trials and terrors of the ever consuming "Nothing". Enter the quest in this richly illustrated and highly imaginative computer movie.

TRUMAN Ocean Software Limited



© Neue Constantin Filmproduktion GmbH 1984.

selected branches of: 200, WHSMITH, 200 Mentes, WOOLWORTH, LASKYS, Rumbejows, Green has been lie bee sound mut

Try beating our SpecDrum!

Digital Drum System for the Spectrum

Spec

- **8 DIGITALLY RECORDED REAL DRUM SOUNDS** 0
- SIMPLE TO USE UP AND RUNNING IN ONLY MINUTES
- A TRUE DIGITAL DRUM MACHINE
- 'REAL TIME' OR ON-SCREEN PROGRAMMING
- COMPLETE WITH SOFTWARE
- EXTRA SOUNDS CAN BE LOADED FROM TAPE
- CREATIVE, EDUCATIONAL AND FUN
- THE MOST EXCITING PERIPHERAL EVER DEVELOPED
- **DYNAMIC FILING SYSTEM STORE OVER** 0 **1000 PROGRAMMED RYTHMS**
- TAPE SYNC FACILITY
- SONGS CAN BE SAVED ON TAPE
- POLYPHONIC
- COMPREHENSIVE MANUAL
- JUST PLUG INTO YOUR HI FI

ROOK SCIENCE PARK, CRICKHOWELL ROAD, ST. MELLONS, CARDIFF TELEPHONE: CARDIFF(0222) 777337 TELEX: 497455 (Export enguiries – contact Cheetah direct)

heetah

Marketing

TION

Exclusively

available from



Wanna POKE a little more fun into your games? Join Chris Wood for the hack of a lifetime as well as a damn good read.

elcome one and all! As you'll have noticed wake up at the

back - the mag has undergone a metamorfis... metimarfus... well, it's changed. And the good news is that I now have a whole page to fill with goodies, so keep 'em coming! You never know, if you send in enough, the whole shebang may spill over onto two pages, then three... Today a page, tomorrow the world! (Pass me the sedative please nurse! Ed).

First a confession - last month I made a bit of a boob. I know, I know, doesn't sound possible but there it is. The program that I claimed was for Monty Mole was, in fact, for Mutant Monty. Dunno how I missed that as I was the one who hacked Monty Mole back in Your Spectrum 15. Ah well, on with the show!

NIGHTSHADE

Yes, I know our very own Dave Nicholls - do you want your very own Dave Nicholls, yours for a few bob, guvnor - hacked this when he reviewed it but Mick Davey from somewhere in London has sent in a few extra POKEs:

- LOAD "" CODE: LOAD " CODE: LOAD "" CODE 20 POKE 23453,201: PRINT
- USR 23424
- 30 REM PUT POKES HERE
- 40 REM AND HERE
- 50 REM AND HERE
- 60 POKE 23453,33: LOAD "" CODE: LOAD ""CODE
- 70 PRINT USR 23453

And here are the POKEs that'll fill out lines 30, 40 and 50: POKE 52665,33: POKE 52668,52 for infinite lives POKE 49228,20 to run fast all the time POKE 52900,0: POKE 52901,0: POKE 52902 to see the final screen when you die.

Now put in all or some of them as you choose. Mick tells me that if you put in

the 'run fast' POKE you should avoid picking up the winged boots as you'll then revert to normal speed. And it's not much cop if you put in the first and last POKEs - the final one won't work 'cos you now can't die!

ALIEN 8

For an indestructible Alien 8 POKE 43735,201. For those without Your Spectrum 14, (shame on you!) add line 22 POKE 50085,167 : POKE 50084,178. This allows you to touch anything without dying — yippee! Finally, T Smyth of Minehead can't get Alien 8 to run with his XP memory expansion fitted. Sorry old chap Ultimate do some very peculiar 'OUT' instructions when they're reading the keyboard which clashes with the XP. You'll just have to remove it to play the game, unless, of course, anybody out there knows of any POKEs to remedy this.

FAIRLIGHT

What's this you're saying? Another ginormous listing for Fairlight. Didn't we have one of those last month? A touch of the old deja vus? Well, yes but since then Bo Jangeborg, the program-mer, has added the Kempston joystick option to the game and consequently moved parts of the program about. To overcome the problem I fed the new version into the Hacking Computer in the back room and good ol' ZZKJ spat out another version. Ninety per cent of it's the same so if you typed in last month's, you've done most of the grind already.

On top of this, ZZ has added a few POKEs sent in by Edmund Baby of Staines that'll stop the screen going blank each time you enter a new location. Now you'll be able to see how Bo's graphics program, Grax, draws the screens. The 6 in line 350 is the new attribute for the screen and you can

14, RATHBONE PLACE, LONDON W1P1DE

change it if you like. For those of you with the new version of the game, wind the tape past the anti-piracy message (and no, this program won't help the pirates) before running the program.

1 REM FAIRLIGHT POKEIN 2 REM MODIFIED FOR FAI RLIGHT2

RLIGHT2 ' 10 LET T=0: FOR N=18000 TO 18175: READ A: LET T= T+A: POKE N,A: NEXT N: RE AD A: IF T<>A THEN PRINT "CHECKSUM ERROR": STOP 20 FOR N=20000 TO 1E9: READ A: IF A<999 THEN PD KE N,A: NEXT N 30 RANDOMIZE USR 18000 100 DATA 221.33.203.92.1

KE N,A: NEXT N 30 RANDOMIZE USR 18000 100 DATA 221,33,203,92,1 7,93,5,62,255,55,205,86,5 ,48,241,6 110 DATA 20,33,130,94,24 3,49,0,91,205,195,70,33,8 6,96,17,21 120 DATA 209,1,153,1,237 ,176,33,40,209,17,40,145, 1,19,1,237 130 DATA 176,235,54,201, 6,9,38,145,17,186,70,26,1 11,203,182,19 140 DATA 16,249,205,40,1 45,33,174,210,6,120,62,12 ,50,176,92,205 150 DATA 195,70,62,195,5 0,198,220,33,181,70,34,19 9,220,62,55,50 160 DATA 233,218,195,223 ,218,237,176,195,32,78,14 1,197,200,221 170 DATA 224,229,232,235 ,247,197,229,62,32,237,17 7,182,242,197,70,35,209,2 37 180 DATA 82,235,66,75,17

37

37 180 DATA 82,235,66,75,17 ,246,70,237,176,229,235,5 4,237,35,54,95 190 DATA 35,54,201,205,2 38,70,50,239,70,225,193,1 6,214,201,62 200 DATA 58,61,61,230,12 7,237,79,184,146,147,129, 129,236,244,225,247,208,2 2697

2697

320 DATA 175,50,197,241: REM Infinite Lives 330 DATA 62,24,50,77,245 REM No More Weight Limi

340 DATA 62,24,50,246,24 71 REM No More Locked Do

ors 350 DATA 62,62,50,189,22 9,33,6,0,34,190,229; REM See Room draw 400 DATA 201,999; REM Da ta End Marker

JET SET WILLY II

Aarrgg! They said it couldn't be done. No man, no hacker could do it! Until now. Yes, Peter Faas from the Netherlands armed with a soldering iron and an armadillo has come up with

a new POKE for JSWII. The POKEs we supplied for infinite lives meant several of you were in grave danger of going batty because you couldn't turn the music off. Well, Peter has sent in a new improved POKE (gasp) - gor blimey he'll be after my job next!

For blissful silence whilst playing this game change line 90, in the small hacking program, and line 100, in the large progam, (both in Your Spectrum 18) to read:

DATA 62, 195, 50, 22, 122

Silence really is golden! Oh, and while I'm on the subject of JSWII it appears that some of you, namely P Vil-lars of Essex, R Whitehead of Londonderry and Stephen Dove of Stone, are having problems with the large program. Well, you'll notice, or you should do, that after each block of data each feature has a REMark above it - if you don't want that particular feature don't type in it. When you've decided what you want, wind the tape past the first bit of Basic in JSWII before running and playing it.

For those of you who haven't fathomed how to use the Room Finder program - it's easy. When you Run the first program put a blank cassette in before entering your pass code and press Record. You'll see a bit of on-screen activity followed by a block of code and then the Speccy will reset itself as the program has been destroyed in producing the block of code. Type in the second program, Run it and play the block of code you've just saved. It will then print out the rooms, their numbers and the numbers of rooms they exit to. Change LPRINT to PRINT in line 50 if you don't have a printer and want it to go to the screen.

KOKOTONI WILF

Charles Smith from Girdle Toll (where?) has sent in this piece of code for invincibility against the nasties in the Softaid re-release.

10 POKE 23693,4: CLEAR 24100: LOAD"" CODE 20 LOAD"" CODE:

- RANDOMIZE USR 65100: LOAD"" CODE
- 30 POKE 28929.8: POKE 28934.8: POKE 28939.8

40 RANDOMIZE USR 41712

Lots of programs nowadays are MERGE proof and that makes putting the POKEs in

a little difficult, as you have to make false headers. Chris Pile from Plymouth has provided a program which will Load in a Basic program and Save it out again tame - in other words it won't Auto-run.

1 REM DE-MERGE & SAVE 10 CLEAR : FOR n=23296 TO 23357: READ a: POKE n, AI NEXT n 20 PRINT AT 10,10; "LOAD BASIC"

BASIC" 30 RANDOMIZE UBR 23296 40 DATA 62,3,50,54,91,2 05,32,91,58,62,91,167,192 ,33,0,128,34,75,91,175,50 ,54,91,211,254,62,254,219 ,254,31,56,249,17,17,0,22 1,33,62,91,175,205,53,91, 237,91,73,91,221,33,168,9 7,62,255,24,3,195,194,4,5 5,195,86,5

The program ignores CODE and will only work if you feed in Basic. Play your program and then use a blank tape to Record. Press the Caps/Shift key to save the tame version of the program.

MANIC MINER

Whoops! Robert Hioms has sent in some corrections to the infinite air supply for Bug Byte's Manic Miner. These are:

POKE 34798,0 POKE 34799,0 POKE 34800,0

Not only that, G Reynolds of Nottingham also noticed that the second three POKEs (Your Spectrum 18) stop the light beam in the solar power generator from decreasing your oxygen. Now you can escape from Amoebatron's revenge cavern.

BOULDERDASH

Having trouble with Boulderdash? Never fear Martin Cleaver of Hull is here with a routine for infinite lives (what else?)

First wait until the second screen has loaded before stopping the tape and pulling the plug on your Speccy. Type in this natty piece of programming, run it and restart the tape.

10 FOR N=50000 TO 50022:READ A:POKE N,A: NEXT N 20 DATA 243, 17, 51, 91, 221, 33,0,94,62,255,55 30 DATA 205,86,5,243,62, 52, 50, 32, 121, 195, 183, 124

40 RANDOMIZE USR 50000

Martin says he's not sure whether this will work on the Rockford's Riot/Boulderdash re-release but if it doesn't you know where to send your POKEs don't you?



Now's your chance to join the programmers' task force, headed up by lan Hoare. He's counted all his small routines out and now he's counting them all back in again ...

alling all programming geniuses everywhere - here's the page for you! Oh okay, you don't have to be a genius but you'll still find a good few things that'll add that extra zap to your programming. And I hope very much that it won't be too long before you see some of your programming hints'n'tips in these pages too - this is your chance to beam out your brainwaves to all your fellow YS readers. Plus, if you have any programming problems, this is where to turn to for help. Together we'll form the biggest task force in the country!

To launch you on the way, I'll start off with a few nifty snippets that took hours to work out but . .

Well, you know the sort of thing - like this input routine that prints a message on the bottom of the screen and waits for a keypress. Just one keypress mind you. Type it in and try it out.

	10	REM	***	* IN	PUT	ROUT	ET.
NE	E	***					
	15	PRI	NT 20	DI AT	0,0	aMs.	
	20	IF	INKE	Y\$="	" Tł	HEN	G
0	TO	20					
	25	LET	1\$=	INKE	Y#		
	1000	Sa and	and the same		10.00	and a state of the	

- 30 IF INKEY#<>
- 35 RETURN

What's that? You know a better way? Great - write and tell me all about it.

While we're looking at input, just take a butchers at this and try to work out what it does. But don't type it in just yet.

40 REM **** 7777 ROUTIN E 45 LET ER= (VAL IS (IMIN

OR VAL 1\$>IMAX): RETURN Have you cracked it yet? Nope! Well, don't look at me you're just gonna have to find out for yourself!

And now for something completely different. I often want to find the address of a particular memory area. Problem is, all those addresses are hidden in two bytes. This makes it hard to see where the program starts just by looking at the contents of the system variables. In fact, any whole number between 0 and 65535 can be stored in just two bytes. So this helps you recreate the number again.

Stick this at the start of each program you write.

10 DEF FN P(X)=PEEK X+2 56*PEEK (X+1): DEF FN H(Y)=INT (Y/256): DEF FN L(Y)=Y-256*FN H(Y)

The FN h and FN 1 will split any number up to 65535 into the two bytes that you'd look for in FN p. Got it?

Now for a very useful snippet from a YS reader who lives in London, Kevin Cooke. A problem you may have experienced when using string arrays is that wasted spaces appear at the end. The best way to get round this is by storing the string's length in an extra character at the start. Use these lines to set up the string element:

10 REM CREATE STRING LE

- NGTH INDICATOR

 - 20 INPUT B\$ 30 LET B=LEN B\$ 40 LET B\$=CHR\$ (B)+B\$ 50 LET A\$ (N)=B\$

In these lines A\$() is the array you've manipulating and N is the element in the array you want to fill. When you want to print the string, use this line:

60 PRINT A# (N,2 TO CODE A#(N,1)+1)

A very clever bloke, that Kevin!

One problem you may have come across when writing machine code is passing information to the code routine. It's dead easy - when you know how! You can put the information into a string variable and search for it from the code. It's impossible to do any serious machine code programming without an assembler, so I'll give the assembler mnemonics for a routine that'll search for a particular variable in this case q\$. It'll end with HL pointing at the first byte of the string and with BC containing the length of the string. I use the excellent Picturesque Assembler, but please don't feel obliged to do the same! I've used the convention for describing decimal and hex numbers. Decimal numbers appear as normal, hex numbers are followed by 'H' and, if starting with a letter, are preceded by 'O'. Thus 255 (FF hex) appears as 'OFFH'.

ion) appea	10 40 4	
0000	ORG	40000
0005 STR	EQU	81 (q is
17th letter,64+17=81)		
0010 NEXT1	EQU	1988H
0015 VARS	EQU	23627
0020 START	LD	HL, (VARS)
0025 LOOP	LD	A, (HL)
0030	CP	80H
0035	JR	NZ,OK
0040	RST	8
0045	DEFB	4
0050 OK	СР	STR
0055	JR	Z,GOTIT
0060	CALL	NEXT1
0065	EX	HL,DE
0070	JR	LOOP

Now you can process the information in q\$ any way you want.

Use this little subroutine to perk up your printing for, say, pounds and pence. Go on, type it in and then call it with various values of 'money'.

10 LET IV=(INT (MONEY#1
00+.5)/100): LET V#=STR#
IV
20 IF V\$(1)="." THEN L
ET V\$="0"+V\$
30 LET VL=LEN V#-LEN ST
R\$ INT IV
40 LET V#=V#+".00" (VL+1

TO) : RETURN

Now you can print a whole series of numbers aligned by the decimal point - just like you have to do when you're dealing with cash.

SO PRINT TAB (10-LEN VS);"#";V\$

Now a plea from across the water. Martin Fitzpatrick from Cork in Ireland asks if there's a way that text sent to the screen can easily be diverted to the printer without duplicating every line. Well, Martin, simply set a variable like, let me think, p and make it equal to 2. Then on every PRINT command use this formula:

PRINT #p; "your message"

Now, when you want to print on the printer simply set p equal to 3. Nifty eh? But perhaps you've got a better solution? Well, you know where to send it.

Right, that's it for this month. Now, you know the task that you've been set - to send in all your fave programming bits 'n' pieces. There's no point in sitting on all your short sharp subroutines when you could send them out into the world to make your name in YS.



Free our heroine from certain death..beat the clock on the GALACTIC GUILLOTINE! On-Screen Combat Windows speed you through the UNIVERSAL TIME-GRID.

Battle against the RYGELLIAN SLIME-BEASTS at the edge of time! Designed by DENTON....

Correstrict Entertainment Ocean House · 6 Central Street · Manchester · M2 5NS Telephone 061 832 6633 · Telex 669977

Ocean Software is available from selected branches of: WHSMITH, Mohn Menzies, WOOLWORTH, LASKYS, Rumbelows, Greens, 2000, Spectrum Shops and all good software dealers.



SPECTRUM48k



Get a grip on your joystick 'cos here come this month's great games. But first meet the team that's battled against the best and waggled with the worst - Rick **Robson, Rachael** Smith, Steve Malone, Sue **Denham and Alison** Hjul. Shoot ...



Sue Don't expect to sit down and play this game within a few minutes. The cassette inlay card contains so much information. that you'd be best advised to transfer all the relevant key data down on to a separate piece of paper and display it above the screen while playing.

The plot is complex in the extreme, but here's the gist of it You have to land a small space craft on a robot-run planet and shut down its fusion reactor and all of this must be completed in the time fimit shown on-screen On board the craft you have a variety of lasers; defensive shields, missiles,

This is the action' area of your instrument panel here you see out of the space craft's cospit on to the planet's surface, il you call up the ship built-in computer, this area then becomes a VDU screen providing graphical cepresentations of the answers to your questions.

These block graphics represent the two ADFs lautomatio direction tinding computers) yea have at your disposal. One helps direct you to the city, the other helps you find your space craft again once you have shat down the fusion eactor.

LAUNCH

SILE LAUNCHED

FLARE LAUNCHED

This is where you type in commands to the ship's computer, and repeive. messages as lothe status of your space

ĤК

Ĺ



flares, infra-red sights, scanners you can find the right key at the right time, that isl

The screen's just as confusing, with windows for all the data you need as you descend to the planet. But each window holds necessary details of your mission if you want to come out alive again, a careful read of the instructions is necessary. Use of the computer is extremely helpfull once you've landed the space oraft - and there are 20 commands, you can use to barry out various tasks within the reactor that it destroy it. Tau-Cetils a game of great

TAU CETIM

ORNHED

1

1.

Ł

PILOT

Height

hield

INR:D HIEG HH:G FL:7 DRHIM

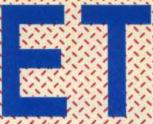
00:01:30

REEMA

1

.

L., L



complexity, but one that is rewarding once you figure out exactly what you're meant to be doing: The graphics are well. done, and the action's very impressive on-screen. It does take an hour or so to really sort out any playing tactics ... but maybe this is testament to the game's addictiveness.

And if you don't fancy sitting down for hours at a time in front, of a red-hot Spectrum, you can. always save the half-finished game and finish it later. Can't say fairer than that, can you?



Here you will lind a compass, a real-time clock, an indication of the oity you are in and a message felling you the state of your space craft.

You baly have a limited amount of unded aground of grissile/lasar power, and you'r aforbury is shown, for you bere so that you can Kaep, track of what weapons you haven't used ver

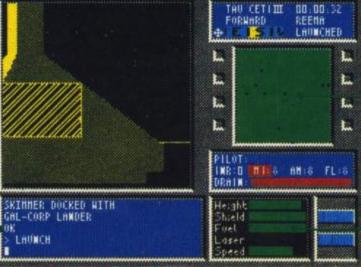
This is the scanned

screen - showing just how much

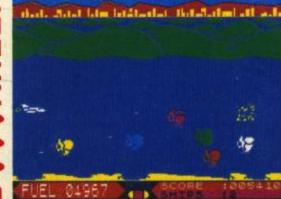
trouble you've

Using block graphics, you can see very cleanly you height, shield powe

fuel, laser po







Insight/£7.95

Rick I haven't a buccan clue what is going on. It's a curious mish-mash of a jet fighter and space ship whizz-bang shoot 'em up arcade. This really is a cheapy in fairly expensive wolf's clothing. Your Buccaneer has up and down but no lateral movement during the early screens and a very slow fire response. But don't worry, the aliens are so moronic that often you can stay where you are and top 'em as they queue up. The

quicker you blast, the quicker you move through the remarkably similar screens. Even the most amateur of arcaders will have been this way before.

The Buccaneer is all but redundant as a modern day fighting plane - as is this game compared to many excellent alternatives.





Artic/26.95

Rachael After ditching their Terminal Tapes and crashing the Morbid Microdrives the contestants settled on Fatal Floppies, a game played by dodging the deadly discs of the title. Sound easy? The only problem is that you're standing on tiny platforms, so room to manoeuvre is limited to a step on either side.

It seems this somewhat surreal space duel is based on the movie Tron. It's certainly different from your average sport simulation, taking place in a checkerboard stadium obviously designed by Dali. Luckily, the computer takes care of your jumping so there's no slipping into space, but apart from that you're on your own. The rest of the memory has obviously gone to playability and providing a mean opponent. If you have time during all this frantic frisbee action try to pick up tips from his behaviour, firing off a volley of discs then jumping to one side while you're busy using your rapidly diminishing shield or taking evasive action.

A bit of strategy is called for to make sure all your discs aren't in



the air when you need them, but basically this is a test of reactions and moves so fast it's easy to get drawn in. It's just a disappointment that the third screen is like the first, only faster and with a guided disc that locks onto you bringing the game to a quick conclusion. And wrap your ears round the superb robotic soundtrack.

I was hooked for a time but I can't see myself returning often. If only there could have been a true player vs player option instead of just you and me against the micro. A trifle overpriced? Perhaps.

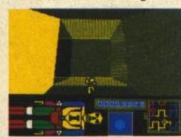
Playability	7
Addictiveness	

, OF THE MASK

Electric Dreams/£9.95

Alison Seb Coe's got nothing on our hero as he hurtles around a labyrinth of psychedelic corridors in breathless pursuit of bits of a dismembered robot's cadaver.

No, it's not a space-age Frankenstein travesty, but an above average maze game, embellished with stunning 3D



graphics. A megalomaniac robot has been dismembered by world

been dismembered by world rulers to curb its yearning for universal power. As the hero of the piece, your aim is to flee the maze and become I, Of The Mask, by collecting the robot bits and reassembling this hapless heap of metal.

Battling against a remorseless



mission. But, take heed! The robot must be collected in the correct order – from feet to Mask. If you collect the wrong bit at the wrong time, you'll lose a life. A pretty nerdish thing to do since you've only got three to play around with. But, still, it's worth risking one life just to give yourself a little more time. *I, Of The Mask* takes a bit of

getting into but, once you've got the hang of it, you'll be hooked. And don't waste time gawping at Sandy White's amazing 3D graphics — time's in short supply!

clock, you must head for the

for good behaviour. Using the

your ammo on any old crystal,

cos each has its own function.

part of the maze, one will

you must zap the crystal to

activate it.

laser on the front of your jet-suit,

But don't panic and fritter away

One will beam you to another

transport you to the entrance of a nearby universe and the other will reveal a robot part, which must be zapped three times to render it harmless. This done,

your score rockets, leaving you

oodles of time to pursue your

three crystals blocking the entrance to each of the maze's 32 universes. But, once you find the crystals, there's no time off



Digital Integration/£9.95

Rachael It's been a long time since *Fighter Pilot* — the revolutionary flight simulator from Digital Integration that revived a whole genre by giving the opportunity of killing things. Well now it's the turn of the helicopter pilot to take off from the comfort of his own living room and keep the Western World free from whichever menace owns the bases, tanks, guns and other choppers that take pot shots at you.

Ignoring the militarism for a moment, this is a real treat for those of you who've only ever flown Cessnas with your Spectrum before. You won't believe how hi-tech the helicopter of today is. What with the chips that keep the nose level and the ones that tell you where the next target is, flying time before you arrive, when the pubs open . . . well, there's the equivalent of a couple of ZX81s here making flying a doddle.

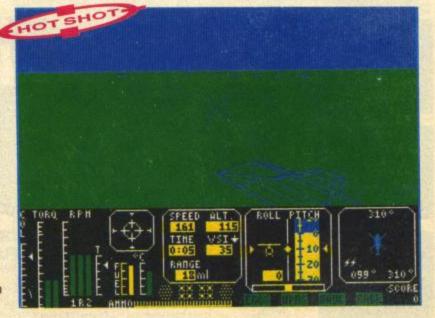
I really enjoyed road-testing this machine, swooping low around the smooth 3D vector graphics of the landscape, clipping the tree tops, swerving among the mountain peaks. But Uncle Sam has a mission for me so it's out of practice mode, a quick look at the map, and I align my heading with the target radar dot — just time to check up on the combat mode before we encounter Ivan!

00 153796

It should come as no surprise that you've hardly been short changed on weaponry. I was spoilt for choice between guns and missiles but finally plumped for a rocket to take out their field gun. After all, I could hardly keep them waiting while I hovered around making up my mind! Tilt nose down, target and fire. A satisfying explosion blows them into a thousand pixels and it's onto the next base.Of course I was on Trainee rating, flying without crosswinds, by day, but one day it'll be a force nine gale with only infra-red sights and then I'll deserve the Ace rating. Clint Eastwood, watch out.

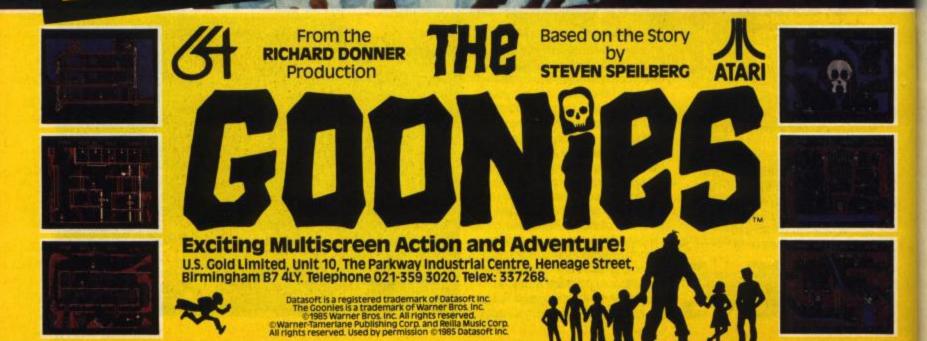
Yes, it looks like D.I. has done it again — I got a real kick out of *Tomahawk*. My only quibble was the Lenslock security system that it's using. It's like something dreamt up by the MoD to protect official secrets, and I'm sure *Tomahawk* isn't that accurate!











NUDVI MESSIAH

Alohabatim

Sue Reliable information from Robot Messian's creators let me in on the fact that there are three stages to this game phonumately, intense investigation has only led to finding two stages - but what

'stages they are! " First sight of the game and ft became apparent that Jet Set Willy and the Ultimate series of games were the major inspiration. But that's not such a tag thing, especially when you see what the programmiers have graphics. In this Ultimate-style: the nasties - a Brisoner-like Bubble, flashing stars and blinking eyes — appaar out of the ether and follow set patterns afound the screen, hoping to drain your energy. You do have a weapon that can destroy the af ghive rented the bud, asitesh viseri on the mad professor sprite - just run for your litel You play the part of Sid, who looks like a character straight out of pigeoprianciers chub - all cloth cap and the like. His task is to leap around the warlous plattoms on screen in search of three computer programs that be must carry back to a computer terminal, Sid is a splendid sprite,

adurul en veux si roi ann en ng - inemetro de ann is roi ann ann ann

SYNC:

and the

on-screen that's been seen yet straight away. The on the Spectrum. You can pick up various largely irrelevant objects to help you with your your port have to

nission, but only three can be held at any one time. Of the two stages seen — you travel between stage one and two in a car — both are similar in content — you leap around the gaily patterned platforms; picking up food, searching tor, the computer programs and keeping a wary eye out for the pasties.

Play is easy - you can boot

straight away. The storyline has been kept to a minimum and is largely irrelevant, which means you don't have to keep referring to the cassette inlay card everytime you want to do

something: Dvetall, Robot Messiah is a great game — with colourful and preat graphics, superb on-screen movement and a goodly. selection of caverns to map out.

	1	inter 1		1
Graphics		THE R. P.		1
Playability /				
Value for Moriey	ъ	ريبار		21.1
Addictiveness				
	-		1.1.	1



Rachael No relation to either Firebird Software (unless it's a by-product of *Don't Buy This*) nor *Star Birds*, this is a recreation of an old arcade machine. A very competent recreation — but also a very old machine.

And it came to pass that Space Invaders begat Galaxians and Galaxians sort of begat Space Firebirds, who swoop around in various Red Arrows style flight patterns, dropping what the instructions say are bombs, though we all know what birds usually drop!

For protection your titchy little ship has got an umbrella ... no, a cannon and a faulty warp which operates once only as and when it feels like it, wiping out everything you encounter in your race for the top. So you blast away at the birds shoot out the odd mega-bomb for bonus points, and finally take multiple pot-shots at the big red bird that swoops in at the end. All of which is so simple on the two easier levels that you'll soon be in a High Score Table that took umbrage to my name and crashed. The two higher levels are for speed freaks only!

So, the high scorers will love it, as will nostalgia buffs, and even I'd play it for a hour or two of brainless pleasure but for one thing — Σ 7.95 is an awful lot of ten pees down the arcade. At this price it's strictly for the birds!





Sue Zoot's an ugly little sprite. But he's a darling compared to the horrors that he finds in the sewers on his search for his missing marbles(!).

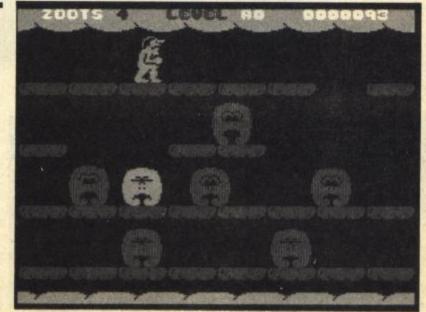
With four lives, Zoot starts off punching out his opponents — a selection of ghoulies and ghosties with silly names — but, on the second screen, he has to trap each of the ghosts on a separate ledge. Points are awarded throughout the game but it's the missing marbles that Zoot is really after. It's all very confusing, and extremely frustrating ... but it does have you screaming for more.

The program boasts 234 screens, but you'll be lucky to get past the fourth — so you may never find out if the company is making exaggerated claims or not!

Zoot is a very simple platform game - but one that's very addictive and a lot of fun. Shame

it's made much too confusing by introducing a silly plot-line that really has little to do with the onscreen action.

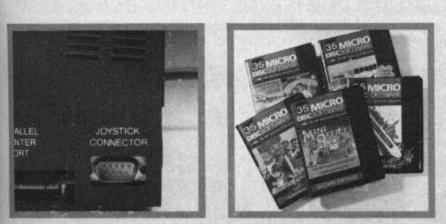
Graphics Playability Value for Money	7
Addictiveness	





TECHNICAL DETAILS

3.5" 250 K disc drive Double density disc interface Parallel printer interface Joystick interface Video monitor interface Peripheral through connector Built-in power supply Utilities on ROM including format and verify RAM disc facility Random access files fully supported Connections for second drive upgrade Comprehensive user manual Total: £199.95 inc. VAT



"Recommended" - Sinclair User Buyers' Guide

Discovery – helps your Spectrum make all the best connections for only £199.95

In one simple step you can now transform your Spectrum into a complete computer system. Discovery from Opus Supplies is a sophisticated computer nerve centre combining not just a powerful disc drive and double density disc interface but the most comprehensive range of interfaces capable of running printers, monitors, joysticks and other peripherals.

No other system can offer your Spectrum so many options – allowing you to play the very latest games or providing facilities for serious business use. Discovery's specification includes over £300 worth of Spectrum peripherals and yet, at just £199.95, this remarkable all-in-one system costs less than a disc drive and interface combination.

Just connect Discovery to the rear of your Spectrum and you've started the transformation. Now you have immediate access to the very latest Japanese 3½ " disc drive controlled via a powerful and ingenious double density disc interface. The unit's built-in power supply feeds both Discovery and your computer allowing you to dispense with your Sinclair power supply.

The Opus system takes no user memory from your computer giving you full compatability with all tape-based software including programs designed for use with microdrive and Discovery even has its own RAM disc allowing you super fast access times.

Now the choice is yours. Connect up a joystick or a printer to the built-in Discovery interfaces, link-up to a video monitor or incorporate your own choice of peripheral using the through connector.

Whether you choose Discovery for games or business use you can rely on a complete range of readily available disc software produced by many of Britain's leading software companies, and our price of £199.95 includes an unbeatable two-year free warranty and free delivery.

Discovery is available nationwide from Boots and from all good computer stores across the country. Ring us now on 0737-65080 for details of your nearest dealer, or to order your Discovery.

Trade and export enquiries welcome. *Price quoted refers to Discovery unit only.



Opus Supplies Ltd, 55 Ormside Way, Holmethorpe Industrial Estate, Redhill, SURREY RH1 2LW.

Melbourne House/£8.95

Alison If you get your kicks from those fairground rides that have you reaching for the nearest brown paper bag, then Melbourne House has got a treat for you. 'Cos, with Gyroscope, those nauseous thrills have been transported to your Speccy.

SCREE

It all sounds very easy - guide a giddy gyrating gyroscope across 20 screens - just five courses of four screens.

But don't be fooled! The gyro's got a will of its own and you'll need to be quick witted if you're to stop it falling off an edge or hitting an alien, while manoeuvring steep slopes, slippery glass or directional magnets. Gulp! Pass that paper bag

In fact, I really thought I had it

Aikro-Gen/£14.95 Steve Pssst Hey, kid, wanna

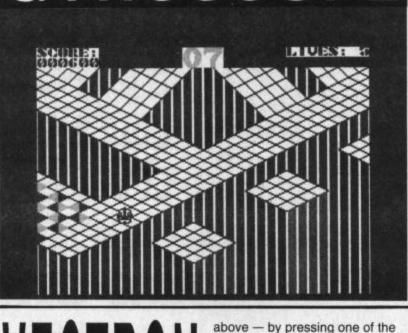
buy a game? Not any old game, you understand, - this one gives you a tancy set of firs, that bolt on the back of your Spectrum. The and only means a whole lot That not any means a whole tok more to splash around in - but a

Joystick part as well. But what of the game? Shadow of the Unicorn is an arcade adventure, rather in the vêm at the excellent Lands at ... Midnight: The gast is to rescue the lands of Ocoofal and Palforn from evil.

Of course; baddles abound in he game and each character has different powers to deal with the assorted nasties. The ones that you're most likely to meet in the early stages are small hideously mişehapen dwarves, These are easily zapped by the magician, but for the likes of Gau, the best strategy is to leg it.

There's a mountain more to this game — and many a player will spend bappy hours wandering across the extra 16Ks of peaks and desens

Braphies Physiolith, Yalua (oc. Mighay Apdictiveries Bi



GYROSCOP

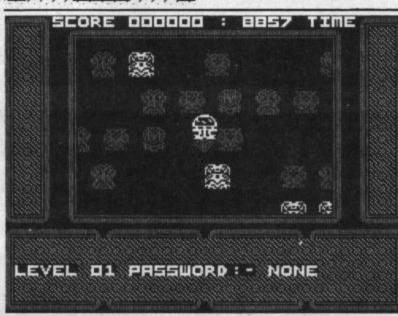


Sue Insight's Vectron's not a game for the faint-hearted. I'd only recommend it to those of you with fingers that move like lightning and whose quick reactions haven't been dulled by playing too many adventure games.

Inside a massive computer, you control a fighting machine and it's your task to manoeuvre around a maze of corridors, blasting plasma bolts at the various nasties you find there. Movement around the corridors is conducted at a terrifying pace

it's an exhausting process lining up one of the enemy Randomizers or Tanx in your onscreen sights in time to blast it to smithereens. More likely, you'll find that you've bumped the fighting machine into a wall at the end of the corridor and you're careering off in the opposite direction!

To help you, there's the option to view the whole affair from



keys from the 'B' key to the Space bar - but this can be just as confusing as you can see the on-screen map from above superimposed over the view out of your fighting machine. The map depicts the Randomizers in red, the Tanx in magenta, the energy units in cyan, and your fighting machine in white - and try taking that lot in when you're shooting around the maze at what seems much faster than any sensible speed limit! The idea is that once you get near to one of the enemy, you quickly switch to the normal screen and zap them with your plasma blasters.

For those with the faith that

SEDAE COUNTOOWN 999 -A

cracked after belting through the

first course, but it's all downhill literally! - after that. Shame you can't pick a course at random to

get a bit of practice on those

Melbourne House says a

surprise awaits at the end of the game- getting to the end of the

game would be surprise enough

Gyroscope, with its stunning

devotee of Marbles Madness, its

you can get past the first stage

- by destroying all the alien

nasties - there are three more

stages that look just as tricky as

the first, especially if you have an

aversion to killer robots, fireballs

game, but it may prove to be just

a little bit difficult to play. Still, if

you reckon yourself as a hot

arcade games player, Vectron

might be the one you've been

waiting for - if this doesn't keep

you quiet trying to finish all four

stages, then nothing will!

and all sorts of other traumas.

Overall, a great idea for a

arcade twin. But remember to keep a bottle of aspirin by your

3D graphics will have you hooked - especially if you're a

stickier screens.

for me!

side . . .

Play

ONE MAN & HIS DROID

Mastertronic/£1.99

Steve Fancy a job as an intergalactic shepherd? - this is your game. Just round up the Ramboids and drive them into a teleport. But you've only got twenty minutes to complete this tricky task. As you probably know, Rambos, sorry! Ramboids - are particularly stupid animals and you'll need megapersuasion to make them behave. Old hands at Mastertronic games will know that the plot often bears little resemblance to the surreal puzzle that sits on your TV screen, but, heck, they're great fun.

For starters your droid has to struggle through a horde of advancing Ramboids. It's a bit like driving the wrong way down a rush hour one-way street!

Any flush of success from scrapping your way to the teleport chamber is soon dissipated by the

mediocrity of making the crittur behave. Only for those with a quiet temperament

Playability Value for Mo



38

THE RAMJAM CORPORATION in Association with ARIOLASOFT **Proudly Present**



The PANZADROME is an island inhabited by robot tanks of varying levels of intelligence and viciousness. Your mission is to build a 'super-tank' and annihilate it utterly.

program senseless

destruction

designed

ecifically

or your

FEATURES INCLUDE: Hundreds of ways to get killed Over 200 enemy tanks Mines, mortars and Polycrete Island scanner and mine detector **₩ Mega turrets**

* Totally wreckable Panzachrome landscape Kempston/Sinclair joysticks, or keyboard control

ectrum 48K cassette £7.95

UK orders only. Prices include P&P. Please allow 28 days from release for delivery.

Available from all good software retailers — if its not there, please order it — or in case of difficulty send your crossed cheque/P.O. made out to ARIOLASOFT UK LTD., including your own name and address to Ariolasoft UK Ltd., Asphalte House, Palace Street, London SWIE 5HS.

battlefield

near you

Marketed & Distributed by 🐚 🍋

THE RAMJAM CORPORATION

iction for the TRUM 48K

N

PANZADROME

Amongst 300 worlds lie 30 Sentinel Bases. Legend has, they are impossible to reach ...

n lechnia

::

XCEL. A stunning new game from Program Techniques, featuring state of the art hi-res graphics and movement. Available from all good software retailers for the 48K Spectrum, coming soon for the C64 and Amstrad.

> R.R.P. £7.95 DISTRIBUTED BY ACTIVISION (U.K.) Ltd.

DEFY THE LEGEND!



SPY HUNTER

* Entered UK Charts 21st February 1985 Weeks in Charts — 16

'Superb Arcade Game' Zzap! 64

BLUE MAX

Entered UK Charts 22nd February 1985 Weeks in Charts – 12

Max is certainly a great

TAPPER

* Entered UK Charts 10th January 1985 Weeks in Charts — 9 Great Sound and graphics, fast and addictive' Your Computer

RAID!!

Entered UK Charts 4th April 1985 Weeks in Charts - 22 'Absorbing, addictive and fun to play' *Crash Smash*

A = TF887

12 12

UP 'N' DOWN

* Entered UK Charts 2nd May 1985 Weeks in Charts — 7

'A curious, cute and highly addictive car game' Computer Trade Weekly

SPECTRUM 48K

FLAK

• Entered UK Charts 8th October 1984 Sth October 1984 Weeks in Charts - 6

Will you survive the Flak' Your Computer

AZTEC CHALLENGE

* Entered UK Charts 5th April 1984 Weeks in Charts — 16

'It's gripping music and imaginativ setting makes this seven screen thriller a cut above the rest' "Zzap! 64

ROCCO (Gremlin Graphics)

* Entered UK Charts 1st July 1985 Weeks in Charts — 6

'Animation is great, if you want a good punch up – Rocco is the game for you' *Computer & Video Games*

BLUE MAX

* Entered UK Charts 24th January 1985 Weeks in Charts — 10

'A great game – highly enjoyable' Your Commodore

HUNCHBACK II

* Entered UK Charts 19th December 1984 Weeks in Charts - 18

'85% Very playable and addictive 'Long life in terms of appeal'

CHARTBUSTING COMPILATION THAT EXPLODES WITH ACT

£9.95 TAPE

U.S. Gold Limited, Unit 10, Parkway Industrial Centre, Heneage Street, Birmingham B7 4LY. Telephone: 021-359 8881

iled data (CA (Construm) from Dom (C/Miero Dealer Char





REEN THUNDERBIRDS

Firebird/£8.95

Rick Thunderbirds are Go! But not in the form Firebird (any relation?) have naughtily notched up in a lazy maze based on the puppet show that had no strings attached. Of course, I'm not old enough to remember the original, but the Ed tells me they've got the logo, the music and even Thunderbird One taking off from under the pool dead right. But after that it wouldn't raise a F.A.B from Parker, m'lady

Back on earth Thunderbirds 1 and 2, flown by Scott and Virgil, have to rescue two Egyptologists trapped beneath a pyramid with air running out. Both ships have to be flown in concert around the maze to rescue the asphyxiated archeologists - using the loaded gear to overcome obstacles or pick up treasure.

The maze is made trickier by different blocks dropping fore and aft of your access. Instead of making the game more interesting, though, they basically slow the whole thing down.

Value for Money 6

Cassell/£8.95

Rick How can it fail? With a picture of Reidy on the box, this game's bound for glory! But can even this compensate for all our resistance to quiz computer games? On the other hand, until the Beeb does a deal this might be the nearest you'll get to soccer on a TV screen.

The loading screen doesn't help the image of dumb footballers by having them totally faceless. Is it just coincidence they're all in quasi Arsenal strip? But of course the pleasure of games like this isn't in the power of the pixels or the groovy graphics. This really is a game for football freaks . . . and there are still some of us out here you know. Mind you, there's enough quiz thrill in-built to keep the non-Association afficionados

D

m

R

IN THE 1983 AN UNITESIDE

PENERAL QUESTIONS PART 1

interested.

There are four quiz options. Assigned questions, three in a row, the race and the full quiz combining all elements. There's also a bonus system - so much barmy key bashing can go on. But be sure you've the correct answers. Ten points deducted for an own goal if you get it wrona!

The print is clear and the response swift, explanations full and they'll often include clues

to the more arcane questions. Answers are multiple choice so intelligent guessing can count for a lot. The only minor quibble is the program is so long you can waste a lot of time on the re-wind button desperately seeking soccer questions on one of the eighteen available subjects. These are pleasantly varied from League (Scottish and English) through to European and World and even Non-League. The emphasis is on contemporary soccer, not a lot of stuff pre-'80. What it won't tell you is who are the eleven players whose surnames ending in 'y played for England between '67 and '81 . .

30033 04103 (114) 04103

6

-	-
Graphics Playability	-
	1
Addictiveness	



a

亡(大)自大)古

88:88:38

BEF 1.1.1 100

Firebird/£3.99 Steve Your first puzzle in this game is to decipher the instructions. What d'you reckon this means? "Each priming mechanism requires the completion of a multistage disablement of Artifacts (DDA) sequence." So, now you know, eh! Luckily, you'll find more comprehensible blurb once the game starts.

And quite a game it is too! It's along the lines of Alien 8, both in appearance and gameplay. You control a little robot that wanders around the three dimensional objects in each of the rooms collecting useful items as he goes. You'll also have to steer well clear of the more awkward rooms where the nasties are holed up. There's radiation in them there rooms!

If you should fall foul of the radioactivity your food and drink supply starts to dry up - and carrying objects has the same effect. You can read all about it on your status message line. Luckily, there are extra supplies of grub for you to pick up, dotted around the maze.

Chimera looks as attractive as its Ultimate predecessors, though, maybe it's not quite as inventive. The only thing I missed out on was not being able to jump around. But at this price who am I to complain? Go out and buy it - it's a cracker!

Graphics Graphics Playability Value for Money Value for Money 8

CRL/27.95 Rick On yer bikes, you leather lovers - ORL's new, motorcycling simulation is a beaut for bikers with brains, It's not, as your might think, a high adrehalin arcade but a stolid strategy puzzle - more akin to Football Manager than Pole Position.

Quite simply tah! if only it wash you have to prepare your two.superblkes to compete and win a motoroyoling endurance race that varies between six and twenty four hours in length. A complete season comprises seven races, all requiring. different skills, each with five different levels ranging from trainee to expert. So this is one eunning easiette you won't have sussed in a week:

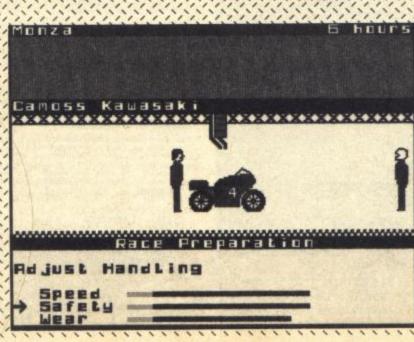
The feal skills are off, not on the track, then No frantic joystick juggling here, indeed, so swiftly do the Supers zoom by, you'd be hard pressed to see what's going on. But don't worry, race order is shown in front of the grandstand. Then you'll know if you managed, the right engine, tune, handling, and tyres.

Variations exist once the race is running, Weather conditions change, accidents happen and pit stops occur through choice or fate

Although these stops aren't as tranetic as the real thing the sight of vittle men whipping off your wheels or cowling whiles away the winter nights

With na obvious laopholes (though no imaginative leaps either) the game, like the graphics, is functional not tanilling but a solid buy all the same

8



TEAM UP WITH FLOYD! FLOYD 40

BUILT IN **INTELLIGENCE** FOR **YOUR SPECTRUM** PRINTER SPECIAL OFFER £69.95



Features

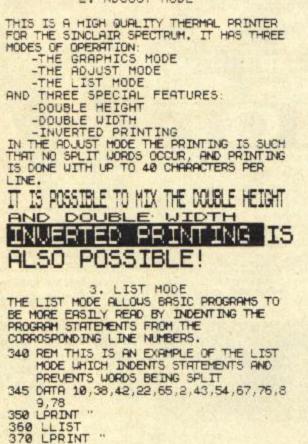
Clear easy to read print • No split words • Indented printing • 32 or 40 characters-software selectable • Firmware program — no loading from tape % Comprehensive instruction manual supplied • Interface 1 & 2 compatible • Spectrum + compatible No interface required

The printer comes in a slim plastic case which will compliment your spectrum. It connects with the spectrum via a 56-way ribbon cable and all connections are brought through to the back of the printer. The printer has two switches - one for paper feed and one for on/off line. A roll of paper is included in the price.

1. GRAPHICS MODE

FULL GRAPHICS CAPABILITY-NORMAL 32 CHARACTERS PER LINE.

2. ADJUST MODE



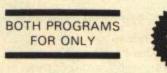
£69.95 (+£4.95 P&P)

To: FLOYD, PO BOX 76, PLYMOUTH, DEVON PL1 1SQ made out to FLOYD -I enclose cheque/p.o. for £

-printers @ £74.90 EACH (incl p&p) =
-boxes of 10 rolls of paper @ £15.00 =
-rolls of paper @ £2.50 each
 - TOTAL =



After three successful seasons, we know a thing or two about successful pools prediction on home computers. Things like seven powerful methods of analysing form. Like a masive database and easy data entry. Not forgetting tuning facilities to let you improve your forecasts as the season progresses. We've combined all of these and much more into the 1985/86 version of our renowned Football Pools Predictor Program. And to complete this outstanding punter's package, there is a free Racing Analyser Program to let you analyse any race. using the racecard from your daily paper. Now beat that for value!





MAYDAY SOFTWARE

181 Portland Crescent Stanmore, Middx. HA7 1LR

BETA BASIC 3.0

SINCLAIR USER, JAN. 85 (ABOUT RELEASE 1.8): "HAS ESTABLISHED ITSELF AS THE STANDARD EXTENDED BASIC FOR THE SPECTRUM......TURNS SINCLAIR BASIC FROM A GOOD VERSION OF THE LANGUAGE TO A FANTASTIC ONE..." NOW, WITH RELEASE 3.0, BETA BASIC BECOMES PROBABLY THE MOST POWERFUL BASIC AVAILABLE ON ANY 8-BIT MICRO!

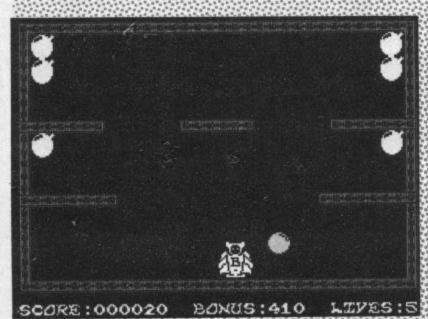
- PROCEDURES a very full implementation that lets you extend Baalc easily. With parameter passing by value or by reference (including arrays), LOCAL variables, recursion, DEFAULT parameter valuen, and the ability to handle parameter LISTS of any length. No PROC keyword is needed; e.g. you can use things like: swop a,b or draw_box 10,20,5 or addup bl),sum,
- draw_sox 10,20,3 or adoup 01,3um, GRAPHICS up to 128 WINDOWS, each with its own character size [giving 1-64 chars/line]) and attributes, ROLL and SCROLL any part of the screen by any number of pixels in any direction. Use GET to store parts of the screen, then put them back anywhere at different magnifications. Fast FILL, ALTER attributes, PLOT strings, DRAW TO a point, change scale and origin.
- TOOLKIT-features: Renumber with block move or oppy block DELETE, search and/or change (e.g. ALTER apples TO a). 36 User-defined keys, List the variables, list a procedure, list DEF KEYs.
- EDITOR lets you move the cursor around the screen 10 times faster? And you can move the cursor up and down within edited lines, AUTO, EDIT, JOIN and SPLIT commands.
- LISTINGS with optional automatic indentation of loopa, IF, procedures etc., Works on existing prog-rams e.g. yoa can choose to list: 10 FOR n=1 TO 10: PRINT n: NEXT n
 - as: 10 FOR n=1 TO 10 PRINT n NEXT n

- KEYWORDS can all be entered by typing them in full, or by the "single entry" method, or both in the same line; e.g. the line: IOprint"hello";if x=1 THEN goto 100 will be recognised and listed normally.
- Upgrades to Release 1.8 customers: If you bought direct from us, there is no need to return your cassette just quote the (approximate) original purchase date with your order; otherwise return your cassette and name your supplier. The up-grade price of 26.95 (27.50 overseas) includes a new manual.

- ARRAY and string handling features include fast INSTRING (100,000 chars/sec) and INARRAY search functions. You can JOIN arrays together, delete, transfer and insert sections, change dimensions without data loss. LENGTH function gives dimen-sions. Ultra-fast array SORT e.g. a\$(500,30) will sort in about 3 seconds? MICRODRIVE commands let you use simple forms, or exactly the same commands you normally use for tape - just enter DEFAULT =ml or m2. Some possible Microdrive commands: SAVE "name", ERASE "name", LOAD 1, "name", SAVE 10 TO 100; "part prog". SAVE a "slicer" or just the var-iables. MOVE programs, CODE, arrays. MERGE auto-running programs, End-Of- File function.
- OTHER FEATURES, new or improved, are too many to describe: DO LOOP structure with WHILE, UNTIL and EXIT IF; BREAK, CLEAR, CLOCK, CONTROL CODES, EDIT variables, ELSE, GET, KEYIN (programs can write themselves!) multi-LET, (LILIST a "slicer", ON (works with line nos, procs, etc.) ON ERROR, OVER 2, POKE strings, POP, READ LINE, TRACE, USING, DPOKE, Faster GOTOS, GOSUBs and FOR-NEXT loops.
- 26 FUNCTIONS: AND, OR, XOR, DEC, HEXS, BINS; fast SINE, COSE, RNDM: CHAR\$, NUMBER, DPEEX, EOF, FILLED, INARRAY, INSTRING, ITEM LENGTH, MEMORYS, MEM, MOD, SCRN\$, SHIFT\$, STRING\$, TIME\$, USING\$.
- Spectrum Basic compatible you can run existing programsf Transferable to Microdrive, Syntax check on entry. Extra error messages, Compatible with most printer interfaces (please specify), Wafa-drive version available.
- Comprehensive A5-size manual. More than 80 pages, with many examples.
- To show you the power of Beta Basic's procedures, we include a FREE TURTLE GRAPHICS package.
- Release 1.8 remains available, at a lower price of £8,95 (£8,50 overseas). You can upgrade later to Release 3.0 for £6,95 (£7.50 overseas).
- TRANSFORM your Spectrum with BETA BASIC 3.0 for just £14,95 inclusive, [£15,50 overseas].

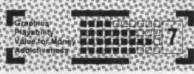


92 OXFORD RD. MOSELEY BIRMINGHAM B13 9SQ



eve Quick! Kaptain Kleptor's hidden a whole stack of bombs it the Pentagen, and it's up to our gallant hero to defuse 'em The explosive action takes place in one of those a maze-ing room games that we all know and love -- well, I do anyway! You'll find the bombs tucked away in awkward nooks and crannes so get searching. But keep a sharp eye open for the usual collection of sentinels bouncing around, ranging from diamonds to spacemen ooking like extras from JSWII. On the face of it, the tooms look a doodle but hang on a sec there's a slight problem. Our hero, all togged up in his super-hero spit (A sert of bomber jacket? Ed), has a terrible tendency to bomb around the screen — that's why he's called Bomber! Off he goes crashing into every meanie that moves and a heliuva lot that don't

So, Bomber, lovable as he is, needs a firm hand on the joystick. True, the game contains nothing you won't have seen before but I still found Bomber Bob great jub Ohe to pass a boring afternoon when the bomb drops!



Actually procuring the Polycrete is your first aim because until then any enemies you wreck in narrow streets leave uncrossable craters. Run into one at either end of the alley and you're a sitting panther for the dreaded red tanks whose mortars'll make you just another brick in the wall. Never mined (yes, you'll need to collect those too, to leave your own calling cards) if you get to grow up into a big tank you too can hurl shells long range instead of only packing a punch in the clinches. Meanwhile your scanner warns you of impending encounters with the exploding cow pats.

That's not to mention the automatic gun towers, so I won't. After all, if you knew about them it may put you off mapping Panzadrome, and until you've done that and found your first garage your game of hide and seek through the narrow streets is distinctly nervy. It's a novel variation on maze games with some simple but neat graphics and lots of destroy.



two tracks go to blast the scenery, each other ... and just about everything else. Gunning for a good time you take your Panza out for a spin but compared with the beach bullies you're a mere pansy veritable C5 of a vehicle. Still, the island is well equipped with garages just waiting to re-equip you with mortars, mines, mend your shields and replenish your Polycrete, a building material

made from dead parrots and

ed to repair road damage.

Ariolasoft/27.95

Rachael I'd like to say tanks for

the memory but I can't remember

if I've seen this in the arcades or

not. It's not the sort of game I'd give my ROM 'ell for, but even if

wandering round labyrinthine

streets isn't totally a-maze-ing there could be enough nasty

wacky persons The RamJam Corporation, best known for Valkyrie 17, would hardly be

expected to clone Tank Battle.

RamJam. Instead a bird's eye

Panzadrome where happy little

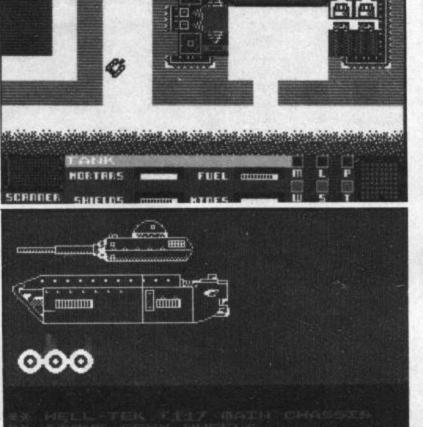
view of the holiday island of

No namby pamby 3D graphics or

planet surface shoot 'em ups for

hocks to scare the panz off you.

A tank game written by those

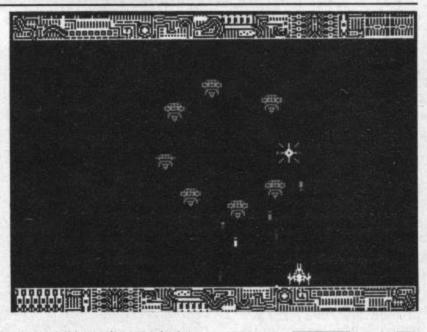


seems that the Sentinels have muscled in on our galaxy and it's your job to muscle 'em back out again by destroying their thirty or so planets.

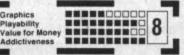
The game initially looks like an Elite clone. There you are orbiting a planet with the option of choosing your next destination. But pressing the fire button sends you off into a Xaivor-type game - just dodge the obstacles and shoot the aliens. Okay, I suppose, but it's a bit slow though never fear it's just for openers.

Next comes the bit when my mate had to be sedated. And for once the programmer's taken trouble over movements and formations. He's taken his cue from all those old westerns -- the aliens form up into a circle. Tricky!

The graphics didn't quite live up to their original promise but



you won't have time to take in the scenery as you're locked into a life-and-death shoot'em up! A treat for arcade addicts.





Program Techniques/£7.95 Steve Ain't it always the same? Every time you go to load up a new game there's someone looking over your shoulder. This time, he said to me wistfully, "You know what I'd really like to see is a souped-up version of Galaxians." I'd only been playing Xcel for a matter of moments when he started jumping up'n'down yelling, "That's it, that's it!"

But first the story so far - it



We had the technology. We rebuilt him. Now we're regretting it. Hex Loader, the six billion dollar computer generated whizz with an ego to match is back with all your hints'n'tips for fast, hack free action.

Buzzzzzz... Click! Errr. Hi There! Bzzzt. Ppppttt. Toing! Ouch! Hi There! God, I hate waking up, don't you? I'm in a good mood today. No, really I am. Pete has fixed my plug and my circuits are buzzing with life — not to mention my mailbox buzzing with mail. Y'know, its people like you who make a young computer generated columnist like me very happy.

Hey, how d'you like the new spread? Puh-retty bozzy, huh? I told you, my little potato, that I could wind dear old Ed round my littlest tentacle, and so here I am. Ta-dah! The Big Time!

Gosh. What's this? Do my optical pickups deceive me? (Give 'em a quick polish, Pete, there's a good lad.) A letter from Keith Gronneberg of Scalloway, Shetland. (Y'know that I'm a bit of a young Scalloway m'self) He says "I've completed Fairlight — I think! I found the key, which I presumed was for the Castle gate, and walked into the gate. I was then told that I'd failed in my quest, the Wizard is free, the quest continues in A Trail of Darkness (Fairlight II presumably). The man from The Edge told me I could be successful in my quest, so I must battle on.

"Anyway, here are some tips to help others get at least as far as I've got. (Hopefully no further!)

Collect the two stoppered bottles mentioned in the article Gothic Horrors, Your Spectrum 20, but don't use them to increase your life force as it says there - you cannot complete the game without them. Take the Crown standing on the top of the pillared doorway over the drawbridge. In the caved area, using the crown, you should find a secret room. Here you'll find the dead King and a book The Book of Light? Oh no, this is a very clever deception. Slide the body off the platform. The platform is divided in three, slide off the nearest section from right to left and jump inside. You fall into a room containing the real Book of Light!"

What happens next? Hah! You'll have to wait till next time to find out. Oh yes you will! (Oh no we won't) Look here mate, this isn't a school Panto, you'll wait when I say so.

Bryan Charlewood (aka Harry the Halfling) sent me this note about Avalon. "Jerry Tattum's letter Your Spectrum 19 was virtually useless to newcomers to Avalon, so I've sent you these tips.

"To find the Cup (chalice) go to the Goblin Warrens and find the unopenable door. Use the Open spell from under the sack in the mines, and enter. Take the Reveal spell from the skeleton's ribs and open the right hand door. Use the Reveal spell to find the Cup. It's in the middle of the wall around the top.

"Next the sword Caliburn. Find the lady's picture on the Labyrinth Level (from the spell Message) then go to the door on her left then on to the Scorpion room. Missile it, and use the find spell from the same level."

Voila! (pro. Waller!) Now, Yours Unpokingly (shouldn't that be POKElessly?) Matthew Davies of Blackpool, Lancs.

"I have just one tip for Mikro-Gen's Dummy Run. To get to Lost and Found, get the tennis racket and go into the room on the 4th Floor. You must play like Breakout and get all the blocks away then the Glove will drop. Then go to the 1st Floor and get to the Glove room, jump at the middle of the door and you're in Lost and Found!" Voila II! "I haven't managed to switch on the elevator yet." Any clues, you guys? Or gels no sexism in this column.

Yours skilfully (!) Jonathon Leach of Sidmouth, Devon has this to say about PSS's The Covenant.

"I completed this great game on the 8th of July..." What kept you? "... after three days of solid playing. I was rewarded with a box of goodies from PSS worth fifty quid, for being the second person to complete the game. Here goes with my tips:

Number one: Use the Save facility.

Number two: Practice makes perfect when controlling the globe. Number three: Energy points that look a bit like shining lamps drain away your energy, whilst energy points that look like round canisters on four legs replenish your energy.

Just for the record, I scored 65464 points. The scroll when complete reads 'Then and now, All as one, Xaviours task, Will be done.' Once completed I was met with the message 'Xaviour Triumphs!'"

Wait! Hold everything! Nobody move! You sent me your tips, and you told me your Hi-scores... but you didn't send me a piccy of yourself. If you had, you could be one of Hex's Heroes. If having your name in print isn't enough for you, then this could be your chance to plant your mush on my illustrious column. There's something big brewing and I'm not telling you what it is ... yet. Stay tuned. Ok, you can carry on reading now. Fffffrrrp, zzt!

Okay, all you carbon based folks out there, get weaving. I want to see your name on the Hex's Heroes Chart (the only chart that matters!) next month. Type, write, telex, carrier pigeon, message in a bottle (Yo-yo-yo), paper aeroplane, I don't care. I want your hints'n'tips! You know my address. There's no time to lose. Be in on the biggest pool of arcade intelligence since... the Pacific Ocean!

I'm waiting.

(Click! Bzzzzzzzzzzzzzz...)

LOADS MORE HEX! Now's the time to switch on to Hex. But if he's to be switched on again next month, you're gonna have to send him your arcade tricks'n' tactics. Okay, so he'll probably pass them off as all his own work but he is a megastar. Write to him at Hack Free Zone, Your Sinclair, 14 Rathbone Place, London W1P 1DE.



Phhhhzzztttt.... Hi again! Now's the time to introduce my fab fave games players of the month. Firstly we have Scott Donaldson from Hamilton in Scotland. Scott's been working really hard on Frankie. But then he needed to to end up with a score of 83,250! Following Scott, there's weirdo Jonathan Meller (I have a feeling Jonathan would prefer to stay anonymous!), who's been playing Nodes Of Yesod and come up with a score of 39%. Pretty good Jonathan, so why are you too ashamed to flash your fizog? Anyway, last but not least on this list of Hex's Heros is Valetin Kressler from far-off (far out?) Switzerland. Hmmm, do they have electricity over there? Well, Valetin seems to have plugged in, 'cos he's got a score of 198710 in Daley Thompson's Supertest. Well done my little Hexophiles!



Frankie/83250



Jonathan Meller Nodes of Yesod/39% Valetin Kressler DT's Supertest/198710

WIZARD'S LAIR

Tips supplied by John O'Connor, Cheshire.

A good ploy when entering a new room is to pause the game right away. This allows you to survey the territory at your leisure, without being hassled. Snee-key!

Crikey!

FIGHTING WARRIOR

Hints 'n' tips sent in by Alan Charles of West Yorkshire.

The backgrounds give you a clue as to how far into the game you are. They go like this: start screen, desert, desert, Cleopatra's Needle, desert, desert, Cleopatra's Needle. On the second needle scene, an extra vase appears, bigger than the rest. Strike it and the temple door _____ the rest. Strike it and the temple door appears. Once inside you must fight to the death with a winged creature, who's detending the Princess. Make sure you've got lots of stamina though, 'cos every strike you make will cost you a point. To release her you must strike her bandages with an upper cut. Then she's all yours.

Always go for the mid-strike when you're attacking the current enemy — It seems to take less time than the other strokes on offer. Yep, it makes your fingers hurt but hang in there. The real key to the game is nersistence.

MARSPORT

Intelligence comes from James Winnard, Normanby, Cleveland.

• To open the Bakery, you must put water, flour, and a baking tin into the factor. The resultant cake must then be placed in the key slot. (Urgh!)

When you've cleared the area of Sept Warriors, you can use the auto feature (key 4) to search round for you, saving wear 'n' tear on the old fingerlips. Just toggle it off when you come to an interesting doorway, or locker.

It's essential that you arm yourself as soon as possible, unless you're a very fast runner. The Sept Warriors will tear you to bits in two shakes of a tentacle. Get the gun permit out of the supply locker on Elis level, put in the key slot on Daly level, and pick up your gun from the locker to your left. Put it into a charge point to power it up, or you won't get anywhere. Happy Zapping!

Smash them and you'll get a variety of effects. Numbers two, three, five, six and seven bode well but the others can be bad news. So, keep a count and go for the good ones.

Spell scrolls shouldn't be collected unless you have some gold to transform into 'keys'. Don't waste them. You can always ember where they are and come back ren to them. Good reason to make a map, eh?

Watch carefully where the animals come from. There may be a secret passage in the room. Some passages may surprise you, by being fronted by fireplaces, and cabinets and the like.

Don't shoot animals — they prevent your energy decreasing. The only exception is the hooded monks, and axe-wielding homicidal knights. They'll kill you with one swipe.

Arrows are a real pain in the neck. And the groin and the knee... But don't bother about 'em too much as they'll only strike once whereas the enemy may get two in while you take avoiding action. The only time this doesn't apply is when you have the protection of a shield spell from vase five. Avoid them at all costs or lose the spell.

If you're having trouble getting to the vase you want, walk backwards until the you want, walk backwards until the current vase disappears off the right of the screen and another appears. This'll be the next vase so go for it before the enemy cuts you down. By walking back and forth, you'll make s-l-o-w progress....

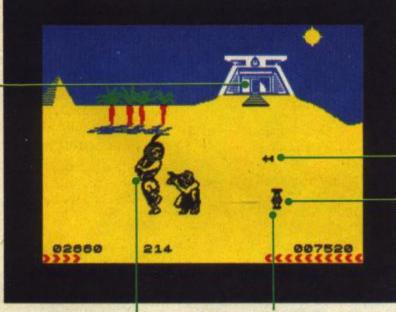
Vases are magic objects in this world.

Bergingangen B

To get past the gas bomb, make a gasmask in the factor by putting charcoal and a gauze in it. You may leave the finished gasmask in a locker until you need it.

Pssst! Hey, buddy. If you want a piece of top secret intelligence, the *first* key to M-Central is in the director's room on Alba level. It's not easy to get there, but it's handy to know this in advance.

 Ah, the music room! No tunes here, until you place the cornet from the ice cream room into the waiting key slot.



ERPONRY MAAAA 004930 24 04 14 09

There's never been a better reason for looking forward to Winter!

WINTER GAMES







Screens from Commodore 64 version of game **COMMODORE 64/128** CASSETTE £9.95 **DISK £14.95** Available Soon for Spectrum 48K & Amstrad





tured the gold in Summer Games™ and Summer Games II ™now it's on to the Winter Games! And what an incredible setting – a completely realistic winter wonderland featuring six action-packed events. You can compete against your friends or the computer. pete against your friends or the computer. First choose the country you want to represent. Then it's practice, training and learning a winning strategy for each event. Now the Opening Ceremony and the competi-tion begins. Will you be the one who takes the gold at the Awards Ceremony? The quest for the gold continues...And it's all here – the strategy, the challenge, the competition, the art and pageantry of Winter Games!
 Six Winter Events: Bobsled, Ski Jump, Figure Skating, Free-Style Skating, Hot Dog Aerials and the Biathion
 Opening, Closing and Awards Ceremonies

- Opening, Closing and Awards Ceremonies complete with National Anthems Compete Against the Computer or Your Friends and Family >
- Unique Joystick Control Requires Timing and Skill One to Eight Players



APE TO DRIVE TRANSFER OF RECENT PROGRAMS

Yes, SPECTRUM owners now have a LOW COST way of transferring many of even the LATEST high speed/jerky programs to their drives. You will be amazed! Other methods are expensive or very limited. Firstly you will need our MD1b (for M/drive) or WD1b (for Wafa or disc drive) programs that give you the tools to convert programs. Includes the ability to chop/split bytes in one go, bytes mover, 'VAL'' creator and REMkill, make visible etc. FULL manual (highly rated by CRASH) with example transfers. MD1b or WD1b cost £6.99 (on tape). 'MD1b manages more programs' – Your Spectrum.

programs' – Your Spectrum. To manage the LATEST programs you will also need our TC7 program to convert fast/jerky loaders to "normal". * Features back un features features

TC7 on tape £6.50. On M/drive cartridge £9.99 (incl MT6, and extra M/drive utility).

LERM INFORMATION SHEETS

Each sheet gives you the DETAILED instructions (using our software) required to transfer to your drive 8 of the more POPULAR programs. They cost £2 EACH plus SAE. Up to sheet 5 available.

SPECIAL DISCOUNT

TRANSFER PACK Buy our MD1b plus TC7 on M/drive cart-ridge plus INFORMATION SHEETS 1-3 for £15.50 (other drive owners get WD1b plus TC7 on tape plus sheets at same price).

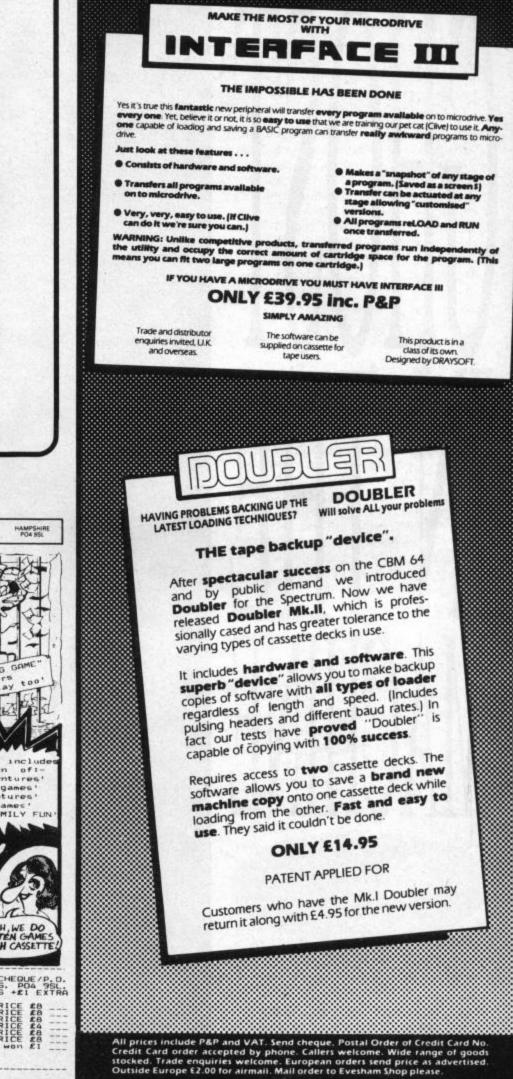
UPDATE SERVICE: Send old tape plus large SAE to get a £2 REDUCTION. OVERSEAS: add £1 Europe, £2 others for each product. SAE for enquiries. ALL OUR PROGRAMS CARRY A MONEY BACK GUARANTEE

(not updates).

LERM, DEPT YS, 10 BRUNSWICK GDNS, CORBY, NORTHANTS NN18 9ER



es iem r THE UTILITY SPECIALISTS

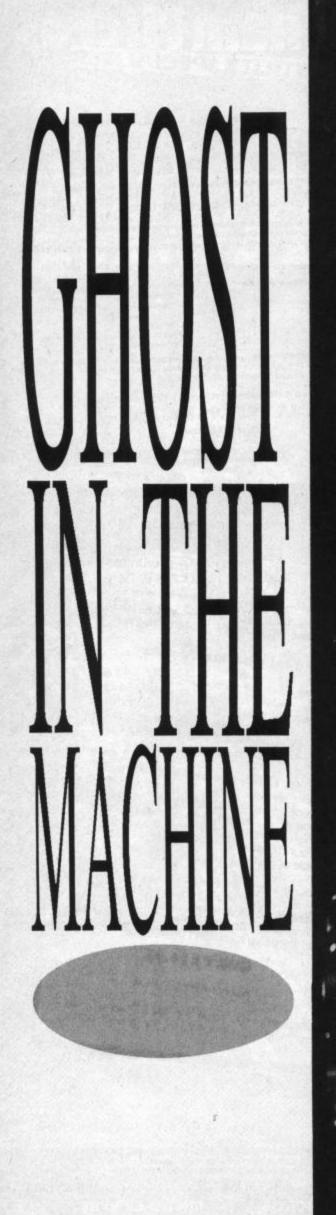


BRIDGE STREET, EVESHAM, WORCS., WR11 4RY. Tel: 0386 41989

EVESHAM MICROS

MICRO CENTRE 1756 PERSHORE ROAD. COTTERIDGE, BIRMINGHAM. Tel: 021-458 4564









Y S S P E A K E A S Y

What does the name David Crane mean to you? How about Pitfall? Or Space Shuttle? And, of course, there's always Ghostbusters. Alison Hjul was ushered in to his (ghostly) presence to meet the man behind the machine code...

avid Crane's not your average programmer. Firstly, he doesn't even look like a computer programmer. You

know the stereotype — young spotty and scrawny due to devotion to his Speccy beyond the call of nature. Well, Crane's even older than the Ed (gasp!), hairy and very, very big — 6 ft 6" in his trainers.

Secondly, as Activision's foremost 'games designer', he turns his rather large nose up at the 'programmer' tag. Since he joined Activision as a founder member in 1981, more than six million of his titles have been sold worldwide. *Ghostbusters* has notched up over 100,000 UK sales on the Speccy alone.

He paid a fleeting visit to the UK at the end of October, to attend the British launch of his latest creation, The Little Computer People, which should be available on the Speccy sometime soon.

Okay, so you're called a 'games designer' — but isn't that just a fancy way of saying you're a programmer?

No, it's not. Anyway, I'm really a 'generalist'. I come up with the ideas, design the game and get involved in the programming. But it's really all down to teamwork. I head a team of technical people who're the best in the industry. A real good game requires good team concept — there's a lot of mutual respect.

Your games are all bestsellers, but how do you suss out what's going to be a megahit?

We play a lot of games as games designers. We know what people are playing today, why they're enjoying them. We must design games people will enjoy a year from now. For example, when the market was flooded with space games, I did *Pitfall*. People obviously wanted it, it's been incredibly successful. Basically, I watch what other people are doing — and try to do something different.

Do you personally research all your games?

When I was doing *Ghostbusters*, *I* spent a lot of time on research. I got hold of a video of the film and watched parts of it over and over again. Real spooky.

Didn't you get bored with the film? No, I loved it.

How did you get involved in Ghostbusters?

Columbia and Activision approached

one another to see how the film might lend itself to a good computer game. Discussions were underway before I got involved. When I was asked if I'd like to do *Ghostbusters*, I'd just seen the movie the night before so I went back the next day to see it again. I wanted to see how an original game might be designed based on the film.

Who's your favourite character in Ghostbusters?

The Marshmallow man \dots no, not really. I don't think I have one -I just like the interaction between all the characters.

Do you believe in ghosts?

I don't actively believe in ghosts, although people have reported seeing them. I think there may be little computer ghosts.

Are you obsessed with little people because you're so tall?

No, it's not because I'm so tall ... I never really thought of it like that.

About a year ago my research team and I decided that little people inside computers were to blame for unexplained hardware and software performance. We decided to design a comfy environment to entice the little people out. The result was a 2 ½ storey house where the little people go about their daily business, eating, sleeping, listening to music and playing the piano. Each little person has a name and is slightly different to the next, but all share basic traits such as responding to love and attention — a pat on the head works wonders!

Isn't it all a bit daft?

Heck no. Back in the States there's a woman who bought three extra Commodore 64s just so her whole family could each have their own little person.

Hmmm, buying Commie 64s in the first place sounds a bit daft to me! Have you got any favourite little person? And is it true that some of them are transvestites?

Well, Wallace and I had a good time, and Zeke baked cookies once. As for the transvestites, I've never met one, but I guess there's all kinds living in these computers.

What are your plans for the future?

Nothing at the moment. I've just finished this one so I'm taking time off at the moment. I tend to limp along and then something suddenly hits me and an idea comes.

Are you a trainspotter? What's one of them?





If only Rambo had the power of speech. Just what is he trying to tell us? If you know, tell us and you could win one of ten snazzy sweatshirts or a copy of his new game. We've got 50 to give away! Read on...

You know it's that time of the year when you wake up and find Jack Frost's autograph on the window pane and icicles hanging from Grandma's nose. When Dad brings out that poor excuse for a Christmas tree and Mum starts complaining that the local newsagent is already selling Cadbury's cream eggs.

Yup, it's winter again, so it's a wonder that shirtless ol' Johnny Rambo here doesn't catch his death. What he needs is a nice warm 100 per cent cotton, mega-thick American sweatshirt with the Ocean logo emblazened across his left nipple.

Funnily enough, we just happen to have ten of these Rambo-cosies tucked away within the confines of Castle Rathbone. And what's more we're gonna give you lot the chance to win one — that's if we can prise off the five the Ed's wearing. Even if you're not lucky enough to win a stylish winter-warmer, you can still pass the Yuletide hols with one of the fifty runners-up prizes. You guessed it, they just happen to be copies of the racy Rambo game from Ocean. Faberoonies!

All you have to do to get your frost-bitten paws on one of these groovy prizes is come up with a caption most fitting to the posing Sylvester 'bulging biceps' Stallone. Fill in the speech bubble, clip out the coupon (or a photocopy) and send it off to Rambo 'Canhe-say-anything-but-urrgh-anyway?' Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE

RAMBO RULES OK

• Entries should reach us by no later than January 31st 1986.

• Each entry must include your caption written inside the grunt bubble.

• The Editor's decision is final so no correspondence will be entered into — well, he's not much better at writing than Rambo!

nume
Address
Postcode

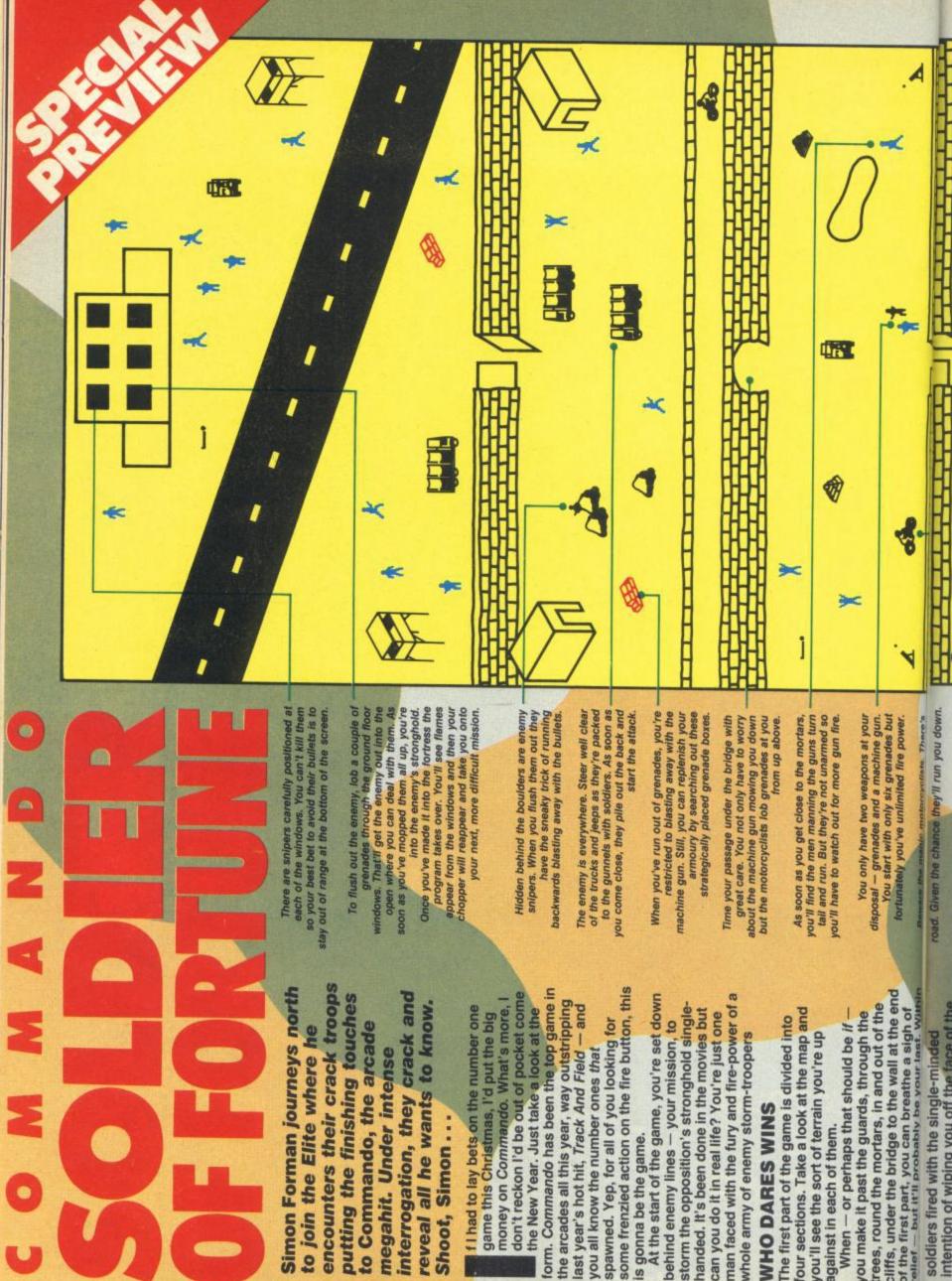






R.R.P. £8.95

DURELL sales dept., Castle Lodge, Castle Green, Taunton TA1 4AB



Shoot, Simon ...

soldiers fired with the single-minded

At the start of the game, you're set down behind enemy lines - your mission, to

is gonna be the game.

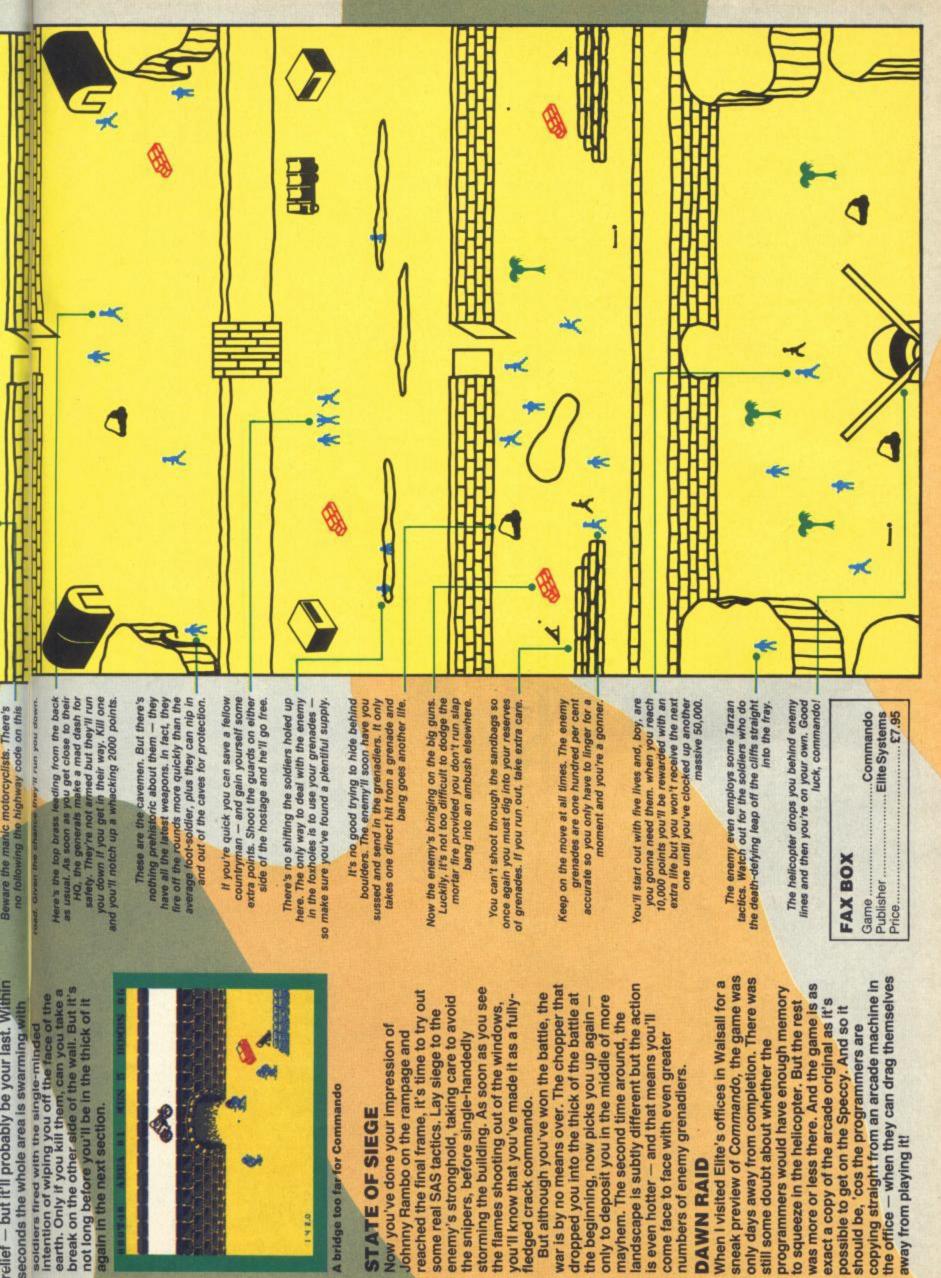
storm the opposition's stronghold singleman faced with the fury and fire-power of handed. It's been done in the movies but can you do it in real life? You're just one

whole army of enemy storm-troopers WHO DARES WINS

four sections. Take a look at the map and The first part of the game is divided into you'll see the sort of terrain you're up against in each of them.

cliffs, under the bridge to the wall at the end trees, round the mortars, in and out of the of the first part, you can breathe a sigh of relief - but it'll probably be your last. With you make it past the guards, through the When - or perhaps that should be if

intention of wiping you off the face of the



A bridge too far for Commando

14 2.0

STATE OF SIEGE

storming the building. As soon as you see reached the final frame, it's time to try out enemy's stronghold, taking care to avoid you'll know that you've made it as a fully the flames shooting out of the windows, some real SAS tactics. Lay siege to the Now you've done your impression of Johnny Rambo on the rampage and the snipers, before single-handedly fledged crack commando.

landscape is subtly different but the action war is by no means over. The chopper that But although you've won the battle, the dropped you into the thick of the battle at only to deposit you in the middle of more the beginning, now picks you up again mayhem. The second time around, the is even hotter — and that means you'll come face to face with even greater numbers of enemy grenadiers.

DAWN RAID

sneak preview of Commando, the game was only days away from completion. There was copying straight from an arcade machine in the office - when they can drag themselves When I visited Elite's offices in Walsall for a was more or less there. And the game is as programmers would have enough memory exact a copy of the arcade original as it's to squeeze in the helicopter. But the rest possible to get on the Speccy. And so it should be, 'cos the programmers are still some doubt about whether the away from playing it!





OPPORTUNITY KNOCKS!

Opportunity has knocked this month for yet another brilliant programmer - and we think you'll agree that Chopper Mission has every chance of walking off with the number one spot as program of the year. If you're new to the mag (Shame on you! Ed), let's just fill you in on the details. We're looking for the six best programs for the Speccy that are under 5K. They can be Basic or machine code, games or utilities, just so long as they reach the peak of excellence. The compo is now nearing its last knockings - next month we print the final contender so if you still want to have a crack at it, put your program in the post now. So, who's going to do the judging then? You are! When all the programs have been printed, we'll remind you of how good each one was and ask for your votes. If you've missed out on any of the entries, you'll find them in the Your Spectrum back issues or on previous Digi'T'apes. Phew, just feel that tension mount!

by M Rai

Prepare for take-off, chaps! This six screen 'copter game has all the makings of an arcade classic - manoeuvre round the moving barriers, dodge the alien swarms and rescue your stranded compatriots. And no we can't say it makes Airwolf look like Z81 Space Invaders — even if it does!

In each of the first five screens you have five men to rescue and on the sixth it's just a matter of making a safe landing on the red pad at the bottom of the screen. Simple eh? Not so fast. If you reckon this is going to be a walk over, then you've reckoned without a thing or two... or three...

You'll start out with seven 'copters and receive a bonus one, every time you complete the sixth screen. It's at this stage that you really have to hang onto your hats 'cos everything starts to speed up — and the faster your times, the higher your score.

You can define all the keys at the start of the game and you must press Enter to restart a game after a pause. Right, helmets on and give it a whirl.

The Basic Loader

Type in this loader and save it at the start of your master tape of **Chopper Mission with SAVE** "Chopper" LINE 1.

1 CLEAR 32767

S

2 POKE 23693,64: BORDER O: CL

3 PRINT AT 10,3; FLASH 1; INK 7; "CHOPPER MISSION IS LOADING" 4 LOAD ""CODE : RANDOMIZE USR 32768

The Hex Loader

Well, look who it ain't. It's our old friend Hex Loader. Type it in and use it to enter the Hex code remembering not to leave spaces between each set of eight bytes. You may stop in the middle of a program by entering STOP (Sym+S) instead of the eight hex bytes, then enter Y to the Save Code option. This'll save the code so far. When you run the Hex loader again, enter Y to the LOAD CODE option and then enter the address from where you left off.

- 2 CLEAR 32767
- 4 POKE 23658,8 6 INPUT "LOAD CODE (Y/N)";A*
- 8 IF AS="Y" THEN LOAD ""CODE

10 LET ADD=32768

12 INPUT "Address you wish to start at? ";I 14 LET BYTES=I-ADD 16 LET CS=0 18 PRINT AT 0,0; "Address:"; I 20 INPUT "8 Hex bytes ";A\$ 22 IF As="" THEN GO TO 58 24 IF As(1)=" STOP " THEN GO TO 60 26 IF LEN A\$<>16 THEN GO TO 5 8

28 FOR B=1 TO 16 30 IF (A\$(B)<"0" OR A\$(B)>"9") AND (A\$ (B) <"A" DR A\$ (B) >"F") TH EN GO TO 58 32 NEXT B 34 FOR N=0 TO 7 36 LET Y=CODE A\$(1)-48: IF Y>9 THEN LET Y=Y-7

38 LET Z=CODE A\$(2)-48: IF Z>9 THEN LET Z=Z-7 40 LET VA=16*Y+Z: LET CS=CS+VA 42 POKE I+N,VA 44 PRINT AT 2,N*3;A*(TO 2)

46 LET A\$=A\$ (3 TO)

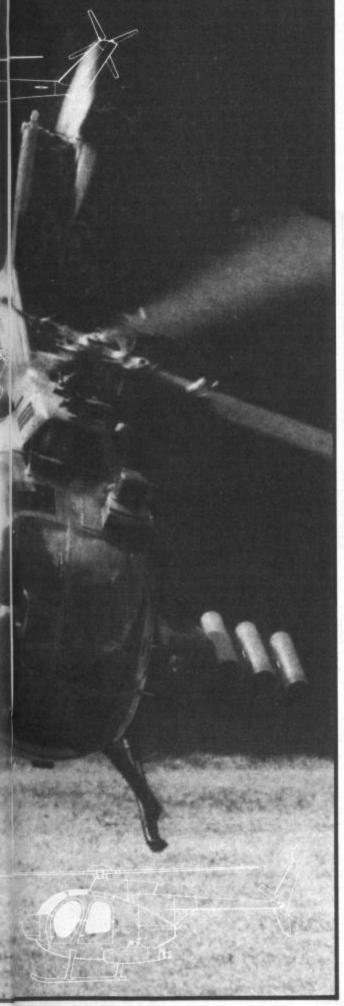
- 48 NEXT N
- 50 INPUT "CHECKSUM ";CS1 52 PRINT AT 2,25;CS1
- 54 IF CS1<>CS THEN GO TO 58
- 56 LET I=I+8: CLS : GO TO 14 .1,10: PRINT AT 10,11 58 BEEP "ERROR": PAUSE 50: CLS : GO TO 1
- 60 INPUT "Save to tape (Y/N) " :5\$

62 IF S#="Y" THEN SAVE "code" CODE 32768, BYTES



The Hex Code 'Way you go then. And as soon as the code's in, save it with SAVE "chopcode" CODE 32768,5120.

32768	C3	09	88	00	00	24	80	ØØ	=504	
32776	00	00	16	00	Ø4	30	30	30	=17Ø	
32784	30	30	30	16	ØØ	12	39	39	=298	
32792	39	00	ØA	00	ØØ	00	02	ØØ	=67	
32800	ØØ	00	00	00	ØØ	FF	ØØ	03	=258	
32808	ØC	19	31	26	ØØ	FF	70	FC	=743	
32816	1E	CF	CF	8F	00	F8	ØØ	ØØ	=835	
32824	00	00	81	FF	FF	C1	ØØ	00	=832	
32832	00	00	00	00	CF	DF	FF	FA	=935	
32840	04	04	FF	ØØ	65	FD	3F	ØE	=694	



32848	Ø1	01	ØF	00	00	ØF	00	03	=35
32856	ØC	19	31	24	100 CT 10	FF	50	-	=709
32864	1E	CF	CF	8F	00	80	00	ØØ	=715
32872	00	00	81	FF	FF	C1	00		=832
32880	00	00	00	00	CF	DF	FF	FA	=935
			(C) (C) (C)				0.0202		
32888	04	04	FF	00	67	FD	3F	ØE	=696
32896	Ø1	01	ØF	00	00	1F	00	00	=48
32904	ØØ	ØØ	81	FF	ØØ	FF	ØE	3F	=716
32912	78	F3	F3	F1	ØØ	FF	ØØ	CØ	=1294
32920	30	98	BC	64	A6	BF	FC	7Ø	=1161
32928	80	80	FØ	ØØ	F3	FB	FF	5F	=1340
32936	20	20	FF	ØØ	FF	83	00	00	=705
32944	ØØ	00	ØØ	00	00	01	00	ØØ	=1
32952	00	00	81	FF	00	FF	ØA	3F	=712
32960	78	F3	F3	F1	00	FØ	00	CØ	=1279
32968	30	98	8C	24	E6	BF	FC	70	=1161
32976	80	80	FØ	00	F3	FB	FF	5F	=1340
			FF		FF	83	00	00	=705
32984	20	20		00					
32992	00	00	ØØ	00	18	3E	7E	7F	=342
33000	2F	57	39	SE	03	A6	FD	7B	=830
33008	F7	F7	EF	FF	ØE	BD	FF	F6	=1692
33016	EC	D9	50	FE	E5	DB	3F	FE	=1564
33024	E8	FØ	F2	64	FF	FF	B7	DE	=1729
33032	BF	DB	DC	AD	BF	DF	7F	3F	=1407
33040	1F	B7	1B	ØE	ØØ	ØØ	4Ø	Ø1	=320
33048	00	01	09	02	04	00	00	14	=36
33056	C6	AF	F7	FE	00	00	ØB	20	=914
33064	CØ		'50	FA	E8	DC	F8	B4	=1570
33072	CB	00	02	40	77	FB	DB	6D	=964
33080	DE	BD	18	00	17	BA	17	ØF	=634
33088	07	25	03	00	DA	48	FD		=727
1270-70172 TO TA								4F	=257
33096	01	4F	00	40	20	01	01		
33104		50	20	01	01	4F	20	40	=513
33112	Ø1	16	01	4F	3F	40	01	16	=253
33120	01	7A	21	40	09	06	1A	47	=332
33128	A3	4Ø	05	02	Ø1	7A	33	40	=472
33136	ØC	06	1A	47	85	40	ØB	02	=370
33144	01	4F	2A	40	03	08	03	4F	=279
33152	2D	40	03	08	01	4F	30	40	=312
33160	03	08	01	4F	CA	48	03	09	=377
33168	03	4F	CD	48	03	09	Ø1	4F	=451
33176	DØ	48	03	09	06	45	33	50	=498
33184	01	01	07	45	34	50	01	Ø1	=212
			3D	50			04	45	=290
33192	05	45			01	01			
33200	3E	50	01	01	06	45	01	50	=300
33208	04	01	07	45	05	50	Ø1	Ø1	=168
			41						=293
33224	45	48	Ø1		Ø4	45	7B		=411
33232	04	Ø1	05	45	7A	48	01	Ø1	=275
33240	02	46	5C	48	01	01	02	46	=310
33248		50				46	DB	50	=644
33256									
C. C. W. C. C. C.		1/11	02	46	22	48	101	101	=182
33264		01					01		
33264	02	46	AE	48	Ø1	01	1A	45	=415
33272	02 CB	46 48	AE Ø1	48 Ø1	Ø1 1A	Ø1 45	1A D1	45 48	=415 =653
33272 33280	02 CB 01	46 48 Ø1	AE Ø1 ØE	48 01 07	Ø1 1A BA	01 45 40	1A D1 Ø1	45 48 Ø1	=415 =653 =275
33272 33280 33288	02 CB 01 0F	46 48 01 07	AE 01 0E 5A	48 01 07 48	01 1A BA 01	01 45 40 01	1A D1 Ø1 ØC	45 48 01 07	=415 =653 =275 =207
33272 33280 33288 33296	02 CB 01 0F A5	46 48 01 07 40	AE Ø1 ØE 5A Ø1	48 01 07 48 01	01 1A BA 01 0F	01 45 40 01 07	1A D1 01 0C 25	45 48 01 07 48	=415 =653 =275 =207 =362
33272 33280 33288 33296 33304	02 CB 01 0F A5 01	46 48 01 07 40 01	AE Ø1 ØE 5A Ø1 ØØ	48 Ø1 Ø7 48 Ø1 21	01 1A BA 01 0F 40	01 45 40 01 07 2A	1A D1 01 0C 25 8A	45 48 01 07 48 01	=415 =653 =275 =207 =362 =280
33272 33280 33288 33296 33304 33312	02 CB 01 0F A5 01 7A	46 48 01 07 40 01 00	AE Ø1 ØE 5A Ø1 Ø0 4Ø	48 01 07 48 01 21 20	01 1A BA 01 0F 40 01	01 45 40 01 07 2A 01	1A D1 01 25 8A 7A	45 48 01 07 48 01 E0	=415 =653 =275 =207 =362 =280 =566
33272 33280 33288 33296 33304	02 CB 01 0F A5 01 7A	46 48 01 07 40 01 00	AE 01 0E 5A 01 00 40 01	48 01 07 48 01 21 20 01	01 1A 01 0F 40 01 7A	01 45 40 01 07 2A 01 20	1A D1 0C 25 8A 7A 40	45 48 01 07 48 01 E0 01	=415 =653 =275 =207 =362 =280 =566 =333
33272 33280 33288 33296 33304 33312 33320 33328	02 CB 01 0F A5 01 7A 50 16	46 48 01 07 40 01 00 20 01	AE 01 0E 5A 01 00 40 01 7A	48 01 07 48 01 21 20 01 3F	01 1A 8A 01 0F 40 01 7A 40	01 45 40 01 07 2A 01 20 01	1A D1 0C 25 8A 7A 40 16	45 48 01 97 48 01 E0 01 01	=415 =653 =275 =207 =362 =280 =566 =333 =296
33272 33280 33288 33296 33304 33312 33320	02 CB 01 0F A5 01 7A 50	46 48 01 07 40 01 00 20	AE 01 0E 5A 01 00 40 01 7A	48 01 07 48 01 21 20 01	01 1A 8A 01 0F 40 01 7A 40	01 45 40 01 07 2A 01 20 01	1A D1 0C 25 8A 7A 40 16	45 48 01 97 48 01 E0 01 01	=415 =653 =275 =207 =362 =280 =566 =333 =296
33272 33280 33288 33296 33304 33312 33320 33328	02 CB 01 0F A5 01 7A 50 16 4F	46 48 01 07 40 01 00 20 01 20 01 26	AE 01 0E 5A 01 00 40 01 7A 40	48 01 07 48 01 21 20 01 3F 19	01 1A 0F 40 01 7A 40 02	01 45 40 01 07 2A 01 20 01 01	1A D1 0C 25 8A 7A 40 16	45 48 01 07 48 01 E0 01 01 72	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402
33272 33280 33288 33296 33304 33312 33320 33320 33328 33336	02 CB 01 0F A5 01 7A 50 16 4F 40	46 48 01 07 40 01 20 01 26 01 26 01	AE 01 0E 5A 01 00 40 01 7A 40 02 4F	48 01 07 48 01 21 20 01 3F 19	01 1A 0F 40 01 7A 40 40 47 40	01 45 40 01 07 2A 01 20 01 01 8A	1A D1 0C 25 8A 7A 40 16 4F	45 48 01 07 48 01 E0 01 72 05	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402
33272 33280 33288 33296 33304 33312 33320 33320 33328 33336 33336	02 CB 0F 0F 01 7A 50 16 4F 01 40 1	46 48 01 07 40 01 20 01 26 01 26 01	AE 01 0E 5A 01 00 40 01 7A 40 02 4F	48 01 07 48 01 21 20 01 3F 19 01	01 1A 0F 40 01 7A 02 4F 40	01 45 40 01 07 2A 01 20 01 01 8A 03	1A D1 0C 25 8A 7A 40 16 4F	45 48 01 07 48 01 E0 01 72 05 01	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370
33272 33280 33288 33296 33304 33312 33320 33320 33328 33336 33344 33352 33360	02 05 05 01 05 01 75 01 45 01 45 01 45 01 45	46 48 01 07 40 01 20 01 26 00 01 26 00 82	AE 01 05 01 00 40 01 7A 02 40 40 40 40 40	48 01 48 01 21 20 01 3F 19 01 DA 05	01 1A 0F 40 01 7A 02 40 40 40 01	01 45 40 01 07 2A 01 20 01 01 BA 03 01	1A D1 0C 25 8A 7A 04 46 47 03 4F	45 48 01 97 48 01 E0 01 72 01 72 01 D2	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =402 =414 =370 =617
33272 33280 33288 33296 33304 33312 33320 33328 33336 333344 33352 33360 33368	02 05 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 05 05 05 05 05 05 05 05 05	46 48 01 07 40 01 20 01 20 01 26 00 01 82 02	AE 01 5A 00 40 01 7A 02 4F 01 01	48 01 48 01 21 20 01 3F 19 01 DA 05 01	01 1A 0F 40 07 40 40 40 40 4F	01 45 40 01 07 2A 01 20 01 01 BA 03 01 D5	1A D1 0C 25 8A 40 16F 40 4F 40 4F 40	45 48 01 48 01 E0 01 72 01 72 01 D2 02	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =402 =414 =370 =617 =426
33272 33280 33288 33296 33304 33312 33320 33328 33328 33336 33344 33352 33340 33368 33368 33376	02 05 01 05 01 70 16 40 01 40 01 40 01 40 01 40 01 40 01 40 01 40 01 40 01 40 01 40 01 10 10 10 10 10 10 10 10 1	46 48 01 40 07 40 01 20 01 26 01 26 01 82 01 82 01	AE 01 5A 00 40 40 7A 02 40 47 01 47	48 01 48 01 20 01 3F 01 05 01 6F	01 1A 0F 40 07 40 24 40 40 40 40 40 40	01 45 40 01 27 20 01 20 01 01 80 01 05 03	1A D1 0C 25 8A 40 4F 40 4F 40 01	45 48 01 48 01 E0 01 72 01 72 01 D2 01 02 01	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261
33272 33280 33288 33296 33304 33312 33320 33328 33328 33328 33344 33352 33340 33346 33346 33356 33368	02 CB 0F 45 01 7A 50 16 4F 01 4F 01 4F 01 4F	46 48 01 07 40 01 20 01 26 00 01 82 02 01 8F	AE 01 00 00 00 00 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	48 01 48 01 21 20 01 5 01 01 05 01 6 F 02	01 BA 01 0F 40 01 7A 40 01 4F 40 01 4F 40 01	01 45 40 01 20 01 20 01 01 80 01 05 03 01	1A D1 0C 25 8A 7A 40 4F 40 4F 40 4F 40 4F	45 48 07 48 01 27 01 72 01 02 01 66	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471
33272 33280 33288 33296 33304 33312 33320 33328 33328 33334 33352 33340 33352 33340 33352 33340 33352 33340 33352 33368 33376	02 04 04 04 04 04 04 04 04 04 04	46 48 01 07 40 01 20 01 20 01 26 00 01 82 02 01 8F 05	AE 01 0E 00 00 00 00 00 00 00 00 00 00 00 00 00	48 01 20 07 48 01 20 01 3F 01 05 01 6F 02 01	01 BA 01 0F 40 01 7A 40 40 4F 40 01 4F 40 01 4F 40 01 4F	01 45 40 01 2A 01 20 01 01 01 03 01 05 03 01 A6	1A D1 0C 25A 40 25A 40 4F 00 4F 00 4F 00 4F 00 1 4F	45 48 01 80 07 48 01 80 01 72 05 01 20 20 01 66 03	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384
33272 33280 33288 33296 33304 33312 33320 33328 33336 33334 33352 33360 33368 33376 33384 33392 33400	02 04 04 04 04 01 04 01 04 01 04 01 04 01 04 01 04 04 04 04 04 04 04 04 04 04	46 48 01 40 07 40 01 20 01 26 00 01 85 01	AE 01 00 00 00 00 00 00 00 00 00 00 00 00 0	48 01 20 07 48 01 20 01 3F 01 05 01 6F 02 01 C8	01 BA 01 0F 40 01 7A 40 40 40 40 4F 40 01 4F 40 01 4F 40	01 45 40 01 2A 01 20 01 01 01 03 01 05 03 01 A6 01	1A D1 0C 25A 40 25A 40 4F 01 4F 01 4F 01	45 48 01 07 48 01 01 72 05 01 02 02 01 66 03 01	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =348
33272 33280 33288 33296 33304 33312 33320 33328 33336 33334 33352 33360 33368 33376 33384 33376 33384 33392 33400 33408	02 CB 0F 50 4F 014 4F 01 4F 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	46 48 01 07 40 01 20 01 26 00 01 82 01 8F 05 01 65 01 C6	AE 01 00 00 00 00 00 00 00 00 00 00 00 00	48 01 20 07 48 01 20 01 20 01 05 01 6F 02 01 05 01 01 05 01 01 07 01 07 01 07 07 01 07 07 07 07 07 07 07 07 07 07 07 07 07	01 1A BA 01 0F 40 04 00 40 40 01 40 001 40 001 000 000	01 45 40 01 07 2A 01 20 01 01 BA 03 01 D5 03 01 A6 01 01	1A D1 01 025 8A 7A 025 8A 7A 01 4F 00 4F 01 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 0 4 4F 0 4 4F 0 4 4F 0 4 4F 0 4 4F 0 4 4 4 4	45 48 01 48 01 60 01 72 05 01 02 02 01 66 03 01 46	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =348 =533
33272 33280 33288 33296 33304 33312 33320 33328 33336 33334 33352 33368 33356 33368 33376 33384 33376 33384 33392 33400 33408 33416	02 CB1 0F5 16 F01 401 401 401 401 4F0 011 4F0 011 4F0 015 50 6F5 6F5 6F5 6F5 6F5 6F5 6F5 6F5	46 48 01 07 40 01 26 00 01 82 01 85 01 85 01 65 01 03	AE 01 00 00 00 00 00 00 00 00 00 00 00 00	48 01 20 07 48 01 20 01 20 01 05 01 6F 02 01 05 01 01 05 01 01 05 01 01 05 01 01 07 01 07 01 07 07 01 07 07 07 07 07 07 07 07 07 07 07 07 07	01 1A BA 01 0F 40 01 40 01 40 01 40 01 4F 40 01 4F 40 01 4F 40 01 4F 40 01 4F 40 01 4F 40 01 4F 40 01 4F 40 14 14 14 14 14 14 14 14 14 14 14 14 14	01 45 01 07 2A 01 01 01 01 03 01 05 03 01 A6 01 01 26	1A D1 01 02 58 7A 02 58 7A 01 4F 03 4F 01 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 00 4 4F 0 4 4F 0 4 4F 0 4 4F 0 4 4 4 4	45 48 01 97 48 01 80 01 72 01 02 01 66 03 01 46 02	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =348 =533 =287
33272 33280 33288 33296 33304 33312 33320 33328 33336 33334 33352 33368 33352 33368 33376 33384 33372 33400 33408 33416 33424	02 CB 04 04 05 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 04 04 04 05 04 04 04 05 04 04 04 05 04 04 04 05 04 04 05 04 04 05 04 04 04 04 04 04 05 04 04 04 04 04 04 04 04 04 04 04 04 04	46 48 01 07 40 01 20 01 26 00 01 82 01 85 01 63 01	AE 01 02 04 01 02 04 01 02 04 01 04 02 04 01 04 02 04 01 04 02 04 01 04 04 04 04 04 04 04 04 04 04 04 04 04	48 01 07 48 01 21 20 01 21 20 01 21 01 05 01 6F 02 01 CB 19 01 A9 01 A9	01 1A 8A 01 0F 40 01 7A 40 4F 40 4F 40 4F 40 1 4F 50	01 45 40 01 07 2A 01 07 2A 01 01 03 01 05 03 01 A6 01 26 08	1A D1 0C 25 8A 7A 02 58A 7A 01 4F 01 4F 01 4F 01 4F 01 01 4F 01 01 4F 01 01 00 58A 7A 01 4F 01 01 4F 01 01 00 58A 7A 01 00 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 7A 00 10 58A 10 58A 10 10 58A 10 10 10 10 10 10 10 10 10 10 10 10 10	45 48 01 97 48 01 07 48 01 02 01 66 03 01 46 02 01	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340
33272 33280 33288 33296 33304 33312 33320 33328 33336 33336 33344 33352 33360 33368 33366 33366 33364 33376 33384 33372 33400 33408 33416 33424 33424	02 CB 0F 0F 01 4F 0 4F 0	46 48 01 07 40 01 20 01 26 00 01 82 01 85 01 63 01 88	AE 01 02 04 01 02 04 01 02 04 01 02 04 01 02 04 01 02 04 01 02 04 01 04 02 04 01 04 02 04 04 04 04 04 04 04 04 04 04 04 04 04	48 01 07 48 01 21 20 01 21 20 01 21 01 05 01 6F 02 01 CB 19 01 A9 01 05 01 05 01 05 01 05 01 05 01 05 05 05 05 05 05 05 05 05 05	01 1A 8A 01 0F 40 01 7A 40 4F 40 4F 40 4F 40 4F 50 01	01 45 40 01 07 2A 01 07 2A 01 01 03 01 05 03 01 A6 01 26 08 01	1A D1 0C 25 8A 7A 02 58A 7A 01 4F 0 4F 0	45 48 01 07 48 01 20 01 20 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 02 02 01 02 02 02 02 02 02 02 02 02 02 02 02 02	=415 =653 =275 =207 =362 =280 =566 =333 =402 =414 =370 =617 =426 =261 =471 =384 =348 =533 =287 =340 =431
33272 33280 33288 33296 33304 33312 33320 33320 33320 33344 33352 33340 33340 33340 33408 33408 33408 33424 33422 33408	02B10F506F401F401F501F5014F014F014F014F014F014F014F014F014F014F	46 48 01 07 40 01 20 01 26 00 01 26 00 01 82 01 85 01 65 01 65 01 88 03 01 88 03 01 88 03 01 80 03 01 80 03 04 01 00 00 01 00 00 01 00 00 00 00 00 00	AE 01 00 401 7402 F 00 F 00 401 740 24 F 00 40 4 F 00 40 4 F 00 40 4 F 00 4 F 00 4 F 00 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5	48 01 07 48 01 21 20 01 21 01 05 04 50 01 65 01 65 01 01 05 01 04 05 01 04 05 04 01 05 04 05 04 05 04 05 04 05 04 04 05 04 04 05 04 04 05 04 04 04 04 05 04 04 04 04 04 04 04 04 04 04	01 1A BA 0F 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 01 20 01 20 01 01 05 03 01 05 03 01 05 03 04 60 1 01 26 03 01 05 03 04 60 1 05 03 01 05 03 01 05 03 01 05 05 01 05 05 01 05 05 01 05 01 05 01 05 05 01 05 05 01 05 05 05 05 05 05 05 05 05 05 05 05 05	1A D1 01 25 87 40 44 03 47 00 4 0 10 10 10 10 10 10 10 10 10 10 10 10 1	45 48 01 07 48 01 20 01 20 01 02 01 02 01 02 01 02 01 02 01 04 03 01 02 01 00 00 00 00 00000000	=415 =653 =275 =207 =362 =280 =566 =333 =402 =414 =370 =617 =426 =261 =471 =384 =348 =533 =287 =340 =431 =436
33272 33280 33288 33296 33304 33312 33320 33328 33336 33334 33352 33360 33346 33376 33384 33376 33384 33392 33400 33440 33440 33442 33440 33448	02B0F506F401 0F506F401 4F00F501 4F00 4F00 4F00 4F001 4F001	46 48 01 07 40 00 20 01 26 00 01 82 01 85 01 85 01 85 01 85 01 85 01 85 01 85 01 02 01 85 01 02 01 85 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 02 01 02 02 01 02 02 01 02 02 01 02 02 01 02 02 01 02 02 01 02 02 02 01 02 02 02 01 02 02 02 02 02 02 02 02 02 02 02 02 02	AE102A10004017402F004F004F003F004F004	48 01 07 48 01 21 20 01 21 02 01 04 05 04 05 04 05 04 05 04 05 04 05 04 05 04 05 04 05 04 05 04 05 04 05 04 04 05 04 04 05 04 04 04 05 04 04 04 04 04 04 04 04 04 04	01 1A BA 0F 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 01 20 01 20 01 01 03 01 05 03 01 05 03 04 60 1 01 26 03 04 60 1 01 26 03 01 05 03 0 1 05 03 0 1 05 03 0 1 05 03 0 1 05 03 0 1 05 03 0 1 05 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 0 1 0	1A D1 0C 25 8A 40 4F 03 F 00 F 00 F 00 4F 00 F 00 F 00	45 48 01 07 48 01 07 48 01 07 20 01 02 01 66 03 01 66 02 01 20 01 20 01 02 01 00 01 02 01 00 00 000 0	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =348 =533 =287 =431 =436 =227
33272 33280 33288 33296 33304 33312 33320 33328 33328 33336 33336 33352 33340 33340 33340 33400 33408 33424 33422 33440 33448 33448 33456	02B0F5014F00F5014F004F001F5004F0014F0014F00	46 48 01 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE10EA10004017402F004F004F004F004F004F004F004F004F004F	48 01 07 48 01 21 20 01 21 02 01 04 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 01 05 05 05 05 05 05 05 05 05 05	01 1A 80 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 20 01 03 01 20 01 05 03 01 20 01 20 01 20 01 05 03 01 20 01 05 03 01 05 03 01 05 03 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A D1 0258A 7406 4403 4F 01F 001 4F 001 4F 001 4F 004 4F 004 4F 004 4F	45 48 01 07 48 01 07 48 01 07 20 01 02 01 66 03 01 66 02 01 66 02 01 20 01 94 94	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =348 =533 =287 =431 =436 =227 =431
33272 33280 33288 33296 33304 33312 33320 33320 33320 33320 33320 33320 33320 33340 33340 33340 33400 33408 33416 33422 33440 33448 33446 33448	02B0F514F014F014F0014F004F004F004F004F004F004F	46 48 01 07 40 02 01 20 02 01 20 02 01 82 02 01 85 01 02 01 85 01 02 01 85 01 02 01 85 01 02 00 00 00 00 000 0	AE102A10004017402F04F004F004F004F004F004F004F004F004F0	48 01 07 48 01 21 007 48 01 21 007 48 01 21 007 01 05 01 67 01 05 01 67 01 01 05 01 01 01 01 01 01 01 01 01 01	01 1A BA1 0F 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 07 2A 01 08 03 01 20 01 05 03 01 26 01 26 01 26 01 05 03 01 26 01 05 03 01 20 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 05 01 05 05 05 05 05 05 05 05 05 05 05 05 05	1A D1 0258A 7406 4403 4501 4501 4501 4504 450 4504 504 504 504 504 504 500 504 500 500	45 48 01 07 48 01 07 48 01 07 25 01 02 02 01 66 03 01 46 02 02 01 66 02 01 20 02 01 66 03 01 20 01 02 02 01 02 02 01 02 02 01 02 02 01 02 02 01 02 02 02 02 02 02 02 02 02 02 02 02 02	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =436 =227 =340
33272 33280 33288 33296 33304 33312 33320 33328 33328 33328 33328 33340 33340 33340 33408 33416 33424 33422 33440 33448 33446 33448 33446 33448	02B10F516F014014F014F014F014F014F0304F030	46 48 01 07 40 00 20 01 20 00 20 01 20 00 20 01 82 01 85 01 05 01 88 01 05 01 88 01 07 00 01 00 00 01 00 00 01 00 00 00 01 00 00	AE102A10004017402F004F004F004F004F004F004F004F004F004F	48 01 07 48 01 21 007 48 01 21 007 48 01 21 007 01 05 01 67 01 05 01 67 01 01 05 01 01 01 01 01 01 01 01 01 01	01 1A BA1 0F 401 7A 02F 401 401 401 401 450 450 450 450 450 450 450 450 450 450	01 45 40 07 2A 01 20 01 08 03 01 26 03 01 26 08 01 26 08 01 26 01 26 01 03 01 26 01 03 01 20 01 05 03 01 20 01 05 01 01 05 01 01 05 01 01 01 01 01 01 01 01 01 01 01 01 01	1A D1 0258A 740 4403F 04F 01F 504F 504F 504 4501 01 504F 501	45 48 01 07 48 01 07 48 01 07 25 01 02 01 66 03 01 46 02 01 20 01 20 01 20 01 02 02 01 02 02 01 02 02 01 02 02 02 01 02 02 02 02 02 02 02 02 02 02 02 02 02	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =4354 =4354 =227 =354
33272 33280 33288 33296 33304 33312 33320 33328 33328 33328 33328 33340 33340 33340 33408 33416 33424 33422 33440 33448 33446 33448 33446 33448	02B10F516F014014F014F014F014F014F0304F030	46 48 01 07 40 00 20 01 20 00 20 01 20 00 20 01 82 01 85 01 05 01 88 01 05 01 88 01 07 00 01 00 00 01 00 00 01 00 00 00 01 00 00	AE102A10004017402F004F004F004F004F004F004F004F004F004F	48 01 07 48 01 21 007 48 01 21 007 48 01 21 007 01 05 01 67 01 05 01 67 01 01 05 01 01 01 01 01 01 01 01 01 01	01 1A BA1 0F 401 7A 02F 401 401 401 401 450 450 450 450 450 450 450 450 450 450	01 45 40 07 2A 01 20 01 08 03 01 26 03 01 26 08 01 26 08 01 26 01 26 01 03 01 26 01 03 01 20 01 05 03 01 20 01 05 01 01 05 01 01 05 01 01 01 01 01 01 01 01 01 01 01 01 01	1A D1 0258A 740 4403F 04F 01F 504F 504F 504 4501 01 504F 501	45 48 01 07 48 01 07 48 01 07 25 01 02 01 66 03 01 46 02 01 20 01 20 01 20 01 02 02 01 02 02 01 02 02 01 02 02 02 01 02 02 02 02 02 02 02 02 02 02 02 02 02	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =4354 =4354 =227 =354
33272 33280 33288 33296 33304 33312 33320 33320 33320 33320 33320 33320 33320 33340 33340 33340 33400 33408 33416 33422 33440 33448 33446 33448	02B10F516F014014F014F014F014F0346	46 48 01 07 40 02 01 20 02 01 20 02 01 82 01 85 01 02 01 85 01 02 01 85 01 02 01 85 01 02 01 85 01 02 00 02 01 02 00 02 01 02 00 02 00 02 00 02 00 02 00 00 00 00	AE10EA10004017402F004F004F004F004F004F004500401460	48 01 07 48 01 20 01 48 01 21 02 01 48 01 21 02 01 48 01 02 01 57 01 05 01 67 01 05 01 67 01 01 05 01 01 01 01 01 01 01 01 01 01	01 1A BA1 0F 401 7A 02F 401 401 401 401 450 450 450 450 450 450 450 450 450 450	01 45 40 07 2A 01 20 01 80 30 1 05 01 01 26 08 01 26 08 01 26 01 35 01 02 01 01 03 01 00 01 00 01 00 01 00 00 00 00 00 00	1A D1 0258A 7A 04F 04F 01F 504F 504F 504F 504F 504F 504F 504F 504	45 48 01 27 48 01 20 01 20 01 20 01 20 01 20 01 46 03 01 46 02 01 20 00 20 0 20 0 20 0 20 2	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =436 =227 =340
33272 33280 33288 33296 33304 33312 33320 33328 33328 33328 33328 33340 33340 33340 33400 33408 33416 33424 33422 33440 33448 33456 33448 33456 33448 33456 33448	02B10F514F014F014F014F014F03460	46 48 01 07 40 02 01 20 02 01 20 02 01 82 01 85 01 02 01 85 01 02 01 85 01 02 01 85 01 02 01 85 01 02 00 02 01 02 00 02 01 02 00 02 00 02 00 02 00 02 00 00 00 00	AE10EA10004017402F004F003F004600140001	48 01 07 48 01 20 01 3F 01 05 01 6F 01 05 01 05 01 01 05 01 01 05 01 01 05 01 01 01 01 01 01 01 01 01 01	01 1A BA1 0F 40 17 40 2F 40 140 40 40 40 40 40 40 40 40 40 40 40 40 4	01 45 40 07 2A 01 20 01 8A 01 05 03 01 A6 01 26 08 01 26 01 83 01 26 01 01 26 01 01 26 01 01 01 01 01 01 01 01 01 01 01 01 01	1A D1 025A A 04F 04F 01F 001F 504F 04F 04F 04F 04F 04F 04F 04F 04F 04F	45 48 01 27 48 01 20 01 20 01 20 01 20 01 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =4354 =4354 =354 =354
33272 33280 33288 33296 33304 33312 33320 33328 33336 33334 33334 33346 33346 33346 33340 33408 33416 33424 33420 33448 33448 33456 33456 33456 33458 33456 33458 33458 33458 33458 33458 33458 33458 33458	02B10F514F014F014F014F014F034601	46 48 01 07 40 00 20 01 26 00 1 26 00 1 22 00 1 22 00 1 22 00 1 22 00 1 22 00 1 22 00 1 22 00 1 22 00 20 0 20 1 20 0 20 2	AE102A1000401A02F04F02F04F03F01600401A02F04F02F04F03F01600401A02F04F02F04F03F0160046004600460046004600460046004600460	48 01 07 48 01 20 03 19 04 05 01 6F 02 01 04 01 03 02 03 04 04 05 04 04 04 04 04 04 04 04 04 04	01 1A 80 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 20 20 20 20 20 20 20 20 20 20 20 20 20	1A D1 02 28 A 4 6 4 03 F 04 F 00 4 F 0 7 F 0 7 7 7 F 0 7 7 7 7 7 7 7 7 7	45 48 01 27 48 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =431 =436 =227 =300 =431 =436 =227 =300 =533 =287 =340 =533 =287 =340 =533 =287 =340 =533 =287 =362 =296 =333 =296 =333 =296 =333 =296 =340 =566 =333 =296 =402 =402 =402 =402 =402 =402 =402 =402
33272 33280 33288 33296 33304 33312 33320 33328 33336 33334 33334 33346 33346 33346 33340 33400 33408 33416 33424 33422 33440 33448 33456 3346 334	02B0F504F004F004F004F004F004F004F004F004F00	46 48 01 07 40 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 1 8 20 20 1 8 5 05 1 6 3 01 8 8 5 0 20 1 8 5 0 20 1 8 5 0 20 1 26 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AE102A1000401A02F04F02F04F03F016004004004004004004004004004004004004004	48 01 07 48 01 20 07 48 01 20 01 05 01 6F 02 01 05 05 05 05 05 05 05 05 05 05	01 1A 80 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 02 01 07 2A 02 01 01 05 03 01 01 26 03 01 26 01 01 26 03 01 26 01 05 03 01 26 01 05 03 01 26 01 05 03 01 05 01 01 05 01 01 01 01 01 01 01 01 01 01 01 01 01	1A D1 02 28 A 4 6 4 7 4 0 4 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 1 1 1	45 48 01 27 48 01 20 01 20 01 20 01 20 01 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =566 =333 =296 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =431 =4367 =547 =3542 =352 =352 =263 =263 =263 =263 =263 =263 =263 =26
33272 33280 33288 33296 33304 33312 33320 33320 33320 33344 33352 33340 33340 33408 33408 33408 33408 33408 33424 33422 33408 33448 33456 33448 33456 33448 33456 33448 33456 33448 33456 33448 33456 33488 33496 33504 33504	02B1F514F01FF01FF03600 4000000000000000000000000000000000	46 48 01 07 40 02 01 26 02 01 26 02 01 82 02 01 85 010 85 00 10 85 00 10 85 00 10 10 10 10 10 10 10 10 10 10 10 10	AE102A1000401A02F04F02F04F03F016601600401	48 01 07 48 01 20 01 02 01 05 05 05 05 05 05 05 05 05 05	01 1A 80 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 07 2A 01 02 01 03 01 05 03 01 02 03 01 02 03 01 02 03 01 02 03 01 02 03 01 02 01 00 00 00 00 00 00 00 00 00 00 00 00	1A101258A404F03F01F004F014504F01460460460460	45 48 01 27 48 01 20 01 20 01 20 01 20 01 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =566 =333 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =431 =4367 =3547 =3547 =350 =3552 =263 =263 =325
33272 33280 33288 33296 33304 33312 33320 33320 33320 33344 33352 33340 33340 33340 33400 33400 33400 33400 33448 33424 33422 33440 33448 33456 33448 33456 33448 33456 33448 33456 33448 33456 33496 33504 33512 33520	02B1F514F01F01F01F036004601400	46 48 01 07 40 00 20 1 20 20 0 20 2	AE102A10004017402F04F004F003F00160016400160016400160016400160016400160016	48 01 07 48 01 20 01 04 02 01 04 02 01 04 02 01 04 02 01 04 04 04 04 04 04 04 04 04 04	01 1A 80 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 07 2A 01 02 01 03 01 05 03 01 02 04 01 05 03 01 05 03 01 02 04 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 01 05 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A D1 02 28 A 40 46 40 47 40 47 40 45 01 45 04 45 01 46 00 46 00 40 00 40 00 40 00 40 00 400 4	45 48 01 07 48 01 07 25 01 22 01 66 30 46 20 12 01 20 20 16 30 46 20 10 20 20 16 30 46 20 10 20 20 16 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =533 =402 =414 =370 =617 =426 =261 =471 =384 =5433 =287 =340 =431 =436 =227 =340 =3547 =3547 =3547 =3542 =2633 =2632 =2633 =2633 =2632 =2632 =2533 =2632 =2532 =2532 =2535 =2535 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =2633 =2552 =25552 =25552 =25552 =25552 =25552 =25552 =25552 =25552 =255552 =25555 =25555 =25555 =25555 =255555 =2555
33272 33280 33288 33296 33304 33312 33320 33336 33336 33336 33344 33352 33360 33344 33376 33384 33376 33400 33400 33400 33448 33456 33444 33456 33444 33456 33448 33456 33464 33456 33464 33456 33456 33504 33504 33502 33504	02B10F514F01F01F01F01F014001401404014004F014F01	46 48 01 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE102A10004017402F04F004F003F0146014601460	48 01 07 48 01 20 01 04 02 01 04 02 01 04 02 01 04 02 01 04 04 04 04 04 04 04 04 04 04	01 1A 80 1F 040 17 40 2F 040 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 07 2A 01 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 01 05 01 01 05 01 01 01 05 01 01 05 01 01 00 01 01 01 01 01 01 01 01 01 01	1A100258A404F004F004F004F004600460046004600460046	45 48 01 07 48 01 07 01 20 01 20 01 40 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 20 10 20 20 10 20 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =566 =333 =280 =566 =333 =280 =402 =414 =370 =617 =426 =261 =471 =384 =587 =340 =431 =436 =227 =340 =354 =252 =354 =252 =354 =252 =354 =252 =340 =50 =355 =200 =50 =50 =50 =50 =50 =50 =50 =50 =50 =
33272 33280 33288 33296 33304 33312 33320 33334 33352 33360 33344 33352 33400 33400 33400 33400 33400 33400 33400 33448 33456 33444 33456 33444 33456 33440 33480 33480 33480 33504 33504 33504 33502 33504 33502 33504	0280F514F01F01F01F01F03460140450	46 48 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE102A10004017402F04F034F014600146001460016001	48 01 07 48 01 20 01 20 01 04 01 05 04 01 05 04 01 05 04 01 05 04 01 05 04 01 05 04 04 05 04 04 04 04 04 04 04 04 04 04	01 1A 80 1 80 1 80 1 80 1 80 1 80 1 80 1	01 45 40 07 2A 01 20 01 BA 01 05 03 01 A6 01 05 03 01 A6 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 05 03 01 01 05 01 01 05 01 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A100258A404F004F004F004F004600440463	45 48 01 07 48 01 07 25 01 20 01 66 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 01 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =533 =280 =533 =280 =402 =414 =370 =617 =426 =261 =471 =384 =5287 =348 =5287 =3431 =227 =3542 =2633 =227633 =22633 =227633 =22633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227633 =227763 =22777 =22633 =227776 =22777 =22633 =227776 =227777 =22633 =2277776 =22777777777777777777777777777
33272 33280 33288 33296 33304 33312 33320 33328 33336 33336 33336 33344 33352 33400 3348 33472 33400 33424 33424 33426 33448 33456 33448 33456 33464 33472 33480 33488 33496 33504 33512 33520 33528 33526 33526 33526	02B0F514F01F00F501F004501460145014501450146016001	46 48 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE 01 00 00 00 00 00 00 00 00 00 00 00 00	48 01 07 48 01 20 01 20 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 04 04 04 04 04 04 04 04 04	01 1A 80 1A 80 1 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 20 01 8A 01 20 01 8A 01 05 03 01 20 01 8A 01 05 03 01 20 01 05 03 01 20 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 05 01 05 05 01 05 05 01 05 05 01 05 05 01 05 05 01 05 05 01 05 05 01 05 05 01 05 05 01 05 05 05 01 05 05 05 01 05 05 05 05 05 05 05 05 05 05 05 05 05	1A100258A404F004F004F004F00460046000460046000460	45 48 01 07 48 01 07 25 01 20 01 66 03 01 66 03 01 66 02 01 20 20 01 20 20 01 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =275 =207 =362 =280 =533 =280 =533 =280 =402 =414 =370 =617 =4261 =471 =384 =5387 =4314 =5387 =4314 =5387 =3431 =22433 =226333 =2263
33272 33280 33288 33296 33304 33312 33320 33320 33320 33320 33320 33320 33320 33320 33340 33340 33340 3340	02B0F514F014F014F014F014F0346014601450120	46 48 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE 01 00 00 00 00 00 00 00 00 00 00 00 00	48 01 07 48 01 20 01 20 01 02 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 04 04 04 04 04 04 04 04 04	01 1A 80 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 20 01 8A 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 01 05 01 01 00 01 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A D1 0258A 7A 04F 04F 04F 04F 04F 04F 04F 04F 04F 04F	45 48 01 07 48 01 07 25 01 20 01 66 03 01 66 02 01 02 01 02 01 66 03 01 02 01 02 01 66 02 01 00 01 00 01 00 00 00 00 00 00 00 00	=415 =653 =275 =207 =362 =280 =566 =3296 =402 =414 =370 =617 =4261 =471 =384 =533 =287 =348 =5337 =348 =2287 =3481 =3287 =3284 =3252 =32835 =2633 =2632 =402 =402 =402 =402 =402 =402 =402 =40
33272 33280 33288 33296 33304 33312 33320 33328 33336 33336 33336 33344 33352 33400 3348 33472 33400 33424 33426 33440 33448 33456 33440 33488 33456 33440 33488 33456 33544 33504	02B0F514F014F014F014F014F0346014601450120	46 48 07 40 00 20 20 01 20 00 20 0 20 2	AE102A10004017402F04F004F004F0046014600000000000000000000	48 01 07 48 01 220 01 220 04 021 04 021 04 021 04 04 021 04 04 04 04 04 04 04 04 04 04	01 1A BA1 0F 040 7A 02F 047 047 047 047 047 047 047 047 047 047	01 45 40 07 2A 01 20 01 8A 01 20 01 05 01 40 01 26 01 01 26 01 01 20 01 05 01 01 01 01 01 01 01 01 01 01 01 01 01	1A D1 0258A 7406403F 04F01F004F016601660166016601660166016601660166016	45 48 01 07 48 01 07 25 01 20 01 66 03 01 66 03 01 66 02 01 02 01 02 01 66 03 01 20 01 02 01 02 01 66 01 02 01 00 01 00 00 00 00 00 00 00 00 00 00	=415 =653 =207 =362 =280 =566 =336 =402 =414 =370 =617 =4261 =471 =384 =5337 =4261 =471 =3848 =5337 =3431 =43587 =3431 =2547 =3547 =3542 =2633585 =2633585 =1981 =57637 =2637 =2637 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =26375 =2755 =2755 =2807 =2
33272 33280 33288 33296 33304 33312 33320 33320 33328 33328 33328 33328 33328 33328 33328 33340 33340 33340 33408 33416 33422 33400 33408 33440 33448 33446 33442 33440 33448 33456 33464 33512 33520 33528 33528 33528 33528 33526	02B0F514F014F014F014F034601460146014601460146014601460146014601	46 48 07 40 00 20 20 01 20 00 20 0 20 2	AE 01 00 00 401 740 2F 04 F 03 F 01 460 146 01 60 00 20 20 20 20 20 20 20 20 20 20 20 20	48 01 07 48 01 220 01 220 04 021 04 021 04 021 04 04 021 04 04 04 04 04 04 04 04 04 04	01 1A BA1 0F 040 7A 02F 047 047 047 047 047 047 047 047 047 047	01 45 40 07 2A 01 20 01 8A 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 05 01 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A D1 0258A 7406403F 04F01F004F016601660166016601660166016601660166016	45 48 01 07 48 01 07 25 01 20 01 66 03 01 66 03 01 66 02 01 02 01 02 01 66 03 01 20 01 02 01 02 01 66 01 02 01 00 01 00 00 00 00 00 00 00 00 00 00	=415 =653 =275 =207 =362 =280 =566 =3296 =402 =414 =370 =617 =4261 =471 =384 =533 =287 =348 =5337 =348 =2287 =3481 =3287 =3284 =3252 =32835 =2633 =2632 =402 =402 =402 =402 =402 =402 =402 =40
33272 33280 33288 33296 33304 33312 33320 33328 33328 33328 33328 33328 33328 33340 33340 33340 3340 3340 3340 3340	02B0F514F04F01F0360046014601460201001	46 48 07 40 20 20 20 20 20 20 20 20 20 20 20 20 20	AE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	48 01 07 48 01 220 01 220 01 220 01 04 021 020 01 04 021 020 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 01 04 05 05 05 05 05 05 05 05 05 05	01 1A BA1 0F 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 01 08 01 20 01 08 03 01 20 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A D1 0258A A 04 403F 04 504F 04 504 400 400 400 400 400 400 400 400	45 48 01 07 48 01 07 25 01 20 01 66 03 01 66 03 01 66 02 01 02 01 02 01 66 03 01 20 01 02 01 02 01 66 01 02 01 00 01 00 00 00 00 00 00 00 00 00 00	=415 =653 =275 =207 =362 =566 =336 =402 =414 =370 =617 =426 =471 =384 =533 =287 =3431 =43537 =436 =2263 =3547 =3547 =3547 =3504 =26355 =263558 =1981 =2637 =311
33272 33280 33288 33296 33304 33312 33320 33328 33328 33328 33328 33328 33340 33344 33352 33400 33408 33416 33424 3342 33408 33448 3342 33448 33456 33448 33456 33520 33528 33520 33528 33526 33544 33552	02B0F514F014F014F014F034601460120105	46 48 01 07 40 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 20 1 26 00 0 20 1 26 00 0 20 1 26 00 0 20 1 26 00 0 20 1 26 00 0 20 1 26 00 0 20 1 26 0 0 1 20 0 20 1 26 0 0 20 1 26 0 0 20 1 26 0 20 1 26 0 0 20 1 26 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 0 1 20 0 20 1 20 0 20 0 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 1 20 0 20 1 20 0 20 1 20 0 20 1 20 1 20 0 20 1 20 0 20 1 20 20 1 20 20 1 20 20 20 1 20 20 20 20 20 1 20 20 20 20 20 20 20 20 20 20 20 20 20	AE 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	48 01 07 48 01 220 03 19 04 05 01 48 01 220 04 05 01 04 05 05 05 05 05 05 05 05 05 05	01 1A 80 1 60 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 20 20 20 20 20 20 20 20 20 20 20 20 20	1A100258A404F004F004F004600460000000000000000000	45 48 07 48 01 20 00 20 0 20 0 20 2	=415 =653 =275 =207 =362 =280 =566 =296 =402 =414 =370 =617 =426 =261 =388 =5337 =340 =431 =436 =2275 =340 =431 =436 =2275 =340 =431 =436 =2263
33272 33280 33288 33296 33304 33312 33320 33328 33328 33328 33328 33328 33340 33340 33340 33340 3340 3340 3340	02B0F514F014F014F014F003600160000000000000000000000000000000	46 48 01 07 40 00 20 1 26 0 20 1 26 0 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 20 20 20 20 20 20 20 20 20 20 20 20	AE102A1000401A02F04F04F034F01460146010000401A00201004014014004F024F04F034F0146014601000010010001001001000100010001	48 01 07 48 01 20 0 5 01 0 5 01 0 5 01 0 5 01 0 5 01 0 5 01 0 5 01 0 5 01 0 5 0 1 0 0 5 0 1 0 0 5 0 1 0 0 5 0 1 0 0 1 0 0 0 1 0 0 0 0	01 1A 80 1 80 1 80 1 80 1 80 1 80 1 80 1	01 45 40 07 20 20 20 20 20 20 20 20 20 20 20 20 20	1A D1 0258A 4654 4034F 04F 04F 04F 01 4504 4501 460 460 460 460 160 01 180 180 180 180 180 180 180 180 180	45 48 07 48 01 07 25 01 22 01 40 01 20 00 20 0 20 2	=415 =653 =275 =207 =362 =280 =536 =402 =414 =370 =617 =426 =261 =471 =384 =533 =287 =340 =431 =4354 =227 =340 =4354 =2253 =286 =266 =266 =266 =266 =266 =266 =266
33272 33280 33288 33296 33304 33312 33320 33328 33344 33352 33346 33346 33346 33346 33408 33504 33504 33508 33568 33568 33576	02B0F514F014F014F014F0014F003450146004004501201045014F0034501460145014501450146004004501045010450	46 48 01 07 40 00 20 1 26 0 20 1 26 0 20 1 20 0 20 1 26 0 20 1 26 0 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 20 1 20 1 20 0 20 1 20 1 20 0 20 1 20 0 20 1 20 20 1 20 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20 20 1 20 20 20 20 20 20 20 20 20 20 20 20 20	AE102A1000401A02F04F04F034F01460146010000401A0020100401A02F04F04F034F01460146010000401A01460100004014B1BF	48 01 220 04 220 04 220 04 220 04 20 00 20 2	01 1A 0F 040 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 2A 02 01 01 8A 01 05 03 01 01 26 01 01 26 01 01 05 03 01 01 26 01 01 05 03 01 01 26 01 01 05 03 01 01 01 05 03 01 01 01 01 01 01 01 01 01 01 01 01 01	1A D1 0258A 4654 4034F 04F 04F 04F 04 400 4501 400 400 400 400 400 400 400 400 400 4	45 48 07 48 01 07 48 01 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 2	=415 =653 =207 =362 =280 =536 =402 =414 =370 =617 =426 =402 =414 =370 =617 =426 =287 =340 =437 =384 =5337 =4384 =5337 =340 =4352 =2633 =286 =3552 =3552 =2633 =5763 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =56730 =311 =57530 =3575 =2806 =3366 =2977 =4261 =4261 =4384 =2287 =33552 =2806 =2966 =2975 =2866 =2966 =2966 =2966 =2966 =2966 =2966 =2975 =2966 =2975 =2966 =2975 =2966 =2975 =2966 =2975 =29
33272 33280 33288 33296 33328 33329 33320 33320 33320 33320 33320 33344 33352 33340 33346 33346 33400 33408 33424 33420 33408 33448 33424 33420 33448 33446 33448 33456 33544 33520 33528 33528 33520 33528 335888 335888 335888 335888 335888 335888 335888 335888 335888	02B0F514F01F004F004F004F004F004F004F004F004F00	46 48 01 07 40 00 20 1 20 20 20 20 20 20 20 20 20 20 20 20 20	AE 01 00 00 00 00 00 00 00 00 00 00 00 00	48 01 07 48 01 20 01 20 01 02 01 05 05 05 05 05 05 05 05 05 05	01 1A 0F 040 402 400 400 400 400 400 400 400 400	01 45 40 07 2A 02 01 8A 01 05 03 01 05 03 01 02 04 01 05 03 01 05 03 01 02 04 01 05 03 01 05 03 01 02 01 00 01 05 03 01 01 02 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A D1 0258A 403F 401F 401F 501F 504F 5016501 400 400 400 400 400 400 400 400 400 4	45 48 01 27 48 01 20 01 20 01 20 01 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =207 =362 =280 =536 =280 =5336 =402 =414 =370 =617 =426 =261 =471 =384 =5337 =426 =471 =384 =5337 =436 =287 =340 =436 =227 =352 =2885 =2875 =2885 =2875 =2885 =2875 =2885 =2875
33272 33280 33288 33296 33328 33329 33320 33320 33320 33320 33344 33352 33340 33346 33346 33346 33400 33400 33400 33424 33422 33400 33448 33456 33444 33452 33466 33520 33528 33520 33528 33526 33556 33556 33560 33584 33592 33584 33592 336000 336000 336000 336000 3360000 3360000000000	02B0F5144014F014F014F014F034601404501201158123	46 48 01 07 40 00 20 120 20 10 20 01 20 01 20 00 20 01 20 00 20 00 20 00 20 0 20 00 20 00 20 00 20 00 20 0 20 0 20 0 20 0 20 0 20 0 20 0 20 0 20 0 20 2	AE 0 0 40 1 A 0 2 F 0 4 F 0 3 F 0 1 4 0 1 4 0 2 F 0 4 F 0 3 F 0 1 4 0 1 4 0 2 F 0 4 F 0 3 F 0 1 4 0 1 4 0 1 4 0 2 0 1 0 2 0 1 0 B F 3 0 0 2 0 1 0 B F 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	48 01 07 48 01 20 04 02 04 05 04 04 05 04 04 05 04 04 05 04 04 05 04 04 05 04 04 05 04 04 05 04 04 04 04 05 04 04 04 05 04 04 04 04 04 04 04 04 04 04	01 1A 0F 040 402 400 400 400 400 400 400 400 400	01 45 40 07 2A 02 01 8A 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 05 03 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 01 00 00	1A D1 0258A 403F 401F 401F 501F 504F 5016601 400463 100 2188A 401F 401F 504F 5016601 400463 100 2016 2016 2016 2016 2016 2016 2016	45 48 01 27 48 01 20 01 20 01 20 01 20 01 20 01 20 20 10 20 20 10 20 20 10 20 20 10 20 20 10 20 20 10 20 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =207 =362 =280 =536 =280 =336 =402 =414 =370 =617 =426 =471 =384 =5337 =4261 =4261 =471 =384 =5337 =438 =287 =340 =436 =267 =352 =268 =370 =536 =268 =268 =268 =268 =268 =268 =268 =26
33272 33280 33288 33296 33304 33312 33320 33320 33328 33336 33344 33352 33340 33346 33346 33340 33400 33408 33424 33426 33440 33448 33456 33440 33448 33456 33544 33520 33500 33500 336000 336000 336000 336000 336000 3360000000000	02B0F5144014F014F014F014F014F014F014F014F014F0	46 48 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE 0 0 4 0 1 A 0 2 F 0 4 F 0 3 F 0 1 4 6 0 1 6 0 0 2 0 1 4 0 1 F 3 2 E 0 4 F 0 3 F 0 1 4 6 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 1 6 0 0 2 0 1 4 B 1 F 3 2 E 0 1 6 0 0 2 0 1 4 B 1 F 3 0 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 0 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 0 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 0 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 0 0 E 0 1 6 0 0 2 0 1 4 B 1 F 3 0 0 E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	48 01 07 48 01 20 01 20 01 02 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 04 01 04 04 04 04 04 04 04 04 04 04	01 1A 0F 040 400 400 400 400 400 400 400 400	01 45 40 07 2A 01 20 01 BA 01 05 03 01 20 01 BA 01 05 03 01 20 01 05 03 01 20 01 05 03 01 20 01 05 03 01 01 05 03 01 01 05 03 01 01 05 03 01 01 05 03 01 01 05 03 01 05 03 01 01 05 03 01 01 05 03 01 01 05 03 01 01 05 03 01 01 05 03 01 01 05 03 01 01 05 01 01 01 01 01 01 01 01 01 01 01 01 01	1A D1 0258A 403F 401F 401F 501F 504F 5014601 401631 01820 8010 4020 4020 4020 4020 4020 4020 4020 4	45 48 01 07 48 01 07 25 01 22 01 40 20 01 20 00 20 2	=415 =653 =207 =362 =280 =5366 =280 =402 =414 =370 =617 =4261 =471 =384 =5287 =4261 =471 =3848 =5287 =340 =4354 =2263 =2263 =3547 =3547 =3547 =3547 =5673 =5763 =5763 =5763 =3117 =5673 =5763 =4458 =190 =444
33272 33280 33288 33296 33304 33312 33320 33320 33328 33336 33336 33344 33352 33400 33500 336000 336000 336000 336000 336000 336000 336000 336000 3	02B0F5014F014F004F004F004600460046000000000000	46 48 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE 01 00 00 401 740 24 00 440 450 440 450 440 450 440 450 440 450 45	48 01 07 48 01 20 01 20 01 02 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 04 04 04 04 04 04 04 04 04	01 1A 8A 0F 40 40 40 40 40 40 40 40 40 40 40 40 40	01 45 40 07 20 01 02 01 03 01 03 01 03 01 03 01 03 01 05 01 01 03 01 01 03 01 01 03 01 01 03 01 01 03 01 01 03 01 01 03 01 01 03 01 01 03 01 01 03 01 01 01 01 01 01 01 01 01 01	1A100258A4004F004F004F004600164000000000000000000	45 48 01 07 48 01 07 25 01 20 01 40 20 01 20 01 20 01 20 01 20 01 20 20 10 20 20 10 20 20 10 20 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =207 =362 =5366 =207 =362 =5376 =402 =414 =370 =4261 =471 =388 =5280 =4261 =471 =388 =5280 =4261 =4261 =4261 =4261 =4261 =4261 =4261 =5266 =2268 =2288 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2547 =5376 =2547 =5376 =2547 =5376 =2547 =5376 =
33272 33280 33288 33296 33304 33312 33320 33320 33328 33336 33336 33344 33352 33400 33488 33472 33400 33488 33446 33424 33422 33400 33488 33446 33422 33400 33488 33446 33520 33528 33526 33566 33526 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33668 336888 336888 336888 336888 336888888 3368888888888	02 04 04 04 04 04 04 04 04 04 04	46 48 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE 01 02 0401 0400 0400 0400 0400 0400 040	48 01 07 48 01 220 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 01 04 04 01 04 04 04 04 04 04 04 04 04 04	01 1A 0F 040 400 400 400 400 400 400 400 400	01 45 40 07 2A 01 20 01 03 01 03 01 05 05 01 05 05 01 05 05 05 05 05 05 05 05 05 05	1A D1 0258A 403F 401F 401F 501F 504F 5016 4016 4016 4016 4016 4016 4016 4016 4	45 48 01 07 48 01 07 25 01 20 01 40 20 01 20 01 20 01 20 01 20 20 10 20 20 10 20 20 10 20 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =207 =362 =5366 =280 =5376 =402 =414 =370 =617 =4261 =471 =388 =5287 =4261 =471 =3280 =2471 =3280 =24261 =4261 =4261 =4261 =4261 =4261 =5376 =2402 =2402 =5376 =2402 =4261 =5376 =2402 =2402 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =5376 =2402 =4261 =5376 =2402 =2402 =5376 =2402 =240
33272 33280 33288 33296 33304 33312 33320 33320 33328 33336 33336 33344 33352 33400 33488 33472 33400 33488 33446 33424 33422 33400 33488 33446 33422 33400 33488 33446 33520 33528 33526 33566 33526 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33566 33668 336888 336888 336888 336888 336888888 3368888888888	02 04 04 04 04 04 04 04 04 04 04	46 48 07 40 00 20 20 20 20 20 20 20 20 20 20 20 20	AE 01 02 0401 0400 0400 0400 0400 0400 040	48 01 07 48 01 220 04 01 05 06 02 01 06 02 01 06 02 01 06 02 01 06 02 01 06 01 06 01 06 01 06 01 06 01 06 01 06 01 06 01 06 01 06 01 06 00 01 06 00 00 00 00 00 00 00 00 00	01 1A 0F 040 400 400 400 400 400 400 400 400	01 45 40 07 2A 01 20 01 03 01 03 01 05 05 01 05 05 01 05 05 05 05 05 05 05 05 05 05	1A D1 0258A 403F 401F 401F 501F 504F 5016 4016 4016 4016 4016 4016 4016 4016 4	45 48 01 07 48 01 07 25 01 20 01 40 20 01 20 01 20 01 20 01 20 20 10 20 20 10 20 20 10 20 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20	=415 =653 =207 =362 =5366 =207 =362 =5376 =402 =414 =370 =4261 =471 =388 =5280 =4261 =471 =388 =5280 =4261 =4261 =4261 =4261 =4261 =4261 =4261 =5266 =2268 =2288 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2402 =4261 =5376 =2547 =5376 =2547 =5376 =2547 =5376 =2547 =5376 =

33648	1E	50	01	01	ØE	46	CS	40	=457
33656	01	01	ØF	46	ES	48	01	01	=390
33664	ØE	46	DA	40	01	01	ØF	46	=453
33672	FA	48	01	01	00	81	40	BA	=655
33680	BA	01	7A	00	40	20	02	01	=360
33688	7A	40	40	01	16	01	7A	5F	=491
33696	40	.01	16	Ø1	7A	C1	50	1E	=513
33704	02	Ø1	7A	4B	50	ØA	Ø4	Ø1	=295
33712	7A	41	50	02	04	01	7A	5D	=489
33720	50	02	04	Ø1	6D	DA	40	Ø1	=479
33728	Ø1	07	45	63	50	Ø1	Ø1	05	=263
33736	45	90	50	Ø1	01	10	45	Ø1	=393
33744	50	Ø1	Ø1		45	1E	50	Ø1	=279
33752	Ø1	11	45	ØE	50	Ø1	01	10	=199
33760	45	11	50	@1	01	01	6D	ØF	=293
33768	50	Ø2	01	04	45	2F	48	02	=277
33776	01	05	45	2E	48	01	01	07	=202
33784	45	31	48	01	01	02	47	A7	=432
33792 33800	50	Ø1 Ø2	Ø1 47	02 FØ	47	B6 Ø1	50	Ø1 Ø2	=418 =390
33808	47	ØF	48	Ø1	01	02	47	BA	=419
33816	40	01	01	00	27	50	69	BA	=524
33824	01	4F	00	40	20	02	01	4F	=258
33832	53	40	ØD	01	01	4F	7E	40	=431
33840	02	14	01	4F	EØ	50	20	01	=439
33848	01	4F	60	50	Ø1	04	01	4F	=341
33856	CØ	48	19	05	Ø1	4F	71	48	=559
33864	08	03	01	4F	40	48	01	04	=232
33872	01	4F	40	40	Ø4	08	Ø1	4F	=300
33880	A4	40	05	05	Ø1	4F	E9	40	=615
33888	01	01	1A	46	24	48	Ø1	Ø1	=208
33896	ØE	07	64	50	@1	01	ØF	07	=225
33904	C4	50	01	Ø1	10	07	F9	48	=622
33912	01	01	11	07	FD	48	01	Ø1	=353
33920	ØE	07	49	40	01	01	ØF	07	=182
33928	C9	40	01	01	07	45	29	48	=456
33936	01	01	02	44	C1	50	01	Ø1 44	=347
33944 33952	Ø2 AD	44	55 01	48 Ø1	Ø1 Ø2	Ø1 44	Ø2 A1	48	=299 =55Ø
33960	01	01	02	44	84	40	01	01	=270
33968	00	SA	40	FC	BA	01	4F	00	=624
33976	40	20	01	01	4F	20	40	02	=275
33984	17	01	4F	3E	40	02	17	01	=255
33992	4F	E2	50	10	01	01	4F	25	=531
34000	50	19	02	Ø1	4F	62	48	14	=377
34008	03	12	46	8F	48	01	01	Ø1	=309
34016	4F	C9	40	ØB	02	Ø1	4F	D6	=651
34024	40	08	02	05	45	CB	40	Ø1	=413
-	0.1	ØE	44	39	40	Ø1	01	ØF	=221
34032	Ø1	NC.	44	~ '					
34040	44	B9	40	Ø1	Ø1	ØE	44	2E	=447
34040 34048	44 40	B9 Ø1	4Ø Ø1	Ø1 ØF	Ø1 44	ØE	44 4Ø	2E Ø1	=447 =388
34040 34048 34056	44 40 01	89 Ø1 ØE	4Ø Ø1 44	01 0F E9	Ø1 44 4Ø	ØE AE Ø1	44 40 01	2E Ø1 ØF	=447 =388 =397
34040 34048 34056 34064	44 40 01 40	89 Ø1 ØE 49	40 01 44 48	01 0F E9 01	01 44 40 01	ØE AE Ø1 1Ø	44 40 01 44	2E Ø1 ØF 96	=447 =388 =397 =449
34040 34048 34056 34064 34072	44 40 01 4 0 48	89 Ø1 ØE 49 Ø1	40 01 44 48 01	01 0F E9 01 11	01 44 40 01 44	ØE AE Ø1 10 9D	44 40 01 44 48	2E Ø1 ØF 96 Ø1	=447 =388 =397 =449 =389
34040 34048 34056 34064 34072 34080	44 40 01 4 0 48 01	B9 Ø1 ØE 49 Ø1 10	40 01 44 48 01 44	01 0F E9 01 11 A2	01 44 40 01 44 50	ØE AE Ø1 10 9D Ø1	44 40 01 44 48 01	2E Ø1 ØF 96 Ø1 11	=447 =388 =397 =449 =389 =346
34040 34048 34056 34064 34072 34080 34088	44 40 01 4 0 48 01 44	89 Ø1 ØE 49 Ø1 10 BD	40 01 44 48 01 44 50	01 0F E9 01 11 A2 01	01 44 40 01 44 50 61	0E AE 01 10 9D 01 00	44 40 41 44 48 01 00	2E Ø1 ØF 96 01 11 E6	=447 =388 =397 =449 =389 =346 =569
34040 34048 34056 34064 34072 34080 34088 34088 34096	44 40 01 4 0 48 01 44 C7	89 Ø1 ØE 49 Ø1 10 80 50	40 01 44 48 01 44 50 06	01 0F 01 11 A2 01 06	01 44 40 01 44 50 61 85	0E AE 01 10 9D 01 00 00	44 40 44 48 01 48 01 00 E6	2E Ø1 ØF 96 01 11 E6 C8	=447 =388 =397 =449 =389 =346 =569 =854
34040 34048 34056 34064 34072 34080 34088 34088 34096 34104	44 40 01 4 0 48 01 44 C7 50	89 01 0E 49 01 10 80 50 66	40 01 44 48 01 44 50 06 06	01 0F E9 01 11 A2 01 06 85	01 44 40 01 44 50 01 85 00	0E AE 01 10 9D 01 00 78	44 40 44 48 01 48 00 E6 3C	2E ØF 96 01 11 E6 C8 50	=447 =388 =397 =449 =389 =346 =569 =854 =485
34040 34048 34056 34064 34072 34080 34088 34088 34088 34096 34104 34112	44 40 49 49 48 01 44 67 50 30	89 01 0E 49 01 10 80 50 85 35	40 01 44 48 01 44 50 06 06 00	01 0F 01 11 A2 01 06 85 00	01 44 40 01 44 50 61 85 00 A0	0E AE 01 10 9D 01 00 78 F1	44 40 44 48 01 48 01 60 E6 30 40	2E ØF 96 01 11 E6 C8 50 00	=447 =388 =397 =449 =346 =569 =854 =485 =578
34040 34048 34056 34064 34072 34080 34088 34086 34088 34096 34104 34112 34120	44 40 49 49 49 49 40 40 40 40 40 40 40 50 30 00	89 01 0E 49 01 10 80 50 66	40 01 44 48 01 44 50 06 06	01 0F E9 01 11 A2 01 06 85	01 44 40 01 44 50 01 85 00	0E AE 01 10 9D 01 00 78	44 40 44 48 01 44 48 00 E6 30 20 00	2E ØF 96 01 11 E6 C8 50	=447 =388 =397 =449 =389 =346 =569 =854 =485
34040 34048 34056 34064 34072 34080 34088 34088 34088 34096 34104 34112	44 40 49 49 48 01 44 67 50 30	89 01 49 01 10 80 50 80 35 00	40 01 44 48 01 44 50 06 06 00 00	01 0F E9 01 11 A2 01 06 85 00 87	01 44 40 44 50 61 85 61 85 60 A0 EB	0E AE 01 10 9D 01 00 78 F1 40	44 40 44 48 01 48 01 60 E6 30 40	2E ØF 96 01 11 E6 C8 50 00	=447 =388 =397 =449 =346 =549 =854 =485 =578 =446
34040 34048 34056 34064 34072 34080 34088 34096 34104 34112 34120 34128	44 40 49 49 49 49 40 40 40 40 40 50 50 50 50 00	89 01 49 01 10 80 80 80 80 80 80 80	40 01 44 48 01 44 50 06 06 00 00 01	01 0F E9 01 11 A2 01 85 85 00 87 00	01 44 40 01 44 50 61 85 00 40 EB 19	0E 01 10 9D 00 78 F1 40 00	44 40 44 40 44 40 40 40 50 50 50 50 50 50 50 50 50 5	2E ØF 96 01 11 E6 C8 50 06 DA	=447 =388 =397 =449 =389 =346 =569 =854 =485 =578 =446 =292
34040 34048 34056 34064 34072 34080 34088 34096 34104 34112 34120 34128 34128 34136	44 40 48 41 44 61 44 50 50 50 60 40	B9 0E 49 01 10 BD 50 05 00 04	40 44 48 44 50 66 00 00 00 00 00 00 00 00 00 00 00 00	01 0F E9 01 11 A2 01 85 00 85 00 87 00 01	01 44 01 44 50 01 85 00 85 0 8 80 8 80 80 80 80 80 80 80 80 80 80	0E 01 10 9D 00 78 F1 40 1E	44 40 44 48 00 E6 30 80 30 80	2E ØF 96 01 11 E6 C8 00 06 DA 3C	=447 =388 =397 =449 =346 =569 =854 =485 =578 =446 =292 =159
34040 34048 34056 34064 34072 34080 34088 34088 34096 34104 34112 34120 34128 34128 34136 34144	44 40 44 48 44 48 44 47 50 50 60 40 40 40 50 50 60 40 50 50 50 50 50 50 50 50 50 5	B9 0E 49 01 BD 50 65 00 04 40	40 44 48 44 50 66 00 00 00 00 00 00 00 00 00 00 00 00	01 0F 09 01 11 06 85 00 87 00 87 00 01 00 01 00 40	01 44 40 01 44 50 61 85 00 40 85 00 40 00 00 00 00 00	0E AE 01 10 9D 00 78 F1 40 00 1E 00 01 00	44 40 01 44 48 01 60 50 20 30 20 10 00 10 00 00 10 00 00 00 10 00 00 00	2E Ø1 96 01 11 E6 C8 00 06 DA 3C 00 1E 00	=447 =388 =397 =449 =346 =569 =554 =558 =485 =578 =446 =292 =159 =297 =283 =271
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34120 34120 34128 34136 34144 34152 34160 34168	44 40 44 48 01 44 61 44 53 06 00 40 53 00 1E	89 01 0E 49 01 10 80 65 00 00 04 82 32 00	40 01 44 48 01 44 50 06 00 00 00 00 03 40 8E 37	01 0F E9 01 11 A2 01 06 85 00 87 00 87 00 01 00 87 00 87 00 87 80 87 80 87 80 87 80 87 80 87 80 87 80 87 80 87 80 87 80 80 80 80 80 80 80 80 80 80 80 80 80	01 44 40 01 44 50 61 85 00 85 00 85 00 00 00 00 00 50	0E AE 01 10 9D 00 00 78 F1 40 00 1E 00 01 00 03	44 40 44 48 01 44 48 00 E6 30 00 10 00 00 10 00 00 00 00 00 00 00 00	2E Ø1 96 01 11 E6 50 00 60 50 00 1E 00 CB	=447 =388 =397 =449 =346 =569 =554 =485 =578 =485 =297 =297 =283 =271 =498
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34120 34120 34128 34136 34144 34152 34160 34168 34176	44 40 44 48 44 44 53 60 40 53 60 40 57 00 1E 6	89 01 0E 49 01 10 80 50 00 00 04 82 30 00 40 82 00 40	40 01 44 48 01 44 50 06 00 00 00 00 00 00 00 00 00 00 00 00	01 0F E9 01 11 A2 01 06 85 00 87 0 87 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 8	01 44 40 01 44 50 61 85 00 85 00 85 00 00 00 00 00 00 00	0E AE 01 10 9D 00 78 F1 40 00 1E 00 01 00 01 00 01 00 00 00 00	44 40 44 48 01 60 E6 30 80 10 80 80 10 80 80 80 80 80 80 80 80 80 80 80 80 80	2E Ø1 96 01 11 E6 50 00 50 00 06 DA 50 00 1E 00 CB 08	=447 =388 =397 =449 =346 =569 =854 =485 =578 =485 =297 =159 =297 =283 =271 =498 =479
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34120 34128 34128 34136 34144 34152 34160 34168 34176 34184	44 40 44 01 44 50 50 20 40 25 37 00 1E 50	89 01 0E 49 01 10 80 00 04 40 00 04 40 82 32 00 40 99	40 01 44 48 04 45 06 00 00 00 00 00 00 00 00 00 00 00 00	01 0F 01 11 06 00 00 01 00 00 01 00 00 00 00 00 00 00	01 44 40 01 44 50 85 00 40 85 00 00 00 00 00 00 00	0E 01 00 00 78 70 00 78 00 00 1E 00 00 00 00 5F	44 40 44 48 01 44 80 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 96 01 1E E 8 00 06 DA 3C 00 1E 00 08 08 08 04 0 8 00 1 00 1 00 1 00 0 0 1 00 0 0 0 0	=447 =388 =397 =449 =346 =569 =854 =485 =578 =485 =278 =297 =283 =271 =498 =479 =665
34040 34048 34056 34064 34072 34080 34088 34096 34104 34122 34120 34128 34128 34136 34144 34152 34160 34168 34168 34176 34184 34192	44 40 44 40 44 50 50 20 40 20 40 50 20 40 50 20 10 50 20 20 20 20 20 20 20 20 20 20 20 20 20	89 01 02 49 01 10 80 00 04 40 00 04 40 82 200 40 05	40 44 48 01 44 50 06 00 00 01 00 03 40 85 37 00 09 00	01 0F E9 01 11 A2 01 85 00 87 00 01 00 87 00 01 00 82 00 82 09 05 00	01 44 40 44 50 85 00 45 00 23 00 00 50 00 FF	0E 01 10 00 00 00 00 00 00 00 00	44 40 44 48 01 44 80 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 96 01 11 E6 50 00 06 DA 300 06 DA 300 08 08 00 08 00 08 00 00 00 00 00 00 0	=447 =388 =397 =449 =346 =569 =854 =485 =578 =485 =278 =297 =283 =297 =283 =479 =665 =460
34040 34048 34056 34064 34072 34080 34088 34096 34104 34122 34120 34128 34128 34128 34144 34152 34160 34168 34168 34176 34184 34192 34200	44 40 44 48 01 44 48 01 44 47 50 50 40 40 57 00 1E 50 00 95	89 0E 49 01 10 80 80 80 80 80 80 80 80 80 80 80 80 80	40 44 48 01 44 50 06 00 00 00 00 00 00 00 00 8E 37 00 00 00 00 00 00 00 00 00 00 00 00 00	01 0F E9 01 11 A2 01 06 85 00 87 00 87 00 87 00 87 00 87 00 87 00 87 00 87 00 87 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 80 90 90 90 80 90 90 90 90 90 90 90 90 90 90 90 90 90	01 44 40 44 50 44 50 65 60 85 60 85 60 85 60 85 85 85 85 85 85 85 85 85 85 85 85 85	0E 01 10 9D 00 78 F1 00 00 78 F1 00 01 00 00 FF 73 40	44 40 44 48 01 44 48 00 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 96 01 11 E6 50 00 DA 3C 00 1E 00 CB 00 00 1E 00 00 00 00 00 00 00 00 00 00 00 00 00	=447 =388 =397 =449 =346 =569 =854 =578 =446 =292 =159 =297 =283 =479 =498 =479 =665 =460 =583
34040 34048 34056 34064 34072 34080 34088 34096 34104 34112 34120 34128 34136 34144 34152 34168 34168 34168 34168 34168 34168 34176 34184 34192 34200 34208	44 40 44 48 01 44 48 01 44 50 20 40 50 20 40 50 20 20 00 00 00 00 00 00 00 00 00 00 00	89 01 02 49 01 10 80 64 35 00 04 40 82 00 40 82 00 40 82 00 05 00	40 44 48 01 44 50 06 00 00 00 00 00 00 00 00 00 00 00 00	01 0F 07 01 11 06 85 00 87 00 87 00 87 00 87 00 87 00 87 00 87 00 87 00 87 87 90 87 87 90 87 87 87 87 87 87 87 87 87 87 87 87 87	01 44 40 44 50 44 50 65 60 60 60 60 60 60 60 60 60 60 60 60 60	0E 01 10 9D 00 78 F1 00 00 78 F1 00 01 00 00 FF 73 00 00 00 00 00 00 00 00 00 0	44 40 44 48 01 44 48 01 60 50 00 18 00 20 18 00 20 18 50 00 27	2E 01 0F 96 01 11 E6 C8 00 06 DA 3C 00 C8 00 C8 00 C8 00 C8 00 80 80 80	=447 =388 =397 =449 =346 =569 =854 =578 =446 =292 =159 =297 =283 =271 =498 =465 =460 =583 =346
34040 34048 34056 34064 34072 34080 34088 34088 34096 34104 34112 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34168 34184 34192 34200 34208 34216	44 40 44 40 44 40 44 40 44 53 05 00 40 57 00 10 50 00 00 00 00 00 00 00 00 00 00 00 00	B9 01 0E 49 01 10 BD 50 04 40 230 04 822 00 04 822 00 05 00 03	40 44 48 01 44 50 06 00 00 00 00 00 00 00 00 00 00 00 00	01 0F 07 01 11 06 85 00 87 00 01 00 87 00 01 00 87 00 80 000 00	01 44 40 44 50 61 85 00 80 00 80 00 80 00 00 00 00 00 00 00	0E AE 01 10 9D 00 00 78 F1 00 00 01 00 00 01 00 00 F5 40 00 00 FF 73 00 54 00 55 60 55 55 55 55 55 55 55 55 55 5	44 40 44 40 44 40 60 50 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 96 01 11 E6 C8 00 06 DA C0 00 06 DA C0 00 E0 80 08 80 50	=447 =388 =397 =449 =346 =569 =854 =578 =297 =283 =271 =446 =292 =159 =297 =283 =446 =583 =460 =583 =583 =235
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34169 34168 34176 34200 34208 34208 34224	44 40 44 40 44 40 44 40 44 40 44 53 06 00 40 57 00 16 50 00 00 10 10 00 00 10 10 00 0	B9 01 0E 49 01 10 BD 50 04 00 04 82 20 04 82 20 04 09 05 00 00 00 00 00 00 00 00 00 00 00 00	40 44 48 01 44 50 06 00 00 03 40 857 00 00 857 00 20 00 50 00 00 50 00 00 00 50 00 00 00 00	01 0F 07 01 06 85 00 87 00 01 00 87 00 01 00 87 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 00 80 8	01 44 40 44 50 61 85 00 85 00 60 00 85 00 00 85 00 00 85 00 80 00 80 00 80 00 00 80 00 00 00 00	0E AE 01 10 9D 00 00 7B F1 00 00 01 00 00 01 00 00 00 FF 73 00 5A 00 5A 00 00 00 00 00 00 00 00 00 0	44 40 44 40 44 40 66 50 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 96 01 11 E6 50 06 DA 50 06 DA 50 06 08 08 08 08 08 50 E5	=447 =388 =397 =449 =346 =569 =446 =583 =446 =292 =159 =297 =283 =479 =460 =583 =460 =583 =346 =235 =338
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34160 34168 34176 34184 34176 34200 34208 34208 34224 34232	44 40 44 40 44 40 44 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 60 60 60 60 60 60 60 60 6	B9 01 0E 49 01 10 BD 66 50 00 00 40 82 00 00 40 82 00 00 00 00 00 00 00 00 00 00 00 00 00	401 444 401 444 50 06 00 001 003 400 003 400 003 400 857 009 000 000 000 000 000 000 000 000 00	01 0F 07 01 11 06 50 07 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 85 00 85 00 00 00 90 00 90 90 90 90 90 90 90 90	0E AE 01 10 9D 00 07 81 00 00 07 81 00 00 07 81 00 00 07 81 00 00 00 07 81 00 00 00 07 81 00 00 00 00 00 00 00 00 00 0	44 40 44 48 00 63 40 30 20 50 00 50 00 50 00 72 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 00 20 2	2E 01 0F 96 11 E6 500 06 DA 300 1E 08 08 08 08 08 50 E5 2	=447 =388 =397 =449 =346 =569 =854 =578 =297 =283 =271 =446 =292 =159 =297 =283 =446 =583 =460 =583 =583 =235
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34120 34128 34136 34144 34152 34160 34168 34176 34168 34176 34184 34192 34200 34208 34216 34224 34224 34232	44 40 44 40 44 40 44 40 44 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 50 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 60 60 50 60 60 60 60 60 60 60 60 60 6	B9 0E 49 10 BD 50 40 40 40 40 40 40 50 40 40 50 40 20 20 20 20 20 20 20 20 20 20 20 20 20	40 41 44 40 44 50 06 00 00 00 00 00 00 00 00 0	01 0F 07 01 11 06 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 61 85 00 85 00 60 00 85 00 00 85 00 00 85 00 80 0 80 0 80 8	0E AE 01 10 9D 00 00 7B F1 00 00 01 00 00 01 00 00 00 FF 73 00 5A 00 5A 00 00 00 00 00 00 00 00 00 0	44 40 44 40 44 40 66 50 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 96 01 11 E6 50 06 DA 50 06 DA 50 06 08 08 08 08 08 50 E5	=447 =388 =397 =449 =346 =569 =854 =485 =446 =292 =159 =297 =283 =479 =460 =583 =346 =583 =346 =583 =386 =583 =386
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34160 34168 34176 34184 34176 34200 34208 34208 34224 34232	44 40 44 40 44 40 44 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 60 60 60 60 60 60 60 60 6	B9 01 0E 49 01 10 BD 66 50 00 00 40 82 00 00 40 82 00 00 00 00 00 00 00 00 00 00 00 00 00	401 444 401 444 50 06 00 001 003 400 003 400 003 400 857 009 000 000 000 000 000 000 000 000 00	01 0F 07 01 11 06 50 07 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 60 60 60 60 60 60 60 60 60 60 60 60 60	0E AE 01 10 9D 00 00 7B1 00 00 00 00 00 00 00 00 00 0	44 40 44 40 44 40 100 63 00 100 300 100 300 100 300 100 300 100 300 100 300 100 300 100 300 100 200 40 40 40 40 100 40 100 40 100 100 100	2E 01 0F 01 11 E6 500 06 DA C8 00 20 20 20 20 20 20 20 20 20 20 20 20	=447 =388 =397 =449 =346 =569 =854 =485 =485 =292 =159 =297 =283 =271 =498 =479 =665 =583 =583 =2358 =151 =711
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34128 34128 34144 34152 34160 34168 34168 34168 34168 34176 34184 34192 34208 34216 34224 34224 34224 34232	44 40 44 40 44 40 44 40 44 40 44 53 60 40 40 53 60 40 40 53 60 40 40 53 60 40 40 53 60 40 40 53 60 40 40 53 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 40 50 60 60 60 60 60 60 60 60 60 6	B9 01 02 49 01 00 04 00 00 00 00 00 00 00 00	40 41 44 40 44 50 06 00 00 00 00 00 00 00 00 0	01 0F 07 01 11 06 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 85 0 85 0 85 00 85 00 85 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 0 80 8	0E AE 01 00 00 00 00 00 00 00 00 00	44 40 44 48 00 E6 30 00 10 03 00 F50 00 70 23 00 40 00 20 2	2E 01 0F 01 11 E6 50 00 0 A 300 1E 00 0 80 0 5 5 5 5 00 0 0 0 0 0 0 0 0 0	=447 =388 =397 =449 =346 =569 =854 =485 =569 =485 =292 =297 =283 =271 =498 =479 =665 =338 =338 =151 =711 =503
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34120 34128 34144 34152 34160 34168 34168 34168 34168 34176 34184 34192 34200 34208 34216 34224 34224 34224 34224 34256	44 40 44 40 44 40 44 40 44 50 00 00 00 00 00 00 00 00 00	B9 0E 49 10 BD 065 000 402 005 003 005 003 005 003 005 003 005 005	401 444 448 444 500 600 600 600 600 600 600 600 600 600	01 0F 07 01 11 06 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 44 50 40 45 00 40 50 00 50 00 FF 40 10 78 00 50 00 FF 40 10 78 00 90 50 00 80 78 00 90 90 90 90 90 90 90 90 90 90 90 90	0E AE 01 00 00 78 71 00 00 78 740 00 78 740 00 70 00 78 740 00 70 00 78 740 00 70 10 00 78 70 10 00 00 78 78 10 00 10 00 00 78 78 10 00 00 10 00 00 00 10 00 00 00 10 00 0	44 40 44 48 00 E6 30 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 96 01 11 E6 50 06 0A 300 1E 08 80 85 55 30 00 30 00 00 00 00 00 00 00 00 00 00	=447 =388 =397 =449 =346 =569 =854 =4858 =548 =292 =283 =297 =283 =297 =283 =297 =283 =465 =460 =5836 =338 =151 =711 =503 =463
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34120 34120 34128 34120 34128 34144 34152 34160 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34208 34208 34208 34224 34224 34224 34224 34226 34264	44 40 44 40 44 40 44 40 44 53 60 60 60 60 60 60 60 60 60 60	B9 01 0E 49 10 BD 04 50 04 40 20 04 05 00 00 00 00 00 00 00 00 00	401 444 448 444 500 600 600 400 600 400 500 600 500 600 600 600 600 600 600 6	01 0F 01 112 06 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 65 60 60 60 60 60 60 60 60 60 60 60 60 60	0E AE 01 00 00 00 00 00 00 00 00 00 00 00 00	44 40 44 40 44 40 65 40 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 02 04 05 00 04 05 00 00 00 00 00 00 00 00 00 00 00 00	=447 =388 =397 =449 =346 =569 =854 =578 =446 =292 =159 =297 =283 =440 =583 =460 =5846 =5846 =5846 =5846 =5846 =5846 =5838 =1511 =5103 =174 =193 =174
34040 34048 34056 34064 34072 34080 34088 34088 34088 34104 34112 34120 34128 34136 34144 34152 34168 34144 34152 34168 34168 34168 34168 34168 34168 34200 34208 34208 34224 34224 34224 34226 34226 342280 34288	44 40 44 40 44 40 44 53 06 40 40 40 40 40 40 40 40 40 40	B9 0E 49 10 BD 06 300 04 402 200 409 50 635 00 409 200 00 409 200 00 409 200 00 409 200 200 200 200 200 200 200 200 200 2	401 444 401 445 066 000 003 408 500 000 000 000 000 000 000 000 000 0	01 0F 01 12 01 065 00 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 50 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 50 50 50 50 50 50 50 50 50 50 50 50	0E AE 01 10 00 00 00 F 73 00 10 00 00 00 F 73 00 10 00 00 00 10 00 00 00 10 00 00 00	44 40 44 40 44 40 44 40 44 40 40 40 40 4	2E 01 0F 01 11 E68 004 00 100 E88 005 E300 00 00 78	=447 =388 =397 =449 =346 =569 =854 =578 =297 =283 =271 =4979 =283 =271 =4979 =2665 =3346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =578 =400 =5346 =578 =400 =578 =400 =578 =400 =200 =200 =200 =200 =200 =200 =200
34040 34048 34056 34064 34072 34080 34088 34096 34102 34128 34120 34128 34136 34144 34152 34160 34168 34168 34168 34168 34168 34168 34208 34208 34208 34224 34224 34224 34224 34228 34226 34228 34296 34296	44 40 44 40 44 40 44 53 06 40 53 06 10 50 10 50 10 50 10 10 10 10 10 10 10 10 10 1	B9 0E 49 10 BD 635 00 40 40 20 00 40 20 00 40 20 00 40 20 00 40 20 00 40 20 00 40 20 00 40 20 00 40 20 00 20 00 40 20 00 20 2	401 444 401 444 500 600 001 003 408 500 000 000 000 000 000 000 000 000 0	01 0F 01 12 01 065 00 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 50 20 20 20 20 20 20 20 20 20 20 20 20 20	0E AE 01 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 07 F1 00 00 07 F1 00 00 07 F1 00 00 07 F1 00 00 07 F1 00 00 07 F1 00 00 07 F1 00 00 00 00 00 00 00 00 00 00 00 00 00	44 40 44 40 44 40 44 40 40 40 40 40 40 4	2E 01 0F 01 11 ECB 006 D300 E008 8008 800 800 800 800 800 800 800	=447 =388 =397 =449 =346 =569 =446 =578 =297 =283 =446 =292 =297 =283 =460 =5846 =597 =497 =497 =497 =297 =297 =297 =297 =297 =297 =297 =2
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34120 34128 34144 34152 34160 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34208 34208 34208 34208 34224 34224 34226 34280 34288 34296 34304	44 40 44 40 44 40 44 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 60 50 60 60 60 60 60 60 60 60 60 6	B9 0E 49 10 BD 65 00 04 40 20 00 00 00 00 00 00 00 00 0	401 444 401 444 50 66 60 001 003 400 50 001 003 400 50 001 000 000 000 000 000 000 000 00	01 0F 01 12 01 06 50 07 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 50 20 20 20 20 20 20 20 20 20 20 20 20 20	0E AE 01 00 07 F1 00 07 07 07 07 07 07 07 07 07	44 40 44 40 44 40 44 40 44 40 40 40 40 4	2E 01 0F 01 11 E68 006 D300 E088 088 088 00 5 E300 00 000 000 000 7 530	=447 =388 =397 =449 =346 =569 =446 =578 =2277 =2283 =446 =277 =2283 =4479 =2478 =465 =338 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =546 =546 =556 =2478 =447 =4478 =5346 =5347 =4478 =53466 =5346 =5346 =5346 =5346 =5346 =5346 =5346 =53
34040 34048 34056 34064 34056 34088 34088 34088 34096 34104 34120 34128 34120 34128 34120 34128 34144 34152 34160 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34208 34208 34208 34208 34224 34224 34224 34226 34288 34286 34288 34286 34288 34286 342888 34288	44 40 44 40 44 40 44 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 60 50 60 60 50 60 60 60 60 60 60 60 60 60 6	B910E94910BD0653000448220000408000840000000000000000000	401 444 401 444 500 600 001 003 400 500 001 000 000 000 000 000 000 000 0	01 0F 01 12 01 06 50 07 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 50 60 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 5	0E AE 01 00 00 7 F1 00 00 7 F1 00 00 7 F1 00 00 7 F3 00 00 F7 3 00 F7 3 00 1 CD 00 00 5 12 5 00 7 8 6 00 1 CD 00 00 5 12 5 00 7 8 6 00 1 CD 00 00 5 00 7 8 6 00 7 8 0	44 40 44 40 44 40 44 40 40 40 40 40 40 4	2E 01 0F 01 11 E68 006 D300 E080 088 080 5E 300 000 000 850 540 40	=447 =388 =397 =449 =346 =569 =446 =292 =297 =2283 =446 =297 =2283 =4479 =4479 =4485 =5846 =597 =2283 =2283 =5497 =2497 =2283 =2497 =2283 =2497 =2498 =5846 =5866 =5866 =5866 =5866 =5866 =5866 =5866 =5866
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34163 34168 34164 34176 34208 34208 34208 34208 34224 34224 34224 34226 34226 34226 34226 342280 34288 34296 34296 34304 34320 34228 342296 34304 34320 34320	44 40 44 40 44 40 44 40 44 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 50 60 60 50 60 60 60 60 60 60 60 60 60 6	B910E94010BD065300044822004095003008408D1E0016400E14400EE	401 444 401 444 500 600 600 600 600 600 600 600 600 600	01 0F 01 12 01 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 50 60 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 5	0E AE 1 0 0 0 0 7 F 1 0 0 1 0 0 0 0 7 F 1 0 0 0 0 7 F 1 0 0 0 0 0 7 F 3 0 0 0 F 7 3 0 0 A 0 1 C D 0 0 0 2 7 5 5 0 0 7 8 E A	44 40 44 40 44 40 65 40 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 01 11 E6 50000 D300 E0 80000 200000 2000000 2000000000000	=447 =388 =397 =449 =3469 =569 =446 =297 =2283 =2271 =2283 =2271 =2498 =2271 =4479 =5846=5846 =58666 =5866 =5866 =5866 =5866 =58666 =5866 =5866 =5866 =5866 =5866
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34160 34168 34176 34160 34168 34176 34200 34208 34208 34208 34224 34224 34226 34226 34226 34226 34226 34228 34226 34228 34288 34228 3428 34	44 40 44 40 44 40 44 40 40 40	B910E94010B506530004482200409550030084000E64000E64000E64000E64000E64000E64000E64000E64000E64000E66000E6	401 444 401 444 50 000 000 000 400 500 000 000 000	01 0F 01 12 01 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 80 80 80 80 80 80 80 80 80 80 80 80 80	0E AE 10 10 00 00 7 F 1 00 10 00 00 7 F 1 00 00 00 7 F 1 00 00 00 7 F 7 3 00 00 C D 00 00 2 7 5 5 00 7 8 E 4 4 6 4	44 44 44 44 44 44 44 44 44 44 50 40 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 01 11 E6 5000 0A 500 100 80 200 200 200 200 200 200 200 200 20	=447 =388 =397 =449 =346 =569 =4878 =4878 =297 =2271 =2271 =498 =2271 =4479 =4479 =4479 =44583 =3351 =53453 =1711 =5463 =1764 =4592 =1764 =4592 =4292 =4297 =2375 =2375 =2375 =2498 =44792 =4479
34040 34048 34056 34064 34072 34080 34088 34096 34104 34102 34128 34120 34128 34120 34128 34120 34128 34144 34152 34160 34168 34160 34168 34176 34168 34176 34184 34176 34200 34208 34216 34224 34226 34226 34226 34226 34226 34228 34256 34264 34272 34280 3438034380 343800 343800 34080 340000000000	44 40 44 40 44 40 44 40 44 40 40	B910E9010BD045000409550030084000E04000000000000000000000000000	401 444 401 444 500 600 600 600 600 600 600 600 600 600	01 0F 01 11 20 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 85 00 85 00 00 50 00 FF6 80 100 75 00 22 96 40 00 00 00 00 50 00 FF6 80 22 98 40 00 00 00 00 00 00 00 00 00 00 00 00	0E AE 01 00 00 7 F 1 00 00 00 00 F 7 3 00 00 1 CD 00 00 1 2 5 5 00 7 6 E 4 4 01	44 40 44 40 44 40 65 40 20 20 20 20 20 20 20 20 20 20 20 20 20	2E 01 0F 01 11 E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	=447 =388 =397 =449 =346 =569 =8545 =4858 =4858 =2277 =2283 =479 =2479 =4292 =50338 =1511 =50338 =1711 =50338 =1744 =17641 =45279 =4202
34040 34048 34056 34064 34072 34080 34088 34096 34104 34102 34128 34120 34128 34120 34128 34120 34128 34144 34152 34160 34168 34160 34168 34160 34200 34208 34216 34224 34220 34228 34226 342240 34226 34226 34226 34226 34228 34256 34264 34272 34280 34380340 343800 343800 343800 343800 343800 340000000000	44 40 44 40 44 40 44 40 44 40 40	B910E9010BD040500030084001E00140000000000000000000000000000	401 444 401 444 500 600 600 600 600 600 600 600 600 600	01 0F 01 11 06 50 07 00 40 20 50 65 00 50 50 50 50 50 50 50 50 50 50 50 50	01 44 40 44 50 85 0 85 0 80 85 0 80 80 80 80 80 80 80 80 80 80 80 80 8	0E AE 1 0 0 0 0 7 8 1 4 0 0 1 0 0 0 0 7 8 1 4 0 0 1 0 0 0 0 7 8 1 4 0 0 1 0 0 0 0 0 7 7 4 0 0 A 0 1 C D 0 0 0 2 7 5 5 0 7 8 E 4 4 0 1 0 0 7 8 4 4 4 1 0 0 7 8 4 4 1 0 0 7 8 4 1 0 0 0 7 8 4 1 0 0 0 7 8 4 1	44 40 44 40 44 40 65 40 20 20 20 20 20 20 20 20 20 20 20 20 20	2E10F611E68006AC088005E30003000078344040100	=447 =388 =397 =449 =346 =569 =854 =4858 =297 =2871 =2871 =479 =2871 =479 =5033 =1511 =5033 =1511 =1934 =4592 =50338 =1511 =50338 =1714 =4592 =4202 =4202 =4202 =2267
34040 34048 34056 34064 34072 34080 34088 34096 34104 34122 34120 34128 34120 34128 34120 34128 34144 34152 34160 34168 34168 34168 34168 34176 34168 34176 34168 34200 34208 34208 34224 34220 34224 34226 34224 34226 34228 34256 34264 34272 34288 34256 34264 34272 34288 34232 34232 34232 34232 34232 34232 34232 34232 34232 34232 34232 34232 34232 34232 34236 34232 34334 34332 34334 34334	44 40 44 40 44 40 44 40 44 53 60 40 53 60 40 53 60 40 53 60 40 53 60 60 40 53 60 60 60 60 60 60 60 60 60 60	B910E9010BD0455000402550030084001E0144000EEEE200	401 444 448 444 500 600 600 400 400 500 600 600 600 600 600 600 600 600 6	01 0F 01 12 00 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 85 0 80 80 80 80 80 80 80 80 80 80 80 80 8	0E AE10000000000000000000000000000000000	44 40 44 40 44 40 44 40 40 40 40 40 40 4	2E10F611E68006AC50060000000000000000000000000000000	=447 =388 =349 =3499 =3469 =8569 =9578 =2277 =2283 =446 =22797 =2278 =4460 =32465 =3346 =33465 =33465 =1711 =10338 =1743 =1743 =4247 =3499 =4202 =404 =2067 =404
34040 34048 34056 34064 34056 34088 34088 34088 34088 34122 34120 34128 34120 34128 34136 34144 34152 34168 34152 34168 34152 34200 34208 34264 34224 34200 34208 34224 34224 34226 34224 34256 34256 34256 34256 34264 34266	44 40 44 40 44 40 44 40 40 40	B910E91000000000000000000000000000000000	401 444 448 444 506 600 400 400 400 500 400 400 100 400 400 100 400 400 100 400 4	01 0F9 112 106 000 000 000 000 000 000 000 000 000	01 44 40 44 50 50 50 20 20 50 20 20 20 20 20 20 20 20 20 20 20 20 20	0E AE 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	44 40 44 40 44 40 44 40 44 40 40 40 40 4	2E 01 0F 01 11ECB006 D300E08005E30000007834004000 0007834004000000000000000000000000000000	=447 =388 =397 =449 =349 =569 =854 =578 =2277 =2446 =2277 =2446 =2277 =2446 =53465 =3346 =53465 =3346 =53465 =3358 =1711 =5464 =1713 =4641 =4247 =3929 =4024 =2022 =26742 =2022 =2267 =2271 =2272 =2271 =2272 =2271 =2272 =227
34040 34048 34056 34064 34056 34088 34088 34088 34088 34122 34120 34128 34120 34128 34136 34144 34152 34168 34168 34168 34168 34168 34168 34200 34208 34208 34208 34224 34220 34224 34224 34226 34224 34226 34228 34226 34228 34228 34228 34228 34226 34228 34228 34226 34228 34228 34226 34228 34226 34228 34236 34236 34264 34256 34264 34256 34264 34256 34264 34256 34264 34266 3436634366 3436634366 34366 3436634366 34366 3436634366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 3436634366 34366 34366 3436634366 34366 3436634366 3436634366 34366 3436634366 3436634366 34566 34566 34566 34566 34566 34566 34566 34566 34566	44 40 44 40 44 40 44 53 06 00 40 53 06 00 10 50 00 00 10 00 00 00 00 00 00 0	B910E91000000000000000000000000000000000	401 444 460 444 506 600 000 400 500 500 500 500 400 500 400 4	01 0F9 1121 0650 0000 0000 0000 0000 0000 0000 000	01 44 40 44 50 85 0 80 80 80 80 80 80 80 80 80 80 80 80 8	0E AE 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	44 40 44 40 44 40 44 40 40 40 40 40 40 4	2E10F611E68006AC50060000000000000000000000000000000	=447 =388 =349 =3499 =3469 =8569 =9578 =2277 =2283 =446 =22797 =2278 =4460 =32465 =33465 =33465 =33465 =17113 =17113 =4641 =17641 =17641 =17641 =17641 =17641 =17641 =17641 =17641 =17641 =2267 =4202 =2267 =2278 =2267
34040 34048 34056 34064 34056 34088 34088 34088 34088 34122 34120 34128 34120 34128 34136 34144 34152 34168 34168 34168 34168 34168 34168 34208 34208 34208 34208 34224 34224 34226 34228 342240 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34236 34236 34236 34328 34336 34336 34336 34336 34336 34336	44 40 44 40 44 40 44 53 06 40 50 20 140 50 20 20 140 50 20 20 20 20 20 20 20 20 20 2	B910E91000000000000000000000000000000000	401 444 401 440 440 440 440 440 440 400 40	01 0F9 1121 0650701033020F5300102202000 4000200200000000000000000000	01 44 40 44 50 50 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 00 50 5	0E AE 1 0 0 0 0 0 7 F 1 0 0 1 0 0 3 0 0 F 7 3 0 0 1 C D 0 0 0 7 F 1 0 0 1 0 0 3 0 0 F 7 3 0 0 1 C D 0 0 3 0 7 8 6 8 4 4 0 0 3 0 0 F 7 3 0 0 1 C D 0 0 0 2 1 7 5 5 0 0 7 8 6 8 4 4 0 0 3 4 0 C D 0 0 1 C D 0 0 0 1 2 5 5 0 0 7 8 6 8 4 4 0 0 3 4 0 C D 0 0 1 C D 0 0 0 1 2 5 5 0 0 7 8 6 8 4 4 0 0 3 4 0 C D 0 0 1 C D 0 0 0 1 2 5 5 0 0 7 8 6 8 4 4 0 0 0 3 4 0 C D 0 0 1 C D 0 0 0 1 2 5 5 0 0 7 8 6 8 4 4 0 0 0 3 4 0 C D 0 0 0 1 C D 0 0 0 1 2 5 0 0 0 7 8 6 8 4 4 0 0 0 3 4 0 C D 0 0 0 0 1 C D 0 0 0 0 1 2 5 0 0 0 7 8 6 8 4 4 0 0 0 3 4 0 C D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	44 01 448 00 6 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2E 01 0F 01 11 ECB 004 00 ECB 00 00 00 00 00 00 00 00 00 00 00 00 00	$\begin{array}{l} = 447\\ = 388\\ = 397\\ = 449\\ = 569\\ = 569\\ = 578\\ = 2977\\ = 283\\ = 2718\\ = 446\\ = 2977\\ = 2878\\ = 4979\\ = 265346\\ = 3388\\ = 151\\ = 764\\ = 1938\\ = 1103\\ = 1038\\ $
34040 34048 34056 34064 34056 34088 34088 34088 34088 34122 34120 34128 34120 34128 34136 34144 34152 34168 34168 34168 34168 34168 34168 34200 34208 34208 34208 34224 34220 34224 34224 34226 34224 34226 34228 34226 34228 34228 34228 34228 34226 34228 34228 34226 34228 34228 34226 34228 34226 34228 34236 34236 34264 34256 34264 34256 34264 34256 34264 34256 34264 34266 3436634366 3436634366 34366 3436634366 34366 3436634366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 34366 3436634366 34366 34366 3436634366 34366 3436634366 3436634366 34366 3436634366 3436634366 34566 34566 34566 34566 34566 34566 34566 34566 34566	44 40 44 40 44 40 44 53 06 40 50 20 140 50 20 20 140 50 20 20 20 20 20 20 20 20 20 2	B910E91000000000000000000000000000000000	401 444 460 444 506 600 000 400 500 500 500 500 400 500 400 4	01 0F9 1121 0650701033020F5300102202000 4000200200000000000000000000	01 44 40 44 50 50 50 20 20 20 20 20 20 20 20 20 20 20 20 20	0E A01 00 00 00 F 7400 A00 CD 000 7 F 400 100 000 F 7400 A00 CD 000 7 F 400 A00 A00 F 7400 A00 CD 000 7 F 400 A00 A00 F 7400 A00 CD 000 7 F 400 A00 A00 F 7400 A00 CD 000 7 F 400 A00 A00 F 740 F	44 01 448 00 6 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2E 01 0F 01 11 ECB 004 00 ECB 004 00 00 00 00 00 00 00 00 00 00 00 00	$\begin{array}{l} = 447\\ = 388\\ = 397\\ = 349\\ = 569\\ = 569\\ = 297\\ = 283\\ = 2718\\ = 2977\\ = 283\\ = 2977\\ = 283\\ = 27498\\ = 32338\\ = 198\\ = 27498\\ = 25863\\ = 3381\\ = 198\\ = 2698\\ = 2698\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 22607\\ = 2698\\ = 2$
34040 34048 34056 34064 34072 34080 34088 34090 34088 34104 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34168 34208 34208 34208 34208 34224 34224 34224 34224 34226 34228 34226 34228 34226 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34228 34236 34328 34236 34328 34336 34336 34356 34356 34356 34356 34356 34368 34368 34368 34368 34376 34388	44 40 44 40 44 40 44 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 40 53 60 60 60 60 60 60 60 60 60 60	B910E91000000000000000000000000000000000	401 444 401 440 440 445 000 000 000 400 400 000 000	01 0F 01 12 06 50 07 00 00 00 00 00 00 00 00 00 00 00 00	01 44 40 44 50 50 20 20 50 20 20 20 20 20 20 20 20 20 20 20 20 20	0E A01 000 0751 001 000 000 F730 000 000 000 000 000 000 000 000 000	44014481006500210030850072200000000000000000000000000000000	2E 01 0F 01 11 E 0 00 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{l} = 447\\ = 388\\ = 397\\ = 449\\ = 569\\ = 569\\ = 569\\ = 2283\\ = 2271\\ = 2283\\ = 2271\\ = 2283\\ = 2271\\ = 2283\\ = 2271\\ = 2283\\ = 2271\\ = 2283\\ = 2271\\ = 2283\\ = 2271\\ = 2283\\ = 2233\\ = 193\\ = 2263\\ = 2263\\ = 2263\\ = 2267\\$
34040 34048 34056 34064 34072 34088 34096 34088 34096 34104 34120 34128 34120 34128 34120 34128 34136 34144 34152 34160 34168 34168 34168 34168 34168 34168 34168 34168 34168 34268 34208 34208 34208 34224 34224 34224 34226 34228 34228 342280 34288 34256 342280 34236 34328 34336 3436 3436 34336	44 40 44 40 44 40 44 40 40 40	B910E910E0401000402200409550030084000E04000E02001200100000000000000000000	401 444 401 447 447 447 447 447 447 447 447 447 44	01 0F 01 12 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	01 44 40 44 50 50 00 50 00 FF 40 10 750 22 B 40 00 00 00 24 90 42 80 00 00 50 00 FF 40 10 750 22 B 40 00 00 00 00 24 80 00 00 00 00 00 00 00 00 00 00 00 00	0E A01 00 00 7 F 1 00 1 00 00 00 F 7 3 00 A0 C D 00 00 7 F 1 00 1 00 00 00 F 7 3 00 A0 C D 00 00 2 7 6 B 4 4 1 00 3 4 C B 4 5 3 00 00 C D 00 00 2 5 5 5 00 7 6 B 4 4 1 00 3 4 C B 4 5 3 00 00 C D 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0	44014800650000000000000000000000000000000000	2E 01 0F 01 11 E 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{l} = 447\\ = 388\\ = 397\\ = 449\\ = 3897\\ = 3499\\ = 569\\ = 4485\\ = 2977\\ = 22811\\ = 22711\\ = 22712\\ = 22712\\ = 22712\\ = 22712\\ = 22712\\ = 22712\\ = 22712\\ = 22712\\ = 22712\\ = 22712\\ = 22722\\ =$
34040 34048 34056 34064 34072 34080 34088 34096 34104 34120 34128 34120 34128 34120 34128 34120 34128 34120 34128 34144 34152 34160 34168 34176 34168 34176 34168 34224 34220 34208 34216 34224 34226 34226 34226 34226 34226 34226 34228 34226 34228 34226 34228 34238 34288 34384 34388 34388 34388 34388 344888 34488 34488 34488 34488 34488 34488 34488 34488 34488 34488 34488 34488 34488 34488 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 3448888 344888 344888 344888 344888 3448888 344888 344888 344888 3448888 3448888 344888 3448888 3448888 3448888 34488888 3448888 3448888 34488888 3448888 34488888888	44 40 44 40 44 40 44 40 44 40 40	B910E910E0000000000000000000000000000000	401 444 401 444 500 600 600 600 600 600 600 600 600 600	01 0F 01 122 06 50 50 50 50 50 50 50 50 50 50 50 50 50	01 44 40 44 50 50 00 50 00 FF 40 10 750 80 22 B 40 00 00 24 90 44 80 00 00 50 00 FF 40 10 750 80 22 B 40 00 00 00 00 24 80 00 00 00 00 00 00 00 00 00 00 00 00	0EA0100075100000075300000000000000000000000	44 01 44 81 00 6 5 0 0 2 0 5 0 0 2 2 0 0 0 0 5 0 0 0 2 5 0 0 2 2 0 0 0 0	2E197611E68006AC088005E300030C0753044004004004804504453	$\begin{array}{l} = 447\\ = 388\\ = 397\\ = 447\\ = 3897\\ = 3499\\ = 569\\ = 8569\\ = 22783\\ = 22783\\ = 22797\\ = 22871\\ = 22871\\ = 22783\\ $
34040 34048 34056 34064 34056 34088 34088 34088 34088 34122 34120 34128 34120 34128 34120 34128 34136 34144 34152 34168 34152 34200 34208 34216 34168 34176 34184 34224 34220 34224 34224 34226 34224 34256 34256 34256 34256 34256 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34268 34256 34268 34272 34288 34268 34272 34288 34272 34288 34272 34288 34272 34288 34276 34272 34288 34276 34272 34288 34276 34278 3448 3448 3448 3448 3448 3448 3448 34	44 40 44 40 44 40 44 40 44 40 40	B910E910D00000000000000000000000000000000	401 444 401 445 600 600 600 400 500 400 100 600 400 100 600 400 100 600 400 100 600 400 100 600 400 100 600 400 100 600 600 600 600 600 600 600 600 6	01 0F 91 121 065 07 00 00 00 00 00 00 00 00 00 00 00 00	01 44 01 40 40 40 40 40 40 40 40 40 40 40 40 40	0EA01000751000000F7300A0CD00020255008644000040CB805100000000000000000000000000000000000	44 01 448 00 E C C 0 0 0 C F 50 0 7 2 2 0 0 0 0 C C 0 0	2E197611E68006AC088005E300030C0753044004004004804E300	$\begin{array}{l} = 447\\ = 388\\ = 397\\ = 449\\ = 3897\\ = 3499\\ = 569\\ = 8569\\ = 2283\\ = 22783\\ =$
34040 34048 34056 34064 34056 34088 34088 34088 34088 34088 34122 34120 34128 34120 34128 34136 34144 34152 34168 34168 34168 34168 34168 34168 34200 34208 34208 34224 34220 34224 34224 34226 34224 34226 34228 34226 34228 34236 34228 34236 34228 34236 34264 34228 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34236 34288 34288 34236 34288 34236 34288 34236 34288 34384 34384 34384 34384 34384 34384 34384 344888 34488 34488 34488 34488 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344888 344883 344883 3448388 344888 344883 344883 3448383 344888 344888 344888 344888 344888 3448888 344888 344888 344888 344888 344888 344888 344888 344888 344888 3448888 3448888 344888 344888 344888888 3448888 34488888888	44 44 44 44 44 53 06 40 53 06 40 53 06 40 53 06 40 53 06 06 06 06 06 06 06 06 06 06	B910E910D00000000000000000000000000000000	401 444 401 440 440 440 440 440 440 440	01 0F9 1121 06507010302050 480950F533001020056084000 4400562000 8000000	01 44 01 40 40 40 40 40 40 40 50 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 50 20 20 50 20 20 50 20 20 20 20 20 20 20 20 20 20 20 20 20	0E A01 00 00 00 F 7400 500 1 C 500 00 7 F 400 1 00 00 00 F 7400 500 1 C 500 00 7 F 400 4 8 7 4 0 5 00 1 C 500 00 7 8 6 8 4 4 1 00 3 4 8 7 4 0 5 10 1 00 3 0 1 C 500 00 7 8 6 8 4 4 1 00 3 4 8 7 8 8 5 1 0 1 00 3 0 1 0 0 3 0 0 1 0 0 3 0 1 0 0 3 0 0 1 0 0 3 0 1 0 0 3 0 0 1 0 0 3 0 0 1 0 0 3 0 0 1 0 0 3 0 0 1 0 0 3 0 0 1 0 0 0 0	44 01 48 00 6 5 00 0 1 0 0 0 0 0 5 0 0 0 1 0 0 0 0 0	2E196411EC5006AC0E088005E300030C0753404400400400450442003	$\begin{array}{l} = 447\\ = 388\\ = 349\\ = 349\\ = 569\\ = 8569\\ = 576\\ = 2278\\ = 2278\\ = 446\\ = 2278\\ = 2278\\ = 446\\ = 2278\\ = 446\\ = 2278\\ = 446\\ = 2278\\ = 446\\ = 2278\\ = 110\\ = 2278\\ = 110\\ = 2278\\ = 2268\\ = 22$
34040 34048 34056 34064 34056 34088 34088 34088 34088 34122 34120 34128 34120 34128 34120 34128 34136 34144 34152 34168 34152 34200 34208 34216 34168 34176 34184 34224 34220 34224 34224 34226 34224 34256 34256 34256 34256 34256 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34256 34268 34268 34256 34268 34272 34288 34268 34268 34268 34272 34288 34272 34288 34268 34272 34288 34272 34288 34272 34288 34272 34288 34272 34288 34272 34288 34272 34288 34276 34272 34288 34276 34272 34288 34276 34272 34288 34276 34272 34288 34276 34272 34288 34276 34272 34288 34276 34272 34288 34276 34272 34288 34276 34272 34288 34276 34288 34276 34288 34276 34288 34276 34288 34376 3447634476 34476 34476 3447634476	44 44 44 44 44 53 06 40 53 06 40 53 06 40 53 06 40 53 06 06 06 06 06 06 06 06 06 06	B910E910D00000000000000000000000000000000	401 444 401 440 440 440 440 440 440 440	01 0F9 1121 06507010302050 480950F533001020056084000 4400562000 8000000	01 44 01 40 40 40 40 40 40 40 40 40 40 40 40 40	0EA01000751000000F7300A0CD00020255008644000300F7300A0CD000761400100300F7300A0CD00020255008644000300C7880510000000000000000000000000000000000	44 01 48 00 6 5 00 0 1 0 0 0 0 0 5 0 0 0 1 0 0 0 0 0	2E196411EC5006AC088005E300030C0753404400400400450442003	$\begin{array}{l} = 447\\ = 388\\ = 397\\ = 449\\ = 3897\\ = 3499\\ = 569\\ = 8569\\ = 2283\\ = 22783\\ =$



3444	8 40	0 00		-						1
	1.000		101 CT64/21		10.000				=480	
34450										- C
34464	0	3 85				48	3 00	03	5 =64	1
3447	2 80	00	FF	83	48	00	0 07	Ø	=593	3
34480	0 00	FF	C2	50	01	16	02	Ø	3 =56:	2
34488	3 12	2 00		01						
34496										
34504										
				53						
34512						07				
34520	0 27	20	54	4F	20	44	45	46	=473	3
34528	3 49	4E	45	20	48	45	5 59	53		
34536	5 16	ØE		27						
34544	10000			54						
34552				06					=429	
34560				20	10000					
34568	8 65	20	30	30	30	30	30	30	=421	1
34576	20	62	79	20	41	41	41	16	=500	0
34584	00	01	53	43	3A					
34592	2 54	49		45						
34600				45						
34608										
				00						1
34616			4D	45		10.000	56	45	=548	3
34624	52	16	ØB	ØB	11	00	10	07	=163	3
34632	12	00	13	01	43	4F	4E	47	=333	7
34640			54	55				1110		
34648			53	16						
	1.00	0.000								
34656			10	07						
34664			50	16	ØC					
34672		00	10	07	42	4F	4E	55	=348	3
34680	53	20	31	30	30			25		
34688			Ø1	50	41	55				
34696	1.000		47	48	54	40				
34704	100.00		44	4F	57					
34712	50	20	20	20	16	ØB	Ø8	12	=235	5
34720	00	10	07	50	52	45	53	53	=420	5
34728	16	ØB	14	4B	45	59		ØB		
34736		12	01	16	02	09		05		
34744										
			11	00	4E	45		20		
34752		49	47	48	20	53		4F	=549	,
34760	52	45	16	Ø5	05	55	73	65	=484	
34768	20	35	26	38	20	74	6F	20	=470	1
34776	73		60	65	63	74	20	60	=780	
34784	- CV (73)	74	74	65	72	2E	16	07		
34792		30								
			20	74	6F	20	65	6E	=557	
34800		65	72	20	6C	65	74	74	=804	÷
34808	65	72	2E	16	ØA	ØD	10	07	=329	
34816	2D	2D	2D	16	ØE	03	16	ØA	=206	
34824	ØD	21	FF						=614	
34832	30	00	ED	PA	AF	70	70	EC	-014	
74040	00	70	ED	50	HF	32	36	56	=828	
34840	CD	18	42	11	RD	89	101	62	=905	
34848	00	CD	3C	20	ÇD	8E	02	7B	=769	
34856	FE	1E	28	07	FE	16	CA	7B	=932	
34864	90	18	F1	21	ØD	BØ	06	06	=595	
34872	3E	30	77	23	10	FC	3E	DA.	=400	
34880	32	09	80	3E	01	72	10	00	-AET	
34000	21	14	00	a	07	71	17	00	-435	
34888	21	10	80	00	62	,56	34	23	=338	
34896	10	FB	CD	7B	92	CD	96	92	=124	2
34904	21	24	80	22	05	80	AF	21	=572	
34912	1E	80	06	07	77	23	10	FC	=593	
34920	ED	5B	05	80	2A	03	BØ	CD	=839	
34928				47	CD				=819	
34936	DA	01	CD	04		24				
74044	DH	71	20	70					=1044	
34944	00	102	/E	FE	30	20	60	23	=510	
34952	10	FB	C3	21	8F					
34960	E9	3A	1F	80	E6	01	C2	D6.	=1089	7
34968	8E	3A	1F 1	80					=886	
34976	8F	21							=775	
34984	20	DØ	36	00.	01	30	00	20	=305	
34992	DE	80	70	15	00	FF	04	70	=642	
75000	100	00	OF I	1P	00	EE	64			
35000	41	80	LB :	5/	20	104	ED		=788	
35008	18	01	09 :	22	05	80	21	21	=267	
35016	80	34	7E 1	FE	33	20	99	36	=850	
35024	00	CD	BE C	20	14	20	91	78	=440	
35032	21	75	87	ar .	20	15	27	DE	-700	
TERAR	20	17.0	27 1		04	15	20	DE	-/80	
35040	40	04	20 1	DE I	LA	or	04	23	=834	
35048	BE	LA	81 8	39 :	23	BE			=1379	
35056	88	C3 (68 8	88	CD	8E	02	7B	=1043	5
35064	FE	21	C8	18	F7	2A	03	80	=931	Ε.
35072	ES	CD	56	92	ES	04	03	CS	=110	1
35080	75	FF	30	20	04	CD	DA	01	=107	
75000	24	10	00		00	00	20	71	-1036	
35088	-1	18	OB (LD	-3	64	28	02	=855	1
35096	18	F6	23 (
35104	03	80	E1 :						=1055	
35112	92	06	03 0							
35120									=937	
35128		FS .	CD /	1P	00	ES	CD	AD	=1205	
75120	00	20	07	dir.	72	20	20	+D	-1292	6
35136	42	06	03 (-5	/E	FE	28	20	=820	
35144	06	CD	D4 4	71	C1	18	ØB	CD	=1001	Ľ
35152	F3	89	28 0	02	18	F6	23	C1	=920	
35160	10	E9	E1 3	22	03	80	E1	11	=881	
~~~										

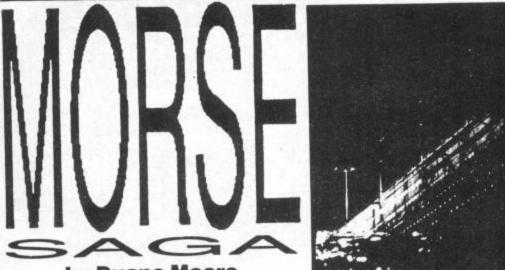
35168 FF 93 06 03 C5 CD 40 92 =1023 23 C1 10 F8 C3 68 88 2A =969 03 80 E5 28 E5 06 02 C5 =837 35176 35184 Ø3 80 E5 35192 7E FE 38 20 06 CD D4 91 =1036 35200 C1 18 0D CD F3 89 28 02 =857 35208 18 F6 CD 35216 E1 22 03 4B 92 C1 10 E7 =1136 80 21 24 80 22 =621 1F 80 CB 96 E1 =903 FF 93 CD 40 92 =904 35224 05 35232 23 23 11 35240 CD 4B 92 349 88 24 03 35224 05 80 CD 40 92 80 E5 23 C5 7E FE C3 68 =1140 E5 23. =837 35256 23 06 02 20 =708 38 35264 Ø6 CD D4 91 C1 18 ØD CD =1003 F3 92 35272 89 28 02 18 F6 CD **4**B =972 35280 C1 10 E7 E1 22 84 80 22 05 80 03 80 =976 21 35288 21 93 1F =524 CD =1330 35296 80 Lb / 35304 40 92 CD 48 92 Lb 35312 C3 68 88 CD C1 91 35320 C8 CD CC 91 C9 21 35320 C8 CD CC 91 C9 21 35320 C8 CD CC 88 21 35 85 55 CD 49 CD 40 92 =1051 FE ØØ =1232 2E 85 =1167 CD CC =1176 21 3C 85 CD 85 CD CC 88 21 CC 88 21 51 85 35336 BB 35344 43 88 21 =815 4A 85 =988 CD C8 =1200 8C C3 =1136 35352 CD CC CD CC 88 21 85 CD 91 88 21 63 85 CD 21 6C 85 CD C8 8C CD CC 88 21 85 CD CC 85 CD 35360 35368 63 85 CD C8 8C =1091 35376 21 7E =978 85 CD =1185 35384 35392 CC 8B =1197 35400 21 93 85 CD CC 88 21 9A =1048 35408 85 CD CC 88 21 75 85 CD =1169 35416 CB 8C 21 A1 85 CD CC 88 =1215



35424 C3 91 88 21 A8 85 CD C8 =1215 21 B1 85 CD CB 8C 21 =1061 85 CD CB 8C 21 C3 85 =1225 35432 BC 35440 BA 85 CD C8 8C 35448 CD CC 8B 21 CA 85 CD 2C =1165 35456 8D 21 CF 85 CD 83 8D C3 =1186 35464 91 88 21 D6 85 CD C8 8C =1206 35772 21 DF 85 CD C8 8C 21 E8 =1199 35480 85 CD 49 88 21 EF 85 35488 49 88 21 F6 85 CD CC 35496 21 FD 85 CD CC 88 21 CD =1160 85 CD CC 8B =1172 CC 8B 21 04 =1004 21 0C 86 CD =1097 8B =1172 35504 86 CD E9 8D 35512 E9 8D 35520 21 1C 21 14 86 CD E9 8D =114Ø 35520 21 1C 86 CD E9 8D C3 91 35528 88 21 24 86 CD C8 8C 21 35536 2D 86 CD C8 8C 21 36 86 =1114 21 =917 86 =945 35544 CD C8 8C 35552 8D 21 44 BC 21 44 86 3F 86 CD CC 8B 21 CD =1024 20 BB 21 =957 48 86 CD CC 35560 52 86 =1006 35568 CD 49 88 21 59 86 CD CC =1082 35576 BB C3 91 88 21 60 86 CD =1083 35584 C8 8C 21 69 86 CD C8 8C =1157 35592 21 72 86 CD C8 8C 21 78 =982 35600 86 CD C8 8C 21 84 86 CD =1183 35608 C8 8C 21 94 86 CD 49 8B =1072 21 9B 86 CD CC 8B 21 A2 =1065 86 CD CC 8B 21 A9 86 CD =1223 CC 8B 21 8D 86 CD 83 8D =1128 35616 35624 35632 2C BE 21 1F FØ BF C3 91 BE CØ 2B 36 35640 21 BØ 86 CD =798 35648 80 CB 7E 35656 88 34 7E C2 23 =1374 =828 23 23 ES 23 56 DS 35664 00 5E =727 35672 23 23 23 E5 4E EB CB =915 41 35680 28 ØE CB 51 28 Ø5 11 FF =655

3568	0 07
3569	
35704	4 Ø3
35713	
35720	D CE
35728	3 18
	T
35736	5 CE
3574	4 BE
35752	
35760	0 CS
35768	
35778	6 05
35784	1 73
35792	5 CØ
35800	23
35808	
35816	5 79
35824	FF
35832	: 40
35840	05
35848	93
35856	CB
35864	V
35872	38
35880	
35888	93
35896	51
35904	11
35912	92
35920	
	0.001/77
35928	92
35936	28
35944	
35952	23
35960	BE
35968	C6
35976	
	1000
35984	E1
35992	28
36000	
36008	F3
36016	CD
36024	CD
36032	F3
36040	34
36048	CB
36056	03
Contraction of the second second	
36064	CØ
36072	28
36080	11
	10.00
36088	46
36096	28
36104	8F
36112	D5
36120	89
36128	03
36136	C1
36144	CØ
36152	23
36160	CD
36168	EB
36176	EB
36184	50
36192	C5
36200	F3
36208	11
36216	40
36224	36
36232	28
36240	56
36248	CD
36256	D1
36264	CB
36272	04
36280	2B
36288	92
36296	CD
36304	EB
36312	93
36320	CD
36328	C9
36336	00
36344	E5
36352	EB
36360	2B
36368	EB
36376	F3
00010	
36384	11
36392	92
36400	CØ
36408	23
36416	CB
36424	CB
36432	
	92
36440	Ø1
36448	
36456	06
36464	
	LLC V
36472	
36480	

34486         34.68         E1         73         23         72         1108         377         11         72         17         10         17         17         12         10         17         12         10         17         12         10         17         12         10         17         12         10         17         14         10         17         14         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17         17        17			37432 CD 40 92 28 CD 40 92 C9 =1074
14         14         14         15         15         15         16         16         17         12         16         16         77         16         16         77         16         16         77         16         16         77         16         16         77         16         16         17         16         16         17         16         16         17         16         16         17         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16<	7/400 51 77 07 70 50 50 71 02 -1189	36960 85 7E D6 0A 77 21 E9 85 =1001	3/432 LD 40 72 28 LD 40 72 L7 -10/4
3550         23         56         66         67         21         46         66         77         21         46         67         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71         71	36488 E1 /3 23 /2 EB CD /1 72 -1100	36968 7E D6 14 77 21 FØ 85 7E =1011	37440 06 08 E5 14 // 13 24 10 -457
15:15:10:15:10:10:10:10:10:10:10:10:10:10:10:10:10:	36496 36 68 23 36 50 23 36 50 =470	36976 D6 ØA 77 21 40 86 7E D6 =914	37448 FA E1 C9 CD 18 92 01 20 =1084
100000         100000         100000         100000         1000000         1000000         1000000         1000000         1000000         1000000         10000000         10000000         1000000000         1000000000000000000000000000000000000	36504 23 36 50 23 38 88 C7 C3 -100	36984 05 77 C9 CD 78 92 11 9C =972	37456 00 09 CD 1F 92 C9 CD 18 =821
14422         92         E1         11         10         00         92         12         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10	36512 D5 E5 DD E5 CD B5 65 DD -1302	36992 B7 01 12 00 CD 3C 20 06 =457	37464 92 01 20 00 A7 ED 42 CD = 354
34342         10         150         150         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         150         12         12         12         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120         120 <td>36520 E1 DD E5 E1 06 01 CD 83 -1211</td> <td>37000 05 21 7E 87 C5 E5 CD B4 =1110</td> <td>37472 1F 92 C9 C5 E5 01 01 00 =806</td>	36520 E1 DD E5 E1 06 01 CD 83 -1211	37000 05 21 7E 87 C5 E5 CD B4 =1110	37472 1F 92 C9 C5 E5 01 01 00 =806
36536       10       E5       C5	36528 92 E1 D1 01 1A 00 09 C1 =809	37000 03 21 72 07 00 23 CD 63 =763	37480 A7 ED 42 20 FB E1 C1 10 =1187
3644       C5       C5       D5       21       C6       C5       D6       D5       D6       D5       D6       D5       <	36536 10 E5 C9 06 FF 21 00 05 =745	37008 90 08 01 21 38 C3 CD 00 900	37488 F2 7C ØF ØF ØF E6 Ø3 F6 =890
$ \begin{array}{c} 3652 00 \ 0.6 \ 01 \ CD \ 63 \ 92 \ 01 \ 01 \ 90 \ 01 \ 90 \ 01 \ 75 \ 90 \ 07 \ 01 \ 75 \ 91 \ 02 \ 91 \ 75 \ 91 \ 02 \ 91 \ 75 \ 94 \ 16 \ 91 \ 97 \ 91 \ 97 \ 91 \ 91 \ 91 \ 91$	36544 C5 7E D3 FE 23 E5 21 27 =1124	37016 92 LD BE 02 10 28 PH 10 -042	37496 58 67 C9 21 00 40 01 00 =490
36560         10         Ee         A         D         F         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10         10	36552 00 06 01 CD 63 92 E1 C1 =875	37024 D5 21 96 01 11 04 00 CD =827	37504 18 75 54 1E 01 ED B0 3E =731
36566 (C)	36560 10 EE AF D3 FE C9 06 06 =1107	37032 B5 03 D1 E1 73 23 C1 10 = 4/7	37513 A7 31 00 58 54 1F 01 01 =308
36364 CD B0 E5 11 E4 80 CD 26 92 =1119       37084 01 05 80 CD 3, 20 CL 3, 21 L4 81 CL 648         36584 CD B0 EF 11 11 48 1C D =1151       37064 06 05 7E D7 23 10 0 06 17 10 70 60 06 33576 FE 02 20 05 21 11 80 E5 E 02 -635         36640 21 09 80 35 FA 00 8F 06 -633       37024 10 00 B0 17 FL 00 B0 17 11 70 60 06 -348       37564 05 20 03 21 10 0 B 37 E C 20 -631         36640 22 14 46 C5 CD 63 92 C1 -44 =1197       37080 113 E7 E 09 CD 18 92 11 -956       37120 20 06 32 FA 00 23 21 CL 48 FC 30 -631         36640 8B 06 96 CD E10 FC E1D 11 20 60 CD 35 37120 20 06 33 21 14 87 C5 E5 -655       37576 03 E0 23 5E 23 56 ED 53 -8771         36644 CD 169 92 11 10 50 FC E1D 11 10 675       37112 10 66 80 116 50 90 CD 81 C2 -424       37680 110 E7 E0 20 F2 37144 77 F2 5E -55         36648 CD 169 92 11 10 71 10 6 71 10 75 75712 72 73 714 78 FE 64 20 F2 70 F2 71 -874 73 42 70 F2 73 -887 F2 72 80 72 71 74 73 42 70 40         36648 DD 09 90 C3 14 88 06 67 C5 =921       37152 7E FE 61 28 E8 80 E4 77 CD 974 3764 C1 00 23 E5 24 00 92 C2 00 40 92 C5 00 40 92 C5 00 40 92 C5 00 41 00 20 E52 40 90 22 C5 00 -1468         36489 D0 90 C3 12 0 10 00 CD 97 EE C1 =954       37168 10 21 14 80 7E FE 1A 22 -6453       37646 C1 00 20 E5 74 70 84 72 -1468         36489 CD 12 0 10 00 CD 97 EE C1 =954       37168 C1 C2 571 14 80 07 FE 14 22 -850       37646 C1 00 20 E5 74 70 84 72 -1468         36489 CD 10 07 11 05 00 01 10 1 -6254       37168 C1 C2 571 14 80 07 FE 17 72 87 73 E8 77 32 FF FF FF FF FF FF FF 14 22 -8630       37646 C1 00 20 E5 74 70	34548 C5 06 47 CD 02 92 2A 03 =672	37040 DB C3 14 88 C5 11 AE 87 =1093	37512 47 21 00 00 04 12 01 19 =1073
$ \begin{array}{c} 37856 \ 7c \ 87 \ 11 \ 105 \ 90 \ 19 \ 106 \ 7c \ 87 \ 11 \ 95 \ 90 \ 19 \ 106 \ 7c \ 87 \ 17 \ 95 \ 90 \ 19 \ 106 \ 7c \ 87 \ 17 \ 95 \ 90 \ 19 \ 106 \ 7c \ 87 \ 17 \ 95 \ 90 \ 106 \ 106 \ 90 \ 106 \ 90 \ 90 \ 106 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 90 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 106 \ 10$	34574 80 F5 11 F4 80 CD 26 92 =1119	37048 01 05 00 CD 3C 20 C1 21 =529	3/520 FF 02 77 ED B0 C7 5H 17 -1075
3.53922.62.02.02.02.02.02.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.01.0 <t< td=""><td>7/504 CD DD DE E1 11 14 B1 CD =1130</td><td>37056 7E 87 11 05 00 19 10 FD =577</td><td>37528 80 FE 01 20 03 21 44 01 -040</td></t<>	7/504 CD DD DE E1 11 14 B1 CD =1130	37056 7E 87 11 05 00 19 10 FD =577	37528 80 FE 01 20 03 21 44 01 -040
Subset         21         69         63         57         64         66         64         22         71         72         11         100         100         21         64         67         66         66         513         5522         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         552         3752         20         55         20         3752         20         3752         20         3752         20         3752         20         3752         20         3752         20         3752         20         3752         20         3752         20         3752         20         3752         20         3752         3752         3752         375         3753       <	36384 CD BB 6C ET 11 14 61 68 =1151	37064 06 05 7E D7 23 10 FB C9 =855	37536 FE 02 20 03 21 18 82 FE =735
35.668         64         21         44         55         37.080         1.4         ED         28         21         1.9         37.56         03         21         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0         1.0 <th1.0< th=""> <th1.0< th=""> <th1.0< th=""></th1.0<></th1.0<></th1.0<>	36592 26 92 CD BB BE CI 10 CD -1101	37072 11 0D 80 21 0A 87 06 06 =348	37544 03 20 03 21 04 83 FE 04 =464
Sachi A = 0 B         Signed E         Signe E         Signe E         Signed E	36600 21 04 80 35 FH 6H 6F 66 -002	37080 1A BE DB 28 02 18 05 13 =522	37552 20 03 21 8D 83 FE 05 20 =631
$ \begin{array}{c} 36424 & 7e & 07 & 01 & 12 & 0e & 03 & C & 2e & 49e \\ 36424 & 7e & 07 & 01 & 12 & 0e & 03 & C & 2e & 49e \\ 36424 & 7e & 07 & 01 & 12 & 0e & 12 & C & 2e & 49e \\ 36426 & 2e & 09 & 02 & C1 & 4e & 1197 \\ 36432 & CD & 40 & PC & CD & 00 & C1 & 4e & 1197 \\ 36432 & CD & 40 & PC & CD & 00 & C1 & 4e & 1197 \\ 36432 & CD & 40 & PC & CD & 10 & ED & 90 & C1 & 14 & 1197 \\ 36440 & 80 & 60 & CS & ED & 5F & E4 & 7D & =1035 \\ 36446 & 2D & 97 & 20 & 60 & 11 & 2D & 4e & 638 \\ 36446 & 2D & 97 & 20 & 60 & 11 & 2D & 4e & 6438 \\ 36446 & CD & 97 & 20 & 60 & 11 & 2D & 4e & 6438 \\ 36446 & CD & 97 & 20 & 60 & 11 & 2D & 4e & 6438 \\ 36446 & CD & 97 & 20 & 61 & 10 & ED & 4e & 6438 \\ 36446 & CD & 97 & 20 & 11 & 5B & 60 & =1037 \\ 36456 & CD & 97 & 20 & 11 & 5B & 60 & =1037 \\ 36456 & CD & 01 & 2D & 3e & 60 & =1037 \\ 36468 & 21 & 11 & 6D & 10 & 01 & 0 & 748 \\ 37128 & 01 & 7718 & 7178 & 7178 & 7178 & 7178 \\ 36468 & DD & 90 & C3 & 14 & 6B & 60 & 6C & =921 \\ 37146 & 01 & 9718 & 7716 & 10 & 1778 & 1778 & 7778 \\ 36468 & DD & 21 & 11 & 6D & 60 & 60 & e & 96 \\ 37160 & 01 & 10 & 10 & 11 & 10 & 10 & 10 \\ 36778 & 10 & 07 & 11 & 07 & 11 & 2578 & 110 \\ 36778 & 10 & 07 & 11 & 07 & 11 & 10 & 60 & 11 \\ 36778 & 10 & 07 & 11 & 07 & 11 & 10 & 60 & 11 \\ 36778 & 10 & 07 & 11 & 07 & 11 & 10 & 10 & 110 \\ 36778 & 10 & 07 & 11 & 07 & 11 & 10 & 10 & 110 \\ 37176 & 10 & 11 & 10 & 11 & 10 & 110 & 10 & $	36608 02 21 44 C5 CD 63 92 C3 =945	77000 27 10 E5 C9 CD 78 92 11 =988	37560 03 21 1C 84 FE 06 20 03 =491
$ \begin{array}{c} 36422 \ 2 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 6 \ 7 \ 7$	36616 48 88 3E 4F CD 89 92 11 =854	37000 23 10 P3 C7 C0 PD 3C 20 =695	37568 21 B1 84 5E 23 56 ED 53 =877
36452         CD         AD         FICD         D0         90         C3         44         11         CD         FICD         D0         90         C3         44         11         CD         FICD         D0         90         C3         74         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75         75	36624 2F 87 01 12 00 CD 3C 20 =498	37070 B3 B7 01 55 00 00 00 E0 80 E10	37576 Ø3 8Ø 23 5E 23 56 ED 53 =701
36448       08       06       07       12       12       8       e       53       14       407       25       56       55       37592       22       55       11       08       02       12       24       e       53       55       55       37592       22       55       11       08       02       12       24       e       55       37592       22       55       11       08       02       12       24       e       56       55       37592       22       55       11       08       02       14       407       65       22       37608       80       23       42       32       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       1	36632 CD 4D 8F CD DØ 90 C3 14 =1197	37104 06 1A SE SB 70 D7 10 TA -010	37584 18 80 23 7E A7 28 42 47 =660
36488 CD 99 92 06 01 21 20 4E = 638       37120 02 08 03 21 14 07 06 01 21 = 628       37400 02 10 E TE E E I 7E 32 10 = 959         36456 CD 63 92 C1 10 E D 3E 66 0 = 1054       37120 0E 7 8C D 68 91 06 11 21 = 668       37400 02 10 E TE E E I 7E 32 10 = 959         36456 CD 00 70 C2 02 C0 14 08 C CD 49 08 CD = 927       37148 78 FE 04 20 10 21 14 80 74 CD = 943       37642 E S C5 DS CD 40 97 71 12 33 = 853         36698 D1 10 07 11 00 70 11 00 70 06 06 0E = 98       37160 0E 71 35 18 D8 71 32 0E 758       37164 23 42 23 20 78 0E 11 29 48         36469 D2 10 10 07 10 07 01 06 00 11 10 = 601       37160 0E 71 35 18 D8 FE 13 20 = 853       37642 H 22 37648 D1 21 01 18 00 77 E1 23 = 853         36469 10 21 01 00 71 16 00 00 11 0 = 601       37160 0E 71 35 18 D8 FE 13 20 = 853       37644 D1 42 = 6449         37640 H 20 C9 21 00 00 11 = 601       37160 0E 71 21 08 P1 35 18 D8 FF 17 0E 11 28 E 449       37642 H 20 = 773         36720 9F 8E 21 1E 60 68 47 E FE 924       37192 4E 24 08 15 77 28 65 73 28 F5 73 28 F5 72 18 F5 71 28 F5 73 28 F5 72 18 F5 71 18 75 73 28 F5 72 18 F5 71 18 75 73 28 F5 72 18 F5 71 18 75 73 28 F5 72 18 F5 71 18 75 73 28 F5 72 18 F5 71 18 75 74 78 75 73 28 F5 72 18 F7 F F 7 F F 7 F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F F F 7 F	36640 88 06 0A C5 ED 5F E6 7D =1036	37112 11 06 88 01 03 00 00 30 -420	37592 23 F5 11 08 00 21 2F 93 =516
36656 CD 63 92 C1 10 ED 3E 60 =10854       37128 0E 78 CD 68 91 0E 01 92 CD 1E 62 =084       37606 0D 22 4E 23 46 23 CS 46 =648         36646 CD 99 92 11 86 70 11 0E 748       37136 40 1F CD 63 97 20 DE E 02 =084       37616 40 23 4E 23 22 07 80 92 ES CD =1488         36698 DD 90 C3 14 80 60 FC 5=921       37145 40 1F CD 63 97 15 25 FE 12 3 =0853       37632 71 92 34 1D 80 77 E1 23 =0853         36698 DD 21 01 07 11 05 00 66 EE =98       37164 00 21 14 80 77 FE 12 32 =0853       37632 71 92 34 1D 80 77 E1 23 =0853         36698 DD 21 01 07 10 05 97 BE C1 =954       37164 00 21 14 80 77 FE 12 32 =0853       37632 71 97 34 1D 80 77 E1 23 =0853         36704 10 C1 97 BE C1 =994       37164 00 21 14 80 77 FE 12 32 =0853       37642 FE 724 37648 C1 10 22 E3 24 07 80 1B =266         36720 97 BE 21 1E B0 34 7F FE =924       37164 02 11 48 00 77 FE 23 20 C8 21 11 48 00 =777       37648 C1 00 22 E3 24 07 80 1B =266         36720 97 BE 21 11 E B0 34 7F FE =224       37192 4E 32 40 C3 C1 04 31 1 =000       37642 E5 C3 17 87 01 18 00 C2 20 =480         36720 97 BE 21 11 E B0 34 7F FE =924       37200 21 10 06 01 =650       37664 B7 77 35 57 32 EF 5C 11 =705         36720 97 BE 21 11 E B0 53 77 FF FE 78 20 20 C1 10 44 12 00 80 11 =660       37680 CD 82 91 10 80 C0 22 10 =273         37640 CD 02 92 21 11 60 D 3 E7 91101 =542       37208 05 11 06 A4 11 06 00 E9 92 11 75 97 10 0 02 00 00 00 00 00 00 FF =1407         36720 D 99 21 11 40 7 31 727 21 77 01 11 27 73 77 22 77 87 FE 77 FE 76 00 76 97 FF FF 78 07 FF 78 78 00 FF 1140 <td>36648 CD 89 92 06 01 21 20 4E =638</td> <td>37120 20 06 03 21 14 87 65 65 655</td> <td>37600 19 10 FD FB F1 7E 32 1D =959</td>	36648 CD 89 92 06 01 21 20 4E =638	37120 20 06 03 21 14 87 65 65 655	37600 19 10 FD FB F1 7E 32 1D =959
36664 CD 99 92 11 58 87 01 10 748       37168 40 1F CD 63 72 CD 21 1A 80 2647 CD 21 47 80       37164 53 42 C2 72 07 80 E1 C5 7739         36672 00 CD 3C 20 CD 4D 8F CD 75 7921       37164 78 75 FE FE 01 28 E8 0E 47 CD -943       37642 71 92 34 1D 80 77 E1 23 -853         36688 21 10 07 11 00 CD 9F 8E C1 -954       37164 61 20 CB 97 15 1B 80 77 E1 23 -853       37642 55 CD 40 97 22 5C 1D 48 92 -336         36743 10 ED 79 21 60 00 11 01 -601       3716 0 63 71 06 81 71 58 77 51 7748       3716 0 63 71 16 80 77 E1 23 -853         36720 9F 8E 21 1E 80 34 7E FE 924       37167 7E 23 20 C8 21 16 80 -907       37656 84 37 07 18 C1 08 92 21 12 -706         36720 9F 8E 21 1E 80 34 7E FE 924       37167 06 81 55 77 10 66 81 1 56 77 10 66 81 1 56 77       37656 84 37 07 11 87 01 18 00 CD 32 21 22 -706         36728 05 92 21 11 80 07 21 57 3216 06 10 -277       37264 85 77 118 70 11 80 02 05 3722       37224 85 77 118 70 11 80 02 05 3722       37224 85 77 118 70 11 80 02 05 3722         36742 00 9F 92 11 14 18 70 11 14 732       37224 57 31 18 80 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 77 28 7	36656 CD 63 92 C1 10 ED 3E 60 =1054	37128 ØE 78 CD 68 91 06 01 21 =628	37000 17 10 10 20 21 75 46 =648
36422         90         CD         9227         37144         7B         FE         01         2010         27142         ES         CS         CS         CD         0.92         CS         CD         CD         CS         CS         CD         CS         CS <td>366664 CD 89 92 11 58 87 01 10 =748</td> <td>37136 40 1F CD 63 92 CD 8E 02 =894</td> <td>37606 60 23 4E 23 40 20 60 F1 C5 =739</td>	366664 CD 89 92 11 58 87 01 10 =748	37136 40 1F CD 63 92 CD 8E 02 =894	37606 60 23 4E 23 40 20 60 F1 C5 =739
366400090C31468666FC5921371527EFE6128E472CD $=947$ $=37623$ $=7162$ $=7162$ $=8133$ 366802110071105060606060606071123 $=8133$ 3646821100711010711010101110101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101010101 <td< td=""><td>36677 00 CD 3C 20 CD 4D 8F CD =927</td><td>37144 7B FE Ø4 20 10 21 1A 80 =616</td><td>3/616 23 4E 23 22 0/ 00 ET 00 -1489</td></td<>	36677 00 CD 3C 20 CD 4D 8F CD =927	37144 7B FE Ø4 20 10 21 1A 80 =616	3/616 23 4E 23 22 0/ 00 ET 00 -1489
36688211007110508060E=98371696891351616172016172116172116172116161717211616171721161617172116161716161717211616171721161617161617172116161716161717211616171616171717171717171717171717171717171717171717171717171717171717171717171818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818181818 <t< td=""><td>74400 D0 00 C3 14 88 04 0F C5 =921</td><td>37152 7E FE Ø1 28 E8 ØE 47 CD =943</td><td>37624 E5 L5 D5 LD 40 72 E5 CD -1400</td></t<>	74400 D0 00 C3 14 88 04 0F C5 =921	37152 7E FE Ø1 28 E8 ØE 47 CD =943	37624 E5 L5 D5 LD 40 72 E5 CD -1400
36696101116101601016010160101601016010160101601016010160101601016010160101601016010160101601016010100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100100	30000 00 70 C3 11 05 00 06 0F =98	37160 68 91 35 18 DB FE 13 20 =850	37632 71 92 3A 10 80 77 E1 23 -633
36704       16       D       CP       1       00       01       10       1       01       04       02       12       07       03       07       04       02       17       04       02       12       07       03       07       03       07       04       02       12       07       06       01       07       05       01       12       12       14       00       00       02       12       14       00       00       02       02       11       14       07       05       11       17       14       00       01       1       17       10       04       02       11       16       05       02       17       07       01       10       00       11       15       12       17       07       01       10       00       17       16       10       10       10       17       17       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10	36688 21 10 07 11 03 00 00 00 01 =954	37168 10 21 1A 80 7E FE 1A 28 =649	37640 D1 C1 10 ED E1 CD 48 92 =1308
3671200000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000	36696 00 21 01 00 00 77 82 01 -704	37176 DA DE 47 CD 68 91 34 18 =827	37648 C1 0D 20 E3 2A 07 80 18 =666
$ \begin{array}{c} 35720 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 36722 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 3672 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37722 \\ 37724 \\ 37722 \\ 37724 \\ 37722 \\ 37724 \\ 37724 \\ 37724 \\ 37724 \\ 37724 \\ 37724 \\ 37724 \\ 37724 \\ 37724 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 3774 \\ 377$	36704 10 ED L9 21 60 00 11 01 -801	77104 C7 EE 23 20 C8 21 1A 80 =907	37656 BA 3A 09 80 C6 30 21 2E =706
$ \begin{array}{c} 36720 & 9F & 8E & 21 & 1E & 80 & 34 & 7E & FE & 4924 \\ 36720 & 9F & 8E & 21 & 1F & 80 & CB & 8E & 55E \\ 36720 & 21 & 50 & 20 & 21 & 50 & 00 & 11 & =546 \\ 37630 & 20 & 20 & 21 & 50 & 00 & 11 & =546 \\ 37640 & 40 & 06 & 20 & D0 & 21 & 10 & 00 & =277 \\ 36752 & CD & 9F & 8E & C1 & 10 & 80 & 57 & =1101 \\ 37672 & 10 & 80 & 21 & 25 & 71101 \\ 37674 & 00 & 06 & 20 & D0 & 21 & 10 & 80 & 7E & =663 \\ 37674 & 20 & 20 & 10 & 80 & 21 & 25 & 71101 \\ 37676 & 20 & 21 & 12 & 80 & 7E & 560 \\ 36776 & 06 & 00 & 22 & 11 & 80 & 7E & 560 \\ 36776 & 06 & 00 & 22 & 11 & 80 & 7E & 560 \\ 36776 & 06 & 00 & 22 & 11 & 80 & 7E & 560 \\ 36776 & 06 & 00 & 22 & 11 & 80 & 7E & 560 \\ 36776 & 06 & 00 & 22 & 11 & 80 & 7E & 560 \\ 36776 & 20 & 21 & 12 & 80 & 7E & 560 \\ 36776 & 20 & 21 & 12 & 80 & 7E & 560 \\ 37720 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 73 & 87 & 72 \\ 36786 & 00 & 12 & 20 & 80 & 47 & 3E & 01 & 609 \\ 36776 & 00 & 00 & 22 & 11 & 80 & 7E & 560 \\ 36776 & 00 & 00 & 21 & 16 & 807 & E & 560 \\ 37720 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 87 \\ 36786 & 00 & 00 & 27 & 20 & 04 & 73 & 2727 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 87 & 72 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 87 & 772 & 773 & 57 & 72 & 773 & 57 & 72 & 773 & 57 & 72 & 774 & 10 & 01 & 01 & 01 & 01 & 01 & 01 & 0$	36712 00 06 30 DD 21 0A 00 CD =523	37100 AF 7F AR BI 5F D7 R6 R1 =650	37664 B7 77 3E 57 32 BF 5C 11 =705
$ \begin{array}{c} 3728 \ 05 \ 28 \ 06 \ 21 \ 16 \ 80 \ 12 \ 16 \ 80 \ 12 \ 16 \ 80 \ 12 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 11 \ 10 \ 80 \ 10 \ 1$	36720 9F 8E 21 1E 80 34 7E FE =924	37192 4E SE 40 61 57 50 51 73 =1098	37672 17 87 01 18 00 CD 3C 20 =480
$ \begin{array}{c} 36736 \ C 9 \ 0 6 \ 0 C \ C 5 \ 2 1 \ 5 0 \ 0 0 \ 1 1 = 5 4 c \\ 5674 \ 0 4 \ 0 0 \ 0 6 \ 0 \ 0 0 \ 0 0 \ 1 1 = 5 4 c \\ 5674 \ 0 4 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ $	36728 Ø5 28 Ø6 21 1F 80 CB 8E =588	3/200 21 50 63 60 63 72 61 75 -1075	37680 CD B2 91 CD 87 91 C9 55 =1299
$ \begin{array}{c} 36744 \ 04 \ 00 \ 02 \ 02 \ 02 \ 01 \ 01 \ 00 \ 02 \ 02$	36736 C9 06 0C C5 21 50 00 11 =546	37208 23 C1 10 HA 21 00 80 11 -005	37688 AA 55 AA 55 AA 55 AA 38 =991
$ \begin{array}{c} 36752 \ CD \ 9F \ 9E \ C1 \ 10 \ ED \ 3E \ 57 \ =1101 \\ 37224 \ ES \ 3A \ 1B \ 8D \ 21 \ CD \ 9T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 12 \ =710 \\ 37724 \ 9D \ 7T \ 7$	36744 04 00 06 20 DD 21 01 00 =297	37216 ØA 87 Ø1 Ø6 Ø0 ED 80 C7 =788	37404 BA 54 38 10 38 28 6C 7F =673
36740CDB992114187011A $=732$ $37232$ 005F171217121717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171717171817171717	36752 CD 9F 8E C1 10 ED 3E 57 =1101	37224 E5 3A 1A 80 21 C2 59 16 =//9	37704 PE 7E BE 7E BE 7E BE FE =1400
36768       00       CD       3C       20       21       18       80       72       28       73       28       76       28       77       77       28       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77       77	36760 CD 89 92 11 41 87 01 1A =732	37232 00 5F 19 71 E1 C9 21 12 =/10	37704 BF 7F ER 07 ER 00 00 FF =1076
36776 D6 30 A7 28 06 47 3E 01 =60937248 77 28 7E 3C 18 F4 77 3E 2737248 77 3E 77 3E 77 3E 75 32 8F 5C 11 84 47 77 3E 5736772 8 06 47 3E 0A CD DC 8F 29 7E D6 30 A7 28 0D 4F =73037226 77 32 8F 5C 11 0.80 01 =52837728 FF FC 1F E0 1F 00 00 FF =104836876 0C DC 8F 71 72 80 34 72 80 04 FF =73037727 80 74 75 87 32 8F 75 C1 10.80 01 =52837728 FF FC 1F E0 1F 00 00 00 00 00 00 00 00 00 00 00 00 00	34748 00 CD 3C 20 21 18 80 7E =608	37240 80 86 FE 3A 38 08 D6 0A =862	37/12 FF 3F FB 67 FB 60 FE =986
36784 CD DC BF 2B 7E D6 30 A7 =116637256 57 32 BF 5C 11 0A B0 01 =52837728 FF FC 7F 02 1C 38 00 FF =114936784 CD DC BF =75737264 09 00 CD 3C 20 C9 21 20 =57237736 FF FC 7F 02 CC 38 00 FF =114936808 06 0A AF B1 10 FD 47 3E =72237264 09 00 CD 3C 20 C9 21 20 =57237744 FF 00 00 00 00 00 00 00 A1 =41636808 06 0A AF B1 10 FD 47 3E =72237264 09 00 CD 3C 20 C9 21 20 =57237752 D1 A1 D1 A1 D1 A1 D1 A1 D1 A136808 06 0A AF B1 10 FD 47 3E =72237280 21 18 80 7E 3D FE 30 30 =72237752 D1 A1 D1 A1 D1 A1 D1 A1 D1 A136808 06 0A AF B1 11 FD 47 3E =72237266 FF FC 7F 02 3C 00 FF =114936808 06 0A AF B1 10 FD 47 3E =72237780 01 A1 D1 A1 D1 A1 D1 A1 D1 A1149036808 06 0A AF B1 11 FD 47 3E =72237786 FF FC 7F 02 0C 36 00 FF =114936808 06 0A CD DC BF F1 21 19 80 =100537286 0E C6 0A 77 2B 7C B 752 D1 A1 30 =127836824 34 C3 48 B8 E5 C5 F5 CD =133137286 FF FE 78 02 00 60 30 C1 18 30 00 =12937324 13 B0 10 01 06 00 CD 3C 20 =45137760 B1 A1 D1	34774 D4 30 47 28 04 47 3E 01 =609	37248 77 28 7E 3C 18 F4 77 3E =797	37/20 FF /F DE 40 33 00 00 FF =1048
36792 $28$ $06$ $47$ $3E$ $0A$ $CD$ $DC$ $BF$ $=757$ $37264$ $09$ $00$ $CD$ $3C$ $20$ $C9$ $21$ $20$ $=572$ $37736$ $FF$ $E7$ $00$ $00$ $00$ $00$ $01$ $1$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $11$ $1$	74704 CD DC RE 28 7E D6 30 A7 =1166	37256 57 32 8F 5C 11 0A.80 01 =528	37728 FF FC 1F E0 1F 00 00 FF -1040
36800 $28$ $72$ $28$ $20$ $47$ $28$ $20$ $47$ $28$ $20$ $47$ $28$ $2722$ $37272$ $80$ $34$ $7E$ $FE$ $78$ $03$ $30$ $=7722$ $37744$ $FF$ $C0$ $36$ $00$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$ $10$	36784 CD DC 6F 26 7E 00 00 RF =757	37264 09 00 CD 3C 20 C9 21 20 =572	37736 FF FE 78 02 LL 38 00 FF -1147
36808       06       0A       FB       10       FD       47       3E       =722       37280       21       18       80       7E       3D       FE       3D       7E       3D       FE       3D       7E       3D       7E       3D       7E       3D       FE       3D       7E       3D       7E       3D       FE       3D       7E       3D       FE       3D       7E       3D       7E       3D       7E       3D       FE       SD       FE       SD       FE	36/92 28 06 4/ 3E 0A CD 00 01 -730	37272 BØ 34 7E FE 78 CØ 36 ØØ =926	37744 FF 00 00 00 00 00 00 41 =418
36816       0A       CD       DC       8F       F1       21       19       80       =1005       37288       0B       C6       0A       77       2B       7E       3D       18       =589       37768       D1       A1       D1<	36800 28 /E D6 30 H/ 28 0D 4 -700	37280 21 18 80 7E 3D FE 30 30 =722	37752 D1 A1 D1 A1 D1 A1 D1 A1 =1480
36824       34       C3       48       88       E5       C5       F5       CD       =1331       37296       F4       77       3E       57       32       8F       5C       11       =814       37776       18       D1       H	36808 06 0A AF 81 10 FD 47 3E -722	37288 08 C6 0A 77 28 7E 3D 18 =589	37760 D1 A1 D1 AB D5 6A 3C 3C =1189
36822       76       91       06       01       21       1C       25       CD       =573       37304       13       80       01       06       00       CD       3C       20       =451       37776       16       80       80       80       80       80       90       10       60       00       CD       3C       20       =451       37776       16       80       80       80       91       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80       80 <td< td=""><td>36816 ØA CD DC 8F F1 21 14 80 =1005</td><td>37296 F4 77 3E 57 32 8F 5C 11 =814</td><td>37768 6A D5 AB D1 A1 D1 A1 30 =1278</td></td<>	36816 ØA CD DC 8F F1 21 14 80 =1005	37296 F4 77 3E 57 32 8F 5C 11 =814	37768 6A D5 AB D1 A1 D1 A1 30 =1278
36832       63 92       F1       C1       10       EF       E1       C9       =1360       37312       C9       AF       E5       0.6       0.8       4E       81       24       =862       37784       0.0       B1       B3<0	36824 34 C3 48 88 E5 C5 F5 CD =1331	77704 17 00 01 06 00 CD 3C 20 =451	37776 18 0C 06 03 0C 18 30 00 =129
36840       63       92       F1       C1       10       EF       E1       C9       =1360       37312       C7       FE       C7       C7       FE       C1       T7       TF       FE       C1       TF       FE       C8       C8       TF       FE       C8       C8       TF       TF       TF       C8       TF       TF       TF       C8       TF	36832 76 91 06 01 21 1C 25 CD =573	3/304 13 00 01 00 00 00 00 20 10	37784 00 81 C3 66 2C 18 10 FF =765
36848       11       6B       67       01       13       00       CD       3C       =544       37320       10       PB       21       17       80       CB       =1222       37800       18       18       3C       76       FB       FD       FF       E0       =1209         36856       20       06       64       C5       21       40       00       11       =449       37328       CB       C6       E1       C9       21       17       80       CB       =1222       37800       18       18       3C       76       FB       FD       FF       E0       =1209         36856       20       06       20       DD       21       01       01       =296       37326       CE       C9       21       23       80       34       7E       FE       =1035       37808       F0       F8       FF       FF       DF       AF       DF       AF<	36840 63 92 F1 C1 10 EF E1 C9 =1360	3/312 UV HP ED 00 00 4E 01 24 -002	37792 BF DF 6E 3C 18 18 30 30 =728
36856       20       06       64       C5       21       40       00       11       =449       37328       C8       C6       C1       C7       21       01       01       =296       37336       CE       C7       21       23       80       34       7E       FE       =1035       37808       F0       F8       FF       EF       D8       80       20       07       =1605         36864       02       00       64       C5       21       01       01       =296       37336       CE       C9       21       23       80       34       7E       FE       =1035       37816       0D       1B       F0       F8       FF       EF       D8       80       20       7       =1605         36870       01       02       27       23       80       34       7E       FE       =1035       37816       0D       1B       73784       F0       F8       FF       EF       DF       AF       DF       A	36848 11 68 87 Ø1 13 ØØ CD 3C =544	37320 10 FB E1 C7 E5 21 IF 60 -11222	37800 18 18 3C 76 FB FD FF E0 =1209
36864       02       00       06       20       DD       21       01       01       =296       37336       CE       C7       21       23       60       34       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16       16	36856 20 06 64 C5 21 40 00 11 =449	37328 CB C6 E1 C4 21 1F 80 CB =1222	37808 FØ F8 FF EF D8 BØ EØ 07 =1605
36872 CD 9F 8E 3E 0A CD 76 91 =1046       37344 1E C0 38 00 3H 1F 0E 2E 043       37844 AF DF AF DF AF DF AF DF AF 00 =1369         36880 C1 10 E8 2A 03 80 23 23 =684       37352 08 32 1F 80 CB 5F 28 08 =563       37824 AF DF AF DF AF DF AF DF AF 00 00 00 00 00 00 00 00 00 00 00 00 00	36864 02 00 06 20 DD 21 01 01 =296	37336 CE C9 21 23 80 34 7E FE =1035	37014 0D 18 F7 FF 1F 0F 07 DF =818
36880       C1       10       E8       24       03       80       23       23       =684       37352       08       32       17       80       CB       37832       20       BE       37832       20       BE       37832       20       80       23       37832       20       80       23       37832       20       80       23       37832       20       80       37832       20       80       37832       20       80       37832       20       80       37832       20       80       37832       20       80       23       37832       20       80       37832       20       80       37832       20       80       37832       20       80       23       37832       20       80       23       37832       20       80       23       37832       20       80       21       20       00       00       21       20       20       20       21       20       20       21       20       21       20       20       21       20       20       21       20       20       21       20       21       20       21       20       21       20       21       20	36872 CD 9F 8E 3E 0A CD 76 91 =1046	37344 1E CØ 36 ØØ 3A 1F 8Ø EE =731	37924 AF DE AF DE AF DE AF 00 =1369
36888       23,E5       CD       71       92       36       46       E1       =1077       37360       11       00       00       21       P0       00       CD       85       =472       37840       00       7D       FC       7D       00       00       01       =503         36896       06       19       C5       E5       11       F7       93       CD       =1073       37368       11       04       00       21       20       00       CD       B5       =472       37840       00       7D       FC       7D       00       00       3C       =488         36904       40       92       06       01       21       20       4E       CD       =565       37376       03       C9       2A       03       80       CD       71       92       =841       37848       03       B7       37       B7       03       01       00       3C       =488         36912       63       92       E1       11       3F       93       CD       40       97       23       77       23       77       28       77       C9       =653       37864	36880 01 10 68 20 03 80 23 23 =684	37352 08 32 1F 80 CB 5F 28 08 =563	77072 00 PE 3E BE 00 00 00 00 =443
36896       06       19       C5       E5       11       F7       93       CD       =1073       37368       11       04       00       21       20       00       CD       B5       =472       37840       00       70       FC       70       00       03       CD       =488         36896       06       19       C5       E5       11       F7       93       CD       =1073       37368       11       04       00       21       20       00       CD       B5       =472       37840       00       70       FC       70       03       01       00       3C       =488         36970       40       92       E1       11       3F       93       CD       40       =966       37376       03       C9       2A       03       80       CD       71       92       =841       37856       56       AB       D7       AE       D7       6E       34       00       =1023       37856       56       AB       D7       AE       D7       6E       30       40       =1023       37864       00       00       00       00       00       00       00	74000 27 F5 CD 71 92 34 44 F1 =1077	37360 11 00 00 21 FF 00 18 06 =335	37832 00 BE SF BE 00 00 00 00 -443
36878       40       92       06       01       21       20       4E       CD       =565       37376       03       C9       2A       03       80       CD       71       92       =841       37848       03       87       57       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87       87 </td <td>1000 04 10 C5 F5 11 F7 93 CD =1073</td> <td>37368 11 04 00 21 20 00 CD B5 =472</td> <td>37840 00 70 FC 70 00 00 00 01 = 303</td>	1000 04 10 C5 F5 11 F7 93 CD =1073	37368 11 04 00 21 20 00 CD B5 =472	37840 00 70 FC 70 00 00 00 01 = 303
36714       40       72       61       10       72       77       23       77       23       77       01       20       =580       37858       58       48       07       48       67       23       77       23       77       01       20       =580       37858       58       48       07       48       67       68       68       68       68       67       68       68       68       67       68       68       68       68       67       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68       68 </td <td>30070 00 17 CD ED 11 77 70 CD -1070</td> <td>37376 Ø3 C9 2A Ø3 8Ø CD 71 92 =841</td> <td>37848 03 87 37 87 03 01 00 30 =488</td>	30070 00 17 CD ED 11 77 70 CD -1070	37376 Ø3 C9 2A Ø3 8Ø CD 71 92 =841	37848 03 87 37 87 03 01 00 30 =488
36712       03       72       03       72       28       77       28       77       29       653       37864       00       00       07       07       07       28       77       28       77       29       653       37864       00       00       07       07       07       77       28       77       28       77       29       653       37864       00       00       07       07       07       07       08       10       00       00       07       07       07       10       07       07       07       08       10       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00       00	36704 40 72 06 01 21 20 40 00 00	37384 78 77 23 77 23 77 01 20 =580	37856 56 AB D7 AE D7 6E 34 00 =1023
36726       72       62       62       62       72       62       62       72       72       72       72       7400       CB       1C       CD	36912 63 92 E1 11 3F 93 CD 40 =988	37392 00 09 77 28 77 28 77 C9 =653	37864 00 00 07 09 3F 7F 62 00 =304
36928       63       92       E1       C1       10       DC       21       09       =941       37400       CD       10       DC       21       09       =941       37400       10       ED       14       CD       14       CD       40       =936       37880       38       10       FE       10       38       28       6C       00       =546         36936       80       34       CD       50       90       C3       43       88       =1007       37408       14       CB       14       C9       CD       40       =936       37880       38       10       FE       10       38       28       6C       00       =546         36934       21       3D       85       7E       D6       0A       77       21       =729       37416       92       23       CD       40       =900       37888       00       00       00       00       00 <td>36920 92 E5 06 01 21 20 4E LD =730</td> <td>37400 CB 1C CB 1C CB 1C C9 CB =1097</td> <td>37872 00 00 E0 90 FC FE 46 38 =1000</td>	36920 92 E5 06 01 21 20 4E LD =730	37400 CB 1C CB 1C CB 1C C9 CB =1097	37872 00 00 E0 90 FC FE 46 38 =1000
36936 80 34 CD 50 90 C3 43 88 =1007 37408 14 CB	36928 63 92 E1 C1 10 DC 21 09 =941	77400 14 CB 14 CB 14 C9 CD 40 =936	37880 38 10 FE 10 38 28 6C 00 =546
36944 21 3D 85 7E D6 ØA 77 21 =729 3/418 72 23 CD 40 72 20 CD 40 72 72 72 CD 40 72 72 72 72 72 72 72 72 72 72 72 72 72	36936 80 34 CD 50 90 C3 43 88 =1007	77414 02 27 CD 40 02 23 CD 40 =900	37888 00 00 00 00 00 00 00 00 =0
3/952 44 85 7E D6 ØA 77 21 A2 =865 37424 92 LD 48 92 LD 40 72 28 -1030	36944 21 3D 85 7E D6 ØA 77 21 =729	5/416 72 23 CD 40 72 23 CD 40 72 75 CD 40 -100	
	36952 44 85 7E D6 ØA 77 21 A2 =865	37424 92 CD 48 92 CD 40 92 28 =1030	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1



### by Duane Moore

If ever you find yourself in a dinghy up to your wellies in water in the middle of the Atlantic Ocean, that's the time you'll regret not typing in this program. Is it dot, dot, dot, dash, dash, dash or dash, dash, dash, dot, dot, dot? Well, it's glug, glug, glug for you shipmates!

Unless you learn to crack the code — morse code, that is. This program has two modes. Firstly, messages — type in a message and your Speccy will blip it back to you. Secondly, letters — your Speccy will blip out a letter and you have to type it in. If you haven't a clue where to start, panic not 'cos you'll find a table of the morse codes in the program.

Right, dash it off if you don't want to go dotty — or end up at the bottom of Davy Jones's locker!

1 PDKE 23658,8: REM caps lock 2 CLS : PRINT AT 0,8; "MORSE C

ODE TUTOR" 4 PRINT OVER 1; AT 0,8;"___

6 PRINT AT 2,0; "Written by Du ane A. Moore 1985"

8 PRINT AT 4,2;"(0) LISTEN TO YOUR MESSAGES."

9 PRINT AT 6,2; "(2) WORK OUT MORSE GIVEN."

10 PRINT AT 5,2;"(1) PRINT MOR SE AND LETTERS.

18 PRINT AT 7,2;"(3) ABORT TO BASIC. "

19 REM get what you want 20 INPUT "CHOICE ";a 22 IF a=0 THEN GO TO 34 24 IF a=1 THEN GO TO 66

26 IF a=2 THEN GD TO 74 28 IF a=3 THEN STOP

34 CLS : PRINT AT 0,4; "LISTEN TO YOUR MESSAGES."

36 PRINT AT 1,4] "ENTER TO RETJ RN TO MENU." 38 INPUT "MESSAGE "; a\$ 39 IF A\$="" THEN GO TO 2 40 PRINT AT 3,0; "MESSAGE IS "; LEN a\$; " CHARACTERS LONG"

42 PRINT AT 5,0; "MESSAGE:-"; a\$ : PRINT

44 FOR b=1 TO LEN a* 46 PRINT BRIGHT 1; a*(b); 48 IF a*(b)=" " THEN PAUSE 6: GO TO 62

50 LET d=9908+CODE a\$(b) 51 IF d<9973 OR d>9998 THEN 0 0 TO 62

52 RESTORE d: READ c\$: READ @ 53 FOR f=1 TO e 54 READ g

56 IF g=1 THEN BEEP .05,201 F AUSE 3

58 IF g=2 THEN BEEP .2,201 PA USE 3 60 NEXT F

62 NEXT b

64 GO SUB 9972: GO TO 34

66 CLS : PRINT AT 0,3; "MORSE C ODE AND THE LETTERS"

ODE AND THE LETTERS" 68 PRINT AT 2,2] "A .-";AT 3,2 ;"B -...";AT 4,2] "C -.-.";AT 5 ;2;"D -..";AT 6,2] "E .";AT 7,2 ;"F .--.";AT 8,2] "B --.";AT 7,2 ;"F .--.";AT 8,2] "B --.";AT 7,2 ;"F .--.";AT 8,2] "B --.";AT 1 1,2;"J .---";AT 12,2] "K -.-";AT 1 1,2;"J .---";AT 12,2] "K -.-";AT 1 1,2;"L .-..";AT 14,2] "M --" 70 PRINT AT 2,23; "N -.";AT 3, 23; "O ---";AT 4,23; "P .--.";AT 5,23; "D ---";AT 4,23; "P .--.";AT

- 23] "0 ---"|AT 4,23] "P ---"|AT 5,23] "0 ---"|AT 6,23] "R --" IAT 7,23] "S ---"|AT 6,23] "R --" IAT 9,23] "U --"|AT 8,23] "T -" IAT 9,23] "U --"|AT 10,23] "V --"|AT 11,23] "W ---"|AT 12,23] "X ----"|AT 13,23] "Y ----"|AT 14,23] "Z ---"
- 72 GD SUB 9972: RUN
- 74 CLS | PRINT AT 0,4; WORK OU T THE CODE GIVEN"
- 76 PRINT AT 1,4; "ENTER TO RETU RN TO MENU"
- 78 PRINT AT 3,2; "THE COMPUTER WILL PICK A
- WILL PICK A LETTER AT RANDO M, THEN BEEP IT. YOU MUST GUESS THE LETTER. "
- 80 LET a=9973+(RND+26)
- 82 RESTORE a: READ b\$: READ c 84 FOR d=1 TO c
- 86 READ e
- 88 IF #=1 THEN BEEP .05,20: P AUSE 3 90 IF == 2 THEN BEEP .2,20: PA
- USE 3

92 NEXT d

- 96 INPUT "YOUR ANSWER ";f\$ 98 IF f\$="" THEN RUN 100 IF b\$=f\$ THEN PRINT FLASH 1;AT 11,6; "CORRECT-WELL DONE": FOR a=0 TO 30: BEEP .05,a: NEXT AI GO TO 74 102 PRINT FLASH 1;AT 11,5;"WRO NG-THE ANSWER WAS ";b\$: FOR a=0 TO 30: BEEP .05,a: NEXT a: CO TO

7972 PRINT J1;" PRESS ANY KEY TO CONTINUE. ": PAUSE O: RETUR N

N 9973 DATA "A",2,1,2 9974 DATA "B",4,2,1,1,1 9775 DATA "C",3,1,2,1 9776 DATA "D",3,2,1,1 9776 DATA "D",3,2,1,1 9777 DATA "E",1,1 9778 DATA "F",4,1,1,2,1 9779 DATA "G",3,2,2,1 9780 DATA "H",4,1,1,1,1 9781 DATA "I",2,1,1 9782 DATA "J",4,1,2,2,2 9783 DATA "L",4,1,2,1,1 9785 DATA "M",2,2,2 9786 DATA "N",2,2,1 9787 DATA "O",3,2,2,2 

 7788
 DATA "N",2,2,1

 9787
 DATA "O",3,2,2,2

 9788
 DATA "P",4,1,2,2,1

 9789
 DATA "Q",4,2,2,1,2

 9790
 DATA "R",3,1,2,1

 9791
 DATA "S",3,1,1,1

 9792
 DATA "T",1,2

 9793
 DATA "U",1,2

 9992 DATA "T",1,2 9993 DATA "U",3,1,1,2 9994 DATA "V",4,1,1,1,2 9995 DATA "W",3,1,2,2 9996 DATA "X",4,2,1,1,2 9997 DATA "Y",4,2,1,2,2 9998 DATA "Z",4,2,2,1,1 9999 REM END OF DATA



by Robert Stockton

The worm has turned! Or rather it's your turn to guide him through the garden so he can eat the flowers and grow. The game features multiple screens with a bonus 'eat the pie' screen after you've cleared the three previous ones. You'll find full instructions in the game — if you look at lines 3155 to 3230 you'll see the neat way that they're printed to the screen.

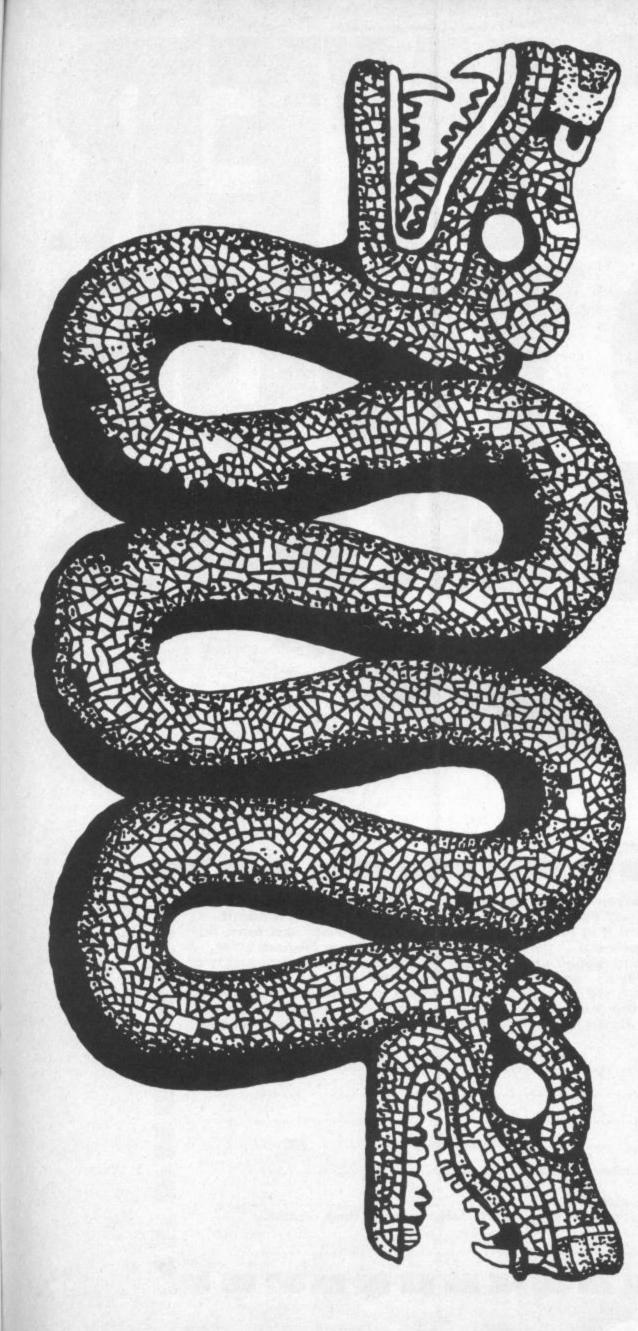
Now if you think that games in Basic are pretty worm-eaten, think again. This beats all the machine code versions of the same game that we've seen at YS and just goes to show that you can still write games in good ol' Basic and not have to say you're sorry.

OREM SNAKE BY RUBERT STOCKTUN 1985 1 GO SUB 6000 2 GO TO 3000 4 POKE 23658,0 10 REM ***SET UP VARS**** 40 LET LEV=0 60 LET S=0 45 REM **SET UP SCREEN VARS** 70 LET A\$=CHR\$ 10+CHR\$ 2+CHR\$ +CHR\$ 2 BO LET X=10: LET Y=2 90 LET AM=INT (S/100)+10 100 LET H=0: LET V=-1 110 LET CX=2: LET CY=1 120 LET LEV=LEV+1 125 LET START=LEV 130 IF LEV/3=INT (LEV/3) THEN GO TO 4500 140 LET B#="63 26 36 2" 150 LET C#="63 26 36 2" 160 IF LEV>10 THEN LET LEV=1 165 REM ****PRINT SCREEN**** 166 INK 4: PAPER O: BORDER O: C LS 170 LET X#=" "+B\$ (LEV) +" Service and a service of the service 180 FOR A=1 TO LEN X#-31: PRINT 10,0;X#(A TO A+31): BEEP .01 A/2: NEXT A 206 LET E=0 206 LET E=0 210 PRINT AT 21,0; INVERSE 1;"S CORE=";S;AT 21,15;"LEVEL=";LEV 212 RANDOMIZE USR 3582 215 IF LEV>60 THEN LET LEV=60 220 PRINT AT 21,0; INK 5;"Strisserste 225 RANDOMIZE USR 3582 227 PRINT AT 21,0;" r 664'9 694'9 669'9 669'9 069'9 " 230 FOR A=2 TO 20 240 PRINT INK 5:AT 21,0:"880";A 21,301 " 8889" 245 RANDOMIZE USR 3582 250 BEEP .01,A 255 NEXT A 260 PRINT AT 21,0; INK 5; "2000200302 Story Englished Series Englished Eng INK 5; "2999" 330 IF A>59 THEN GD TO 350 335 BEEP .1,A 340 NEXT A 350 FOR A=1 TO AM 360 LET R=RND#17+3: LET T=RND#2 7+3 364 IF ATTR (R,T)=VAL (C\$(LEV)) THEN GO TO 360 366 PRINT AT R,T; INK VAL (C\$(L EV)); B\$(LEV) 375 BEEP .1,-A 380 NEXT A 400 REM **PRINT AND MOVE MAN * 410 PRINT INK 7; BRIGHT 1;AT X ,Y;"⊕"; INK 4; BRIGHT 0;AT CODE A\$(1),CODE A\$(2);"" 440 IF INKEY≸="p" THEN LET V=0 LET H=1 450 IF INKEY ="o" THEN LET V=0 LET H=-1 460 IF INKEYS="q" THEN LET V=-: LET H=0 470 IF INKEY#="a" THEN LET V=1

V 510 IF ATTR (X,Y) <>5 AND ATTR ( X,Y) <>4 THEN LET S=S+10; LET E= E+1; BEEP .1,-20; PRINT AT 0,6;S ; IF AM=E THEN GO SUB 1500 520 IF ATTR (X,Y)=4 AND START<0 THEN LET A\$=A\$(3 TO) 525 LET START=START-1 530 IF ATTR (X,Y)=5 OR ATTR (X, Y)=7 THEN GO TO 1000 540 IF X>=21 AND (Y=16 OR Y=17) THEN GO TO 4000 560 PRINT AT CODE A\$(LEN A\$-1), CODE A\$(LEN A\$); INK 7;"60" CODE A\$ (LEN A\$) ; INK 7 ; " 570 GD TD 400 1000 REM ******THE END******* 1010 PRINT AT 10,11; INK 2; PAPE R 6; BRIGHT 1; "GAME DVER" 1025 BEEP 2,-20 1040 FOR A=1 TD 500; IF INKEY\$<> "" THEN GD TD 2000; NEXT A 1050 PRINT AT 10,10; "(I)NSTRUCTI 1050 PRINT AT 10,10; "(I)NSTRUCTI 0NS";AT 12,10; "(P)LAY" 1060 BEEP .01,1 1070 IF INKEY\$="p" THEN GD TD 1 0 570 GO TO 400 1080 IF INKEY #="1" THEN GO TO 3 000 1090 GD TD 1070 1500 REM ****PRINT HOLE****** 1510 PRINT /0;AT 0,0; INK 6;"THI 5 WAY > < THIS WAY" 1520 PRINT AT 21,16;" 1530 LET E=E-1 1540 RETURN 3000 REM *****INSTRUCTIONS***** 3020 INK 6: PAPER 0: BORDER 0: C LS 3030 DATA " SNAKE"," 3040 DATA " ","BY ROBERT STOCKTO 3050 DATA "THE OBJECT OF THE GAM E IS TO EAT" 3060 DATA "ALL THE FOOD ON EACH SCREEN" 3070 DATA "BUT IF YOU HIT YOUR T AIL 'O' OR", "THE NASTIES YOU DIE 3080 DATA "AS YOUR TAIL GETS LON GER THE ", "GAME GETS HARDER" 3100 DATA "THE KEYBOARD CONTROLS ARE" 3110 DATA " "," Q-UP"." " 3120 DATA "O-LEFT P-RIGHT" 3130 DATA " "," A-DOWN" 3140 DATA " "," " 3150 DATA "GDOD LUCK" 3155 RESTORE 3000 Lines 3155 - 3230 These lines print up the instructions. But note the novel way it's done — by POKEing the system variable CHARS to make them appear pixel line by pixel line. 3160 FOR A=0 TO 19 3170 READ A\$ 3180 FOR X=8 TO 0 STEP -1 3190 POKE 23606,X: PRINT AT A,0; A\$ 3200 NEXT X 3210 NEXT A 3220 IF INKEY\$<>"" THEN GD TO 1

3230 GD TD 3220

: LET H=O 480 LET A\$=A\$+CHR\$ X+CHR\$ Y: LE T X=X+V: LET Y=Y+H: BEEP .002,LE



4000 REM ****FINISH SCREEN**** 4010 FOR A=1 TO 20 4020 RANDOMIZE USR 3582 4020 NEXT A 4030 NEXT A 4040 PRINT AT 0,17;" " 4050 FOR A=0 TO 9 4060 PRINT AT A,16; INK 7;" ";AT A+1,16;"@" 4070 NEXT A 4080 PRINT AT 11,16; INK 6;" ... = BONUS 200" 4090 BEEP .004,LEV 4100 FOR A=1 TO 60 STEP 3 4110 BEEP .01,A 4120 NEXT A 4130 LET S=S+200 4135 PAUSE 1: PAUSE 40 4140 GD TO 70 4500 REM ****BONUS SHEET***** 4510 CLS 4515 PRINT AT 10,3; INVERSE 1; "P RESS DOWN TO EAT THE PIE": BEEP .5,1: PAUSE 3 4520 PRINT AT 0,0; INK 5; " man any arts children id visitions 4530 PRINT AT 21,0; INK 5; " ..... a séara **séra sés** a servis Sénis per visén y consistents amos séria 4540 FOR A=1 TO 20 4550 PRINT AT A,01 INK 5; " --- "; AT A, 30; " 1449 4560 NEXT A 4570 PRINT AT 10,3;" 4700 LET T=25 4710 LET Y=5 4720 LET T=T-1: LET Y=Y+1 4730 IF Y=27 THEN LET Y=3: PRIN T AT 1,27;" 4740 IF T<2 THEN LE1 1=25: PRIN T AT 20,2;" " 4750 PRINT AT 1,Y; INK 7;" (20)" 4760 PRINT AT 20,T; INK 3;" (20)" 4770 IF INKEY#="a" THEN GO TO 4 800 4775 BEEP .002,2 4780 60 TO 4720 4890 PRINT AT 1,Y;" 4900 FOR A=1 TO 17 4905 BEEP .005,1 4910 PRINT AT A,Y+2; INK 7;" ";A T A+1,Y+2;"@";AT A+2,Y+2;"@";AT A+3,Y+2;"@" 4920 NEXT A 4930 IF Y>T-2 AND Y<T+2 THEN GO TO 4970 4940 PRINT AT 10,10; "HARD LUCK" 4950 BEEP 1,-20 4960 GD TO 70 4970 PRINT AT 10,9; "WELL DONE BO NUS" 4980 FOR A=1 TO 60 STEP 5 4990 BEEP .1,A 5000 NEXT A 5005 LET S=S+500 5010 BD TD 70 6000 REM POKE IN UDG'S 6005 PRINT AT 10,10; "PLEASE WAIT 6010 RESTORE 9500 6020 FOR A=0 TO 15*8: READ x: PO KE USR "a"+a,x: NEXT a: RETURN 9000 POKE 23582,11 9010 LET x=USR 5808 9015 PRINT )4; "9640 DATA 0"; 9020 FDR a=USR."o" TO USR "p"-1 9030 PRINT )4; ",";PEEK a; 9040 NEXT a 9050 LET 1=USR 4788 9500 DATA 60,106,213,171,213,171 ,86,60 9510 DATA 60,126,223,159,191,191 ,255,126 9520 DATA 60,126,219,255,153,195 ,126,60 9530 DATA 0,0,128,64,252,246,27, 15 9540 DATA 0,3,7,15,14,6,3,1 9550 DATA 62,255,255,248,192,0,2 55,255 9560 DATA 0,128,224,240,112,48,2 24,192 9570 DATA 0,118,255,239,127,219, 252,103 9580 DATA 0,108,186,254,206,246, 222,140 9590 DATA 96,247,157,251,46,255, 189,247 9600 DATA 16,16,16,16,214,254,12 4,56 9610 DATA 16,40,68,136,144,184,7 6,4 9620 DATA 8,62,8,127,8,62,8,20 9630 DATA 228,120,60,118,250,250 .254.124 9640 DATA 0,0,0,4,40,152,74,44,2

All and all little

<

ATTACK AND A DISTRICT OF 1

0

00

.....

50

	Have you written a program recently? And how many people have played it? Ten? Five? Two? What, just your mum? Isn't it about time you sent it in to YS? Here we can offer you not just tens, not even hundreds but — just for you, John, once in a lifetime offer, look I'm doing meself out of pocket — thousands and thousands of potential players! And what's more we'll pay you very well. After all, how much did your mum last give you for writing a program? So, fill in the form below and send it with your megaprogram on cassette to Gavin Monk, Your Sinclair, 14 Rathbone Place, London W1P 1DE.
	Name
	Address
2	
	Postcode
i.	Telephone Number
	My program's called and it's completely original — 'cos if it ain't I daren't think what'd happen to me
1	Signed

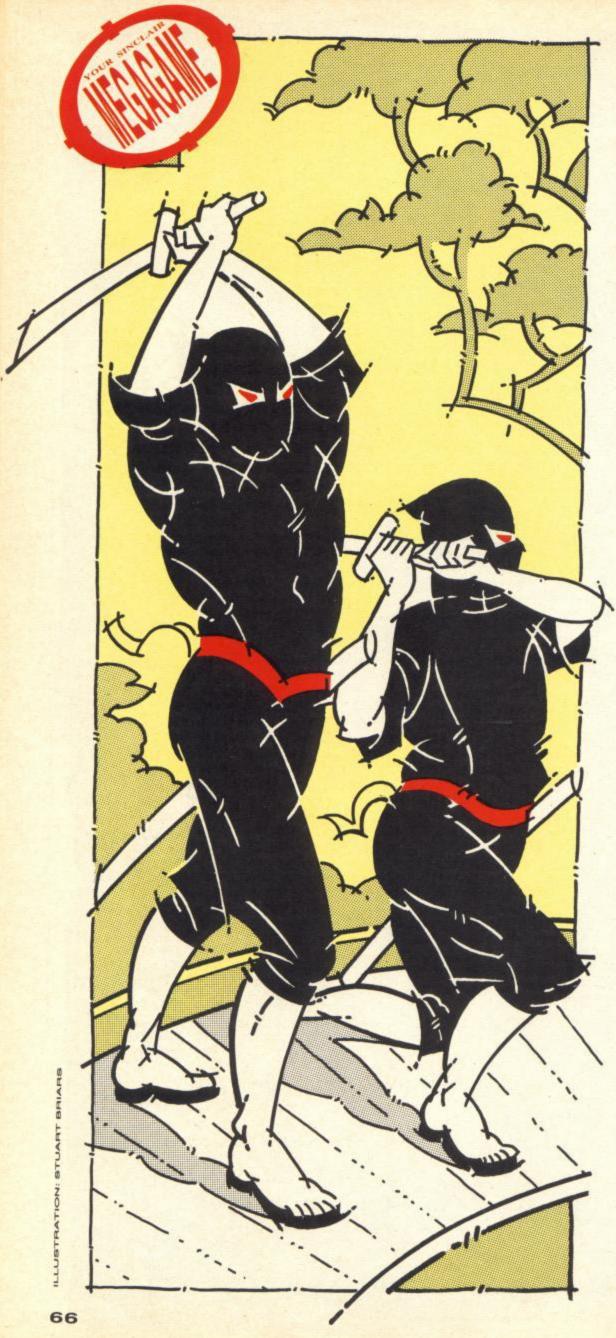
F

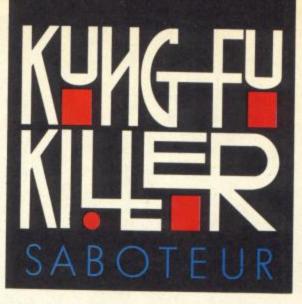
D

D

D







It's a race against the clock, as you take on some of the fiercest Kung Fu fighting Ninjas the Spectrum has ever seen. Would-be anarchist Sue Denham dons her fighting togs and battles through the endless maze of Durell Software's smash game Saboteur.

There have been a fair few martial arts games released or due for imminent release on the Spectrum of late — System 3's International Karate, Melbourne House's The Way Of The Exploding Fist, Imagine's Yie Ar Kung Fu and US Gold's Bruce Lee to name but a few! But none is quite like the latest offering from Durell Software.

The scenario for Saboteur thrusts you into the part of a sabotaging Ninja warrior, sneaking around an enemy warehouse that's much more than it seems at first sight. Your task is to search out a floppy disk from one of the many computer terminals scattered around the computer complex and escape with it. But before you go, you've got to leave a little present for your pursuers — a time bomb. Which doesn't leave you too much room to negotiate a safe path home!

The game itself comprises 118 different screens, which all go to make up the four-level warehouse — there is the warehouse itself, a

computer complex, and two layers of labyrinth-like sewers; the latter areas have a tendency to look the same, which can be a great problem for those who have an aversion to making maps of the best route to safety. All the weapons a self-respecting.Ninja could want, can be found by stumbling across them on your adventures. But you can only hold one weapon at a time and, once you've used it, you'll have to search round for another. Points are awarded for killing the guards — by

weapons or skilful use of martial arts — but your real adversary is time ... and the final objective of stealing the floppy disk and getting clear of the warehouse before the fuse burns down.

Overall, the game is addictive and great fun. There are nine levels of difficulty — but on the easiest level, you can work out the structure of the game and prepare yourself for the terrors of playing at the higher levels. Map-makers will be in their element when they first start playing the game, but it will be the rugged Kung Fu

fighters who will out in the end. Saboteur manages to combine the good graphical representations of the other Kung Fu games with the solid background of an action-packed story. One to be recommended. These items look a bit like the cameras that follow you round in supermarkets making sure you don't steal the wares. But, don't be fooled — they're actually quite deadly laser guns that fire at you should you hesitate in your mission.

This box tells you how much time you've got left to find the disk and, once found and the bomb set, how *little* time you've got to escape! Your time limit is linked to which of the nine playing levels you choose at the beginning of the quest.

This box gives you an indication of your life energy when it turns completely blue, you're dead! Stand still for a few moments and, gradually, your energy is built up to normal — but keep an eye on the clock, as well as any enemy guards and dogs that may be in the vicinity.

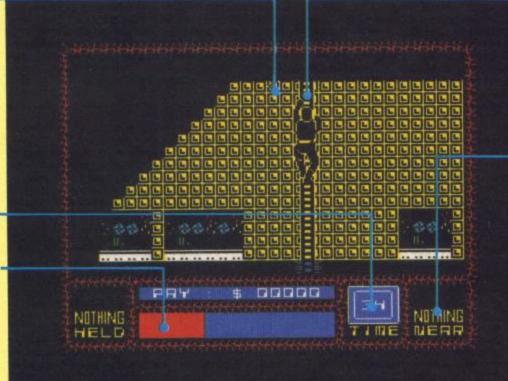
Here you can see how much blood money you've earned from your death-dealing antics. Killing a guard with a weapon will up your cash flow by \$100 — but using a few Bruce Lee kicks to do the same job will get you \$500.

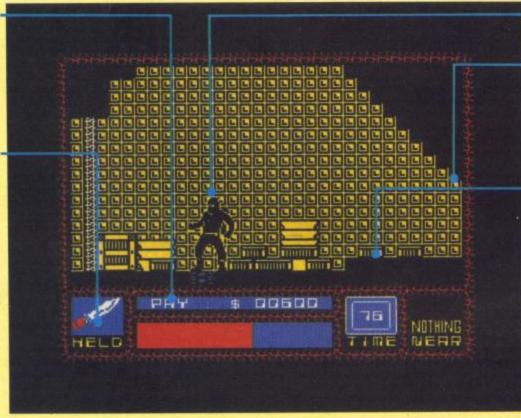
The weapon you are holding be it a dagger, grenade, pipe, shuriken or whatever — is shown here. It doesn't seem to matter what weapon you use to kill the guards as they all seem to have the desired effect.

The enemy guards (although looking like rejects from the *Village People!*) not only carry an endless supply of weapons, but also are keen Kung Fu adepts. Martial arts enthusiasts may hang around for a friendly bout, but for your first few games it's recommended that you dispatch them as quickly as possible.

2

Travelling around between the different areas of the game is done by shuttle which is reminiscent of the vehicles used at most modern airports. The Ninja merely walks inside to start the journey and strolls off at the destination point and not a ticketcollector in sight!





The Ninja is able to climb up the ladders, which is quite useful as your adversaries are limited to patrolling the flat. You do not, however, build up your life energy when you are on a ladder, and you're not completely out of danger from attack by one of the warehouse's defenders.

Keep your eyes on this box as it'll flick up the icon of a weapon when one is in the vicinity. But if, as is often the case, you're in a hurry you may miss finding the all-important bomb which you'll need if you're going to put paid to the enemy warehouse. Picking up or exchanging a weapon is done by pressing the 'Fire' button.

As the lead character in this story, you can move up and down ladders with ease, duck down, jump and crouch, kick and punch your opponents, and throw weapons with surprising accuracy. Not bad for a beginner, eh?

On the easier playing levels, all the doors around the warehouse are kept open. Once you opt for the more difficult playing levels you will find many areas are closed off to you until you unlock the doors using the computer terminals.

The Ninja has no problems falling any distance from a ledge or a hidden hole in the floor — except for the fact that you don't know what sort of trouble you might be falling into!

It is possible to kill the dogs by firing off your weapon and ducking at the same time but the programmers frown on this activity and you won't get a penny for carrying out this dastardly deed. But you might live a bit longer....

The sewers are dark and unfriendly, especially when a guard or dog comes bounding out of the gloom intending you no good at all. If you are going to make a map of any area of Saboteur, you could do worse than start with the sewers.

### FAX BOX

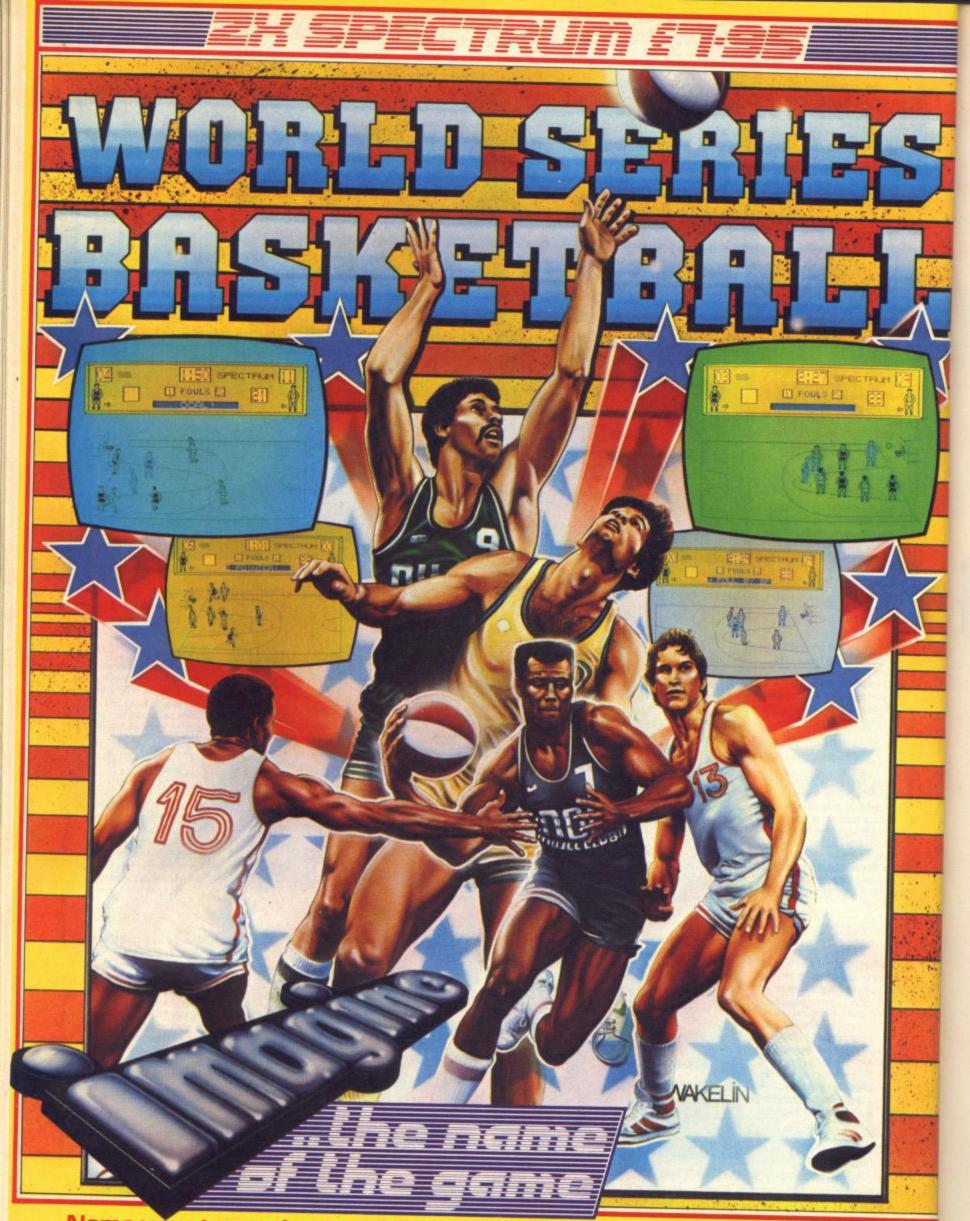
-

Game Publisher Price Joystick Keys

Saboteur Durell Software Ltd £8.95 Protek/Kempston Up/down/left/right/fire – definable.

Graphice Playability Value for Money Addictivements

1.



Name your team, choose your colours, lace up and run'em off the court – pass ... fake ... jump ... shoot in off the backboard ... GREAT BASKET! Simulating all the excitement (including FOULS!) of the Basketball Challenge. Play head to head or against the computer – REACH FOR IT!

Imagine Software is available from: Dec. WHSMITH, MOOLWORTH, LASKYS, Rumbelows, Greene, Spectrum Shops and all good dealers. Imagine Software (1984) Limited • 6 Central Street • Manchester • M2 5NS • Tel: 061 834 3939



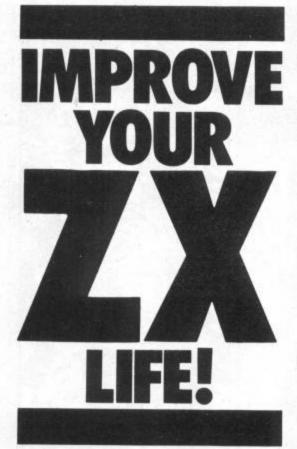




TO BE CONTINUED.

#### YOUR SINCLAIR ADVERTISEMENT FEATURE

Fifty New Commands ... Named Procedures ... On-Screen Windows ... 64 column text ... Multitasking ... Toolkit Commands ... Three Fonts ... Full Screen Editor ... Special Effects ... And More



Isn't it about time you stopped fighting ZX Basic? So, alright, it's got some superb features and it's a doddle to use. But there's still times when you can't quite squeeze what you want from it and there's even more times when the daunting task of changing and correcting your programs makes you want to tear your hair out. Now there's an alternative — Mike Leaman's YS MegaBasic gives you everything you've ever wanted in addition to all the standard features of your Spectrum!

YS MegaBasic is no ordinary extension to ZX Basic - it completely transforms your computer! All the old ZX Basic features are still there but with YS MegaBasic loaded, you've got an extra fifty commands at your disposal as well as improved editing facilities and a machine code 'front-panel' for testing any machine code subroutines you're using. Obviously, YS MegaBasic uses up RAM normally available for your programs - but even with it loaded, you've still got a hefty 22K free to play around with and it's not everyday that you write Basic programs that big! Besides, with the added capabilities of YS MegaBasic, your programs will be able to do more in fewer lines.

### **GET A LOAD OF THIS!**

YS MegaBasic does away with ZX Basic's keyword system — keywords are typed letter by letter though, of course, you can use abbreviations. There is a full screen editor to make alterations much simpler and allow you to copy and move statements between lines!

The Spectrum's screen is transformed by up to ten separate on-screen windows — each of which can be scrolled, panned, inverted and recoloured independently. You can choose from three different fonts and fit

### SEE WHAT YOU GET!

Here are just some of the features YS MegaBasic adds to ZX Basic. Remember you still have everything ZX Basic has — YS MegaBasic has all that and more . . .

O ZX Basic	MegaBasic
PROGRAM DEVI	the second se
<ul> <li>Single keypress keyword</li> <li>In-Line Editor</li> <li>LIST, LLIST</li> </ul>	<ul> <li>Keywords typed in full but abbreviations possible.</li> <li>EDIT Activates improved line editor. The new control keys allow full screen editing.</li> <li>DELETE Delete block of lines.</li> <li>AUTO Automatic line numbering.</li> <li>TRON Trace program execution.</li> <li>TROFF Turns Trace off.</li> </ul>
	<ul> <li>SPEED Set tracing speed.</li> <li>KEY Program function keys.</li> <li>When a program is running, control keys call up the front panel, reset YS MegaBasic without losing the program and halt the program.</li> </ul>
SCREEN HANDL	ING
<ul> <li>32x20 characters</li> <li>1 font</li> <li>1 direction</li> <li>1 size</li> <li>1 window</li> <li>8 colours</li> </ul>	<ul> <li>MODE Selects character size 64x20, 32x20, 16x10 characters.</li> <li>FONT Selects from 3 character fonts.</li> <li>DOWN Print down the screen.</li> <li>SPRINT Print in any magnification.</li> <li>WINDOW Define up to 10 windows.</li> <li>STIPPLE Patterns large characters.</li> <li>VDU PRINT character codes to screen.</li> <li>PRINTER Redirect screen output to printer or user-supplied routine.</li> </ul>
GRAPHICS	
<ul> <li>PLOT</li> <li>DRAW</li> <li>CIRCLE</li> <li>INVERSE</li> <li>OVER</li> <li>BRIGHT</li> </ul>	<ul> <li>CHANGE Manipulate attributes.</li> <li>SWAP</li> <li>FADE</li> <li>GET Move screen display</li> <li>PUT to and from memory.</li> </ul>
O POINT O ATTR	<ul> <li>SPRON Control up to 8 on-screen sprites — each sprite has its own shape, colour, direction and speed.</li> <li>PAN Scroll windows in any direction</li> <li>SCROLL</li> <li>INVERT Invert whole screen or window.</li> <li>DEFG Define UDG.</li> </ul>
PROGRAM CONT	ROL
<ul> <li>○ FOR NEXT</li> <li>○ GOSUB RETURN</li> <li>○ IF THEN</li> <li>○ GOTO</li> </ul>	<ul> <li>REPEAT UNTIL Named procedures with parameters.</li> <li>POP Drop last REPEAT or ENDPROC address.</li> <li>PUSH Place an address on the REPEAT/procedure stack.</li> <li>BRANCH GOSUB at end of every line.</li> <li>MTASK Alternate between two sections of program.</li> <li>RSTART Trap Basic errors.</li> <li>BRON Disable/Enable BREAK key.</li> <li>BROFF Turns above command off.</li> </ul>
SOUND • BEEP	<ul> <li>PLAY Play notes or white noise.</li> <li>SON Play sound in background while the program continues to run!</li> <li>SREP Repeat sound continuously.</li> </ul>
MACHINE CODE	
O PEEK	<ul> <li>DOKE POKE 16-bit value.</li> <li>CALL Call machine code and pass Basic variables to Z80 stack.</li> <li>MON Activate machine-code front-panel where you can examine and alter memory and Z80 registers, fill and run machine code programs.</li> </ul>

### CREATE ELECTRONIC ART ON YOUR OWN TV SCREEN WITH THE SPECTRUM DOODLER!



Software designed in conjunction with Sinclair Research

Draw straight on to your screen!

The Spectrum Doodler is a lightpen that enables you to draw straight on to your own tv or monitor screen. Pen reaction is instant and requires no programming knowledge. Software is displayed on 'pull-down' menus with icon symbols so that you can easily select the feature you require by simply pressing the pen against the screen.



Using a palette of sixteen colours you can choose the line thickness most suitable for your work.

14 options including text!

Besides line thickness, there are modes to enable you to create instant squares, circles and triangles. You can fill in areas with colour

### textures, repeat stock patterns or make your own design using a special layout grid. Draw

textures, repeat stock patterns or make your own design using a special layout grid. Draw free hand – point to point or continuous line ribboning. There is also the facility to add text to your design.





The Doodler Software allows you to save complete or incomplete pictures for rework or for use with your own programs at a later date.

Auto trim feature! The pen has a trim feature that automatically

The pen has a trim feature that automatically sets the pen's accuracy to the tv or monitor screen you are using.

### Robustly made, fun to use!

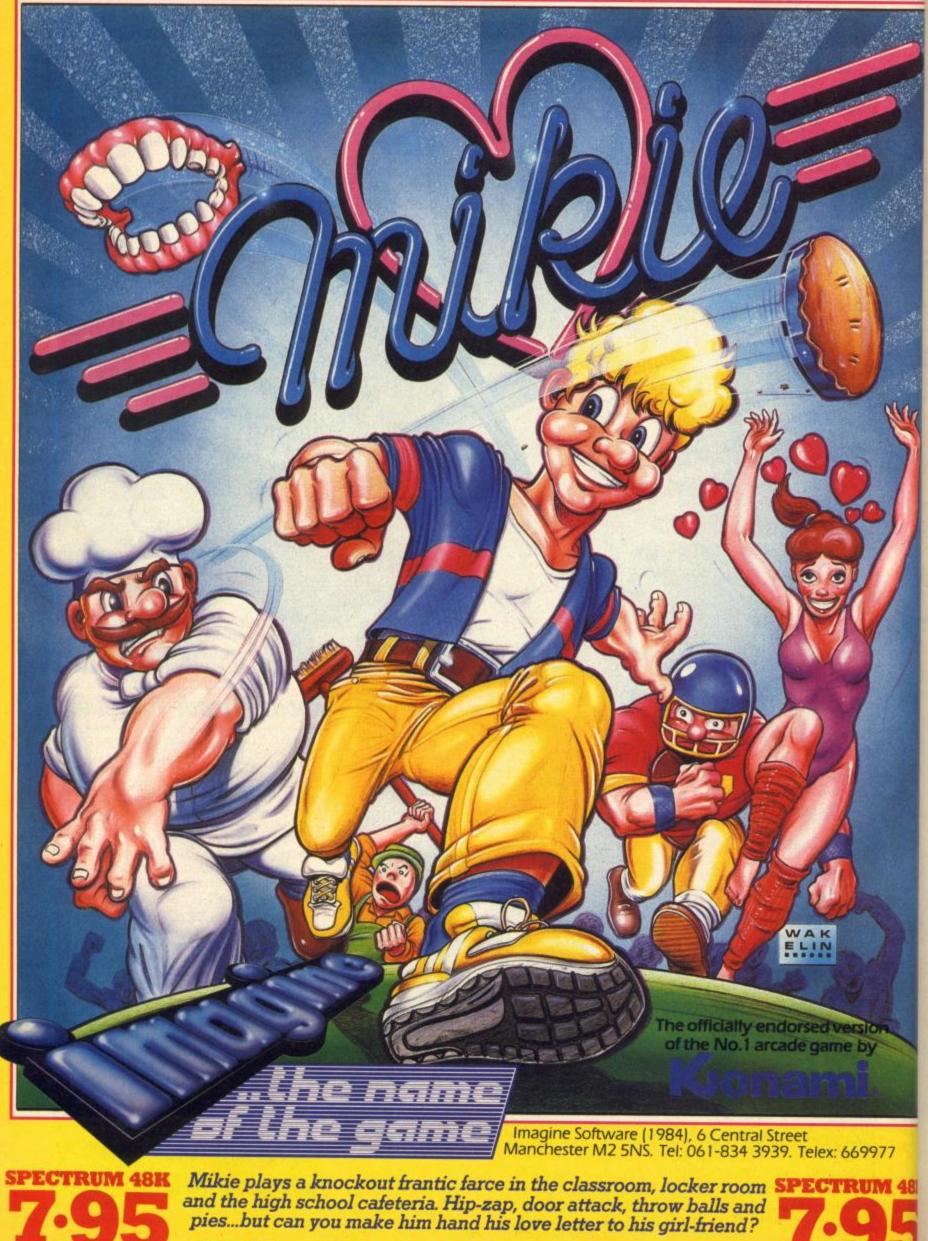
ULCHER

The lightpen is robust and comes complete with software on cassette which can be duplicated on to microdrive cassette. There is an instruction manual that's simple and easy to understand and an interface box for connection to your Spectrum computer. You can even write your own software for the Doodler if you wish.

To get your own Spectrum Doodler just send a cheque or postal order for £29.90 with the completed coupon. Free post and packing in UK only.

(includes P+P) for days for delivery	or my Spectrum Doodler(s). Allow 2 Full refund if not completely satis
Name	and the second second
Address	Star Star Star
1	
1 26 11	
	Postcode
F E Electronic	5
163 Huntingdon	Road, Cambridge CB3 0DH
SPECTRUN	





ECTRUM 48K MIKIE – He's the hottest cookie in school!

**SPECTRUM 48** 

### IMPROVE YOUR ZX LIFE!

### SCREEN SCENE

Here's just a sample of YS MegaBasic's awesome screen handling abilities — we'd like to show you the super smooth sprites, the way windows can be panned and scrolled, the fantastic fade effect but this paper stuff just isn't up to it! So instead, look at the range of different character styles and sizes YS MegaBasic provides!



200 PAPER 0: CLS 210 PAPER 2: INK 7: MODE_2,4:STI PPLE_255: PRINT AT 0,0; " YS MEG ABASIC ";

Set double-height, double-width size with fully inked characters.

220 PAPER 1:MODE_2,2: FOR I=O T O 2:FONT_I: PRINT "FONT ";I;" "; : FOR J=40 TO 96:VDU_J: NEXT J: NEXT I

Return to normal size and use the FONT command to select between the three different fonts. VDU is a useful shorthand for PRINT CHR\$.

230 PAPER 0:MODE_2,1: FOR I=1 T D 4: PRINT "64 column text 64 co lumn text 64 column text 64 colu mn text": NEXT I:MODE_2,2

Go into 64 column mode ... great for adventures and other textual programs!

260 INK 2:SPRINT_0,96,2,2,"Big" 270 INK 3:SPRINT_72,96,3,3,"Big ger!"

Use the sized-print (SPRINT) command to generate huge letters.

280 INK 4:DDWN_9,62,"DDWNPRINT" You can also print downwards - great for

labelling graphics!

290 INK 6:SPRINT_0,114,1,6,"THI N" 300 INK 5:SPRINT_72,148,5,1,"WI DE"

SPRINT again — this time by varying the X and Y magnification, the proportions of the printing can be changed — thin or fat, there's no problem.

310 PAPER 6: INK 2: MDDE_2,4:STI PPLE_170: PRINT AT 16,18: "STIPPL ES!"

By using MODE 4 characters, you can create stipple effects — only certain pixels in the characters are inked. In this line, a stipple of 170 and the colours red and yellow create the effect of orange lettering!

999 LET A*=INKEY*: IF A*="" THE N GO TO 999 1000 FADE_INT (RND*127): GO TO 9 99

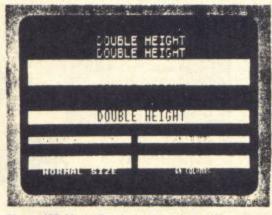
What does the fade command do? To find out, you're gonna need your own copy of YS MegaBasic!

#### YOUR SINCLAIR ADVERTISEMENT FEATURE

64, 32 or 16 columns on each line as well as magnify characters and print down the screen. YS MegaBasic makes special effects really easy — you can manipulate colour independently of the graphics on screen and save sections of the screen display to and from memory.

YS MegaBasic provides software sprites — predefined graphic shapes that move smoothly by themselves while your program is running. Yes, you can write arcade games and animated programs in Basic! And because designing sprites can be a chore, the YS MegaBasic package includes a free Sprite Designer utility to make it easy!

Your programs are also neater and easier to maintain — *MegaBasic* provides REPEAT . . . UNTIL loops, named procedures, proper CALLs to machine code routines, error trapping

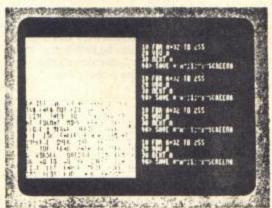


Here, YS MegaBasic is showing off its multifarious character sizes and fonts. Each window contains text in three different sizes: double height, normal height and that used for 64-columns; double height and standard text can be output in three different fonts.

and, believe it or not, simple multitasking! You can set up a procedure which is called when each line of the program has been executed or you can use the MTASK command to alternate execution between two sections of the program.

And that's just a taste of YS MegaBasic magic — there's more to come. To get hold of your own copy complete the coupon opposite and rush it with payment to the address given. We'll deliver within 28 days. And before you ask, YS MegaBasic is microdrive compatible and can be transferred onto cartridge! C'mon, do yourself and your Spectrum a favour — one day you're gonna wish you had!

Available Only By Mail-Order From Your Sinclair Magazine.



The screen format for the input/output of YS MegaBasic. Three windows are provided for input, LISTing and RUNning programs; under software control, each window's size and purpose can be changed to suit individual requirements.

YS	ME	G/	AB	AS	IC
PR	IORITY	ORI	DER	FORM	

YS MegaBasic is only available direct from the Your Sinclair Mail Order department. Simply fill in this coupon and mail it with your cheque or postal order to YS MEGABASIC OFFER, PO BOX 320, LONDON, N21 2NB.

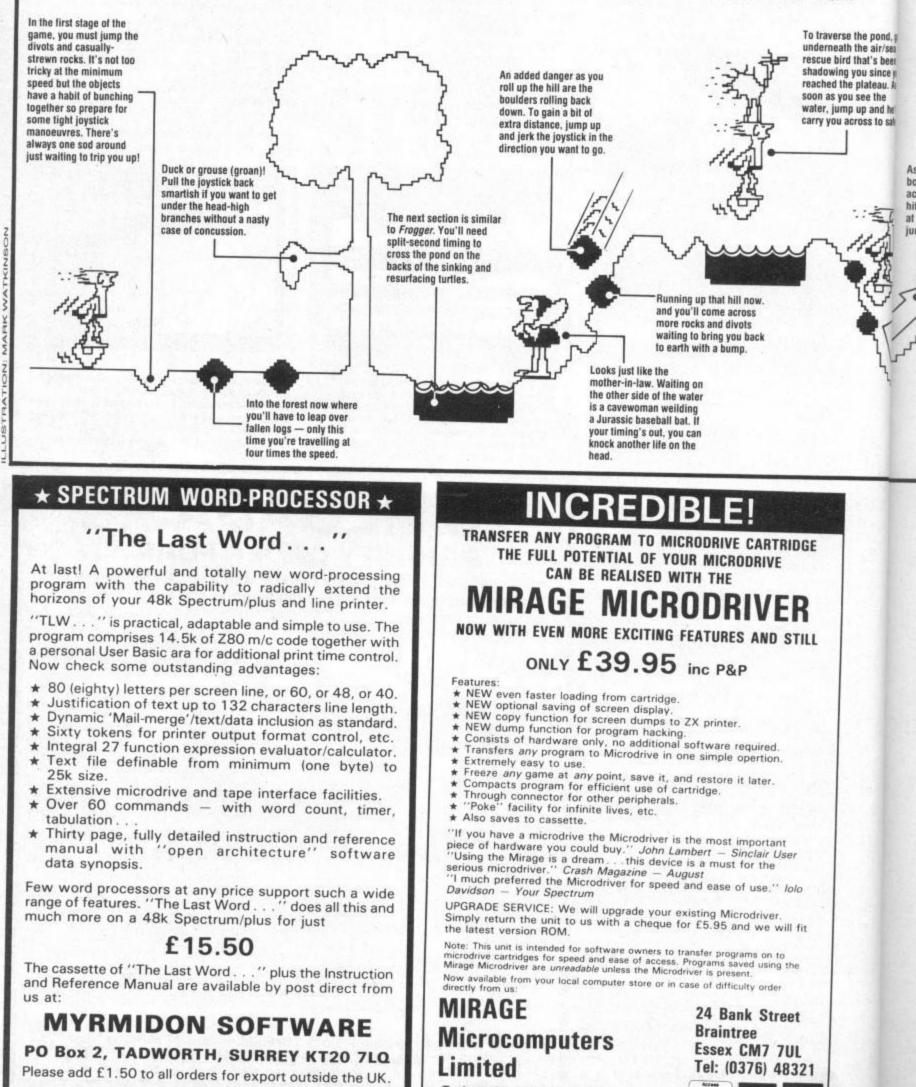
Q14	YS MEGABASIC	E9.95	TOTAL
Name			
Address			
	Post	code	
Phone			
Name			
Address			<u></u>
	Post	code	
Phone			
Diagon unit	to postly uning block as	nitela and of	
Flease write	te neatly using block ca	pitals - one of	these is your

Please write neatly using block capitals — one of these is you return label! Please allow up to 28 days for delivery.



If you're on the look out for a simple, unsophisticated slice of arcade action, BC's Quest For Tires may be the game for you. Steve Malone gathers very little moss in his review of Software Project's new Neandertale! Next time you get a puncture, don't blow your top. Just think what it must've been like One Million Years BD — Before Dunlop. You'll get some idea from playing BC's Quest For Tires, the prehistoric program from Software Projects. So, prepare for a distinctly bumpy ride.

The first thing that'll strike you about the game is that the graphics have a distinctly cartoonish feel about them.



Trade and overseas enquiries welcome.

VISA

AP.

Hardly surprising really as our stoneage superstar is the hero of Johnny Hart's BC newspaper comic strip. Here our hero sets out on his rolling stone to rescue his loved one, jumping and ducking according to the hazards that are thrown at him.

All in all this is a good, competently programmed arcade game. And it'll have you throwing the joystick around the room with frustration as Thor the hero falls flat on his face for the umpteenth time.

Where the game falls down is in the fact that there's just not enough of it. Two days of frantic joystick-jiggling or keyboard bashing (and it's addictive enough to keep you at it that long!) will allow most of you to get to the end. And once you've cracked it, it's back to the beginning again — only this time it's just that bit faster. The only trouble is that once you've been in at the finish, it doesn't have quite the same air of mystery about it — and then it's on to racking up the points.

Having said all that, this is pure and unadulterated (no added colour, no preservatives) arcade action — and it's still got plenty of natural fizz!



### SINCLARQ

### THE COMPLETE

SOFT WARE BUYERS GUIDE

At under £200, the QL has started to look a real bargain. If you've splashed out on one already or you're considering taking the plunge this Christmas, you'll want to know just how much software is available for the machine. The answer is still not much but things are starting to look up. Graham Rydout surveys the field.

#### THE LANGUAGE BARRIER

Very soon after its launch eighteen months ago, the QL was blessed with a wide range of languages and a couple of 68000 assemblers from Metacomco and Computer One. Now that range has been further complemented.

TITLE	PUBLISHER	PRICE	RATING
Assembler Development Kit	Metacomco	£39.95	6
QL Pascal	Metacomco	£89.95	9
BCPL Development Kit	Metacomco	£59.95	8
Lisp Development Kit	Metacomco	£59.95	8
QLC	Metacomco	£99.95	9

All of these come supplied with the Metacomco full screen editor that has now become the QL standard. So much so, in fact, that Metacomco have licensed it out to other companies for inclusion in their packages.

Assembler	Computer One	£29.95	7
Forth	Computer One	£39.95	8
Pascal	Computer One	£39.95	6
Assembler	GST (via Sinclair)	£39.95	9
Editor Assembler	Adder	£34.95	8
Gen QL Assembler	Hisoft	Coming Soon	and and

This list will give you an idea of the range of Assemblers and language packages available from companies other than Metacomco.

Mon QL (Microdrive)	HiSoft	£14.95	8	
Mon QL (EPROM)	HiSoft	£39.95	10	1
QL Monitor	Computer One	£24.95	9	32

QL Monitor QJump £24.95

With only three disassembler/debuggers on the market, HiSoft comes out tops with MonQL on EPROM but the others are expected to follow suit shortly.

QL Monitor	Digital Precision	£18.05	2

This is a very simple package and suffers greatly from a severe lack of features — not one I'd recommend.

C Compiler	GST	£59.95	7
This isn't a compl	ete implementation	of the language but it	t's well suited to the

This isn't a complete implementation of the language but it's well suited to the beginner.

#### Supercharge (compiler) Digital Precision £59.95

I haven't yet seen the finished version of this compiler but it promises to be a product that everyone can make use of. It's written by Simon Goodwin of Zip compiler fame (take a look at *Your Spectrum* 3) and it claims to convert almost every SuperBasic program into fully multi-tasking 68008 code.

SuperBasic extension	QJump (via Sinclair)	£24.95	9
SEE (EPROM)	HiSoft	£39.95	9

Of these two SuperBasic extensions, QJump's leads the way but HiSoft's SEE has some very useful facilities. It gives the QL true windowing capabilities and as it's on ROM you don't have to keep loading it in.

Microdrive Toolkit	Compware	£9.99	5	-
Microdrive Toolkit (with source code)	Compware	£34.99	5	

The toolkits change the QL's microdrive commands into functions so that values can be returned and errors such as 'drive full' trapped.

Keydefine	Psientific Software £9.95	10
	e key redefinition package that'll let you	
	L package. You could, for example, defin with the Caps Lock held down, the curre	
within Quill could	he saved and then printed Freehie proc	rams provided are a

within Quill could be saved and then printed. Freebie programs provided are a fast copier (a multi-tasking directory lister that lists directories from within other programs) and a printer spooler.

ICE (EPROM)	Eidersoft	£49.95	9
ICE (Icon Controlle	d Environment) give:	s the QL a full Icon	based Desktop

Manager and Front End to QDOS. It removes most mundane file handling tasks and I can thoroughly recommend it.

WD Utilities	WDSoftware		6
(Microdrive)		£7.50	State State
(51/4")	2200	£10.00	States and states in
(31/2*)		£12.00	

WD Utilities are a complete set of SuperBasic procedures providing a menu driven system to manoeuvre files.

Cartridge Doctor Talent £14.95 9	Manage fragmanthe	inited by the iDed	or Channed Medius		
	Cartridge Doctor	Talent	£14.95	9	

If you're frequently visited by the 'Bad or Changed Medium' error message, you'll welcome this program. It's a fully automatic set of routines to recover corrupted and deleted files.

Q Doctor	Adder	£14.95	5	
	) things the hard way nicrodrive. Unfortun			

GraphiQL		£34.95	6
M-Paint	Medic	£49.95	8
Paint Master	Shadow Games	£14.95	7
Tascopy	Tasman	£12.90	8
Sprite Generator	Digital Precision	£24.95	6

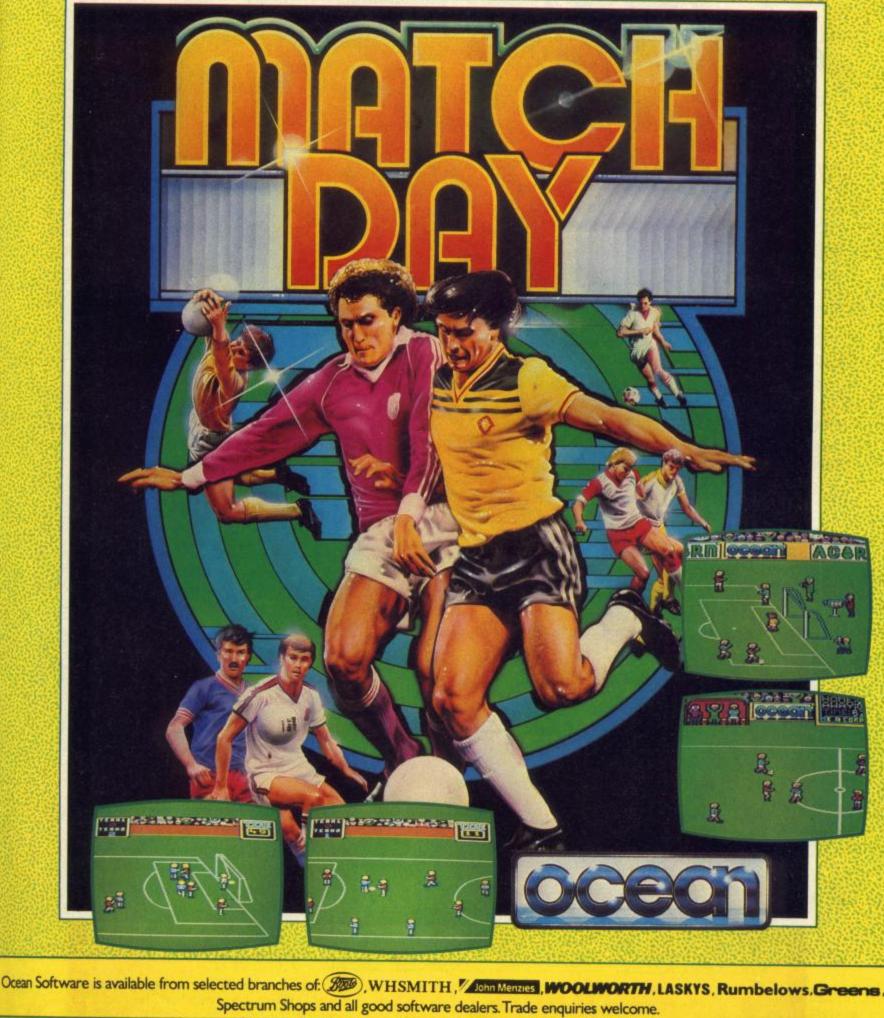
Graphic printers are a personal choice. *GraphiQL* suits highly detailed work but is extremely difficult to use. For dedicated artists only! *M-Paint* is a coloured clone of Apple's *MacPaint*. Simpler to use but a shade less accurate on detailed work. Least sophisticated of all, *Paint Master* is none the less the most appropriate for your average QL user. Its ability to compile a drawing into a SuperBasic program that then copies it makes it practical if you want simple illustrations within your program. All have simple screen dump programs but *Tascopy* copies all or part of the screen in a variety of shades. *Sprite Generator* does just that but it's a complex to use package that isn't worth the asking price.

#### **DOWN TO BUSINESS**

The high reputation of Archive, Abacus, Quill and Easel is based on their quality — it's not just that they come with the QL. Other companies haven't released similar packages because most people are happy with what they've got. Doubtless improvements could be made but I expect

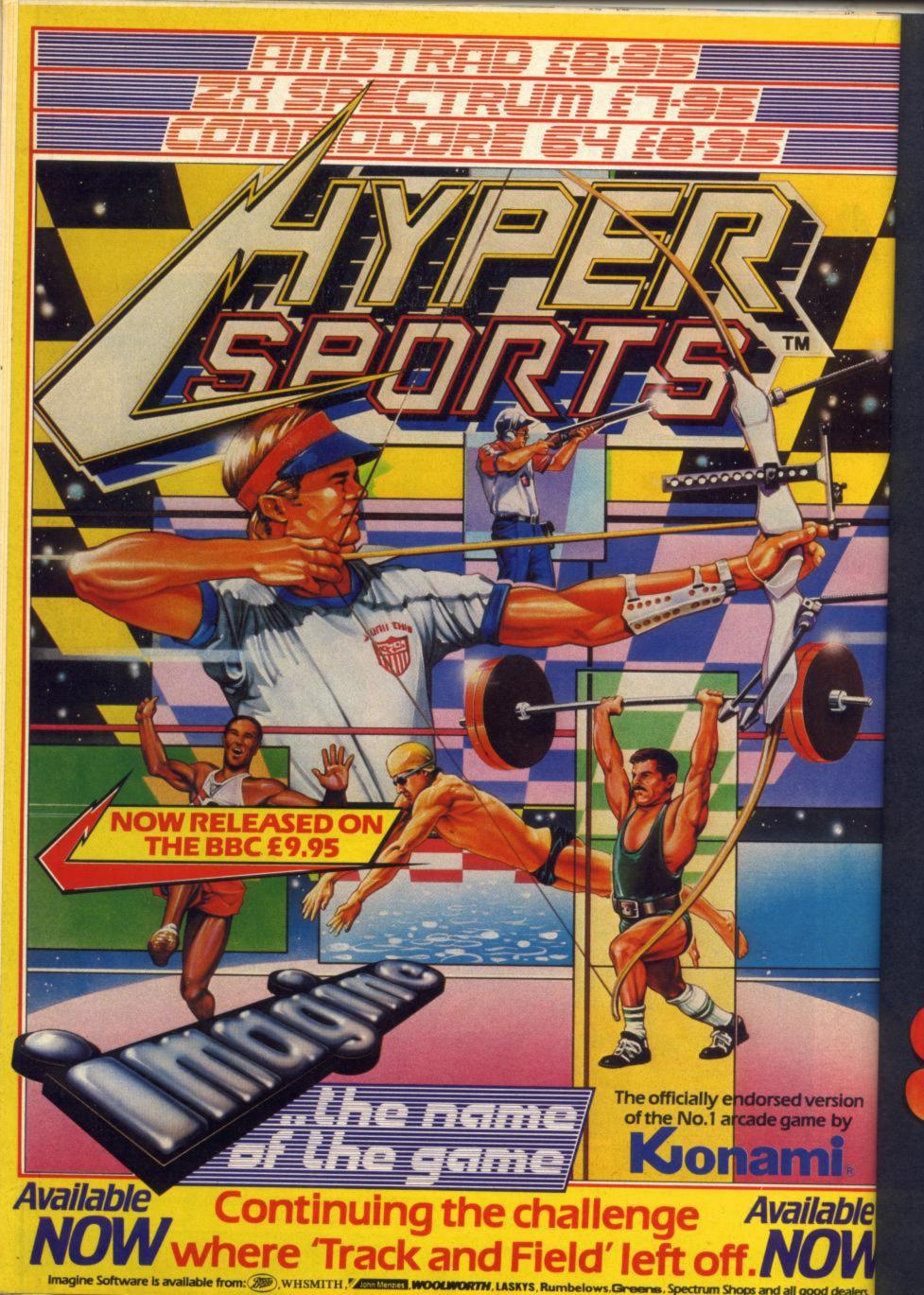
Oce

## The Best Selling Spectrum Soccer Special Now Released On The **AMSTRAD& BBC MICRO**



### **BBC MICRO 9.9**

SPECTRUM 7.



### lop AT ROCK BOTTOM PRICES





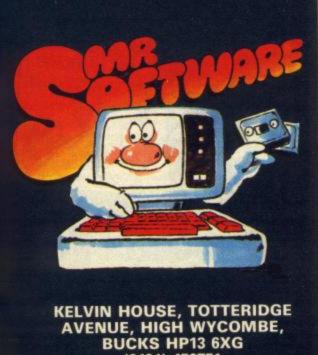
#### INTRODUCTORY OFFER

TAKE UP TO FIVE



Place an order for our Spectrum magazine and you can take up to five of the titles listed above at the introductory "Bonus at the introductory "Bonus Price" plus one of the two Imagine titles illustrated absolutely free.

A subscription to the magazine costs just E5.00 per annum and brings you six issues a year through the post. As a subscriber you will automatically be enrolled in our discount Software Club giving you the opportunity to make many more purchases at prices similar to the ones shown above. In addition to these top selling games, we stock over 200 titles for the Spectrum. All titles are offered at a discount – you'll find many on which you can save £4-£5. Note, however, that even though you belong to the club we don't make you buy anything. There are no minimum pur-chase requirements, so your only commit-ment is the annual subscription to the Magazine. Hurry now and join over 10,000 members who are already enjoying Mr Software's low, low prices.



(0494) 450751

**EXCELLENT VALUE** 



Mr Software's magazine is excellent value. Each issue contains twenty or thirty reviews of the latest software releases and on first joining you also receive a twenty-four page supplement review-ing a range of hardware and utility products. In every issue there is a com-

petition to enter, a summary of how other magazines rate the new releases, game play-ing tips from our members, and one of our

reviewers sums up his personal favourites of the month.

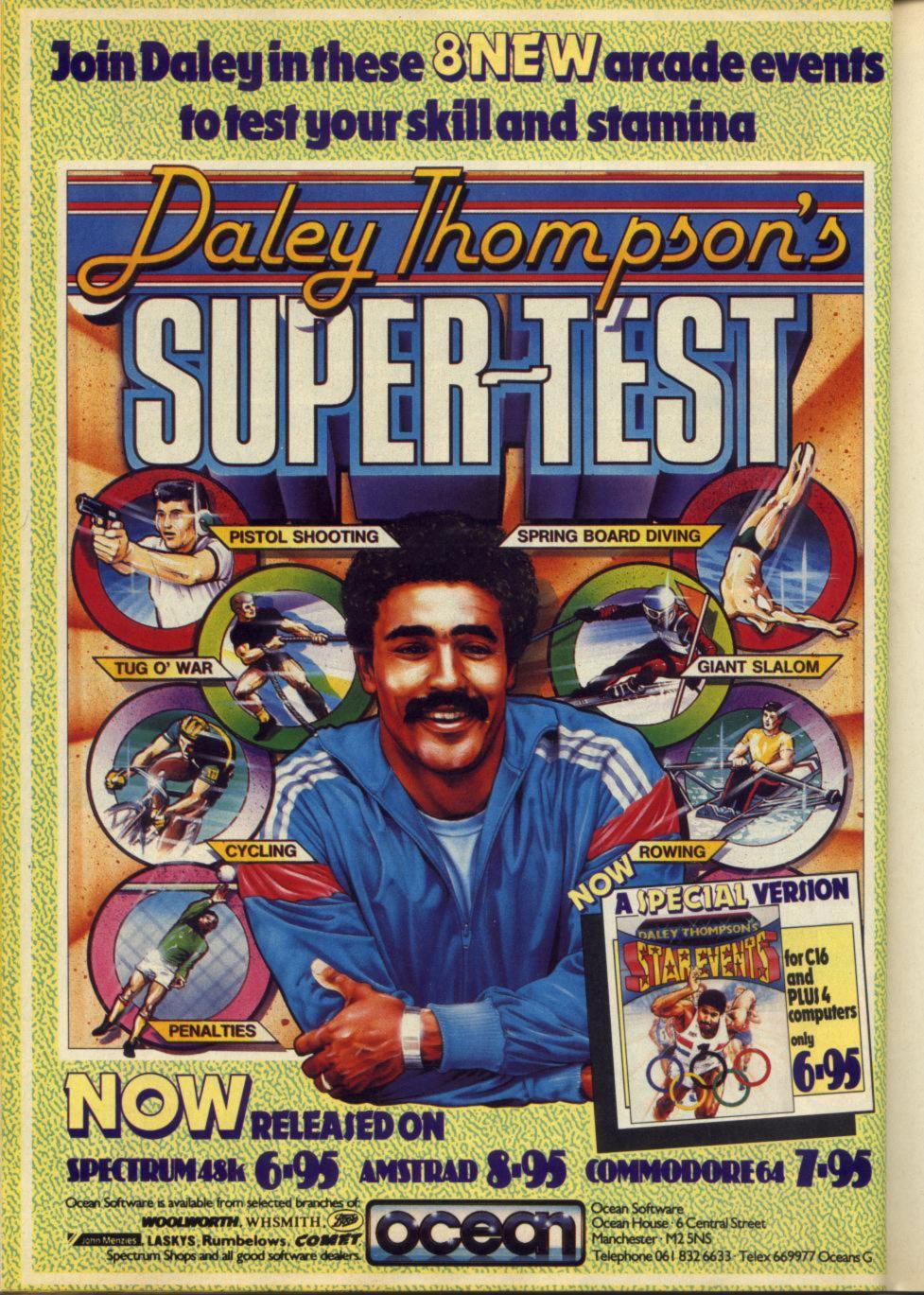
#### HOW TO ORDER



Choose up to five titles from the selection shown. Enter them on the order form below, choose your free game, then fill in the payment details and your name

and address and post the form to us. By return you will receive your copy of "48K", followed shortly by the games you ordered. Hurry, though, the introductory offer expires 60 days from the publication date of this magazine.

rLE P	Amstrad ctory Bonus Price RICE	e Offer.
e titles I would like to buy are as follows:-  TLE  P		e Offer.
	RICE	
		1000
vould like as my free game:-	OTAL:	
P	Post & Packing:	.75
S	Subscription:	£5.00
	GRAND	
ase charge my Access/Visa Card No	TOTAL E	
		LICA
		VIDA
inderstand that if I am not fully satisfied with the goods, I may return the full refund of the cost of the games and the Magazine subscription.	m within fourteen	n days fe
ame (BLOCK CAPS)		19.52
	The Street al	
ddress		





Cosmos

### these'll come from Psion rather than an independent house.

TITLE	PUBLISHER	PRICE	RATING
Q-Spell	Eidersoft	£19.95	8

Pore spillars will welcome *Q-Spell* — a full-spec spelling checker for Quill. But be warned! Extra memory's needed to check your document with Quill still in memory.

Home Finance	Buzzz (via Sinclair)	£24.95	8
Self Employed and Cash trader	Quest	£69.95	7
Small business and Accounts	Sagesoft	£89.95	8
Payroll	TR	120 2243	8

Of the accounting packages aimed at home users *Smallbusiness* is the most professional. It has Integrated Purchase, Sales, and Nominal Ledgers. Transferred from the IBM PC it just goes to show that the QL can compete in the business world. *Payroll* provides a perfect complement and deals with data for up to 75 employees.

Decision Maker	Triptych	£39.95	8	
Entrepreneur	Triptych	£39.95	8	100
Project Planner	Triptych	£39.95	8	19.2

The Triptych products help solve various problems and educate you in the process.

(Microdrive and disk) For mathematicians, E	Flite	£39.95	7
Equate			

simultaneous equations, differentiation, integration, curve fitting and various graphical problems.

QL Gardener	Gordian Comp	outing	
	Services	£24.95	

QL Gardener is a database with information on over 1100 plants. Just a shame that the package won't dig or even weed your garden for you!

### **QL ADVENTURES**

When you consider the QL's large memory and excellent graphics you'd expect plenty of adventures. But only three quality games exist, and they're all text only.

TITLE	PUBLISHER	PRICE	RATING
Lost Kingdom of Zkul	Talent	£19.95	8
West	Talent	£19.95	6
The Pawn	Magnetic Scroll coming soon	aciel a	10

The Talents were released early on in the QL's history and they're still looking good. *Zkul* is based on the popular Dungeons and Dragons format and plays very well. *West* is set in the desert wilds — complete with menacing Indians. Few reservations about this one! *The Pawn* is extremely high quality, similar to that of the Level 9 adventures. It's set in the magical world of Kerovnia during a period of social upheaval and includes a very complex command interpreter that can understand commands as complex as "Get all except the cases but not the violin case then kill the man eating shrew with the contents of the violin case. Remove the shrew's tail and use it to tie the pole and the noose together!" See what I mean? This game's by far the QL's best adventure yet.

#### **A WINNING STRATEGY**

If you compare this list of strategy games for the QL with the selection for the Speccy, it looks pretty paltry. Still, there are some good 'uns here.

TITLE	PUBLISHER	PRICE	9 BATING
Chess	Psion	£19.95	

Computer chess takes on a new dimension with a full 3D board display that makes impressive use of the QL's graphics.

Match Point Psion £14.95

Match Point is converted from the Spectrum and improved graphics make the game more playable.

9

Area Radar Controller	Shadow Games	£14.95	2
This is a very poor airc	raft control simulatio	n written in Su	perBasic.
Bridge Player	CP Software	£14.95	5
Backgammon	Digital Precision	£12.95	5
Reversi	Games of Skill	£12.95	(Coming Soon)

Aimed at novices, *Bridge Player* and *Backgammon* are of little value to the experienced. Coming soon is *Reversi* — a full version of *Othello*.

Talent

£14.95

Patrick Moores, stand by your QLs. This is an astronomy package that allows you to display star and solar patterns as seen from any place on Earth at any point in time. From the star map you can choose any star with the cursor to find out extra data.

#### **ARCADE ACTION**

This list of arcade games for the QL may produce a snigger from Speccy owners — it doesn't exactly rival the selection on offer to them. Still, it's growing all the time!

TITLE	PUBLISHER	PRICE	RATING
QL Cavern	JMF (via Sinclair)	£12.95	7
A massive 50 screen with a good many im	Jet Set Willy clone with provements over the st	h 395 gems to o andard platform	collect. Good value, n game.
Meteor Storm	Arrakia (via Sinclair)	£12.95	4
A bog standard versio	on of Asteroids.	Crist Health	a second a second as
Booty	Firebird	£9.95	(Coming Soon)
	ssic on the Speccy that price on the QL. Look		). Microdrive
EVA	Westway	£12.95	9
A <i>Jetpack</i> -style game is the almost continu	with very large sprite ous sound.	graphics. The r	nost annoying feature
Star Guard	Shadow Games	£14.95	5
Galactic Invaders	Shadow Games	STRAME (FR	5
Shadow Games rang one cartridge and are	e from the reasonable t just copies of Arcadia	to the pathetic. / <i>Invaders</i> .	This pair come on th
Night Nurse	Shadow Games	£12.95	3
This uses Digital Pre just goes to show tha	cision's <i>Sprite Package</i> at commercial games c	e (see The Lang annot be produ	uage Barrier) and it ced with it. Shame.
Quazimodo	Shadow Games	£12.95	7
Reasonable I suppos back it!	e, very colourful and s	hould satisfy if	this is your thing. I'd
Space Paranoids	Shadow Games	£12.95	4
Another Arcadia style	e game — hardly worth	loading up.	
Zapper	Eidersoft	£10.95	6
Similar theme to Par	<i>anoids</i> but slightly bett	er value.	
Master Blaster	Compugem	£9.95	8
Excellent shoot 'em of graphics and a wide	up that puts the rest to range of aliens.	shame. Very sn	nooth animated
Cuthbert In Space	Microdeal	£14.95	7
Microdeal has a very game's player and th shoot out.	varied quality range. I ne hidden strategic eler	<i>Cuthbert</i> s aime ments make it n	d at the younger nore than a quick
Lands of Havoc	Microdeal	£19.95	8
A well packaged 2,00 better use of colour.	00 screen arcade that p	olays very well l	but could've made
Crazy Painter	Microdeal	£12.95	8
You can hardly call t	his an Arcade copy — i	it's so different.	Crazeee!
Hopper	Microdeal	£14.95	7
and the second sec	Frogger — as good as	any. 'Bout time	it hopped it.
QL Flight	Microdeal	£19.95	(Coming Soon)
and the second s	at's due for release soo	(1996) 1020 (N-401, 1996) (1996)	(coning coon)
Hyperdrive	English Software	£14.95	8
Thermine	citylisii Suitwale	L14.00	0

The QL's official *Pole Position* — rather disappointing considering what could've been achieved. It's on a par with the Spectrum version.

#### LET US KNOW ....

We've tried to make this guide as comprehensive as possible but a list like this can never truly be complete. If you own a piece of software, or if you produce one, that's not included here, tell us about it and we'll pass the info on to Your Sinclair's software hungry QL readers. The address to write to is Your Sinclair, 14 Rathbone Place, London W1P 1DE.

it of a turn up for the books this D - two new Speccy wordpros both claiming to be so good, D users will junk their faithful Taswords and pay out for the upgrade. Tasword has been the top Speccy word processor since it came out and, since it's given away in the Sinclair microdrive kits, most microdrive owners already have a copy. But Tasword is far from perfect - it operates at near comatose speeds and simple things like inserting text are quite awkward! So the opportunity to do something better has always been there and Softechnics and OCP's challengers have been a long time coming ...

### THE WRITE APROACH

Let's look at *The Writer* first, simply because I like talking about well written, professional programs — and this is, quite simply, one of the most professionally produced business programs ever to load into a Spectrum. *The Writer's* writer has taken a serious look at wordpros on business micros and brought a lot of their features and style to the Spectrum. In particular, it owes a lot to the number one wordprocessor in the world — *WordStar*, a long-running package, for CP/M and MS DOS micros, that'll set you back more than the price of a Spectrum with Interface 1 and two microdrives!

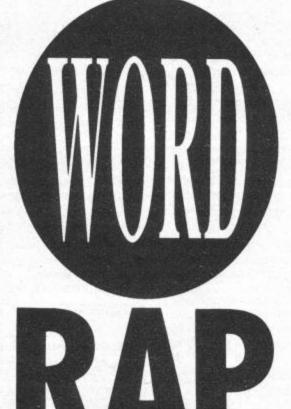
The Writer uses a quite pleasant 64 column display with a status line at the top which tells you your document name, the page, line and column you're on, the state of the Speccy's shift keys and whether you're in insert or overtype mode. Underneath this is a 'ruler line' showing the current margins and tab stops. As you enter text, it's formatted according to your current settings — justified, centred or whatever. If you edit a paragraph, it'll remain untidy until you use the reform key (Symbol-Shift/Y) to replay it out according to the current settings. If that ain't straight out of WordStar, what is?

While most common editing commands are on Symbol-Shift and Extend mode keys, all the complex editing functions are called up by pressing EDIT. A menú appears at the top line and you can move a little arrow using the cursor keys to select the item you want. A 'dialog box' will pop up over your text where you can choose the commands you want or enter new settings using the little arrow and the Enter key. This system is a doddle - you nardly need the complete help screens that can be called up off microdrive while you're editing! However, once you know the package, there's no quick way to execute these commands. The little arrow always reappears where it was last time you finished with a menu, so you spend a lot of your time driving it around the screen!

All these programs have around 20K free for text — about 3000 words. The Writer manages to keep its speed up admirably with all but the longest documents. One nice touch is a proper keyboard buffer — the Speccy remembers your keystrokes even while the program is busy so it doesn't matter if things slow down a bit.

### PRINTS AND THE ROYAL MAIL

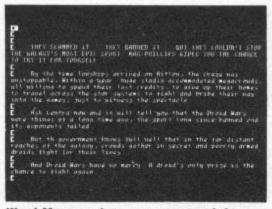
But The Writer really gets good when you come to print your documents. It offers a



Tasword II is the undisputed king of Speccy wordprocessing. Now it's got serious rivals courtesy of Softechnic's The Writer and OCP's Word Manager. Max Phillips tries the challengers ...

superb mail-merge facility - you can generate personalised mailshots by combining a form document with names, addresses or whatever held in a data file. For example, you could mail all the members of your club with a standard letter that begins Dear what-ever-your-name-is, and so on. The Writer lets you SET variables in the document so that, for example, you only have to enter today's date and all the letters will have the current date on them. You can do calculations so that, say, each letter you send has the correct charges at the bottom depending on which items each person in the data file has ordered. Finally, you can do 'conditional printing' so that certain sections of text only appear if certain conditions are true - you could use this, for example, to add to a warning paragraph onto letters for club members who haven't paid their subs.

This kind of powerful word processing



Word Manager has no on-screen info except for the formatting markers in the left margin. The character set isn't exactly beautiful either ...

is an everyday thing in business computing but since there aren't many officebound Speccys, its appeal will be limited to people with such pastimes as running a business from home, running a club and so on. More useful for most of us is true background printing — you can continue to work (at full speed) while printing out a finished document.

The Writer also has a communication program to allow files to be moved between tape, microdrive and other computers connected to Interface 1 RS232. The files can be in *The Writer* format, plain ASCII text or in *WordStar* format. This'll let you move documents between other word processors and micros. Unfortunately, the program is more awkward to use than *The Writer* and the so-called '*WordStar* compatible' option is a bit of a con.

Although it handles the basic conversion, it doesn't translate WordStar formatting information such as page breaks and underlining into the relevant The Writer codes. And if you follow Softechnics's manual and use CP/M's PIP program to send the WordStar file to the Speccy, you can get the conversion done anyway by adding [Z to the PIP command (read your manuals guys!). Going the other way, The Writer sends the wrong sort of carriage returns to the WordStar machine. So, either way, you've got to reedit the file once it's been transmitted. You might as well do the job yourself using ordinary microdrive commands -- The Writer is about as WordStar compatible as Tasword and Word Manager!

The other utility you get is a program to convert *Tasword II* files to *The Writer* format — it's about as awkward as the communication program although it does do its job.

The Writer is damn impressive — our pre-release version shows only one serious bug — if you hold the down arrow down all the way to the end of the document and keep it down, the keyboard buffer packs up and you'll have to switch off. There are others — try replacing 'a' with 'aaaaa' — but nothing you can't work around. However, for all its features, it has one major flaw — you can't alter the line spacing of your text! Softechnics swears blind that you'll be able to before it's released — so it might be a while before it hits the streets!

### THE LAST WORD?

Meanwhile, OCP must be kicking itself over Word Manager. True, it has some welcome features — it's the only one of the three that doesn't seem to slow down at all with very long documents and there's a word count and a 'swap words

		SEARCH FORMA		
The Far the dth Sale fa Settlert Flanet, death is	Copy Delete Include Unite RULER	Page number Bett contain This PrintP		Luterop in L history . The Die Barren Lunt to the
Sere for Seitlets.	the Little h	) menuta, masina place nown exempt - 11 was fedicae of emetasing wit fate divides and da they a created.	meter the	at the 9 the Sarren
interlage	ins calls the	ben an ssainted inca kundted geni o auge. At it out ens a new endow about it	Watch	ing the maretur
	1.21			

The Writer uses pop-up 'dialog boxes' for more editing operations. These are very easy to use at first but get tiring once you know what you're doing.

over' command. But, even ignoring the bugs in the review version, it just doesn't compare with Softechnics's offering. It gets off to a bad start with a poorly designed 64 column character set and a flaky keyboard reading routine. There's no on-screen info apart from symbols in the left margin which indicate the formatting of the text on that line - although the border changes when you set Caps Lock or whatever. Unlike The Writer, which gracefully scrolls sideways to show you lines up to 127 characters in length, Word Manager wraps long lines round onto the screen, making the first 64 characters brighter than the rest of the line. Yuk!

All the commands are either the top key row (there's a Figs Lock so you don't have to hold Caps Shift down to use the cursor keys and so on), Symbol-Shift keys or Extend Mode keys. Their layout is confusing and you have to leave your text and return to the main menu to see the help screens! Word Manager's menus are fussy about capital and lower case letters even though you can't tell if Caps Lock is on or off and so on.

Text formatting is peculiar to say the least — paragraphs aren't formatted until you press Return at the end. To reformat after editing, you have to reformat the whole document from the main menu. If you don't want particular bits reformatted, you have to enter 'T' at the start of the paragraph you want left alone before you 'justify' the text. And while we're talking about silly things, the word count is only reliable if you first 'de-justify' the text from the menu, look at the word count and then 'justify' it again!

When it comes to printing, Word Manager can manage page numbers but not headers and footers like WordStar. There's a limited mail-merger option that works with OCP's Mailing List Manager and Address Manager. You can also 'slow print' text while you're editing another document. This will only work if you're printing a short document (it's kept in memory along with whatever else you're working on) although it failed to work at all on our version.

### **FINAL WORD**

The best thing about these two new packages is seeing properly presented business programs on the Speccy. Both of them have all the basic facilities of real word processors and, like *Tasword*, can be installed for virtually any interface/ printer combination. Both have proper length manuals although the copies we saw needed a fair bit of work before they were easy to read and use. If anything, the only thing that lets them down is that they've not been completely designed from the point of view of being easy and quick to use in anger. *The Writer* is very good but it isn't quite there yet!

When it comes to choosing, I've no doubt that *The Writer* will take over from *Tasword* as the best Speccy wordpro. Indeed, some of you old Tasworders should wander down to your dealer and take it for a test drive. However, since it needs a bit of sorting out, it may be a while before you have the opportunity. *Word Manager* has little appeal in comparison unless you already use OCP's database products. So, sorry about the claims guys, but for the meantime at least, *Tasword II* is King!

**BIG THREE AT A GLANCE** Tasword II The Writer Word Manager Tasman Software Softechnics OCP (0753) 888866 01-240 1422 (0532) 438301 £13.90 £12.95 Tape Microdrive £12.95 Can transfer £15.40 Can transfer Can transfer **Opus disk** Can transfer £19.95 BASIC FEATURES Max. text length 20480 bytes 20290 bytes 22782 bytes Max. line width 64 127 128 YES, open up text, Insert/Overtype insert then reform Text reform MANUAL MANUAL MANUAL (on whole document only) • ON-SCREEN INFO Formatting . . . Column . . Line . . Page . Word Count . 64/32 column switch . . CURSOR MOVEMENT

#### CORSOR MOVEMENT

Character	•	•	•
Word	•	•	•
Paragraph	Roll Electron Stat	•	•
Top/bottom of text	•		and the second second
Page	and the second	•	
Start of line	A 10 10 10 10 10 10 10 10 10 10 10 10 10		•
End of line	STR LANSTON	•	
A DELETION			

### Character Left

Character	Lon	Len	switchable
Word		•	•
Line	•	•	•
Paragraph	Marine .		•

1 - 64

Loft or clobt

.

#### BLOCK COMMANDS

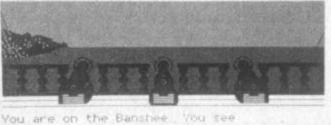
Сору	•	•	•
Move	•	NO (can copy then delete!)	•
Delete	A TRANSPORT	•	•
Write to storage	Charles and the	•	
Include from storage		•	No (can merge text then block move!)
• SEARCH/R	EPLACE		
Search	•		

# Ignore case • Whole word only • Auto replace • Manual replace • • FORMATTING

Full justify	•	•	•
Ranged Left			
Ranged Right	•	•	•
Centred	•	•	•
Bold	•	•	•
Underlined	•	•	•
Auto-indent		•	•
Margin Release	•	Left-only	
Line Spacing	•	HOOK I	Single or Double
Variable Tabs	No tabs	•	Only 1 tab
Right tabs		•	States and an a
Decimal tabs	1	•	
Access to other printer functions	8	14	
Force Page break	100 M 100 M	•	•
Header/Footers		Left, right, centre alternate	
Page numbers		Arab, Roman, alpha, anywhere in header or footer	Arab, top or bottom of page
• PRINTING			
No of copies	1 only	Can set	Can set
Draft orint			The state of the s

### No of copies 1 only Can set Can set Draft print • Partial print Start line — End line Start page — End page Cursor — Marker Background Print • (not tape) YES

The Grim Reaper works his fingers to the bone playing the latest adventures. Can you grim and bear it?



Inhospitable Coastline. The Banshee's crew

-UHAT NOU ?

#### SEAS OF BLOOD Adventure International/

£9.95

Yessir! Seas Of Blood is just the sort of thing a depraved, bloodthirsty cavalier like myself is looking for! When you get this one slotted into your tape deck, the first thing that comes up on the screen is 'found blood!' More! Give us more!

And more you'll certainly get. Forget the goody-goody nonsense, and get stuck into this meganumber from Messrs Livingston and Jackson of Fighting Fantasy book fame. You take the part of a vile, blood-spilling pirate who has nothing better to do than sail the Inland Sea getting into scrapes and pinching other people's riches.

You start off on board your good ship the Banshee with your evil smelling crew. You must 'Sail North' (or 'South', or wherever the fancy takes you) until you come across a port or another ship. You'll have more fun meeting a ship, though, 'cos it's tally ho and into the fray!

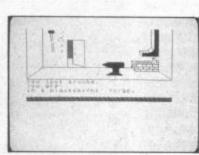
The combat routines are great fun and quite similar to those used in the original books. Whenever you encounter the enemy, two sets of die (one for you and one for the opposition) start spinning on the screen to determine the outcome. After a few throws one or other of you will end up as food for the sharks!

When you come across a port, you can 'Go ashore' or 'Go (name of port)' and engage the natives in a battle of the die, or should that be a battle to the death? At the start of the game most of them give up without much of a struggle, but later on you'll find they're very unwilling to give up their gold!

As far as the pics and descriptions are concerned, this game's pretty standard Adventure International fare. It's programmed by Gremlin's Mike Woodroffe and Brian Howarth and looks very similar to their earlier creations - Robin Of Sherwood in particular. Remember how you found your way around Sherwood Forest by keeping a close eye on the display? Well, you can do the same thing here, should you find yourself lost in the inevitable jungle.

The trouble with this game though, is that it ignores everything it doesn't understand — that wouldn't be too bad, but it also ignores some things that it does understand! For example, if you type 'Wear helmet' (and you haven't picked it up), the program replies 'You can't do that yet', so you 'Get helmet' and then find that 'Wear helmet' is ignored! If you check the inventory you'll find you're actually wearing it.

This is a real bloodthirsty megaromp that no pirate should be without. The blurb claims 300 graphic locations but a lot of these are just stretches of empty ocean. By the way — you certainly ain't gonna find it easy to map. Stick to the shore till you've found your way about. Stick to this game me hearties and you'll have a ho, ho, ho and a bundle of fun.



ADVENTUR

#### QUEST FOR THE HOLY GRAIL Mastertronic/£1.99

Hmmmm! Haven't I seen this game somewhere before? Wasn't it back in 1905 or thereabouts? Well, at least it'll probably be cheaper now it's being distributed by Mastertronic.

#### RUNESTONE Firebird/£7.50

Runestone's a Lords Of Midnight clone — it's got sleepless nights and aching fingers written all over it. In some respects it's better than its predecessor in others it's not.

What about the story? Yes, you guessed it — nasty orcs are marching down from the north (they always come down from the north) and knocking the stuffing out of the friendly, heroic folk they come across. As usual, there's a mega-nasty looming in the background called Kodimir and you've got to get out there and give him what for!

You control three heroes, an elf called Eliador, Rorthron — oops! sorry, I mean Greymarel the wizard and a warrior called Morval. These three must sally forth and discover the Runestone, a mystical gem that'll help you to destroy the evil Kodimir.

Know what I mean when I say it's a Lords Of Midnight clone? But although Runestone only allows you to control three characters it does offer you all the usual text input facilities you'd expect from a rip-roaring adventure.

While you're busy typing in commands like 'Tell Skrimnal to Cheaper it may be but good it's not. It's full of naff jokes and everytime you make a move you're a gonner. I mean, what's so funny about being cut off in your prime by being shot at with great green lumps of snot! Ugh!

You play the part of Sir Tappin who's in search of the Holy Grail but I reckon you'll soon get tired of tappin' those keys. The graphics aren't that hot either, and they're even the same for different locations occasionally.

It'll take you ages to get anywhere in the game 'cos the program kills you off at every opportunity. Still, it is cheap. Perhaps that's all that matters ... perhaps!

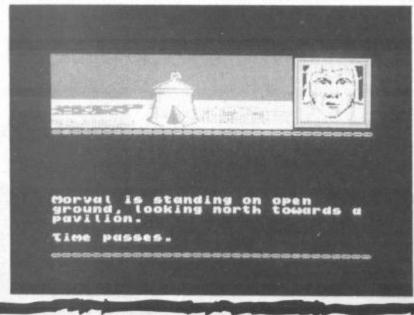
get lost', something you'll want to do pretty often, 'cos he's a right pain in the hauberk, the graphics will depict the landscape in the direction you're facing. You can only move in four directions, though, but at least the movements are smooth.

The piccies aren't as pretty as Mike Singelton's ones but they do the trick, and, if you want to treasure them forever you can always use the COPY command to dump them to your ZX printer. That's if you haven't already donated it to the local museum.

You can even have a quick natter with the characters and better than that you can give 'em a poke in the eye. There are some great combat sequences and you'll have even more fun if you rush on in there without a weapon. I had a great round of fisticuffs with Skrimnal the Sly, who deserved everything he got!

All this and you can cast spells! Or rather Greymarel can. One slight problem — he forgets the spells at the start of the game. Maybe a quick box round the lughole will jog his memory!

There ain't no doubt about it, *Runestone*'s a smasher — you'll get to plaster a load of nasties and see the countryside. That can't be bad for only  $\pounds7.50$ .

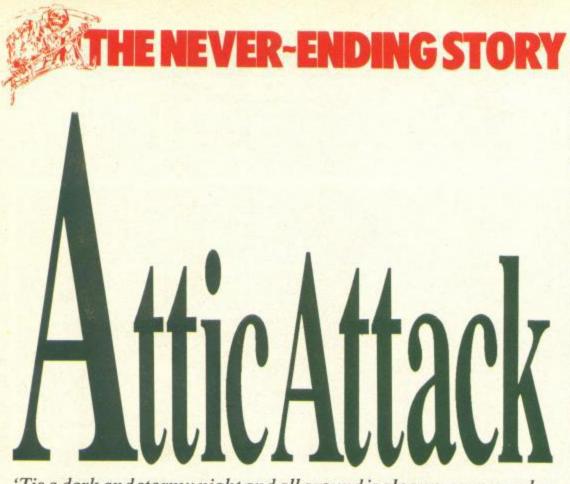


Available from W.H.SMITHS, BOOTS, J.MENZIES, WOOLWORTHS and all good software retail outlets. Also available from ULTIMATE PLAY THE GAME, The Green, Ashby-de-la-Zouch, Leicestershire LE6 5JU (P&P are included) Tel: 0530 411485 "CYBERUN" recommended retail price £9.95 inc VAT.

Accuus

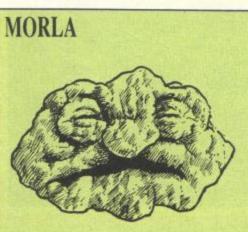


**48K SINCLAIR SPECTRUM** 



'Tis a dark and stormy night and all around is gloomy as you curl up to read your copy of YS. Strange things begin to happen when suddenly you're plunged into a world where... Read on and leave the real world behind.





Morla squats in the heart of the swamp country, a cross between a tortoise and Mount Everest. He's a slow coach so you won't really find him that useful — still, he taught us a lot! Pay him a visit and he'll pass you a hint too.



he Never Ending Story is the never ending success that grew from a best-selling book into a blockbuster film and finally into Ocean's latest adventure. And

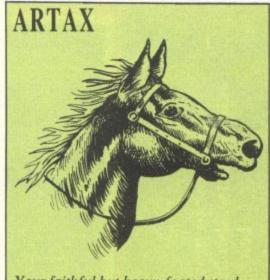
what a mega-game it is too — it loads in four separate parts, has windowing graphics, over a hundred locations, and some very strange characters.

Our epic hero spends his time hiding away in the attic. Well, wouldn't you if your parents christened you Bastian Balthazar Bux. But Bastian doesn't just run away and hide up there — he skips off to another universe. There he finds Fantasia, a world facing extinction. Predictably, the job sorting out the mess falls to him ...

Thing is, bits of Fantasia keep disappearing, swallowed by 'The All Consuming Nothing'. At the start, a lad from the plains, Atreyu, is chosen by his people to dash off and face all manner of danger and devilry in the search for someone who can save the world. That someone, of course, is Bastian, sitting in his attic reading all about Fantasia and its inhabitants. How Atreyu manages to track him down is up to you.

The display is one of the game's main attractions. On loading, a horizontal format picture of a vast plain beneath an evening sky appears across the top of the screen. Other images, such as little illustrations of what you're carrying and cameo pictures of your location, flash on and off against this backdrop. Every so often, you're treated to a snap-shot of Bastian in his attic, reading his Fantasia book.

And if you're wondering what The Fantasians look like, well, take a look at their piccies on the screen. There are plenty of them — some

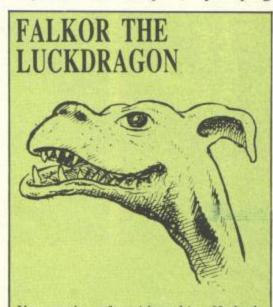


Your faithful but heavy-footed steed. He's waiting patiently in Atreyu's home village. But you might as well leave him where he is if you're planning a trip to the swamps.

pretty weird! You'll encounter rockbiter, Teenweeny, and Nighthob at the start but they'll promptly disappear for the duration of the first episode. There're also Gnomes, Giant Tortoises, and Sphinxes not to mention your faithful steeds, Artax and Falkor the Luckdragon. All the characters have a significant game role, though you won't get much chance to talk to them.

Mind you, the lack of an 'Examine' option is a far more serious loss. Even if everything you carry is illustrated, attribute problems and limited graphics resolution make some things unrecognisable it'd certainly help if you could call up descriptions of the more obscure objects.

This drawback apart, the game's well designed and gets the best from the words it does understand. The responses are helpful, specifying



You won't get far without him. He looks like a giant Irish Setter, but can whisk you away into the wild blue yonder. He's an absolute must for getting across otherwise impassable locations. any unacceptable words rather than just saying 'You can't do that'. You won't need to enter anything complex to solve the puzzle either though that doesn't mean they're easy. You'll find yourself having to tie objects and problems together that occur at quite distant locations. This exercises the fingers as well as the brain cells!

Never Ending Story's opening puzzles me — it's just so easy! You're unlikely to die unless you're dogged with real bad luck. Don't be put off, though. As time goes by you'll find yourself more and more up against it. Spook City, for example, has death waiting around every corner, so make sure you save the game at every opportunity — unless you want to keep going back to square one!

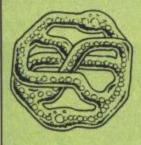
This is definitely a hot-shot Christmas bonus if you're tired of sitting in the attic all day!

**ENGYNOOK** 

Weird name, but then these Fantasian gnomes are pretty weird! This one spends his time peering through a telescope at the Southern Oracle perhaps she sunbathes topless or something!

### **Omnipotent** Objects

Without giving too much away, here's a quick guide to some of the objects you'll need if you're going to save Fantasia and escape from the attic.



Auryn. This silver and gold medallion symbolises the lifeenergy of Fantasia. You'll stumble across it right at the beginning of the game, which is just as well as you'll need it to command Falkor the Luckdragon.



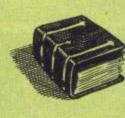
Horn. Another essential item and again it's a doddle to discover it. Give it a good blow, but try not to get carried away think of the neighbours!



Crystal. Engynook the Gnome badly wants one for his telescope but don't expect to find it lying around in the open.



Leather. You'll spend quite a while wondering what this is for. You can't wear it, cut it, or do anything exciting with it.



Ancient Book. Some objects aren't in themselves useful but can still help solve other puzzles. The book tells you how to enter the Ivory Tower — though with a little bit of brain-power you could figure it out for yourself.



Apple. Well? Should you eat it with all that talk of poisoned apples? One thing's certain — you won't get a good nights sleep until you find out!

You're gonna have to get used to this landscape as it doesn't change throughout the game. It's there as a backdrop for all the other illustrations. Well, scroll on! You'l see your inputs and the responses to them

dde

This is Auryn, the medallion, - if you're going to get anywhere in the game, you'd better make sure you keep your grubby mitts on it.

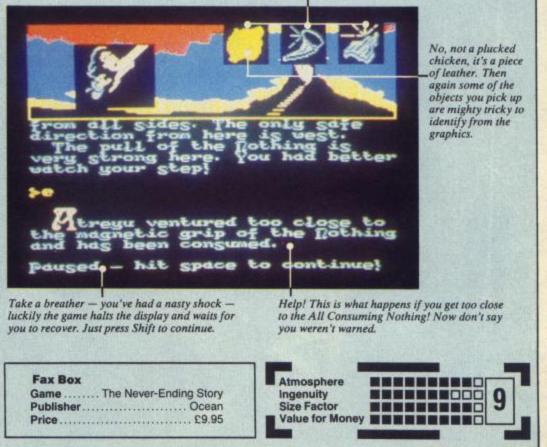
-wett, scrott on? You'll see your inputs and the responses to them here. And the character set's not too much of a strain on the old mince pies.

•Auryn and Falkor, the Luckdragon, aren't at the start of the game's second section. Well at least you won't be taken for a ride! Things start to get pretty tricky now!

Guess who! Bastian Balthazar Bux - reading

YS of course (well, he'd better be).

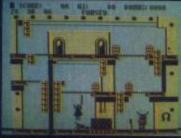
Here are the objects you're carrying. There's a limit to how much you can lug about, so make sure you have the right things at the right time.



ell







The return of the legendary crusader – skilfully fencing his way through twenty screens of mystery and danger! Available for Commodore 64 & Atari £9.95 £14.95









U.S. Gold Limited, Unit 10, The Parkway Industrial Centre, Heneage Street, Birmingham B7 4LY. Datasoft is a registered trademark of Datasoft. Inc. Zorro is a registered trademark of Zorro Productions © 1985 Zorro Productions. All rights reserved. © 1985 Datasoft Inc.

### I am Death - in all your adventures I am with you.

I am there when you come to a dead end - and when someone deals you a death blow. For a while I shall help you but you must send me your hints and tips. Ask the postman to put them under Death's Door, QS, 14 Rathbone Place, London W1P 1DE. Prepare to meet thy doom!

How long does it take you to crack an adventure? And just how much truth is there in the blurb on the cassette inlays that says things like, 'This adventure could take you months to solve!' and 'A year's worth of entertainment for only £15!'? Well, Martin Mulrany of Grangemouth writes in to say, "I'd just like to comment on your statement in Your Spectrum 20 about Graeme Smith completing Red Moon in only one week - 'a record for Level 9 adventures'. I completed Lords Of Time in well under a week after its release!' Hmmm ... so, what's your quickest completion time on a game? And did you feel cheated when you'd done it?

Talking of the shortest time that you've ever completed an adventure in, write in and tell me just how many you've finished. Are you up there with John and Patricia Black who've completed no less than twenty on their overheated Speccy - including Robin of Sherwood and Valkyrie 17, one of my all-time faves. Or perhaps like last month's El Supremo, John Wilson of Rochdale, you find it easier to tot up the games you haven't yet completed! Are there any games you get stuck on, John?

Following last month's shenanigans with the characters from Sherlock, David Graham has spotted some very odd goings on in the game. He writes, "I was in Basil's house in Leatherhead, I opened the safe in the presence of Chief Inspector Straker and Doctor Watson. I'd brought them along as a safeguard 'cos the last time I tried it alone Basil shot me. This time he still shot me - with a policeman present! Now who in his right mind would shoot someone if he was trying to prove that he didn't kill Mrs Jones or Mrs Brown. It's all a bit strange, methinks!" Methinks so too. And how many of you have one of the early versions of the game in which Dr Watson got a trifle overchummy with Holmes and kept sitting on top of him.

Mind you, if you think that's bad what about the infamous bug that appeared in *Legion*, a game from Software Projects. It was in this immortal classic that you could go UP but you couldn't get back DOWN again. When I rang the company for help all I heard on the end of the line was a scream of despair followed by some very Ancient Celtic incantations — none of them over four letters!

#### A SNOWBALL'S CHANCE

The illustrious Harvey Lodder has written in with umpteen clues but we'll start with his tip on *Snowball.* To put out the fire in the control room, he says, you need the fire extinguisher from the snowplough. And if you're in trouble with the sharks in Waxworks, just try SWIM sounds easy, doesn't it? (Sounds flippin' obvious! Ed)

Gregory Timmis is crying out for help with Sherlock so look him up in the list and drop him a life-line. Even better if you're incarcerated in the Goblin's Dungeon in The Hobbit as he'll be able to help you. That must surely be one of the biggest prisons in the world if you can judge by the number of people still stuck there. Well, for all those of you doing porridge, Greg has your free pardon. Before you go, try breaking the trapdoor that you'll find underneath the sand. If you enter Break Trapdoor and then press Symbol/Shift 2 repeatedly, you'll be presented with Thrain's Key that unlocks the side door in the Lonely Mountain. Calling Spidermen everywhere

- Stuart Galt'll get you out of a sticky situation. Try ripping the picture in the penthouse and taking the paper. Then take the exotic chemicals, go to the lab and MAKE WEB. Then use the web to stop the fan.

Alexander Kruczkowski has some very bizarre clues for *Erik The Viking* — buy the tabby cat for 2oz of gold/silver then tie the bell to it, open the slab door and cut the beard with the clippers. Hmmm, come back *Monty Python*, all is forgiven!

Finally, when you come to scour the lists of names, pay special attention to poor old K R Hill — he's stuck fast in Wrath Of Magra. Now I rate this game but we never seem to receive any letters about it. Is there anyone out there who's been playing it and would like to spill the beans? Just drop me a parchment at Your Sinclair, 14 Rathbone Place, London W1P 1DE. Knight's Quest, Planet of Death, Magic Castle Christer Andersen, Rorlokken 49, 2730 Herley, Denmark

**NGS OF TH** 

SENTENCE

Final Mission, Mountains Of Ket, Temple Of Vran, The Castle, The Prisoner, Tower Of Despair, Twin Kingdom Valley James Wilson, 26 SpotlandTops, Cutgate, Rochdale, Lancashire, OL12 7NX

System 15000, The Hobbit, Snowball, Inca Curse, Waxworks, Urban Upstart, Super Spy, Espionage Island, Planet of Death, Velnors Lair and many more Harvey Lodder, 35 Shelley Avenue, Bullbrook, Brackeall, Backching, PG12 2019

Bullbrook, Bracknell, Berkshire, RG12 2RP

Inca Curse, The Thompson Twins Adventure Toby Blake, 25 Holm Park, Inverness, Scotland, IV2 4XT

IE CAS

Final Mission, Temple Of Vran, Planet Of Death, Kentilla, Sherlock, The Hobbit, Urban Upstart, Valhalla, Subsunk, Golden Apple and many more John and Patricia Black, 137 Legahory Court, Craigavon, N Ireland, BT65 5DF

Planet Of Death, Spiderman, Gremlins, Pyjamarama, The Hobbit, Sherlock Stuart Galt, Tigh-Na-Creag, Pier Road, Rhu, Dumbartonshire, G84 8LH

### ON THEIR DEATH BEDS..

Spiderman – Help!! Christer Andersen, Rorlokken 49, 2730 Herlev, Denmark

Eureka— How do I get the hollow log out of the swamp without being trodden on? Erik The Viking — any help appreciated C Southouse, 32 Chestnut Drive, Polegate, East Sussex, BN26 5AN

Final Mission – I would welcome any help and advice. Carl Barker, The Post House, Sparsholt, Winchester, Hants, SO21 2NR

Quest — How do I get in the castle? Simply Desperate G A Tillins, 15 Gloucester Road, RAF Wyton, Huntingdon, Cambs, PE17 2HD

Sherlock — How do I get past Tricia's door and get to Old Mill Road? David Walton, 22 Green Lane, Lower Kingswood, Tadworth, Surrey, KT20 6TB

Mission 1, Project Volcano – How do I get past the droid in the lift on floor 1? Michael Williams, 15 Hardwick Ave, Chepstow, Gwent, NP6 5DJ

Ship Of Doom, Valhalla -- Helppppp!!! Benjamin Ellis, 7 Wallace Street, Dumbarton, Scotland, G82 1HH

Hunt For The Sun God - 1 can't cross the river or enter the temple. Andrew Melvin, 44 The Causeway, Burwell, CB5 0DU

Spiderman — How do you clear the mist, Kill Electro, and take the gem from Sandman? Edgar Wright, 40 Southover, Wells, Somerset, BA5 1UH

Heroes Of Karn - Too many questions to print!

Andrew Gordon, 5 Cairnlee Terrace, Beildside, Aberdeen, Scotland, AB1 9DE

Kentilla – How do I get into Tylons Castle. What use is the Conch? A N Manson, 13 Riselaw Terrace, Edinburgh, EH10 6HW

El Dorado — Any help appreciated. Stephen Martin, 21 India Drive, Inchinnan. Renfrew, PA4 9LF.

Final Mission — I can't pass the guardians of gates 2 or 4. Andrew McCubbin, 3 Kenilworth Drive, Airdire, Lanarkshire, Scotland, ML6 7EY Mordon's Quest, Eureka — Any help appreciated. Susan Kinsey, 14 Kensal House, Ladbroke Grove, London, W10

Urban Upstart - 1 cannot get in the Town Hall, and what do 1 do when I'm in there? Alan Pitt, Church View, Ormesby St. Margaret, Gt. Yarmouth, Norfolk, NR29 3P2

Spiderman – I can't get Mysterio John James, 41C Barras Lanc, Spoon End, Coventry, CV1 3BU

Twin Kingdom Valley – Lost in the little twisty passages. Stewart Robinson, 184 Nuncargate Road, Kirkby-in-Ashfield, Notts, NG17 9EA

Hampstead - 1 keep getting mugged. Mr G A Harris, 11 Woburn Drive, Hale, Altrincham, Cheshire, WA15 8LZ

Eureka - Help, help, help, help!!! James Webb, 21 Ballycraggan, Puckane, Co Tipperary, Ireland

Hampstead, The Planet of Death — Any help appreciated with Lord Fish and the Forcefield. Toby Blake, 25 Holm Park, Inverness, Scotland, IV2 4XT

The Fourth Protocol – Cannot answer Plumb's questions correctly. Clive Lemon, 14 Greenfield Close, The Mount, Liphook, Hampshire, GU30 7QF

The Hobbit – Stuck in the Goblin's Dungeon, Christopher Coventy, 28 Woodlea Close, Bromborough, Wirral, L62 6DL

The Hobbit — How do I Kill the Dragon? Richard Weeber, 20 Barry Close, Chadwell-St-Mary, Grays, Essex, RM16 4SU

The Wrath of Magra — How do I get out of the Valley (stage 1)? K R Hill, I Lake Cottages, Lake Lane, Barnham, W Sussex, PO22 0AJ

Sherlock – How do I stop Lestrade arresting the Major? David Graham, 34 Maryfell, Sedbergh,

Cumbria, LA10 5AW

Sherlock — Can't get to Old Mill Road. Gregory Timmis, 129 Sunnycroft, Burton, Stoke-on-Trent, ST3 4BB PEKER COMPUTERS LTD - PEKER COMPUTERS LTD - PEKER COMPUTER

B

 $|\Delta\rangle$ 



### convert your Spectrum into a purpose built Editor/Assembler

R(O)

Instantly!

★ NO LOADING — cartridge simply plugs into user port

IER ASSIEM

- * Assembles ALL Z80 commands including those not listed
- ★ BREAK-POINT facility for debugging lists values of registers
- ★ 30 EDITING COMMANDS e.g. block copy, move, delete and print
- ★ Built-in Centronics printer software
   ★ Built-in "HELP" facility

With Built-In Editor!

PEKER COMPUTE

- ★ More memory available
- * Save, Load, Verify, Merge & Print PART or FULL programs
- * Operates as a word processor
- ★ Built-in "real time" clock
   ★ AND MUCH MORE

Look at the table below and compare the PEKER Assembler Cartridge with other popular assemblers available.

MAKE	ASSEMBLY* TIME (secs)	LOADING TIME (secs)	MEMORY AVAILABLE
PEKER	3	NIL	41.6K
<b>DK'TRONICS</b>	155	70	33.7K
O.C.P.	15	88	28K
ZEUS	3	60	33.5K

Assembly times taken on identical 5K programmes.

### FREE HOME TRIAL

We are PEKER are so confident of this product that we are offering a 14 day FREE HOME TRIAL.

Simply complete and return the attached order form and return it to us with a cheque for £14.95/£17.95*. Your cheque will NOT be cashed until 14 days after the goods have been despatched to you.

If you are not completely delighted with the PEKER Assembler Cartridge simply return it to us within the 14 day period and we will return your cheque.

* Normal price £24.95

Introductory offer price £17.95

or £14.95 if ordered with the Z80 course (see facing page) COMING SOON!

TO ORDER SEE COUPON ON FACING PAGE CENTRONICS INTERFACE

LEARN MACHINE CODE
THE EASY WAY WITH
Tel: (0493)853099 PEKED;
<ul> <li>* BASIC equivalents to machine code commands.</li> <li>* Written solely for Spectrum 48K &amp; ``+''.</li> <li>* No obligation to complete the course.</li> <li>* Fully documented example programs.</li> </ul>
<ul> <li>Fully documented example programs.</li> <li>Fully documented 12 part course.</li> <li>Fully documented 12 part course.</li> <li>Telephone "HELPLINE" service.</li> <li>Order as and when you please.</li> <li>High success rate.</li> </ul> (1) Ordering the first loss ons entitles (3) Ordering the first the loss on order in the first loss on or
Toolkit <u>56.95</u> <u>51.99</u> Toolkit <u>56.95</u> <u>51.99</u> Disassembler <u>56.95</u> <u>53.95</u> Fast Load/Save <u>59.95</u> <u>53.95</u> Assembler Cassette <u>59.95</u> <u>51.99</u> SEE HOW MUCH Longentitles <u>59.95</u> <u>53.95</u> Assembler Cassette <u>59.95</u> <u>51.99</u> Conerator/Animator <u>59.95</u> <u>53.95</u> Assembler Castridge <u>524.95</u> <u>53.95</u> Assembler Cartridge <u>524.95</u> <u>53.95</u> Assembler Cartridge <u>524.95</u> <u>53.95</u>
Screen Planner Pad Graphic Planner Pad Program Planner Pad Note: You are under no obligation to order extra items Please send me the following:
Image: Description of the state of the

/



You can now obtain any of these back issues of Your Spectrum by filling in the coupon below and enclosing £1.10 for each issue.

Also, our shop is open Monday to Friday, 9.30am to 5.30pm. The address is 14 Rathbone Place, London W1P 1DE.



ISSUE 17 (AUGUST) 1985 REVIEWS Black Magic Boxes The Generation Game FEATURES 3D3, Just A Tick, Program Power GAMES A View To A Kill, Dun Darach, Cauldron



ISSUE 18 (SEPTEMBER) 1985 REVIEWS Bits 'n' Pieces, Joystick Jury FEATURES The Ghostwriter, New Rom Antics, Hidden Extras, Program Power GAMES Dambusters, JSW, The Fourth Protocol ISSUE 1 (DEC/JAN 1984) REVIEWS Currah's MicroSpeech, general computing books, joysticks. FEATURES Speech synthesis, Toni Baker's machine code break-out, Spectrum communications, DIY keyboard buffer, machine code scrolling. GAMES Chess packages.



ISSUE 14 (MAY 1985) REVIEWS Speed Trials FEATURES It's A Cracker Patching Up The Drives GAMES Alien 8, Emerald Isle, The Illustrator.



ISSUE 19 (OCTOBER 1985) REVIEWS Joystick Jury FEATURES Sprite High, No Limit, Movin 'n' Groovin, Program Power, Second Opinion, GAMES Exploding Fist, Frankie, Highway Encounter, Red Moon, Mordon's Quest,

to deface your issue.



ISSUE 5 (JULY 1984) REVIEWS British Micro's Grafpad, DIY computing books. FEATURES Computerised bulletin boards and modems, software for printer interfaces, ZIP compiler [Pt. 3], DIY joystick interface. GAMES Gilsoft's The Quill.



ISSUE 15 (JUNE 1985) REVIEWS Painting by Numbers Hot Heads FEATURES Pic 'n' Mix, Snap, Crackle & Pop (YS Megabasic), Mastermind GAMES Starion, JSW, Gremlins



ISSUE 20 (NOVEMBER 1985) FEATURES Buzzwords, Shoot Out PROGRAMS Play it Again Sam, Shrink Wrapped, Out of All Proportion GAMES, Elite, The Rats, Nightshade, Fairlight



ISSUE 13 (APRIL 1985) REVIEWS Microdrivin' Megademo FEATURES Program Power, Screen scrunger, Big Deal GAMES Kong Strikes Back, Hunchback II, JSW



ISSUE 16 (JULY 1985) REVIEW Disko-Tech FEATURES 3D Daze, Flash Moves, Program Power GAMES Shadowfire, Ashkeron, Funhouse, Rocky Horror Show



FEATURES The Spectrum 128, Compiler Comparison PROGRAMS The Grid, Game Plan REVIEWS Rambo, Rasputin, Impossible Mission and Sorderon's Shadow

**ORDER YOUR BACK ISSUES NOW!** 

Please send me the following back issues of Your Spectrum (UK £1.10 inc. p&p, £1.50 Europe, £1.70 rest of planet?

□ Issue 1	□ Issue 14	□ Issue 18
□ Issue 5	□ Issue 15	□ Issue 19
□ Issue 12	□ Issue 16	□ Issue 20
□ Issue 13	□ Issue 17	

Issues 2,3,4,6,7,9,10 & 11 are now sold out, so don't waste your time ordering them!

I enclose a cheque/Postal Order for £ ...... made payable to Sportscene Specialist Press Ltd.

Name	
Address	
Postco	ode
Date	
Please fill in this form and mail it immediately	to:
Your Spectrum, Back Issues, PO Box 320, 1	ondon
N21 2NB.	
You can use a photocopy of this form is you d	lon't want

In the vastness of space lies the heart of an Intergalactic Criminal Network. TALOS and at its head the evil CYRUS T. GROSS. A last ditch attempt by the Free Worlds to rid the Universe of this seemingly unstoppable force has called on the services of the NEMISIS ORGANISATION, a hardened cadre of humanoid and robitic free booters who have assigned NOMAD (Nemisis Organisation Mobile Attack Droid) to penetrate GROSS's heavily armed homeworld and destroy this vile despot once and for all. Your mission must SUCCEED. You are the NOMAD controller.

D

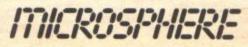
M

Ocean House · 6 Central Street · Manchester · M2 5NS · Telephone 061-832 6633 · Telex 669977

C

Dragged back for another term, Eric continues his one-man fight against the Education system. All his old adversaries are there, plus escapees from the Biology room and, even worse, girls! Lucky he stocked up on stink bombs over the holidays!

Back to Skool (48K Spectrum) — £6.95 Skooldaze (48K Spectrum & CBM64) — £6.95 Available from all good computer shops or direct from:



Microsphere Computer Services Ltd., 72, Rosebery Road, London N10 2LA. Get your skates on for Electric Dreams' gaggle of games that came in from the cold. Our own Highland games expert Dougie Bern flexes his frost bitten fingers to report on Winter Sports.

### ICE HOCKEY

You can ping the puck against the computer or a friend. Try and find a friend — the computer plays a tough game! Each game is split over three five minute periods. The player graphics aren't hot — about ice temperature in fact. The teams come out more like the chorus from Holiday on Ice than a bunch of Paul Newmans in *Slapshot*. The pace is fairly genteel, but a basic simulation is provided — passing, rebounds and interceptions — but no bust-ups! Funny, that's what I remember icehockey for!

A bird's eye view of the rink shows player location and movement. Whether it's really useful to plan your tactics in the middle of a game is questionable.

Beware of the computer's attacks. Crafty and sneaky it'll go for goal even if it has to skate behind the posts.



Try this wall of death and you'll soon be out of breath! Like other elements in this package simultaneous screens give you different perspectives on your best game tactics. A combination of speed and control is your best bet. Now load up and bob's your uncle!

Speeding down the bobsled track you'll see the walls whizzing by. Don't go too fast though, 'cos even if you don't tip the sled over you'll probably crash into the ____

The steering controls let you put a bit of swerve on the sled and help you wind your way down the _____ course. Keep off the Winter Warmer if you want to make it to the bottom in one piece.



Keep your eyes on the speed. The fast flash guys usually come to grief. Mind you in this frosty weather a fast flash is probably the best!

#### SKI-JUMP

Hardly a giant leap for mankind or computer games. But this one's not as easy as it looks. Speed and control are what you need to score those winning points for distance and style. To fly through the air with the greatest of ease ain't the simplest thing on a pair of skis. Get it wrong and the graphics tell a gruesome tale.

It'll take a while to master the jumping art. At first you'll be mainly wiping out and kissing the crystals — but don't despair! The distance indicator shows how far you've flown.

If the real thing's like this, _ let's leave it to the experts. I go more clammy than Klammer. A main thrill skill is to make sure you don't fall off before you get to the bottom!

 FAX BOX

 Game
 Winter Sports

 Publisher
 Electric Dreams

 Price
 £9.95

 Joystick
 Kempston

 Keys
 Define your own



The ski control shows you which way you're pointing those big bits of wood on your legs. Team scores shown here. When I played, it looked more like a cricket scoreboard — in favour of the computer! What a rinky dinky box of chips!

Playing the game's really simple. The computer automatically switches the player you're controlling to the one with, or closest to, the puck.

• You only see part of the rink at a time. Not quite as bad as only being able to see the corner post at the Park Lane end.

The faster you travel the further you go. And combining speed with accurate steering gives you the best chance of winning.

This overall view lets you stay on the straight and narrow or, in this case, the bend and curve. As you can see the course doesn't meander too much — probably a good lob!

Points for style depend on

should use this display to

maintain the smoothest of flights. Little bags are not

provided for bumpy ones.

The faster you go the easier it is to fall so take it

slowly at first. Optimise speed and control else it

could be downhill all the

way

onel

-4

in more ways than

how well you hold your

airborne position. You

WINTER Sports

A compendium of eight games for Damart wearers, *Winter Sports* comprises of Slalom, Giant Slalom and Downhill Skiing, Ice Hockey, Bobsled, Biathlon, Ski Jump and Speed Skating. All will test you at the various skills, either against a mate or the computer through individual to team skills. So if you thought ski gear was just for breakdancing, think again. Settle down with a hot toddy and let's get on the piste.

### SKI-ING EVENTS

This part of the game gives you a trio of trips down the snowy sward. All the events, Slalom, Giant Slalom and the Downhill are basically the same. Different degrees of difficulty and slight variations in objective sort out one slope from another. Essentially, though, they're all downhill obstacle courses with poles and gates to be threaded with skill, speed and style. You're going against the clock to get into the Highscore Hall of Fame - so keep your turns as tight as those ski-pants! Alternative views are provided of your progress. There's also a control indicator used with the speed indicator you can plan your shortest route.

### BIATHLON

This is all about cross country cruisin' on slippery snow with the added delight of shooting targets. Basically you have to cover the kilometres against the clock but to be a winner, speed and accuracy of shot are necessary. And you can't fire your rifle unless it's loaded — but a quick flick of the fingers will immediately re-arm you. The other variation to this game is that stamina, rather than adrenalin and bravery, is the key resource. One for slow-blooded Swedes!

#### SPEED SKATING

If all these Jean-Paul Killys give you the willys and the power surge of pumping thighs is more your scene then this section could be the one for you. It's against the clock, and you've got to skate - either against the computer or a slippery pal. Simultaneous views give you front and back elevation - but as the track is virtually circular with no obstacles or slopes then you could play this with one hand behind your back! The racers on the screen manage to skate like that. You can choose between five race distances ranging from 500 to 10,000 metres - each thigh sapping click is ticked off on the screen alongside the clock.

	Contraction of the Section	
		-
Addictiveness		

97



Imagine Software is available from: (399), WHSMITH, Mohn Menzies, WOOLWORTH, LASKYS, Rumbelows, Greens Spectrum Shops and all good dealers.

Imagine Software (1984) Limited . 6 Central Street Manchester M2 5NIS Tel: 061 834 3939 Telex: 66997

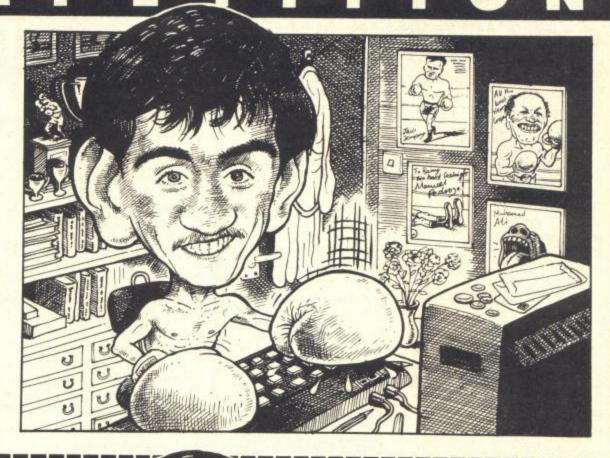
# OUT FORTHE COUNT

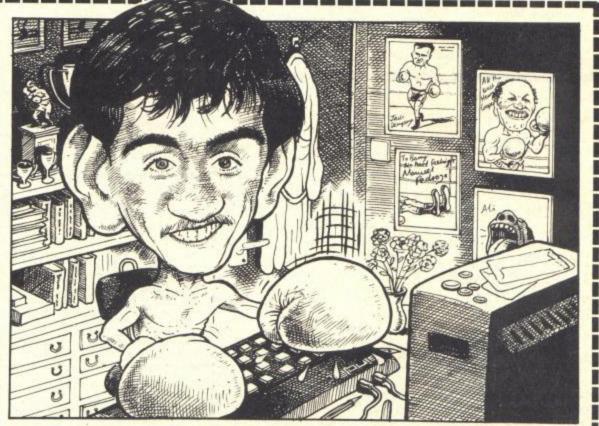
We're hand in boxing glove with Activision on this great compo. There are 60 copies of Activision's latest and greatest up for grabs but you won't need the luck of the Irish to win a prize — just a steady eye and a second class stamp.

Enter Barry McGuigan, hero of all Ireland, lightweight champion of the world, one of the niftiest boxers ever to throw a punch and hacker extraordinaire. Hold on — hacker? Surely some mistake! Shouldn't that be hooker?

Well, perhaps so but that's not the only mistake in our piccy of Barry bashing away at his Speccy. Take a look at the two cartoons and you'll soon come up with a fair few differences between them. Just how many is what we want you to tell us! Put a ring round each of the spots where the two piccies don't match up, fill in the coupon and pack it off to us pronto at Barry's Boxing Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

And the reason for all this haste? Firstly, a chance to go a couple of rounds in the ring with Barry. Fortunately for you though, you won't have to don the gloves and cross the canvas 'cos you can trade punches with him in Activision's new blockbuster, Barry McGuigan's Boxing. The company has come up with thirty copies of the game to give away plus thirty copies of their other latest sensation, Hacker. Now's your chance to





Round one to me - I spotted ... differences between the two piccies

Name .....

.....Postcode .....

Now clip out this coupon (or a photocopy) and send it to Barry's Boxing Compo, Your Sinclair, 14 Rathbone Place, London W1P 1DE. Please put the number of differences you spotted on the back of the envelope.

win one of each without getting completely duffed over. No wonder poor old Barry's got his wires crossed.

In fact, Hacker is the ideal game for every YS reader. Now there's no need to drag yourself away from the mag to read all those boring old game inlay cards. Hacker comes with no instructions — whatsoever nothing, nowt, zilcho! Just load it up and you're thrown straight into a world of intrigue, power struggles and impending catastrophe — all at the other end of your phone line.

That's the challenge — now go for it. What are you — chump or champ? Queensbury Rules

Entries should reach us by no later than January 31st 1986. It's no good saying you coulda been a contender if you didn't get your entry in on time.

Each entry must have all the differences marked on the picture and the total should be written on the outside of the envelope.

The Editor's decision is final and no correspondence will be entered into.



### THETFORD MICROS

21 GUILDHALL STREET THETFORD, NORFOLK Tel: (0842) 61645

SERVICE DEPARTMENT, UNIT 4, LEYLAND CLOSE, FISON IND. EST. THETFORD, NORFOLK. TEL: (0842) 65897

### SPECIALIST COMPUTER REPAIR SERVICE

We have become leaders for a fast, efficient repair service to SPECTRUM COMPUTERS, undertaking repairs worldwide, all over the U.K., Europe, Arabian States, and as far as Australia. All repaired Spectrum computers (and others), leave our workshop fully tested on the same day we receive them. A three-month warranty is given on all work carried out by us, giving you every confidence that your valued micro is in safe hands.

Spectrum repairs Microdrive repairs Interface 1 repairs ZX Printer repairs Commodore repairs £15.00 + £2.25 VAT + P&P £29.00 + £4.35 VAT + P&P

(Quotes can be given on other micro and peripheral repairs)

Post and package: U.K. £2.00, airmail £5.50. Australian airmail £13.50. Next day delivery (Securicor) £4.60.

We also carry out: Spectrum and keyboard upgrades 48K Upgrade Kits Composite Video Conversion

£30.00+	P&P
£22.00+	P&P
£11.50+	P&P

Payment may be made by cheque, postal order, Barclaycard, Access or American Express.

Why wait weeks for the return of your sick computer, send it to the finest Spectrum hospital today — or phone Pete on (0842) 65897 and I will help all I can.

he far flung colony planet Alioth, a tiny unwanted outcrop in the 4th Spiral of the Nebula, has no place in galactic history. Save for one little known event — it was here that the settlers, tired of the tedium of endlessly nurturing the barren planet, first armed their farm droids and let them fight to the death in the very fields they'd created.

What should have been an isolated incident spread

through the colonies like the hundred year plague. Watching the barely intelligent droids fight it out was a new excitement - there was a crazy, mindless freedom about it. One that provided a release for the tension and bitterness many felt on finding their promised Edens were to become endless hells. Droid fighting became regular village entertainment and tradeships carried the craze throughout the outer worlds. Very soon, settlers exchanged the meagre living of their farmsets and were touring the planets, polishing up their own metal gladi-

#### They slammed it ... they banned it ... but they couldn't stop the galaxy's most evil sport. Max Phillips gives you the chance to try it for yourself ...

ators and preparing for the big and bribe their way to the games just to witness the

DRODWARS

By the time lawships arrived on Alioth, the craze was unstoppable. Within a year, huge stadia accommodated megacrowds, all willing to spend their last credits, to give up their homes, to travel across star systems, to fight

games just to witness the spectacle. Ask CENTRA now and it will tell you the Droid Wars were a long time ago, the sport long since banned and its exponents jailed. But the government well knows that in the far, distant reaches of the galaxy, crowds gather in secret and poorly armed, low intelligence droids are walled in the arena and forced to fight for their lives. And Droid Wars have no mercy — a droid's only prize is the chance to fight again...

01

# DROID WARS!

### **CHOOSE YOUR WEAPONS**

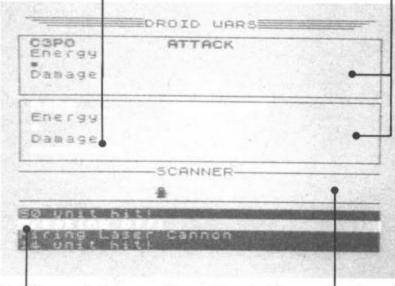
If you can't afford the trip to the other worlds or haven't the years to spare, you can at least experience Droid Wars by bashing in the simulation program here. Once it's running, press the R and B keys and design yourself two war droids using the available materials — and remember, depending on the motive unit you fit to your droid, you'll be limited as to the weapons and defences you can bolt onto it.

When your droids are ready, press F, sit back and watch the fight! May the best droid win but remember that lady luck will play her part. You can always fight the same designs again or go back and tweak their various features. And if you're feeling wimpish, you can hold down the mercy key during a fight and save the two gladiators. This is sometimes your only option — if two droids are evenly matched you may find they run out of ammunition and beat themselves into exhaustion. In the outer worlds, the droids are carried from the arena, repaired and replenished and then forced to fight again...

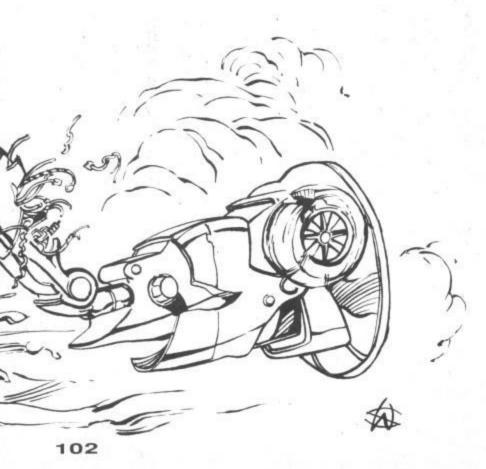
### WELCOME TO THE ARENA

Always watch the damage bars — when they reach 100 per cent total damage, the next hit destroys that droid.

Each droid's energy and damage levels are continually on view.



Here's the commentary box — a complete blow-by-blow guide to what is happening during the fight. The scanner shows you the relative position of the two droids as they pursue each other around the arena.



### **DESIGNING YOUR DROIDS...**

CHUTE DESTRE GURIERDP

DEGTO DECON	
DEFEON SYSTEMS	GENERAL
Plasma Boli 0 Laser cannon 10 bhort Bombs 5 Energy Lance 1	Holive type 2 Shielding 20 Holorepair 20 Foet 35
ULSION SISTENS	PROGRAMMING
Range Tracter 1 Local Radar 0 Thermis Eyea 0	HQUIO 100 HUII 50 HUIALK 20 DIEBK-077 10
the sign ( 216	Harrinow 220
Press Just Enter Enter July Might good	for next rem.

• Vanity Spot: All fighting droids have names — either that of their master or one of their own!

• The Plasma Bolt is the most dangerous and effective weapon available — it's so heavy droids rarely carry more than one but the results can be very effective! Range: 60, Weight: 5 + 80 per round.

• A Laser Cannon is the basic weapon of fighting droids the short, rapid blasts of laser fire are both nasty enough and light enough to be a very effective weapon. Range: 40, Weight: 5 + 5 per round.

• Shock Bombs are a hit and miss weapon. Hurling them at your opponent often misses but is pretty unpleasant when it hits! Range: 25, Weight 3 + 5 per round.

• The Energy Lance is the only hand-to-hand weapon allowed — a drill is extended into the body of the opponent which is then energised. The results, on droids at least, depend quite where the lance hits. Range: 2, Weight 30.

 Long Range Trackers are the most effective vision system available and they provide extremely accurate targetting. Range: 100, Weight 20.

• Local Radar is the most popular vision system as it is reasonably capable while being quite light. Range: 50, Weight 10.

• Thermic eyes provide very limited if reliable vision. Range 30, Weight 5.

• Motive Unit. This is the most important element of your droid as it provides the basic framework for all other features. It's usual to pick this first and then set your other choices. There are four types available as shown below:

Туре	Max Weight	Max Spee
<b>1 HOVVERJET</b>	180	12
2 WALKERS	220	8
3 SPEEDTRAX	200	8
4 MAXITRAX	240	6

• Shielding is essential if you don't want your droid to die in the first exchanges of a fight.

• Every modern droid is equipped with a certain percentage of self-repairing and regenerative circuits to allow it to work even when damaged. When a droid breaks off from an engagement, these circuits are put to work repairing any damage that has been done. What's more, if the droid is 100 per cent healthy, the circuits will top up the droid's energy supplies.

• Fuel is essential to a droid's survival — moving, seeing and fighting all use up energy and it's rare that any droid that starts with less than 50 units of fuel will live to fight again. However, you can use autorepair circuitry to keep the fuel topped up.

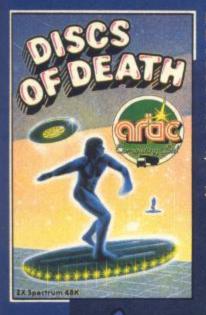
• Although fighting droids are of limited intelligence, they still need to be programmed for the fight. Programming can make all the difference between life and death. This first setting is how aggressive (from 0-100) the droid is and dictates how easily it is provoked into retaliation.

• Set your Pain threshold very carefully — too high and the droid will be dead before it has retreated — too low and it won't stick around long enough to shoot back!

• Attack Range also needs careful setting — too far away and weapons are unreliable. Once long range weapons are used up, a high attack range also confuses the droid!

• When it's had enough, a droid will attempt to retreat and recuperate. This setting is the time the droid will spend running away before it turns around and goes back in to the fray...

### **NEW RELEASES FROM "THE HOUSE"**

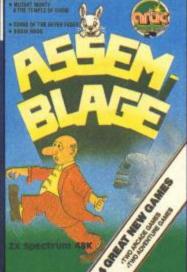


om

UDTU

#### DISCS OF DEATH

Can you retain the title of **Disc Warrior Champion?** Or will you, like so many before you, die by the disc. Excellent 3dimensional graphics test your skill to the limit.



#### INTERNATIONAL RUGBY

You can play for any of the Home International Teams -playing for the triple crown or even the grand slam! Includes every feature you would expect from this excellent arcade simulation rugby game.

ARTIC SOFTWARE

is available from all good stockists - or direct from Artic Computing, Main St., Brandesburton, Driffield, YO25 8RL DEALER ENQUIRIES WELCOME - TEL: 0401 43553

### WEB WAR

Flying at incredible speed, you must save the people of the 'black widow' from the tyranic

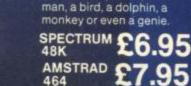
### AGAIN

11

The world-famous reporter, Ben of the Chronicle, has been sent to the Houses of Parliament to piece together a big story that is about to break. To obtain his story he must approach the politicians, exhanging gifts for the leaked information. Can you recognise Maggie lurking in 'the house', or Geoffrey Howe, or the many other celebrities here to haunt you. The game includes a screen kit with which you can totally redesign your own screens!

**BIG BEN STRIKES** 

### SPECTRUM £6.95



ALADDIN'S CAVE

overcome the evil wizard by

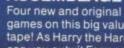
In this exciting arcade/

collecting objects and spells which allow you to transform into different

lifeforms. Explore the strange caverns in your

various bodyforms; as a

adventure you must

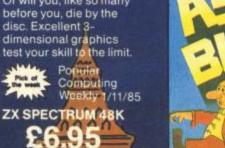


ASSEMBLAGE

games on this big value tape! As Harry the Hare, can you outwit Farmer Giles to eat his carrots? Then explore the temple of doom as Mutant Monty. Then rack your brains over two excellent adventure games.

**ZX SPECTRUM 48K** ONLY £8.95







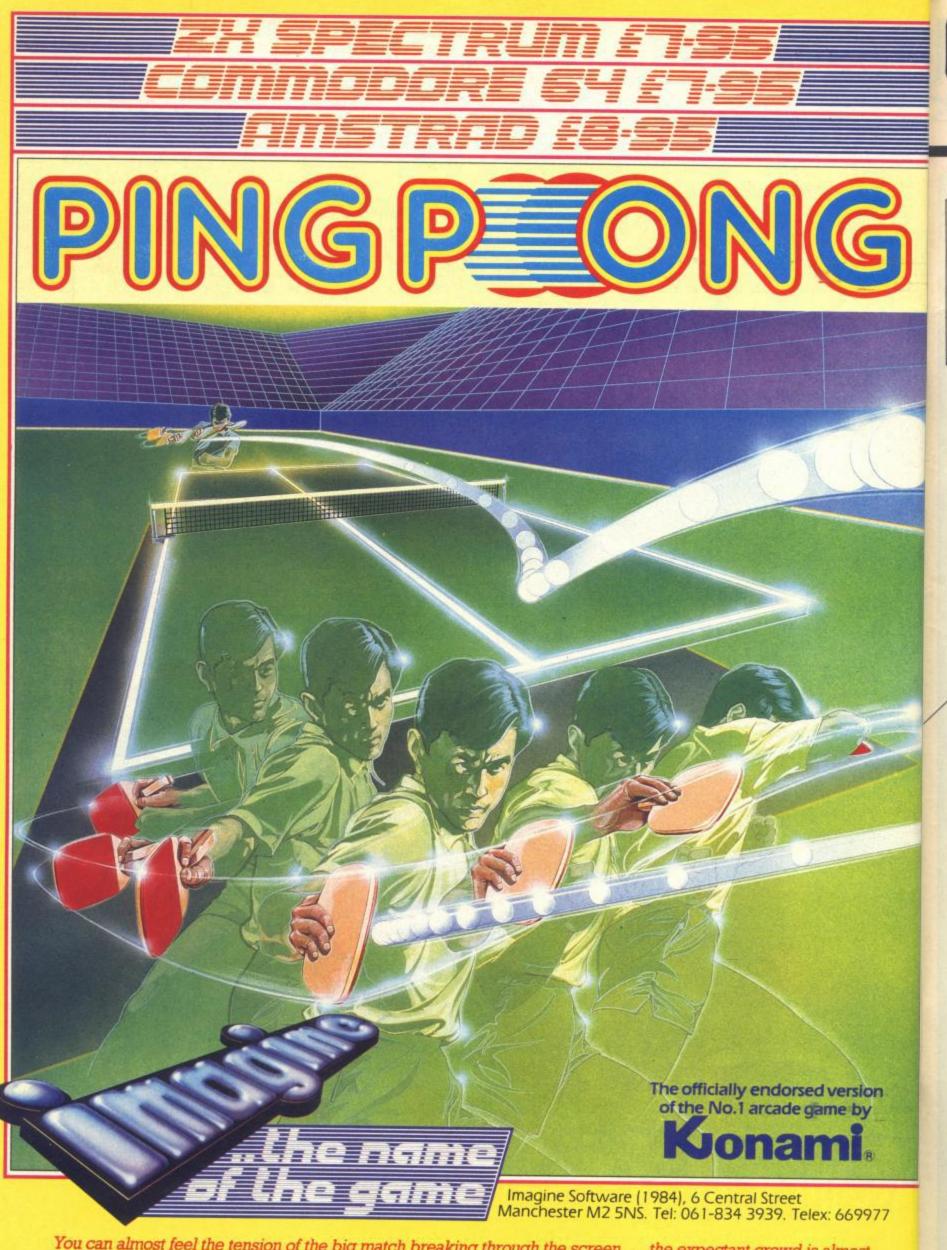
1

1

### £7.95 AMSTRAD 464

SPECTRUM £7.95

aliens. BBC/ BBC/ ELECTRCN £4.95



You can almost feel the tension of the big match breaking through the screen . . . the expectant crowd is almost on top of you! You return the service with a **Top-spin Backhand**, then a **Forehand Back-spin**, the ball bounces high from your opponent's looping, defensive lob . . . **SMASH!** . . . a great shot opens the score . . . but this is only your first point! Play head to head or against the computer in this, Konami's first and best table-tennis simulation.

S

Imagine Software is available from selected branches of: (B), WHSMITH, Ashn Menzies, WOOLWORTH, LASKYS, Rumbelows, Graens, Spectrum Shops and all good deal

### Centre Soft presents

With over four years experience of providing practical software solutions for business and home applications, Gemini have put together their entire range of famous titles for the Spectrum and Spectrum Plus in ONE special pack, at a VERY SPECIAL price. Whether you're a cassette or microdrive user, this super value pack contains all the serious application software you're ever likely to need for your Spectrum, from home accounts and database management to a complete professional business accounting system. Gemini's OFFICE MASTER is here—put that computer to WORK!

- Database
- Stock
   Control
- Final Accounts
- Easiledger

 Home Accounts

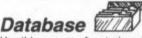
Cash Book

Mailist

### ger • Graph Plot

Each pack contains ALL 8 programs, demonstration data files, and clear and comprehensive manuals for EACH program. Gemini's previous retail price for all these programs individually was £179.60. Now they're all together in ONE COMPREHENSIVE PROGRAM PACK.

> OFFICE MASTER Tape: £15 Microdrive: £17.50 includes P&P and VAT.



Use this program for storing all types of information just the way YOU want to store it. You set up a computerised 'card index' system and add records and data to the file in the format that you choose. Advanced features include sorting and searching for specific records, mathematical calculations, printer routines, data summaries, etc. If you don't have a database, you certainly should!

### Mailist

This is a specially designed database for storing names and addresses, and printing out in label format. Special search routines are included for selecting only names and addresses that conform to your criteria. The famous Gemini 'Searchkey' facility is included with this program, and data entry is simplified by an on screen label painting system. Just type in those names and addresses as though you were using a typewriter!



### Stock Control

One of Gemini's speciality programs, this software will take the drudgery out of keeping stock records. Enter details of part number, description, unit quantity, cost price, selling price, minimum stock level, units in stock, order quantity and supplier details. Detailed reports include totals of stock at cost and sale price, cost of bringing stock up to level specified, gross margin, understocked items, etc. Full browsing facilities to make inventory management a pleasure!

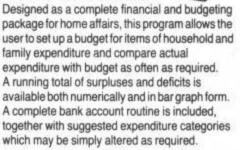
### Cash Book

This is a full and comprehensive cash book accounts system designed to REPLACE your manual ledger entirely. It will take you from the 'shoebox' situation of sheaves of invoices, cheque book stubs, petty cash vouchers and bank statements etc. to a properly constituted trial balance. You may then take your FINAL -ACCOUNTS package and produce profit and loss account and balance sheet ready for audit. A REAL money saver when it comes to your accountancy bill!

### Final Accounts

Using the data file on microdrive or cassette prepared by the cash book program, this software will produce comprehensive end-of-year reports ready for audit by your professional adviser. The Gemini cash book and final accounts system is now in use by many thousands of businesses and as a 'classic' professional program has been translated for a wide variety of micros. Cash book and final accounts alone warrant the purchase of this OFFICE MASTER program pack.

### Home Accounts



Office Master

### Easiledger



Consists of invaluable routines to allow the creation of any type of financial ledger system. Its usefulness lies in its ability to produce account balances instantly for debtors and creditors together with an audit trail of all entered transactions, with dates and references. A year-to-date summary is included of sales, purchases, receipts and payments over a 12 month period, and most importantly, a completely interactive bank account database is featured.

### Graph Plot

At last, superb graphs, bar charts and pie charts on your Spectrum! With a complete data entry section and the ability to load and save files, this is really one of the fun programs to use. Represent numbers and data in clear diagrams with this package, and print them out on your printer to accompany reports, budgets, etc. Very highly recommended for the office, home and school. Also includes capability to provide mathematical function plotting.

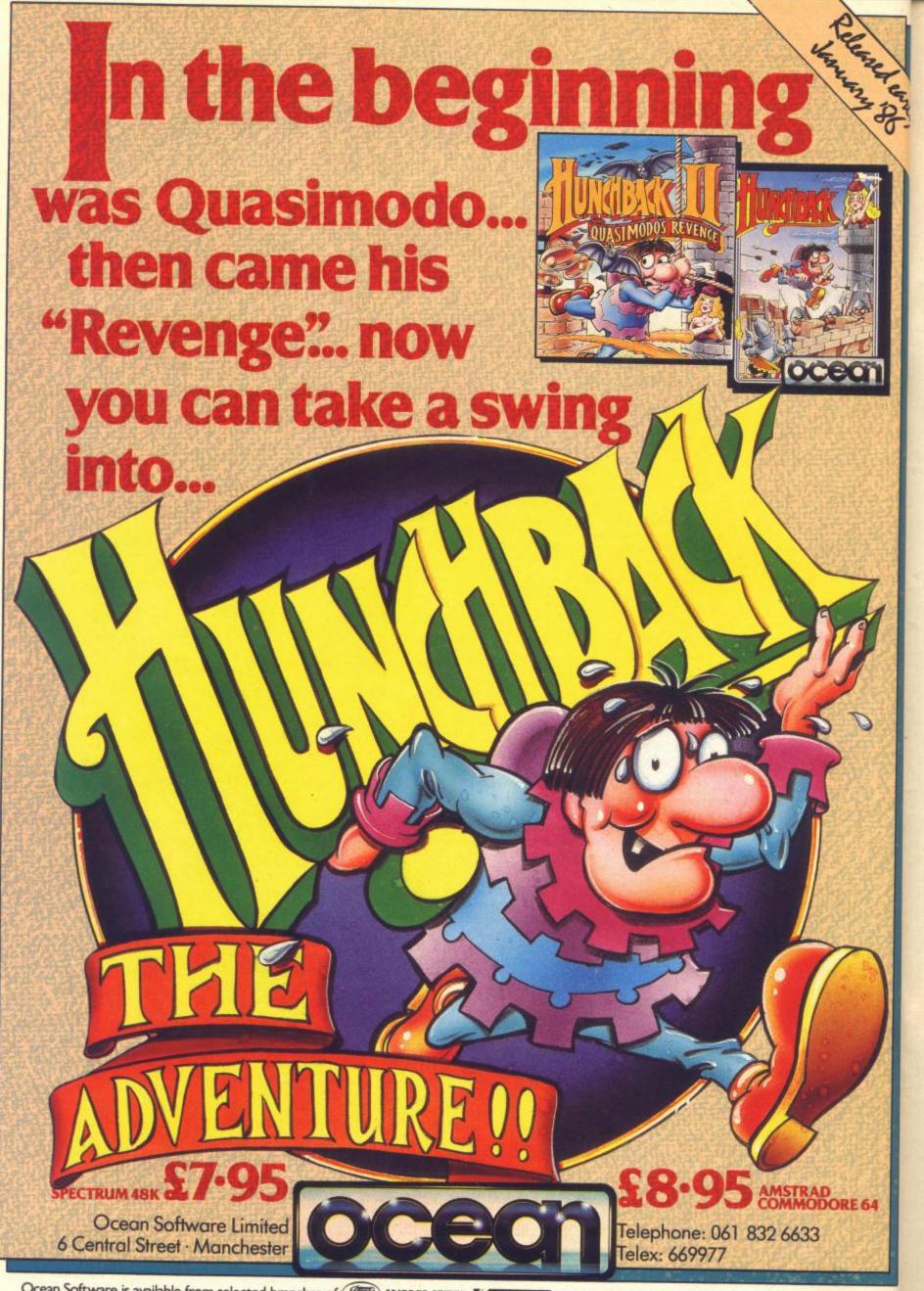
				<ul> <li>Gemini Marketing Limited,</li> </ul>
and the owner of the owner owne	I			Gemini House,
Concelli Concern			and the second	Exmouth EX8 4R
Please s	send me	_ Spectrum	OFFICE	MASTER packs.
Cheques/POs enc Access/American			У	
Name:				
			-	CONSTRUCTION OF COME
Name:				INVESTIGAN

- Trade and overseas enquiries welcome. ---

Mail

Order to:

Sole distributors to the trade: CENTRESOFT Ltd Tel. 021 3593020



Ocean Software is available from selected branches of: (), WHSMITH, / John Menzies, WOOLWORTH, LASKYS, Rumbelows, Greens, Spectrum Shops and all good software dealers. Trade enquiries welcome.

### ENTER THE LISTS

Here's the Droid Wars listing -100 per cent Basic action with no hex or Basic loaders to get in the way. Remember to save it in stages as you go in case you're attacked...

### 20 60 TO 8001

INUM

20 GG TO 8001 140 REM Kevinometer 150 LET w=0: FOR j=1 TD 15: LET w=w+CODE r\$(j)*V(j,5)+V(j,4)*(C DDE (r\$(j))<>0): NEXT j: LET a*= STR\$ w: LET a*=""( TO 5-LEN a\$)+a\$: PRINT AT 18,11;a\$: LET a*=STR\$ M(CODE r\$(8),1): LET a*= ""( TO 3-LEN a\$)+a\$: PRINT AT 18,29;a\$: RETURN 18,29;a\$: RETURN

#### Lines 140-150 Check & display weight of droid.

200 REM Scrolling Window 200 REM Scrolling Window: 210 LET ss=1: LET a*=b*: GO SU B 220: GO SUB 220: GO SUB 220 220 LET 1*(ss)=CHR* 16+CHR* r+a *: LET ss=ss+1-4*(ss=4): PRINT A T 18,0:: LET sc=ss: FOR z=1 TO 4 : PRINT INVERSE 1:1*(sc):: LET sc=sc+1-4*(sc=4): NEXT z: RETURN

Lines 200-220 Scrolling window. GOSUB 210 to clear, 220 to write new message.

230 REM Move Droid & Display 230 REM Move Droid & Display 240 IF en=0 THEN RETURN 250 IF FN h()+M(CODE r\$(B),3)< dam THEN LET a\$="Motive unit fa ilure!": 60 TO 220 260 LET spd=M(CODE r\$(8),1)*M(

1

CODE r\$(8),2)/CODE r\$(20): IF di r=-1 AND spd>ABS (p-op) THEN LE T spd=ABS (p-op) 270 LET mv=SGN (p-op)*dir: IF m

V=0 AND dir=+1 THEN LET mv=1-2* (RND).5)

280 LET p=p+spd*mv: LET p=p-p* (p<0): IF p>255 THEN LET p=255 300 LET en=en-1: LET w=w-1: LE T np=INT (p/0): IF np=010 THEN LET np=np+(np<>31)-(np=31)

302 IF np=olp THEN RETURN 310 IF olp<>olo THEN PET 310 IF olp<>olo THEN PRINT AT 16,olp: "; 320 PRINT AT 16,np; INK r;CHR\$ 144: LET olp=np: RETURN

### Lines 230-320 Move a droid & update scanner.

345 REM Scan arena
350 LET ran=999: IF CODE r\$(7)
AND FN h()+30>dam THEN LET ran
=30
355 IF CODE r\$(6) AND FN h()+3
5>dam THEN LET ran=50
360 IF CODE r\$(5) AND FN h()+5
0>dam THEN LET ran=100
370 IF ran=999 THEN LET as="B
lind!": GO TO 220
380 LET en=en-1: LET w=w-1: LE
T a=ABS (p-op): IF a>ran THEN
LET 8=999
390 LET ran=a: RETURN
Construction of Statement of the second state statement of the second statement of the

### Lines 345-390 Scan arena for opponent.

1100 REM Draw arena 1100 REM Draw arena 1110 INK 0: PAPER 4: BORDER 4: CLS : PRINT TAB 11: "DROID WARS" ': LET a=5: FOR i=175 TO 169 STE P -2: PLOT a,i: DRAW 87-PEEK 236 77,0: PLOT 168,i: DRAW 87-a,0: L ET a=a+5: NEXT 1

At YS we're looking for the Droid Master — the designer who can come up with the ultimate fighting machine. All who can come up with the ultimate fighting machine. All who can come up with the ultimate fighting machine. All the post to us. We're
who call come in the would pest droid, the work
here and pop the story Speccy we can it and to show
off your divide we're offerning - the hote to the
you now serious that alive - two sing the Wars II
outer worlds company will also recent
that isn i chong on inese pag
This is your chance to demonstrate your abilities to This is your chance to demonstrate your abilities to take on and possibly beat other YS readers. One of you and take on and possibly beat other YS readers. Will it be you?
take on and postanty, the Droid Master, the
Droid Name
Plasma Bolt
Laser Cannon Autorepair
Shock Bombs Autorepair and Energy Lance
Range Tracker Aggro
Pain
Local Radar Pantana Pan
Thermic Eyes
Weight Break-off
WeightBreak of a second
Your Name
Address
Address
1
and and and
Telephone
Telephone I understand that this is a simulation program I understand that this is a simulation program do not fight or condone fighting with droids.
Signature
Post this coupon (or a plasmacopy of 197 Wars, YS, 14 Rathbone Place, London W1P 1DE.

1120 PRINT INK 1;" ":n*(f);" R EADY" INK 0:" Energy"''" Damage "''' INK 2:" ":n*(s);" READY"' I NK O; " Energy"' " Damage"; AT 14,

121 "SCANNER" 1125 PLOT 0,161: DRAW 255,0: DR AW 0,-45: DRAW -255,0: DRAW 0,45 : PLOT 0,112: DRAW 255,0: DRAW 0 ,-45: DRAW -255,0: DRAW 0,45: PL OT 0,59: DRAW 95,0: PLOT 152,59: DRAW 103,0: PLOT 0,37: DRAW 255

1130 GO SUB 210: IF mnu THEN GO TO 2010

: L mod ) =r : 6 d=1TH ed! (mo

### 

1	.ines 1100-1130 Draw arena.
	1200 REM Init robots 1210 LET $f = d = (f)$ : LET $s = d = (s)$ 1210 LET $s = (1) = CHR = 0$ : NEXT 1: LE 1 f = (21) = CHR = 90: LET $s = (21) = CHR = 1$ 150: LET $s = (23) = CHR = 1$ : LET f = (23) = CHR = 1: LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (23) = CHR = 1$ : LET $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1230 LET $s = (21)/8$ : DRAW CODE $s = (21)/8$ 1250 GO SUB 210: LET $s = (21)/8$ 1250 GO SUB 210: LET $s = (21)/8$ 1250 GO SUB 210: LET $s = (21)/8$ 1250 GO SUB 220: LET $s = (21)/8$ 1250 GO SUB 220: LET $s = (21)/8$ 1255 FOR $s = (21)/8$ MORITURI T 1260 SUB 220: LET $s = (21)/8$ 1256 NEXT $s = (21)/8$ 1256 NEXT $s = (21)/8$ 1270 IF $s = (21)/8$ 1280 IF $s = (20)/8$ 1280 IF $s = (20)/8$ 1290 GO SUB 210 1280 IF $s = (20)/8$ 1290 GO SUB 210 1280 LET $s = (20)/8$ 1290 GO SUB 210 1280 LET $s = (20)/8$ 1290 LET $s = (20)/8$ 1290 LET $s = (20)/8$ 1290 SUB 210 1290 RE $s = (20)/8$ 1290 RE $s = $
	their starting positions and select who goes first! 1300 REM Swap over % unpack 1310 IF r=s THEN LET r=f: LET r*=f*: LET or=138: LET oo=91: LE T o=s: LET o*=s*: LET en=ef: LET oIp=oIf: LET olo=ols: GO TO 134 0 1315 LET r=s: LET r*=s*: LET or= f*: LET oo=138: LET o=f: LET o*= f*: LET en=es: LET olp=ols: LET olo=olf 1340 LET mod=CODE r*(23): LET p= CODE r*(21): LET dam=CODE r*(24) 1345 LET op=CODE o*(21): LET w=C ODE r*(20): LET ar=CODE r*(10)/6
	INK FI RANDOMIZE Lines 1300-1345 Swop over from one droid to the other and unpack array.
	1350 REM ** 1st decisions 1360 IF en=0 THEN LET a*="Exhau sted'": GD SUB 220: LET mod=3: L ET r*(26)=r*(15) 1370 IF r*(25))r*(13) AND mod (3 THEN LET mod=3: LET r*(26)=r *(15): LET a*="Breaking off!": G 0 SUB 220 1380 IF r*(24))r*(22) AND mod=1 THEN IF FN h()<=CODE r*(12) TH EN LET mod=2: LET a*="Provoked! ": GD SUB 220 1390 PRINT AT 2+(r=s)*6,13;M*(mod) d): GD TD 1300+100*mod
	Lines 1360-1390 A bit of thinking at the start of each turn!

1395 REM Hunt mode 1400 LET dir=-1: GD SUB 240: GO SUB 350: IF ran=999 THEN GO TO 1910

1410 LET a#="Enemy sighted.": I F ran<=CODE r#(14) THEN LET mod =2: LET r#(25)=CHR# 0: LET a#="B

### DROID WARS!

anzaiiii!" 1420 GO SUB 220: GO TO 1910

Lines 1395-1420 Hunt Mode: Close in on enemy until within attack range.

1495 REM Attack mode 1500 GD SUB 350: IF ran=999 THEN LET mod=1: GO TO 1910 1505 LET wn=0: IF CODE  $r \neq (4)$  AN D FN h()>dam THEN LET wn=4 1510 IF CODE  $r \neq (3)$  AND FN h()>da THEN LET WAN=3 1515 IF CODE r\$(2) AND FN h()>da m THEN LET wn=2 1520 IF CODE r\$(1) AND FN h()>da m THEN LET Wn=1 1530 IF Wn=0 THEN LET as="Weapo ns failure!": GD SUB 220: GD TO 1910 1535 IF ran>W(wn,1) THEN LET a \$="Out of range.": GD SUB 220: L ET mod=1: GO TO 1910 1540 LET a\$="Firing "+W\$(wn): G 0 SUB 220 1545 LET en=en-1: LET w=w-V(wn,5 )-1: LET r#(wn)=CHR# (CODE r#(wn )-W(wn.5)) 1550 LET acc=W(wn,2): IF r = (5)= CHR# 1 AND FN h()>dam THEN LET acc=7000 1555 PRINT AT 16,01p; INVERSE 1; CHR# 144;AT 16,olp; INVERSE 0;CH R# 144 1560 IF FN h()>acc/(ran+1) THEN LET a#="Missed!": GD SUB 220: GO TO 1910 1565 PRINT AT 16,010; OVER 1; FL ASH 1;" 1570 LET pd=W(wn,3)+RND*(W(wn,4 )-W(wn,3)) 1580 LET esr=CODE o#(9)*(100-CO DE a\$(24))/100 1585 LET pd=5+pd*(100-esr)/100: LET pd=INT pd 1586 FOR i=1 TO pd*2: OUT 254,17 0: OUT 254,85: NEXT i : BORDER 4 : PRINT AT 16,010; INK 0;CHR\$ 14 4;: LET a\$=STR\$ pd+" unit hit!": GO SUB 220 1587 LET z=CODE o\$(24): LET o\$(2 5)=CHR\$ (CODE o\$(25)+pd): LET o\$ (24)=CHR\$ (CODE o\$(24)+pd)

1590 IF of(24)>CHR\$ 100 THEN GO SUB 210: LET a\$=n\$(0)+" Destroy ed!": GO SUB 220: LET a#=n#(r)+ Is The Victor !": GO SUB 220: GO TO 2010

1592 FOR j=oo-17 TO oo-15: PLOT INK o;z+8,j: DRAW INK o;pd,0: NEXT J: 60 TO 1910

Lines 1495-1592 Attack Mode: Pick the best weapon available and have a go at him!

```
1595 REM Chicken mode
1600 LET dir=+1: GD SUB 240: IF
r$(26)=CHR$ 0 THEN LET mod=1:
LET r$(25)=CHR$ 0: 60 TO 1910
1610 LET r$(26)=CHR$ (CODE r$(2
6)-1): LET dam=dam-ar: IF dam(0
THEN LET dam=0
1615 FOR j=or-17 TD or-15: PLOT
 INVERSE 1; dam+8, j: DRAW INVERS
  1; ar, O: NEXT j
E
1620 IF dam=0 AND w+ar<M(CODE r$
(B),1) THEN LET en=en+ar: LET w
=w+ar
```

Lines 1595-1620 Break-Off Mode: Run Away, make repairs and don't stop until break-off period is over.

```
1900 REM clean up & loop
1910 LET en=en-en*(en<0): FOR j=
    TO or+2: PLOT INVERSE 1;8, j:
or
 DRAW INK r;en,0: DRAW INVERSE
1;240-PEEK 23677,0: NEXT j: PRI
   AT 2+(r=5)*6,13;M$(mod)
NT
1920 LET r$(23)=CHR* mod: LET r$
(24)=CHR* dam: LET r$(22)=CHR* d
am: LET r$(21)=CHR* p: LET r$(20
)=CHR# W
```

1930 IF r=s THEN LET s\$=r\$: LET f#=o\$: LET es=en: LET ols=olp 1940 IF r=f THEN LET f\$=r\$: LET s\$=o\$: LET ef=en: LET olf=olp 1950 LET a\$=INKEY\$: IF a\$<>"m" AND a\$<>"M" THEN GO TO 1310 1960 GD SUB 210: LET a*=b*: GD SUB 220: LET a*=" SAVED BY YOUR MERCY!": GD SUB 220: GO TO 2010

Lines 1900-1960 Update arrays and energy bar and loop again.

```
2000 REM *** Menu
2010 LET mnu=1: LET a#=b#: GD S
   220: LET a$=p$: GD SUB 220
UB
2110 LET a#=INKEY#: IF a#="" THE
   GO TO 2110
N
2120 IF a$>="a" AND a$<="z" THEN
LET a$=CHR$ (CODE a$-32)
2130 IF a$="B" THEN LET r=f: GO
 TO 3010
2140 IF as="R" THEN LET r=s: GO
 TD 3010
2150 IF as="F" THEN LET mou=0:
GO TO 1110
2200 IF a$<>"Q" THEN 'GO TO 2110
2210 PAPER 7: INK O: BORDER 7: C
LS : GO TO 9999
```

Lines 2000-2210 Stick the menu in the window and fetch a command.

```
3000 REM ** Create/edit Droid
3010 INK 0: PAPER 6: BORDER 6: C
LS : PRINT TAB 5; DROID DESIGN
WORKSHOP" "Droid: "in*(r) ' INK
r; "WEAPON SYSTEMS GENERAL"'
3020 PRINT INK 0;"Plasma Bolt
XXX Motive type X"'"Laser cann
on XXX Shielding XXX"'"Shock B
ombs XXX Autorepair XXX";"Ener
gy Lance X Fuel XXX"
3030 PRINT INK r; "VISION SYSTE
MS PROGRAMMING" INK 0; "Rang
e Tracker X Aggro
ocal Radar X Pain
                                              XXX"
                                                  XXX"
 "Thermic Eyes
                                X Attack
XX"'TAB 18; "Break-off XXX"' "We
ight XXX Maximum XXX"
3040 PRINT : PRINT "Press just E
nter for next item. Enter Q when
  you've finished."
3170 LET r =d =(r): FOR i=1 TO 15
: LET a$=5TR$ CODE r$(i): LET a$
=" "(1 TO (3-LEN a$)*(V(i,3))9)
)+a$: PRINT AT V(1,2),V(1,1);a$;
: NEXT 1: GO SUB 150
```

### Lines 3000-3170 Draw editor screen.

3180 LET 1=0

3190 IF i>0 THEN GO TO 3250 3200 PRINT AT 2,7; FLASH 1;n*(r );: LET a*="": INPUT LINE a*: I F a*="q" OR a*="0" THEN LET r*( 20)=CHR\$ w: LET d\$(r)=r\$: FRINT AT 2,7:n\$(r): GO TO 1010 3210 IF a\$<>"" THEN LET n\$(r)=a 3220 PRINT AT 2,7;n\$(r): GO TO 3290 LET VS=STR\$ CODE r\$(i): LE 3250 S250 LE1 V*S1R 0 LEL T v*=" "(1 TO (3-LEN v*)*(V(1,3 )>9))+v*: PRINT AT V(1,2),V(1,1) ; FLASH 1;v*;: LET a*="": INPUT LINE as: IF as="" THEN GO TO 3 270 3252 IF a\$="q" OR a\$="Q" THEN L ET r\$(20)=CHR\$ w: LET d\$(r)=r\$; 60 TO 1010 3255 LET a=0: FOR j=1 TO LEN a\$: LET a=a\$(j)<"O" OR a\$(j)>"9": N EXT j: IF a=1 THEN BEEP .5,12: GD TO 3250 3257 LET a=VAL a\$: IF a>V(1,3) 0 R (1=8 AND a=0) THEN BEEP .5,12 GO TO 3250 3260 LET t=CODE r\$(i): LET r#(i )=CHR# a: GO SUB 150: IF w>M(COD E r\$(8),1) THEN LET r\$(i)=CHR\$ t: PRINT )0; FLASH 1; "OVERWEIGHT ": BEEP .5,12: FOR j=1 TO 50: NE XT j: GO SUB 150: GO TO 3250 3265 LET v#=STR# CODE r#(i): LE T v#=" "(1 TO (3-LEN v#)*(V(i,3 "(1 TO (3-LEN v\$)*(V(1,3 1>9))+v\$

```
3270 PRINT AT V(1,2), V(1,1); v#;
3290 LET 1=1+1: IF 1>15 THEN LE
 i = 0
3295 GO TO 3190
```

Lines 3180-3295 Collect a value, validate it and alter array if necessary. Quit to menu with the Q command

```
8000 REM Init it bit
8001 PAPER 7: BORDER 7: INK O: C
LS
8002 PRINT "YS Droid Wars"''"Ple
ase Wait!";AT 21,10;1985 Stran
ge Software"
```

Lines 8000-8002 Well, initialisation takes so long. there ought to be something to look at!

8010	LET r=1:	LET f=1:	LET s=2:
	mnu=1		
8015	LET b\$="		

8017 LET p\$="? Red Blue Fi ght Quit ?" 8020 DIM 1\$(4,34): REM scroller 8025 FOR i=1 TO 4: LET 1\$(i)=CHR \$ 16+CHR\$ 0+b\$: NEXT i 8030 REM Mode display 8040 DIM M\$(3,10): LET M\$(1)="HU NT": LET M\$(2)="ATTACK": LET M\$( 3) ="BREAK-OFF" 8045 DIM W\$(4,15): LET W\$(1)="F1 asma Bolt": LET W\$(2)="Laser Can non": LET W\$(3)="Shock Bomb": LE T W#(4)="Energy Lance" 8050 DEF FN h()=INT (RND*100)+1

Lines 8010-8050 Set up sundry items.

```
8100 REM Droid Array
0110 DIM d$(2,30): DIM n$(2,11)
8120 LET a$="": FOR i=1 TO 30:
LET as as+CHR$ O: NEXT is LET as
(8)=CHR$ 1: LET a$(20)=CHR$
                                30
8130 FOR 1=1 TO 2: LET d$(i)=a$
: LET n$(i)="- no name -": NEXT
```

8140 REM Awful Droid UDG 8145 FOR i=0 TO 7: READ a: POKE USR "A"+1,a: NEXT i: DATA 60,36 ,126,60,255,60,126,126

Lines 8100-8145 Set up droid arrays and awful UDG character!

8150 REM MPD Visit B160 DIM M(4,3): FOR i=1 TO 4: F OR j=1 TO 3: READ M(i,j): NEXT j : NEXT 8170 DATA 180,12,30,220,8,50,20 0,8,50,240,6,65

Lines 8160-8170 Set up Motive Unit table.

8200 REM Designer Table 8210 DIM V(15,5): FOR i=1 TO 15 : FOR j=1 TO 5: READ V(1, j): NEX i: NEXT i 8220 DATA 13,6,255,5,50 8230 DATA 13,7,255,5,5 8240 DATA 13,8,255,3,5 8250 DATA 15,9,1,30,0 8260 DATA 15,13,1,20,0 8270 DATA 15,14,1,10,0 8280 DATA 15,15,1,5,0 8290 DATA 31,6,4,0,5 8300 DATA 29,7,100,0,1 8310 DATA 29,8,100,0,1 8320 DATA 29,9,255,0,1 8330 DATA 29,13,100,0,0 8340 DATA 29,14,100,0,0 8350 DATA 29,15,100,0,0 8360 DATA 29,16,100,0,0

Lines 8200-8360 Designer Table - - this holds all the validation stuff needed by the designer as well as the weights of each element.

```
8400 REM Weapons table
8410 DIM W(4,5): FOR 1=1 TU 4: F
OR j=1 TO 5: READ W(i, j): NEXT j
: NEXT i
8420 DATA 60,2000,40,50,1
8430 DATA 40,1800,10,20,1
8440 DATA 25,1600,15,30,1
8450 DATA 2,7000,5,15,0
8500 GO TO 1100
```

Lines 8410-8500 Set up Weapons Table. What would happen if you changed that 60 into ...?

HARDWARE

Spectrum Wafadrive with word processor. Hardly used. Worth £130, will accept £95 ono. ZX Printer £20. Currah MicroSpeech + tape £16. Tel. (0306) 882262 after 5 pm and ask for Robert.

■ Dk⁺Tronics Light Pen in original packing ■ Dk⁺Tronics Light Pen in original packing − £12. Two rolls of ZX Printer paper − £2. 50 magazines, worth £40 − £7. Tel. (0705) 482700 after 6 pm and ask for Matthew.

Help!!! Can anyone please tell me how switch Eproms and RAM into the Sinclai ROM area (and any other place in the Sinclain ROM area (and any other place in the 64K). Diagrams and circuit drawings of the hardware described in YS no. 14, page 40/ 41 also wanted. Please write to Odin H. Sarensen, Kajerad Vaenge 33, 3460 Birkerad, Denmark. ZX Spectrum with tape recorder, Protek

switchable interface, joysticks and over £250 games. Would cost £470 new, all in vgc, sell for £250 ono. Tel. Larkhall (0698) 887959 and ask for Steven.

 887959 and ask for Steven.
 Stonechip add-on keyboard for Spectrum+. Just plugs in, no soldering required. Sell for £20 ono. Tel. (0454) 412831 and ask for Alan Tobias.
 Swop Wafadrive, Currah MicroSpeech, Kempston Interface, White Lightning, Glass, Starion, Melbourne Draw, HURG, Psytron, The Artist for Microdrive+ Interface, Sprint, Printer. Tel. Luton 505319 and ask for Mr P Bobinson. Robins

Hobinson. 48K Spectrum, Interface 1, microdrive, six cartridges, 60 original games worth 2300+, Interstate Joystick Interface, books and lots of mags. Will consider splitting. Sell for £230 ono. Tel. (0231) 60032 and ask for Mr M Passmore.

Mr M Passmore. For sale — Stonechip programmable joystick interface, hardly used. Cost £24, will sell for £12 inc p&p (UK only). Tel. 01-363 1404 after 6 pm and ask for Simon. ZX Printer and three rolls of paper — £40 ono. Lerm Tape Copier and microdrive 1. Offers? All issues of YS for sale. Tel. (0203) 396132 and ask for K A Whiting. Spectrum+ with Interface 1, microdrive. Seven cartridges, tape recorder, 3-channel sound synthesiser, MicroSpeech and lots of software. Will take offers around £300. Tel. (0636) 76507 and ask for Stephen. Teletype 33TAC with paper tape reader

Teletype 33TAC with paper tape reader and punch, £50 ono. Paper rolls £3. Paper tape rolls £1. Tel. (0256) 27532 and ask for D V Rosam

D V Rosam.
 First two volumes 'Input' magazine, complete with binders. Excellent condition, £18.95 inc p&p. A. Pointer, 12 St James Avenue, Broadstairs, Kent CT10 2RN.
 Currah MicroSpeech unit at £15 and a Dk Tronics Light Pen at £12. Both items as new Reverse to inspect Tell 01.907 2253 and

new. Buyer to inspect. Tel. 01-907 2253 and ask for Robert.

 48K Spectrum switchable interface joystick, MicroSpeech, Lo-Profile keyboard, lots of games and mags all under one year old, worth £450, will sell for £200. Tel. 031-664 0687 and ask for Justin.

■ For sale Epson RX80 Printer, serial or Centronics input — £150. Also, Alphacom Printer £45, both as new and boxed. P&P extra. P Last, 4 Hillside, Marham, Kings Lynn, Norfolk. Tel. (0760) 337463.

Lynn, Norfolk. Tel. (0760) 337463. ZX Spectrum+ and software, hardware and tape recorder, etc. Under three months old, most in boxes. All offers considered. Apply: Stephen Page, 10 Tynemount Road, Ormiston, East Lothian EH35 5JP. 48K Spectrum, excellent condition including B/W TV, cassette player, Fuller Roy spund unit, lots of opinial enthware and

Box sound unit, lots of original software and magazines only £160 ono. Tel. Bungay 4582 and ask for Andy

Hardware

Name .....

Address

service is only available to private advertisers.

Please enter my advert under the following classification:

For sale. ZX81 16K with new keyboard. £25. Write to Alistair Sellar, 24 Campbell

Avenue, Edinburgh EH12 6DN. 48K Spectrum, Masterfile and Tasword Two as new only £130. Contact Adam 8 Baoof, 168 Minard Road, Catford, London SE6 1NJ. Suit small business or serious

48K Spectrum, Interface 1, microdrive. joystick and interface. 16 great games and assorted books with tape recorder. If interested please contact Woking 61556 and

sk for Amedeo. I Microdrive, Interface 1+ seven . cartridges, £300 worth of software and mags and Kempston joystick interface. Will split, all in original packaging and all in excellent condition. £120 ono. Adrian Schofield, 12

Valley Park, Cumbria CA28 8BA. Robotic Arm (Armatron), Redditch I/O port, documentation and software. Plugs directly into Spectrum. All axes works, but some inaccurate. Electronics okay, small hardware mod necessary. £60 including postage. Tel. (0889) 270109.

Brand new ZX Spectrum 48K with cassette player + over £100 worth of games, will sell for £110 ono. Tel. (0630)

games, will sell for £110 blochtel. (6050) 5696 and ask for Roger. ■ For sale, Computer Data Recorder, brand new, good condition for £32.95. Separate 32K Rampack, good condition, worth £40 for sale at £21.50. Tel. 01-855 4733 and ask for Surinder Jhaj. ■ Kalt ensise Internet III. only £20. Bank

Half price Interface III, only £20. Backs up all tapes to microdrive or tape. Write to Mr A Bellamy, 181 Model Village, Creswell, Worksop, Notts S80 48T.

48K Spectrum with £80 worth of software plus Kempston joystick interface all for £100. Interface 1 and microdrive plus

four cartridges £60. Tel. (0625) 877392 after 7 pm and ask for Dave. 48K Spectrum, Speccy and periphera . storage case, software leads and manual. All in mint condition. £75. Tel. (0706) 356856 and ask for M H Choudry.

48K Spectrum, reset bar, tape recorder, Quickshot II joystick, Ram Interface.
 Excellent condition — nothing has ever needed repair. Plenty of games and

(0823) 71131. New Brother HR5 and Kempston ics E, £80. Tel. Sidmouth 2016 and

ask for Eric. 48K Spectrum, Saga Emperor

Keyboard, ZX Printer, joystick interface, five rolls paper £200 worth software, £55 worth books (four machine code) altogether worth £515 Sell for £260 ono. Tel. 01-708 1850 and ask for Jason. 48K Spectrum with Currah

Adv. Spectrum with Corran
 MicroSpeech. Books, games, utilities, mags (including issues 1-14 of YS). Microdrive cartridges. cost over £330 accept £180 ono.
 Tel. (06286) 5713 and ask for Mr K Long.

Tel. (06286) 5713 and ask for Mr K Long. For sale; Joystick + Ram Turbo interface £15, Currah MicroSpeech £14. MicroSlot £6. Saga Keyboard £25. Four Spectrum books at £1.50 each. Tel. Romford 61232 and ask for Stuart. Swop green screen monitor (suitable for BBC) for any portable colour TV also ICL 7561 keyboard £10. Tel. (0705) 832850 evenings and ask for S J Castle. DkTronics Light Pen only £12. Currah

Dk Tronics Light Pen only £12. Currah MicroSpeech only £15. Both nearly new. Will swop for microdrive. Tel. 01-907 2253 and ock for Pohen

ask for Robert. ZX81 16K, Printer, Keyboard, manuals and magazines. Fully boxed, lots of software (over 40 games and utilities) £100 ono. Contact F Deakin, 25 Albany Road, Redruth,

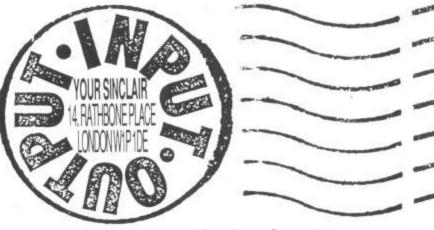
Cornwall ..........

**BOOK YOUR FREE AD HERE** 

🗆 Software 🗆 Wanted 🗆 Messages & Events 🗆 Pen Pals

..... Postcode .....

If you'd like to advertise in Input/Output, please write in BLOCK CAPITALS below and send the coupon to Input/Output Your Sinclair, 14 Rathbone Place, London W1P 1DE — oh, and don't forget your address and phone number. We can't accept any software sales, and this



### Are you on the hunt for hardware, searching for a software Swop or pursuing a pen pal? Well look no longer put your message in YS and get your name in the mag for free!

48K Speccy, Interface 1, microdrive three cartridges, programmable joystick interface, Quickshot I joystick, computer books and even software. All for £150. Good-o eh? Tel. (0603) 610127 and ask for Marcos

VTX 5000 modern wanted swop for Tandy 8-level chess computer (cost £60+) and ZX Printer with five rolls paper. Tel.

(04215) 63618 and ask for Tony.
 48K Spectrum and microdrive, games and books. £60 ono. Mr M J Lipscombe. 267

and books. Edo ond, with a Elpseutide.
 Wimpson Lane, Millbrook, Southampton.
 Currah MicroSpeech only £15.
 Cambridge Computing intelligent joystick interface plus Altai joystick for £10. Tel. (0278) 427322 after 6 pm.

### SOFTWARE

New titles for the Spectrum to swop. Send your list for mine. Write to Quentin

Send your list for mine, write to duentin Fefeure, Koning Albertstr 51, 1600 Sint Pieters Leeuw, Belgium. Psytron, Ghostbusters, Fighter Pilot, Hunchback II, Beach Head, Strontium Dog (The Killing) and Everyone's A Wally. Swop any two for The Artist, Spy vs Spy or JSW II. Tel. Bristol 555163 and ask for Nick. Swop Evil Topetha and Andmid 2 for

Swop Full Throttle and Android 2 for Pole Position. Write to Michael Sellar, 24

Campbell Avenue, Edinburgh. Avalon and Danger Mouse in Double Trouble for YS MegaBasic or swop the two games above + Splat and Maziacs for a

Ok Tronics Lightpen. Chris Wilkins, 25 Orchard Park, Laugharne, Dyfed SA33 4TH. Swop American Football, Sabre Wulf, Monty Mole, Ghostbusters, Combal Lynx, Mugsy, Starion and Shadowlire, Alien 8, Boulderdash, Spy vs Spy, Raid Over Moscow, Blockbusters, F. Bruno Boxing. Tel. (0538) 702514 and ask for Dominic. Swop White Lightning for HURG. Tel. Wydam 3973 and ask for Michael.

Swop suitable for Spectrum. Tasword Two or Masterfile for Quill, Picturesque E/A or Monitor. Write to Mr H P Boyle, Glebe House, Royal Lane, Hillingdon, Uxbridge UB8

 Swop Bozy Boa, Hunchback, Wheelie, Mrs Mopp, 16/48 tape 2 for The Quill or Snowball. Jason Goodall, 334 Parkmill Close, Corringham, Essex SS17 7JR.

Will swop Doomdark's Revenge or any two of Airwolf, Beach Head, Cyclone, TLL, Timegate, Harrier Attack or Night Gunner for Underwurlde. Write to Plod, 34 Anside,

Stapleford, Notts NG9 7EY. Will swop Tasword Two or Booty for Football Manager by Addictive. Samantha Gibbs, Jubilee House, Wrangle, Boston, Lincs, PE22 9AE Will swop Raid Over Moscow for Softek

Full Floating Point Compiler. Write to F Deakin, 25 Albany Road, Redruth, Cornwall, I have many games to swop. Examples include Hypersports, Glass, JSW II, Chuckle Egg II and many others. Write to João Paulo, Rua Garcia de Horta, No 9 3esq. 2800, Almada, Portugal.

Almada, Portugal. Swop Shadowlire, Gift From The Gods, Starstrike. Wanted: Way Of The Exploding Fist, Yie Ar Kung Fu, Tripods or Rambo. Any arrangements Tel. (0249) 13006 and ask for

Neti.
Swop 13 games for Quickshot II joystick and interface. Games include ZX Bug 2, Gnasher, Bullseye, Tank Trax and many more. Write to Peter Tustain, 8 Acre Road, Cudworth, Barnsley, South Yorkshire S72

BRU, Swop top Spectrum software for your software, or for a Dk'Tronics lightpen. Send your list for mine. G Shaw, 25 Redwood Avenue, Royston, Barnsley, S. Yorks. S71 4JP

 Will swop any two of Moon Alert, Starstrike and Scuba Dive for Tir Na Nog or Wriggler. Tel. 031-443 1836 and ask for Andrew

Will swop The Quill, original with book for ditto White Lightning. Tel. Blackburn 663095 and ask for Bill.

Swop any two of Pyjamarama, Brian Jacks Superstar, Lords Of Midnight, Hunchback, Pimania, Black Crystal or Jungle Trouble for Match Day and Bruce Lee or World Series Baseball. Tel. (0532) 667433 and ask for Sion.

667433 and ask for Sion.

 I have a fairly large amount of software that I'd like to swop with anyone. Send a list of your games to David Game, 33 Belle Cross Road, Kingsbridge, TO7 1NL.
 Will swop Full Throttle, World Cup, Manic Miner, Jetman, Mugsy, Hunter Killer and more. Want Machine Code Tutor, Match Dev, String Dorgh, etc. Tel.

and more. Want Machine Code Tutor, Match Day, Starion, Dun Darach, etc. Tel. Magherafelt 32192 and ask for Brendon. Swop Frankie, Gryon, Knightfore, Tapper, Spy Hunter, Alien 8, Skool Daze, Pole Position and many more. Send your list for mine. Originals wanted. A Bellamy, 181 Model Village, Creswell, Worksop, Notts S80 4BT 4BT

I would like to swop Starion Underwurlde, Dambusters, and many others for Jet Set Willy, Pole Position, Alien 8 etc. James Walker, ORD services, Berlin, BFPO 45

Swop Wally series, LOM, Skool Daze Knightlore, Booty, TBATB, Penetrator, 4D Terrordaktil for Basketball, JSW II, Kong II, Zaxxon, Spy Hunter, Chuckie Egg, Decathlon, 911TS, Rocco, Gremlir 0283-712396 and ask for Andrew. s. Tel

 Will swop Airwolf, Starstrike, Brian Jacks and Hellfire. Any two for adventure games.
 Tel. (0630) 57780 and ask for Mark.
 Swop most top ten games — over 1000 programs. Send your list for mine. Also want contact with other BetaDisk owners. Write to Theory, Kumpe, Langeweg, 193, B-1900 Thierry Kumps, Langeweg 193, B-1900 Overyse, Belgium.

Swop Horace Goes Skiing and Swop norace coes skiing and Centropods for Skool Daze. Also swop Chequered Flag for Stop The Express. Andrew Parry, 3 Keffi Street, Holyhead, Gwynedd LL65 2BB.

### MAGAZINE HEALTH WARNING:

Think before you snip - most people use a photocopy instead.

...........



200 top games to swop. Also POKEs, maps, tips, games include Exploding Fist, Dynamite Dan, etc. Send your list for mine to Paul, 10 Lonpendyffryn, Llanddulas, Cardiff LL22 8JQ

Swop any two of Alien 8, Psytron, TLL, Time Machine, Alchemist, Ant Attack, Harrier Attack, Flight Simulation, Codename Mat for Quill, Pirate Adventure, Adventure Land, etc. Tel. (0207) 230331 and ask for Graha

Swop Spy Hunter for Gift From The Gods or Herbert's Dummy Run and Atic Atac for Alien 8 or The Rocky Horror Show. Tel. Tunbridge Wells 33010 and ask for Steven.

Will swop software worth over £100 (all original, including Starstrike, Backpackers Cyclone and many more!) for Centronics/ RS232 printer interface compatible with ZX Spectrum. Tel. 0604 61633 after 5 pm. Swop O Level Chemistry teaching

programs 48K for utility programs. Tel. (0475) 674256 and ask for D Macdonald Will swop Sabre Wull and Spectipede

Will swop Sabre Wuh and Specified for Everyone's A Wally, Spy Hunter for Project Future, Daley Thompson's Decathion for Jet Set Willy. Tel. Nottingham 638171 and ask for Jason Duckmanton.
 I'll swop Lords Of Midnight or The Hobbit for Pole Position, Grand National or Graham Gooch's Test Match. Tel. Carlisle 29125 and ask for Matthem

29175 and ask for Matthew. I have 250 games to swop. Send your list and sae to James McLauglin, 29 Careniea Road, Ballymena, Co. Antrim,

Will swop Minder for White Lightning. Write to Shaun Allaton, 61 Goldcrest Road,

Ipswich IP2 0SF. Have issues 11 to 16 of YS. Will swop for A View To A Kill or Daley Thompson's Super Test. Write to Paul Ledwith, 84 Eastern Avenue, East Romford, Essex RM1

4DT Will swop Haunted Hedges, Spectral Panic, Voyage Into The Unknown and Election for Skool Daze. Tel. (0582) 882841

and ask for Mark. and Jack to swop Jewels Of Babylon and Alchemist for Shadowline. Also Brian Jacks Superstar Challenge and Action Biker

for Cauldron. Tel. (0789) 204458 and ask for Will swop Starion, Glass, Dummy Run, .

Dragontoro, White Lightning, etc. for Gyron, Pole Position or any good Speccy games. Send your list for mine, Stu, 1 Poole Crescent, Crossgates, Leeds, W. Yorkshire

Crescent, Crossgates, Lesus, 11 LS15 7ND. Dynamite Dan, Monopoly, Nodes Of Yesod, Fourth Protocol, etc. Will swop for Bruce Lee, 3D Tank Duel, etc. Originals only. Tel. Leeds (0532) 451286 and ask for Phil

Have Frank Bruno's Boxing, all the Gremlin Graphics games. All the Wally series, the Ultimates and much more to swop. Tel. (0223) 833966 and ask for

Swop Sherlock for IQ test. Will also swop Chess and Horace Goes Skiing for Rally Driver. Write to Nick at 8 Essex Road, Leytonstone, London E11 1JR.

I have Kong, Mr Wimpy, Tranz-Am plus many more to swop. Your list for mine. Also I have rubber keyboard for sale. Any offers? Tel. 051-220 8110 and ask for Terry.

 Will swop Illustrator for Machine Code Tutor (or Astronomer). Swop Ghostbusters, Hobbit, Alchemist, 4D Time Gate, Molar Maul, 3D Tunnel, Ghost Gobble, VU3D for? Any offers. Tel. (039287) 4794. I have Match Day, Cookie, Trashman,

Sabre Wull or Frank Bruno's Boxing. Tel. 01-743 5211 and ask for Olly. I'll trade my original 48K Spectrum/

TS2068 word game, Codemaster, for your original Spectrum game or utility. David Hoshor, 7 Bard Drive, Apt B4, Hudson, Ohio 44236, USA.

Swop 300 titles inc. Dynamite Dan, Highway Encounter, Nodes Of Yesod, Spy Vs Spy, Baseball, Raid Over Moscow, Bruce Lee, HyperSports, Starion, Spy Hunter, Boulder Dash, Shadowfire, Wizard's Lair, and many more. Tel. (0652) 33061 and ask

Will swop any two of JSW, On The Run, Pyjamarama, Automania, Backpackers, Tapper, Fairlight, Elite. Tel. 01-435 3962 and ask for Daniel.
 Spectrum software to swop. Send your

list for mine. Don't waste time, send off now. Gordon MacMillan, 39 Bermuda Road, Invergordon, Ross & Cronarty, Scotland. 

I will swop any two of Starion, Ghostbusters, World Cup or Booty for any of The Artist or Zaxxon. Write to Andrew Gh McCubbin, 3 Kenilworth Drive, Airdrie, Lanarkshire, Scotland, M16 7EY

110

### WANTED

ZX Expansion Set. Swop for hardware and software including Currah MicroSpeec Datapen lightpen, Starion, JSW II, Beach ch Head, Ghostbusters and more, Tel (0623) 511062 and ask for Gary. Tuesdays, Thursdays only, Tre only just bought Bug Byte's Manic

Miner. Will give Cheetah Speech Synth to person with best POKEs that work. Write to Michael Foston, 222 Lethbridge Close,

Michael Poston, 222 Lethonoge Close, Lewisham, London SE13 7QS. Dot Matrix printer and Interface for use with ZX Spectrum/Spectrum +. Must be in good condition and under £100, Tel. (0425) 54942 after 5pm and ask for Jeremy Laurence.

Will swop issue 1 of Crash magazine for issue 2 of Your Spectrum in good condition. Must have Ant Attack poster! Elian Terras, 9 Leslie Terrace, Prestwick, Ayrshire KA9 1LN

Wanted; Dk Tronics synth. Will swop for Interface 2 or £20. Tel. (0443) 2901 and ask for Karl

ZX Printer with instructions, etc. in exchange for Currah MicroSpeech with instructions and boxed as new. Mr M Cleaver, 97 Arthur Street, Plane Street, Anlaty Road, Hull.

Aniaty Hoad, Hull.
Wanted urgently — Currah
MicroSpeech. Will swop for software
including Raid Over Moscow, JSW II,
Softaid, Skooldaze, Jasper, Strontium Dog and many more (original). Tel (0555) 870329 (anytime) and ask for Dougi.

William Mitchell, 9 York Street, Dufftown

 Banffshire, Scotland AB5 4AJ.
 Wanted — Into Battle With tape by The Art Of Noise (CTS 100). Will swop for Sabre Wulf, and Fighter Pilot. Tel. (0745) 822122 and ask for Elfion.

 Wanted; Graphics utilities, lightpens, digital tracers, graph pads, etc. Own or commercial software. Games designers, Screen Machine and other Print 'n' Plotter software. Will pay + 1/3 MRP for hardware. Stephen Liddell, 33 Forth Avenue, Larbert, Falkirk FK5 4NJ.

Wanted: your reviews for forthcoming amateur publication. Also, any articles, artwork, etc. In fact, anything appreciated. Send work to Paul Rand, Donnini House, Comet Hill, Easington, Peterlee, County Durham SR8 3ER: Your Spectrum issue 2 wanted. Willing .

to pay £2 for mint condition with map. Tel. Dersingham 40497 and ask for Nigel. Will swop 10-15 games for Prism VTX

5000 or Interface 1, microdrive and cartridges. All originals. Tel. 021-772729 and ask for Conor. Wanted: Machine Lightning. Will swop

for software including Knightlore, Gift From The Gods, Artic Assembler version 2 and others. Tel. Beith (05055) 3312 and ask for Gordon. ■ Wanted: Issues 2&3 of YS. Te

Braintree 41370 and ask for Mrs P. King.

Wanted: Interface 1 and microdrive.
 Price negotiable. Tel. Norwich (0603) 51437 and ask for Dave.

Is there anyone out there with Empires (Imperialsoft) interested to play by mail? Tel. (07373) 53942 and ask for Dave. Machine code programs/magazine listings to produce screen dumps on the Brother HR5 with Interface 1 wanted. Will

swop original games. Potty Painter, Gulpman, etc. Tel. Eastleigh (0703) 642661 and ask for Tony. Football tables program, suitable for up

to 24 teams and for updating. Will swop Make-A-Chip, Survival, VU3D, if good quality. Write to Nick, 8 Essex Road South, Leytonstone, London E11. E20+ offered for YS issues 2, 3, 4 and

6. Must be complete and in 1st class

Must be complete and in 1st class condition. Ring Leeds (0532) 483699 after 7pm with your price.
 Any interesting software such as Prolog or any of the Brainpower range. Have 100's of programs to swop. Write to Chris Gould, 3 Moorgate, Tamworth, Staffs B79 7EL.

Wanted: ZX Expansion set. Will swop games worth over £100, including Alien 8, Trapper, Hypersports, Cauldron, Skool Daze, Video Pool, Chuckle Egg and more. Tel. (0322) 527570 and ask for Graham. Currah MicroSpeech or Datapen for

cash or swop Psytron, Booty and Raid Over Moscow Tel. Bedford (0234) 740530 after 4pm and ask for Matthew. ZX Printer (and paper if poss.) Will pay

up to £10 for reasonable condition. Write to Andy at Littlewoods, Mountview Crescent, S St Lawrence, Southminster, Essex CM0 7NR. Wanted: Currah MicroSpeech, will swop 

software worth over £45 including Ant Attack, Horace Goes Skiing and Chequered Flag. Tel. (09853) 442 and ask for Clovis.

Wanted: Interface 1 with or without microdrive. Tel. Swindon (0793) 763247 and

 Wanted: VTX 5000 modern. Will buy or swop for software. Interested? Write to Tim at 'Rozel', Maespica Road, Lower Cuintuirch, Swansea SA9 2PP

 Wanted microdrive. Will swop for Doomdark's Revenge, Shadowfire, Underwurlde, Knightlore, Sabre Wulf and Eureka.There's more. Tel. (0236) 25231 after 5.30pm and ask for David.

Currah MicroSpeech, Will swop for YS issue 2, Match Day, Finders Keepers, 3D Star Strike and Raid Over Moscow. Tel. Cornwall 890491 and ask for Mark.

 Wanted: Freddie Mercury Love Kills single. Will swop for one of Starion, Zaxxon, Match Day, Classic Adventure, Airwolf, Braxx Bluff. Tel. (0326) 290459 and ask for

Wanted: The Quill and The Illustrator Will swop Nightshade, Spy Vs Spy, Dun Darach, Sabre Wulf, Strange Loop and HURG. Tel. (0749) 72423 and ask for

Matthew. Wanted: Help on Fourth Protocol. Tel. (0924) 278750 after 4pm and ask for Toby.

## MESSAGES, CLUBS & EVENTS

Magazine back issues. Fill the gaps in your collections of Personal Computer World, Microcomputer Printout, Computing Today and Computer and Video Games. Good to mint condition. Tel. 01-977 6198 and ask for Jonathan.

Codebuster, will you please fix your keyboard before I banish you from my planet. Also, hello to Baby, Clyde, Mrs and Mr Mac, Con, Eddie and Ginger Tops. Kipling.

 Please help. I need any hints or tips for Dun Darach by Gargoyle Games. Write to James Campbell, Waverley, 52 Sherbrooke Avenue, Pollockshields, Glasgow G41 4SB Scotland.

Will swop Ghostbusters for issues 3 and 4 of Your Spectrum. Must be in good condition. Tel. (0302) 840853 and ask for Leslie. Issues needed urgently.

 D'ya want software swops, help and tips plus free news letter? Join our free local club. For info write to Jason Roseaman, 56 Redlie Close, Stanford-Le-Hope, Essex SS17 8BB

Issues 3, 4, 6, 7, 9, 10 and 11 of YS for sale, £4 each. Issues 12 onwards £1 each. Also, back issues of Crash available at £1 per issue. Mark Elliot, 40 Silverdale Road, Ecclesall, Sheffield S11 9JL.

Has anyone got POKEs or tips on Scuba Dive, Automania, JSW II, Dynamite Dan, Dun Darach or any new games. If you have any write to Andrew Slavin, 115 Lords Street, Cadishead, Manchester M30 5HJ. Volumes 1 and 2 of *Input* magazine

complete with binders in perfect condition. Open to offers, cash or games. Ian Hoyle, 311 Livesey Branch Road, Blackburn, Lancs BB1 4QJ.

YS issues 1-20 - the full set! All unmarked, offers over £20. Tel. 021-474 6202 and ask for Steve. Also, Tasword £5, programmable interface and joystick £15. Speccy user would like to hear from anyone who uses Speccy for business

purposes, exchange ideas, tips, etc. Philip Montjoy, 154 Stroud Road, Gloucester GL1 5JX

Data Dete Cowley. I'm near solution. Soon have it cracked!!! PH.
 P Binder: How are you Paul? Happy

Christmas, I guess when this gets printed it will be close to Xmas, Write soon! My regards to your family, Skip and Robin. Sergio.

Italian radio station is looking for English hacker to aid with hints, tips and other ideas Anyone interested should contact Bertocchi Leonardo, Radiosoftware, Via Montesuello 3/7, Genova (GE), 16129, Italy. We've finally got our act together. Finsbury Park's Computer's In The Park club

throws its doors open at the Brownswood Library, Brownswood Road, N4 at 8 pm on the last Tuesday of every month (no meeting in December).

### PEN PALS

I am 14 and want a male or female p pal to swop software, POKEs, maps, etc. male pen Send your list for mine. Graeme Dawson, 20 Scalloway Park, Fraserburgh, Aberdeenshire AB4 5FD.

Pen pals wanted anywhere in the world. Per pais wanted anywhere in the world, interested in hacking, m/c programming, adventures, swopping games/progs/ideas (I have 500+ games/progs) and the Spectrum in general. I'm a 16 year old boy, responses can be any age and sex. Plese write to Odin H Sørensen, Kajerød Vænge 33, 3460 Birkarød Depmark Birkerød, Denmark.

Pen pal wanted (boy) to swop games etc. I am eleven and learning to program. I like computer games apart from adventures and enjoy playing golf and football. Kevin Santi, 9 Rae Street, Stenhousemuir, Larbert, Stirlingshire FK5 4QP.

I'm 14 and want a male or female about same age to swop beginners tips and hints. Tel. (0977) 83417 and ask for Ian. Please - this offer ends soon!

32 year old adventurer seeks pen pal to swop hints and adventures, etc. Tel. (0773) 608926 and ask for L Singleton.

■ Yupl It's me again! Any more pen pals out there? If you're around 15 and a computer fanatic write to Sergio Trigo, Rua General Sitva Freire 151-4D, 1800 Lisboa,

 Portugal, Europe.
 Want a Portugese connection? Write to Luis Fernando, Apartado 57, 4465 Sao

Mamede De Infesta, Portugal. Swop programs, hints and POKEs. Send your list now Pen pal wanted, I'm 16 and like music.

Swop hints and games. Samantha Gibbs, Jubilee House, Main Road, Wrangle, Boston, Lincs PE22 9AE. Pen pal wanted, 14+. I own a

Spectrum+ and I'm interested in swopping listings and games. Send your list for game to me. Paul Johnson, 350 Bocking Church Street, Braintree, Essex.

Pen pal wanted. Male or female. 15 or older. Swop tips, games. Please enclose a list of your software. Nell Hoskin, 19 Levens Way, Newbold, Chesterfield, Derbyshire S41 8HZ

I'm 17 and would like a young lady pen pal to swop games programs and ideas and write about music and sport. Please enclose photo. Jose Luis Uoret Soler, c/Barranguet Photo: Jose Los Gorer Soler, Creanandue
 11-4", Villasoyosa, Alicante, Spain 03000.
 Yorkshire lad (251) wants pais to swop
 games, mags, hints, etc. I've got a huge
 collection of games. Write to Paul Rhodes,
 7 Hillesley Road, Shawcross, Dewsbury,
 W Yorks WF12 7SA. Hurry!
 Helpl Longly teenage box seeks 13-15

Help! Lonely teenage boy seeks 13-15 year old female Speccy owner for games and music swopping. Write to Matthew Wenham, 68A Greenhill Road, Leics LE6 3RH.

Old (37) Spectrumer, mastered Basic, some m/c knowlege, would like to swop ideas and techniques with others. Write to Paul Cimatti, 7 Kings Road, Llandudno, Gwynedd, LL30 2BZ.

Pen Pal wanted to swop hints, tips and . software. Interests include reading fantasy novels, Jean Michele Jarre. Any sex, 18+, Write to the Spellsinger, 1 Keats Avenue, Stafford ST17 9SP.

 Quick. If there are any female Speccy owners left on this planet, write to Leigh Howells, 39 Frognall, Deeping St James, Peterborough PE6 8RR. Hurry before my Speccy completely takes over. Wanted. Mad computer freaks with

Wanted. Mad computer freaks with Dk'Tronics 3 channel sound synths to swop tunes and games. Write to Dribble and Pickle, 'Chanypore', Woodford Road, Poynton, Cheshire SK12 1DY.
 I'm nearly 11 and would like a male pen pal of about the same age who's well into programming. Write to Richard Marshall, 58 Court Road, Eltham, London SE'9 5NP.
 To all intelligent life forms. Male user (16) into programming. ProJography and breathing seeks female penpal to exchange

breathing seeks feniale penpal to exchange correspondance, tapes, pix, etc. Chris Sheldon, 8 Primrose Close, Wheaton, Aston, Stafford, ST19 9PX.

 Hi, I'm a Portugese boy, and I want a pen pal of my age (15) who likes writing programs and hacking. I need POKEs for Sabre Wulf and Son Of Blagger. Write to Jose Alberto Roque, Caria Gare No 10, 6250 Belmonte, Portugal.

My name's Andrew and I'm 13, I'd like a pen pal who likes adventure games. Write to Andrew Fraser, 23 Douglas Row, Inverness, Scotland

 13 year old male pen-pal wanted to swop games and info. Write to Ben Taxman, 17 Gwydrin Road, Mossley Hill, Liverpool L18 3HA

I am 10 years old and like adventure games. I'd like to swop games. Write to Daemon Mills, 24 Walmsley Avenue, Southside, Rishton Nr Blackburn, Lancs, England BB1 4RE.

Pen pal wanted to swop software, POKEs, etc. I have over 300 games. Send your list for mine. Tel. (0452) 422201 and

Pen pal wanted. I'm 16 years old and want hints and tips on adventure games and

game listings. I'm mad on fishing and crazy drawings. Nicholas Bell, 23 Lambeth Close, Chelmsley Wood, Birmingham.

I, Greta Attieh, aged 12 seek male pen

pal from anywhere. I'm interested in games and dance. Write to Greta Bchara Attieh PO Box 60123, Jai-Eddib, Lebanon.

Pen pal aged 18+ wanted to exchange ideas and programs. Interested in Basic, m/ c, mythology, sci-fi movies and music. Write to Antonie Attieh PO Box 60123, Jal-Eddib,

Leoanon.
Lonely lady (45 ish), new to computers needs help with programming as well as tape/pen friends, male and female. Veronica Petter, 7 Weton Walk, Kingswood, Bristol

Lonely female, blue eyes, light brown hair (5'6"), seeks male pen pal (15+). Write to Janet, 38 Kiln Lane St Helens WA10 6AH.

ask for Kevin.

**BS15 1LH**.

If possible enclose photo.



SUPERCHARGE is a state-of-the-art optimising full SuperBASIC compiler, to translate ANY SuperBASIC program automatically and directly into ultrafast machine code. This program, eagerly awaited by thousands of QL owners, is just as superb as the pre-release reviews in QL User and Sinclair User made it out to be. It is the only SuperBASIC compiler available, and is the result of 15 months and 3,000 man-hours of work by a dedicated team of programmers. SUPERCHARGE speeds up BASIC programs by factors varying from 20 to 200, and produces amazingly compact, relocatable, multi-tasking code which can be run directly (the compiler is required only for compilation — it need not be present at run-time). The only program of its kind. 102 page manual.

SUPERFORTH + REVERSI is a complete FORTH-83 Standard FORTH Compiler and Development System for the QL. It gives speed-up factors of 50× or more over SuperBASIC – amazing speed SUPERFORTH produces relocatable multi-asking code (all job control constructs are provided). FORTH-83 is the most modern and most videly accepted version of FORTH, and SUPERFORTH (with its supreme flexibility, QDOS compatibility and many extra commands) is simply the fastest and best implementation of it around! What's more, SUPERFORTH is supplied with a full feature version of REVERSI the ever-popular board game also known as Othello) written in SUPERFORTH. This REVERSI is probably the strongest home computer version ever produced – you don't need to go more than half way up its nine playing levels to beat, EVERY SINGLE TIME, Sinclair's OL Reversi and every other version of Reversi (including the previous computer world champion, MOI Spectrum Othello!!!! The entire commented source code of REVERSI is supplied – no student of FORTH could ask for a better programming example! Rules, strategies and instructions for Reversi supplied. RevERSI is also available alone. 40,000 word manual.

M Prod Pasc Devi C Ultra Font The The

SUPERASTROLOGER gives you (completely automatically) a full character and personality readout/horoscope, for any location, date and time of birth! It also gives day-to-day personalised predictions (not the over-generalised horoscopes found in the press, but unique to your time + date + place of birth) and the facility to compare the detailed personalities of any two persons is a for comparitive testing for the detailed time + date + place of birth) and the facility to compare the detailed personalities of any two persons (i.e. for compatibility testing for love or business). It comes with everything you need — so for the person who knows nothing of the ancient science of astrology, no extra literature is required . . . This program will also suit the amateur astronomer (it has hosts of features and display so planetary trajectories and of the solar system, at any point in time), the professional astrologer (because it can be customised by the user to reflect his views on astrological interpretation) as well as the man who just wants an accurate horoscope for himself, his loved ones, friends and famous people. Produces four A4 pages of readout text!! Comes with detailed quide. with detailed guide

OL SUPER ARCADIA comprises TWO hyperspeed machine code classic arcade games for the price of one. BMX BURNER is a multiscreen space arcade adventure (with hundreds of screens and hosts of objects and aliens) that takes up where Jetpac left off! GRID RACER is a nerve tingling grid-based chaser game. Both games have, of course, multiple playing levels, multiple lives, full on-screen instructions and all the other features you would expect from charttopping arcade games.

OL SUPER SPRITE GENERATOR Version 3.0 is a complete Games Designer system and has been completely rewritten. This classic program is now available in its ultimate refined form, with up to 256 sprites (16 on-screen), up to 256 planes of movement, choice of two screens, automatic collision detection/ inversion/reversal/freeze frame/background drawing, speed independently variable for each sprite – and guaranteed 100% Flicker Free Operation. Ultra high speed action is possible – and no machine code knowledge is required at all!

QL SUPER MONITOR/DISASSEMBLER Version 3.0 is the most compact (8.5K in totall!) and fastest machine code utility for the QL, HERE with hosts of extra commands over its predecessor. It's got all the features you could want - all its competitors are left far behind.

CUT **QL SUPER BACKGAMMON** Version 2.0 is the supreme implementation of the classic board game. Six levels of strength, three playing modes, auto/manual dice thrower, Help facility, full move/score Evaluation di

display - and it's a very, very strong player! OL SUPERCHARGE SUPERBASIC COMPILER	1	-		5	vers sily
QL SUPERFORTH + REVERSI	H	:	1.1		all
QL SUPER REVERSI VI.3	THE	-		order/casn	to y
QL SUPER ARCADIA	22	-		Ea	wor
QL SUPER MONITOR + DISASSEMBLER V3.0	N	1	-		will will
QL SUPER BACKGAMMON V2.0	Z	1			sms
£5 off SUPERFORTH, £5 off Super Sprite Generator and £2 off Super Monitor + Disassembler when any of these programs are ordered at	PRECISION	1	-	Vo	yste
the same time as SUPERCHARGE.	10	1	1.	d	- Dig
For all orders received up to 31.12.85, you may deduct £1 from the total price if you buy two programs, £2 if you buy three programs,	i iii	1	1	ant	Dri
£3 if you buy four programs, etc.	1	1	1	o o	scis isk
If you have an early version of one of our programs, send the micro- cartridge (not the packaging) to us accompanied by £5 for a no-quibble upgrade.	DIGITAL	-	:	-	tal Pre
Orders from abroad are welcome. Please add £1 (£2.50 for SUPER- CHARGE) per program for orders from Europe and £1.50 (£4 for	iă	e	ddress	enclose	Digi
SUPERCHARGE) per program for orders from other countries, to cover		am	pp	en	All
airmail postage and packaging costs. Cheques from abroad should	F	z	<b>A</b> .	- 4	S . 5

/Barclaycard

Access

Ym

debit

9SE

E4

ui ž me

send NOUNO.

Please

4 ъ of

amount

the

with

sion Expan

memory

with

both

compatible

fully

are

They a lisk by

to d

red

transferr

disk

SUPERCHARGE) per program for orders from other countries, to cover airmail postage and packaging costs. Cheques from abroad should either by drawn on a UK bank or be Eurocheques.

H					•	Here's what Our Custo C Devpac80 Ultrakit	other people say about HiSoft Software: <b>mers:</b> "more addictive than any arcade game" R. Walker "a brilliant piece of software" A. Brown "a great acquisition" J. Le Page			
High Quality Microcomputer Software					er	The Press Pascal Devpac	"if you wish to teach yourself Pascal you won't go far wrong to buy HiSoft's Pascal" PCF 1/84			
fachine duct	Spectrum	Amstrad	MSX	CP/M	QL		ECM 4/84			
cal /pac rakit	25.00 14.00 25.00 9.45	29,95 21.95 34.95	29.95 19.95	39.95 39.95 *	19.95 (MON QL)	C Font64	"the most welcome addition to the Spec- trum catalogue since Sinclair introduced the Microdrives" Sinc. User 12/84 "the manual is clear very simple to use" PCT 7/85			
t64 Knife Torch		7.95 12.95 12.95 in £ sterling	(CF	P/M disc e /M disc T		have on file	nly a few of the glowing comments that we e showing that user and critic alike find vare offers a refreshing change of style.			

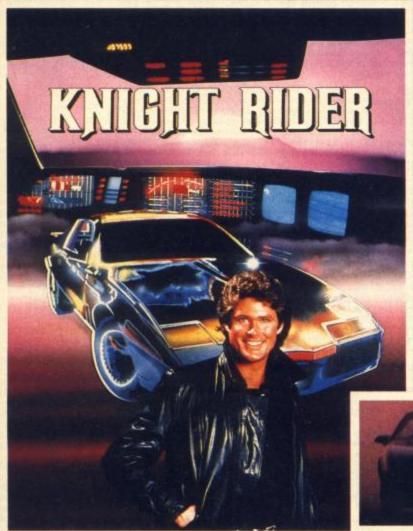
We produce and market a wide range of high quality, professional and well-documented software packages for the popular home micros. Our type of software is becoming increas-ingly more popular as people get tired of zapping aliens and want to put their brains to work; learning new computer languages (Pascal, C, Devpac), investigating their computer's power (The Knife, The Torch) or being artistic (Font64), we have it all. Please feel free to write to us or 'phone for full technical details of any of our products. The above prices are fully inclusive and you can order directly from us or through your local computer shop.

Programmers: we are currently seeking to engage an experienced programmer to join our team in Dunstable. Please contact Sue on (0582) 696421 for further details.



Dunstable, Beds. LU6 1AT Telephone (0582) 696421

## THIS CHR All the _____





Your driving skills will be driven to the limit in this simulation of the hit T.V. series. Just you and a car named "KITT" – the ultimate driving team!

Warrior robots in disguise. Earth has been invaded by powerful robots from the planet Cybertron. Transform into the role of the heroic autobots (Jazz, Hound, Mirage and Optimus Prime) in their deadly battle with the evil decepticons. TRANSFORMERS – More

SPEC

than meets the eye!

Ocean House · 6 Central Street · Manchester · 1 5NS Ocean Software is available from selected branches of: (300) WHSMITH, John Menzies, WOOLWORT ASK IRISTMAS

0

RUM

**48K** 

The box-office smash hits your screen with all the high-energy drama that only Rambo can create. Take the role of Sylvester Stallone in the explosive all-action battle scenes.

Become the hunter and the hunted in this breathtaking simulation of the famous film and TV series with Hyperthrust feature, helicopter attacks and daring rescue attempts that only the man and machine combination of Street Hawk can survive.

Don't miss it – burn tread on the streets!

M2: 5NS · Telephone 061-832 6633 · Telex 669977 M. LASKYS, Rumbelows, Greens, Spectrum Shops and all good software dealers. Trade enquiries welcome.

"What's that picture supposed to be?"

"Er, eye-catching, that's what it's supposed to be."

"But it doesn't tell you anything about the great new icon-driven Battle of Britain strategy game, THEIR FINEST HOUR, from Century Communications, publishers of THE FOURTH PROTOCOL. I mean, what's it got to do with using your skill and judgement to stem the almost inexorable advance of Goering's Luftwaffe? Does it tell you anything about the deployment of Spitfire squadrons and ack-ack batteries, the allocation of fresh pilots, or keeping in touch with the weather forecast? How about the daily reports you have to make to Winston Churchill, and the pulse rate feature where you control the speed of the game?

"Well, er ..."

A8K Spectrum

"Right, we'd better hurry up and design a new ad before the game hits the streets on 9 December, and people start writing to and phoning Century Communications at 62-65 Chandos Place, London WC2N 4NW, Tel: 01-240 3411 and asking for copies."

Their Finest Hour — a great strategy game simulating The Battle of Britain, by Nicholas Palmer and John Wilson. Published by Century Communications for the 48K Spectrum at £9.95.

THER FINEST

**OUR** 

THEIR FINEST

John Wilson and Nicholas Palmer



### SPECTRUM REPAIRS

TOUR SINCIALS COLS NOT NO DECEMBERIOS CONCOME SOFTWARE PARTY REATING CLASSE

£16.90 inclusive of labour, parts and p&p. Fast, reliable service by qualified engineers. Average repair 24hrs. 3 months guarantee on all work. For help or advice - ring:

**H.S. COMPUTER SERVICES** Unit 2, The Orchard Warton, Preston Lancs PR4 1BE Tel: (0772) 632686

### **PUNTERS PARTNER**

Writen by a mathematician, formerly permutation adviser for a leading pools firm.

FOOTBALL: "Of all forecasting methods I have seen I consider yours the most brilliant", Mr E.D. of Somerset (copy to this megazine)

By analysing recent results an ACCURATE rating is computed for each team (about 65 for lowly Div 4 or Scots 2 to 100 for a top class club). TRUE ODDS for any match between these teams are displayed. HOMES, AWAYS, DRAWS shown in order of merit. TREBLE CHANCE matches selected in the same pattern as score draws occur on the coupon. UNIQUE accumulative odds calculator for individual (fixed) odds betting.

RACING: Popular bets explained. Comprehens calculator gives returns from almost any bet. EASY TO USE: Full instructions given throughout. Past results & team names are in the program. Updating

idn't be easier ONLY £8.95 (oversees please add £1 p&p) BOXOFT (Dept S) 65 ALLANS MEADOW NESTON, SOUTH WIRRAL L64 9SQ Tel: 051-336 2668 Available for 48K Spectrum only

### **USER DEFINED GRAPHICS** FOR THE 48K SPECTRUM

CLASSING CLASSING

CONDENT SETTIMAN PERCO

Design your own Uer Defined Graphics on screen in minutes using this program.

UDG's for the 48K Spectrum computer is a user friendly program. It is very easy to use as there are only seven keys required to operate the main program once it has been loaded.

The facility to Copy your designs to a printer, or save the UDG's codes to a cassette or microdrive for use in your own programs is included in the program. Once saved to cassette or microdrive, just reload the code and your designs are ready to use in your own

Full instructions are included with the program Price £4.95 incl. p8p.

Cheo s/POs payable to Ro

ROANNAE SOFTWARE (DEPT. YS) 30 THE DINGLE, WOLVERHAMPTON WEST MIDLANDS WV3 9ET

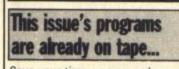
**USER DEFINED GRAPHICS** 

FREE

SPECTRUM

SEE MANCOMP AD

REPAIRS??



00080

Freepost 1588 SH5 51

(no stand required)

Code

Digitape

500

COMMANDO

Name

Address

Save your time, energy and sanity when you load direct from DigTape cassette, this month's program listings (as marked)

Create your own collection of games and utilities which will prove invaluable for years to come and will look superb when added to your own library

This unique service, provided by DigTape in conjunction with YOUR SPECTRUM, is to increase the enjoyment for the readers. This service will be available every month

Back issues, from July 1985 on, will be available on request

Telephone Orders: ACCESS **CARD** Holders ring (0792) 799193

FOR RATES AND DETAILS ON ADVERTISING CALL DAVID 01-580 0504











## BACKLASH Eighting Talk Laboration International

### Fighting Talk — Iolo Davidson backs the winners.

ou probably think that computers are new and exciting, right? You think it all started a couple of years ago and anyone not brought up on the new maths hasn't a hope of evading the scorn of fifteen year old whizz-kids should they dare sit down at the keyboard. Hah.

I have a friend, an ageing hippy, who knows no more about computing than what he once read in an old Fortran manual dug out of a trashcan behind UCLA at Berkeley, but he can impress the socks off any sub-teen arcade hero. He can't add on his fingers, but he has vision, he has depth of experience, and he knows how to lie. He's now revealed some of his methods to me which I'm gonna pass on to you - in translation!

Impressing people is easy if you remember the rules. The first is: conceal your real abilities. It's no good going on about how you used to program a Nascom in hex before it had a Basic, even if true. No one old enough to remember the Nascom will admire this achievement, and everyone else will think you're talking about some United Nations agency. Booooring!

You must gauge the level of sophistication of your target audience before you can employ an effective gambit, so the second rule is: let the others talk first. Then, if the discussion turns out to be about rugby you can make good your escape. Let the targets choose the topic of conversation, and it'll show you what's most likely to impress them. Fortunately, nowadays you can rely on any such conversation being dominated by computer games. That

simplifies things. Arcade gamers are inordinately competitive about their high scores, and conversation with them is littered with losing opportunities. It's vital that you never reveal your personal best score on any computer game. To do so is instant defeat, as there's bound to be someone who's done better, or knows someone who's done better. or who's prepared simply to lie. It's no good lying outright yourself, as that'll only lead to eventual stalemate. The escalation becomes obvious the sixth or seventh time round.

If you're pressed to make such a revelation you must avoid the question, while at the same time subtly revealing a hint of your underlying superiority. Here's a few sample phrases that'll help you skirt the issue:

"I played that for weeks in the arcades last year. I think the computer version is pathetic."

"YS published a POKE for that one that lets you score forty-two million without actually having to play."

"Isn't that the one with the bug that lets you score forever as long as you stand in the right place?"

"That game isn't available for my Macintosh."

Note that avoiding a direct answer is only part of winning. It's no good saying, 'My brother never lets me have a go,' nor yet, 'I don't think you can get that game on the unexpanded Vic.' These are the things that genuine losers say. Third rule: be subtle. Your average whizz-kid can deal with boasting, but is helpless when faced with intimation.

If trapped in the company of adventure gamers, the problem is similar. There's still no chance of making a favourable impression by simply revealing the extent of your ability at negotiating various dungeons, but it's also very difficult to lie without being exposed by someone who really knows the answers.

The best strategy here is to embrace the attitude that telling the details of your travels will spoil the game for those who've not yet finished it. You can, however, if coaxed persuasively, reveal an arcanely worded clue. This will fool even those who should know better. provided you're vague enough. This is the fourth rule: be vague, but have an excuse for it. A few samples that won't reveal overmuch:

'I think you'll find that you haven't been to all the rooms yet.' (Who has? Can they prove it?)

'If you ask the dwarf for the key, he doesn't seem to do anything, but it helps later on.' (Gets you credit for any random good luck.)

'Have you tried examining the ceiling in every location?' (Bet they miss one!)

'Not all of the objects are necessarily good things to have with you.' (Often true, hard to test.)

The one thing that you must never say is, 'I have better uses for my computer than playing games.' An instant loss of all credibility would result. This phrase is dangerous even in classroom situations unless you're certain that only the teacher can hear, and it'll do you little good with him. If you are the teacher, then I'm too late. You'll already have said this.

While you mustn't give the impression that you ignore games, you may affect to be so busy that you don't get to play as often as you wish. This is only a winning strategy if what makes you so busy is programming.

Never say you've just completed a program, because your interlocutors will want to know how it's doing in the charts. It's much easier to generate a great future for a program that you've only half finished. Plus, any gaps in your story can be attributed to groggyness brought on by all-night coding sessions (fourth rule).

If you're unsure of your ability to impress as a programmer (remember, Cobol doesn't count), then the next best bet is to let slip that you're working on an article for a computer magazine. You're not supposed to talk about it yet though, because the Ed is hoping to keep it exclusive.

Your audience may want to know what you've written before, which could be tricky, but luckily the pages of the computer press are known to be littered with pseudonyms. Just explain that your contract with Ocean means that your other published work has to go out under the name of Hugo Cornwall. Last rule: when you can't be caught, lie big.

My friend has allowed me to print these invaluable tips on condition that I plug his forthcoming book, You Don't Have To Be A Kid To Be A Smartass, due out real soon. He hasn't yet chosen the name of the author.

Editor Kevin Cox: Art Editor Martin Dixon: Deputy Editor Peter Shaw; Production Editor Teresa Maughan; Editorial Consultant Andrew Pennell: Software Consultant Gavin Monk; Contributors Stephen Adams, Dougie Bern, Steve Colwill, Steve Cooke, Iolo Davidson, Nick Davies. Sue Denham, Simon Forman, Ian Hoare, Alison Hjul, Steve Malone, Max Phillips, Rick Robson, Graham Rydout, Rachael Smith, Phil South, Chris Wood; With special thanks to Phoebe Evans. Mike Clowes, Andy Robson; Advertisement Manager David Baskerville; Advertisement Executive Neil Dyson; Production Manager Sonia Hunt; Group Advertisement Manager Chris Talbot; Managing Editor Roger Munford; Art Director Jimmy Egerton; Publisher Stephen England; Published by Sportscene Specialist Press Ltd, 14 Rathbone Place, London W1P 1DE. Telephone (all departments) 01-631 1433. Telex 8954139 BunchG. Company registered in England; Typesetters Carlinpoint, London; Reproduction Graphic Ideas, London; Printed by Chase Web Offset, St Austell, Cornwall; Distribution Seymour Press, 334 Brixton Road, London SW9, Telephone 01-733 4444, All material in *Your Sinclair ©* 1986 Felden Productions, and may not be reproduced in whole or part without the written consent of the publishers. *Your Sin-Clair* is a monthly publication.



# **ADVANCE WITH SAGA**

	2 9	14. ·	1		4 - 1	11	1			_
	1-1					hite,		-	C.	aie.
	11	-	1.1.	11	1	11	-	-	1	100
			in her				1		12.6	
1954 A		1	8 0	1	1		13	1	1	1
100 100			12	a 14		1ES	Trains	1. 10	-	

After adding our products to your Spectrum, your Spectrum will not merely become a superior computer but a more complete computer system.

The SAGA keyboards, culminating in the new SAGA 3 ELITE, provide your Spectrum with the sheer elegance that it deserves. The SAGA 3 ELITE incorporates the most recent technology in keyboard design which provides 27 single entry functions.

If you would like graphics with real Style, then they are yours with our latest graphics package, while letter quality print can be produced for less than £120 from our new printer.

Just cut out the Coupon below for any of the following products:

SAGA 1 EMPEROR 67 keys enable easy access to every function, making obsolete the "Stretch requirement" of other keyboards. Now only £39.95 SAGA 2 PROFILE A re-design of the popular Lo Profile with number pad, 52 keys. £49.95

SAGA 3 ELITE recently developed, the SAGA 3 ELITE is the finest available keyboard for your Spectrum. The keyboard and number pad has 87 keys in total, a massive 27 keys are auto-shifted. £79.95

SAGA SYSTEMS LIMITED (04862) 22977 DUSTCOVERS Black with SSL logo, available for all keyboards. £4.95

STYLE Realise your graphic expectations. Comprises Kempston compatible interface and Software. £29.95

SAGA GP Graphics Tablet—super improve STYLE, plug it in and see. £79.95 (read the reviews!) NEW LETTER QUALITY PRINTER The first in a new range of printers to be available shortly. SPEED: 12 CPS. PRINT: Ink on ordinary A4 paper. INTERFACE: Centronics & RS232. For print sample and further information, write or call now, only £119.95 SOUNDBOOST Puts music in your ears (and television) £9.95

FLEXICABLE Extend your capabilities with two more ports! £11.95

**TURBO INTERFACE** with custom chip, ROM slot and 2 joystick sockets the TURBO out-performs other joystick interfaces. **£21.95** 

We invite your enquiries on (04862) 22977, more descriptive literature is freely available for each product (please send stamp).

### KEEPING YOUR COMPUTER UP TO DATE

QUA	NTITY	P&P	SEND YOUR ORDER TO: Dept YS10 Order Desk Saga Systems					
SAGA 1 EMPEROR	*£39.95	£1.50	Limited. 2 Eve Road, Woking, Surrey GU21 4JT.					
SAGA 2 PROFILE	*£49.95	£1.50	Mr/Mrs/Miss					
SAGA 3 ELITE	*£79.95	£1.85	Address					
DUSTCOVER	*£4.95	FREE						
STYLE	*£29.95	FREE	Amount enclosed £					
SAGAGP	*£79.95	£1.50	My Access Card No. is					
LTR-1 PRINTER	*£119.95	£2.30	ACCESSONLY ACCEPTED					
SOUNDBOOST	*£9.95	FREE	Please tick method of payment: PO Cheque Draft Access					
FLEXICABLE *£11.95		FREE	If this is confirmation of telephone order, please tick box					
TURBO INTERFACE	*£21.95	£1						
VAT is included		TOTAL	Signature Date					

Overseas orders, please deduct 15% VAT add £3 for postage excess.

Limited quantities of the original low profile keyboard are available at only £39.95 inc. V.A.T.+£1.50 P&P.

Please allow 28 days for delivery.

