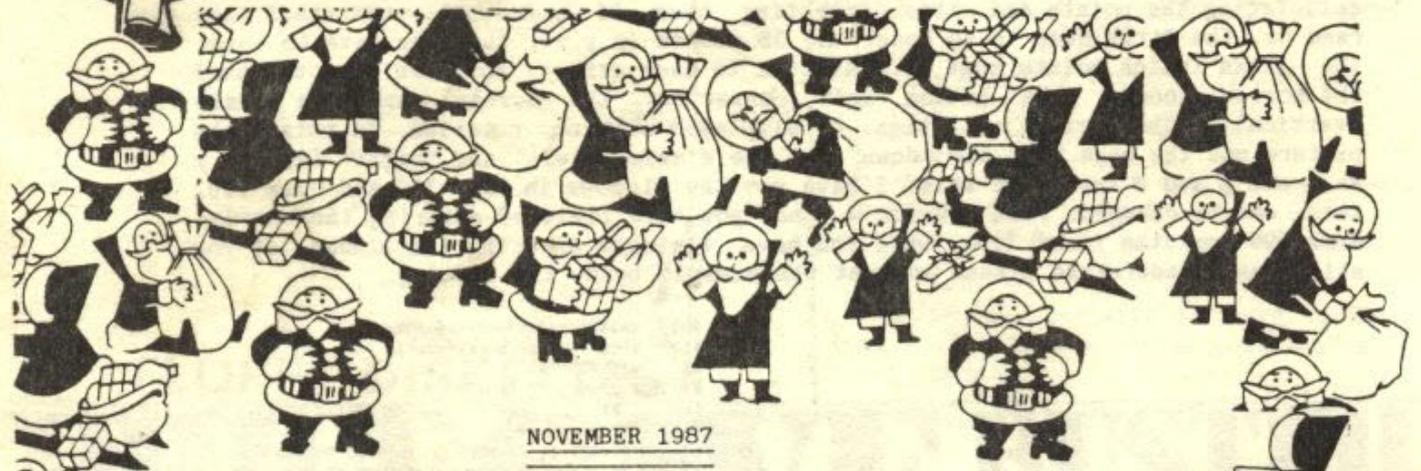




zx mushroom club

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TELEX 3-21945 S.A.



NOVEMBER 1987

Yes, it's that time again! If you do not agree with me, then you do not realise just how close Christmas is! This month the Newsletter is chock-um-block full of special offers from INFORMATION ENTERPRISES, and a number of articles contributed by the Honourable Mr Gert Coetzee. These articles were produced on Desk Top Publisher on the QL (just an interesting snippet of information for you).

The CLUB could like to remind those of you who know, and inform new members that GIFT VOUCHERS are available through the Club to the value of R5.00 and R10.00 respectively. These vouchers are the ideal gift for that special person in your life, if you do not know what you to get him/her this christmas.

PLEASE TAKE NOTE OF THE COD CONTRACT CONTAINED IN THE NEWSLETTER. IF YOU DO NOT COMPLETE THE FORM YOU WILL NOT BE ELIGIBLE TO RECEIVE GOODS POST OFFICE COD. Thank you for your co-operation in this matter. Help us to help you improve our service to the public.

well now, enough jabber. Lets get on with the Newsletter and the things that really matter.

Yours *Anne*

INDEX

PAGE	ARTICLE	PAGE	
2	Editorial	13	Specials/summer sup.
3	Disking/paper/printers/sticking fillers		risers
4	Design and graphics programs	14	Lightning attributes
5	Make help, not feud!	16	Dynamite deals!
6	News/you wrote	17	Run with the best!
7	Opt. for Amstrad/Communications/Dads bag		
8	Super deals/computers in education	18	Classified/notice board
9	Knockout savings	19	COD CONTRACT
10	Spectrum top 15/Multiface 128/Spectrum+3 Specs		
11	Newsflash/help/new titles/Gift Vouchers/Cartridges		

12 Antimerge

Chairman: G.J. Coetzee Esq.



Peter Lupton

This program can be used to draw 3D images at different angles. It does this by calculating the points and then connecting them. If you don't understand just read on. The first step is to enter the 3D coords (x,y,z), then you have to enter the links (which points must be connected to each other). You then have to enter the screen coords (the bottom left corner of the screen) and the scale (vertical). The picture will then be displayed with no rotation. To rotate the picture use the keys "up" and "down" for the x axis, "left" and "right" for the y axis and p and o for the z axis. I have set the windows in line 100 and line 110, this can be changed. Push 999 for x once you have finished entering the coords. Push 999 for the first link when you have finished entering the links. If you still don't understand please look at the example below the listing.

```

*** 3D SPIN ***
*** by PETER LUPTON ***
*** for the QL ***
100 WINDOW #1,224,240,32,10:PAPER #1,0:INK #1,7
110 WINDOW #0,224,240,256,10:PAPER #0,2:INK #0,7
120 MODE 4
130 CLS #1:CLS #0
140 CLEAR
150 INPUT #0,"BACKGROUND COLOUR >>>";bc
160 INPUT #0,"INK COLOUR >>>";ic
170 INK ic:PAPER bc:CLS
180 DIM x(100):DIM y(100):DIM z(100):DIM a(100):DIM b(100):DIM r1(100,2)
190 FOR l=1 TO 100
200 INPUT #0,"ENTER COORDS (x,y,z):";x(l);";";y(l);";";z(l)
210 IF x(l)=999 THEN le=l-1:EXIT 1
220 END FOR l
230 FOR l=1 TO 200
240 INPUT #0,"ENTER LINKS >>>";r1(l,1);";" to ";r1(l,2)
250 IF r1(l,1)=999 THEN le=l-1:EXIT 1
260 END FOR l
270 convert=PI /180
280 INPUT #0,"ENTER SCREEN LEFT BOTTOM COORDS >>";sx;";";sy
290 INPUT #0,"ENTER SCALE >>>";sl:SCALE sl,sx,sy
300 xr=0:yr=0:zr=0
310 CLS
320 xs=SIN (xr*convert):xc=COS (xr*convert)
330 ys=SIN (yr*convert):yc=COS (yr*convert)
340 zs=SIN (zr*convert):zc=COS (zr*convert)
350 FOR cal=1 TO le
360 calx1=(x(cal)*zs)-(y(cal)*xs)
370 caly1=(x(cal)*xs)+(y(cal)*zs)
380 calz2=(z(cal)*xc)-(caly1*zs)
390 caly2=(z(cal)*xs)+(caly1*zc)

```

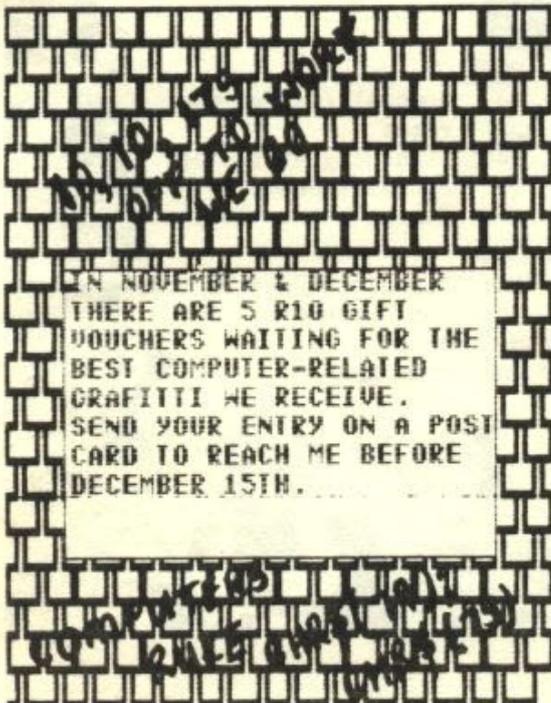
```

400 calx2=(calx1*yc)-(calz2*ys)
410 a(cal)=calx2:b(cal)=caly2
420 END FOR cal
430 FOR draw=1 TO le
440 LINE a(r1(draw,1)),b(r1(draw,1)) TO a(r1(draw,2)),b(r1(draw,2))
450 END FOR draw
460 IF KEYROW(1)=16 THEN yr=yr+5:GO TO 310
470 IF KEYROW(1)=2 THEN yr=yr-5:GO TO 310
480 IF KEYROW(1)=4 THEN xr=xr+5:GO TO 310
490 IF KEYROW(1)=128 THEN xr=xr-5:GO TO 310
500 IF KEYROW(4)=32 THEN zr=zr+5:GO TO 310
510 IF KEYROW(5)=128 THEN zr=zr-5:GO TO 310
520 GO TO 460
*** used calculations from the program ***
*** ROTATOR ***
*** by C.J Vaddicor ***
*** for the SPECTRUM ***

```

EXAMPLE

Background	0		
Ink	7		
Coords	0	0	0
	10	0	0
	10	10	0
	0	10	0
	0	0	10
	10	0	10
	10	10	10
	0	10	10
	999	0	0
Links	1	2	
	2	3	
	3	4	
	4	1	
	5	6	
	6	7	
	7	8	
	8	5	
	1	5	
	2	6	
	3	7	
	4	8	
Screen Coords	-5	-5	
Scale	20		



Please! We now need your contribution for the next newsletter. Contributions should preferably be on tape, microdrive or disk. Any QL or Spectrum wordprocessor can be used. You will receive a gift voucher (R5 to R15) for your contribution. If you send it on tape, disk or microdrive cartridge, you'll receive an extra R5!

DISKING PAPER

5 1/4" DISKETTES BONDWELL DISKETTES SPECIAL OFFER

Qty	Per 10	P&P
10	R17.95	1.20
20	R18.95	1.50
30	R16.25	1.80
40	R15.75	2.00
50	R14.95	2.00

FLOPPY DISKETTES

SPECIAL OFFER ON ALPHACOM/TIMEX PRINTER PAPER

2 Rolls of paper for the all inclusive price of only R10.00!
This includes postage and GST!
Should you come in to collect the paper, then the price is R8.80 + 1.07 GST.
With GST the price is only R9.87, Just under R10.00!
REMEMBER, we have gift vouchers to the value of R5.00 and R10.00. Ideal for just this!

PRICE SAVE BUSTER

PRINTER SPECIAL OFFER

If you buy one of our CHRISTMAS SPECIAL OFFERS, you will be entitled to buy the following printers at these EXTRA SPECIAL PRICES! SIMPLE!

TYPE	NORMAL PRICE	EXTRA SPECIAL PRICE	GST	P&P	TOTAL
STAR GEMINI160i	R599.00	R579.00	R69.48	R10.00	R658.48
STAR SD 10	R699.00	R659.00	R79.08	R10.00	R748.08
SEIKOSHA 3L 80A: 24 Pin	R999.00	R899.00	R107.88	R10.00	R1016.88
SEIKOSHA MP 5330i 132 Pin	R1399.00	R1359.00	R163.08	R10.00	R1532.08

You are eligible for this offer ONLY if you buy one other CHRISTMAS SPECIAL OFFER!

PLEASE NOTE: Stocks on these printers are limited so please establish availability before your order. Thank you.

STOCKING FILLERS

With all the Commercialisation that is taking place, Christmas and other special occasions that take place during the year are losing their touch and individuality, not to mention their tradition. Why not start your own tradition - SOFTWARE SOCKS - you know, those extra special socks or stockings that hang at the end of the kids beds or over the fireplace and are filled by the big guy in the red suit that comes down the chimney? With our numerous special offers that are offered at this time it is just that little extra gift that will bring that extra BIG smile!

What's in the stocking? What sort of toy would divert your attention from the Christmas turkey? Here's our guide to the smoothest, sexiest micro products you could wish to have nestling at the foot of your bed on Christmas morning. They range from the near sublime to the frankly ridiculous, but they all have this in common: they're good value and, usually, fun! For this reason we make no apology that Santa is going to need a keep sack to accommodate some of your requests!

Look elsewhere in the newsletter for our special prices on the following which are ideal stocking fillers:- DISKS, MICRODRIVE CARTRIDGES, JOYSTICKS, JOYSTICK INTERFACES, USLO, VOLTAGE DESPIKERS, BOOKS, KEYBOARD ALPHACOM/TIMEX PAPER



Also look in the past 2 months newsletters for prices on articles not advertised in this newsletter.



Hay!

PROFESSIONAL

ARE YOU INTO GRAPHICS?

If you are then these programs will be of great interest to you. The programs are either just for creating graphics or the more sophisticated ones are for creating your own programs with graphics in them. Read on, you will understand what I mean!

We have in stock:-

DESIGN & GRAPHICS

SPECGRAF

- * Used in the design of USER DEFINED GRAPHICS (UDG) for use in games, graphs etc.
- * allows you to hold up to 200 UDGs in memory at any one time.
- * Up to 9UDGs can be edited on the screen simultaneously in a variety of formats to suit the figure that you are creating.
- * When in edit mode a comprehensive set of options are available including:-
 - = Rotation
 - = Inversion
 - = Mirroring in wither horizpntal or vertical planes.
- * Can move UDGs that you are defining around in the grid and store them in a new position.

Normal Price	R29.99
Special Price	R26.50
GST	3.18
P&P	1.50
Total	31.18



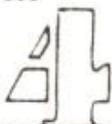
SCREEN MACHINE

- * Instant machine code techniques to improve your graphics programming and save memory.
- *JUST LOOK AT SOME OF THE THINGS YOU CAN USE SCREEN MACHINE FOR:-
 - = COMPRESSING screen files to save memory!
 - = COMPILING text, graphic characters or JDGs instantly into machine code!
 - = CREATING re-calling Multiple Screen Files for facilities like whole screen animation!
 - = ENLARGING AND REDUCING your screen graphics!
 - = RE-COLOURING your graphics either globally or selectively!
 - = MIRRORING the screen left to right making flip action animation easy!
 - = RE-LOCATING screen graphics to any part of the screen with high resolution scrolls!
 - = SUPER IMPOSING one picture on top of another!
 - = SAVING to tape or Microdrive, and every facility has its own built in machine code routine!

Normal Price	R26.99
Special Price	R21.99
GST	2.63
P&P	1.80
Total	26.42



Normal Price	R29.39
Special Price	24.50
GST	2.34
P&P	2.00
Total	29.44



GRAPHIC ADVENTURE CREATOR (GAC)

Make adventure writing easy! The GAC makes it simple for you to produce your own fast, compact, illustrated adventure games.

Features include:-

- Automatic word formatting
 - Intelligent command interpreter
 - Abbreviated input acceptance
 - synonym recognition
 - space for 765 nouns, verbs and adverbs
 - Multiple command lines
 - Recognition up to full length of word
 - 'It' detection
 - Extensive text compression etc, etc
- also the amazing, feature packed picture editor allows you to easily create stunning graphics to illustrate your adventures.

Normal Price	R79.20
Special Price	71.30
gst	8.55
P&P	1.80
Total	81.63



ALL YOU NEED TO DESIGN SCREEN GRAPHICS

THE PROFESSIONAL ADVENTURE WRITING SYSTEM (PAW)

PAW is a state of the art graphic adventure writing system, which allows you to design, write and illustrate, fast machine code adventures with ease.

It provides a powerful sentence parser which allows complex chained commands to be decoded automatically.

simple to use multiple process tables allow characters and problems to be created for your adventures.

Versatile graphics editor provides 'rubber banding', high speed shading, scaled sub-routines etc. allows impressive illustrations to be created quickly and easily.

Has many other outstanding features making it probably the most advanced authoring system available yet!

Normal Price	R85.77
Special Price	77.20
GST	9.26
P&P	2.00
Total	88.45



The Illustrator

For those of you who use the Quill Adventure Writing System, this program is an absolute MUST! The Illustrator is for use with the Quill and has the following facilities:-

- * A database which contains a string of drawing commands for each picture created.
- * A menu system which allows the database to be saved and from tape plus a number of other options.
- * A Graphics Editor which allows commands to be inserted, deleted and tested within drawstrings.
- * An Interpreter which interfaces with the Quill and decodes the commands in the drawstring to produce a picture at the required location.

Sound good? With this program you certainly will create games that will give the imported ones a run for their money!

MAKE HELP, NOT FEUD

Information Enterprises sells FEUD for the low low price of R7.68.

I have compiled a list of useful hints for Bulldog Software's excellent FEUD, which I bought from IE.

1. Leanoric has the ability to walk through walls, bushes, river, etc., so it is wise to watch out for him as he may appear at any time.
2. When in the garden, none of the weapons will work on Hieke, nor can he be doppleganged or turned into a zombie. He can, however, be frozen with a FREEZE spell.
3. PROJECT, SWIFT and invisible can be used to fool Hieke, but are not much use anywhere else.
4. It is advisable to get the TELEPORT spell as soon as possible, as this is useful to use if you are being fired upon and it saves a lot of walking if you want to get back to your cauldron. This lasts forever.

5. It is useful to carry an unactivated heal spell around, in case of being ambushed by Leanoric or Hieke.

6. Do not rely on a doppleganged peasant to hide you. If Leanoric appears he will always attack you.

7. ZOMBIE is a very useful spell. If you are in a screen with peasants and Leanoric appears, activate the ZOMBIE spell. The zombies will start attacking Leanoric, lowering his stamina.

8. It is possible to destroy Leanoric with two weapon spells if he has high stamina. LIGHTNING and FIREBALL are the best as SPRITES is difficult to get. Open fire with one spell. As soon as it is finished, switch to the other and continue firing. This is guaranteed to kill him. Freezing first makes it easier.



9. Paging through the spell book makes a temporary "pause". This is useful while switching between spells.

10. The INVISIBLE spell is very confusing as you can not see yourself on the screen. Its only use is slipping past Hieke if he is waiting at the entrance of the garden.

I hope these hints are of help to people who got stuck. This game has been in the Sinclair User No. 1 Slot in the Top Twenty for three months and is well worth getting.

WRITTEN BY COLIN HANCOX

ql cp/m emulator

more about cp/m

New from HALLMARK for the QL is CP/M EMULATOR which enables QL users to take advantage of the tens of thousands of CP/M programs, both commercial and those available from a large number of CP/M user groups.

The emulator, which is supplied in the form of an EPROM and SOFTWARE, both which have to be present to load CP/M software, will run on virtually any QL configuration.

This means that QL user will now be able to use programs such as Turbo Pascal (Borland), WordStar (MicroPro) and Basic-80. The Emulator is CP/M Version 2.2 compatible, and an estimated 70% of all 2.2 CP/M software will run on the QL.

Using the CP/Mulator will however limit the user to using monitor mode, that is 30 column, 24 line mode. Although microdrives can be used with the emulator, there are still limitations to this rather unusual use of CP/M.

CP/M stands for CONTROL PROGRAM for MICROCOMPUTERS and is a standardised disk operating system for computers with 8080 or equivalent processors.

CP/M is made up of three modules. The Console Command Processor (CCP) tests the input in the command line and turns it into instructions which can be passed on to the code doing the work inside CP/M. The Basic Disk Operating System (BDOS) is the logical core of CP/M which accepts the low-level commands that have been parsed (converted) by the CCP, and which executes them on an imaginary machine, standard across all CP/M systems. The Basic Input/Output System (BIOS) is the code needed to relate this imaginary machine to the real hardware.

Unlike machines which have the operating system in ROM, like QL's the Q-DOS, CP/M systems have just enough ROM to trigger the loading of the operating system. This is called booting the system. Once booted, one then load in the program which you want to use - BASIC, WORDSTAR or any other program.

There are 6 versions of CP/M - version 2.2 is the most commonly used.

Because of the QL's 68008 processor CP/Mulator must not only act as a standard CP/M type DOS, but also has to interpret 68008 code as Z-80 or 8080 program code. Approximately 70% of the Emulator is taken up by this.

ON MY RETURN AFTER TAKING TWO MONTHS OFF FOR STUDYING I REALISED THAT I'VE BEEN PUT OUT IN A SUCCESSFUL GROUP OF CLUB. AT THIS STAGE ALL I CAN SAY IS THAT I MAY OR MORE LIKELY MAY NOT BE RETURNING IN JANUARY - ANYWAY I'M SURE THAT A NEW FEMININE BREATH IS LONG OVERDUE AND THAT MEMBERS OF THE CLUB WILL CONTINUE TO SUPPORT THE CLUB AND ITS SPONSORS AS YOU DID IN THE 35 MONTHS I HAD A SAY. GERT



NEWS

Mastertronic has pledged its faith in the Spectrum +3's disc software by launching three compilations. The first batch features three triple games compilations - Sports, Arcade and Hits.

Charity Software

The season's charity compilation pack was released in the UK last month. Similar to Soft-Aid, BACK PACK for the Spectrum will include Xeno, Night Gunner, Marsport, Metabolis, Monty on the Run, Starion, Mailstrom, Starstrike, Lunar Jetman and Bounty Bob Strikes Back. The Compilation costs £9.99 in the UK and will cost about R35 from IE.

Polish Notes Before

Piranha, the Software House has made an deal with Wydawnictwo Czasopism, the Polish state publishing house. It has been estimated that there are around half a million Spectrums in Poland, none of which have been obtained through official retail outlets.

A good knight's dream come true

Sir Clive Sinclair's dream has come true when a clutch of computer firms and venture capitalists have put up the money needed to turn wafer scale integration into a marketable wafer chip. Wafer scale integration promises to reduce substantially the cost of large scale computer storage. Its object is to allow the direct connection of hundreds of chips, thus eliminating the expensive wiring and packaging of chips on a circuit board. It is also claimed to be far more reliable.

DK TRONICS OUT OF THE GAME

DK'TRONICS, one of the first to support the Spectrum with hardware and software has bowed out of the industry whilst letting its brand name live on. All rights have been sold to RAM ELECTRONICS

News in our regular NEWS feature comes out of PCW, a British publication available to dealers.



Your wrote

Dear Gert,

I am really amazed at the value for money I have in my

1. Spectrum 48K
2. Interface 1 and Microdrive
3. Linex 2040 Printer
4. Multiface 1.

All of this equipment I purchased 2nd hand (Thanks to your advertising column) and for less than R750-00 I am really impressed.

With MULTIFACE 1, I am constantly loading and saving games to MICRODRIVE for my sons (6 and 11) with ease. Actually Gareth (11) is quite good at this and Warren (6) is learning. The other day while paging through MIKE LORDS -EXPLORING BASIC I noticed the included routine which solves the 'lineous problem of dynamic variable dimensioning.

Actually LINE 20 is interesting in itself as it solves the hassle of mixing strings and variables in INPUT statements.

As I have said before congratulations and thanks for your great mag... er NEWSLETTER.

Martin Boswell.

```

10 LET a$="" : LET n=0 : PRINT "INPUT data : "
20 INPUT "Data " : (n+1) '1$ : IF 1$ <> "" THEN
  THEN LET n=n+1 : LET a$a$+1$+CHR$ 124 :
  GO TO 20
30 DIM x(n)
40 FOR a=1 TO n
50 LET b=0
60 LET b=b+1 : IF a$(b) <> CHR$ 124 THEN
  GO TO 60
70 LET x(a)=VAL a$(1 TO b-1) : LET
  a$a$(b+1 TO ) : PRINT a$ : " : x(a) :
80 NEXT a

```

Please make sure that letters addressed to The ZX Mushroom Club are not addressed to 'Information Enterprises' and visa versa. This will allow us to handle you queries or orders more efficiently.

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Information Enterprises' business hours: 09h00 - 13h00; 14h00 - 19h00 Mon to Fri 09h00 - 13h00; 14h00 - 16h00 Sat

Before visiting IE you must phone to get a code for the security gate.



PLAYING COMPUTER ADVENTURES

BY LAWRENCE CREIGHTON



Being a fanatical adventurer, I thought I'd share my acquired expertise with fellow travellers. Usually adventures are nothing more than pure logic, but often little subtleties are chucked in to test your ingenuity! Adventures test your patience, skill, common-sense and IQ to the hilt; they try their hardest to NOT make it easy for you. A perfect example recently was that I had a pot of emeralds under a glass case. NOTHING would get at them; nothing would open this case! I now have an alphabetical list of verbs, and after trying each one "SING" caused the glass to shatter and I got my booty! Adventures are often repetitive, and techniques are often "borrowed", so memorize little tricks & subtleties - you can bet they will crop up again!

- 1) Always draw a map. Note on it whether routes between locations are 1-way or 2-way (very often going North doesn't get you back to the point you departed from!) Also, on the map you will start to draw, note where various objects were found. If you can't carry them all, sooner or later you'll find a use for something and wonder where the blazes a knife or a laser-gun was.
- 2) Don't be terrified of mazes. Go in with confidence, preferably carrying as much as you can. They usually only consist of a few locations, and invariably such mazes contain something vital to the game. In your very 1st location on entering the maze drop your 1st object, move to the next location - drawing a mini-map very carefully - and drop your 2nd object and so on. (Just remember Theseus and his ball of string!!) In mazes, VERY usually, the route you go into a location is NOT the route out again, so draw your mini-map accurately. It CAN be done and on your way out, don't forget to collect your "markers".
- 3) Save your position onto tape OFTEN. If you are suddenly eaten alive by gremlins or trolls, you don't have to lose days of thinking. Some adventures now have RAM-save which saves a lot of bother.
- 4) Always WEAR what can be worn. A magic cloak isn't much use if you are carrying it, ditto for a ring, and the same goes for infra-red glasses and jet packs.
- 5) Read the text carefully, and always examine every noun in it. If you find something, examine that same article a second time - demented programmers often plonk 2 objects there, knowing the over-zealous will rush off with their first goodie to try to use it. The same goes for speaking to someone. If you say to a wizard "SAY WIZARD" and he gives you a gold coin, be greedy, do it again...you just may be lucky. (Watch for my forthcoming Quilled adventures, they are full of these tricks....)
- 6) After you have examined, LOOK. Examining and finding something, often causes a change in the wording of the text, but only after a re-description of the scene.
- 7) DIG where possible, and if you find something, keep at it. Always be greedy! A perfect example of this is "THE HULK"
- 8) Knives are used for cutting, scraping and throwing. If you find a switch or button too high & there is no ladder, try throwing a knife it works wonders: "eg the Golden Apple"
- 9) If after a while your map starts to look like a dogs breakfast due to a programmers dementia, make lots of smaller map. I'd like to see anyone make a composite map of "Classic Adventure".
- 10) Always use your utmost powers of logic. If a door is to open it WILL open...eventually, and not necessarily with a key. If every verb/noun doesn't work AND you did have a key, look beyond the end of your nose - maybe you need to tap a crystal with a phonicfork (rebel planet). In Seabase Delta you only get the door to open by calling to it and to keep it open you leave a cassette recorder going.

- 11) I find it best to cut a small piece of paper into strips and write on each strip all the objects I find. As I use one & it has no further use I cross it out. I find physically looking at these objects aids my thinking. Put them in 2 rows, what you have on you, and what you have already found, but could not carry. Chaos can reign if you finally find the lost tunnel, but now don't know where you left the lamp.
- 12) Food & water is often for the characters, but sometimes for yourself to restore your dwindling energy (and sanity?). In REBEL PLANET you could easily enjoy the Halmurian Brew, but what would you then give to the guard at the Museum? In the same game, always keep a spare HCAP on you, no good running out of energy and having a HCAP 1000 locations away!!
- 13) In similar vein, don't hog everything. Generosity begets generosity. Giving away trinkets and gifts often brings its own rewards from people you meet - eg Zacaron Mystery, Golden Apple etc.
- 14) Its an adventure, so BE adventurous.... save your position (see 3 above) and enter the pit or enter the cave etc. eg in Invincible Island there are many pits that zap you, but not all.....don't be completely chicken!
- 15) In some adventures, the sadistic programmer will see to it that you can't get into a place or room unless you are in possession of something. eg in Invincible Island you'll be chased by wild Natives forever unless you carry the skull; this you'll have to work out for yourself by trial and error.
- 15) Back to constant saving. I find it best to keep several bits of data from various points of the game. Reason: you may save the game in the middle, and realize a certain door should never have been opened, and now the only way out of this dilemma is to restart the game. If you save at several points (noting what is what on paper) you can then pick up the game from that point on and save days of hair-pulling.

In my opinion, adventuring is fun - better than arcade as it jiggles the gray matter and tests your intellect (and tolerance) to the limit. They can be solved - and anyone who is stuck is welcome to write to me. I have started a data-file on helplines and as long as you send along a SAE I'll try to help. I hope these few hints and tips help you. Happy travelling and adventuring

KEYBOARDS

A great many people phoned us to say that our KEYBOARD SPECIAL last month was very badly timed. To make up for the bad timing we are extending our keyboard special to christmas for you.

TYPE	NORMAL	P&P	
	PRICE	OFFER	
SAGA KEYBOARD only 12 in stock	162.00	139.00	2.00
SPECTRUM PLUS KEYBOARD	154.00	129.99	2.00

BETA BASIC VERSION 4

THE ULTIMATE SPECTRUM UTILITY NOW FOR
128K / 48K
Normal Price R49.99
Special Price 44.99
P&P 2.00



Thinking about what to get Dad for Christmas? Well, these titles are just the type of thing that Dads like. Just have a look and see.

Games for Dad

	RRP	SPECIAL
Dartz	17.99	15.99
Racing Manager	16.99	14.99
Derby Day (a graphic horseracing game for up to 5 players)	16.99	14.99
Football manager	14.99	12.50
Dreadnoughts	19.99	17.60
Grand National	16.99	14.99
Sport of Kings	14.99	12.99
Samantha Fox Strip Poke	23.99	19.99
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You do not have to expand your games collection with millions of tapes, you can also do it with games compilations. These are tapes which have between 4 and 6 games on the tape. So, you can still have a GINORMOUS collection without having millions of tapes. What a way to save space!

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Not only do we have games special packs, and compilations, but we also have educational packs. These packs make learning fun by teaching your kids spelling and maths in games! Boy, would school be fun if the teaching was like this!

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SPECTRUM TOP 15

- 1 Bubble Bobble
- 2 Renegade
- 3 Indiana Jones
- 4 Mercenary
- 5 Supersprint
- 6 **Tai Pan**
- 7 Jack the Nipper II
- 8 Xecutor
- 9 Hysteria
- 10 Red Led
- 11 F15 Strike Eagle
- 12 Exolon
- 13 Spy vs Spy 3
- 14 Game Over
- 15 Sidewize



Tai Pan

James Clavel's Taipan is now available for the Spectrum courtesy of Ocean. In this multi-load icon driven tale of trading, gambling and combat, your ambition is to rise from penniless individual to merchant prince Taipan. Prior to sailing you must try and raise enough capital to purchase, man and equip a suitable ship, capable of earning you enough cash to pay back your benefactor within the six month time limit. Failure to repay your debts will almost certainly result in your death.

Once at sea you must look after your crew and choose your shipping routes carefully, taking note of weather conditions and the like.

Taipan may be played as a straight trading simulation, a puzzle solving arcadventure, a shoot-em-up or a mixture of all three.

The graphics and presentation are quite good and the gameplay both challenging and addictive.



- CTW

SPECTRUM +3 TECHNICAL SPECS

Memory:
RAM 128 Kbytes as 8 x 16K pages
ROM 64 Kbytes as 4 x 16K pages

CPU:
Z80A running at 3.54690 MHz

Screen:
256 x 192 Pixel resolution
24 x 32 Colour resolution
8 colours foreground,
8 colours background,
plus intensity and flash settings
Start of buffer switchable
Independently controllable border

Sound:
Three voices tone and / or noise
with 16 envelope settings
One voice CPU generated
Output via TV, Audio or Monitor socket

Keyboard:
58 key full travel QWERTY keyboard

Storage:
Integral 3 inch disk drive, single-sided
reversible media
40 track, 9 sector, 512 bytes / sector.
CP/M compatible structure
Optional second disk drive
Volatile RAM drive
Interface for external cassette recorder

Firmware:
48K Spectrum BASIC
(compatibility mode)
128K Spectrum ZX +3 BASIC,
integrated with +3 DOS
Storage selection by reassignable default
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Interfaces:
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VERSION +3 ONLY FOR
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MULTIFACE 128

INFORMATION ENTERPRISES
PRICE £195.00

MULTIFACE ONE from ROMANTIC ROBOT is one of those peripherals, although a bit expensive, is a must to every Spectrum user. Now the MULTIFACE 128 offers even more!

Some questions asked regularly about the MULTIFACE are answered below.

Q Why would I need the MULTIFACE?

A basically to make back-ups of programs and also to enable you to study, alter and customize them.

Q Do I need to understand the programs or even alter them to make backups?

A No, not with the MULTIFACE - it is the only product on the market which works fully automatically. You load any program as usual, run it for as long as you like and when you want to make a copy you just press the MULTIFACE's red button and follow the menu and on-screen instructions.

Q How does it work then? Is it easy? User Friendly? Error-Trapped? Idiot Proof? Guaranteed?

A Yes, it works a treat and could not be easier. The menu gives four basic options - to SAVE a program, to RETURN to continue it, to JUMP (say to your own routines - invaluable for hackers)

and TOOL to access the MULTI-TOOLKIT set of built-in utilities. For example pressing S to SAVE will first allow you to NAME the back-up and then let you save a PROGRAM or just a SCREEN to TAPE, DISK or CARTRIDGE. Before saving itself, MULTIFACE compresses the program so that it takes the least amount on tape/disk/cartridge and will re-load as quickly as possible. Once a program is saved, you can RETURN, JUMP, use the TOOLKIT or SAVE it again.

Q Don't you clutter the screen with your menu, instructions, pull down windows etc.?

A No, MULTIFACE has its own memory (8K ROM and 8K RAM) and a lot more hardware - thus when it finishes its job or when you re-load your back-ups, everything is FULLY and AUTOMATICALLY restored.

Q Can I load programs saved with the MULTIFACE, if the MULTIFACE is not connected?

A Yes, except for those programs you chose to save to tape using hyper save.

Q Is the MULTIFACE 128 for 128K owners only?

A No, it works on both 48K and 128K Spectrums. On the 128K it can SAVE both 48K and 128K programs.

NEWSFLASH Z88

NEW!
POWERFUL!
PORTABLE!

all hope is not lost!
The Z88 is alive and well!

It has just been confirmed that CAMBRIDGE COMPUTERS are now in full production of the Z88. If all goes well, then we hope to receive our first barch of the computer in about 6 weeks time! Now is this good news, or is this good news?

This little "Ballie" is a real little dark horse and surprising the critics at every turn. The fact that the Z88 is a portable computer capable of 3 Megabytes of memory was certainly startling enough to begin with, not to mention the fact that it is IBM compatible or that it uses BBC basic! In its being IBM compatible, information is able to be downloaded from one computer to another via the RS232 port! A further advantage of the computer is that everything is saved to Rom which allows for instant access! The computer is most certainly turning out to be a state of the art piece of machinery, which is most certainly a very big credit to Sir Clive. Further details will be announced when the computer is ~~in~~ stock. We hope to have a very special introductory offer on the Z88 to coincide with the official opening of the factory and AMABOP INDUSTRIES.

SINCLAIR TITLES

NEW SOFTWARE, JUST ARRIVED!

	PRICE	GST	P&P
OL Flight Simulator	75.99	9.11	2.00
Conflicts II	29.99	3.60	1.50
Killed until Dead	34.50	4.14	1.50
Convoy Raider	29.99	3.60	1.50
Great Escape	29.99	3.60	1.50
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Wizball	29.99	3.60	1.50
Beta Basic 4.0 Upgrade	29.99	3.60	1.80
Battle of Britain	19.99	2.39	1.50

if you're lying, I'll be back.

Even though we are operating from our factory in Bophutswana, it will only be open to the public in January 1988. Visits by the public to the factroy at this stage may only be made by special arrangement. Full details as to how to get there etc. will be put in the Newsletter as soon as the factory is officialy opened.

M - HELP.....

HELP, HELP, HELP,HELP, HELP, HELP, HELP, HE

INFORMATION ENTERPRISES is desperately looking for BLANK TAPES. If any of our Club members knows where we can get blank tapes at a reasonable prise, would you please, please be so kind as to let us know.

Thank you for your co-operation.
IN this very urgent matter.

CARTRIDGES

MICRODRIVE CARTRIDGES MICRODRIVE CARTRIDGES

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Sp S

#####

We have microdrive cartridges in stock once again. To compensate you for having to wait so long for them to arrive, we have put them on a VERY SPECIAL OFFER for you!

Quantity	Normal Price	Special Price	P&P
1	R8.95	R8.75	1.00
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12	R8.45 each	R8.00 each	1.85
16	R7.95 each	R7.50 each	2.00
20 or more	R7.50 each	R6.95 each	2.00



LATE Sale

FOR SALE: ZX Spectrum issue 3,48K, complete with handbooks, cables, tapes, original packing R275.00, ZXLPint III Printer Interface R100.00, BUX II Printer interface for R100.00, Beta Disk interface, unused R200.00, Philips cassette recorder R50.00. ALL THE ABOVE IN REALLY EXCELLENT CONDITION! PHONE W. BELGRAVER (012) 454155 (A/H)

GIFT VOUCHERS

ARE YOU LOST AS TO WHAT TO-GIVE YOUR FRIENDS, BROTHERS AND SISTERS, MOMS OR DADS this christmas?

We have the ideal present for you to give to them! Gift Vouchers will be just the thing to give them, and you will not have to worry whether or not they really like your present, because they will be getting something that they really need or want! THE MUSHROOM CLUB has GIFT VOUCHERS to the value of R5.00 and R10.00. So, come on and give those people that you really care about a present worth its weight in gold this christmas!

ANTIMERGE : written by Jan van der Watt

Ek het hier 'n konkoksie wat MERGE so 'n bietjie vergemoeilik en sommer ook jou programme effens beskerm.

Tik deel 1 in:-
10 CLEAR USR "a"-1:
LOAD ""
en stoor dit met
SAVE "naam1" LINE 10
tik dan
NEW

Tik nou deel 2 in.

Die X'e en spasies in []'s moet as spasies en X'e (nie * nie) ingetik word.

NB. LYN 10 MOET PRESIES SOOS HIERBO INGETIK WORD.

Stoor die program op 'n ander kasset, dit sal later gebruik word.

Tik ~~RANDOMIZE USR 0~~ in (dit is dieselfde as NEW).

Laai nou jou werklike finale program.

Voeg nou deel 3 volgende by jou eie program (enige plek waar die program nie gewoonlik RUN nie).

Die "line" veruys na die lyn waar jou program begin. RUN.

As jy graag veranderlikes ook wil stoor moet jy lyn 9530 as volg verander LET L=256#PEEK 23728 + PEEK 23727 moet word LET L=USR 7962

Onthou dat "length" na die einde van die blok wat jy wil stoor veruys en dat wanneer "S" afgetrek word dit eers verklik n lengte weergee. Tik GOTO 9520, noteer S en L en eksperimenteer waar. Ignoreer die '2.Variable not found'. Stoor die program net na deel 2.

Laai nou weer deel 2. Tik GOTO 20

Gee 'n naam (sodat 'n 'pirate' sal dink dit is deel drie van jou program) op die vraag "Bytes :".

Gee die S en L waardes wat jy genoteer het. As die rekenaar se 9 STOP

... dan kan jy voortgaan, anders probeer weer (of skryf aan my p/a die Mushroom Klub).

Uee nou lyne 20 tot 100 uit en ignoreer die ? as hy sou opdruk. Tik CLEAR: POKE 23758,255: SAVE "naam" LINE 10 en moet nie CAPS SHIFT 6 of CAPS SHIFT 7 of EDIT intussen gebruik nie! (As jy dit doen sal jy weer heel voor moet begin).

Stoor die program as deel 2 (nie 3) op jou finale kasset, na deel 1.

Nou kan jy eers jou finale program weer laai. Vervang nou lyne 9520 tot 9530 met
9520 LET S=
9530 LET L=
met die waardes vir L en S soos voorheen genoteer.

Indien enige fout sou voorkom by BREAK of STOP sal jou rekenaar NEW.

RANDOMIZE USR 23296 wag vir jou om enige sleutel te druk en dan SAVE dit.

Tik nou GOTO 9500. Beantwoord die vrae en kry dan jou kasset waarop jy die finale program wil stoor reg. Druk eers RECORD en dan enige sleutel om jou finale weergawe te stoor, dit is nou net na deel 2.

DEEL 2

```
10 CLS: POKE 23613,0: PRINT "LOADING..
...": PRINT USR 23856: PRINT I6S
keer 10
20 CLS: INPUT "Bytes: ":LINE AS:
LET AS="Bytes: "+(AS+" (12
spasies)")(to 12)
30 DATA 62,0,221,33,0,0,17,17,0,
55,205,86,5,210,0,0,33,
51,93,6,19,197,229,126,215,225,
193,36,16,-9,221,33,
S-256#INT(S/256),INT(S/256),17,
L-256#INT(L/256),INT(L/256)
40 DATA 62,255,55,195,86,5,205,0,0
50 INPUT "Length: L:"Start":S
60 RESTORE: FOR F=1 TO 46: READ A:POKE
(F+23812),A: NEXT F
70 FOR F=1 TO 19: POKE (F+23858),CODE
AS (F)
80 NEXT F
90 POKE 23808,S
100 STOP
```

Summary:-

Pirates can easily copy Spectrum software by MERGING the BASIC loader instead of LOADING it. The author provides a way of fooling the pirates who want to make unauthorised copies of your programs.

'n Paar notas:

1. Moenie CLEAR in jou program gebruik tensy jy weer (direk daarna) 'n POKE 23613,0 het nie - CLEAR herstel die maatregel.

2. S en L moet by altwee die SAVE en LOAD dieselfde wees, anders NEW die roetine homself.

3. L moet nooit USR "a"-65 oorskry nie, die Spectrum stoor van sy registers daar en dit kan soms lol.

Skryf gerus aan my (p/a Die Mushroom Klub) as daar 'n probleem is.

DEEL 3

```
9500 DATA 62,0,50,0,92,118,58,8,92,
254,0,40,-8,62,0,221,33,S-256#
INT(S/256),INT(S/256),
17,L-256#INT(L/256),INT(L/256),
221,229,213,17,17,0,221,33,128,
91,205,194,4,6,50,118,16,-3,
209,221,225,62,255,195,194,4
9510 INPUT "Enter a dummy file name ":
LINE AS: LET AS=(AS+" (10
spasies)")(TO 10)
9520 LET S=23552+INT(RND*45):CLS: PRINT
"S = ":S: RESTORE
9530 LET L=256#PEEK 23628+PEEK 23627:
INPUT "Length (":L): "suggested
)":L: LET L=L+S+1
9540 FOR F=0 TO 47: READ A: POKE
23296+F,A: NEXT F
9550 POKE 23424,3: POKE 23435,INT
(L+1)/256: POKE 23436,(L+1)-
256#PEEK 23436
9560 POKE 23438,(S-4)/256: POKE
23437,(S-4)-256#PEEK 23438
9570 FOR F=1 TO 10: POKE 23424+F,CODE
AS (F): NEXT F
9580 POKE 23439,128: POKE 23440,128
9590 POKE 23613,0: RANDOMIZE USR 23296
: CLS : GOTO Line
```

We pay R5 to R15 for every contribution published. An extra R5 if the contribution is on tape, microdrive cartridge or disk (any W.P. format).





DON'T DISPARE, WE REPAIR!

Over the years we have built up an enviable reputation in South Africa for computer repairs, which is second to none. This is based on many years experience in repairing Spectrum, Amstrad and QL - we were one of the first, and the last to offer this service. There is no high fixed price - you only pay what the repair actually costs.

SO, DON'T DELAY - ACT TODAY!
It's as easy as abc!

A Simply send your computer securely packed together with a covering letter describing the problem, and stating how payment is to be made - COD or with a cheque. If payment is to be made with a cheque, then a cheque for the maximum fee should be enclosed, and when the computer is repaired and there is a balance, then it will be sent back to you in the form of a CREDIT NOTE, which may be used with your next purchase.

B Of if you prefer a written quotation before the repair, please state so in the covering letter.

C Alternatively just bring your computer in to us, after you have made an appointment.

FREE Summer Surprises FREE

This christmas we have a very special offer for our new-comers to computing and the ZX. For those of you who buy a SPECTRUM +, we will give you FREE 12 games! All games are on individual tapes and individually wrapped. Don't miss out on this special offer. This is a once in a life time offer!!!!!!!!!!!!!!



SPECIALS

Drastically reduced below
our normal low prices
for ~~one~~ week only!

Call us or while
6 Jan '88 stakes last!

SPECIALS

Christmas is just around the corner, even though you may not believe it, but when you think back to the mad rush of deciding to get what for who, at the last minute, you will know just what I am talking about. So start your Christmas shopping early, and start by looking at our outrageous special offers. Remember that there is a little something that will be just the right thing for every member of the family. Our hardware specials are a real bargain this year. just look:



	Normal Price	Special Price
- Spectrum +	R450.00	R379.00
- Including 12 free games		
- Spectrum 128	R499.00	R419.00
- Spectrum + 2	R599.00	R529.00
- Including 6 free games and Joystick		
- Spectrum + 3	R895.00	R799.00
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- Sanyo CTR 30 Green Monitor	R239.00	R199.00
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- Multiface One	R179.00	R169.00
- Multiface 128	R195.00	R185.00
- Multiface Three	R205.00	R195.00

Cable for Spectrum +2 or +3 to a colour monitor	R15.99	R12.50
Midi interface	R195.00	R175.50

Look in the SEPTEMBER newsletter to see a full description of the disc drives and interfaces. That is the way to expand, don't let anyone tell you otherwise!

Don't let these unbelievable Christmas Special Offers slip you by, this is the last chance that you are going to have to get these products at these prices!
REMEMBER THAT ANY SOFT OR HARDWARE THAT IS ORDERED THROUGH THE POST IS GST EXEMPT!

LIGHTNING ATTRIBUTES BY D. ROUX



When Sir Clive designed the Spectrum BASIC interpreter back in the dark ages of ZX81 Super Frogger, he included the attribute commands PAPER and INK. When we print something on the screen, it is poked into the display file and veiled with the current attributes. Unfortunately, we cannot set the entire screen to a certain attribute without clearing it.

There is an answer to this problem: it involves altering the attribute file. This is possible in BASIC, but so slow that it isn't worth the effort.

I have produced the solution by writing 3 simple machine code routines. The first changes the attributes of the entire screen, the second splits the screen in vertical halves and changes the attributes accordingly and the third does the same with a horizontal split.

The following now becomes possible:-

We can draw images in Basic using the same paper and ink colour, and then make them appear machine code speed by changing the attributes.

The screen can be divided into 2 paper colours simultaneously.

The paper or ink colour of data on the screen can be altered without loss of data.

There are many other possibilities, some of which I illustrate in the demo program. The effect which this can have on your simple BASIC programs is amazing.

Type in the demo program (fig 2). If you are impressed, read on:

The wonderful thing about the programs is that they take up only 72 bytes:

The assembly listings are shown in figure 1.

The correct method to enter them directly from Spectrum Basic is illustrated from line 10 to 190 in the demo. When you want to use it in your own programs, enter it in exactly that way. 16K Spectrum users will have to change all the 50000's to 30000's (e.g. 50063 becomes 30063, etc. etc.).

To use the whole page alter routine, type RANDOMIZE USR 50000. To use the vertical split page alter routine, type RANDOMIZE USR 50016. To use the horizontal split page alter routine, type RANDOMIZE USR 50044.

A word on how the Spectrum recognises attributes: the formula for an attribute value is

(paper colour X 8) + ink colour

e.g. if you wanted red paper (2) with yellow ink

(6) you would use

$(2 \times 8) + 6 = 22$

Armed with this incredible knowledge, you can POKE the following addresses after the code has been read in:

50007 : attributes for whole page routine

50024 : attributes for right of vertical split page routine

50034 : attributes for left of vertical split page routine

50054 : attributes for bottom of horizontal split page routine

50064 : attributes for top of horizontal split page routine.

As an example, if you want to use the vertical split page routine with the right ink 7 (white), paper 2 (red) and the left ink 2, paper 7.

POKE 50024,33 (for right side)
POKE 50034,58 (for left side)
RANDOMIZE USR 50016 (to activate vertical split page routine)

and Viola!

Figure 2 on next pg.

figure 1

```

ORG $C350
LD DE,$5ABF
LD BC,$02C0
LOOP LD A,$FF
LD (DE),A
DEC BC
DEC DE
LD A,B
OR C
JR NZ,LOOP
RET
    
```

```

ORG $C350
LD DE,$5ABF
LD B,$16
BEG LPA LD C,$10
LD A,$FF
LD (DE),A
DEC DE
DEC C
LD A,C
JR NZ,LPA
LD C,$10
LPA LD A,0
LD (DE),A
DEC DE
DEC C
LD A,C
JR NZ,LPB
DJNZ BEG
RET
    
```

```

ORG $C350
LD DE,$5ABF
LD HL,$0160
LPA LD BC,$0160
LD A,$FF
LD (DE),A
DEC BC
DEC DE
LD A,B
OR C
JR NZ,LPA
LPB LD A,0
LD (DE),A
DEC HL
DEC DE
LD A,H
OR L
JR NZ,LPB
RET
    
```

This follows the
JR NZ,LPA

```

1 LET page=50000: LET vpage=5
0016: LET hpage=50044: LET wp=50
007: LET rvp=500
24: LET lvp=50034: LET bhp=50054
: LET thp=50063
10 LET tot=0
20 FOR i=50000 TO 50071: READ
a: LET tot=tot+a
30 POKE i,a: NEXT i
40 IF tot<>6187 THEN PRINT "E
RROR IN DATA.": STOP
45 REM
46 REM mcode
47 REM
50 DATA 17,191,90,1,192
60 DATA 2,62,255,18,11
70 DATA 27,120,177,32,247
80 DATA 201,17,191,90,6
90 DATA 22,14,16,62,255
100 DATA 18,27,13,121,32
110 DATA 248,14,16,62,0
120 DATA 18,27,13,121,32
130 DATA 248,16,234,201,17
140 DATA 191,90,33,96,1
150 DATA 1,96,1,62,255
160 DATA 18,11,27,120,177
170 DATA 32,247,62,0,18
180 DATA 43,27,124,181,32
190 DATA 247,201
1000 INK 0: PAPER 0: BORDER 0: C
LS : LET a$="STAND BY FOR DEMO":
GO SUB 9020: PR
INT AT 21,0:"FADE"
1010 FOR x=0 TO 30: FOR y=0 TO 7
: IF POINT (x,y)=1 THEN PRINT A
T 14-y,x:CHR$ 14
3: NEXT y: NEXT x
1020 NEXT y: NEXT x
1030 FOR i=0 TO 3: PRINT AT 21,i
:" ": NEXT i
1035 GO SUB 9000
1040 POKE wp,7: RANDOMIZE USR pa
ge: INK 7
1050 LET a$="FADE-OUT": GO SUB 9
020: GO SUB 9060
1060 FOR i=6 TO 0 STEP -1
1070 POKE wp,i: RANDOMIZE USR pa
ge: NEXT i: GO SUB 9000
1080 LET a$="FADE-IN": GO SUB 90
20: GO SUB 9060: FOR i=1 TO 7: P
OKE wp,i: RAND
OMIZE USR page: NEXT i: GO SUB 900
0
1090 LET a$="DIMINISH": GO SUB 9
020
1100 GO SUB 9060: POKE wp,1: RAN
DOMIZE USR page: GO SUB 9000
1110 LET a$="HIGHLIGHT": GO SUB
9020: GO SUB 9060: POKE wp,57: R
ANDOMIZE USR pag
e: GO SUB 9000: LET a$="BACK AGA
IN": GO SUB 9020: GO SUB 9060
1120 FOR i=6 TO 0 STEP -1: POKE
wp,i*8: RANDOMIZE USR page: NEXT
i: GO SUB 9000
1130 CLS
1140 LET a$="SCREEN IMAGES IN A
FLASH": GO SUB 9020: INK 0: FOR
i=0 TO 255 STEP

```

```

15: PLOT i,0: DRAW 0,175: NEXT i
: FOR i=0 TO 175 STEP 5: PLOT 0,
i: DRAW 255,0: N
EXT i
1150 POKE wp,7: RANDOMIZE USR pa
ge: INK 7
1160 GO SUB 9000: LET a$="A DIFF
ERENT INK COLOUR": GO SUB 9020:
GO SUB 9060: POK
E wp,2: RANDOMIZE USR page: GO S
UB 9000
1170 LET a$="A DIFFERENT PAPER C
OLOUR": GO SUB 9020: GO SUB 9060
: POKE wp,42: RA
NDOMIZE USR page: GO SUB 9000
1180 LET a$="AN EVEN VERTICAL SP
LIT": GO SUB 9020: GO SUB 9060:
POKE rvp,7: POKE
lvp,42: RANDOMIZE USR vpage
1190 GO SUB 9000: LET a$="OR AN
EVEN HORIZONTAL SPLIT": GO SUB 9
020: GO SUB 9060
: POKE thp,7: POKE bhp,42: RANDO
MIZE USR hpage
2000 GO SUB 9000: LET a$="AND BA
CK AGAIN": GO SUB 9020: GO SUB 9
060: POKE wp,7:
RANDOMIZE USR page
2010 GO SUB 9000: LET a$="ETC. E
TC": GO SUB 9020: GO SUB 9060
2020 FOR i=6 TO 0 STEP -1: POKE
rvp,i: POKE lvp,7: RANDOMIZE USR
vpage: PAUSE 5:
NEXT i
2030 FOR i=6 TO 0 STEP -1: POKE
lvp,i: POKE rvp,0: RANDOMIZE USR
vpage: PAUSE 5:
NEXT i: CLS
2031 GO SUB 9000: LET a$="HOW AB
OUT THIS?": GO SUB 9020: GO SUB
9060: FOR i=1 TO
50: POKE wp,56: RANDOMIZE USR p
age: POKE wp,7: RANDOMIZE USR pa
ge: NEXT i: CLS
2040 PRINT INK 0:AT 5,0:"TRY SO
ME OF YOUR OWN IDEAS.....":AT 1
6,0:"WRITTEN 198
7 FOR THE SPECTRUM"
2060 FOR n=1 TO 5: POKE thp,42:
POKE bhp,0: RANDOMIZE USR hpage
2070 FOR i=1 TO 200: NEXT i
2080 POKE thp,0: POKE bhp,56: RA
NDOMIZE USR hpage: FOR i=1 TO 20
0: NEXT i
2090 NEXT n
8000 STOP
9000 FOR i=0 TO 31: PRINT #0:AT
1,i:" ": NEXT i
9010 RETURN
9020 FOR i=0 TO LEN a$-1: PRINT
INK 7:#0:AT 1,i:a$(i+1 TO i+1):
NEXT i
9030 FOR i=LEN a$ TO 31: PRINT
INK 7:#0:AT 1,i:".": NEXT i
9040 NEXT i
9050 RETURN
9060 FOR i=1 TO 300: NEXT i: RET
URN

```

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* Screen Dump		
* Memory cut		

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ANYTHING YOU REQUIRE YOU HAVEN'T GOT IN STOCK, WE WILL DO ALL WE CAN TO GET IT FOR YOU



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P&P	1.80
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CLASSIFIED

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