

Home Computing WEEKLY

An Argus Specialist Publication

No. 60
May 1-7, 1984

40p

Every week: your best buy for software reviews and listings

FREE

24-page supplement for VIC-20 and Commodore 64 users—add-on guide, using graphics, a fun VIC-20 game, and screen designer

Win

great games and T-shirts from



Software reviews for: Spectrum, BBC, Oric, Sord, TI, Commodore 64

Five games to type in for your Spectrum and Oric

Tatung's new micro: all the details

PLUS U.S. Scene, news, charts...



Rabbit: 'We'll go on without Alan'

Heather Lamont, sole boss of Rabbit Software following Alan Savage's suicide, has vowed: "We will carry on."

Rabbit's 25-strong staff were stunned when they heard that Mr Savage, 36, had hung himself after a motorway crash.

He had been driving his white Mercedes, a recently restored collector's model, when he ran a VW Polo off the M10 in Buckinghamshire.

The VW finished upside down in a ditch, trapping and injuring a woman driver of 42 and her 73-year-old friend.

Mr Savage left on foot — leaving behind a woman friend — after an argument with the driver and police were alerted because the VW driver thought

Continued on page 6

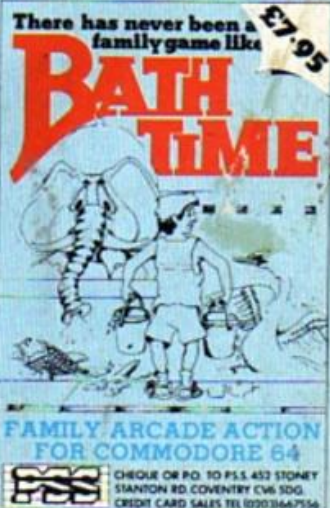
Computers help with the cooking

In a bid to make computers more useful around the house, two companies have launched menu-planning programs.

One of them, for the BBC micro, is by husband-and-wife team John and Yolande Smith. The other, from Bug-Byte for the Spectrum, contains 80 recipes from professional chef Ian Hoare.

Mrs Smith, a 53-year-old mother of two, said: "Women don't use computers, so what

Continued on page 6




ANIROG

*The Name
For Quality
And
Innovation*

Flight Path 737



ADVANCED PILOT TRAINER

Written by a flight simulator instructor and pilot.
Superb graphics. COMMODORE  VIC 20 16K **£7.95**

TRADE ENQUIRIES: ANIROG SOFTWARE LTD. 29 WEST HILL DARTFORD KENT (0322) 92513/8
MAIL ORDER: 8 HIGH STREET HORLEY SURREY 24 HOUR CREDIT CARD SALES HORLEY (02934) 6083
PAYMENT BY CHEQUE P.O. ACCESS/VISA 50p POSTAGE & PACKAGING

BUY THIS SPACE
TO ADVERTISE YOUR
LATEST PRODUCTS!
Ring John or Stuart
on
01-437 0626. NOW!

Home Computing WEEKLY

BUY THIS SPACE
TO ADVERTISE YOUR
LATEST PRODUCTS!
Ring John or Stuart
on
01-437 0626. NOW!

REGULARS

Special Report: Tatung's new micro 5
Full details of the challenger to the BBC computer

News 6

U.S. Scene 30
Our man in California reports

Software charts 32
Our exclusive guide to arcade and non-arade games, plus Top 10s for all popular micros

Classified ads start on 35

SOFTWARE REVIEWS

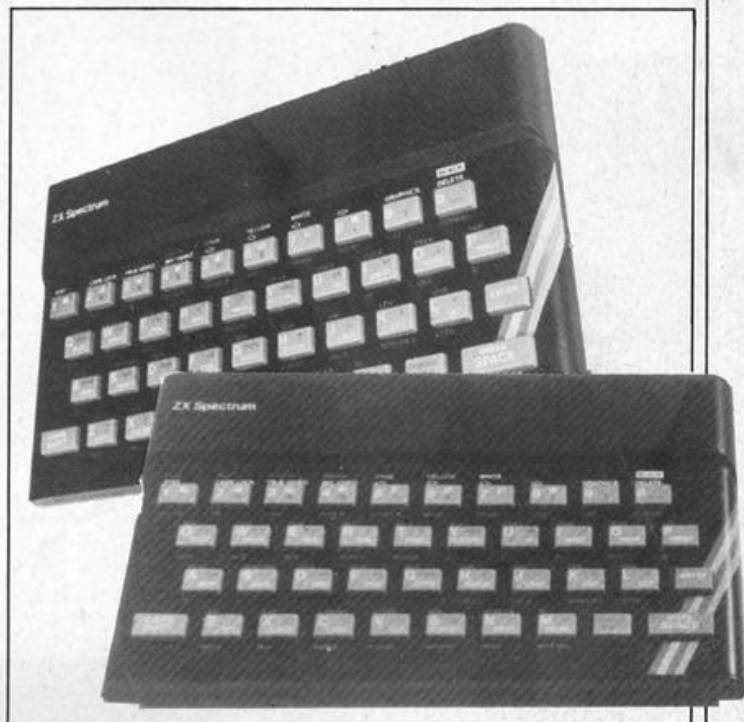
Useful... and fun 15
Utilities and games for the Commodore 64, BBC and Oric/Atmos

What will they learn? 16
Your computer as a teacher, with software for the Spectrum and Oric

For the fun of it 22
New games for the Sord M5 and the TI-99/4A

There's a free 24-page supplement in this issue for users of the VIC-20 and Commodore 64. This is what's inside it:

- a buyer's guide to add-ons
- a Pixel-Pad screen designer for the Commodore 64
- how to create good-looking graphics for your games
- a free-to-enter competition for Bubble Bus software
- a game with a difference for the VIC-20



PROGRAMS

Spectrum 8
Three quality-tested games to type in: tackle the Hall of Mirrors, sort the mail and play patience

Oric 24
Two games to play: find the keys to escape... eat the Mouldfish to live

VIC-20 and Commodore 64
...you'll find listings for these two computers in our 24-page supplement

Readers: we welcome your programs, articles and tips — see the panel in this issue for details

Software houses: send your software for review to the editor. Contact him for competitions and other promotions, as well

Editor:
Paul Liptrot
Assistant Editor:
Liz Graham
Designer:
Bryan Pitchford
Managing Editor:
Ron Harris
Group Editor:
Elspeth Joiner

Argus Specialist Publications Ltd.
No.1 Golden Square, London W1R 3AB. 01-437 0626

Advertisement Manager:
John Quinn
Assistant Advertisement Manager:
Stuart Shield
Divisional Advertisement Manager:
Coleen Pimm
Classified Advertising:
Debra Stuppel
Chief Executive
Jim Connell

Home Computing Weekly is published on Tuesdays. Subscriptions and back issues: Infonet Ltd, 10-13 Times House, 179 Marlows, Hemel Hempstead, Herts HP1 1BB. Trade distribution: Argus Press Sales and Distribution Ltd, 12-14 Paul Street, London EC2A 4JS. 01-247 8233. Printed by Alabaster Passmore & Sons, Ltd, of London and Maidstone, Kent. Design and origination: MM Design, Circus House, 26 Little Portland Street, London W1N 5AF

STAND BY. T.L.L. APPROACHES.

THE NEW 3D MINDBLOWER FROM VORTEX.



WHY 3D ANDROID TWO IS THE ONE.

“The superb 3D effect... gives an impression of vastness which I certainly have not seen in any other game.” **HOME COMPUTING WEEKLY.**

“Striking 3D graphics...” **SINCLAIR USER.**

“... enough to keep you playing until the wee hours. Superb.” **POPULAR COMPUTING WEEKLY.**

“... highly addictive and first rate value for money. Highly recommended.” **CRASH.**



PLEASE RUSH ME

- ☐ ANDROID TWO SPECTRUM 48K £5.95
☐ ANDROID ONE SPECTRUM 16K-48K £4.95

TOTAL VALUE £

Games suitable for keyboard and joystick

NAME

BLOCK LETTERS PLEASE

ADDRESS

Enclose PO/cheque payable to VORTEX SOFTWARE and send to
 VORTEX SOFTWARE, 280 BROOKLANDS ROAD, MANCHESTER M23 9HD.

DEALER ENQUIRIES · CALL 061 973 9580

SEEK OUT ANDROID TWO AT W.H.SMITH, BOOTS, JOHN MENZIES AND OTHER GOOD RETAILERS.

The Einstein computer with Tatung's colour monitor



Can Tatung tackle the BBC micro? Read Paul Liptrot's full report on its aims and what the Einstein offers

Revealed: the Einstein micro from Tatung



Tatung is aiming to hit computers like Acorn's BBC micro with its new Einstein, which offers 64K of RAM, a 3in disc drive and 67 typewriter-style keys for £499.

Sales boss Mike Bayliss said it would cost an extra £560 to give the £399 BBC computer the same features.

Made and designed in Britain by the UK arm of a giant Taiwanese company, Einstein deliveries start in June and 50,000 are planned for this year.

Dr Bayliss said the Einstein was an up-market computer designed for the home enthusiast, education and small business. An Apple IIE with similar specification would be £1,010.

The Einstein's disc operating system handles programs running under CP/M, the industry standard system for business software. The DOS and BASIC are on a disc supplied with the computer. This is to allow other languages to be used without losing memory to a built-in BASIC.

Asked about the Amstrad computers, launched a week earlier, technical boss Roy Clarke said the Einstein was 25 per cent faster, the BASIC was more extensive, the keyboard more reliable and longer lasting and more RAM was available to the user.

When BASIC had been loaded, 48K could be used and just over 43K was available with both BASIC and the DOS loaded.

Amstrad's two cassette computers had 42K available to BASIC. The available memory in its two disc models was not known. Amstrad's prices are £329 for cassette model with colour monitor and £529 for 3in disc model with colour monitor. With green screen the prices are £100 lower.

Dr Clarke said the Einstein was intended to fill the gap between

ABS
ADC analogue/
digital
AND
APPEND
ASC
ATN
AUTO line
numbering
BCOL background
colour
BEEP
BINS
BTN
CALL
CHAIN
CHRS
CLEAR
CLOSE
CLS
CONT
COS
CREATE file
DATA
DEEK
DEFine function
DEGreess
DELete
DIM
DIRectory
DOKE
DOS
DRAW
DRIVE
ELLIPSE
ELSE
END
EOF
ERase
ERRor

Einstein BASIC keywords

ERRS
ERL error line
EVALuate
EXP
FILL
FMT format
FN function
FOR
GCOL graphics
colour
GOSUB
GOTO
HEXS
HOLD pause
IF
INCH wait for
key input
INCHS
INPUT from port
INPUT
INPUT#
INTeger
IOM i/o modify
KBD keyboard
KBDS
KEY define
function keys
KEY LIST contents
of function contents
LEFTS
LENGth
LET
LIST
LSTPrint
LN natural log
LOAD
LOCK
LOG
MAGnify
MGE merge

MIDS
MODulus
MON m/c monitor
MULS multiple
of string
MUSIC
NEW
NEXT
NOT
NULL
OFF
ON
ON...GOTO
ON...GOSUB
OPEN disc file
OR
ORIGIN
OUTPUT
PEEK
PI
PLOT
POINT
POKE
POLYgon
POP
POSITION of csr.
PRINT
PRINTAT
PROtect
PSG sound gen.
PTR pointer
RADian
READ
REM
REName
RENUM
RESTORE
RETURN
RIGHTS
RND

RST restart
RUN
SAVE
SCRNS
SEP redef.
separators
SGN
SHAPE
SIN
SIZE memory left
SPEED output
delay (0-255)
SPRITE
SPRITE OFF
SOR
STEP
STOP
STRS
SWAP bytes
TAB
TAN
TCOL text colour
TEMPO
THEN
TIS set/print time
TO
UNLOCK file
UNPLOT
VAL
VDEEK
VDOKE
VERIFY
VOICE
VPEEK
VPOKE
WAIT pause
WIDTH of text
XOR
ZONE print area

between computers costing £200-£300 and £1,000. He said: "It will be bought by people upgrading from micros like the Spectrum, those who want a better computer from square one and by businesses.

"There is so much talk of jam tomorrow. What we say is available will be available, not sometime next year or maybe never. And there's more than one offender."

The processor: Z80A, used in the Spectrum and others, running at 4MHz. Screen display is handled by a separate 16K Texas Instruments chip and the operating system is in an 8K ROM.

Display: 56 alphanumeric characters and 160 symbols — in a 5 x 7 grid — all of which can be redefined, plus 32 sprites, four in one line.

No. of colours	horiz. pixels	vert. pixels	chars.
16	256	192	40/32 x 24

Keyboard: QWERTY with graphics symbols etched on fronts, eight function keys, 11 control and cursor keys.

Disc drive: made by Teac, each 3in disc has a claimed capacity of 250K per side, or 200 K when formatted. Tatung branded discs are to be available. A second drive, costing £149, can be installed above and to the right of the keyboard. A separate drive will be £189 and a separate twin drive is planned.

Language/operating system: Tatung/Xtal BASIC, written by Crystal Research, allows users to add to the BASIC keywords and

the 32 error messages. It includes a full screen editor. Tatung says the DOS is designed to be easily understandable by first-time users.

Input/output: RS232-C, Centronics, four-channel analogue-to-digital converter for joysticks etc, eight-bit user port, external disc drive connector, UHF TV, YUV/RGB for monitor, and the Tatung "Pipe" — a 60-way general purpose connector.

Sound: three channels, plus noise, with volume control and amplitude, pitch and envelope control in BASIC. Speaker measures 3¼in by 2¼in.

Software: games would cost £7-£15 and business software up to £250. Companies writing for the Einstein included: A&F, Kuma, Gem Software, Crystal, Leasalink Viewdata and Micro Simplex. At least 50 would be available straight away.

Peripherals: joysticks, £5; Tatung branded Shinwa dot matrix printer with Tatung ROM, £229; internal and external disc drives. As a launch offer there will be vouchers for £10 off the printer, extra drive and Tatung's 14in colour monitor, usually £240. Promised soon: a Prestel software upgrade. At the end of the year there would be a unit for 80-column display, greater resolution, and more sprites, plus a speech synthesiser.

Tatung has an annual turnover of £500m and 25,000 employees — 800 of them in the UK. It makes home appliances, power plant and industrial equipment and has 30 subsidiaries, half in China and the rest in Asia, South Africa and Europe.

The Einstein was designed in its Bradford laboratory and is made in Bridgenorth, Shropshire, which also manufactures products like Deccacolour TV sets. Tatung bought the plant from Decca in 1981.

Rabbit

From front page

he may have taken pills with drink.

Police searched with tracker dogs and Mr Savage's body was found slumped against a tree by a man walking his dog. He had hung himself with his belt.

Miss Lamont revealed that Mr Savage had his stomach pumped out after an earlier attempt to kill himself with an overdose. And two other cars, a BMW and a Jaguar-Daimler, had been badly damaged in recent accidents with Mr Savage at the wheel.

Miss Lamont said: "He had personal problems and when your mind isn't together they seem enormous. He felt his world was falling apart. I don't know if he was schizophrenic, but this is the sort of thing that happens. Perhaps the car crash was the last straw."

I had spoken to him that morning and he was fine. Obviously his mind was unstable and something clicked and he just couldn't cope. It

was nothing to do with Rabbit — the company is doing fine.

"His ex-wife broke the news to me. I was absolutely sick. I can't explain the feeling. I was so totally shocked that I felt ill."

On the surface Mr Savage seemed to have everything to live for. A few days before his death, he told HCW editor Paul Liptrot that Rabbit was thriving and spoke of his personal plans. Rabbit's premises near Wealdstone also includes Soft Copy, trade name for its own cassette duplication and blank tape operation.

Mr Savage, who trained as a communications engineer, was in the process of buying a £200,000 house in Hertfordshire and also planned to remarry. He recently had a hair transplant.

Miss Lamont, formerly an assistant manager at British Home Stores, joined Mr Savage in a technical staff agency which later turned to computer retailing under the name Cream Computers. Rabbit was formed about three years ago and computer sales ended.

Now Rabbit has a range of 17 titles for the Spectrum, VIC-20 and Commodore 64 — about 36 products counting those available for more than one computer.

A new title, Stalag 1, a comic arcade game for the Commodore 64, has just been released and Vortex, an arcade game for the Spectrum and Commodore 64, is due out in mid-May.

Miss Lamont said she owned 51 per cent of Rabbit's shares and Mr Savage owned the remaining 49 per cent. A will had not yet been found, but if it turned out that Mr Savage's shares went to his mother Miss Lamont said she would raise the money and offer to buy them. Rabbit's three-strong board consisted of Miss Lamont, Mr Savage and Miss Lamont's father, Arthur.

Miss Lamont said: "We are a good, solid company. We are in about the middle of the range. We are not like Imagine or the rest of them and we are not down at the bottom. But I don't really want to be in the big league."

Mr Savage, who lived in Willesden, was a car enthusiast. As well as the BMW, the Mercedes and the Jaguar-Daimler, he also drove a restored E-type Jaguar.

Asked if personal relationships could have led to the tragedy, Miss Lamont said: "Alan had been unstable for a long time and a lot of people passed through his life. There's no blame to put on anybody."

Paying tribute to him, she said: "OK, he had a troubled mind but he was a super person. A lot of people cared for him."

"He had a flair for the business. He gave a lot to Rabbit and he got a lot of enjoyment out of it. He had everything to live for but

because of his mental state he could not see it."

Rabbit's software director, Terry Grant, said: "I was devastated. Everyone here is upset but we are all getting on with our work."

Cooking

From front page

can you do to attract them?

"At first I thought of a recipe book, but you can't take a computer into the kitchen. Then I thought: 'What is the most boring job you have to do?' That's deciding what to cook."

"Most women have 200 or 300 recipes in their minds, but you forget them and end up having chips every day."

What's to Eat?, on cassette for £9.95 and a disc version at £12.95, is designed to plan meals for everyday and for special occasions. When the choice is made — from a claimed 20,000 possible combinations — the menu is displayed, ingredients listed and a shopping list produced.

The program was written largely by Mr Smith with data from his wife, based on her years of cooking for the family.

Mr Smith, 54, a former electronics engineer, and Mrs Smith, a former civil servant, also produce business software. They call themselves Shumwari Associates. Mr Smith said Shumwari meant small friend in a south-east Asian language.

Bug-Byte's Computer Cookbook is in a two-cassette pack — one for the index and the other for the recipes — and costs £9.50.

Mr Hoare said his program started with a request from a friend for a popular recipe. He said: "As a joke, I tried to put the recipe into the computer."

After months of work, and the promise of a Bug-Byte contract, he has finished a program which now contains more than 80 of his recipes in imperial or metric measures and for any number of people up to 200. Wines to accompany the dishes are also given.

Bug-Byte says the program is more than just a cookery book. Using the index you could, for example, tell the computer you had some pork in the fridge and the program will select suitable recipes.

It will also list recipes by category, such as starters and desserts, simplicity and country of origin.

Shumwari Associates, 12 Marlin Ct, Marlow, Bucks SL7 2AJ

Bug-Byte, Mulberry Hse, Canning Place, Liverpool L1 8JB

You could be on our pages

We welcome programs, articles and tips from our readers. If you feel that your work meets our standards, please submit it to us for consideration for publication.

- Programs must always be sent on cassette. Listings are helpful, but not necessary. Check carefully that they are bug-free. Include details of what your program does, how it works, variables you have used and hints on conversion.

- Articles on using home computers should be no longer than 2,000 words. Don't worry about your writing ability — just try to keep to the style in HCW. Articles most likely to be published will help our readers make better use of their micros by giving useful ideas, possibly with programming examples. We will convert any sketched illustrations into finished artwork.

- Tips are short articles, and brief programming routines. Your hints can aid other computer users.

All submissions will be acknowledged and the copyright in such works which will pass to Argus Specialist Publications Ltd will be paid for at competitive rates.

Keep a copy of your work and include an SAE. Label everything clearly and give a daytime and home phone number if you can.

All work for consideration should be sent to:

Paul Liptrot, Home Computing Weekly, No.1 Golden Square, London W1R 3AB

Help for your budget

Now available for the CBM 64: Cash Controller, to help you with budgeting and banking. Three areas of finance are catered for by this program: bank account, budget and mortgage. Printouts of statements and budgets are possible and data may be saved to cassette or disk.

Richard Shepherd Software has converted this program from the Spectrum, and both CBM 64 and Spectrum cassettes cost £9.95. Commodore disk version costs £14.95.

Richard Shepherd Software, Elm House, 23-25 Elmshott Lane, Cippenham, Slough, Berks

THE NAME IN VIDEO GAMES

Visions

DEMOLATOR

Following the Thousand year war with the Alien Demolators the last remnants of the human race are being transported across the galaxy in cryogenic suspension aboard the B.S. Quinn (Battle Star).

The Demolators however have invaded the cargo bay and it is your job to destroy the Demolators and to protect the human cargo. All you have to defend Humanity with is Xeno

(popularly named "the Phobe") the

ultimate Robot. You can control his movements on two planes and fire an ultrasonic Cannon to defend humanity with.



EXCLUSIVELY AVAILABLE FROM LARGER BRANCHES OF



DEMOLATOR — BBC — MODEL 'B' OS1-2, £6.95

(FOR A LIMITED PERIOD)

Hall of Mirrors by David Nowotnik

Here's a game for all Spectrum users which should be both fun and educational. The main purpose is to demonstrate the principles of reflection in mirrors. And this you'll have to grasp quickly if you're aiming to achieve high scores.

When the game starts, the hall of mirrors is drawn and the computer gives you an aerial view. The walls of the building are lined with mirrors which are arranged to alternate in the direction they face. More mirrors will appear inside the hall; some will always appear in the same place, while others are placed randomly, so each game is different.

There is one exit to the hall, at the top of the screen. By the exit is a colour scale, which is your target. The object of the game is to direct a beam of light such that it eventually hits one of the coloured boxes. If you can, you will obviously go for the green box for the maximum score.

On the screen you'll see a flashing "greater than" symbol on the left of the hall. This is the point from which the beam of light will emerge. It starts off going horizontally across the screen. You have to place a number of mirrors in the beam's path to deflect the light onto the target box.

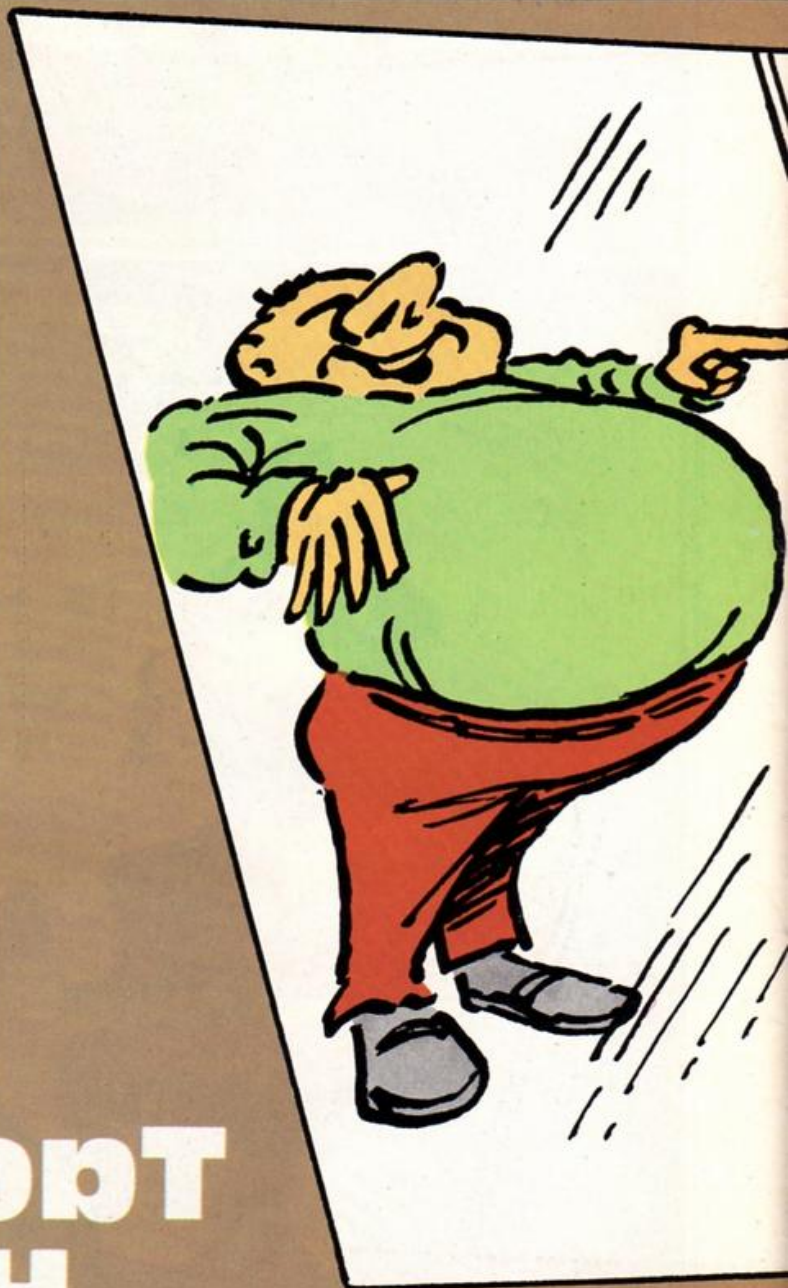
How it works

100-150 move character set from ROM
160 redirects CHARs
170-210 define new characters
240-290 machine code to block move attribute file
1000-1250 set up the board
1260-1280 position set mirrors
1290-1340 position random mirrors
1500-1810 select positions and place mirrors onto the board
1815 machine code to copy the attribute file
1820-1920 draw the light beam
1950-1990 reflect the light beam
3000-3060 score message
5000-5040 light beam plotting routine

You can place up to five mirrors in the hall. To place a mirror, you'll need to enter the horizontal and vertical co-ordinates, and the direction of the mirror.

Main variables

a,b READ variables
att attribute check
c,c\$ INPUT variables for mirror type
h,h\$ INPUT for horizontal position of mirror
mS,n\$ mirror characters
n the number of dots to be plotted.
score the running total
v,v\$ INPUT for vertical position of mirror
x,y co-ordinates of the random position mirrors
x1,y1 used in position calculation
zq a dummy variable used when calling machine code



Tackle the Hall of Mirrors, sort the mess and win

To help you with the co-ordinates, there are letters along the sides of the hall, and the inside of the hall is mapped out like a chess board. So, decide where you want to place a mirror, enter the co-ordinates of that position when you get the screen prompt, and tell the computer which mirror type you want. This game uses double surface mirrors; that is,

they will reflect on both sides.

Once you have placed all the mirrors you want (up to a maximum of five) the light beam will be "fired". But to let you see what happens, I have dramatically reduced the speed of light! The beam will leave a trail to let you see where it has been.

And if you've planned the positions of your mirrors well, the light beam should

eventually hit one of the coloured boxes. However, if you find that all your plans have gone wrong, then you can start again by pressing CAPS SHIFT and S.

After a few goes you should be able to achieve the maximum score most times. And you should have grasped the ancient physics principle, that "the angle of incidence equals the angle of reflection".

A treat for Spectrum owners — three games to type in. Two of them are by HCW regulars and the third is from a newcomer

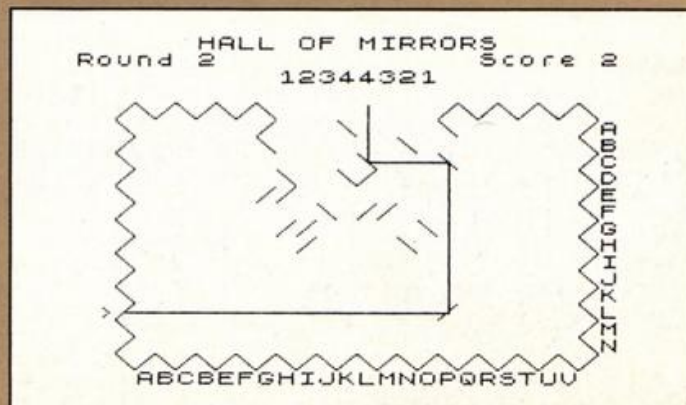


prim bnp

There are two small pieces of machine code in this game, so once you've entered the listing into your Spectrum, do **SAVE** it on tape before you attempt to **RUN** it, just in case. You only need one slight mistake with machine code to give you a crash, from which the only recovery is to pull out the plug — and lose the program!

Screen dump of Hall of Mirrors

● In nearly all cases, the **CAPITALS** in **PRINT** statements should, unless text, be entered in **GRAPHICS** mode. In *Patience* these are indicated by an underline.



The Sorting Room by A.G. Bird

Your job as a Post Office employee is to direct the mail in the sorting room.

Due to wear and tear on the conveyor belt, however, sorting mail does tend to get harder and harder. But as a trusted employee you must do your best.

How it works

15 keyboard BEEP
20-60 initialise
100-170 start game, part of conveyor chopped
180-240 draw scene
250-280 name and address on letter
290-300 letter slide
400-580 main loop for letter's journey
700-710 subroutine for letter down slide
1000-1100 horizontal movement on conveyor 1
2000-2100 correct box check
2500-2520 end of game routine
8000-8010 instruction
9000-9040 graphics

Variables

a\$, b\$ first and fourth, second and third conveyor belts
b\$ city
x,y letter co-ordinates
a,b,c substring numbers
sort number of letters
n main loop
m part of conveyor chopped
z belts two and three movement
h slide drop
s counter for slide drop
c correct location (score)

Patience by Tim Lang

This is a version of *Patience* which demonstrates the use of strings and arrays to set up a pack of cards, shuffle and deal and keep track of the play.

Note the use of the hash character to print into the lower portion of the screen instead of using **INPUT** which requires the **ENTER** key to be pressed after each entry.

How it works

100 instructions — expand or leave out
1000 DIMension arrays and call subroutine at 1560 to set user-defined graphics
1010 shuffle and deal cards
1150 main loop
1180 detect last card
1370 detect a wrong entry and loop back
1410 subroutine to change J,Q etc. into numbers
1460 calculate score and offer new game.

Listing for Hall of Mirrors

```

10 REM    Hall of Mirrors
20 REM    by David Nowotnik
30 REM    Feb. 1984
40 REM
50 REM    Initialise
60 REM
100 CLEAR 30000
110 FOR i=31000 TO 31011
120 READ a: POKE i,a
130 NEXT i
140 DATA 33,0,61,17,0,124,1,0,3,237,176,201
150 LET zq=USR 31000
160 POKE 23607,123
170 LET a=.5: LET x=32496
180 FOR i=0 TO 7
190 LET a=a*2: LET b=128/a
200 POKE x+i,a: POKE x+i+8,b
210 NEXT i
220 LET m$=CHR$ 126
230 LET n$=CHR$ 127
240 FOR i=30002 TO 30025
250 READ a: POKE i,a: NEXT i
260 DATA 33,0,88,17,148,117,1
270 DATA 0,3,237,176,201
280 DATA 33,148,117,17,0,88,1
290 DATA 0,3,237,176,201
500 REM Score
510 LET score=0: LET round=1
1000 REM    Set up the board
1010 PAPER 7: INK 0: BORDER 7: CLS
1020 PRINT TAB 8;"HALL OF MIRRORS"," Round ";round," Score ";score
1030 PRINT AT 4,4;: FOR i=1 TO 12: PRINT INK 1;m$: INK 2;n$;: NEXT i
1040 FOR i=5 TO 18 STEP 2
1050 PRINT AT i,4; INK 2;n$;AT i+1,4; INK 1;m$
1060 PRINT AT i,27; INK 1;m$;AT i+1,27; INK 2;n$
1070 NEXT i
1080 PRINT TAB 4;: FOR i=1 TO 12: PRINT INK 2;n$; INK 1;m$;: NEXT i
1090 PRINT AT 4,12;" "
1100 BRIGHT 1
1110 FOR i=5 TO 18 STEP 2
1120 FOR j=5 TO 26 STEP 2
1130 PRINT AT i,j;" ";AT i+1,j+1;" "
1140 NEXT j: NEXT i
1150 BRIGHT 0
1160 PRINT
1170 PRINT TAB 5;"ABCDEFGHIJKLMNPOQRSTUVWXYZ"
1180 PRINT AT 3,12;
1190 FOR j=1 TO 4: PRINT PAPER j;" ";: NEXT j
1200 FOR j=4 TO 1 STEP -1: PRINT PAPER j;" ";: NEXT j
1210 PRINT AT 2,12;"12344321"
1220 FOR j=5 TO 18
1230 PRINT AT j,28;CHR$ (j+60)
1240 NEXT j
1250 PRINT AT 16,3; FLASH 1;">"
1260 PRINT AT 5,11; INK 1;CHR$ 126;AT 5,20; INK 2;CHR$ 127;AT 8,15; INK 2;CHR$ 1
27; INK 1;CHR$ 126
1270 PRINT AT 10,14; INK 2;CHR$ 127;AT 10,17; INK 1;CHR$ 126
1280 PRINT AT 12,13; INK 1;CHR$ 126;AT 12,18; INK 2;CHR$ 127
1290 FOR i=1 TO 12
1300 LET x=5+INT (RND*7)
1310 LET y=11+INT (RND*10)
1320 IF SCREEN$ (x,y)<>" " THEN GO TO 1300
1330 LET a=INT (RND+1.5): PRINT AT x,y; INK a;CHR$ (25+a)
1340 NEXT i
1500 REM    Main Routine

```


PROGRAMS

```

1510 FOR i=1 TO 5
1520 INPUT AT 0,0; ("Mirror ";i;". Enter horizontal coordinates (A to V) ")
; LINE h$
1540 IF LEN h$<>1 THEN GO TO 1520
1550 LET h=CODE h$: IF h>90 THEN LET h=h-32
1560 IF h<65 OR h>86 THEN GO TO 1520
1570 LET h=h-60
1580 POKE 23168+h,184
1590 INPUT AT 0,0; ("Mirror ";i;". Enter vertical coordinates (A to N) ");
LINE v$
1610 IF LEN v$<>1 THEN GO TO 1590
1620 LET v=CODE v$: IF v>90 THEN LET v=v-32
1630 IF v<65 OR v>78 THEN GO TO 1590
1640 LET v=v-60
1650 POKE 22556+v*32,184
1660 LET att=ATTR (v,h)
1670 IF SCREEN$ (v,h)=CHR$ 32 THEN GO TO 1720
1680 PRINT #1;"This square is already occupied"
1690 PAUSE 200
1700 POKE 23168+h,56: POKE 22556+v*32,56
1710 GO TO 1520
1720 PRINT AT v,h; FLASH 1;" "
1730 PRINT AT 21,0;"Mirror ";i;". Enter mirror "
1740 INPUT (" type (";CHR$ 126;" =1, ";CHR$ 127;" =2) "); LINE c$
1750 IF LEN c$<>1 THEN GO TO 1740
1760 LET c=CODE c$-48: IF c<1 OR c>2 THEN GO TO 1740
1770 PRINT AT 21,0;" ";
1780 PRINT AT v,h; INK c;CHR$ (c+125)
1790 POKE 23168+h,56: POKE 22556+v*32,56
1800 IF i<5 THEN INPUT "Any more mirrors (y/n) "; LINE c$: IF c$="n" OR c$="N"
THEN GO TO 1815
1810 NEXT i
1815 LET zq=USR 30002
1820 BEE 1,1: LET h=5: LET v=16: INK 1
1830 LET y=43: LET x1=1: LET y1=0
1840 FOR i=35 TO 39

1850 PLOT i,y: NEXT i: LET x=i
1860 IF INKEY$="S" THEN PAUSE 200: GO TO 1000
1870 LET zq=USR 30014: LET att=ATTR (v,h): IF att=56 OR att=120 THEN GO TO 1900
1880 IF att=57 OR att=58 THEN GO TO 1950
1890 GO TO 3000
1900 PRINT AT v,h; BRIGHT (att=120);" "
1910 LET n=8: GO SUB 5000: LET h=h+x1: LET v=v-y1
1920 GO TO 1860
1950 INK att-56: LET n=4: GO SUB 5000
1960 LET a=x1: LET x1=y1: LET y1=a
1970 IF att=58 THEN LET x1=-x1: LET y1=-y1
1980 GO SUB 5000: POKE 22528+h+32*v,att
1990 LET h=h+x1: LET v=v-y1: GO TO 1860
3000 REM Increment score
3010 LET score=score+att/8
3020 PRINT #1;" Your score in round ";round;" was ";att/8
3040 PAUSE 400
3050 IF round<5 THEN LET round=round+1: GO TO 1000
3060 CLS : PRINT AT 5,5;"Your total was ";score;" points."
4990 STOP
5000 FOR i=1 TO n
5010 PLOT x,y
5020 LET x=x+x1: LET y=y+y1
5030 NEXT i
5040 RETURN

```

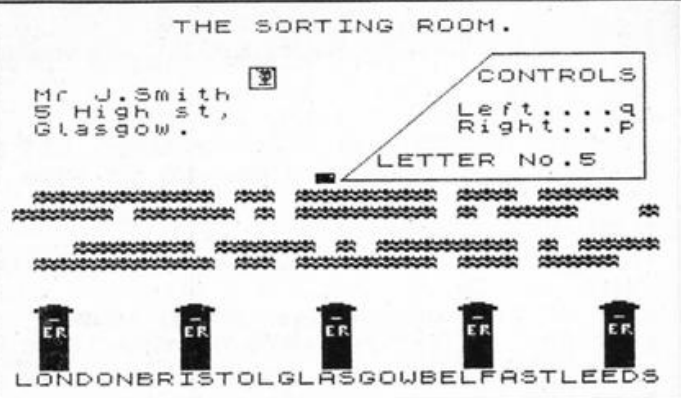

SPECTRUM PROGRAMS

Listing for The Sorting Room

```

1 REM THE SORTING OFFICE By A.G.Bird. 1984
10 GO SUB 9000: GO SUB 8000:
15 POKE 23609,100
20 LET c=0: DIM a$(64): DIM b$(64)
30 LET a$="AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA"
35 LET b$="AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA"
40 BORDER 0: PAPER 0: CLS: PRINT AT 0,0: PAPER 6: INK 0:
THE SORTING ROOM
50 INK 2: BRIGHT 1: FOR f=0 TO 30 STEP 3: PRINT AT 2,f: "DE": BEEP .01,f: PRINT
AT 3,f: "FB": BEEP .01,f+10: PRINT AT 4,f: "HI": BEEP .01,f+20: PRINT AT 5,f: "HI":
BEEP .01,f+30: NEXT f
60 INPUT "HOW MANY LETTERS DO YOU WANT TO SORT? "
70 TO SORT? "isort
90 REM Start of game Main Loop
100 FOR n=1 TO sort
110 LET h=0: LET s=0: LET x=9: LET y=15: LET a=1: LET b=1: LET d=1
120 IF RND>.5 THEN GO TO 100
130 LET a=INT (RND*32)+1
140 IF a=15 THEN GO TO 130
150 LET a$(a)=" "
160 LET b$(a)=" "
170 LET b$(a)=" "
180 BORDER 0: PAPER 0: INK 2: BRIGHT 1: CLS
190 PRINT AT 0,0: INK 0: PAPER 6:
THE SORTING ROOM.
200 FOR f=1 TO 29 STEP 7: PRINT AT 17,f: "DE": AT 18,f: "FB": AT 19,f: "HI": AT 20,f:
"HI": NEXT f
210 INK 0: BRIGHT 0: PRINT AT 21,0: PAPER 6: "LONDON": AT 21,13: "GLASGOW": AT 21,27:
"LEEDS": AT 21,41: PAPER 5: "BRISTOL": AT 21,55: "BELFAST"
220 FOR f=0 TO 30 STEP 3: PRINT AT 4,0: PAPER 7: BRIGHT 0:
NEXT f
230 PRINT AT 3,12: INK 5: PAPER 7: BRIGHT 1: "C"
240 PLOT 94,142: DRAW 0,10: DRAW 0,0: DRAW 0,-10: DRAW -10,0
250 PAPER 7: INK 0: GO SUB INT (RND*7)+5001
260 GO SUB INT (RND*7)+5101
270 GO SUB INT (RND*5)+5201
280 PRINT AT 6,1: "is"
290 INK 5: PLOT 130,90: DRAW 60,60: DRAW 60,0: DRAW 0,-60: DRAW -120,0
300 PRINT AT 3,25: INK 6: PAPER 0: "CONTROLS": AT 5,22: "Left....q": AT 6,22: "Right
....p": AT 8,10: "LETTER No.5"
410 LET a=(INKEY$="q")-(INKEY$="p")
420 IF a=0 THEN LET a=32
430 IF a=33 THEN LET a=1
440 IF a=34 THEN LET a=1
450 IF a=35 THEN LET a=1
460 PAPER 0: INK 5: PRINT AT 10,0: "a" TO a+31: AT 14,0: "a" TO a+31
470 INK 4: PRINT AT 11,0: "b" TO b+31: AT 15,0: "b" TO b+31
480 IF a=0 THEN GO SUB 700
490 PRINT AT x,y: " "
500 IF SCREEN# (x,y)="" THEN LET x=x+1
510 PRINT AT x,y: INK 7: BRIGHT 1: "B"
520 IF x=10 THEN GO SUB 1000
530 IF x=11 THEN LET y=y+1: IF y<0 THEN LET y=31
540 IF x=13 THEN LET y=y+1: IF y>31 THEN LET y=0
550 IF x=16 THEN GO TO 2000
560 LET z=INT (RND*2)
570 LET b=b+z: LET d=d-z
580 GO TO 400
590 REM Letter Slide
600 FOR f=31 TO 25 STEP -1: PRINT AT 1,f: INK 7: BRIGHT 1: "B": BEEP .01,f+2: PR
INT AT 1,f: " " NEXT f
710 FOR f=23 TO 15 STEP -1: PRINT AT 1+f,f: INK 7: "B": BEEP .01,f+2: PRINT AT 1
+f,f: " " NEXT f
720 LET a=1: RETURN
999 REM Letter movement Belt 1
1000 LET y=(INKEY$="p")-(INKEY$="q")
1010 IF y>31 THEN LET y=0
1020 IF y<0 THEN LET y=31
1030 IF SCREEN# (x,y-1)="" THEN LET y=y-1
1040 IF SCREEN# (x,y+1)="" THEN LET y=y+1
1050 RETURN

```



Screen dump of The Sorting Room

Listing for Patience

```

1 REM PATIENCE BY T.J.LAMB
10 PAPER 1: BORDER 1: INK 6: CLS
20 PRINT AT 1,0: "COMPUTER PATIENCE": AT 2,0: "PRESS ANY KEY TO START"
30 PRINT AT 1,1: INK 7: "PRESS 1 FOR INSTRUCTIONS OR ANY KEY TO START"
40 PAUSE 0
50 INPUT "1 IF INKEY$="I" AND INKEY$="I" THEN GO TO 140
100 REM INSTRUCTIONS
110 PRINT "THE OBJECT OF THE GAME IS TO REMOVE THE BOTTOM CARD FROM EACHCU
LURN AND PLACE IT ON THE UPTURNED FILE." "EACH CARD MOVED MUST BE DR
ABOVE OR ONE LESS THAN THE CARD CURRENTLY SHOWING"
120 PRINT "IF A MOVE IS NOT POSSIBLE THEN PRESS SPACE TO DEAL ANOTHER CARDFR
H THE REST OF THE PACK." "PRESS X TO END THE GAME"
130 PRINT "PRESS ANY KEY TO START" PAUSE 0
1000 LET h=52: GO SUB 1500: DIM a$(52,2): LET b$="SCDS": REM GRAPHICS "CDS"
1010 CLS: PRINT "PLEASE WAIT WHILE THE COMPUTER" "SHUFFLES AND DEALS THE CARDS"
1020 LET c$="12345678910JK": REM 1% GRAPHICS "T"
1030 FOR n=1 TO 13: FOR a=0 TO 39 STEP 13
1040 LET a$(n,a)=c$(a)
1050 NEXT a: NEXT n
1060 FOR n=1 TO 13: FOR a=0 TO 3
1070 LET a$(n+13,a)=a$(n,a)
1080 NEXT a: NEXT n
1090 FOR n=1 TO 52: LET r=INT (RND*52+1): LET d=a$(r): LET a$(r)=a$(r+1): LET a$(
r+1)=d: NEXT n
1100 CLS: FOR n=1 TO 7
1110 PRINT AT 1,n+2:n
1120 NEXT n
1130 FOR n=1 TO 35
1140 PRINT AT v(n),x(n):a$(n): NEXT n
1150 REM MAIN LOOP
1160 FOR p=36 TO 52
1170 LET c=a$(p)
1180 IF p=52 THEN PRINT AT 21,0: "THIS IS THE LAST CARD" "INVERSE 3: X TO CAD
"
1190 PRINT AT 17,14:c
1200 INPUT "1: PRINT 1: INK 6: "WHILE: COLUMN? " "IF p=52 THEN PRINT 1:
NK 6: INVERSE 1: "SPACE TO DEAL": PAUSE 0: INPUT " "
1210 IF p=52 THEN PAUSE 0: INPUT " "
1220 IF CODE INKEY$=32 AND p=52 THEN NEXT p
1230 IF INKEY$="X" OR INKEY$="X" THEN GO TO 1460
1240 IF CODE INKEY$=55 OR CODE INKEY$=49 THEN BEEP 1,3: GO TO 1200
1250 LET c=VAL INKEY$
1260 GO SUB 1300
1270 GO TO 1190
1280 NEXT p
1290 GO TO 1460
1300 LET c=20+c
1310 IF a$(c,1)="" THEN IF c=7 THEN LET c=c-7: GO TO 1310
1320 LET a=CODE a$(c,1)
1330 LET b=a-40: GO SUB 1410
1340 LET d=b
1350 LET a=CODE c$(1)
1360 LET b=a-48: GO SUB 1410
1370 IF d<b+1 AND d<0 THEN INPUT "1: PRINT 1: INK 3: INVERSE 1: "WHILE: COLU
M: "NEXT p: BEEP 1,1: NEXT n: GO TO 1520
1380 LET c=a$(c): LET a$(c)=""
1390 PRINT AT v(c),x(c): " "
1400 RETURN
1410 IF a=163 THEN LET b=10
1420 IF a=74 THEN LET b=11
1430 IF a=81 THEN LET b=12
1440 IF a=75 THEN LET b=13
1450 RETURN
1460 LET q=0: FOR n=1 TO 35: IF a$(n,1)>0 THEN LET q=q+1: NEXT n
1470 NEXT n
1480 PRINT AT 21,0: "ITAB 0"
1490 PRINT AT 17,0: "ITAB 0: CARDS LEFT: ITAB 0"
1500 IF q=0 THEN LET h=h+1: PRINT AT 19,0: "A NEW HIGH SCORE: FOR n=1 TO
25: BEEP .1,n: NEXT n: GO TO 1520
1510 PRINT AT 19,0: "HI-SCORE: " (h)
1520 PRINT AT 1,1: INK 5: "DO YOU WANT ANOTHER GAME? (Y/N)"
1530 PAUSE 0
1540 IF INKEY$="Y" OR INKEY$="y" THEN GO TO 1010
1550 CLS: STOP
1560 REM INITIALISE
1570 BEEP .2,25: BEEP .2,20
1580 DIM v(35): DIM x(35)
1590 FOR n=1 TO 5: FOR a=1 TO 7
1600 LET v(7*(n-1)+a)=a-2
1610 LET x(7*(n-1)+a)=2+2*a
1620 NEXT a
1630 NEXT n
1640 RESTORE 1: FOR a=0 TO 7
1650 READ v: POKE v: "d"
1660 READ v: POKE v: "c"
1670 READ v: POKE v: "h"
1680 READ v: POKE v: "a"
1690 READ v: POKE v: "t"
1700 NEXT a
1710 DATA 0,8,34,0,0,28,26,119,39,95
1720 DATA 62,42,127,62,91,127,127,127,127,81
1730 DATA 62,42,62,127,111,28,8,20,42,81
1740 DATA 0,0,0,0,95,0,0,0,0,0
1750 RETURN
9990 SAVE "PATIENCE" LINE 1

```


GEM SOFTWARE

NEW RELEASES FOR CHRISTMAS

OH MUMMY!! Your party of archaeologists enter the pyramid in search of the mummies of the pharaoh's household. There are five burial chambers containing treasure, secret scrolls, keys, royal mummies and some nasty surprises. To pass from one chamber to the next, you must find the key and royal mummy, but beware, you may uncover a guardian, who will chase your group to avenge your desecration!! A Machine Code game for those with nerves of steel and great courage.

Price (LYNX) £7.95
Price (ZX81 and SPECTRUM) £4.95

TANK ATTACK. A machine code game for 1/2 players, defending supplies against computer controlled tanks. This game will stretch your reflexes to the limit as you battle with the enemy tanks. They won't be able to shoot back until they have supplies, but when they do, look out!! Joysticks required.

Price (BBC-B OS 1.0+) £7.95

CHRISTMAS SPECIAL OFFER (mail order only for DRAGON 32). Choose any three of the following titles for £15.90. A saving of £7.95

GAMES PACK I
ALIEN BLITZ

GAMES PACK II
GOLF

GAMES PACK III
SPACE MISSION

All prices include postage and packing. All cassettes despatched within 48 hours of receipt of order. Access orders welcome.

GEM SOFTWARE

UNIT D, THE MALTINGS, STATION ROAD, SAWBRIDGEWORTH, HERTS
Telephone (0279) 723567/723518

SPANNERMAN. Pete the Plumber has his work cut out! He's stuck in the boiler room and the pipes are leaking! Unless he can fix the leaks and stop the water rising he'll meet with a watery doom. To make matters worse, all sorts of nasties keep coming out of the woodwork!! A fantastic machine code game, that stretches you and your Lynx to the limit!!

Price (LYNX) £7.95

UTIL 1. Two very useful programs for your BBC-B. Both tested on OS 1.0 and above. **Character Define** gives you a very comprehensive and simple way to quickly create all manner of user defined characters. **Envelope Editor** will enable you to unravel the complexities of the Sound and Envelope commands, so that you can produce exactly the sound you require. The ship!! In SUB CHASE you must depth charge the wolf pack.

Price (BBC-B OS 1.0+) £9.95



Kempston Joystick Compatible

NOW AVAILABLE AT

WHSMITH



and all good computer stores,
or direct from PSS

£5-95

Blade Alley

ARCADE ACTION FOR SPECTRUM 48K

Six different screens of incredible 3D arcade action featuring:
Saucers, Asteroids, Tie Fighters,
Space Hoppers, Banking Spaceships,
moving 3D scenery, CURRAH μ
SPEECH compatible. Swooping
low into the defensive trench, you
nudge your gun sights onto
the alien craft hurtling toward you....



FOR INSTANT CREDIT CARD SALES TEL (0203) 667556,
SEND CHEQUE OR P.O. TO P.S.S. 452 STONEY STANTON RD.
COVENTRY CV6 5DG. TRADE ENQUIRIES CONTACT
JOHN FLETCHER, COVENTRY (0203) 81346



WRITE OR PHONE NOW FOR OUR NEW CATALOGUE OF **OVER 600 TITLES** FOR THE ATARI, BBC, COMMODORE 64, DRAGON, ORIC, SPECTRUM AND ZX81 ALL AT **DISCOUNT PRICES!** AND GET AUTOMATIC **FREE MEMBERSHIP** OF THE **SOFT TOUCH CLUB** WITH YOUR FIRST ORDER.

AS A MEMBER YOU WILL RECEIVE A REGULAR NEWSLETTER CONTAINING NEWS REVIEWS, SPECIAL OFFERS, COMPETITIONS AND THE SOFT TOUCH HELPLINE TO ASSIST WITH THOSE PROGRAMMING PROBLEMS!

ELECTRON, VIC 20, IBM, TI99a and TRS 80 ALSO CATERED FOR

ATARI			COMMODORE 64			ORIC		
PIRATE ADVENTURE	ADV	8.95	SOLO FLIGHT	MPS	13.45	PROBE 3 (+ ATMOS)	IJK	7.35
DONKEY KONG	ATA	25.99	COLLOSUS CHESS	CDS	8.95	ZORGON'S REVENGE	IJK	7.35
SECRET MISSION	ADV	8.95	OLYMPIC SKIER	CHI	4.95	HUNCHBACK	OCE	5.99
BATTY BUILDERS	ENG	8.95	PILOT 64	ABB	6.99	FRIGATE CMMDR. (+ ATMOS)	IJK	6.50
STEEPLEJACK	ENG	8.95	JUMPING JACK	LIV	7.95	DEFENCE FORCE	TAN	6.99
LEGGIT	IMA	4.95	CHINA MINER	INT	5.99	RAT SPLAT	TAN	6.99
MAGIC WINDOW	OUI	7.99	REV OF MUT. CAMELS	LLA	6.75	ORIC CAD	TAN	8.99
COMPUTER WARGAMES	EMI	25.99	HOVER BOYVER	LLA	6.35	SPACE SHUTTLE	MDL	6.99
ZAXXON	DAT	23.99	KRYSTALS OF ZONG	PSS	6.99	LOKI	JOE	5.55
POPEYE	ATA	32.95	FALCON PATROL	VIR	5.99	THE HOBBIT	MEL	12.75
BBC			DRAGON			SPECTRUM		
CHUCKIE EGG	A&F	6.99	CHUCKIE EGG	A&F	6.99	JET SET WILLY	SPR	4.99
TWIN KINGDOM VALLEY	BUG	8.50	WINGS OF WAR	SAL	6.99	BLUE THUNDER	WIL	5.50
THE HOBBIT	MEL	12.75	GLAXXONS	MDL	6.99	FOOTBALL MANAGER	ADD	7.99
747 FLIGHT SIM	DOC	6.80	SPACE SHUTTLE	MDL	6.99	FIGHTER PILOT	DIG	6.95
MUSIC SYNTH	BUG	8.50	MAURICE MINOR	MOR	5.99	APOLLO II	DAR	4.99
VORTEX	SIN	6.75	PETTIGREWS DIARY	SHA	6.99	TRASHMAN	NEW	4.99
FELIX IN FACTORY	MIC	6.99	HUNGRY HORACE	MEL	5.50	SCUBA DIVE	DUR	4.95
HUNCHBACK	SUP	6.99	RING OF DARKNESS	WIN	8.95	CODENAME MAT	MMG	5.99
PLANETOLDS	ACO	8.95	TRANS TOWER	SHE	5.85	CHEQUERED FLAG	PSI	5.95
DAREDEVIL DENNIS	VIS	6.99	FLIGHT SIM	PSS	6.99	NIGHT GUNNER	DIG	5.99

MANIAC MAY OFFERS!! QUICKSHOT II JOYSTICK **£10.50** RRP £11.95 - TROJAN LIGHT PENS FOR SPECTRUM **£14.75** RRP £17.25
 KEMPSTON JOYSTICK INTERFACE FOR SPECTRUM **£12.95** RRP £14.95 - SHEEPDOG & NUMBER RALLY BY LONGMAN FOR BBC **£8.50** EACH
 RRP £9.95 - 1ST STEPS WITH MR MEN FOR SPECTRUM **£7.50** RRP £8.95 - THE QUILL BY GILSOFT FOR SPECTRUM. WRITE YOUR OWN MACHINE
 CODE ADVENTURES! **£12.50** RRP £14.95 - ORIC MON, ORIC CALC, ORIC FORTH BY TANSOFT **£12.75** EACH RRP £15.00 - THE HOBBIT FOR
 CBM/SPECTRUM **£12.50** RRP £14.95.

SEND ORDERS TO: **SOFT TOUCH, 8 CLARE DRIVE, THRAPSTON, NORTHANTS NN14 4TA.** PHONE: 08012 3404

Name
 Address
 I enclose Cheque/PO for £..... payable to Soft Touch

Please rush me
 1.
 2.
 3.
 4.
 VAT and postage included (Overseas please add £1)
 (NO MONEY BANKED UNTIL ORDER DESPATCHED
 PROVIDING CHEQUE CARD NO. QUOTED)
 HCW 60

MISSION 1

BECOME A SECRET AGENT

Mission Software's complete package on Project Volcano, is probably the most advanced Adventure Computer Game Package you have considered this year. It is not just for the dedicated game player but for those that want to get involved in Secret Codes - Messages, and the seamy-side of Di6 (British Intelligence) and the K.G.B.
 IT IS A MUST FOR THE SINCLAIR SPECTRUM 48K AND DRAGON 32 HOME COMPUTER OWNERS.
 When you receive your Adventure Game from Mission Software Limited, included in the package is your Passport to the international workings of the Secret Agents. Your personalised Passport will assist you in negotiating the K.G.B. network in the Soviet Block Countries and vital to the success of your mission.
 Command Headquarters will give you information that other Agents have recorded, together with their Communication Log, Mission Instructions, Secret Memos, Classified Diagram, Full Briefing Instructions and other Secret Data.
 IT'S UP TO YOU TO BREAK THE CODE AND BECOME A SUCCESSFUL SECRET AGENT.
 We rely upon our Agents to feed back information to make further projects interesting and complex, to tax your ability and to guarantee many hours of enjoyment.
 We believe Mission Software Limited is the only company that supports its Field Agents with a mass of Secret Information to make the Mission exciting and enjoyable which makes it a must in Computer Games.

- We know your friends will want to become Secret Agents and use your game, we will be quite happy to supply them with their Passport and Documents for £2.95 per kit. This way you always retain your personal Passport and Secret Information.
- The moment you tell us you have completed your current assignment we will advise by Secret Data, details of how to penetrate one of the World's most secret establishments.
- To obtain your Game and personal Passport with all its Secret Documents send a Cheque or Postal Order for £6.95 (inc. P.P. & V.A.T.) with the Coupon at the foot of this advertisement.

ORDER MISSION 1 TODAY AND JOIN THE GROWING NUMBER OF SECRET AGENTS OPERATING FROM COMMAND HEADQUARTERS.

£6.95

Inc. P.P. & V.A.T.

MISSION SOFTWARE LIMITED

COMMAND HEADQUARTERS - 1st FLOOR
 49 GRANGE ROAD - DARLINGTON - Co. DURHAM
 DL1 5NB - TELEPHONE (0325) 483344



NAME
 ADDRESS

PLEASE SEND ME MISSION 1 FOR MY
 (TICK AS APPLICABLE)
 DRAGON 32 ☐ SINCLAIR SPECTRUM 48K ☐
 EXTRA PASSPORT CODE-BREAKER £2.95 ☐
 I ENCLOSE MY TOTAL REMITTANCE OF £.....
 CHEQUES AND POSTAL ORDERS MADE PAYABLE TO
 MISSION SOFTWARE LIMITED

HCW60

MISSION SOFTWARE LIMITED - COMMAND HEADQUARTERS - 1st FLOOR - 49 GRANGE ROAD - DARLINGTON
 DURHAM DL1 5NB TEL (0325) 483344

My Secret File 32K BBC £9.95

Mosaic, 187 Upper St, London
NI 1RQ

Almost an exact replica of the Puffin book, written by John Astrop, with the same title. It is a database enabling the user to store secret information. With two secret codes to crack no one can sneak a look at your own file.

After the program has LOADED you are asked if you wish to LOAD previously saved data. If you do you can LOAD it, update, and then reSAVE it. It's that simple. On the other hand if you want to start a new file, before you have filled the previous one, about 400 or 500

entries have to be made. The file doesn't have to be filled before it can be SAVED, though. There are fifty pages to choose from, including My Vital Statistics, and Pocket Money which shows to whom it is aimed.

The complete package includes book, cassette and full instructions. I loved being secretive when I was a child, and if you do, or indeed your child does, then I think this program would get a lot of use in your household. **M.B.**

instructions	90%
ease of use	80%
display	70%
value for money	80%



Killer Watt CBM 64 £7.95

Alligata, 178 West St, Sheffield
S1 4ET

After a disappointing start, software available for the 64 has improved beyond all expectations. This program demonstrates the high quality becoming standard from some.

You control a spaceship and must explore a series of caves — inhabited by bizarre species — destroying light bulbs as you go. The maze is complex and, combined with the nasties, tests your reactions and delicacy of touch.

Graphically the game is of a high standard with caves scrolling from side to side. Single pixel scroll is nicely implemented

and movement is extremely smooth. Sprites design is good — I found the mechanical ducks particularly attractive. And sound is nice, the theme being Tocata and Fugue... well, nearly.

There are five skill levels and you can choose the number of protective shields on the spaceship.

A game of the highest quality which offers excellent value for money and is guaranteed to keep you twitching over the keyboard for many hours. Nice one, Alligata. **A.W.**

instructions	80%
playability	95%
graphics	95%
value for money	100%



BC BASIC CBM 64 £57

Kuma, 12 Horseshoe Pk, Horse-
shoe Rd, Pangbourne, Berks

BASIC 2 is adequate, but the CBM 64 offers no support for the superb graphics and sound and there are no commands for "structured" BASIC. BC BASIC, first on cassette and now in cartridge, attempts to cure this.

It offers a mind-boggling range of commands — I have no intention of describing each. The quality is variable. Commands for sound, sprites and structured BASIC are notable, high resolution commands effective if not over-complex. The "machine code" aids are a joke. Apart from block save and DEEK and DOKE, they are of limited use. A machine code monitor would have been a better option.

Overall, the package functioned well, although I noticed the system had been somehow tweaked. A warm reset (SYS 64738) wouldn't work and my own monitor could not be used with the cassette in place (and it lives at \$1000!)

An improvement on Simon's BASIC, but also ill thought-out. The author appears to have tried to cram in as much as possible rather than keep a balance. A good product, if you use BASIC only, but too highly priced.

instructions	90%
ease of use	75%
graphics	N/A
value for money	60%



Useful... and fun

Reviews of utilities — and a
couple of programs for
amusement. Our team tells
you if they're worth the
money

Bel Graph 32K BBC £14.89

Bel Tech, Stanmore Industrial
Estate, Bridgenorth WV15 5HP

A flexible graph drawing program meant for serious educational or business uses. There are many options including line graphs, barcharts, histograms, pie charts besides fairly comprehensive function plotting routines. The program can accept and store up to four sets of data of which one can be time related and plotted accordingly.

The data can be entered from the keyboard, from a previously stored file or even generated by the function you specify. This gives you a great range of options which are very valuable. Each set of data can have up to

52 values. The ability to label each set of data is useful. There is also an Epson screen dump, on the disc version at least, which produces very pleasant results. There are some problems however. One causes the data to be badly formatted, overlapping in places, and the other prevented me from plotting a line graph at all — giving an error message every time. I haven't yet had time to send in the user registration and give them my problems. Disc version £16.45.

D.C.

instructions	70%
ease of use	85%
graphics	90%
value for money	60%



Microtext 48K Oric/ Atmos £15

Microplot, 19 The Earls Croit,
Cheylesmore, Coventry CV3 5ES

Microtext is described as an easy to use text and data processing package. It never actually says it is a wordprocessor or a database. I'm not surprised...

When LOADED, the first thing that happened was "UDEF'D STATEMENT ERROR AT 20". A GOSUB statement to a non-existent line. I had to LOAD the program at slow speed. I typed in a few sentences to realise that it was in overwrite mode so I went into insert mode — which all decent wordprocessors default to — and tried to type again.

Being mostly in BASIC, if you try to insert a letter at the beginning, you have to wait a couple of seconds for the program to adjust all the letters. That's just for one letter and, just to put you off, it pings every time! I then tried replace and search. Up came a Syntax Error. I typed CTRL-D by mistake. Syntax Error. On many occasions, I lost a whole text for no apparent reason. Hmmm...

There is a distinct lack of serious software for the Oric but I'm surprised any software house has the nerve to market a program of this quality. Avoid like the plague. **S.S.**

instructions	50%
ease of use	10%
display	10%
value for money	0%



Picture Book Oric £4.95

Softbacks, PO Box 257, Watford
WD1 3LQ

Very young children can build up pictures by typing in the names of familiar objects and seeing them appear "by magic". From the child's point of view, Picture Book is an exciting new way of making pictures rather than a spelling practice. This is important as it puts skills of writing and spelling on the right perspective. Or at least, that's the idea behind this program.

Technically, this program is very good compared with other educational, usually written by teachers who know the subject but do not know how to

program. Oric graphics are used well and it is well fool-proofed. There is facility to SAVE and LOAD pictures created using this program.

I do agree that writing and spelling are simple means of enabling the child to do something he or she wants, as the inlay card says. But whether a child who is still learning to spell words such as "TOY" is capable of LOADING this program and using the QWERTY keyboard is another matter. S.S.

instructions	100%
ease of use	90%
display	90%
value for money	90%



Reading Aid 2 48K Spectrum £17.19

James Nisbet & Co. Digwell Pl,
Welwyn, Herts

This second in the series of features of introductory SCREENS with identical, and equally abysmal, screen presentation.

Because you can read, you probably aren't aware how complex it is. If your child has problems, it can be frustrating to try to help because you don't understand why they can't do it properly. This may help by outlining some clues we use when reading.

Although we were taught to "sound the letters" we don't now because we use clues to read quickly. Many children find this a difficult process and this series

will help diagnose which clues are causing problems. Some clues are others are not.

No, it's not a mistake, just an example of the "cloze" technique used. Can you supply the missing word. As in Aid 1, the child types a response and, if correct, it floats into position. No fuss is made of incorrect responses. They are recorded to be printed out by an adult.

Among the items dealt with: word forms, rhyme clues, anticipation, similar consonant blends and endings. Sadly, price and unimaginative presentation make this less than a best buy. D.M.

instructions	100%
ease of use	80%
display	10%
value for money	35%



Computer Studies 48K Spectrum £8.95

Scisoft, 5 Minster Gdns, New-
thorpe, Eastwood, Notts

A well packaged, impressively documented suite of programs designed for students of 13-plus and aimed at O-level and CSE computer studies.

It features flowcharts, CESIL (an introduction to machine language), logic gates, truth tables, Karnaugh maps, bases and a logic processor. Each is graphically illustrated and accompanied by enough BEEPs to drive you mad if your Spectrum is amplified!

None of the programs can actually teach its subject, though the manual helps. It will, however, show up areas in which you are weak and give pointers. In effect you are asked to respond to prompts and the computer will draw the flowchart, print the truth table, calculate the number in base 96 or show the logic system you've designed.

Perhaps the most valuable feature is the built-in revision advice which considers how long you have until your exam and tailors suitable revision for you. Add to that a built-in mock exam, complete with grade estimator, and you have a really first class Dutch uncle.

A useful package, but some sections are difficult to load and there is still some poor error trapping of user input. D.M.

instructions	90%
ease of use	80%
display	95%
value for money	90%



What will they learn from these?

Your computer as a teacher.
Our experts explain how these
five measured up

Story Book Oric £4.95

Softbacks, PO Box 257, Watford
WD1 3LQ

The inlay card describes this as a challenging game that develops reading skills.

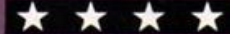
When the program is run it displays various options. If the child chooses option 1 — recreate story — at this point, a story will be displayed except that all the letters are replaced by underscore characters. The child must guess the words to the story. If he/she gets totally stuck, the word can be revealed by pressing "?". When the whole story has been guessed and the help facility has not been over-used, a tune will be played in three-part harmony! The

program has facilities to create stories and SAVE for later use. Obviously, the parent can type in a proverb or a story and SAVE it on cassette.

Technically, this program is well written, fool-proofed and has many useful options. If a story is long, the only clue is the punctuation and the game becomes rather like a wild guessing game. But it is fun to play and a child could learn a proverb or two.

It's better than a lot of the supposedly educational software available for the Oric today. S.S.

instructions	100%
ease of use	80%
display	80%
value for money	75%



Reading Aid 1 49K Spectrum £17.19

James Nisbet & Co. Digwell Pl,
Welwyn, Herts

Designed to identify specific reading problems — reversing letters and substituting one word for another — this sombre-looking double tape package of eight programs seems to be aimed at teachers rather than parents.

Comprehensive notes for the "teacher/supervisor" detail the sentences used and the options, including the facility to print and analyse the user's problem. Brief mention is made of the need to talk to the user about the responses.

Basically, sentences are shown with gaps and the child types in one of the two options. Input is fully error-trapped and, if the word is correct, it winds its way into the gap with BEEPs. An incorrect response falls through and the user is expected to try again.

I'm not a great believer in dressing up all educational programs as space games, but I do feel attractive screens are important. This is about as attractive as a tax return and, for parents, of questionable use. There's not much point in diagnosing what a problem is if you don't know how to cure it. The programs won't do that and, at this price, a school would have to be well-off to consider it. D.M.

instructions	100%
ease of use	80%
display	10%
value for money	40%



NEW

READY FOR THE FLAT SEASON

COURSEWINNER

THE PUNTERS COMPUTER PROGRAM

COURSEWINNER allows you to use the power of your computer to get the edge on the bookmaker. The program contains a database full of detailed information on all English and Scottish flat courses. The ten leading trainers and jockeys, and effect of the draw for different weight carried and race length is detailed for each course. This information can be displayed on the screen for reference at any time.

COURSEWINNER can be used in two modes — quick mode requires only the starting price and results of the last three outings (as found in any newspaper) for each runner. Extended mode allows detailed analysis of the following factors:

- Recent form and starting price
- Trainer and jockey form for the course
- Weight carried and Race length
- Effect of the draw and of the going

★ Also included in the package is a utility which calculates the returns on any single or accumulator bet, win or place, tax paid and deducted.

Available for: SPECTRUM (48K), BBC (B), COMMODORE 64, DRAGON, APPLE II/IIe, ATARI (48K)

Price £12.50 all inclusive

POOLSWINNER

THE ULTIMATE POOLS PREDICTION PROGRAM

POOLSWINNER is the most sophisticated pools prediction aid ever produced. It comes complete with its own massive database.

Fully menu driven. Simple to use, yet very powerful.

Predicts SCOREDRAWS, DRAWS, AWAYS and HOMES.

Selec Software guarantee that POOLSWINNER performs significantly better than chance. Your prospects of dividends, and perhaps a jackpot are greatly enhanced.

POOLSWINNER automatically calculates the league tables as the season progresses. The tables for any division can be displayed for reference at any time.

THE DATABASE supplied with the package is the largest available — over 20000 matches (10 years league football). The database automatically updates as results come in, allowing the program to adapt to recent changes in patterns.

POOLSWINNER is for use with English and Scottish league matches, or cup matches between league sides. The program can be used for all future seasons.

The package is complete with program, 20000 match database, and detailed instruction booklet.

Available for: SPECTRUM (48K), ZX81 (16K), BBC (B), COMMODORE 64, DRAGON, APPLE II/IIe, ATARI (48K)

Price £15.00 all inclusive

Immediate dispatch (return of post)



SELEC SOFTWARE

37 COUNCILLOR LANE, CHEADLE, CHESHIRE
061-428 7425



Are you spending more time loading your computer — than using it?



The Challenge Research Dedicated Cassette Machine makes light work of the heaviest loads.

Saving a program, or loading your computer, with an ordinary domestic cassette recorder can be a haphazard, time consuming and frustrating business.

Not so, however, with the Challenge Research 836. Fully compatible with most home computers, this machine ensures successful, trouble free loading every time.

To ensure complete reliability and compatibility we individually test and align each machine before despatch.

Operation is simplicity itself — there's no need to disconnect any leads to load or save — even on the ZX81 or Spectrum. Special features include: output level LED's, DIN socket, and a tape counter, and for sound enhancement we offer a beep-amp option.

The price is just £32.20 inclusive of VAT, post, packing and a 12 month guarantee. (£36.95 with the beep-amp option.)

Please allow 14 days for delivery. If you are not delighted with your Challenge 836 simply return it within 7 days and we will refund your money in full.

Compatible with Sinclair ZX81; Spectrum, Dragon, BBC A or B, ORIC, Electron and LYNX.

CHALLENGE RESEARCH

A DIVISION OF A.E. HEADEN LTD.

218, High Street, Potters Bar, Herts EN6 5BJ. Tel: Potters Bar 44063.

To: CHALLENGE RESEARCH, 218 High Street, Potters Bar, Herts EN6 5BJ.

Please supply 1 Challenge 836 — (please tick appropriate box)

without beep-amp option at £32.20 (incl. post & packing)

with beep amp option at £36.95

My Home Computer is a

Name (please print)

Address

I enclose cheque/postal order made payable to Challenge Research for £

Please debit my Access/Barclaycard no. (delete as appropriate)

HCW 1/5

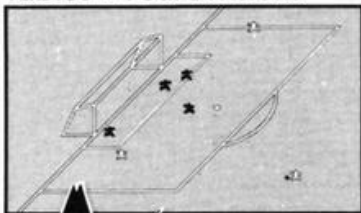
The No.1* Football Game

Football Manager

Designed by Kevin Toms

Some of the features of the game:

- ★ Matches in 3D graphics
- ★ Transfer market ★ Promotion and relegation ★ F.A. Cup matches ★ Injury problems ★ Full league tables ★ Four Divisions



- ★ Pick your own team for each match. ★ As many seasons as you like ★ Managerial rating ★ 7 skill levels ★ Save game facility.

* ZX81 Chart

Home Computing Weekly
1.8.83 and 1.11.83.

Addictive

Comments about the game from press and our customers.

"FOOTBALL MANAGER is the best game I have yet seen on the Spectrum and my personal favourite of all the games on any micro... To the ordinary person it is an excellent view of what can be done in the field of computer games. The crowning glory of this game is the short set pieces of match highlights which show little stick men running around a pitch, shooting, defending and scoring... It is a compulsive game but people who cannot take game sessions of 9 hours or so, which happened on one happy Sunday, will be grateful to know that there is a 'save to tape' option. FOOTBALL MANAGER has everything it could... The originator, Addictive Games, certainly deserve the name." Rating: 19/20 (Practical Computing — August 1983)

From software stockists nationwide, inc.

Prices: Spectrum 48K £6.95

ZX81 16K £5.95

(IN 8.30 GRAPHICS ARE NOT INCLUDED IN THE ZX81 VERSION)

Overseas orders add £1.50

To order by mail (p&hp free) send cheques or postal orders to:

Addictive Games

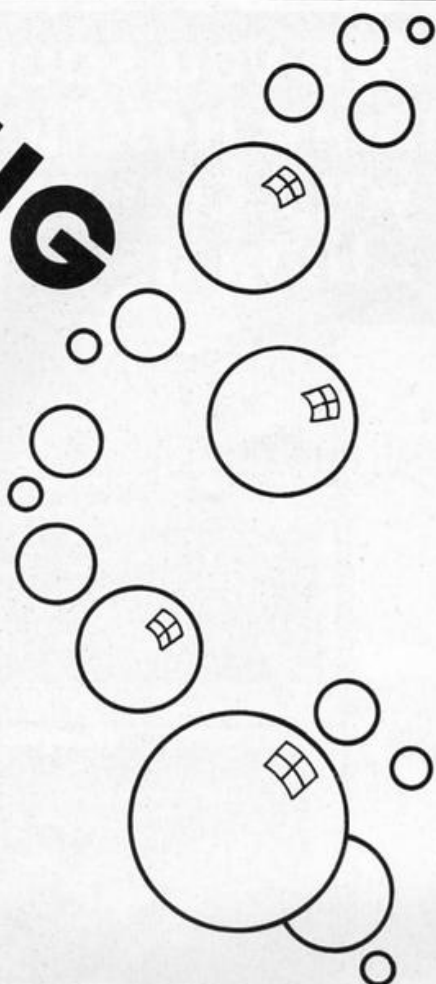
7A RICHMOND HILL

BOURNEMOUTH BH2 6HE

Dealers! For urgent stocks send your headed notepaper direct to our address.

John Menzies

GLUG



FOR ALL THE FAMILY
Games from the Gods
EDUCATIONAL

FOR UPTO 4 PLAYERS

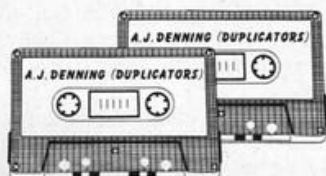


FOR UPTO 4 PLAYERS

QUIZ
GEOGRAPHY
FOR ANY 48K ZX SPECTRUM

£5.95

DISTRIBUTORS / DEALERS ENQUIRIES WELCOME
TELEPHONE: 051-263-8521/2



A.J. DENNING
(DUPLICATORS)

QUALITY CONTROLLED CASSETTE DUPLICATING
QUALITY & SERVICE AT COMPETITIVE RATES

QUALITY

Constant Stringent checks Made Throughout
Production.

SERVICE

Despatched Normally Within 10 Days From Receipt
Of Master.

PRICE

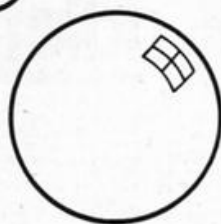
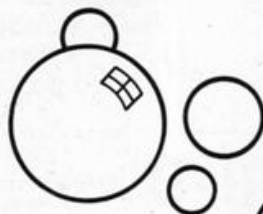
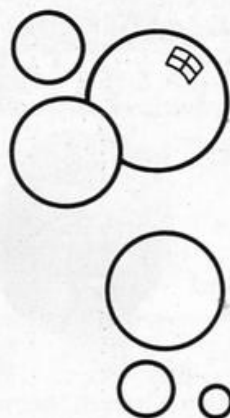
C10 From 28p Including Case.
C15 From 31p Including Case.

CONTACT US NOW FOR YOUR PERSONAL QUOTATION.

A.J. DENNING (DUPLICATORS)

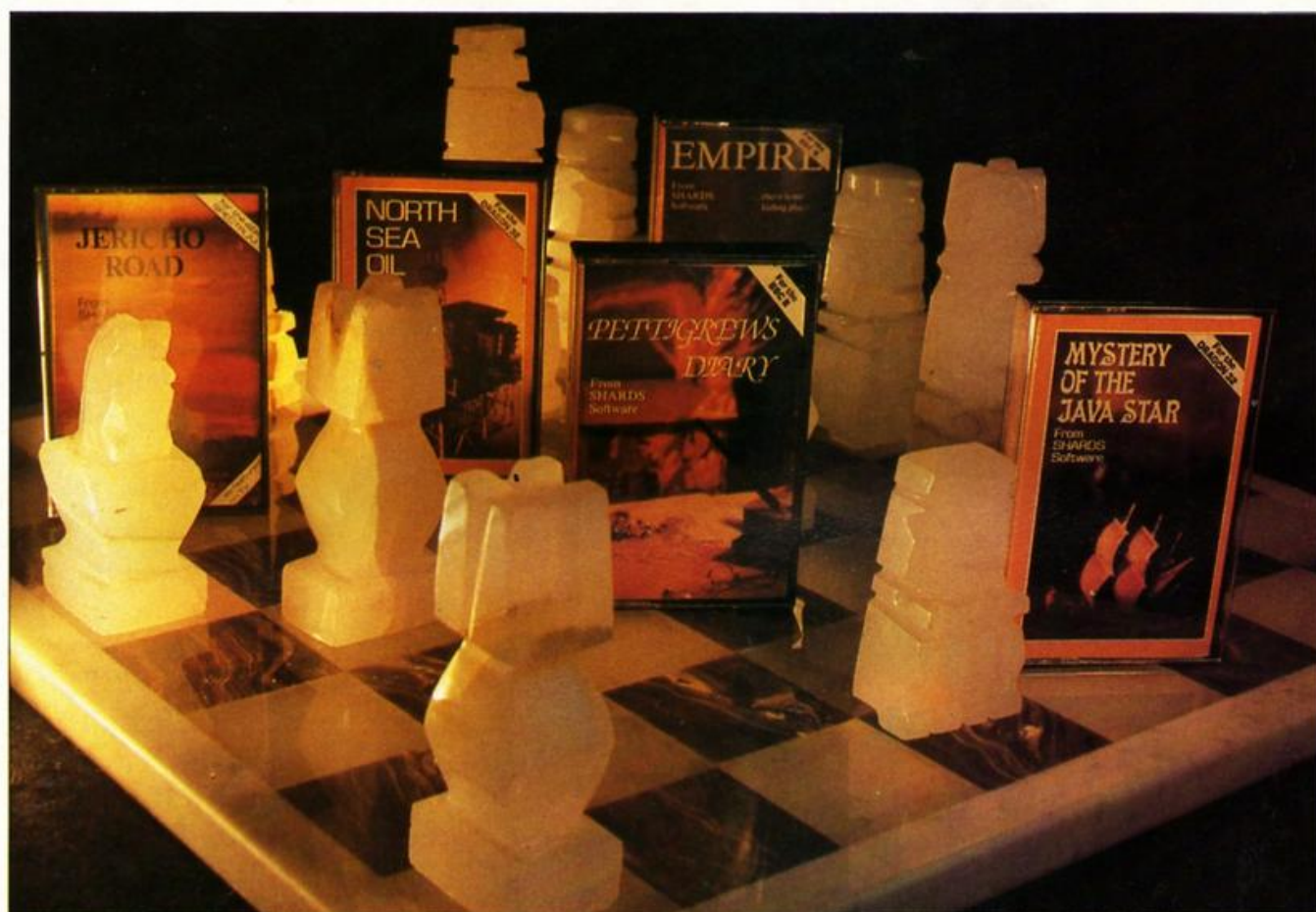
19 The Crescent,
Henleaze,
Bristol.
BS9 4RW Tel (0272) 623267

GLUG



CRL Plumbs the depths

MIND GAMES



PETTIGREWS DIARY £7.95 (Dragon, BBC, Electron)

Three Part 90K adventure taking you from the serene Oxfordshire countryside through bustling London streets, to an epic journey through Europe. Superb family entertainment filled with intrigue, action and suspense. "Pride of place for the most original and entertaining Adventure — it's got to be value for money" *Computer and Video Games* (adventure supplement).

EMPIRE £6.95 (Dragon, BBC, Electron)

Exciting game of strategy with eight levels of difficulty. Destroy the evil Empire before it conquers the world — Played on a world map.
"This is a terrific game — visually attractive and highly addictive" *Home Computing Weekly*.

MYSTERY OF THE JAVA STAR £7.95 (Dragon, BBC, Electron)

Enormous four part adventure with 3 playing levels. Mount an expedition to the South Seas to discover the secrets of the 18th century shipwreck. Absorbing family fun with puzzles, challenges and interesting facts.

NORTH SEA OIL £5.75 (Dragon)

Equip and run your own North Sea Oil rig — allocate your resources, then navigate your supply vehicle, supervise drilling operations, and operate the platform until you have collected 100 million dollars.

JERICHO ROAD £5.75 (Spectrum 48K)

A challenging adventure set in biblical times with two levels of play. Set in Southern Israel in the 1st century, the player must survive the vigours of Roman occupation and cope with the perils of religious persecution. Ideal family entertainment.

DEALERS! Phone us now
on 01-514 4871 for our
comprehensive catalogue

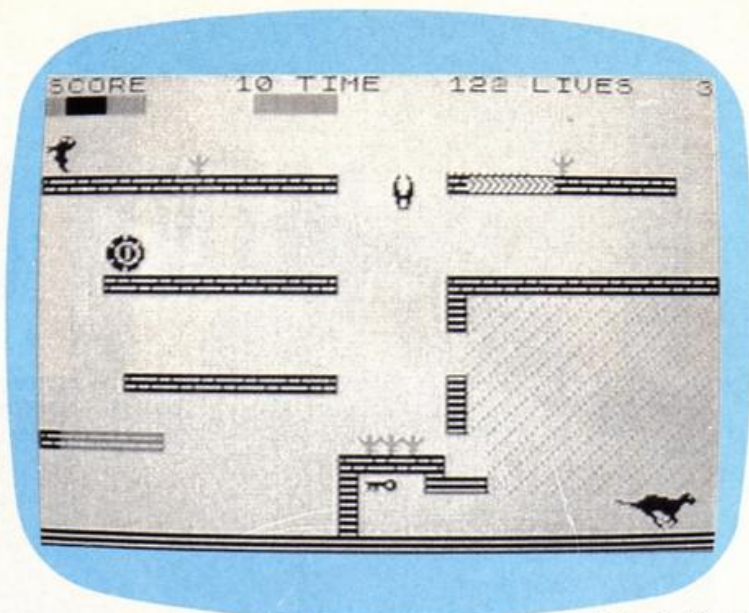
SHARDS
Software

AVAILABLE NOW AT ALL GOOD STOCKISTS (Selected titles available at W H Smith and larger branches of Boots) or by MAIL ORDER (send cheque/PO) from SHARDS SOFTWARE, 189 Eton Road, Ilford, Essex IG1 2UQ, or telephone through your Access/Visa order to 01-514 4871.

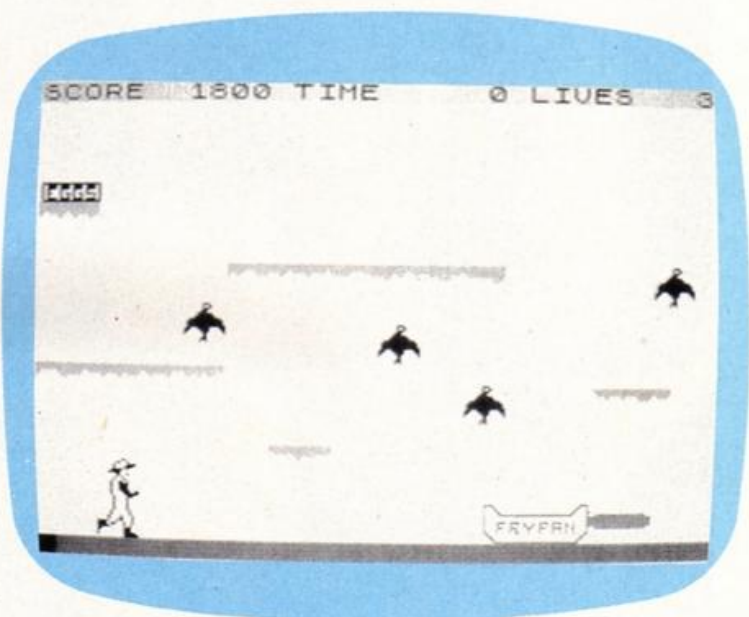
BEAT THIS AND WIN £3000



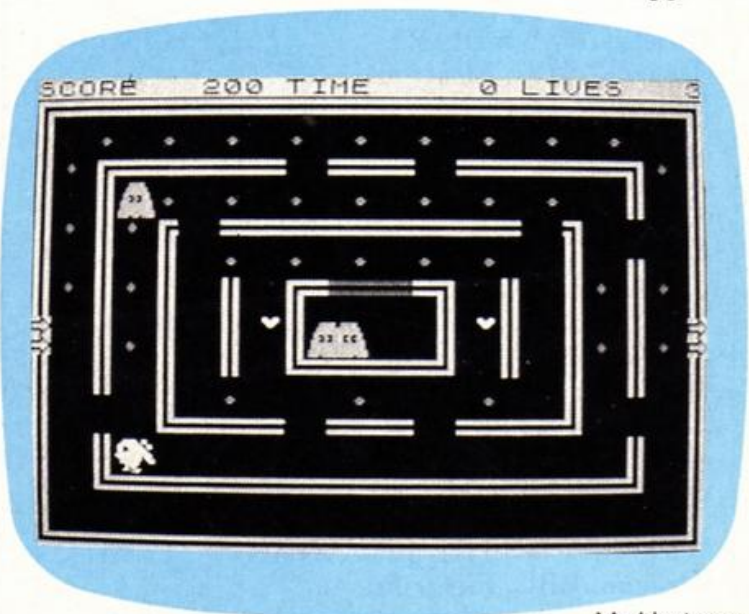
All games above were
designed and created
using 48K Spectrum
H.U.R.G.



Manic Koala



Egg Pack



Ms Hortense

MELBOURNE

The H.U.R.G. competition offers you over £3,000 of prizes for your game designs without the need of any programming knowledge! Only H.U.R.G. gives you the chance to earn royalties from programs based on your ideas — it's the easiest way to join the software revolution without having to learn how to program!

But you will have to hurry to win the £3,000 prize as the competition closes on April 30, 1984. It's so easy you owe it to yourself to enter your game ideas. Games will be judged on the basis of originality, graphics and playability. Further details are available with every copy of H.U.R.G.

Whether you want to share your game ideas with the world at large or just with your friends and family, H.U.R.G. is the game design program for you. At last, the games you imagine can be the games you play!

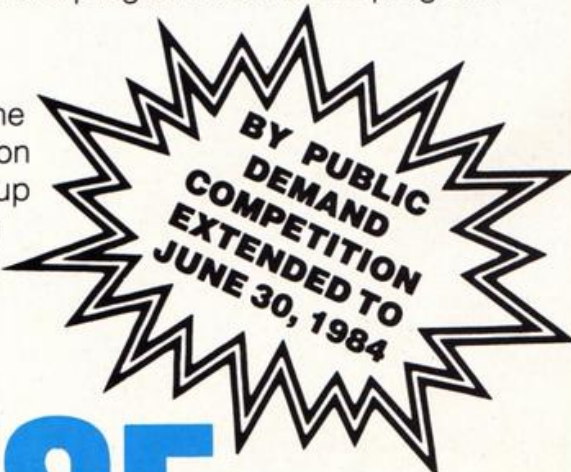
HIGH LEVEL — requires no programming skills — simply design the shapes you want, and H.U.R.G. will animate them into the most amazing on-screen action you've ever seen. Choose any setting for your game, from mazes to outer space or sinister caverns — the only limit is your imagination.

USER FRIENDLY — H.U.R.G. will lead you through a series of easy-to-follow procedures, ending in the creation of a game that is as wild as your imagination.

REAL TIME — You can see exactly what you're creating at all times. Every game has hundreds of variations, and you can change its features at any time. You can speed up the action, change the size of the characters and even make them more vicious — it's all up to you; and you can see it all on-screen immediately.

GAMES DESIGNER — H.U.R.G. enables you to design and store the games you create on cassette and play them later using H.U.R.G. as the control program. It's the one program you will never tire of.

Now you can create all the stunning arcade effects on your 48K Spectrum that up until now have only been available to professional software houses.



HOUSE

Orders to:
Melbourne House Publishers
131 Trafalgar Road
Greenwich, London SE10

Correspondence to:
 Church Yard
 Tring
 Hertfordshire HP23 5LU

All Melbourne House cassette software is unconditionally guaranteed against malfunction.

Trade enquiries welcome.

☐ Please send me your free 52 page catalogue.
 Please send me:

SPECTRUM

<input type="checkbox"/> Spectrum The Hobbit 48K	£14.95
<input type="checkbox"/> Spectrum Penetrator 48K	£6.95
<input type="checkbox"/> Terror-Daktil 4D 48K	£6.95
<input type="checkbox"/> Melbourne Draw 48K	£8.95
<input type="checkbox"/> H.U.R.G. 48K	£14.95
<input type="checkbox"/> Abersoft Forth 48K	£14.95
<input type="checkbox"/> Spectrum Classic Adventure 48K	£6.95
<input type="checkbox"/> Spectrum Mugsy 48K	£6.95

COMMODORE 64

Software

<input type="checkbox"/> Commodore 64 The Hobbit	£14.95
<input type="checkbox"/> Commodore 64 Hungry Horace	£5.95
<input type="checkbox"/> Commodore 64 Horace Goes Skiing	£5.95
<input type="checkbox"/> ACOS+	£8.95
<input type="checkbox"/> Commodore 64 Classic Adventure	£6.95
<input type="checkbox"/> Commodore 64 Star Trooper	£6.95

VIC 20

<input type="checkbox"/> VIC Cosmonauts	£5.95
<input type="checkbox"/> The Wizard & Princess	£5.95

ORIC-1

<input type="checkbox"/> Oric-1/48K The Hobbit	£14.95
--	--------

BBC

<input type="checkbox"/> BBC Model B The Hobbit	£14.95
---	--------

All versions of "The Hobbit" are identical with regard to the adventure program. Due to memory limitations, BBC cassette version does not include graphics.

£
 Please add 80p for post & pack £**80**
 TOTAL £

I enclose my ☐ cheque
☐ money order for £

Please debit my Access card No

Expiry Date

Signature

Name

Address

Postcode

Access orders can be
 telephoned through on our
 24-hour ansafone (01) 858 7397.

PCN1/4



Guttong Gotton Sord M5 £23.95

Computer Games, Goldings Hill, Loughton, Essex IG10 2RR

You play the part of a railroad builder. First you have to lay tracks to the station and then drive the train through the stations.

The screen is divided into 24 blocks, one of which is empty, exactly like sliding block puzzles, popular some years back. Each block has a track on it and you have to move them so that the train, which is moving continuously, won't go into a dead end. It's no good simply keeping the train running as you have to collect all the passengers at the stations, located at the

edge of the screen, to go on to the next screen. There are enemy trains which try to crash into you but, but by manipulating the tracks, you can make them crash into each other.

The graphics are very nice and sounds very impressive. The game has some jolly tunes and the overall presentation is excellent. If you want a mind stimulating game which also has the addictive quality of a real time arcade game, buy this. It is great fun to play and is refreshingly different. S.S.

instructions	90%
playability	90%
graphics	90%
value for money	90%



Step Up Sord M5 £23.95

Computer Games, Goldings Hill, Loughton, Essex IG10 2RR

The instructions explain that you have to climb 10 flights of stairs, jump over the obstacles or evade them with your barrier, get to the top and escape with the friendly UFO before your energy runs out. You control a cute little figure and make him climb stairs. With a quick push on the left edge of the attack button, you can make him jump, or the right edge to make him invincible for a few seconds.

Even on the first screen, there is a huge number of nasties, including spiders, mice, spider's webs and monsters wandering around and, at first, it can be

frustrating as you lose your three lives in a matter of seconds. But if you persevere, you will eventually get to the top to get rescued by the UFO, then there's the next screen where there's even more spiders, mice, monsters...

The characters are well defined and animation is good. However, the sprite feature is not used to its fullest. In fact, some characters aren't even sprites, but hardened arcade players could do worse than buying this highly original game. S.S.

instructions	80%
playability	70%
graphics	70%
value for money	80%



Backgammon TI-99/4A £7

Not Polyoptics, from Stainless, 10 Alstone Rd, Stockport, Cheshire

This opportunity to challenge the TI was greeted enthusiastically by our household, but we were soon to be disappointed.

The program contains options to either play against the computer or another player. During the first attempt at the one player game, while the computer was considering its second move, the program crashed with a Bad Value in 2010.

The second game I managed to win, but at its end the board disappeared and I was informed my score was now one, meaning I had won one game. Scoring in the original game is done on a points system, the most being awarded for a backgammon. Omitting this seems very strange, particularly as the program includes an option to double.

On my third attempt everything was just going well when the display partially scrolled off the screen and the program locked. This couldn't be cleared, so I had to quit and re-load.

Fortunately, several subsequent games passed uneventfully, but the computer proved to be a fairly pedestrian and not altogether intelligent opponent. In view of the limited memory available, the program overall seems reasonable, but has little to offer an experienced player. Needs Extended BASIC.

J.W.

instructions	60%
playability	50%
graphics	50%
value for money	80%



For the fun of it...

Build a railway, play
backgammon... two games in
this collection tested by our
review panel

Shakey/ Barrier Attack Sord M5 £8.95

Computer Games, Goldings Hill, Loughton, Essex IG10 2RR

Snakey is a typical snake game where you control a hungry snake that feeds on frogs whilst avoiding rocks and the electrified fence. Also, as Snakey grows he restricts his own movement. The snake is very colourful, movement is fast and key response is good. In the tiny memory of the standard M5, it even has a joystick option and difficulty levels.

The second game is rather disappointing in comparison. The blurb says that in the year 4501, the uneasy cosmic peace is about to be shattered by barbarians, the uncouth warriors

of the dreaded Oasys Squadron. You, as the commander of the 17th zone Defence Battalion, must prevent them from destroying your ship and over-running your section of the galaxy, and so on. Sounds incredibly exciting doesn't it? Well, it's a simple vertical scrolling game. Your ship at the top of the screen can be moved left and right. By pressing 1 or the attack button, you can clear a path. Graphics are simple and sound is boring.

To conclude, not a bad package, second game could have been better. S.S.

instructions	95%
playability	60%
graphics	60%
value for money	70%



Quasimodo/ Q Bono TI-99/4A £8

Stainless, 10 Alstone Rd, Stockport, Cheshire

Here's two Extended BASIC games for the high scorers among us. Each is loaded separately. Quasimodo requires the use of a joystick, but Q is for keyboard only.

In Quasimodo you have five lives with which to survive as many screens as you can — ringing bells all the way! The purpose is to rescue damsels in distress. On each of several screens you run and jump along a brick wall. Hazards to avoid are combinations of arrows, cannonballs and holes in the wall. Points are scored for ringing a bell or rescuing a maiden.

Q Bono is a simple yet addictive game. Your man starts at the top of a pyramid of cubes. Using four arrow keys to control his diagonal movements he must travel across all the cubes which changes their colour to cyan. He is pursued by a snake which will take one of his lives if both land on the same cube together. After the first screen each cube must be visited twice. In subsequent screens this number increases. If you've a black and white TV, numbers can be shown on the cubes to indicate colour changes.

J.W.

instructions	80%
playability	80%
graphics	75%
value for money	100%



TI-99/4A PROGRAMS

FLIGHT SIMULATION PROGRAMS IN TI BASIC



£7.00
WINGING IT
5 star review!



HANG GLIDER PILOT £8

5 star review!
Available also in EXTENDED BASIC
Please state language when ordering.



DEFEND THE CITIES
Extended Basic £9.00
For Mini Memory £11.00



ALSO AVAILABLE: GREAT FIVE STAR PROGRAMS SUCH AS:

GOLF £8.00 "Probably the best golf game I have ever seen on a computer". For 1 player. TIBASIC.

KONG £5.00 "I found this game to be quite enjoyable and relaxing to play". Onscreen. TIBASIC

PLANET DESTROYER £6.00 Straight 90% for ease of use in the HCW review. Plumb the depths of the alien planet and avoid alien missiles. TIBASIC

QUICKER QWERTY £9.00 An aid to touch typing. 90% for ease of use. Teach your fingers to hit the RIGHT keys!

For details of these and about 80 other programs please send a large SAE to

STAINLESS SOFTWARE

10 Alstone Road, STOCKPORT, Cheshire, SK4 5AH
UK MAIL ORDER ONLY. PRICES INCLUDE VAT & P&P.

PRICE BUSTER!

£3.95 EACH

THAT'S ALL YOU PAY
FOR THE UNEXPANDED VIC-20

THE BIG 2

BOUNTY HUNTER & GOTCHA
(BY JASON SLATER)

& 2 GAMES FOR THE PRICE OF ONE
MANIA! & CRISS CROSS CRAS.S.H

FOR THE COMMODORE 64
Spritey Graphics Utility

COMING SOON!

HOCUS POCUS

METEOR STORM

S.A.S. ATTACK

MICROMICON Software

53 WARRENSWAY

WOODSIDE TELFORD

SHROPSHIRE TF7 5QD

Cheques/POs payable to the above

Tel: 588073

MAY 1984

ARMED SPECIALIST PUBLICATIONS

MILITARY MODELLING

Computerised Wargaming
Starting Out
Build Challenger
Full Plans Inside

Make a Model of General Jackson
Battlefield Buildings How to do it

COMPUTER WARGAMES!

Are you ready for the challenge of real wargaming? Get Military Modelling magazine and find out how your micro can lead you into a whole new world of combat.

AT YOUR NEWSAGENT NOW!

[illegible]

Here's a treat for you — two games that you emerge wearing. Pyramid? And the deadly attack Spikef



keys e... ne sh to

For owners
type in. Will
thy from the
an you avoid
ntions of the
sh?



```

390 IFK$=CHR$(11)AND SCRN(X,Y-1)<106 THEN Y=Y-1
400 IFY=7THEN GOSUB 2000
410 IFX<=1 THEN X=2
420 PLOTX,Y,"h"
430 PLOTMX,MY," "
450 IFMY<Y AND SCRN(MX,MY+1)<106THEN MY=MY+1:GOTO510
460 IFMX<X AND SCRN(MX+1,MY)<106THEN MX=MX+1:GOTO490
470 IFMY>Y AND SCRN(MX,MY-1)<106THEN MY=MY-1:GOTO490
480 IFMX>X AND SCRN(MX-1,MY)<106THEN MX=MX-1
490 IFMX<=1 THEN MX=2
510 PLOTMX,MY,"!"
520 IFSCRN(X,Y)=33 THEN 1900
530 GOTO312
1800 PLOTX,Y,"m":GOSUB2200
1810 LI=LI-1:IFLI<=0THEN 2100
1820 CLS:PLOT9,13,"YOUR BONUS HAS RUN OUT":WAIT50
1830 PLOT11,15,N$:WAIT90
1835 GOSUB2600
1840 GOTO45
1900 PLOTX,Y,"m":GOSUB2200
1910 LI=LI-1:IFLI<=0THEN 2100
1920 CLS:PLOT9,13,"THE MONSTER GOT YOU":WAIT50
1930 PLOT11,15,N$:WAIT90
1935 GOSUB2600
1940 GOTO45
2000 IFD<=0 THEN 2020
2010 Y=8:RETURN
2020 IF LI<5 THEN LI=LI+1
2030 L=L+1:SC=SC+B0:GOSUB 2600
2035 CLS
2040 PLOT9,13,CHR$(142)+" CONGRATULATIONS"
2050 PLOT9,14,CHR$(142)+" CONGRATULATIONS"
2060 PRINT:PRINT"YOU HAVE GOT "L" PARTS OF THE LEBASI"
:PRINT
2070 PRINTSPC(14)"TREASURE":WAIT200
2080 PRINT:PRINTSPC(11)N$:WAIT100
2090 GOTO45
2100 CLS
2105 PRINT"YOU HAVE NO MORE LIVES LEFT":PRINT
2110 PRINT"YOUR SCORE IS "SC:PRINT
2120 PRINT"YOU HAVE "L" PART(S) OF THE LEBASI TREASURE
"
2130 PRINT:PRINT"GET READY FOR ANOTHER GAME"
2140 WAIT 2000:GOTO 27
2200 FORT=12 TO 1 STEP-1:WAIT10
2230 MUSIC1,6,T,10
2240 NEXTT:PING
2250 WAIT100
2260 RETURN
2600 IF SC>8000 THEN D=5 ELSE D=4
2610 IF SC>16000 THEN D=6
2620 IF SC>24000 THEN D=7
2630 RETURN
2990 REM GRAPHICS + VARIABLES
3000 FORT=46344 TO 46351:READG:POKET,G:NEXTT
3010 FORT=46376 TO 46391:READG:POKET,G:NEXTT
3020 FORT=46912 TO 46919:READG:POKET,G:NEXTT
3030 FORT=46920 TO 46927:READG:POKET,G:NEXTT
3040 FORT=46928 TO 46935:READG:POKET,G:NEXTT
3050 FORT=46936 TO 46943:READG:POKET,G:NEXTT
3060 FORT=46944 TO 46951:READG:POKET,G:NEXTT
3070 FORT=46952 TO 46959:READG:POKET,G:NEXTT
3100 DATA 20,42,8,20,28,28,34,34
3110 DATA 0,1,3,15,30,60,62,63,0,0,32,56,60,62,62,62

```


Pyramid by Sean Rogers

You have just had the misfortune of being transported to the inside of a pyramid from which there seems to be no escape.

How it works

10-27 set colour, turn off caps, cursor and key-click, reset DATA pointer
30-40 branch to user-defined graphics and instructions
45 sets variables
47-317 set up screen
318-420 move you around screen, check for keys, plot you on screen
430-530 move monster and check if you have been killed
1800-1940 routine for when bonus runs out and for when the monster gets you
2000-2090 check if you have enough keys if you make it to the top
2100-2140 message when all lives lost
2200-2260 music
2600-2630 routine to see how many keys are needed
3000-3170 user-defined graphics
3180-3190 more variables
3540-3630 instructions

You must run around and collect the required number of keys and then make your way to the top to get a part of the Lebasi treasure.

Do this as fast as possible and you'll get a good bonus.

By the way, watch out for the monster!

Main variables

X,Y your position
BO bonus
LI lives
SC score
MX,MY monster's position

Movement is by the cursor keys.

The pyramid might look a bit like a Christmas tree, but I needed the space.

When your bonus drops below 1,000 the fourth digit will stay at 0 and so on. This will make it harder to notice when your bonus is low.

Hints on conversion

PLOT in Oric BASIC is the same as PRINT AT. The Oric uses an 8 x 6 grid for user-defined graphics compared with the 8 x 8 of most other computers.

```
3120 DATA 12,18,12,15,12,20,34,51
3130 DATA 2,10,14,10,2,2,7,7
3140 DATA 63,63,63,63,63,63,63,63
3150 DATA 32,48,48,56,60,62,62,63
3160 DATA 1,3,3,7,15,31,31,63
3170 DATA 4,4,31,4,4,4,14,31
3180 SC=0:LI=3:D=4
3190 N$="HERE WE GO AGAIN"
3200 RETURN
3540 CLS:PRINTSPC(11)"P Y R A M I D"
3550 PRINT:PRINT:PRINT
3560 PRINT"THE OBJECT OF THE GAME IS TO GET IN":PRINT
3570 PRINT"THE FIRST GAME AT LEAST 4 KEYS FROM":PRINT
3580 PRINT"THEN ON EVERY 8000 POINTS YOU NEED":PRINT
3585 PRINT"ONE EXTRA KEY UNTIL YOU NEED ALL 7.":PRINT
3590 PRINT"YOU THEN GO TO THE ROOM AT THE TOP":PRINT
3600 PRINT"OF THE PYRAMID TO GET A PART OF THE":PRINT
3610 PRINTSPC(11)"LEBASI TRESURE"
3620 PLOT13,26,"PRESS A KEY"
3630 GETA$:RETURN
```

Listing for Electric Eel

```
1 REM ELECTRIC EEL by Simon Overy
10 GOSUB9000
20 TEXT:CLS:PAPER1:INK0
21 PRINTSPC(50);CHR$(4);CHR$(27);
22 PRINT"NELECTRIC EEL";CHR$(4)
23 SOUND1,37,0:SOUND2,75,0
24 PLAY3,0,1,4000
25 PLOT13,10,"By Simon Overy":WAIT300
40 GOSUB160:GOSUB7000:GOSUB6000
50 GOSUB5000:GOSUB4000
90 IFYN$="Y"THEN40
95 POKE48035,7:CLS:EXPLODE:END
160 CLS:PAPER3:PRINTSPC(76)
170 PRINT,"You are an ELECTRIC EEL "
180 PRINT,"and must swim around the "
190 PRINT,"aquarium eating MOULDFISH"
200 PRINT,"( [ ) but avoiding SPIKE "
210 PRINT,"FISH( \ ),the glass sides"
220 PRINT,"and your own tail! "
230 PRINT," A loud noise indicates"
240 PRINT,"that you must swim to the"
250 PRINT,"top before your oxygen "
260 PRINT,"runs out.Once you are "
270 PRINT,"fully oxygenated you can "
275 PRINT,"either turn left or right"
276 PRINT,"You can only surface when"
280 PRINT,"in need of oxygen .":PRINT
285 PRINT" HINT:Spikefish have side suction !? !?":

290 FORI=19TO24:PLOT1,I,21:NEXTI
300 PLOT2,19,"SCORING:-"
310 PLOT9,21,"The deeper the better!"
320 PLOT2,23,"ARROW KEYS TO MOVE"
330 PLOT1,25,"Hit any key for a swim...":GETK$
340 FORI=1TO15:SOUND1,T(I)*10,0
350 SOUND2,T(I)*100,0:SOUND3,T(I)*200,0
360 PLAY 7,0,1,2000:WAIT35:NEXTI
370 RETURN
```



Electric Eel by Simon Overy

You are an eel in a large aquarium and to stay alive you must swim about eating one kind of fish but avoiding the other type.

How it works

20-25 title
160-330 instructions
340-360 tune
4000-4080 end of game
5000-5910 main game routine
6000-6170 display start screen
7000-7010 set game variables
9000-9530 initialisation and user-defined graphics

A loud continuous noise tells you that you are short of oxygen and must swim to the surface within a certain time.

The deeper the Mouldfish are the more points you will score for eating them. The eel increases in length every time it eats something.

The game ends when either your oxygen runs out, you are hit — or touched horizontally — by a Spikefish, or there are no Mouldfish left.

Variables

SC present score
HI high score
OX indicates oxygen needed
XC counter for oxygen left
EP(I,J) position of eel
EF,EB front, back of eel
MF(I,J) position of Mouldfish
MC counter for Mouldfish left
EX,EY direction of eel
T(I) tune array

Hints on conversion

Leave out all the POKEs and use your own computer's clock. Omit double height title (CHR\$ 4 and 27) and change 6000-6170 to suit your own screen.

POKE 48035,7 turns CAPS off
POKE (hash)26A,10 turns off key-click and cursor
DOKE 630,n controls internal timer
CHRS 91, 92 and 93 are the user graphics

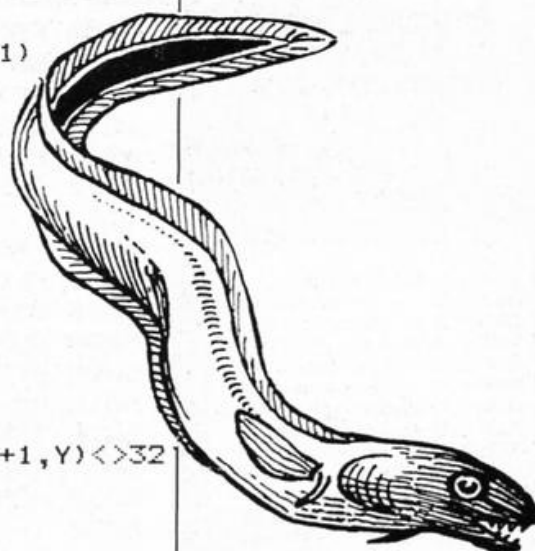


```

4000 FORI=100TO500STEP2
4010 SOUND1,I,10
4020 NEXTI
4030 CLS:PAPER5:INK4:PRINTCHR$(4):ZAP
4040 PRINTSPC(160);CHR$(27);"JS C O R E 1 ";STR$(SC)
4050 IFSC>HITHENHI=SC:HI$=RIGHT$(STR$(SC),LEN(STR$(SC)
)-1)
4060 PRINTCHR$(4)
4070 PLOT1,20,"Hit 'Y' for play , any other to stop."
4080 K$=KEY$:GETYN$:RETURN
5000 DOKE630,1600
5008 REPEAT
5015 RR=RND(1)
5016 IFRR<0.01ANDOX=0THENOX=1:XC=0
5017 IFOX=1THENGOSUB5800
5020 SS=SCRN(EP(EF,1),EP(EF,2))
5030 IFSS=32THENGOSUB5070:GOTO5055
5040 IFSS=91THENGOSUB5180:GOTO5055
5052 SS=1:PLOTEP(EF,1),EP(EF,2),93
5055 UNTIL MC=0 OR SS=1 OR XC=35
5060 RETURN
5070 PLOTEP(EF,1),EP(EF,2),93
5080 PLOTEP(EB,1),EP(EB,2),32
5090 EF=EF+1:EB=EB+1
5100 IFEF=401THENEFF=1:WP=399:GOTO5125
5110 IFEB=401THENEFB=1
5120 WP=-1
5125 K$=KEY$:IFK$<>" "THENGOSUB5500
5130 EP(EF,1)=EP(EF+WP,1)+EX:EP(EF,2)=EP(EF+WP,2)+EY
5140 IFDEEK(630)>1000THEN5170
5150 PLOTMF(MC,1),MF(MC,2),32:MC=MC-1
5160 DOKE630,1600
5170 RETURN
5180 PLAY 7,0,1,2000
5190 SOUND 1,100,0
5200 SOUND 2,500,0
5210 SOUND 3,999,0
5220 SC=SC+(10*EP(EF,2)):GOSUB5900
5230 FORI=1TOMC
5240 IFMF(I,1)=EP(EF,1)ANDMF(I,2)=EP(EF,2)THENII=I
5250 NEXTI
5260 PLOTMF(II,1),MF(II,2),32
5270 X=INT(RND(1)*35)+2:Y=INT(RND(1)*22)+3
5280 IFSCRN(X,Y)<>32THEN5270
5290 MF(II,1)=X:MF(II,2)=Y:PLOTX,Y,91
5300 IFEB>3THENEFB=EB-3
5320 II=0:DOKE630,DEEK(630)+350
5330 RETURN
5500 K=ASC(K$)
5510 IFK=8THENEX=-1:EY=0
5520 IFK=9THENEX=1:EY=0
5530 IFK=10THENEX=0:EY=1
5540 IFK=11THENEX=0:EY=-1
5550 RETURN
5700 EP(EF,2)=EP(EF,2)+1
5702 TT=DEEK(630):GETK$:GOSUB5500:DOKE630,TT
5703 EP(EF,1)=EP(EF,1)+EX
5705 EY=0:OX=0:XC=0
5710 RETURN
5800 IFEF(EF,2)=2THEN5700
5805 SOUND1,1000,0:SOUND2,300,0:PLAY3,0,1,2000

```


ORIC PROGRAMS



```

5810 XC=XC+1:RETURN
5900 PLOT10,26,RIGHT$(STR$(SC),LEN(STR$(SC))-1)
5910 RETURN
6000 TEXT:CLS:PAPER4:INK2
6010 FORI=0TO2:FORJ=1TO38:PLOTJ,I,22:NEXTJ,I
6020 PLOT1,26,23:PLOT2,26,0
6030 PLOT3,26,"SCORE:"
6040 PLOT20,26,"HIGH:":PLOT26,26,HI$
6050 FORI=3TO24
6060 PLOT1,I,148:PLOT38,I,148
6070 NEXTI
6080 FORI=1TO38:PLOTI,25,148:NEXTI
6090 FORI=1TO10
6100 X=INT(RND(1)*32)+4:Y=INT(RND(1)*19)+4
6110 IFSCRN(X-1,Y)<>32ORSCRN(X,Y)<>32ORSCRN(X+1,Y)<>32
THEN6100
6120 PLOTX-1,Y,SF$
6130 X=INT(RND(1)*35)+2:Y=INT(RND(1)*19)+4
6140 IFSCRN(X,Y)<>32THEN6130
6150 PLOTX,Y,91:MF(I,1)=X:MF(I,2)=Y
6160 NEXTI
6170 RETURN
7000 SC=0:EF=10:EB=1:EX=0:EY=-1:MC=10
7010 EP(10,1)=2:EP(10,2)=24:RETURN
9000 DIMEP(400,2),T(15)
9010 POKE#26A,10:POKE48035,0
9030 FORI=46808TO46831
9040 READJ:POKEI,J
9050 NEXTI
9060 SF$=CHR$(1)+"\ "+CHR$(2)
9070 FORI=1TO15:READJ:T(I)=J:NEXTI
9080 RETURN
9500 DATA 12,12,18,30,33,33,45,18
9510 DATA 0,18,45,12,12,45,18,0
9520 DATA 12,18,33,45,45,33,18,12
9530 DATA 5,15,25,15,8,9,10,5,15,
25,15,8,12,16,20
    
```

SCISOFT
EDUCATIONAL SOFTWARE

To: SCISOFT, 5 Minster Gardens,
Newhouse, Eastwood, Nottingham
NG16 2AT

Please find enclosed a cheque/postal

order for £

Name

Address

Post Code

HCW60
VAT Registration No. 395 9031 41

Available at large branches of
WH Smiths and Menzies

SCISOFT EDUCATIONAL SOFTWARE FOR MICRO COMPUTERS

All of Scisoft's programs have been comprehensively tested and are regularly used in schools. Please note that the pupil, parent or teacher should check with the syllabus to make sure that all the components of the packages are relevant. Some Boards may not require knowledge of all the contents of our packages.

PROGRAMS FOR YOUNGER CHILDREN

All available in Full Colour Presentation Boxes



STAR READER (6-11 YRS)

Improve your child's reading. Written by experts in reading skills. Designed to complement reading skills taught in schools. Simple to use, but extremely sophisticated programs utilising some machine code and most of a 48K machine.
PACK A — Space and Mountains Themes (2 Programs)
PACK B — Sea and Pyramids Themes (2 Programs)

NEW

WIZARD BOX

ANY AGE



Set a test, or a quiz, learn foreign language vocabulary. Multi-purpose program which holds 10 sets of 10 words for 45 children (Spectrum version). A game can be played at the end of the test but only if the child obtains a high score. A versatile and useful program which can be used in all subject areas in a school, at home and even at parties! The Spectrum package also has 3 extra sets of the program containing tests on:
(1) French Vocabulary (2) Junior Spelling (3) General Knowledge.

NEW

PACKAGES FOR PUPILS STUDYING FOR EXAMINATIONS

All the programs have been produced by very experienced teachers. They all contain problems to be solved on the major themes of the relevant examination syllabuses. Wherever possible the problems contain randomised data, so that the programs can be used time and time again with increasing benefit. Most packs also contain sets of multiple choice questions typical of those found in examination papers. Complete with a comprehensive book of REVISION NOTES. Extremely useful as examination day approaches. All packs contain a program of hints on HOW

Learning is fun!

TO REVISE AT HOME. Written to be compatible with most O-Level Boards and also useful for the most able CSE pupil.

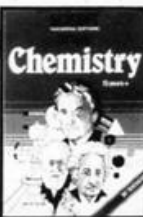
PHYSICS

Two programs full of problems. Ohm's Law, Refraction, Resistances, Linear Expansion, Moments etc., etc., 5 sets of multiple choice questions. Book of notes. Hints on revision. Fantastic value.



CHEMISTRY

Two programs full of problems. Gas Laws, Molarity, Titrations, Mystery Compounds etc. 3 sets of multiple choice problems. Book of notes. Hints on revision. Very good use of graphics.



Maths I

Problems with random data on: Algebra, Equations, Functions, Areas, Perimeters and Volumes. Book of notes. Hints on revision. A real must for all children.



MATHS PART II

A series of programs designed to complement PART I. Problems with random data on: Proportions, Percentages, Differentiation, Integration, Trigonometry. Book of notes. Hints on revision.



NEW

ORDER FORM	COMMODITIES 64	SPECTRUM 48K	DRAGON	BBC B ELCT
JUNGLE MATHS	TBA	£6.95	£7.50	£7.50
ASTROMATHS	TBA	£6.95	£7.50	£7.50
WIZARD BOX	TBA	£6.95	£7.50	TBA
STAR READER A	-	£6.95	£7.50	TBA
STAR READER B	-	£6.95	TBA	TBA
FRENCH	TBA	TBA	-	-
GERMAN	TBA	TBA	-	-
MIDDLE SCHOOL MATHS - PART I	£7.95	£7.95	-	£7.95
MIDDLE SCHOOL MATHS - PART II	-	£7.95	-	£7.95
MATHS PART I	TBA	£8.95	TBA	£9.50
MATHS PART II	-	£8.95	TBA	TBA
PHYSICS	TBA	£8.95	TBA	TBA
CHEMISTRY	TBA	£8.95	TBA	TBA
BIOLOGY	-	£8.95	-	TBA
COMPUTER STUDIES	-	£8.95	-	TBA
MARK BOOK	TBA	-	-	-
TOTAL				
		£10.00		

* Also suitable for Model A

TI-994A SOFTWARE

Two great games for the unexpanded TI-99/4A

PILOT

£5.95

A great new flight simulation game for one player. Options for take-off, landing or in flight. Graphics display of landing strip, terrain map, instrument panel. Full instructions included. Graphics and sound.

TI TREK

£5.95

Defeat the Klingon invasion fleet. Includes 5 skill levels, graphics quadrant display, 8 x 8 galaxy, phasers, photon torpedoes, long range scans, and much more. Full instructions included. Graphics and sound.

TEXAS PROGRAM BOOK

£5.95

35 programs ready to type into the unexpanded TI-99/4A, including 3-D Maze, Lunar Lander, Horse Race, Invader, Caterpillar and many more.

Send cheque or P.O. or telephone with Access/VISA for immediate despatch. Please add 50p p&p to orders under £10. Orders over £10 post free.



APEX SOFTWARE
Hastings Road, St. Leonards-on-Sea,
E. Sussex TN38 8EA
Tel. Hastings (0424) 53283



THE ΩMEGA RUN

The Last Flight to Armageddon



EXCITING FLIGHT SIMULATION GAME

SPECTRUM
CBM 64 48K

FIVERSOFT TOP TEN

GAME	PRICE	CODE	MACHINES
1. JET SET WILLY (S. PROJECTS).....	3	SPEC	
2. HUNCHBACK (OCEANI).....	3	SPEC/CBM/ERIC/BBC	
3. MANIC MINER (S. PROJECTS).....	3	SPEC	
4. CHECKERED FLAG (PHOSI).....	3	SPEC	
5. DIRTY DOD (S. PROJECTS).....	3	CBM 64	
6. SUPER PIPELINE (TASK SET).....	3	CBM 64	
7. CODENAME MAT (Q. SILVER).....	3	SPEC	
8. PHREYED (AUTOMATA).....	3	SPEC	
9. KING (OCEANI).....	3	SPEC	
10. MR WIMPY (OCEANI).....	3	SPEC/CBM 64	

prices
code
a. 5.00
b. 6.00
to Fiversoft
dept. HCW
KILROOT PARK,
CARRICKFERGUS,
ANTRIM, BT38 7DD

SPEEDY DELIVERY GUARANTEED

SPECIAL OFFER FOR TI-99/4A OWNERS

FREE FULL 16K BASIC FULLY GRAPHIC AND TEXT ADVENTURE. BUY ANY OF THE GAMES LISTED BELOW FROM US MAIL ORDER BEFORE 30TH APRIL 1984 AND WE WILL GIVE YOU A FREE GAME. (TI-99/4A). DUE TO POPULAR DEMAND THIS SPECIAL OFFER HAS BEEN EXTENDED TO 7TH MAY

ADVENTURE MANIA. (BASIC, NO COMMAND MODULE NEEDED) £5.95
H.C.W. GAVE THIS FULL GRAPHIC AND TEXT ADVENTURE 4 STARS.
CAN YOU DISCOVER THE ULTIMATE QUEST IN THIS SPECTACULAR MISSION. (30 LOCATIONS)

MANIA. (BASIC, NO COMMAND MODULE NEEDED) £5.95
H.C.W. GAVE 5 STARS AND SAID "I WOULD CERTAINLY BUY MANIA". FULLY GRAPHIC AND TEXT ADVENTURE. CAN YOU SURVIVE IN MANIA AND ESCAPE TO THE CORRIDORS OF TIME...

LIONEL AND THE LADDERS (EXTENDED BASIC) £7.95
THE VERY BEST FULLY ANIMATED SPRITE GRAPHIC ADVENTURE YOU HAVE EVER SEEN ON YOUR TI-99/4A. HELP OUR HERO LIONEL AS HE JOURNEYS THROUGH THE LABYRINTH IN SEARCH OF HIS CAPTURED PRINCESS. BUT MAKE SURE HE DOES NOT GET CAUGHT BY THE SUNS OF MARS, THE SHADES OF WRATH OR THE DEATH STARS. LIONEL WILL CAPTIVATE YOU WITH HIS STYLE. SEE OUR HALF PAGE ADVERTISEMENT IN LAST WEEK'S ISSUE OF HOME COMPUTING WEEKLY.



Games to remember
from
**INTRIGUE
SOFTWARE**

SEND P.O./CHEQUE TO:
INTRIGUE SOFTWARE
CRANBROOK ROAD TENTERDEN KENT TN30 6UJ
WE WILL SEND YOUR GAMES BY RETURN, POST FREE.
DEALER ENQUIRIES WELCOME. TEL: 05806 4726

U.S. SCENE

Sales slow for IBM micro

Let's start this week's column with a few items of general interest. On a seemingly contradictory note, IBM has announced that it expects to increase production of its personal computers by about 300 per cent this year. At the same time, dealers selling the new PC jr. have stated that their sales have been running far below expectations. I feel the main reason for this is a contradiction between the price of the unit and its capabilities.

For obvious reasons, IBM did not want to make the machine compatible with its big brother the PC. Yet most dealers feel that they could sell lots more of the machines if they came with a better keyboard, more memory expansion capability, and a second disc drive. With all these limitations, coupled with an over-\$1,000 price tag, the machine seems to be suffering from a confusing market image. Business users look to it to be used as a small business computer, yet the Apple IIe or the Kaypro (to cite but two examples) cost less while offering more. On the other hand, in its most basic form, the machine is still very expensive and limited in performance compared with other units designed for use in the home.

Apparently IBM has loads of the machines awaiting shipment in various warehouses. In order to improve sales, some dealers have been discounting jr. systems as much as \$300 down from the \$1,700 list price, and including up to four free software packages. Other dealers are offering the \$669 machine (in its most basic form) for free if the purchaser buys a complete system. It appears as though IBM is waiting to let the marketplace decide into what niche the machine will fit, and is also waiting to see what sort of software will be developed for it. This is no surprise as this is exactly the same approach it used when the PC was debuted.

One thing is for sure: with such a fabulous marketing budget and the name IBM behind it, the firm need not produce the best product in order to survive. We shall certainly see what happens.

I always wanted to know exactly how much money schools were spending on computers — and now I have a fairly good idea. A recent study, called *Microcomputer Hardware and Software in the El-Hi Market, 1983-87* has just been completed by Knowledge Industry Publications, of White Plains, New York. The El stands for elementary and the Hi stands for junior and high schools, by the way.

Among other interesting statistics, we learn that these schools bought \$448m-worth of microcomputer equipment last year of which only \$38m was spent on software. Schools purchased about 180,000 microcomputers, bringing the total in use to approximately 400,000. The study guesses that this cumulative total could rise to as much as 2m units in use by the end of 1987. Apparently more than two-thirds of all schools have at least one desktop computer.

So what is in use? Apple, Radio Shack (Tandy to you), and Commodore supplied 87 per cent of all computers purchased by schools last year. No surprise there, I suppose. This study, by the way, did not mention either the number of items or the dollar value of computers and software that has been donated to schools. Now that would be an interesting statistic!

That's all for this week.

Bud Izen, Fairfield, California



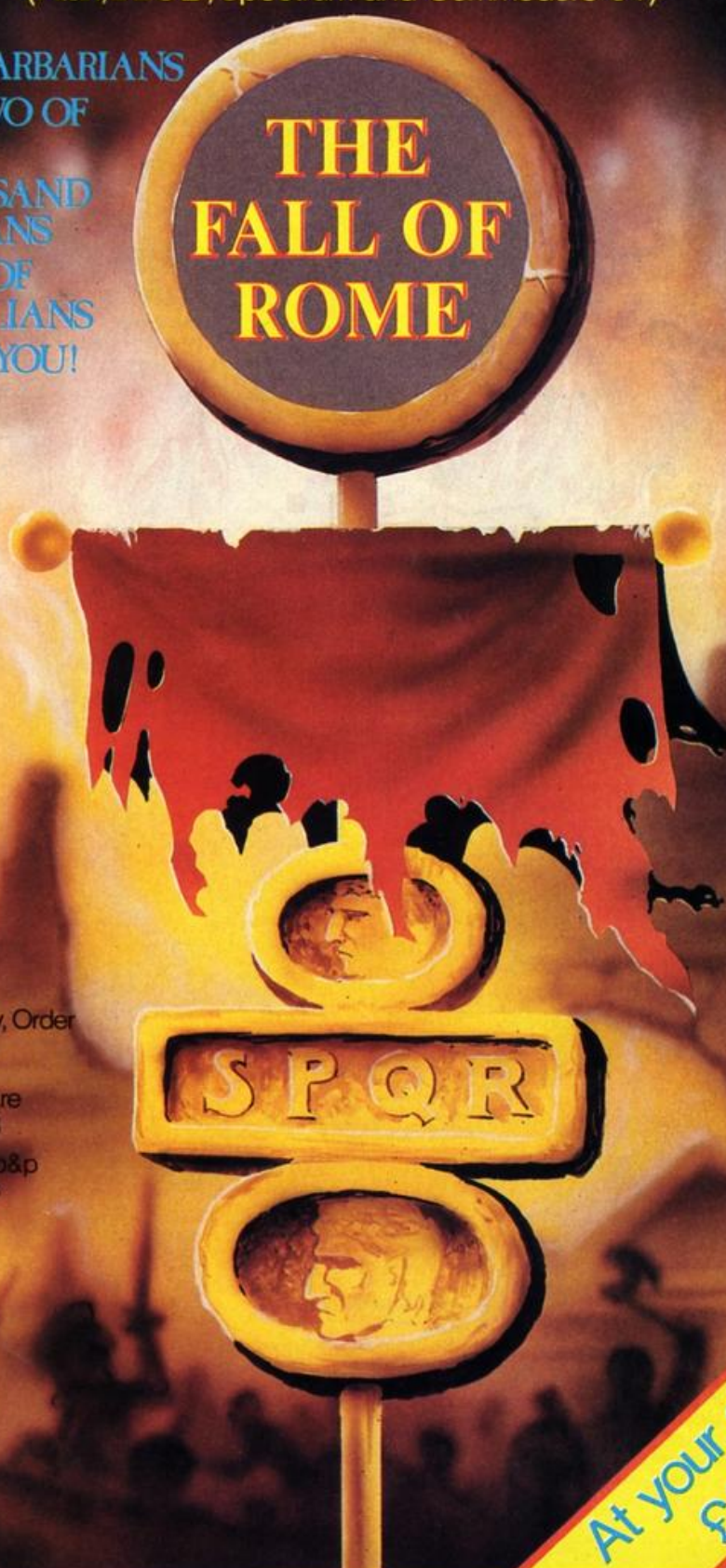
ASP SOFTWARE

Presents

The Greatest Challenge Ever To Face Man And Machine

(Atari, BBCB, Spectrum and Commodore 64)

FIVE MILLION BARBARIANS
AN ARMY OR TWO OF
PERSIANS
SEVERAL THOUSAND
UPSET ARMENIANS
FIFTY LEGIONS OF
ITINERANT ITALIANS
.....AND YOU!



THE FALL OF ROME

In case of difficulty, Order
from: Argus Press
Software Group,
No 1 Golden Square
London W1R 3AB

Please add 50p p&p
and allow 14 days
for delivery

At your dealers now!
£6.99 all inc.

HORNSBY 84

CHARTBUSTERS

BRITAIN'S SOFTWARE

CHARTS

by the ASP Market Research Group

ARCADE

1 Manic Miner	Software Projects	CBM 64(5)
2 Jet Set Willy	Software Projects	Spectrum(2)
3 Atic Atac	Ultimate	Spectrum(1)
4 Caesar The Cat	Mirrorsoft	Spectrum(-)
5 Quick Thinking	Mirrorsoft	CBM 64(-)
6 Fred	Quicksilva	Spectrum(-)
7 Space Pilot	Anilog	CBM 64(3)
8 Codename Matt	Micromega	Spectrum(-)
9 Bumping Buggles	Bubble Bus	CBM 64(-)
10 Snowman	Quicksilva	Spectrum(-)

NON-ARCADE

1 Twin Kingdom Valley	Bug-Byte	CBM 64(1)
2 Golf 64	Abrasco	CBM 64(2)
3 The Valley	APS	Spectrum(10)
4 Pool For The Spectrum	Abrasco	Spectrum(-)
5 Old Father Time	Bug Byte	BBC B(-)
6 Party Time	Clever Clogs	CBM 64(-)
7 Demon Knight	APS	Spectrum(-)
8 Goldlocks	Arrow Books	Spectrum(-)
9 The Hobbit	Melbourne House	Spectrum(3)
10 Whizz Quiz	Clever Clogs	Spectrum(-)

Compiled with the assistance of Britain's leading software distributors, including: Pinnacle, SDL, PCE, Websters, PCS and Software Centre.

SPECTRUM

1 Chequered Flag	Ultimate (5)
2 Jet Set Willy	Software Project (-)
3 Atic Atac	Pslon (1)
4 Scuba Dive	Durell (7)
5 Hunchback	Ocean (3)
6 Flight Simulation	Pslon (8)
7 Pogo	Ocean (-)
8 Lunar Jetman	Ultimate (9)
9 Cyrus-Is-Chess	Intelligent Software (6)
10 Ant Attack	Quicksilva (2)

COMMODORE 64

1 Manic Miner	Software Projects (5)
2 Quick Thinking	Mirrorsoft (-)
3 Caesar the Cat	Mirrorsoft (-)
4 Hunchback	Ocean (-)
5 Revenge of the Mutant Camels	Llamosoft (3)
6 Mr Wimpey	Ocean (8)
7 Space Pilot	Anilog (-)
8 UGHI	Softek (-)
9 International Football	Commodore (-)
10 Buga Boo (The Flea)	Quicksilva (2)

DRAGON 32

1 Dragon Chess	Oasis (8)
2 UGHI	Softek (-)
3 Hungry Horace	M.House (4)
4 Chuckle Egg	A&F (1)
5 Krieg Spiel	Beyond (8)
6 Pedro	Imagine (3)
7 Up Periscope	Beyond (2)
8 Space Shuttle Simulator	Microdeal (-)
9 Devil Assault	Microdeal (5)
10 Cuthbert in the Mines	Microdeal (-)

Compiled by W. H. Smith and Websters. Figures in brackets are last week's positions.

VIC-20

1 Snooker	Visions (1)
2 Flight 015	Ferranti / Davenport (4)
3 Wizard and the Princess	M.House (3)
4 M.L.B.A.E.T.	Llamosoft (-)
5 Crazy Kong	Interceptor (2)
6 Jetpac	Ultimate (5)
7 Emmet Attack	Commodore (-)
8 Gridrunner	Llamosoft (6)
9 Carrier Attack	Rabbit (-)
10 Dam Buster	Rabbit (-)

BBC

1 O Man	MRM (-)
2 O Man Brother	MBM (-)
3 737 Simulator	Salamander (8)
4 3D Munchy	MRM (-)
5 Diamond Mine	MRM (-)
6 Felix In the Factory	Micro Power (5)
7 747 Simulator	Doctorsoft (-)
8 Hunchback	Superior (4)
9 Danger UXB	Micro Power (2)
10 Chess	BBC (9)

ZX81

1 Mothership	Sinclair (1)
2 Fantasy Games	Sinclair (3)
3 Space Raiders	Sinclair (5)
4 Asteroids	Quicksilva (6)
5 Football Manager	Addictive (9)
6 Flight Simulation	Sinclair (3)
7 Skramble	Quicksilva (7)
8 Invaders	Quicksilva (-)
9 Defenders	Quicksilva (10)
10 VU-File	Sinclair (-)

SABRE WOLF

ULTIMATE
PLAY THE GAME

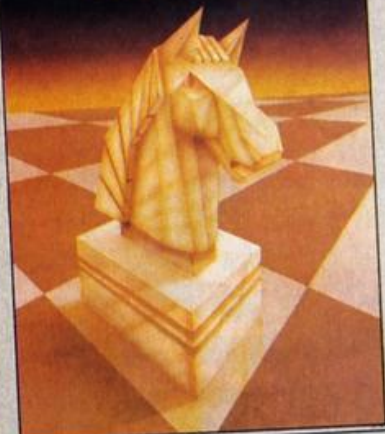
48K SINCLAIR ZX SPECTRUM
£9.95

From CDS, the ultimate challenge **'COLOSSUS CHESS 2-0'**

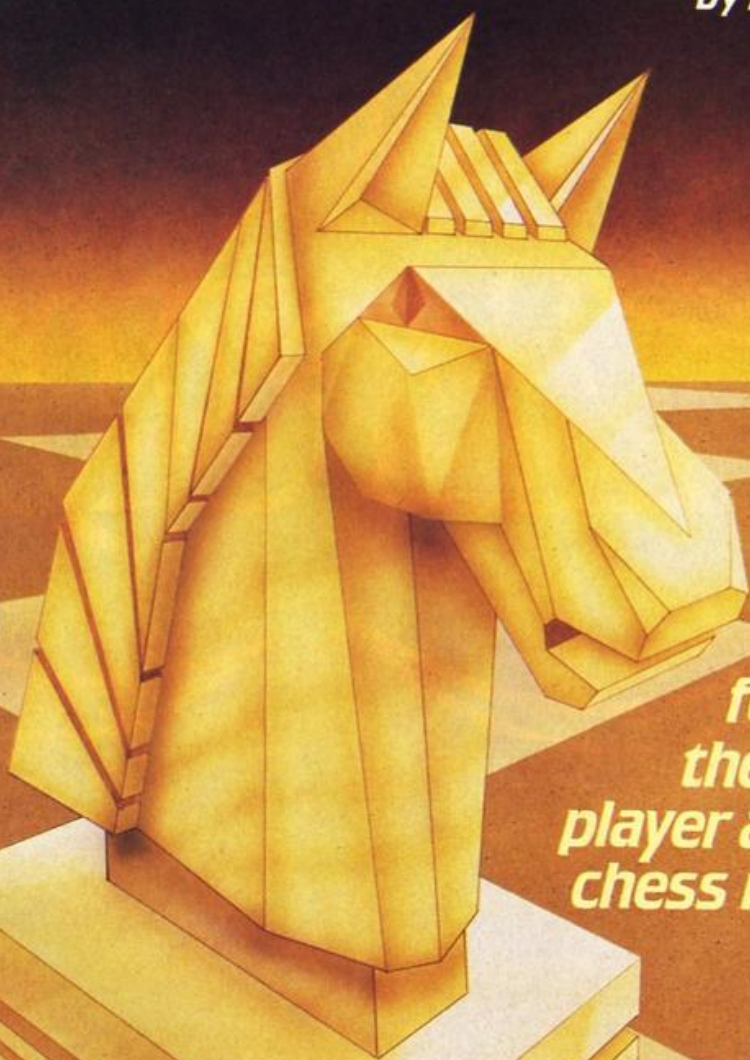
by Martin Bryant

CDS Micro Systems

**COLOSSUS
CHESS 2-0**



COMMODORE 64



*for both
the chess
player and the
chess master*

*Available soon....
educational programs
for the Commodore 64*

CDS Micro Systems

FRENCH IS FUN



Commodore 64

CDS Micro Systems

GERMAN IS FUN



Commodore 64



*the finest
chess program
ever written.*
**Available for the
Commodore 64
£9.95**

CDS Micro Systems

Available from leading Computer Stores, or...
Send Cheque or P.O. To CDS 10, Westfield Close, Tickhill,
Doncaster DN11 9LA. Tel: (0302) 744129.

(Trade enquiries welcome)

NATIONWIDE SHOPS & DEALERS

BEDFORDSHIRE

SOFTWARE CENTRE

Computer Software and accessories.
Large S.A.E for lists.
52A Bromham Road, Bedford
Tel: Bedford 44733

KENT

THE DATA STORE

6 Chatterton Road, Bromley,
Kent. Tel: 01-460 8991
Open: 9.30 - 5.30
Mondays to Saturdays
(Closed Wednesdays)
Official Acorn dealer
for wide range of BBC software
and peripherals

SCAN OUR SERVICE/REPAIR SECTIONS.

LANCASHIRE

LANCASHIRE MICROS

BBC, Sinclair, Commodore, Dragon and
Lynx personal computers.
Also the widest range of software, books
and accessories in the area.
89 Euston Road, Morecambe,
Lancs. Tel: (0524-411435)
OPEN 7 DAYS

**DO YOU WANT MAXIMUM
BENEFIT FOR YOUR MONEY?
— THEN USE OUR SHOPS AND
DEALERS GUIDE TO ADVERTISE
YOUR RETAIL/MAIL ORDER
BUSINESS.**

SCOTLAND

THE GAMES SHOP AND COMPUTER SOFTWARE CENTRE TEL. NO 0224-643740

3 Waverley Place, Aberdeen AB1 1XH.
Stockist for all popular home computers
especially Commodore 64. Extensive
selection of books and magazines.

SOMERSET

RAINBOW COMPUTER CENTRE

Massive range of software in stock
for BBC, COM 64, VIC-20,
SPECTRUM, DRAGON,
ELECTRON, ZX81.

Huge stocks of peripherals
(Joysticks, Interfaces, Cassette units,
Paddles, Introduction series,
Reference Guides etc).
Open Monday-Sunday 9am-8pm.
Any visa accepted
For the largest selection of hardware
and software in the area contact:
VICTORIA ROAD, YEOVIL, SOMERSET
TEL: 0935 26678

**ADVERTISE
IN OUR
NATIONWIDE
GUIDE AND SEE
YOUR BUSINESS
GROW. PHONE
NOW FOR
DETAILS ON
01-437 0699**



**PHOENIX
SOFTWARE
CENTRE**
MAIL ORDER SOFTWARE
BBC SPECTRUM ETC.
Phoenix Software Centre
88 Huish, Yeovil, Somerset
Tel: 0935 21724

SHETLAND



LERWICK, SHETLAND
Tel: 0595 2145
Software, Books, Accessories
Service

BBC Micro, Dragon-32, ZX81,
Spectrum, VIC-20, CBM-64
Open Mon-Sat 9.30am-5.30pm

**HCW —
COMPATIBLE
WITH ALL
POPULAR HOME
COMPUTERS.**

WEST MIDLANDS

JERESGROVE LTD COMPUTERS

SPECTRUM GAMES AT
ROCK BOTTOM PRICES
S.A.E. for list and *prompt*
attention to

Jeresgrove Ltd Computers
Shell Buildings, Malt Mill Lane,
Halesowen, West Midlands.
Tel: 021 559 2081

**READ OUR
DEALER
DIRECTORY AND
FIND OUT THE
LOCATION OF
YOUR NEAREST
COMPUTER
SPECIALIST.**

CLASSIFIED ADVERTISEMENT — ORDER FORM

1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.
13.	14.	15.

PREFERRED CLASSIFICATION

Please place my advert in Home Computing Weekly for _____ weeks.
Please indicate number of insertions required.

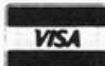
Advertise nationally for only 35p per word
(minimum charge 15 words).
Simply print your message in the coupon and
send with your cheque or postal order made
payable to Argus Specialist Publications Ltd to:

CLASSIFIED DEPT., HOME COMPUTING WEEKLY,
1 Golden Square, London W1R 3AB
Tel: 01-437 0699.

Name

Address

Tel. No. (Day)



--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HOME COMPUTING WEEKLY CLASSIFIED

Lineage:
35p per word



Semi display: £7.10 per single column centimetre
Ring for information on series bookings discounts.

All advertisements in this section must be prepaid.
Advertisements are accepted subject to the terms and conditions printed on the advertisement rate card (available on request).



01-437 0699
EXT 341.

Send your requirements to:
Debra Stuppel
ASP LTD.
1 Golden Square,
London W1R 3AB

SITUATIONS VACANT

```

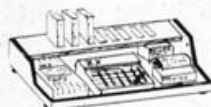
10      LD      HL, #4000
20      LD      BC, #1800
20 LOOP LD      A, (HL)
40      XOR     #FF
50      LD      (HL), A
60      DEC     BC
70      INC     HL
80      LD      A, B
90      OR      C
100     JR      NZ, LOOP
110     RET
    
```

IF YOU UNDERSTAND THIS WE WOULD BE INTERESTED
TO SEE ANY GAMES THAT YOU HAVE WRITTEN.

GALACTIC SOFTWARE
UNIT 7, LARCHFIELD ESTATE, DOWLISH FORD,
ILMINSTER, SOMERSET

ACCESSORIES

UNIT
ONLY



SPECTRUM & ZX 80/1
USERS LOOK THIS
WAY PUT AWAY ALL
THOSE UNTIDY WIRES

With this amazing new unit designed by a Spectrum user. Put on a chair, floor,
on your lap. Move it all in one go. Our latest new universal unit accepts most
machines. Send for details to:

E. R. Cameron & Son Ltd. Est. 1870
H/O 9 The Vineries, Enfield, Middx. EN1 9DQ

ALARMS

Burglar Alarm equipment. Please
visit our 2,000 sq.ft. Showrooms or
write or phone for your free
catalogue. C.W.A.S. Ltd, 100
Rooley Avenue, Bradford BD6
1DB. Telephone 0274 731532.

AUSTRALIAN IMPORTS

SOFTWARE PUBLISHERS
SELL IN AUSTRALIA
TO OVER 350 RETAILERS
COMPUTERPLAY is Australia's
fastest growing, reputable software
distributor seeking to import or
reproduce under licence. Contact
Kerry Harrison. Computerplay, P.O.
Box 69, Glen Waverley, Victoria
3150, Australia.
Tel: Melbourne 5611078.
Telex: AA30625 Attn. ME 269.

BOOKS & PUBLICATIONS

Popping, Break dancing. Teach
yourself. Loose stamp for details.
Dance Publications, 136 Monkhill
Lane, Pontefract WF8 1RT.

COURSES

**LET US HELP YOU
TO LEARN TO PROGRAM**

*Also Childrens holiday
courses are available
throughout the Summer*

Ring: COMPUTER WORKSHOP
on 01-318 5488
4 LEE HIGH ROAD, LEWISHAM,
LONDON SE13 5LQ

**PROBLEMS WITH
YOUR MACHINE?
SCAN OUR
SERVICE/REPAIR
SECTIONS.**

CLUBS

UNLIMITED SOFTWARE EXCHANGE

for a whole year for just £10.
Exchange any amount, any time. Fully
guaranteed nationwide service. Discounts
on new tapes. Add 30p p&p per tape.
S.A.E. for details.
NCC, 12 York Close, Barton, Beds.

GIFTS

MICRO-USERS T-SHIRTS & SWEATSHIRTS

1 Spectrum 4Have You Seen My Peripherals?
2 Oric-1 5 Invader
3 I'm User Friendly 6 Zap 'em
Printed onto 100% cotton T-shirts.
Red, sky or white £3.50 each incl.
AND
Poly-cotton Sweatshirts.
White or grey £5.99 each incl.
All small, medium, large and extra large.
Mail Order only from:
One Per Cent Screens
Dept B
9 Avebury Road
Westcliffe-On-Sea
Essex SS0 7AE

TI-99/4A Monthly tape magazine.
Just send for FREE copy: 41
Winchester Street, Acton, London
W3 8PA

FOR HIRE

VIC-20 SOFTWARE HIRE

Free membership. 60 Titles
from 50p per week. Send a
SAE for your membership
kit to;

**VSH, 242 Ransom Road,
Mapperley, Nottingham**

Hire a computer from ZX81 up-
wards for a week or a year. We also
buy and sell second-hand com-
puters, magazines and books.
Business & Computer Services,
294a, Caledonian Road, London N1
1BA. Tel: 01-607 0157.

COMMODORE 64 Software library

2 weeks hire £1. Annual
membership £5. Stamp for
list. Les Wilson, (C) 100
Blenheim Walk, Corby,
Northants.

The contents of this publication, including all articles, plans, drawings and programs and all copyright and all other intellectual property rights therein belong to Argus Specialist Publications Ltd. All rights conferred by the Law of Copyright and other intellectual property rights and by virtue of international copyright conventions are specifically reserved to Argus Specialist Publications Ltd and any reproduction requires the prior written consent of the company.
© 1984 Argus Specialist Publications Ltd

SSN0264-4991

Oric Software Library. Two weeks hire £1. Annual Membership £5. Stamp for list. Les Wilson, 100 Blenheim Walk, Corby, Northants.

HARDWARE

Quickshot II joysticks for Commodore 64, VIC-20, Atari etc. £11 including p&p Plus free software catalogue from LB Games, PO Box 410, Ascot, Berks, SL5 0JA

LIBRARIES

COMMODORE 64 GAMES LIBRARY

Over 230 titles, all originals. Hire of first two games absolutely free. Life membership only £6. Join now on money back approval. Send for details to:

Commodore 64 Games Library
c/o Yorkshire Software Library,
13 Park Top, Pudsey, West Yorks.
Cheques/PO's to
"Yorkshire Software Library".

VIC-20 & VECTREX LIBRARY
now available
Details to
DUKERIES SOFTWARE
39 HIGH STREET,
WARSOP
NR. MANSFIELD,
NOTTS

BBC/Dragon software library — Membership £5.00. — Tapes £1 (+23p postage). Stamp for details. E. Tucker, (H) 8 Springwood Estate Grimston Road, Sough Wootton, King's Lynn, Norfolk.

REPAIRS

ZX81 — Spectrum. We can now offer out-of-guarantee repairs by our Computer Dept. Our engineers have had over three years experience servicing Sinclair Computer products. Price including p&p. ZX81 — £11.50; 16K Ram — £9.95; Spectrum — £18.75. Send with cheque or PO. T.V. Service of Cambridge, French's Road, Cambridge CB4 3NP. Phone (0223) 311371.

Commodore repairs. By Commodore approved engineers. VIC-20 modulators £6.50, VIC-20 from £14.50, CBM 64 from £18.00, C2N from £7.00, printers, disk, etc. For more details write or tel. G.C. Bunce & Son. 36 Burlington Road, Burnham, Bucks SL1 7BQ. Tel: (06286) 61696.

SERVICES

jbs records COMPUTER PROGRAMS

REAL-TIME or (Slow) HIGH-SPEED. Professional Cassette Duplication and Blanks from 1 to 1,000+. Computer printed Cassette Labels, etc. Fast Security Delivery service.

jbs records — a division of
FILTERBOND LTD, 19 Sadlers Way,
Hertford SG14 2DZ 0992-551188

ALL YOUR CASSETTE NEEDS

Blank cassettes C15 with case 40p Labels in Blue, White or Yellow, 20 for 36p. Inlay cards in Blue, Yellow, Red, Green, Orange or Purple, 20 for 60p. Library cases 9p each. Postage on each complete order 60p
Stonehorn Ltd. 59 Mayfield Way, Barwell, Leicester. LE9 8BL

FOR SALE

Cartridge backup system. Copies VIC-20 cartridges onto tape or disk. £35 ono. Mr Parker, 70 Colneyhatch Lane, London.

SOFTWARE APPLICATIONS

COMMODORE 64 AND VIC-20 PROGRAM COPIERS

They copy most cassette based BASIC, machine code and multi-part programs of any size. Both copiers are written in machine code. Programs using a range of protection techniques can be copied easily. Audio and visual prompts are used for easy operation. Full instructions are contained in the programs.

VIC IMITATOR £6
VIC IMITATOR 64 £6
Please state which is required and make cheques/POs payable to IAN WAITE.

Send orders to:
IAN WAITE, DEPT HCW,
11 HAZLEBARROW ROAD,
SHEFFIELD S8 8AU

SPECTRUM KOPYKAT IMPROVED PERFORMANCE

Simply the best. Copying any program is now as easy as LOADING and SAVING your own programs. Any ZX Spectrum program can be backed-up onto a fresh tape. Even programs that cannot be stopped can now be copied. 100 per cent machine code. Prints file names. Copies headerless files. SPECTRUM KOPYKAT uses no program area so full size programs over 41.7K (9K for 16K machines) can be copied. PLUS FREE Header Reader program.

Despatched by first class return of post.

Send cheque/PO for £4.95 to:

MEDSOFT
61 Ardeen Road, Doncaster,
South Yorks DN2 5ER.
IT CAN EVEN COPY ITSELF

BACK-UP TAPE COPIERS

Unique machine code programs to allow security back-up copies of the majority of protected software.

Available for:
COMMODORE 64 £5.95 ELECTRON £5.95
VIC 20 £5.95 ATARI £5.95
BBC £5.95 SPECTRUM £5.95

TAPE TO DISK TRANSFER UTILITIES

Speed loading and transfer your games, etc to disk. Available for:

COMMODORE 64 £9.95
BBC £9.95
ATARI £9.95
ALL COMPLETE WITH FULL INSTRUCTIONS

Price includes VAT, Post & Packing. Cheques or Credit Card Number to: **EVESHAM MICRO CENTRE**

EVESHAM MICRO CENTRE
Bridge St, Evesham, Worcestershire
Tel: 0586 49641
NEW SHOP NOW OPEN — Micro Centre,
1756 Pershore Rd, Cottesbridge, Birmingham B12 0JL 021-458 4564

● COPYMATE 64 ●

A back-up utility for COMMODORE 64. Will make security copies of most cassette based software. Supplied on a quality cassette with full instructions. Send £4.75 to:

HORIZON SOFTWARE,
15 Bamburg Close, Corby,
Northants NN18 9PA

VIC-20 tape copier. Copies almost all games. Any RAM. Money-back guarantee. £3.95. Griffiths, 8 Moss Close, Rugby, Warks CV22 6SD

Dragon clone-it will back-up copy all m/code programs up to 30K including Cuthberts 100% m/code £6. K. Hunter, 7 Balladen, Rossendale, Lancashire.

READ OUR DEALER DIRECTORY AND FIND OUT THE LOCATION OF YOUR NEAREST COMPUTER SPECIALIST.

SHARP MZ-700 BASICODE

FREE BASICODE CONVERTER WITH D700 BASIC (£12) FOR MZ-700.

S.A.E. FOR DETAILS, OR FOR MZ-700 OR MZ-80A/K SOFTWARE CATALOGUE.

DCS, 38 South Parade,
Bramhall, Stockport SK7 3BJ

TAPE COPIER 5 (new version)

Makes BACK-UP COPIES ALL types of SPECTRUM programs (incl. headerless, m/c unstoppable) easily with MANY unique features. **FULL MONEY BACK GUARANTEE** if you are not satisfied.

★ M/DRIVE copies Basic/mc/arrays on the microdrive STOPS programs to help the run.
★ LOADS in all program parts CONTINUOUSLY — even without pressing a key. Other copiers require many loadings — MASSIVELY saving you time and trouble!

★ MAXBYTES copies programs occupying the FULL 16K or 48K! Verifies. Repeat copies. Auto. Abort. HEAD data.

★ Full instructions, very user friendly. BREAK at any time (just save a header!), then carry on LOAD. Copies all programs that we are aware of.

Cost only £4.49 or £5.50 with M/DRIVE. (Overseas: + £1 Europe, £2 others).

5 STARS FROM THE HCW REVIEW, WITH THREE 100% RATINGS!

LERM (DHC),
10 Brunswick Gardens,
Corby, Northants.

SUPER BREAKER

For the COMMODORE 64, this utility will back-up most popular cassette based programs onto Tape or Disk. Supplied on data cassette with full instructions. Also now available a TAPE TO DISK UTILITY. Transfer your cassette software onto disk. Fast despatch, by First Class Post. Both priced at just £4.99 each. Send to:

Clark Kent Software
26 North Cape Walk, CORBY
Northants. NN18 9DQ

Unexpanded TI-99/4A. We need more high-quality games, adventures, utilities and educational programs (or written material). We offer extremely good royalties in exchange. Please send what you have now for evaluation to: Pikadee Software, 35 Parker St, Preston, Lancashire PR2 2AH

SOFTWARE EDUCATIONAL

SOFTWARE CENTRE

THE EDUCATIONAL SOFTWARE specialists.
Large S.A.E for lists.

52A Bromham Road,
Bedford
Tel: Bedford 44733

ISIS VIDEO

Specialists in Educational software, Software and text books. Software packages from ABC to A level. Many major publishing houses included in our comprehensive catalogue covering most popular home/school computers.

Ring 01 541 0403

or write stating model to:

ISIS VIDEO (HCW),
Crown Works, Church Road,
Norbiton, Kingston, Surrey

TI-99/4A spelling for 6-60 years. Extended BASIC (Requires speech) £3.95 Tapefile 2 (address book) Extended BASIC £3.95. Both for £6.50. Carlynsoft, 155 Albert Street, Fleet, Hants.

48K Spectrum owners. "O" Level, S.C.E., C.S.E., maths test gives your children private tuition. 48K only. £3.99: J. Murphy, Dept HCW 95 Giron Rd, Northolt, Middx UB5 4ST

Chemistry exams? Alchemy is still the best for problem solving. 6 programs and booklet for Spectrum or BBC. Send SAE for details. 78 Tweendykes Road, Hull, Nth. Humberside HU7 4XG

SOFTWARE GAMES

Texas TI-99/4A cassettes: 1. "Atlantis Invaded" — underwater adventure: 2. "Depth Charge Attack" — battleship hunts submarine: 3. "Caterpillar Crunch" — eat or be eaten: 4. "Fighter Pilot" — aim your gunsight. Prices — £4.95 any two programs: £5.95 any three: £6.95 all four. Send cheque or P.O. to P. M. Williams, 1 New Road, Melbourne, Royston, Herts.

ORIC FUN

PSS Games for 16k48k Oric

The Ultra £5.95 Light Cycle £5.95
Hopper £5.95 Centipede £5.95
Invaders £5.95 Oric Monitor £7.95

Prices inc. VAT & P&P. SAE for full list.

PHILDATA,
8, Richmond Terrace,
Pudsey, W. Yorks,
LS28 9BY.

Access Orders — Telephone
(0532) 578851

MEGASAVE**SPECTRUM**

Jet Set Willy.....	£4.75
Fighter Pilot.....	£6.25
Blue Thunder.....	£4.75
Night Gunner.....	£5.90
Trashman.....	£4.50
Millionaire.....	£4.75
Fred.....	£5.80
Code Name Mat.....	£6.95
Blade Alley.....	£4.50
Taxi.....	£4.50
Scuba Dive.....	£4.50
H.U.R.G.....	£12.25
Rebel Star Raiders.....	£7.95
Death Chase.....	£4.90
Chequered Flat.....	£6.30
Alchemist.....	£4.25
Eskimo Eddie.....	£4.60
Tribble Trubble.....	£4.75
Omega Run.....	£4.50
Android II.....	£4.50

FANTASTIC SAVINGS**SPECTRUM**

Stonkers.....	£4.25
Hunchback.....	£5.15
Atic Atic.....	£4.50
Manic Miner.....	£4.75
Pedro.....	£4.25
Hobbit.....	£11.00
Jet Pack.....	£4.50
Pinball Wizard.....	£4.75
Bear Bovver.....	£5.15
Lunar Jetman.....	£4.50
Buga Boo.....	£5.85
3D Ant Attack.....	£5.85
Flight Simulation.....	£7.20
Hunter Killer.....	£5.95
Skull.....	£5.15
The Snowman.....	£5.86
The Quill.....	£10.75
Cavern Fighter.....	£4.75
Wheelie.....	£4.50
F'Ball Manager.....	£5.55

COMMODORE

Buga Boo.....	£6.90
Scuba Dive.....	£5.50
Super Pipeline.....	£5.35
Space Pilot.....	£6.00
Dinky Doo.....	£6.50
Solo Flight.....	£12.00
Aztec Challenge.....	£7.15
Mega Hawk.....	£5.60
China Miner.....	£5.85
Hobbit.....	£11.50
Harrier Attack 64.....	£5.55
Zodiac.....	£6.20
Bumping Buggies.....	£4.60
China Miner.....	£5.85
Forbidden Forest.....	£7.15
Falcon Patrol.....	£5.95
Hunchback.....	£5.45
Manic Miner.....	£6.50
Zylongow.....	£5.60
Twin Kingdom V.....	£7.50

FREE POSTAGE AND PACKING. FAST SERVICE

Please state Spectrum or Commodore when ordering. Send cheque/PO to:

MEGASAVE, 76 WESTBOURNE TERRACE, LONDON W2**TI-99/4A****ARCADE HARDWARE**211 Horton Road, Fallowfield, Manchester, M14 7QE.
For Access orders and enquiries Tel. 061 225 2248We have available for your TI99/4A The NEW TI games modules.
*Moonmine, Hopper, MAXXSN, Slymoids, Space Bandit, Sewermania, Bigfoot, Superfly, Jawbreaker, Microsurgeon, Burgertime. All at £27.50. From Atari: Donkey Kong (£28.95), Pac-man, Defender (£18.95).***Arcade Joystick** Genuine steel joystick £22.00
Books*Introduction to Assembly Language for the TI Home Computer.*
Priced at £16.95.*Programs for the TI Home Computer.*

50 programs for the TI99/4A. Priced at £14.95

All prices inclusive of p&p and V.A.T.

Phone to check availability of ExBas & Mini Memory.

SNOWBALLThe adventure with 7000 locations by
Level 9 Computing for Atari 32K
BBC 32K CBM 64 Oric 48K Spectrum 48K
at the bargain price of £8.90 each inc. p&p**MAIL ORDER SOFTWARE**9 KNOWLE LANE, WYKE,
BRADFORD. BD12 9BE**FLY AWAY!!**

Solo Flight C64	£12
(Micropros)	
747 Flight BBC	£8.00
(Doctorsoft)	
Colossus Chess C64	£9.00
(CDS)	
The Hobbit all versions	£11.50
(Melbourne)	
VALHALLA 64 (telephone)	£11.65
(Legend)	
Quickshot II Joystick	£11.00
Fall of Rome (ASP)	£6.00
OFFERS APPLY UNTIL END OF MAY	

Cheques/P.O.'s to:

LA MER SOFTWARE AVON
BS23 1JU TEL. 0934 26339
(for your computer needs
between 10-6pm)TI-99/4A "Computer Magic" two
parts magic tricks. Watson. 8 Oak
Tree Court, Uckfield, Sussex.
Trade welcome. £5.**TI-99/4A SOFTWARE**Any three fantastic games for only
£5. 38 titles to choose from.

For full list S.A.E. to:

BINBROOK SOFTWARE,
88 Cotterdale, Sutton Park,
Hull HU7 4AE**Dromeda Software.** Quality games
for TI-99/4A. S.A.E. for details.
56 Wells Street, Haslingden, Lanca-
shire BB4 5LS.**HCW
YOUR SOFTWARE
SUPERMARKET.****WANTED****★ PROGRAMMERS ★**Top Spectrum software needed
urgently for UK distribution. Good
royalties for quality games, utilities
and educational programs.
Send tape with large S.A.E. to
Gamma Software,
18 Milverton Road, London NW6**C-5 TO C-60**HIGH QUALITY BLANK CASSETTES
WITH LABELS AND LIBRARY CASE.
YOUR SPECIFY LENGTH OF CASSETTE.
FAST AND EFFICIENT SERVICE.
DISCOUNT ON BULK PURCHASE.
KAR SERVICES LTD.
MANUFACTURERS OF HIGH QUALITY
BLANK CASSETTES.**ACTON WORKSHOPS**
SCHOOL ROAD
LONDON NW10 6TD
TEL: 01-965-9960**It's easy
to complain
about
advertisements.****The Advertising Standards Authority.**
If an advertisement is wrong, we're here to put it right.

A.S.A. Ltd, Brook House, Torrington Place, London WC1E 7HN.

**RECRUITING?
SELLING A PRODUCT?
OR A SERVICE?****GET MAXIMUM BENEFIT FOR
YOUR MONEY****FIND OUT ABOUT OUR WHOLE
RANGE OF PUBLICATIONS IN:****COMPUTING
VIDEO
RADIO
ELECTRONICS**

Simply telephone

ASP CLASSIFIED
01-437 0699

(We take Access and Barclaycard)

CLASSIFIED — RING
01-437 0699

METAGALACTIC LLAMAS BATTLE AT THE EDGE OF TIME

A fast and original game for the unexpanded VIC. Challenging and colourful, with good sonics and a unique game action and design, this promises to be the most exciting new 3.5K VIC game since the introduction of GRIDRUNNER nearly a year ago. £5.50

LASER ZONE

Experience Laser Zone – an utterly NEW totally ORIGINAL masterpiece of Video games design. Learn to control two spaceships at once. Feel the EXHILARATION as, after long hours of practice, you control the two ships so that they function as a smooth, co-operative team! Feel the raw POWER as you lunge for the electro button and BLAST your enemies into expanding clouds of SPACE JUNK!! Feel the humiliation as a carelessly aimed BLAST slams into the side of your last remaining ship!! 8K expansion required. Available for Commodore 64 £7.50 and VIC-20 £6.



MATRIX

Jeff Minter has taken Gridrunner – the game that topped bestseller charts in USA and UK – and created an awesome sequel. Graphically superb, it features multiple screens, new aliens and attack waves, mystery bonuses, renegade humanoids, deflexor fields, diagonal tracking, countdown/panic phase and much, much more... Packed into 20 mind-zapping zones and accompanied by incredible sonics. 8K expansion required. Available for Commodore 64 £7.50 and VIC-20 £6.

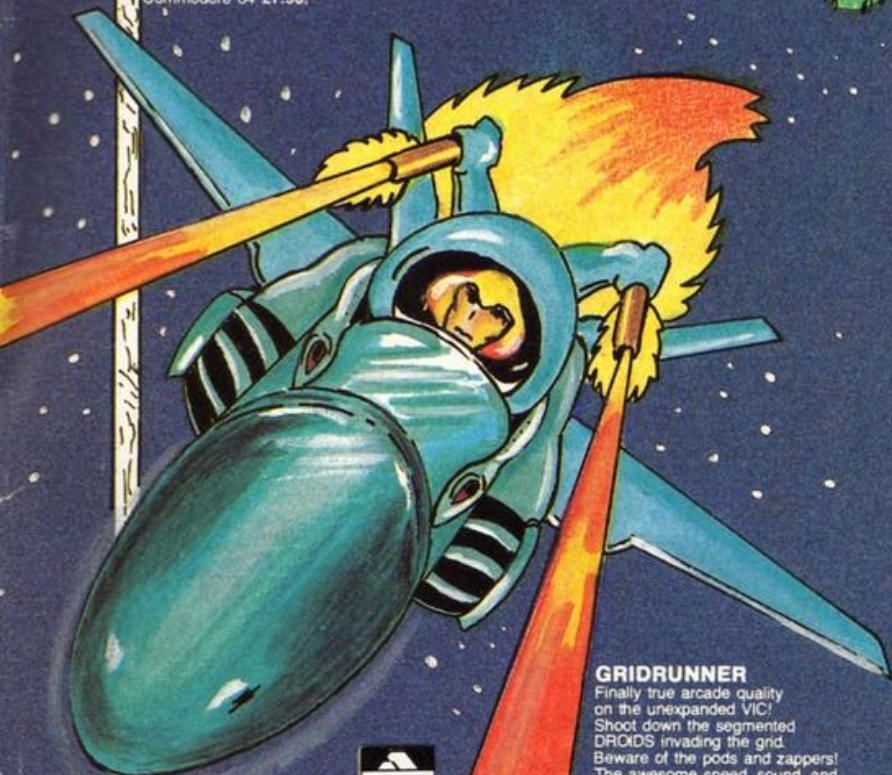
HOVER BOVVER

A totally original arcade game for C64 featuring outstanding graphics and a sound track created by a professional Piano Wizard. Gordon Bennet has borrowed his neighbour's Air-Mo lawnmower. Mow your way through as many of the 16 lawns as you can before the pursuing neighbour retrieves his mower. Set your dog onto the neighbour to help you out of tight spots and don't annoy the gardener. Try not to plough through the neat flower beds or overheat your mower! £7.50



ATTACK of the MUTANT CAMELS

Planet earth needs you! Hostile aliens have used genetic engineering to mutate camels from normally harmless beasts into 90 foot high, neutronium shielded, laser-spitting death camels!! Can you fly your tiny, manoeuvrable fighter over the mountainous landscape to weaken and destroy the camels before they invade the humans stronghold? You must withstand withering laser fire and alien UFOs. Game action stretches over 10 screen lengths and features superb scrolling, scanner 1/2 player actions and unbelievable animation! Play this game and you'll never be able to visit a zoo again without getting an itchy trigger finger! Awesome m/c action! Available for Commodore 64 £7.50.



REVENGE OF THE MUTANT CAMELS

At last the long awaited sequel to Attack of the Mutant Camels is available. You are controlling a ninety foot high, neutronium shielded, laser spitting death camel; leading a rebellion against your evil Zzyaxian overlords. The game features beautiful smooth scrolling graphics and no less than 42 different attack waves, more than any game in video history. The challenge of play will last for months as you battle to see what's on the next wave.



Llamasoft

AWESOME GAMES SOFTWARE

49 MOUNT PLEASANT,
TADLEY, HANTS. RG26 6BN.
TELEPHONE: TADLEY (07356) 4478

GRIDRUNNER

Finally true arcade quality on the unexpanded VIC! Shoot down the segmented DROIDS invading the grid. Beware of the pods and zappers! The awesome speed, sound, and graphics gives you the best blast available for unexpanded VIC. Available for VIC-20 £5.00 Commodore 64 £5.00 Atari 400/800 £7.50

All orders add
50p postage and packing

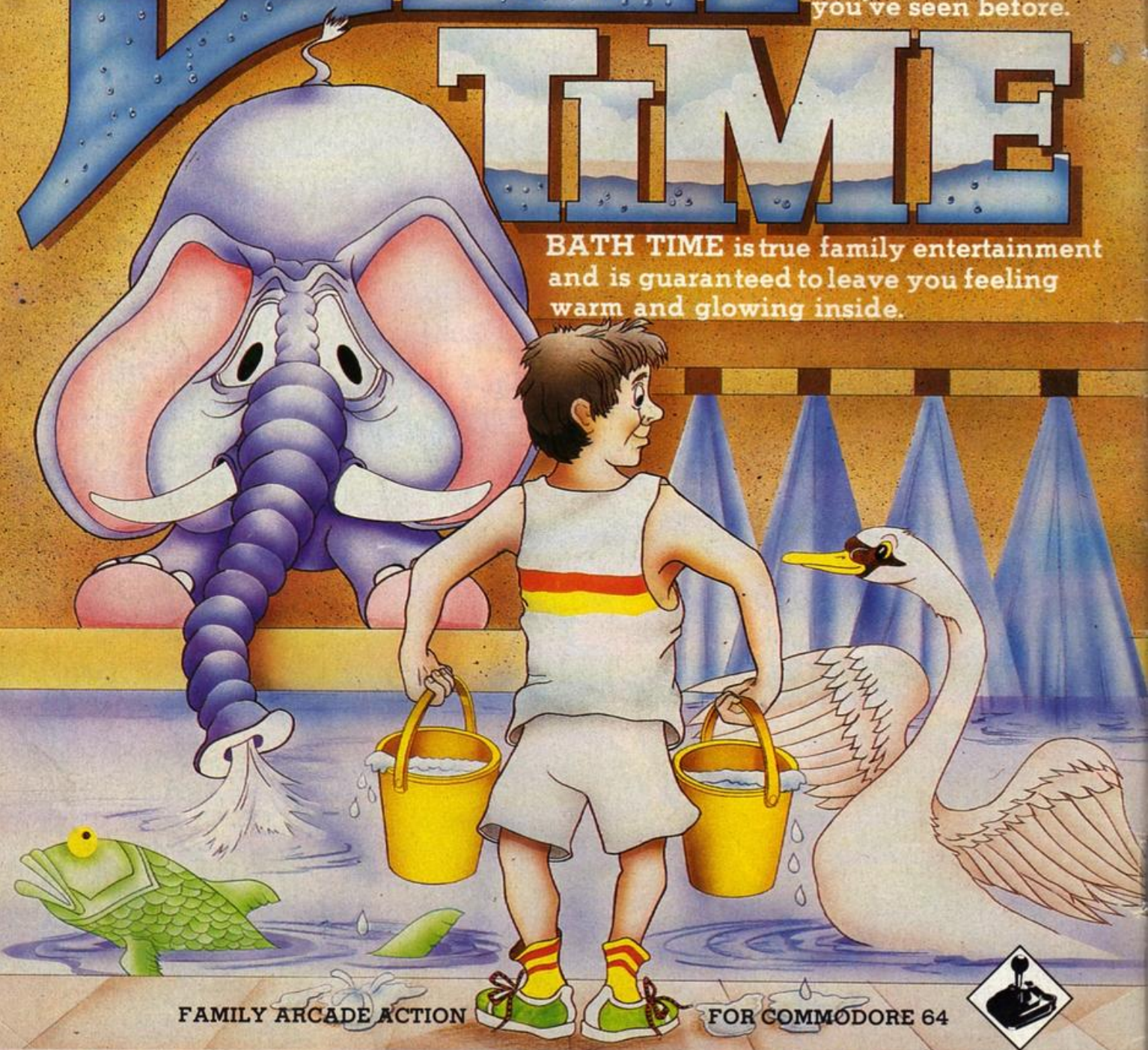
LLAMA SOFT GAMES NOW IN BOOTHS,
LASKYS AND MANY OTHER RETAILERS.

There has never been a family game like

IN
YOUR
SHOPS
FROM
5th MAY

"BATH TIME" is a really nice program for your Commodore 64. It's like no other program you've seen before.

BATH TIME is true family entertainment and is guaranteed to leave you feeling warm and glowing inside.



FAMILY ARCADE ACTION

FOR COMMODORE 64



The object is to protect a swan and a fish happily living in their bath. If the water level in the bath gets too high the swan will swim away; if it gets too low, the fish will die - but watch out for the elephant and the little boy.

R.R.P. £7.95

