

Home Computing WEEKLY

An Argus Specialist Publication

Every week: your best buy for software reviews and listings

No. 73
Jul 31 - Aug 6, 1984

45p

MIRRORSOFT

64 prizes of Caesar the Cat toy and game

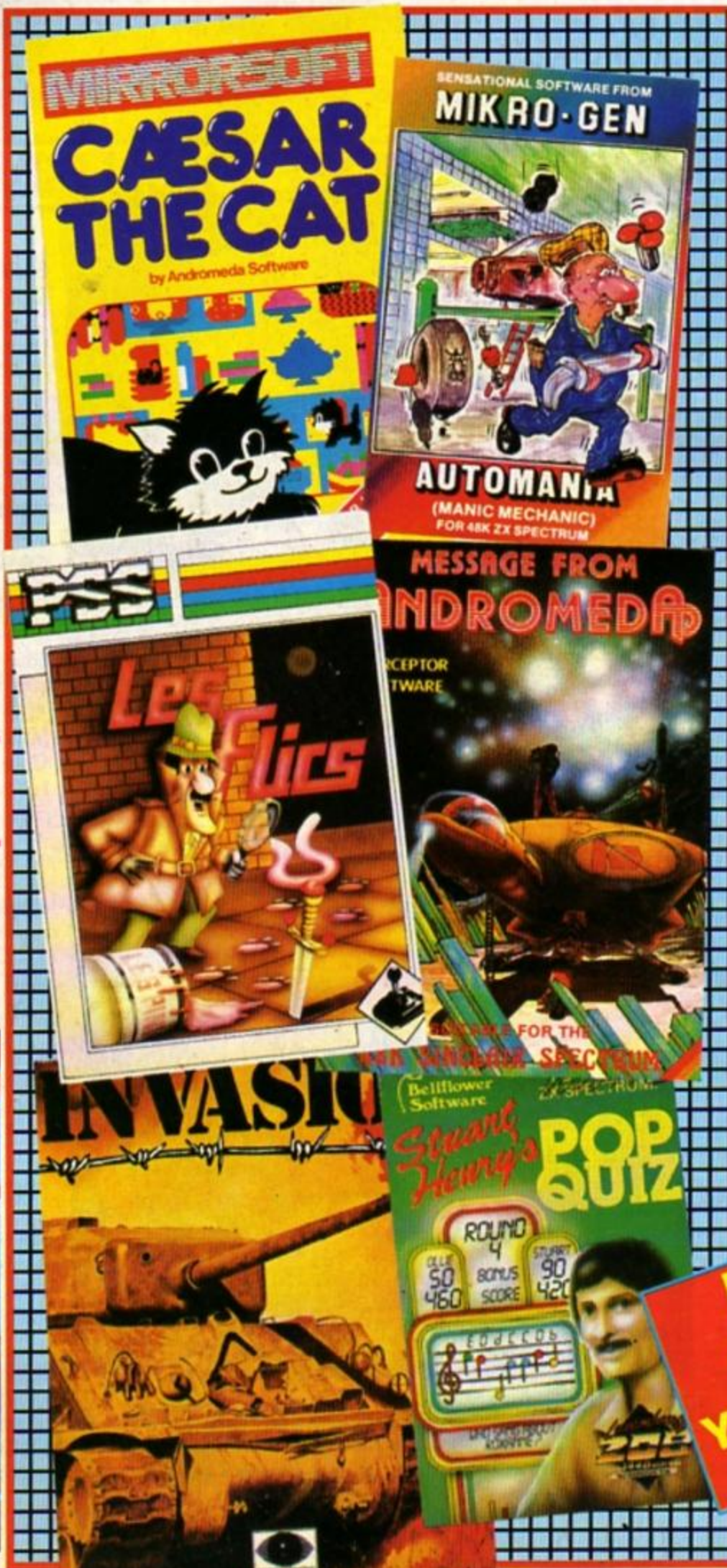
Software reviews for: Spectrum, BBC, Electron, Oric, Memotech, TI-99/4A

VIC-20 Assault on Greenham Common

CBM 64 Two utilities

TI-99/4A Bombs away!

Plus: news, your letters, U.S. Scene, charts...

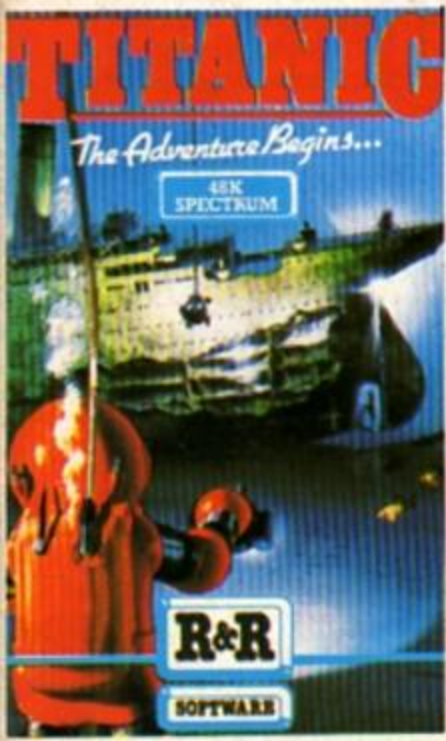


Marks for software

Marks and Spencer will have St Michael Software on the shelves in October. It will be a mixture of new products and improved and repackaged titles from big software houses. M&S senior selector Adrian Shire said that, as with many new lines, software would first be test marketed in a few city centre stores. He said: "We haven't yet decided on the details, like exactly when and how we are going to present it." Chris Maynard, from a computer publishing company, is handling the software on behalf of *Continued on page 5*

Rabbit for sale

Rabbit Software is up for sale, just 14 weeks after joint founder Alan Savage committed suicide. Managing director Heather Lamont, 23, put the company into voluntary liquidation. She said she and her staff had successfully conquered the problems caused by Mr Savage's death — orders and payments slowing down — but half the profits would go to Mr Savage's estate. Most of Mr Savage's debts had also been paid. She said that, although she was sure Rabbit would continue in some form, for her it was no longer worth the struggle. Miss Lamont and Mike Cooper, of agents Rosan and *Continued on page 5*



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Home Computing WEEKLY

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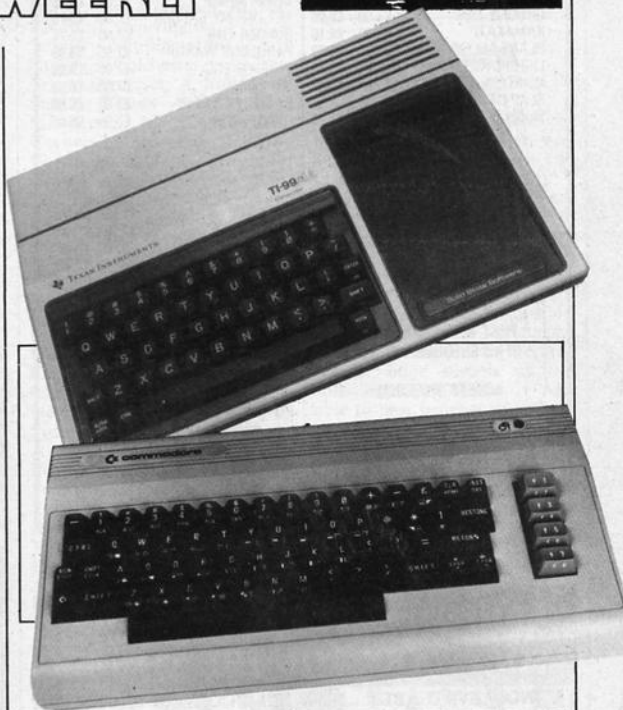
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HOME COMPUTING WEEKLY
BRITAIN'S BRIGHTEST



ZX USER

Another free magazine for all Spectrum and ZX81 users. Here's what's in store for you:

- Software reviews — latest releases for the Spectrum
- Track down golden nuggets with the miserly vicar
- Journey through hyperspace to search out new civilisations
- Get your maths in shape
- Test your memory and echo your computer's thoughts

For further details look at the contents on page three of your 16-page ZX User.

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SUPER SAVERS

SPECTRUM	R.R.P.	OUR PRICE	COMMODORE 64	R.R.P.	OUR PRICE
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PiKaDee Software FOR THE UNEXPANDED TI-99/4A

PKD1: GRAPHICS CREATOR & SCREEN EDITOR £5.95

This highly praised utility program makes the creation of graphics and large screen layouts quick and simple. Commands include MIRROR, ROTATE, INVERT and many more. HCW No. 54 said "A Must For all TI Owners"... Instructions 100% Ease of Use 95% Display 95% Value for money 95%. Price includes full instructions and 3 sets of demographics.

PKD2: MUSIC MAKER by David Martin ★ ★ ★ ★ ★
TI-LUDO by Roy Hollingworth
CHARSET ONE (BOLD) £5.95

Three high-quality programs on one tape. MUSIC MAKER is a novel way to play with TI's sound. Notes are entered onto 2 musical staves and can then be edited in different ways. They can be played back with 1, 2 or 3 voices or with an echo. Many commands. Full instructions and demonstration tune included. TI-LUDO is a classic version of the classic board game. You can play your friends and/or the computer. 1 to 4 players can take part. CHARSET ONE (BOLD) is a complete ready-to-use character set which will enhance your own programs 100%.

PKD3: RIVETS! by John Haworth
CHARSET TWO (PICA) £4.95

Arcade action with Rivets! You have to pick up all of the rivets left lying around by your workmates. The boss is timing you so you had better be quick. Beware the banana skins and don't run too quick as it's a long way down to the ground. 5 skill levels. 21 floors. Timer. "This is a must for all game players." CHARSET TWO (PICA) is the second off-the-shelf character set for your own games. Instructions included.

PKD4: ESCAPE FROM MICA! by B Dhooper £4.95

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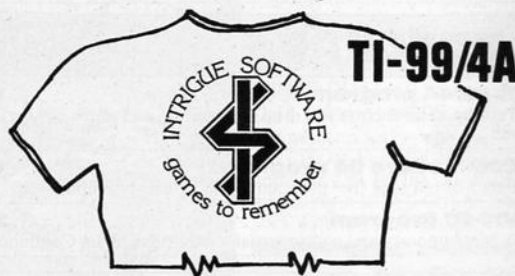
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Rabbit

From front page

Company, said several offers had already come in. Rabbit may either be sold as a package with its duplication arm, Soft Copy, or the two may be divided.

Miss Lamont said most of the 28 staff now had other jobs apart from two who were unemployed and two still at the company's premises in Wealdstone, near Harrow.

And she had also been offered several jobs.

Miss Lamont said: "I think the shake-out among software companies has begun — I know a lot of software houses with problems. I'm absolutely sure a lot of them are going to go down."

Mr Crocker said his staff were at Rabbit's offices drawing up a list of assets. He expected the company to be sold by sealed tender.

● Alan Savage, 36, formed Rabbit Software four years ago with Miss Lamont. He hung himself in a copse with his leather belt after a motorway accident.

Rabbit's liquidator is Stuart Edgar, 59 Myddelton Sq, London EC1R 1XX

Marks

From front page

Marks and Spencer's books department.

He said software which had been previously published was being extensively improved and that the software house would be credited on the packaging.

And he stressed: "We are not inviting software companies to submit titles to us."

M&S boasts that 90 per cent of its products are British made. But Mr Maynard said that the software will be 100 per cent British.

Marks and Spencer, 40 Bowling Green Lane, London EC1 0NE

Baptism of fire

Here's an amazing story of a computer which doesn't give up. Rudi Westfold's house was hit by fire, damaging his VIC-20 among other valued possessions. It suffered exposure to severe heat, turning black and half-melting. Then it was swamped with water by the firemen, and still bears the tide-marks.

The surprising thing is that

Congrats winners

Here's the solution to our Doctor Soft wordsquare competition: **Horizontal:** Approach, Navigation, Wings, Rotate, Boeing, Flight Plan Altitude, Stewardess, Altimeter. **Vertical:** Runway, Heathrow, Gatwick, Knots, Pilot, Simulator, Flaps, Take Off. **Diagonal:** British Airways.

These are our 105 winners of Doctor Soft's 747 flight simulator: Lucy Shanahan, Cambridge; Mark Spain, Aylesbury; Audrey Lewis, Ilford; Alan Kearney, Co Down; Mr S R Locke, Epsom; Mrs M Pearson, Kilmarnock; Mr A Jones, Manchester; Richard Williamson, Norfolk; Natalie Read, Woodbridge; Janice Curry, Northumberland; Stuart Pierce, Lancashire; David Moxey, Aberdeen; R Battams, London SE3; Christopher Rugh, Sale; Mr C Crane, Stoke-on Trent; Mark Price, Weybridge; Trevor Floyd, Birmingham; Andrew Medcalf, N Humbs; Roy Tacchi, E Yorks; David Smith, Howbray; Mr P J Finkill, Tyne & Wear; R Carroll, Wilts; William G Barket, Tyne & Wear; Tahir Saleem, Gwent; Sarah Parrish, Norfolk; Philip Coyne, Derby; Graham Rowley, Workson; John Gordon, Glasgow; Andrew Brooks, Hucknall; Kevin Finn, S Yorks; H T Pattison, Camborne; Mr Roger Penny, Kiddlington; Vicki Blundell, Hertfordshire; Neil Hoare, Norfolk; Mr J D Hewitt, Coventry; Brian McGuckian, Co Antrim; Michael Nelson, Warwickshire; Mrs A Griffiths, Wallington; Alison Beasley, Somerset; David Lacy, Woodthorpe; Mr R A Worton, Sheffield; Mr Robert Owens, Cheltenham; Mr E G Bayliss, Alum Rock; James G Scott, Aylesbury; Chris Gough, Stoke-on Trent; Mark Walshaw, S Yorks; M Booth, Huddersfield; Mr Brian Mawson, Berks; Mr K Harper, Sittingbourne; J Larkin, Leicestershire; Carl Duckett, Mid Glamorgan; Mr R J

Poston, Horsham; Wayne Parker, Birmingham; R W Sluman, Surrey; Damian Evans, Jersey; Miss N Advani, Southgate; J Hodgson, Bristol 6; A F Turner-Howie, Basingstoke; Master J Reid, Kent; A B Goode, Orpington; Adrian Hall, Lancashire; F A Beale, Dorset; Mrs J Boydon, Middx; J R Moss, Warrington; Peter A Scouler, Southampton; Chris Shelley, Colchester; Andrew Cryer, Somerset; A R Walker, Sutton; Robert A Smith, Gtr Manchester; Mr P C Skelton, Cornwall; Brendan Follow, Cheshire; Andrew Pridmore, Slough; Shaun John McMinn, Skipton; Mr M V Priestman, Rubery; Raymond McLoughlin, Belfast; C J Collins, Co Durham; Mr A T Bewley, Preston; A Walker, Surrey; H R Appleby, Cramlington; K Hayward, Cheadle; P J Ashforth, Kingston-upon-Hull; G Davis, Hampshire; S W Smith, Kent; Miss Tracy Brewer, Mid-Glamorgan; Mr B Merridan, Herts; Andrew Carr, Berkshire; Susan Hastings, Luton; J Alison, Clermiston; D J Pointer, Cleveland; Mrs G B Jenkins, Cornwall; David Shearer, Greenock; Brian Roberts, Merseyside; Mr P Wormall, Hertfordshire; Neil Precious, London EC1; Andrew Dodd, Armitage Nr Rugeley; N Darken, South

Woodford; M J Gough, Hersham; C Marshall, Normanton; William Hill, Berwickshire; S J Clough, W Lothian; Steven John Solsby, Cumbria; Mr P Botton, Bilton; Mr M Thornley, Notts; Mr Paul Green, Farnborough; Mr M Parfitt, Surrey.

Slashed prices

Audiogenic has announced price cuts on many of its best selling games for the Commodore 64 and VIC-20.

Motor Mania and Renaissance are down from £8.95 to £5.95, while Bonzo for the VIC-20 is also reduced to £5.95. Grandmaster's price has been halved from £17.95 to £8.95 for cassette and £12.95 for disc.

Martin Maynard, managing director, commented: "Because of the huge success of our software, Audiogenic is now able to pass benefits directly to the customer in the form of lower prices."

He continued: "Our policy of bringing the cream of software to the marketplace has paid off and we expect to be announcing further price reductions in the near future." *Audiogenic, PO Box 88, Reading, Berks*

APOLOGY

Cheetah Marketing Ltd. sincerely apologise for developing their latest computer peripheral. This will have the effect that your existing joystick is just about to be completely outdated. **However, on August 22nd you will be able to experience the evolution of the most sophisticated computer peripheral ever developed.**

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U.S. SCENE

High-tech Olympic Games

Are you ready for the high-tech Olympics? Well, the city of the angels (LA) certainly is. I don't know how many athletic records are going to be set here this summer, but as far as computer applications and communications are concerned, there will certainly be a few. For example, during the games, the total number of athletes, officials, journalists and staff will number about 50,000. These people will be using roughly \$50 million worth of computers, electronics and related equipment.

That is certainly a new record. Using that stuff, they will be able to send messages to each other via computer terminals as well as by more conventional means. They will be able to leave messages for other athletes recorded in one language and played back in the athlete's native tongue. Callers from overseas will be able to leave messages recorded in their native tongue which can be relayed over the regular (public) phone system.

IBM, Motorola, and American Telephone and Telegraph (AT&T) are the main movers and shakers of the communications and computer networks. And since some of the people using these devices will have no or almost no experience with them, everything, as one engineer put it, has got to simple or it will never be used at all.

AT&T is installing roughly 1700 computer terminals and about 300 printers throughout the Olympic site. These will be linked by 14 Western Electric 3B mainframe computers. Applications include electronic mail, bulletin board service, relaying the results of events, and telex. Tied in with that system is another communications system devised by Motorola. These involve the use of over 3000 wireless paging units.

It will work like this. If a message is sent via a computer terminal, the sender of the message will be able to page the competitor over the radio-controlled paging system and have the first 80 characters of the message appear on a one-line LCD display on the paging device itself. If the message turns out to be longer than 80 characters, the person receiving the message can go to the nearest computer terminal to receive the entire message.

IBM is also making a significant contribution. The firm is installing about 200 Display Writer word processors and an audio system which allows a caller to record a message for someone who can then access it with a pre-arranged code number. Instructions for the use of this system will be made available in any one of 10 different languages and the messages can, of course, be left in any language. If athletes have been left messages on the system, they will see their names scrolling up the screen of various IBM Personal Computer VDUs scattered through the site.

High technology has had a direct impact on some of the events too, especially in the all-important aspect of determining finish results. In swimming events, a special system was rigged up using a touch pad made of quartz strips set on aluminium panels. The bi-metallic unit sets up an electric current which feeds a detection circuit whenever touched by a swimmer's hand. This system is unaffected by waves and water pressure (and of course human judgement).

In track and field events, an infrared beam will be used to mark the finish line and the clock for each competitor. Unlike simpler electronic finish lines, this one is impervious to interference caused by shadows, reflections, and of course camera strokes.

Bud Izen, Fairfield, California

Win Caesar the Cat — toy and game — from

MIRRORSOFT

This week we are offering you the chance to win a cuddly cat as well as the game based around him. The feline character in question is Caesar — a cute black and white furry creature with a mouse nestling cosily on his right paw.

The game is Caesar the Cat from Andromeda, marketed by Mirrorsoft. And we're giving away 64 soft toys as well as 64 copies of the game — for 48K Spectrum, Commodore 64 or BBC B. You could be the proud owner of Caesar in toy and game version!

Caesar takes his duties seriously as household protector. The house is riddled with mice and Caesar searches out those who are scavenging in the larder.

It's a good job cats are renowned for being fleet of foot and agile, for the shelves on which the mice are picnicking are strewn with crockery. Although Caesar is a treasured member of the family, his owners are understandably furious when he breaks any plates.

Once Caesar corners a mouse, he removes it from the kitchen and renews his hunt for the ravenous rodents. But time is running out and can only be boosted when he catches more mice.

Graphics, animation and sound are outstanding. This is a challenging game of skill for all the family. Caesar the cuddly toy will soon become a popular addition to your family if you win. The mouse is fixed to his paw by Velcro and is detachable so that he can play with it.

The game sells in the shops for £6.95 (for the Spectrum and BBC) and £8.95 (Commodore 64) and Caesar soft toys would cost £8.95. So each prize is worth £17 — with a total value of £1,000. So what are you waiting for?

The competition is familiar to all you HCW regular readers — just spot the differences between the two cartoons, mark them and write the number you found on the back of your envelope.

Good luck and happy hunting!

How to enter

Study the two cartoons — there are a number of differences between them. Circle the differences on

carton B and seal the cartoon and coupon in an envelope. Write clearly the number of differences you found on the back of the envelope.

Post your entry to Mirrorsoft Competition, Home Computing Weekly, No. 1, Golden Square, London W1R 3AB. Entries close at first post on Friday August 17, 1984.

You may enter as many times as

you wish, but each entry must be on an official coupon — not a copy — and sealed in a separate envelope.

Important: please follow carefully the guidelines on entering — incomplete coupons and entries in envelopes with no numbers on the back cannot be considered. If you are a winner, the coupon will be used as a label to send your prize so clear writing is essential.

Mirrorsoft Competition

Entry Coupon

Name _____

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_____ post code _____

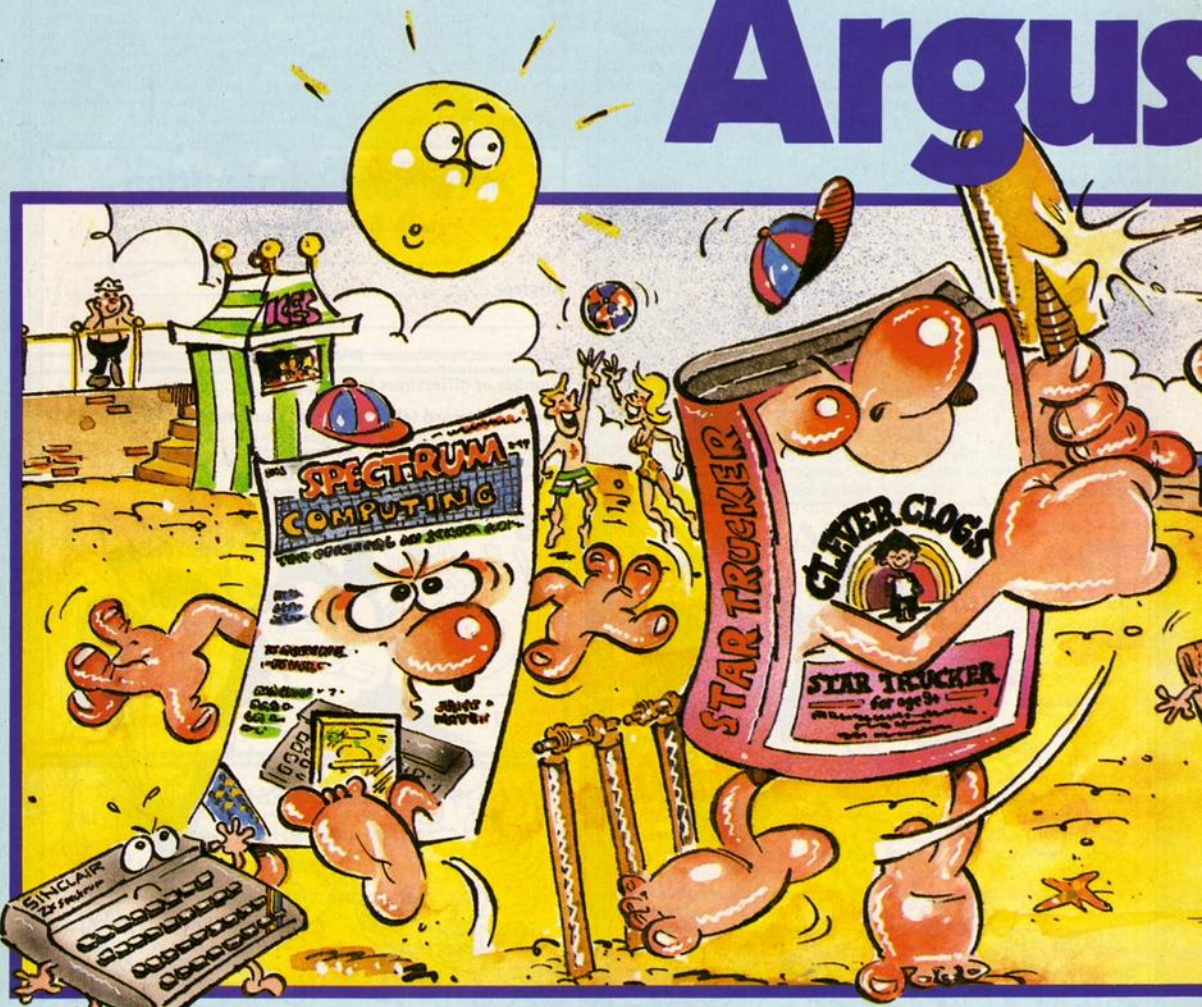
Number of differences found _____

Computer owned (48K Spectrum, Commodore 64 or BBC C)

Complete clearly and fully — if you are a winner this will act as a label for your prize. Post to Mirrorsoft Competition, Home Computing Weekly, No. 1 Golden Square, London W1R 3AB. Closing date: first post, Friday August 17, 1984. Don't forget to write the number of differences on the back of your envelope.



9 Out of 10 said they Argus



Tape Magazines
Great games, great utilities all for only £3.99. Available for Spectrum, Atari, Vic 20, BBC B, and CBM 64 through W.H. Smith, Menzies and computer stores.
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Mind Games:
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Have an adventure this summer with Star Force Seven, Quest for Eternity, and

Orion Quest. Spectrum £7.99, BBC B, and CBM 64 £9.99.

Fall of Rome
Five million barbarians, an army of two of Persians, several thousand upset Armenians, fifty legions of itinerant Italians and you!
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Computers* preferred Software

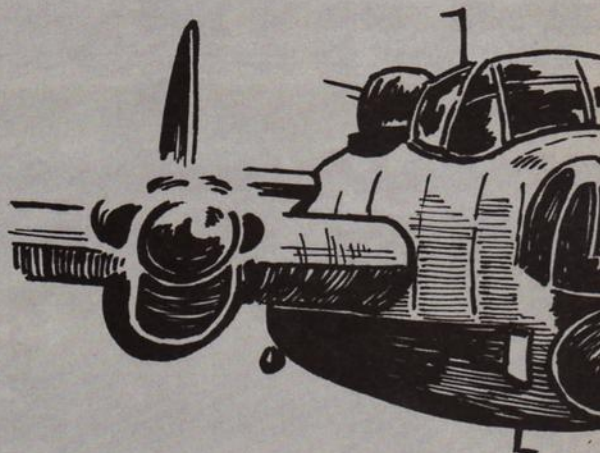


The House for Heroes!

The Game Lords join the Argus Press team. Consistently in the top ten with great games like Ant Attack, Boogaboo, Fred, Mined Out and Snowman. Prices from £4.95 to £7.95. Available from W.H. Smith, Boots and Menzies and leading Computer Stores worldwide.


```

100 CALL CLEAR
110 CALL SCREEN(2)
120 CALL CHAR(100,"3C7EFFFFFFFF7
E3C")
130 CALL CHAR(104,"080008000800
8")
140 CALL CHAR(112,"00001818FFFF
F")
150 CALL CHAR(113,"000020702")
160 CALL CHAR(128,"00001818FFFF
F")
170 CALL CHAR(136,"A963F33F9F1F7
FFF")
180 CALL CHAR(137,"95C6CFFCF9F8F
EFF")
190 CALL CHAR(138,"FF7F1F9F3FF36
3A9")
200 CALL CHAR(139,"FFFEF8F9FCFC
695")
210 CALL CHAR(144,"3C3C3C3C3C3C
C3C")
220 FOR I=2 TO 8
230 CALL COLOR(I,11,1)
240 NEXT I
250 PRINT TAB(10);"MINEFIELD":
*****":::::::::::
"DO YOU WANT INSTRUCTIONS":"(Y
OR N)"::::::
260 CALL KEY(O,K,S)
270 IF S=0 THEN 260
280 IF (K=78)+(K=110)THEN 680
290 IF (K=89)+(K=121)THEN 310
300 GOTO 250
310 RESTORE 3000
320 CALL CLEAR
330 FOR I=1 TO 10
340 READ A$,B,C
350 GOSUB 2450
360 NEXT I
370 FOR DE=1 TO 400
380 NEXT DE
390 CALL CLEAR
400 RESTORE 3030
410 FOR I=1 TO 5
420 READ A$,B,C
430 GOSUB 2450
440 NEXT I
450 GOTO 720
460 CALL CLEAR
470 A$="HIGH SCORES"
480 B=1
490 C=10
500 GOSUB 2450
510 A$="-----"
520 B=2
530 C=9
540 GOSUB 2450
    
```



If you know and love the game Bomber, you'll drool over this. It's an adaptation of that well known game, but this time you start from the bottom and work your way up.

This game features a mystery bonus which can double your score, 18 levels of play, with increasing difficulty, a mystery blowing-up of the submarine and an end of sheet bonus. Once you have reached 10,000 points you get an extra submarine as a reward for your efforts. The hall of fame records your high scores.

Texas BASIC differs from other BASICS in that you don't have direct access to the processor. Instead you use built-in machine code subprograms for sound and graphics. Only statement lines are supported.

Hints on conversion

- Clear** clear screen
- Color (a,b,c)** set colour of character; a foreground, b colour, c background colour
- Char (a,a\$)** redefine character a to pixel pattern defined by a\$
- HCHAR (a,b,c,(d))** place character c at row a and column b, optionally repeat d times
- VCHAR (a,b,c,(d))** place character c at row a and column b, optionally repeat d times vertically
- Sound (a,b,c)** play frequency b for a milliseconds at volume c
- GCHAR (a,b,c)** return the ASCII code into variable c of the character at screen row a, screen column b
- Key (0,a,b)** return ASCII code into a of key pressed. Return 0 into b if no key pressed

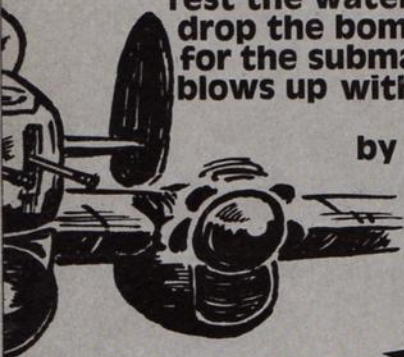
Variables

- AS** get string from data statements
- B** character row in print routine
- C** character column in print routine
- D** skill level
- E** lives
- F** submarine column
- G** bomb character
- H** submarine row
- M** depth of mine
- N** volume
- O** second rest variable
- P** bomb row
- Q** bomb column
- R** first test variable
- T** character
- V** hit
- X** third rest

How it works

- 100-110** set screen colour
- 120-210** define characters
- 220-240** set colours
- 250-300** test for instructions
- 310-450** instructions routine
- 460-740** high score hall of fame
- 750-1390** set up screen
- 1400-1470** flashing mines and start
- 1480-1710** main game sequence
- 1720-1980** end of sheet bonus
- 1990-2020** test for bonus sub
- 2030-2180** test bomb for hit and bonus
- 2190-2250** move bomb
- 2260-2440** hit mine routine
- 2450-2490** print at routine
- 2500-2600** blow up sub routine
- 2610-2700** game over
- 2710-2750** test for high scores
- 2760-2840** set up high score message
- 2850-2990** sort high scores
- 3000-3060** a data for print messages

Test the waters before you
drop the bomb. Watch out
for the submarine which
blows up without warning,
in this game
by Jon Dempsey



B o m b a w a y s d a y !

```

700 C=2
710 GOSUB 2450
720 CALL KEY(O,K,S)
730 CALL SOUND(-99,-4,0)
740 IF S=0 THEN 720
750 CALL CLEAR
760 CALL COLOR(9,10,1)
770 CALL COLOR(10,16,1)
780 CALL COLOR(11,11,1)
790 CALL COLOR(12,13,13)
800 CALL COLOR(13,2,13)
810 CALL COLOR(14,9,1)
820 CALL COLOR(15,14,13)
830 CALL COLOR(16,1,1)
840 FOR I=2 TO 8
850 CALL COLOR(I,2,16)
860 NEXT I
870 CALL HCHAR(1,1,120,96)
880 CALL HCHAR(23,1,120,64)
890 A=0
900 A$="POINTS="&STR$(A)&"xxxx"
    910 B=2
    920 C=16
    930 GOSUB 2450
    940 X=1
    950 D=6
    960 E=3
    970 F=2

```

```

550 FOR I=10 TO 2 STEP -2
560 A$=STR$(I/2)&". "&CHR$(32)&STR$(V(I/2))
570 B=(I*2)+2
580 C=3
590 GOSUB 2450
600 NEXT I
610 FOR I=10 TO 2 STEP -2
620 A$="__ "&V$(I/2)
630 B=(I*2)+2
640 C=14
650 GOSUB 2450
660 CALL SOUND(-99,110*I,4)
670 NEXT I
680 A$="PRESS ANY KEY TO PLAY"
690 B=24

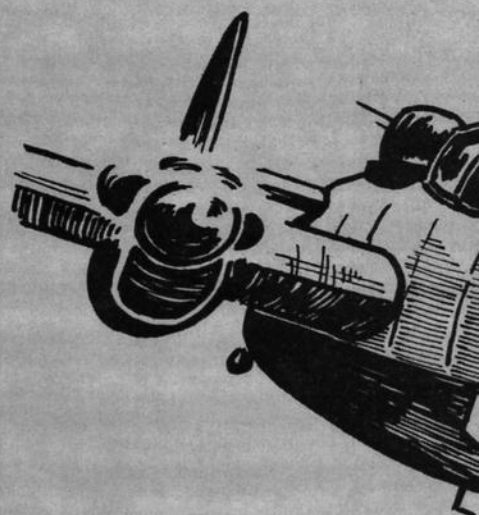
```



```

980 G=18
990 A$="SHOTS="&STR$(G)&"x"
1000 B=2
1010 C=3
1020 GOSUB 2450
1030 IF D=18 THEN 1060
1040 H=D+4
1050 GOTO 1070
1060 H=22
1070 RANDOMIZE
1080 CALL HCHAR(4,1,32,608)
1090 CALL HCHAR(3,1,120,32)
1100 CALL HCHAR(23,1,120,32)
1110 J=INT(RND*15)+4
1120 L=INT(RND*32)+1
1130 Y=INT(15*RND)+4
1140 YY=INT(L*RND)+1
1150 CALL HCHAR(J,L,159)
1160 CALL HCHAR(Y,YY,158)
1170 FOR I=5 TO 29 STEP 2
1180 M=INT(RND*D)+1
1190 CALL VCHAR(4,I,104,M)
1200 CALL HCHAR(M+3,I,100)
1210 CALL SOUND(-50,-5,0)
1220 NEXT I
1230 D=D+1
1240 IF D<>18 THEN 1270
1250 Z=D+1
1260 GOTO 1280
1270 Z=D
1280 A$="CARD="&STR$(Z-6)&"x"
1290 B=24
1300 C=3
1310 GOSUB 2450
1320 CALL HCHAR(24,20,120,8)
1330 GOSUB 1350
1340 GOTO 1400
1350 FOR I=1 TO ((E-1)*2)STEP 2
1360 CALL SOUND(-10,-1,0)
1370 CALL HCHAR(24,20+I,128)
1380 NEXT I
1390 RETURN
1400 CALL KEY(0,K,S)
1410 CALL COLOR(9,2,1)
1420 CALL HCHAR(H,F,112)
1430 CALL HCHAR(H,F,32)
1440 CALL SOUND(-200,500,5,-3,5,
1000,10)
1450 CALL COLOR(9,10,1)
1460 U=0
1470 IF S=0 THEN 1400
1480 CALL HCHAR(H,F,112)
1490 CALL KEY(0,K,S)
1500 IF S=0 THEN 1530
1510 IF G=0 THEN 2500
1520 IF K=32 THEN 2030
1530 CALL GCHAR(H,F+1,D)

```

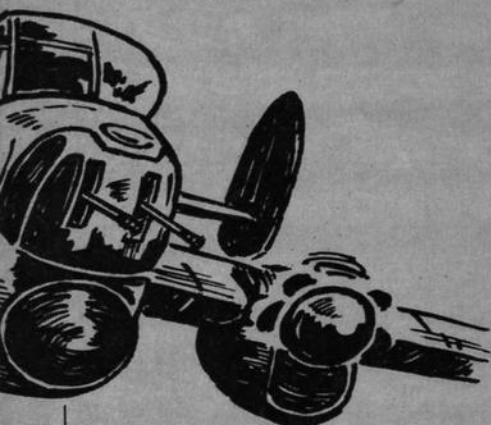


```

1540 IF (D=100)+(D=158)THEN 2500
1550 F=F+1
1560 IF F<32 THEN 1640
1570 CALL HCHAR(H,F,32)
1580 F=2
1590 H=H-1
1600 A$=STR$(G)&"x"
1610 B=2
1620 C=9
1630 GOSUB 2450
1640 CALL VCHAR(4,31,32,19)
1650 CALL HCHAR(H,F-1,32)
1660 IF H>3 THEN 1480
1670 IF D>=18 THEN 1680 ELSE 170
0
1680 D=18
1690 GOTO 980
1700 CALL HCHAR(4,1,32,32)
1710 IF G=0 THEN 970
1720 A$="BONUS"
1730 B=10
1740 C=10
1750 GOSUB 2450
1760 IF G>1 THEN 1820
1770 A$=STR$(G)&" BOMB"
1780 B=12
1790 C=10
1800 GOSUB 2450
1810 GOTO 1860
1820 A$=STR$(G)&" BOMBS"
1830 B=12
1840 C=10

```


PROGRAM



```
1850 GOSUB 2450
1860 A$="@ 50 POINTS EACH"
1870 B=14
1880 C=10
1890 GOSUB 2450
1900 A$=STR$(G*50)&" POINTS"
1910 B=16
1920 C=10
1930 GOSUB 2450
1940 A=A+(G*50)
1950 A$=STR$(A)&"x"
1960 B=2
1970 C=23
1980 GOSUB 2450
1990 IF (A)=10000)*(X=1)THEN 200
0 ELSE 970
2000 E=E+1
2010 X=X+1
2020 GOTO 970
2030 P=H
2040 G=G-1
2050 CALL SOUND(-100,-5,4)
2060 Q=F
2070 Q=Q+1
2080 P=P-1
2090 CALL GCHAR(P,Q,R)
2100 CALL GCHAR(H,F+1,Q)
2110 IF Q=100 THEN 2300
2120 IF (R<159)*(R<32)*(R<100)
)*(R<158)THEN 1480
2130 IF (R=32)+(R=158)THEN 2190
2140 IF R=100 THEN 2300
```

```
2150 A=A*2
2160 CALL SOUND(-150,1000,3,-7,1
0,330,3)
2170 CALL HCHAR(P,Q,32)
2180 GOTO 2340
2190 CALL HCHAR(P,Q,113)
2200 CALL SOUND(-50,3000,7)
2210 CALL HCHAR(H,F,112)
2220 IF F=32 THEN 1570
2230 IF Q<32 THEN 2260
2240 CALL HCHAR(P,Q,32)
2250 GOTO 1570
2260 CALL HCHAR(P,Q,32)
2270 CALL HCHAR(H,F,32)
2280 F=F+1
2290 GOTO 2070
2300 U=U+1
2310 CALL VCHAR(4,Q,32,P-3)
2320 A=A+50
2330 CALL SOUND(-750,110,2,-7,0,
200,5)
2340 IF (A)=10000)*(X=1)THEN 235
0 ELSE 2390
2350 E=E+1
2360 X=X+1
2370 GOSUB 1350
2380 CALL SOUND(-750,110,2,-6,0,
192,2)
2390 A$=STR$(A)&"x"
2400 B=2
2410 C=23
2420 GOSUB 2450
2430 IF U=13 THEN 1710
2440 GOTO 1480
2450 FOR T=1 TO LEN(A$)
2460 Z=ASC(SEG$(A$,T,1))
2470 CALL HCHAR(B,T+C,Z)
2480 NEXT T
2490 RETURN
2500 CALL HCHAR(H,F,136)
2510 CALL HCHAR(H,F+1,137)
2520 CALL HCHAR(H+1,F,138)
2530 CALL HCHAR(H+1,F+1,139)
2540 FOR I=0 TO 30
2550 CALL SOUND(-200,-7,I,110,I)
2560 NEXT I
2570 E=E-1
2580 D=D-1
2590 IF E=0 THEN 2610
2600 GOTO 970
2610 A$=STR$(G)&"x"
2620 C=9
2630 B=2
2640 GOSUB 2450
2650 A$="GAME OVER"
2660 B=12
2670 C=10
```


TI-99/4A PROGRAM

```

2680 GOSUB 2450
2690 FOR DE=1 TO 700
2700 NEXT DE
2710 CALL CLEAR
2720 FOR I=2 TO 8
2730 CALL COLOR(I,7,1)
2740 NEXT I
2750 IF A>V(5)THEN 2760 ELSE 460
2760 V(5)=A
2770 RESTORE 3050
2780 FOR I=1 TO 6
2790 READ A$,C
2800 B=10+(I*2)
2810 GOSUB 2450
2820 NEXT I
2830 INPUT W$
2840 IF LEN(W$)>10 THEN 2830
2850 V$(5)=W$
2860 CALL CLEAR
2870 FOR II=1 TO 5
2880 FOR I=1 TO II
2890 IF V(II)<V(I)THEN 2970
2900 CALL SOUND(-99,1100,I,2000,II)
2910 VV=V(I)
2920 VV$=V$(I)
    
```

```

2930 V(I)=V(II)
2940 V$(I)=V$(II)
2950 V(II)=VV
2960 V$(II)=VV$
2970 NEXT I
2980 NEXT II
2990 GOTO 460
3000 DATA *****1,10,MINEF
IELD,3,11,*****5,10,YOUR
SUB HAS RUN OUT OF AIR,7,3
3010 DATA AND YOU MUST SURFACE--
IN,9,2,A MINEFIELD.,11,2,YOU HAV
E EIGHTEEN MISSILES,14,3
3020 DATA TO HIT ALL THE MINES.,
16,2,YOU GET AN EXTRA SUB AT,19,
3,10000 POINTS.,21,2
3030 DATA THERE IS A MYSTERY BON
US,5,3,WHICH DOUBLES YOUR SCORE.,
,7,2,USE THE SPACE BAR TO FIRE.,
10,3
3040 DATA GOOD LUCK.,15,10,PRESS
ANY KEY TO PLAY.,24,2
3050 DATA CONGRATULATIONS,4,YOUR
SCORE IS,4,ONE OF THE,4,FIVE HI
GHEST,4,PLEASE ENTER,4
3060 DATA YOUR NAME,4
    
```



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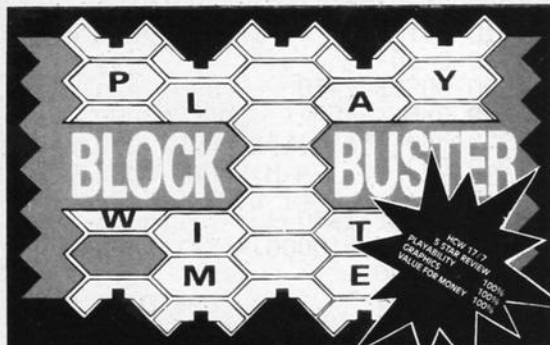
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Death Star 48K Spectrum £5.50

Amazing Games, 39 Maple Dr,
Burgess Hill, W Sussex RH15
8EX

A very simple loading screen leads to the options of keyboard, Kempston, Interface 2 interfaces or cursor joystick. This basic game doesn't stand up against others and doesn't make use of the Spectrum's potential in sound, colour or graphics.

The insert announces that you are plunged into the outer sector of the Deathstar. Flying through the trench you must destroy all the alien craft coming at you before passing through a force wall to reach the next sector.

Finally you must score a direct hit on the reactor core on Sector 0 and destroy the Imperial

Deathstar, saving rebels on the fourth moon of Yavin. You're warned that 3D effect extends to lasers, so hitting the enemy requires skill.

How misleading — the screen consists of a smallish diamond with a cross at the base which Z,X,0 and O move around. The aliens take some time to be removed (if ever) while the trench isn't realistic and I kept hitting the wall.

A flat, boring game that would have done well on a ZX81. T.W.

instructions	45%
playability	40%
graphics	20%
value for money	15%



Forced Route TI-99/4A £6

Stainless, 10 Alstone Road,
Stockport, Cheshire

An intriguing tactical game for two players. The display is an 8 x 8 squared grid with four innermost squares removed. Top left and bottom right are the starting positions of each player, marked by red and blue counters. The object is to move the counter until it occupies your opponent's starting square.

Inside the remaining squares of the grid are arrows, randomly located when the board was set up, which point in three of eight possible directions. It is these indicators that determine the moves as you are only able to go in one of the directions shown on the square that your opponent occupies. So if you plan to

outwit him some subtle manoeuvring is required.

Before the game starts you have the choice of playing with unlimited or limited moves, from 5 to 9999, to control the length of each game. When, in the latter case, the selected number has been played the computer decides the winner based on who is nearer to the goal. In the event of no legal moves being possible for either player, the participants must decide this for themselves.

J.W.

instructions	70%
playability	60%
graphics	50%
value for money	80%



Knuckles Memotech MTX £8.95

Continental, Station La, Witney,
Oxon

Knuckles is a complicated program resembling Pengo. You control a character in a randomly-generated maze of graphic lumps, called roks. Individual roks can be pushed around the screen to trap or crush three monsters known as rokeaters, which chase you around. Crushed rokeaters reappear at the corners of the display unless roks are in the way, when they materialise at random. If a rok isn't free to move when pushed by the player, it disintegrates. Superficially the game resembles Pac-Man, but with a maze you create yourself.

The maze also contains magic squares — objects which you must line up vertically or horizontally before you can move on to the next level. You get bonus points for eating fruit which appears at random. At later levels you encounter white holes capable of duplicating roks and fruit.

The graphics are smooth and colourful, the sound effects are good, although the background tune (as used in Manic Miner) can be rather irritating. For some reason the monsters and the player are depicted using the graphic shapes from another Memotech game, Blobbo. There are four pages of detailed on-screen instructions.

Well-written, though rather expensive S.N.G.

instructions	85%
playability	70%
graphics	80%
value for money	65%



How do they play?

Read our reviews before you buy — here's a selection for the Memotech, Spectrum and the TI-99/4A

Crazy Cliff TI-99/4A £7

Distributed by Stainless
Software, 10 Alstone Rd, Stockport, Cheshire

This rather odd game is well named. The aim is to scale buildings from the outside, avoiding hazards. I have a half-formed memory of some daft American trying such a stunt, only when he got to the top he wasn't rewarded with an extra man and a fresh, slightly more difficult building. The minimal instructions are in 11 lines on the inlay — the author has provided only a cursory demonstration — in which you are advised to avoid closed windows, refrain from climbing to the window below a "face" as a flower pot will be hurled at you, and to avoid other hazards including falling bottles

from a party upstairs.

There is also a "special guest appearance from a famous arcade character, if you make it that far" — I got no further than the ground floor. One face and three closed windows scuppered me every time.

There is a score and a high score. I never raised either above zero, which may have been due to my incompetence. A frustrating, and, judging by the spelling of "alfa lock", American, game with reasonable graphics. Needs Extended BASIC, joysticks. P.B.

instructions	10%
playability	0%
graphics	65%
value for money	50%



Sloopy's Christmas TI-99/4A £5

Sceptre, 59 Norbury Grove,
Walker, Newcastle-upon-Tyne
NE6 2TB

This game is divided into three separate programs, each a piece in a kind of jigsaw, the completion of which leads to a special offer. Parts I and II provide you with passwords on completion, which are required before you can attempt parts II and III. Unfortunately, try as I might, I could load only parts I and II, and one point the company might consider is duplicate recordings. The games are simple, straightforward, and very playable, although adults are unlikely to find them appealing. The theme centres around a character called Sloopy and his Christmas; he seems a combination of two characters: Snoopy and Droopy. The quality of the title graphics far exceeds that of the games' graphics, which are just adequate. Game I has you attempting to control the safe parachuting of some of Sloopy's friends, game II finds you engaging in a most peculiar turkey shoot, marred by tardy sprite collision checks, and game III, which failed to load, apparently involves driving Sloopy home safely. Instructions are adequate, although the programming could use some tightening up to take advantage of the speed of Extended BASIC. Needs Extended BASIC. P.B.

instructions	80%
playability	90%
graphics	75%
value for money	90%



Caesar the Cat BBC B £6.95

Mirrorsoft, Holborn Circus,
London EC1P 1DQ

The screen displays a kitchen shelf laden with food and crockery. However, the little vermins nibble away at the food and under your guidance, Caesar must leap from shelf to shelf to catch the naughty rodents.

Scoring system is unusual. You start with 10,000 points and it automatically goes down as time passes. However, score is gained by catching a mouse and dumping it in a larder for later consumption. A huge chunk of your score disappears if Caesar knocks down any crockery or bangs his head against the wall. The game ends if he knocks the red crockery off the shelf or if the score goes down to zero.

When Caesar catches nine mice, a new set of greedier, nipper mice come on the scene but they're worth more points!

Not only is this game totally original, the sprite-like graphics and beautiful animation are incredible. The way the kitten moves in front and disappears behind objects is mind-boggling. The background music is terrific too. To top it all, this game is maddeningly addictive and challenging. It should be in everyone's software collection.

S.S.

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



Warship Oric £5.95

JLP, 17 Broadlands Dr, Malvern,
Worce WR14 1PW

Here's an extract from the title page. "You are the commander of a nuclear-elastic powered warship. Your mission is to find your way through the mine field for your ship and the troop ship you are escorting. The troopship must be safely docked at the landing stage. To do this you have to destroy the shore batteries which are protected by helicopters armed with anti-ship missiles. A hostile submarine has been contacted and is closing in. You will be under constant fire as you negotiate the mine field..."

In fact, in this 100 per cent BASIC, supposedly strategy game, all you do is guide the little ship with the cursor keys through

blue dots, blast the occasional helicopter hoping you don't get blasted into a million pieces by one of the random missiles. The whole process, to put it mildly, is a drag.

The graphics are really poor and the sound is unimaginatively boring. The game itself is very repetitive and gets monotonous after the first game. The cheaply produced inlay card, sparse instructions and childish humour of the title page doesn't help either. In any case, what in the world is a "Helicopter"? S.S.

instructions	30%
playability	40%
graphics	20%
value for money	30%



Nemo Memotech MTX £6.95

Continental, Station La, Witney,
Oxon

Nemo is an aquatic version of the Jeff Minter game Gridrunner. You control a ship just off the coast, firing harpoons up the display at more or less anything which gets in the way. Shark fins move back and forth through the water, making their way down screen centipede-style. An indestructible land crab bounces diagonally around the display, while electric eels patrol the border of the screen, selectively electrifying sections of the water. Fast-moving blue mines zoom up screen towards the sharks.

The display is a garish aerial view, with waves lapping up and down in the green sea, a yellow beach and orange land. Your five ships, which look suspiciously like laser-bases, can move anywhere — even on land. You must avoid hitting the moving objects, and harpoon all the sharks, to move on to a stretch of still more heavily infested coastline.

Nemo uses a lot of character graphics; this permits a large number of moving objects but forces rather jerky motion, although the waves are animated very cleverly. Sound effects are simple but adequate; the game is quite addictive, but it is a shame that — yet again — Continental has been unable to come up with a genuinely original program.

S.N.G.

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



Game for a laugh?

**Latest games for the BBC, Oric,
Memotech and Electron get
the once-over from our review
panel**

Cribbage 32K BBC £7.95

Micro-Aid, 25 Fore St, Praze,
Camborne, Cornwall TR14 0JX

Until I received this program the only card game I had played on a computer was Pontoon. Without the gambling element it was boring.

Cribbage does not suffer from this drawback as it is played for points not money and the skill-to-luck balance is weighted more heavily in favour of skill.

The program arrives with five photocopied sheets of instructions, the first half of which is concerned with the rules and methods of scoring. Part two of the instructions explains the sequence of events.

Upon running the program you are given the option of playing with five or six cards and

scoring to 61 or 121 respectively. A choice of level is also included to allow the less experienced player to compete on more equal terms with the computer.

This program must have that certain something which makes a game addictive. It is the first game in a long while which has held my wife's attention, so much so that I was almost forced to write this review using a pen and paper as I couldn't get near the computer. J.R.

instructions	80%
playability	75%
graphics	50%
value for money	30%



Gatecrasher 32K Electron £6.95

Quicksilva, 13 Palmerston Rd,
Southampton SO1 1LL

From the name you may get the impression it has something to do with gatecrashing a party. It's nothing of the sort. This game deals with the art of barrel rolling.

On screen is displayed a maze with trap doors leading to empty slots. The idea is to control your man at screen top and roll the barrel down into the empty slot. First the trap doors have to be adjusted. If the barrel rolls into an occupied slot you lose two barrels.

There are seven levels of difficulty. On level five you have to put two barrels in each slot. If you find all the trap doors lead to occupied slots and you have only one empty slot left, you can cause an earthquake which will re-adjust the trap doors, but this will cost you one barrel.

At the end you are given a code to crack. If you are successful you can enter the J200 competition being run by the manufacturers.

This is a enjoyable game with simple but good graphics. The ease of playing makes it a game for all ages. M.B.

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



This week we conclude the tape filer program featured last week. We also show you how to delve into your program's inner secrets

Tape filer part 2
by Iain Murray

This listing completes last week's tape index program with the reader section of the program. The routine allows you to search quickly through your tapes for a particular artist or tune or both.

Up to five names may be searched for at once. A whole tape may also be viewed. The program will automatically search through all your data files, print out any findings and the location of that tune in your music collection. It will stop if it finds anything, but if you press "SHIFT LOCK" it will search continuously until it reaches the last file. The time of the search will be printed at the end.

NOTE: As usual, cursor controls are given in REM statements, but these do not need to be typed in.

How it works

- 150-220 menu and choice selection
- 230-480 list complete tape
- 294-395 read in data, checking for interrupts
- 400-480 separate out tune and artist, and print out
- 520-522 input number of names to be searched for
- 530-575 input required names
- 580-597 input start tape number and make up filename
- 599-670 input data and take appropriate action
- 680-690 check for artist
- 700-710 check for tune
- 720-726 check for artist and tune
- 730-777 print artist, tune and location
- 780-830 go on to next tape if required
- 840-850 print number of references found and search time

Tape filer

Hints on conversion

Apart from the special file handling commands, this program should be easy to convert to run on other micros, or with cassette data storage.
NOTE: PEEK(654) — "SHIFT" pressed (1) or not (0)

Find your fo see how your program works

Tape filer Variables

- ARS(10) artists names
- TUS(10) tune names
- K2(10) number of references found
- AL(10) length of artist's name
- TL(10) length of tune name
- DS(1000) data lines
- M number of highest tape on file
- FMS current filename
- N tape number
- DAS input data line
- N3 number of files to be searched for
- QT,F tape to be searched
- TT time
- TU tune number
- SI side number
- TS tune name or title
- RS artist's name
- L tape length
- D data counter
- S side counter
- C1,C2 data counters
- K item to be edited

BASIC m_c disassembler
by A Huke

This machine code disassembler is written in BASIC. It contains no special POKES or commands and will run on the Commodore 64 or any expanded VIC-20 if you make two changes for screen width.

This program allows you to view in assembly language the workings of CBM 64 ROM and machine code routines included in many HCW games and utility programs.

All numbers are displayed in hex but memory start may be entered in decimal or hex. Disassembly is started by

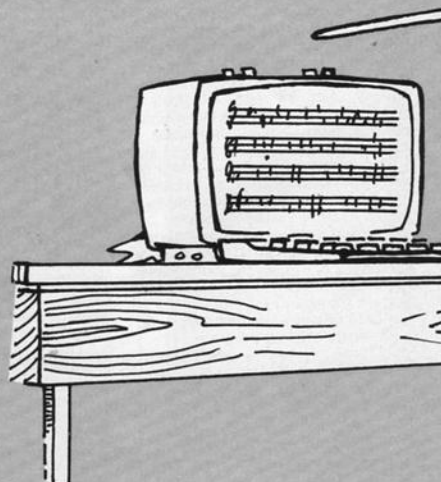
entering S and a memory location, and halted by the space bar. Press C to continue or S to enter new start memory.

Number calculation (press N) halts disassembly. Press C or S to continue. The screen displays memory location, mnemonic operand and memory dump. The lo-byte is reversed for the operand and branches are calculated.

Memory dump shows correct lo-byte order and branch offset.

M/c disassembler Variables

- DIM%(2) value of operand
- DN decimal number
- SM memory being processed
- N1,N2 used in H hex number conversion and print
- NN,H1,H2,H3,H4 used in dec to hex conversion
- K,MM,DD used in hex to dec conversion
- Pn value of number being processed
- AS key input



yourite tune or

```

10 REM ** MACHINE CODE DISASSEMBLER **
20 DIMM%(2):GOTO860
38 REM ** CALCULATE AND PRINT HEX NUMBERS **
40 N1=INT(DN/16)+48:IFN1>57THENN1=N1+7
45 N2=DN-INT(DN/16)*16+48:IFN2>57THENN2=N2+7
50 PRINTCHR$(N1);CHR$(N2):RETURN
58 REM ** ROUTINE FOR ONE HEX NUMBER BYTE **
60 SM=SM+1:DN=PEEK(SM):M%(1)=DN:GOSUB40:RETURN
68 REM ** ROUTINE TO REVERSE LO-BYTE HI-BYTE **
70 DN=PEEK(SM+2):M%(2)=DN:GOSUB40:DN=PEEK(SM+1):M%(1)=DN:GOSUB40:SM=SM+2:RETURN
80 REM ** DEC TO HEX CONVERSION AND PRINT **
90 H1=INT(DN/4096):H2=INT((DN-4096*H1)/256)
95 H3=INT(((DN-4096*H1)-H2*256)/16)
100 H4=(DN-4096*H1)-(H2*256)-H3*16
105 NN=H1:GOSUB120:NN=H2:GOSUB120:NN=H3:GOSUB120:NN=H4:GOSUB120:RETURN
120 NN=NN+48:IFNN>57THENNN=NN+7
130 PRINTCHR$(NN):RETURN
150 REM ** BRANCH ROUTINE **
160 SM=SM+1:DN=PEEK(SM):M%(1)=DN:IFDN>127THEN180
170 DN=SM+DN+1:GOSUB90:RETURN
180 DN=SM-255+DN:GOSUB90:RETURN
185 REM ****
199 REM **HEX TO DEC CONVERSION **
200 K=LEN(A$):DD=4+(K-2)
210 MM=0:FORJ=2TOK
215 N1=ASC(MID$(A$,J,1))-48:IFN1>9THENN1=N1-7
220 MM=MM+N1*(DD+2)
230 DD=DD/4:NEXT:RETURN
290 IFSM>65535THENPRINT"MEMORY OUT OF RANGE":GOTO900
295 DN=SM:GOSUB90:PRINT "   ":PN=PEEK(SM):M%(0)=PN:M%(1)=-1:M%(2)=-1
296 REM **PRINT 2 SPACES ↑ ON CM/64 1 SPACE FOR VIC 20**
300 IFPN=0THENPRINT"BRK":GOTO800
310 IFPN=8THENPRINT"PHP":GOTO800

```

Listing for tape filer



```

315 IFPN=16THENPRINT"BPL "":GOSUB150:GOTO800
320 IFPN=24THENPRINT"CLC "":GOTO800
325 IFPN=32THENPRINT"JSR "":GOSUB70:GOTO800
330 IFPN=40THENPRINT"PLP "":GOTO800
335 IFPN=48THENPRINT"BMI "":GOSUB150:GOTO800
340 IFPN=56THENPRINT"SEC "":GOTO800
345 IFPN=64THENPRINT"RTI "":GOTO800
350 IFPN=72THENPRINT"PHA "":GOTO800
355 IFPN=80THENPRINT"BVC "":GOSUB150:GOTO800
360 IFPN=88THENPRINT"CLI "":GOTO800
365 IFPN=96THENPRINT"RTS "":GOTO800
370 IFPN=104THENPRINT"PLA "":GOTO800
375 IFPN=112THENPRINT"BVS "":GOSUB150:GOTO800
380 IFPN=120THENPRINT"SEI "":GOTO800
385 IFPN=136THENPRINT"DEY "":GOTO800
390 IFPN=138THENPRINT"TXA "":GOTO800
395 IFPN=152THENPRINT"TYA "":GOTO800
400 IFPN=144THENPRINT"BCC "":GOSUB150:GOTO800
405 IFPN=154THENPRINT"TXS "":GOTO800
410 IFPN=168THENPRINT"TRV "":GOTO800
415 IFPN=170THENPRINT"TXH "":GOTO800
420 IFPN=176THENPRINT"BCS "":GOSUB150:GOTO800
422 IFPN=186THENPRINT"TSX "":GOTO800
425 IFPN=186THENPRINT"TSX "":GOTO800
430 IFPN=184THENPRINT"CLV "":GOTO800
435 IFPN=200THENPRINT"INY "":GOTO800
440 IFPN=202THENPRINT"DEX "":GOTO800

```



```

445 IFPN=208THENPRINT"BNE " : GOSUB150:GOTO800
450 IFPN=216THENPRINT"CLD" : GOTO800
455 IFPN=232THENPRINT"INX" : GOTO800
460 IFPN=240THENPRINT"BEQ " : GOSUB150:GOTO800
465 IFPN=248THENPRINT"SED" : GOTO800
470 IFPN=234THENPRINT"NOP" : GOTO800
475 IFPN=162THENPRINT"LDX #" : GOSUB60:GOTO800
480 IFPN=76THENPRINT"JMP " : GOSUB70:GOTO800
485 IFPN=108THENPRINT"JMP (" : GOSUB70:PRINT")" : GOTO800
490 IFPN=180R(PNAND227)=160THENPRINT"LDY " : GOTO700
495 IFPN=44THENPRINT"BIT " : GOSUB70:GOTO800
500 IFPN=36THENPRINT"BIT " : GOTO700
505 IFPN=140RPN=132RPN=148THENPRINT"STY " : GOTO700
510 IF(PNAND231)=6THENPRINT"ASL " : GOTO700
515 IFPN=10THENPRINT"ASL ACC." : GOTO800
520 IFPN=42THENPRINT"ROL ACC." : GOTO800
530 IF(PNAND231)=38THENPRINT"ROL " : GOTO700
535 IFPN=74THENPRINT"LSR ACC." : GOTO800
540 IF(PNAND231)=70THENPRINT"LSR " : GOTO700
545 IF(PNAND231)=102THENPRINT"ROR " : GOTO700
550 IFPN=106THENPRINT"ROR ACC." : GOTO800
565 IF(PNAND243)=192THENPRINT"CPY " : GOTO700
570 IF(PNAND243)=224THENPRINT"CPX " : GOTO700
575 IF(PNAND7) < 5AND(PNAND7) < 6AND(PNAND7) < 1THENPRINT"???" : GOTO800
580 IFPN=137RPN=158THENPRINT"???" : GOTO800
590 IF(PNAND227)=1THENPRINT"ORA " :
605 IF(PNAND227)=33THENPRINT"AND " :
610 IF(PNAND227)=65THENPRINT"EOR " :
615 IF(PNAND231)=70THENPRINT"LSR " : GOTO700
620 IFPN=74THENPRINT"LSR ACC." : GOTO900
625 IF(PNAND227)=97THENPRINT"ADC " :
630 IF(PNAND231)=102THENPRINT"ROR " :
635 IFPN=106THENPRINT"ROR ACC." : GOTO900
640 IF(PNAND227)=129THENPRINT"STA " :
645 IF(PNAND231)=134R(PN=138)THENPRINT"STX " :
650 IF(PNAND227)=161THENPRINT"LDA " :
655 IF(PNAND231)=166R(PN=170)THENPRINT"LDX " :
660 IF(PNAND227)=193THENPRINT"CMP " :
665 IF(PNAND231)=198R(PN=202)THENPRINT"DEC " :
670 IF(PNAND227)=225THENPRINT"SBC " :
675 IF(PNAND231)=230R(PN=234)THENPRINT"INC " :
700 IFPN=150RPN=182THENGOSUB60:PRINT",Y" : GOTO800:REM ** ZERO PAGE,Y **
705 IF(PNAND31)=250RPN=190THEN:GOSUB70:PRINT",Y" : GOTO800:REM ** ABSOLUTE,Y **
710 IF(PNAND31)=1THENPRINT("<" : GOSUB60:PRINT",X)" : REM ** INDIRECT,X **
715 IF(PNAND31)=0AND(PN<159)THENPRINT"#":GOSUB60:REM ** IMMEDIATE **
720 IF(PNAND28)=4THENGOSUB60:GOTO800:REM ** ZERO PAGE **
725 IF(PNAND31)=9THENPRINT"#":GOSUB60:REM ** IMMEDIATE **
730 IF(PNAND28)=12THENGOSUB70:REM ** ABSOLUTE **
735 IF(PNAND31)=17THENPRINT("<" : GOSUB60:PRINT"),Y" : REM ** INDIRECT,Y
740 IF(PNAND28)=20THENGOSUB60:PRINT",X" : REM ** ZERO PAGE,X **
755 IF(PNAND31)=290R(PNAND31)=30THENGOSUB70:PRINT",X" : REM ** ABSOLUTE,X **
760 IFPN=188THENGOSUB70:PRINT",X" : REM **ABSOLUTE,X **
799 REM **FOR CM/64 TAB(20):FOR VIC 20 TAB(15) AND REMOVE PRINT" " : **
800 PRINTTAB(20) : FORJ=0TO2:IFM%(J)<1THENDN=M%(J):GOSUB40:PRINT" " :
805 NEXT:PRINT
810 GETA$:IFA#<" "THENGOTO835
820 SM=SM+1:GOTO290
830 GETA$
835 IFA#="C"THEN820
840 IFA#="S"THEN900
845 IFA#="I"THEN860
846 IFA#="N"THEN950
849 GOTO830
859 REM CHARACTER "X" IS CRSR DOWN
860 PRINT"XDISASSEMBLE FROM A NEW MEMORY PRESS S"
865 PRINT"XHALT DISASSEMBLY PRESS THE SPACE BAR "
870 PRINT"XCONTINUE DISASSEMBLY PRESS C"

```


PROGRAMS

```
875 PRINT"RETURN TO INSTRUCTIONS PRESS I"
880 PRINT"ALL NUMBERS ARE LISTED IN HEX"
885 PRINT"HEX NUMBER CONVERTER PRESS N"
890 GOTO830
899 REM CHARACTER "N" IS CRSR DOWN
900 PRINT"ENTER START LOCATION DEC. OR HEX"
910 INPUT"HEX ENTERED $NNNN OR /NNNN ";A$:PRINT
920 IFASC(A$)>47ANDASC(A$)<58THENS M=VAL(A$):GOTO290
925 IFLN(A$)<5THEN900
930 GOSUB200:SM=MM:GOTO290
950 PRINT"ENTER DEC OR HEX ($N OR /N) NUMBER "
955 INPUT" ";A$:IFA$="S"ORA$="C"ORA$="I"THEN835
960 PRINTA$="";
965 IFVAL(A$)>65535THEN950
970 IFASC(A$)>47ANDASC(A$)<58THENDN=VAL(A$):PRINT"$";:GOSUB90:GOTO955
975 IFLN(A$)<2THENPRINT"FORMAT INCORRECT":GOTO950
980 GOSUB200:PRINTMM:GOTO955
```

Listing for m/c disassembler

```
140 REM *** TAPE FILER ***
142 REM *** BY IAIN MURRAY (C) 1984 ***
144 REM *** FOR HOME COMPUTING WEEKLY ***
146 REM *** PART 2 OF 2 ***
148 REM [CLR] [3 CRSR DOWN]
149 REM *** READER SECTION ***
150 PRINT "YOU CAN : "
159 REM * EACH LINE STARTS WITH A [CRSR DOWN]
160 PRINT "01) SEE A COMPLETE TAPE"
170 PRINT "02) FIND ALL TUNES BY A PARTICULAR ARTIST";
180 PRINT "03) FIND A PARTICULAR TUNE BY ANY ARTIST"
190 PRINT "04) FIND A PARTICULAR TUNE BY A PARTICULAR ARTIST"
195 PRINT "05) RETURN TO MAIN MENU"
199 REM [2 CRSR DOWN]
200 PRINT "WHICH ONE DO YOU WANT (1-5) ?"
210 GET C$:C=VAL(C$):IF C<1 OR C>5 THEN 210
220 ON C GOTO 230,520,520,520,100
229 REM *** COMPLETE TAPE ***
230 PRINT " ":REM [CLR]
235 INPUT "WHICH TAPE ";N:REM [CRSR DOWN] [WHITE]
240 IF N<1 OR N>M OR N<>INT(N) THEN PRINT N$:GOTO 235
285 N2=N
290 IF ((N2-1)/5)<>INT((N2-1)/5) THEN N2=N2-1:GOTO 290
291 FM$="TAPEFILE"+STR$(N2)+STR$(N2+4)
293 REM [2 CRSR DOWN] [WHITE] * 295 START WITH [CRSR DOWN]
294 PRINT "SEARCHING FOR TAPE #";N
295 PRINT "PRESS "CHR$(34)"S"CHR$(34)" TO INTERRUPT LISTING, "CHR$(34)"C";
296 PRINTCHR$(34)" TO CONTINUE LISTING, OR "CHR$(34)"A"CHR$(34)" TO ABANDON"
297 PRINT"LISTING"
299 OPEN 1,8,15:OPEN 3,8,3,FM$+ ".S,R"
300 INPUT#1,A:IF A<>0 THEN 2900
305 IF N=N2 THEN 330
310 INPUT#3,DA$:IF DA$="3" THEN N2=N2+1:GOTO 305
320 GOTO 310
329 REM [CRSR DOWN] [WHITE]
330 INPUT#3,L$:PRINT "C-";L$
340 INPUT#3,S$
349 REM [CRSR DOWN] [CYAN]
350 PRINT "SIDE ";S$
360 INPUT#3,T$
364 REM [CRSR DOWN] [PINK] [CRSR DOWN]
365 PRINT " ";T$;" "
370 INPUT#3,DA$
375 IF DA$="2" THEN S$=DA$:GOTO 350
380 IF DA$="3" THEN 455
385 GET A$:IF A$="A" THEN CLOSE 3:PRINT"LISTING ABANDONED":GOTO 455
```



```

387 IF A$<>"S" THEN 400
390 GET A$:IF A$="A" THEN CLOSE 3:PRINT"LISTING ABANDONED":GOTO 455
395 IF A$<>"C" THEN 390
400 FOR M2=1 TO LEN(DA$)
409 REM [SPADE] IS SHIFTED "A"
410 IF MID$(DA$,M2,1)="A" THEN 430
420 NEXT M2
430 TU$=LEFT$(DA$, (M2-1))
434 REM [WHITE] [LIGHT BLUE]
435 AR$=RIGHT$(DA$, (LEN(DA$)-M2))
440 IF LEN(TU$)<20 AND LEN(AR$)<20 THEN PRINT "TU$TAB(20)"AR$:GOTO 370
444 REM [WHITE] [LIGHT BLUE]
445 PRINT "TU$
446 PRINT "TAB(5)AR$
450 GOTO 370
455 CLOSE 3:CLOSE 1
459 REM [2 CRSR DOWN] [WHITE] [RVS ON] [RVS OFF]
460 PRINT "PRESS SPACE TO CONTINUE ."
470 GET A$:IF A$=" " THEN FOR I=1 TO 10:K2(I)=0:NEXT I:GOTO 150
480 GOTO 470
518 REM *** PARTICULARS WANTED ***
519 REM [CRSR DOWN]
520 PRINT "HOW MANY NAMES DO YOU WANT TO SEARCH FOR (1-5) ?"
521 GET A$:IF A$<"1" OR A$>"5" THEN 521
522 N3=VAL(A$)
523 FOR N4=1 TO N3
527 IF C=3 THEN 560
529 REM [CRSR DOWN]
530 INPUT "ARTIST'S NAME ";AR$(N4):AL(N4)=LEN(AR$(N4))
540 IF AL(N4)<1 OR AL(N4)>39 THEN PRINT N$:GOTO 530
550 IF C=2 THEN 575
559 REM [CRSR DOWN]
560 INPUT "NAME OF TUNE ";TU$(N4):TL(N4)=LEN(TU$(N4))
570 IF TL(N4)<1 OR TL(N4)>39 THEN PRINT N$:GOTO 560
575 NEXT N4
579 REM [CRSR DOWN]
580 PRINT "GIVE NUMBER OF TAPE TO COMMENCE"
585 INPUT "SEARCH ";QT
590 IF QT<1 OR QT>M OR QT<>INT(QT) THEN PRINT N$:GOTO 580
592 IF ((QT-1)/5)<>INT((QT-1)/5) THEN QT=QT-1:GOTO 592
593 REM [CRSR DOWN] [RVS ON] [RVS OFF]
594 PRINT "USE SHIFT LOCK FOR CONTINUOUS SEARCH":TT=TI
595 IF ((QT-1)/5)<>INT((QT-1)/5) THEN QT=QT-1:GOTO 595
596 IF QT>M THEN 840
597 FM$="TAPEFILE"+STR$(QT)+STR$(QT+4)
598 REM [2 CRSR DOWN]
599 PRINT "SEARCHING ";FM$
600 OPEN 1,8,15:OPEN 5,8,4,FM$+".S,R"
610 INPUT#1,A:IF A<0 THEN 2900
620 T=QT:TU=0:SI=1
625 TU=TU+1
626 GOTO 630
627 INPUT#5,DA$
630 INPUT#5,DA$
635 IF DA$="1" THEN 627
640 IF DA$="2" THEN SI=2:TU=1:GOTO 627
650 IF DA$="3" THEN SI=1:T=T+1:TU=1
660 IF DA$="3" AND T=QT+5 THEN QT=QT+5:GOTO 820
665 IF DA$="3" THEN 627
670 ON C-1 GOTO 680,700,720
679 REM *** PARTICULAR ARTIST ***
680 FOR N5=1 TO N3
682 IF RIGHT$(DA$,AL(N5))=AR$(N5) THEN 730
685 NEXT N5
690 GOTO 625
699 REM *** PARTICULAR TUNE ***
700 FOR N5=1 TO N3

```


4 PROGRAMS

```
702 IF LEFT$(DA$,TL(N5))=TU$(N5) THEN 730
705 NEXT N5
710 GOTO 625
719 REM *** PARTICULAR TUNE AND ARTIST ***
720 FOR N5=1 TO N3
721 REM [SPADE] IS SHIFTED "A"
722 IF DA$=TU$(N5)+"^"+AR$(N5) THEN 730
724 NEXT N5
726 GOTO 625
728 REM [SPADE] IS SHIFTED "A"
730 FOR I=1 TO LEN(DA$):IF MID$(DA$,I,1)="^" THEN 750
740 NEXT I
750 T#=LEFT$(DA$, (I-1)):R#=RIGHT$(DA$, (LEN(DA$)-I)):K2(N5)=K2(N5)+1
755 IF R#<>"UN" THEN 760:REM [CRSR DOWN]
756 PRINT "0";T#;" BY AN UNKNOWN ARTIST"
757 GOTO 770
759 REM [CRSR DOWN]
760 PRINT "0";T#;" BY ";R#
770 PRINT "IS TUNE #";TU;"ON SIDE";SI;"OF TAPE #";T
775 IF PEEK(654)<>1 THEN 780:REM [CRSR DOWN]
776 PRINT "0SEARCHING: "
777 ON C-1 GOTO 685,705,724
779 REM [CRSR DOWN]
780 PRINT "0KEEP SEARCHING (Y/N) ?"
790 GET A$:IF A$="Y" THEN PRINT "0SEARCHING :":ON C-1 GOTO 685,705,724
800 IF A$<>"N" THEN 790
805 CLOSE 5:CLOSE 1
810 GOTO 150
820 REM *** GOING ON TO NEXT TAPE ***
825 CLOSE 5:CLOSE 1
830 GOTO 596
838 REM *** END OF FILES ***
839 REM [2 CRSR DOWN] [CRSR DOWN]
840 PRINT "0LAST TAPE FILE SEARCHED0"
841 FOR N4=1 TO N3
842 ON C-1 GOTO 843,845,847:REM [CRSR DOWN] ON NEXT THREE LINES
843 PRINT"0";K2(N4);"REFERENCES TO ";AR$(N4):PRINT "WERE FOUND":NEXT N4:GOTO 848
845 PRINT"0";K2(N4);"REFERENCES TO ";TU$(N4):PRINT "WERE FOUND":NEXT N4:GOTO 848
846 PRINT"0";K2(N4);"REFERENCES TO ";TU$(N4);" BY":PRINTAR$(N4);" WERE FOUND"
847 NEXT N4:REM [CRSR DOWN]
848 PRINT "0RUN TIME -";(INT((TI-TT)/60)/10)*10;" SECONDS"
849 IF PEEK(654)=1 THEN PRINT "0REMOVE 3SHIFT NOW":REM[DOWN][PINK][RVSON,OFF]
850 GOTO 460
```



The Solar System £3.50

Eaglesoft, 66 James St, Scarborough, North Yorks YO12 7PH

A restructured version of the program reviewed earlier in the year.

In effect, this is a reference guide to the solar system, allowing you to specify any planet, asteroid or meteorite, and receive brief details together with a graphic indication of size relative to the Earth.

Noting that such information becomes outdated rapidly, the author offers an update sheet to mail order customers, as and when new facts are discovered. Another welcome innovation is the facility to save the prog to Microdrive; major software

houses please copy! In addition to its database function, you can also use a quiz section to test your knowledge.

Whilst this is a noble effort by an admittedly small company to provide a minority interest service, and the program is well written in BASIC, the overall impression is amateurish. The colour facilities of the Spectrum could have been used to good effect without much extra effort. The picture screens could have been pre-drawn using graphics packages. Factual information is very thin, certainly not enough to satisfy the enthusiast. **D.M.**

instructions	90%
ease of use	100%
display	40%
value for money	80%



Cortes £4.85

L'Ensoulelado, Old Brackenslands, Wigton, Cumbria CA7 9LA

A role-play program for history students aged 13 to 15 years or adventure games players. It recreates an episode in history where you take the part of the Spanish Conquistador, Hernan Cortes, who, in 1519, set out to conquer the fabulously rich Aztec Empire of Montezuma.

You are faced with the decisions Cortes had to make. Choices made are matched against those made by Cortes, and more points are awarded if you are correct. Bonus points are given for "careful play" or "consistency", and at sudden equipment checks when you

must know how much equipment you have, and for "crisis reports".

After visiting Montezuma on his island stronghold, fighting off an attack from the Governor of Cuba and building Vera Cruz, you return and eventually, after many bloody battles, end up as master of a ruined city full of stinking corpses and riddled with disease — but with no gold!

A useful revision to that period. Even I managed to raise my score from 36 to 83 out of 130. However, graphics, type and sound could be much improved. **T.W.**

instructions	80%
ease of use	85%
display	45%
value for money	35%



Stuart Henry's Pop Quiz £5.75

Bellflower, 6 Rosewood Ave, Greenford, Middx

A pleasing tune accompanies the loading screen depicting Stuart Henry, the DJ who was struck down by multiple sclerosis. Part of the price goes to the multiple sclerosis society.

We have the choice of one- or two-player game and are invited to enter name(s). The colourful quiz screen appears, accompanied by a mystery tune. There is a scoreboard — you have 60 bonus points at the start — musical stave with six missing notes, and question at the bottom.

There are 756 questions, covering pop from the sixties to the present. If you answer correctly 10 points are added to your score and you can choose a note from the mystery tune. Correct notes give 10 points, appear on the stave and are sounded, whereas a wrong guess drops your bonus by 10 points. When your bonus runs out the game ends. When you complete the mystery tune any bonus left is added to your score, before the next round with its harder, longer mystery tune.

A great program — making good use of the Spectrum's potential in graphics and sound. **T.W.**

instructions	80%
playability	75%
graphics	65%
value for money	80%



Something for all tastes

Alien-zapping games are often slated for being mindless. This batch of games should please everyone — thinking games to sharpen your wits and teach you a few facts, and hard-core android blasters to keep the addicts happy

Space Command £5.95

Virgin Games, 61/63 Portobello Rd, London W11 3DD

Presented in a standard cassette case, Space Command comes with a very informative inlay card which tells you about the game and its authors; a nice touch.

Set on an asteroid, complete with a city, rotating radar and communications dish, your task is to shoot down an almost infinite variety of marauding aliens. A force field protects the city but as the aliens crash into it, it gradually loses power, and ultimately is only capable of protecting the populated areas. If you fail to protect the radar installation you lose a life. Succeed and you enter a new star

system.

Well presented, with facilities for keyboard and three different joystick protocols. You can watch the demo before sallying forth to do battle, choose your space-ship, and disarm the aliens, which makes life a bit easier!

The graphics are well done, though not of the highest standard in terms of smoothness. The action is very fast and furious as is the movement of your ship; very hard to control without joysticks. Sound is adequate, and, if you haven't had your fill of zap-kapow, you should enjoy it. **D.M.**

instructions	100%
playability	70%
graphics	85%
value for money	95%



Message from Andromeda £6.00

Interceptor Micros, Lindon House, The Green, Tadley, Hants

You are the Captain of the space patrol cruiser Galaxy on a routine patrol — of what, we are not told. This adventure game starts with you receiving a distress signal from a previously unknown planet.

After 18 attempts at keying in phrases — which taught me that the program does not live up to its promise that "command syntax" makes full use of all parts of speech — I entered "read message" and it appeared on screen! It would be easier if they listed acceptable words.

I landed on the planet Andromeda and moved around freely through rooms and squares, seeing buttons, detonators, knives and metal bars. When I keyed in "Look at planet" I received the surprisingly humorous response "I can't see a vine here!"

No scores appeared and there seemed no purpose to the game. I didn't feel compelled to push onwards, even with the offer of Help, Inventory, Look or the chance to Save in order to return later. I was quite happy to be shot and leave Andromeda to the androids.

Fair use of graphics and no sound. **T.W.**

instructions	65%
playability	60%
graphics	45%
value for money	35%



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| 4 Jet Set Willy | Software Projects | Spectrum (-) |
| 5 Trashman | Quicksilva | CBM 64 (6) |
| 6 Omega Race | Commodore | CBM 64 (5) |
| 7 Scuba Dive | Martech | Spectrum (-) |
| 8 Son of Bigger | Alligata | CBM 64 (8) |
| 9 Atic Atac | Ultimate | Spectrum (-) |
| 10 Munch Mania | Mastertronic | CBM 64 (10) |

NON-ARCADE

- | | | |
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| 1 Lords of Midnight | Beyond | Spectrum (3) |
| 2 Mugsy | Melbourne House | Spectrum (1) |
| 3 Valhalla | Legend | CBM 64 (7) |
| 4 Quizmaster | Commodore | CBM 64 (9) |
| 5 Mastermind | Commodore | CBM 64 (6) |
| 6 The Fall of Rome | APS | Spectrum (8) |
| 7 Solo Flight | US Gold | CBM 64 (10) |
| 8 Sphinx Adventure | Acornsoft | BBC (3) |
| 9 The Inferno | R. Shepherd | Spectrum (5) |
| 10 War of the Worlds | CRL | Spectrum (-) |

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

SPECTRUM

- | | |
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| 1 Sabre Wulf | Ultimate (1) |
| 2 Match Point | Sinclair (4) |
| 3 Stop the Express | Sinclair (3) |
| 4 Jet Set Willy | Software Projs (2) |
| 5 Mugsy | Melbourne Hse (5) |
| 6 Night Gunner | D. Intergration (9) |
| 7 Scuba Dive | Martech (7) |
| 8 Fighter Pilot | D. Intergration (8) |
| 9 Atic Atac | Ultimate (6) |
| 10 Manic Miner | Software Projs (-) |

COMMODORE 64

- | | |
|------------------|-----------------------|
| 1 Snooker | Visions (6) |
| 2 Beachhead | U.S. Gold (2) |
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| 4 Solo Flight | Centresoft (3) |
| 4 Solo Flight | Centresoft (3) |
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| 9 Revelation | Softek (10) |
| 10 Hunchback | Ocean (-) |

DRAGON 32

- | | |
|---------------------------|-------------------|
| 1 Hunchback | Ocean (10) |
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| 4 Dragon Chess | Oasis (5) |
| 5 Hungry Horace | Melbourne Hse (3) |
| 6 Buzzard Bait | Microdeal (1) |
| 7 Space Shuttle Simulator | Microdeal (-) |
| 8 Kriegspiel | Beyond (-) |
| 9 Mr Dig | Microdeal (6) |
| 10 Dungeon Raid | Microdeal (-) |

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

VIC-20

- | | |
|---------------------------|----------------------|
| 1 Computer War | Creative Sparks (1) |
| 2 Duck Shoot | Mastertronic (9) |
| 3 Sub Commander | Creative Sparks (-) |
| 4 Flight 015 | FerrantiCraig (5) |
| 5 Tower of Evil | Creative Sparks (10) |
| 6 Tank Commander | Creative Sparks (-) |
| 7 Wizard and the Princess | Melbourne House (7) |
| 8 Undermine | Mastertronic (-) |
| 10 Snooker | Vision (4) |

BBC

- | | |
|---------------------|------------------|
| 1 Spectipede | Mastertronic (-) |
| 2 Overdrive | Superior (-) |
| 3 Battle Tank | Superior (-) |
| 4 Hunchback | Superior (-) |
| 5 Splitfire Command | Superior (-) |
| 6 737 Simulator | Salamander (-) |
| 7 French | Acornsoft (-) |
| 8 Aviator | Acornsoft (1) |
| 9 3D Munchy | MRM (-) |
| 10 Snooker | Visions (8) |

ZX81

- | | |
|---------------------|---------------------|
| 1 Asteroids | Quicksilva (-) |
| 2 Chess 1K | Sinclair (9) |
| 3 Flight Simulation | Sinclair (7) |
| 4 Football Manager | Addictive Games (-) |
| 5 Krypton Ordeal | Novus (1) |
| 6 Planet Raider | Novus (3) |
| 7 Space Raiders | Sinclair (6) |
| 8 Walk the Plank | Novus (4) |
| 9 Scramble | Quicksilva (-) |
| 10 Alien Rain | CRL (-) |

Make England nuclear-free — by blowing up cruise missiles!

Greenham Common women have frequently been in the news this year. You either love them or hate them. This game takes a lighthearted look at a serious matter.

The aim of the game is to steer your woman past the police cordon to reach the nuclear missile and destroy it. This is poetic licence, since in real life that's not what the resolute protesters of the peace camps have in mind.

You're a strong woman and can knock down policemen who aren't in the linked chain at the bottom of the screen. Once you reach the last line of defence, you have to find a gap to sneak through and get rid of the nuke.

Variables

Y woman
X police
S score
K steps taken
A gap in police line
I speed of character
Z player left
M player right
T time delay

Your life is at risk, since the police won't hesitate to fire at you (more poetic licence, we hope). You start with three lives, so you're at an advantage over the real thing.

Take a humorous look at one of the more controversial issues of 1984.

Hints on conversion

These are the main POKES which the VIC uses.

36879 screen and border colour
30720 colour of characters
36878 sound volume
36874 bass sound
36875 middle ton gen
36876 high tone gen
36877 white noise gen
AS used instead of INKEYS
FOR..NEXT pause routines

Here's a thorny subject: the presence of US arms in Britain. Stephen Dommett takes a lighter look at the issue. Relax and see the funnier side

How it works

1 repeat key and GOSUB instructions
12-18 print characters on screen
22-24 keyboard control
34-38 print more characters at random, start sound
40-46 create loop for scores
48-54 destroy missile
400-412 getting shot routine
450-455 out of lives, end of game
500-550 instructions
600-614 initialise variables and data
614-617 start game
620-626 win game

```
1 POKE650,255:GOSUB500
10 POKE36879,152
11 REM [18 CRSR DOWN][BLU]
12 PRINT "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
14 Y=7
15 REM [2 CRSR UP][RVS ON][BLK]
```



```

16 A=INT(RND(1)*19+1):PRINTTAB(A)";T2 "
17 REMHOMEJ
18 PRINT"S"
22 GETA$:IFA$="Z"THENY=Y-1
24 IFA$="M"THENY=Y+1
29 REM [RED]
30 PRINTTAB(Y)";!"
34 X=INT(RND(1)*420)+7680
35 POKEX+30720,6:POKEX,34
36 POKE36878,15:POKE36877,175:POKE36877,0
37 REM [CRSR UP]
38 PRINT";"
40 K=K+1:IFK=19THEN43
42 GOTO22
43 IFS>29THEN620
44 IFY=ATHEN48
46 C=C+1:GOTO400
48 PRINTTAB(Y)";!":POKE36874,217:FORT=1T0700:NEXT:GOTO49
49 :POKE36879,152:POKE36874,0:PRINT";!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!"
50 PRINT";#####/#####":PRINT";#####CRUISE DESTROYED"S+1:I=0:A=0:Y=0:K
=0
51 S=S+1
54 FORT=1T03000:NEXT:GOTO10
400 POKE36877,220:FORL=15T00STEP-1:POKE36878,L
404 FORM=1T0100:NEXTM
406 NEXTL
408 POKE36877,0:POKE36878,0
409 IFC>2THENGOTO450
410 PRINT";YOU'VE BEEN SHOT":PRINT"SCORE="S:POKE8155,34:POKE38875,2
411 I=0:A=0:Y=0:K=0
412 FORT=1T02000:NEXT:GOTO10
450 POKE36879,59:PRINT";"
451 REM [BLK]
452 PRINT";YOU RUN OUT OF LIVES"
453 REM [5 CRSR DOWN] [4 CRSR RIGHT] [2 CRSR DOWN]
454 PRINT";YOUR SCORE="S:PRINT";NUCLEAR WAR, IMMINENT"
455 FORT=1T04000:NEXT:PRINT";":POKE36879,27:END
499 REM [CLR][WHT]
500 POKE36879,8:PRINT";SR.DOMMETT JAN 1984"
501 REM [CRSR DOWN]
502 PRINT";GREENHAM COMMON"
503 REM [CRSR DOWN]
504 PRINT";GET PAST POLICE CORDON"
506 PRINT";TO DESTROY 30 MISSILES"
507 REM [2 CRSR DOWN][2 CRSR RIGHT]
508 PRINT";=LEFT M=RIGHT"
509 PRINT";PLEASE WAIT"
550 FORT=1T03000
600 POKE51,255:POKE52,27:POKE55,255:POKE56,27:POKE36869,255
602 FORJ=0T0511:X=PEEK(32768+J):POKE7168+J,X:NEXT
604 FORJ=0T031:READX:POKE7432+J,X:NEXT
606 DATA24,24,126,189,189,36,36,102
607 DATA24,152,255,61,60,36,66,195
608 DATA31,63,127,248,248,127,63,31
609 DATA255,255,255,129,255,255,255,255
611 POKE36879,8:PRINT";"
612 Y=7712:X=7854:P=7844:R=7864
614 POKEY,33
615 PRINT";:PRINT"HIT SPACE BAR TO PLAY"
616 GETA$:IFA$< ">"THEN616
617 IFA$=" " THENGOTO10
618 REM [BLK]
620 PRINT";:POKE36878,0:POKE36879,110:PRINT";WELL DONE YOU HAVE"
622 PRINT";RID BRITAIN OF THE 30"
624 PRINT";CRUISE MISSILES."
625 REM [3 CRSR DOWN]
626 PRINT";YOU HAVE AVOIDED A NUCLEAR WAR. THE END!":END

```

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