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No. 71
July 17-23, 1984

45p

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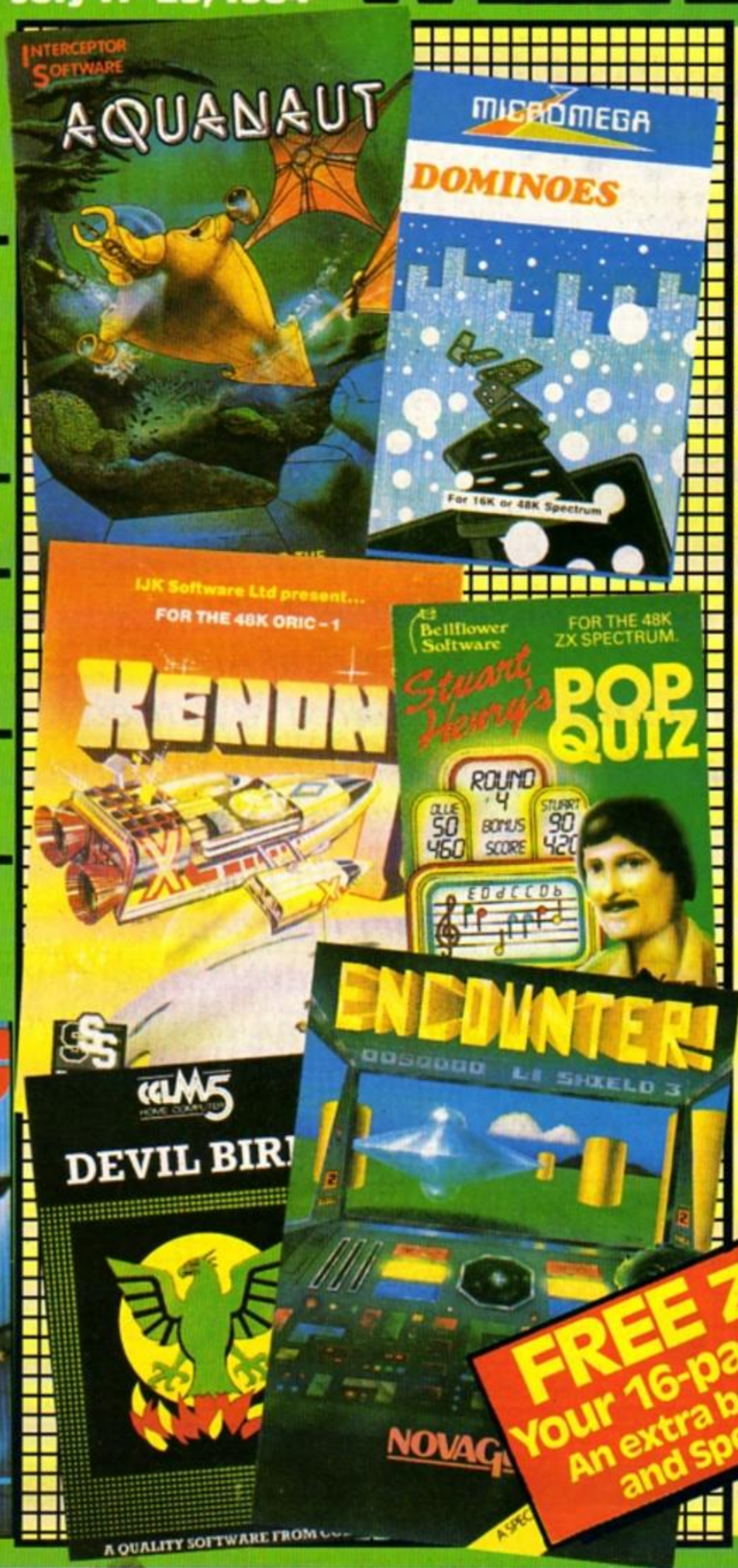

New moves at Imagine

Bitterness surrounds moves by Imagine's bosses to switch some of the company's assets into a new firm called Finchspeed.

Operations director Bruce Everiss, along with his secretary wife Kathy, resigned after hearing that founders Dave Lawson and Mark Butler had decided on the transfer.

Mr Lawson and Imagine's financial director Ian Hetherington visited Los Angeles, apparently unknown to the staff, reportedly to raise money for Finchspeed.

And there are even rumours that Finchspeed — jointly owned by the three — may move to America.

Imagine is said to owe

Continued on page 5

Backing for FAST

Software houses have now set up an anti-piracy group — with backing from technology minister Kenneth Baker.

The Federation Against Software Theft has two main objectives:

- To lobby MPs for tighter copyright laws, probably through a Private Members' Bill

- To publicise the protection available under current law, as well as making piracy socially unacceptable.

FAST believes that software theft is costing the industry at least £150m a year, which could

Continued on page 5

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HOME COMPUTING WEEKLY
BRITAIN'S BRIGHTEST

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ZX USER

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

- Spectrum software reviews — the hot news
- Don't get in a tangle in our fun game
- Play bowls on the village green
- Gamble on the luck of the draw
- Save injured passengers after a train crash

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

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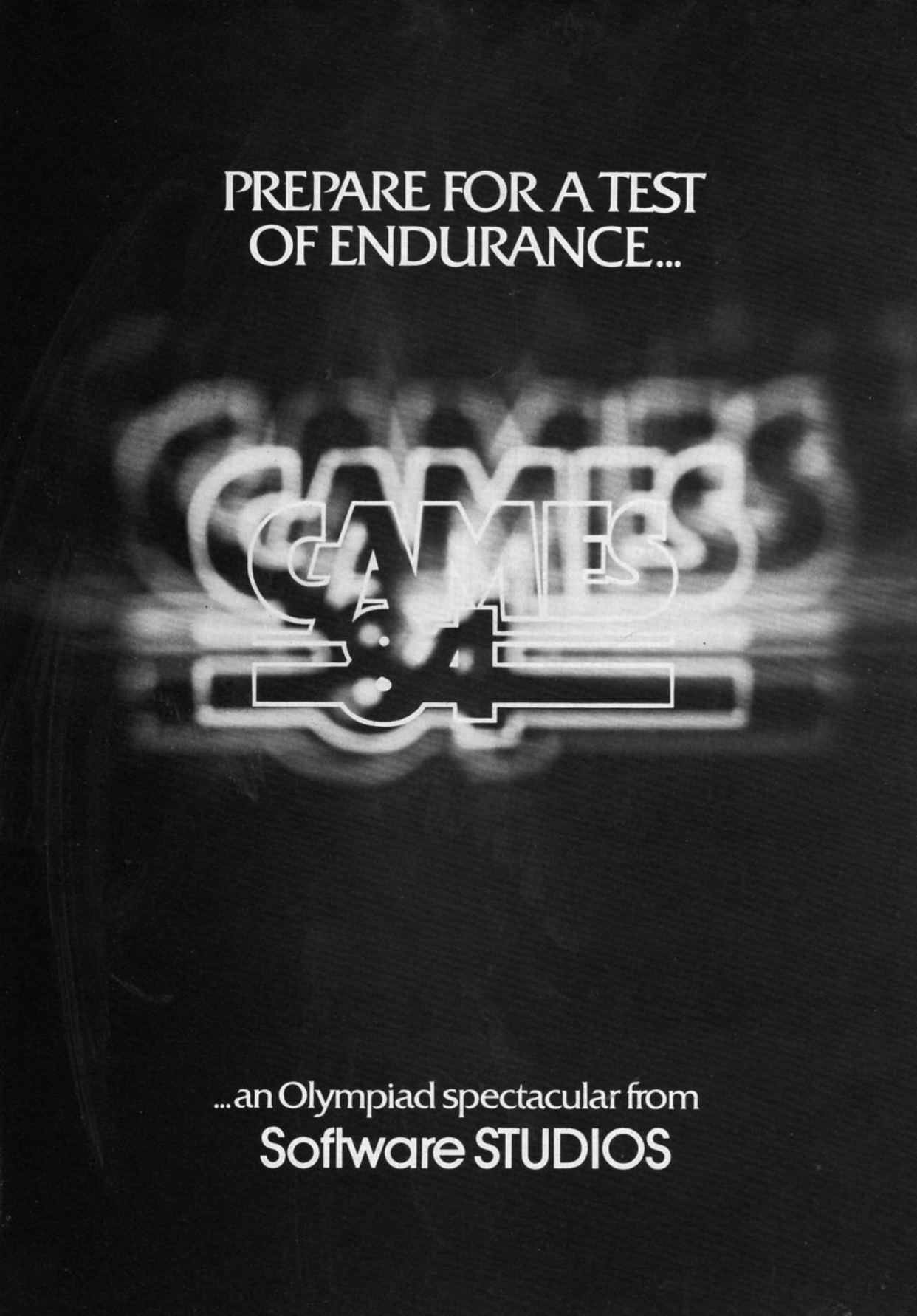

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Software STUDIOS

FAST

From front page

be ploughed back into improved products.

Members of FAST include some of the biggest names in both business and home computer software, plus several trade associations.

The chairman is Donald Maclean, deputy chairman of Thorn EMI Video. He said: "Software theft is a major threat to the whole computer using community. It is in everyone's interest that this problem is tackled now!'

FAST's management group includes Nick Alexander, managing director of Virgin Games, and chairman of the Guild of Software Houses.

Welcoming FAST's formation, Mr Baker said: "The software industry is a very important and quickly-growing sector of the British economy.

"It is already a major contributor to national wealth and employment in this country, and it is essential that it should be in a position to protect itself against unlawful copying!'

He went on to offer support and encouragement to FAST.

Federation Against Software Theft, Chancery House, Chancery Lane, London WC2A 1QU

Donald MacLean, chairman of FAST

Imagine

From front page

£400,000, including £100,000 to a bank and £250,000 to Marshall Cavendish, due to be repaid after an abortive programing deal where software was to be given away with a partwork.

Staff at Imagine say that Finchspeed is taking over the company's "megagames", boxed sets called Bandersnatch and Psyclapse. Imagine would get 50 per cent of the profits.

Finchspeed is also said to be buying £43,000-worth of equipment from Imagine, with a 10 per cent deposit.

Rights in Imagine's other games, including two unreleased titles, have already been sold.

Finchspeed is also believed to be offering jobs to 20 of Imagine's 71 staff.

Mr Lawson and Mr Butler both own 45 per cent of Imagine and the remaining 10 per cent is held by Steve Blower, boss of the now-defunct Studio Sting, said Mr Blower. Until its collapse, Studio Sting did much of Imagine's artwork.

The three met to discuss the transfer and, said Mr Blower, he was the only one of the three to vote against the plan.

Two days later Imagine staff were given a memo telling them not to worry — as employees they were preferential creditors and would get their money.

Meanwhile, Mr Blower said he was taking legal action to be freed as one of the guarantors of Imagine's overdraft.

Mr Blower blames lack of business acumen for the situation and said he doubted if Imagine's creditors would support the Finchspeed plans.

Mr Everiss spoke more strongly, saying he only found out about the plan by chance and claiming that he was deliberately excluded.

But Imagine's technical manager, Andrew Sinclair, said: "As far as I was told, and I've known Bruce for a long time, there were professional and operational differences, as a result of which he resigned!'

Mike Crofton, who was Imagine's media manager, said: "I think it's a very sad thing. I'm personally grieved because I think the company had a good future.

He said he believed some management decisions had been wrong and that piracy had also taken its toll.

It's Kidd's play

Eddie Kidd holds the world record for his daring bike jumps — he's cleared 14 double-decker buses, a distance of 190 feet. Now he's endorsing a computer game which challenges you to match his exploits.

Martech is the company working on this project, and details of the Eddie Kidd game, Jump Challenge, are being kept a secret. You'll have to equal Eddie's skill, timing and control as you leap over increasingly difficult obstacles. However, there's one reassurance — at least your life isn't at stake, unlike Eddie's astounding jumps, so even the yellowest of cowards amoung you can be successes.

Jump Challenge is due for release in August, for the Commodore 64 and 48K Spectrum to begin with. A national competition will serve as an extra challenge. Eddie Kidd will be helping promote the game and making personal appearances on the Martech stand at several computer fairs.

Martech, Martech Hse, Bay Terrace, Pevensey Bay, E Sussex BN24 6EE

Help with bank balance

Keep a record of all your expenditure, with Money Manager, from Creative Sparks. A budgeting routine helps you plan your finances and there are seven different methods for cash analysis and interest calculation.

The program runs on the 48K Spectrum and costs £6.95. Creative Sparks is Thorn EMI's range of home entertainment software.

Creative Sparks, Thomson Hse, 296 Farnborough Rd, Farnborough, Hants

Software houses merger

Mastertronic has joined forces with Galactic to form a new company which will be known as AI Products. Mastertronic is the games company which has hit the headlines through selling its games at the slashed price of £1.99.

The reasons Mastertronic give for this joint venture are to secure a continuing source of software and to broaden the base of the operation beyond games.

AI Products intents to widen its horizons by including business and educational software. Games will be in the minority. Said Martin Alper, director: "You can expect to see budget ranges of business and educational software on the market by early autumn.

"We want to prove that top quality programming can be achieved at a fraction of the current market prices!' he continued.

Mastertronic claims to have sold over a third of a million games since its launch on 2nd April.

Mastertronic, 48 George St, London W1 H5RF

Ocean's away with new games

Ocean is due to release High Noon in August. This is a 3D wild-west drama. Shades of old Clint Eastwood movies linger on in this game; one of the characters is Rigor Mortis, the creepy undertaker, who loiters around waiting for business. A Commodore 64 version is scheduled for release in August, followed by a Spectrum version in September.

Also from Ocean in July: Stuntbike and Jonny and the Jimpys, for CBM 64. Jonny and the Jimpys (£6.90) is a two-game package, with the hero of the game being our Jonny. Side one is a battle with witches and side two involves Jonny feeding his dog and running through a maze.

Ocean, 6 Central St, Manchester M2 5NS

Thieves nab tapes

PSS has been having trouble with burglars recently. PSS premises in Coventry were broken into and three unreleased computer games tapes and six master discs were stolen, as well as a computer.

Managing director Gary Mays said: "It smells very much of a black market operation. They knew what they were looking for. I find it very suspicious!'

Mr Mays blamed the thefts on software pirates who copy tapes and sell them on the black market at reduced rates. "It could be crippling for a firm such as ours!' he said. "It takes us at least three months to develop new games and our loss could be as high as £10,000!'

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★ ★ ★ ★ ★

PKD2: MUSIC MAKER by David Martin
TI-LUDO by Roy Hollingworth **£5.95**
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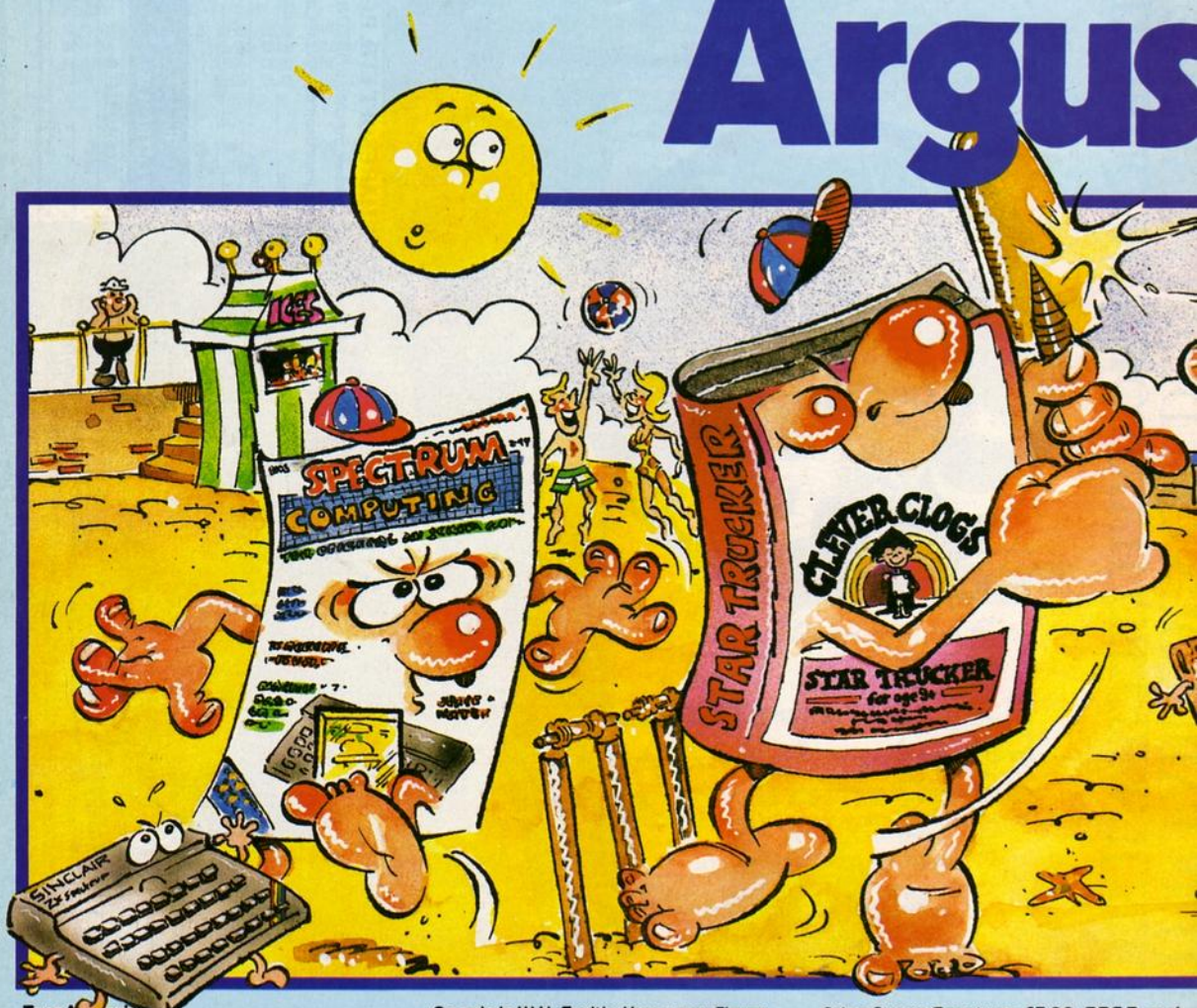

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Devil Bird Unexpanded Sord M5 £5.95

CGL, CGL Hse, Goldings Hill, Loughton, Essex IG10 2RR

According to the inlay card, you are attacked by the Devil Bird. You can fight back by firing your laser gun at it.

In fact, in this 100 per cent BASIC game, the Devil Bird is a randomly moving sprite and your ship is the traditional laterally moving base. Since there is only one Devil Bird on the screen at once, it moves swiftly, although very jerkily. The base responds very slowly and so you feel frustrated as you desperately try to dodge the deadly ray. When you blast five Devil Birds, you go on to the next screen to meet another bunch. The best I managed was three, due to the slow control responses.

Screen layout is good and sprites are well defined. However, the incredibly powerful graphics and sound capabilities of the Sord cannot be fully exploited by the rather simple BASIC-I and this fact becomes painfully obvious in this game, which attempts to emulate an arcade game. As it is totally unprotected, you might like to study how it's written, but at £5.95, I can't recommend it very highly. **S.S.**

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

★ ★

Brainstorm 32K BBC £7.95

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

Brainstorm is a unique game designed to test the skill, logic, memory and nerve of the two opponents. The idea is to fire a laser beam directly into your opponent's brain. This may not sound too taxing but the laser beam is directed by altering the deflection factors of your prisms. Complicated, eh? Once you've mastered the maths the game itself is very interesting.

Players take it in turn to position their prisms, to which they give a deflection factor. The direction in which the laser is travelling before it hits the prism will decide which direction it leaves.

Once you have positioned your prism and set the deflection factor the laser is fired. It will hit 25 prisms before running out of power, although it is more likely to leave the screen or hit a brain first.

Brainstorm can be put on a parallel with chess and must be just as, if not more, complicated. I wouldn't recommend it for children but it's great for a game which needs thought. **D.B.**

instructions	85%
playability	60%
graphics	90%
value for money	80%

★ ★ ★ ★

Great or grotty? Read our reviews

You'll find software reviews for all popular micros in HCW. Here's a selection for the Sord M5, Memotech, BBC and Commodore 64

Tales of the Arabian Knights CBM 64 £7

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

At one time computer games were limited to text displays. Then came graphics and later music. Interceptor is going one step further by including speech in its programs.

The game is based upon getting your man through a series of screens and surviving the obstacles blocking your way such as genies, crocodiles and barrels. Players of Krazy Kong should find it exciting. Excellent graphics although your playing man lacks detail.

Music plays continually through the game. The tune has been implemented well and complements the game. I hope more companies will try to attain the standards of sound achieved in this game.

Before you start one of the screens a small description of your task is displayed. The computer also tells you this out of the TV speaker. No extra hardware is required; it is all created through good software. Although the voice sounds rather like grandad with a sore throat, it's quite understandable.

The program comes with its own fast loading system which I didn't find very reliable and sometimes took two or three goes to load the game.) **K.I.**

instructions	30%
playability	90%
graphics	90%
value for money	85%

★ ★ ★ ★ ★

Reversi Memotech MTX £7.95

Continental Software, Station Lane, Witney, Oxon

Reversi is a computerised version of the board game Othello, in which two players take turns to place coloured counters on a chequer board. The aim is to bracket the other player's counters with your own, isolating a line of captured counters which change colour and join your side. The winner has the most counters of his or her colour when the board becomes full.

Simple though the idea is, Reversi is an addictive strategy game and a popular subject for computerisation. This excellent program offers four levels of play against a human opponent, giving a range of response times between one second and 10 minutes. At the third level the Memotech plays a good game, responding in about 25 seconds. A bleep sounds when the computer has finished thinking. Invalid moves are not allowed.

Reversi uses a clear and attractive typeface. At any point in a game you may quit or call up detailed instructions, change the colour scheme, or use a "hint" facility which suggests your next move. Reversi is well-written, beautifully presented, but the price is perhaps a little excessive. **S.N.G.**

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

★ ★ ★ ★ ★

Where's my bones? CBM 64 £7

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

The title sounds interesting and no doubt will persuade a few people to buy copies. Admittedly the screen displays look quite good. However there is a complete lack of lasting interest and skill. I used to think computer games were fun — not an endurance test.

The object is to move your ghost around a maze which scrolls up the screen as you move down. Precision is required because one or two pixels make all the difference. There is no fast action, you simply tap the joystick to get to the correct position and then time your movement with a couple of missiles or blocks.

The graphics come in two different styles; rocky and brick walls. Each level contains a maze made out of one type of background and either missiles or moving blocks bar your way.

As you move, various demons appear. You can shoot them or smash into them, but you lose a shield each time you touch a demon.

Loading problems were encountered from time to time. I blame the fast loading system for this.) **K.I.**

instructions	10%
playability	25%
graphics	75%
value for money	50%

★ ★

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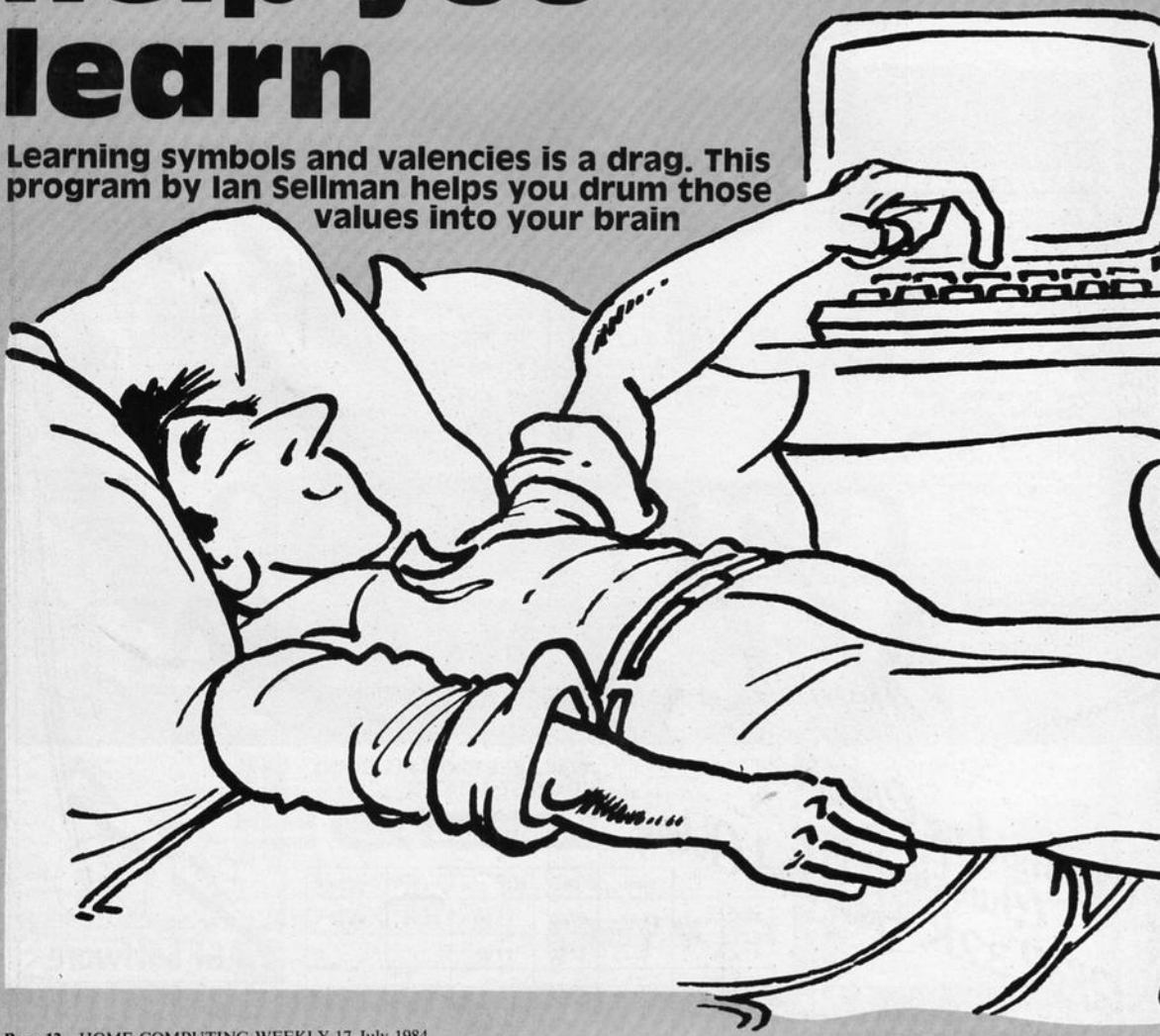
Give your brain a rest — use your micro to help you learn

Learning symbols and valencies is a drag. This program by Ian Sellman helps you drum those values into your brain

How it works

10-180 DIM arrays, read DATA into a string
190-350 menu to choose to learn or be tested
360-500 print out a list of symbols and valencies to be learned
510-620 print a list of the symbols to a printer
630-790 set up screen for S & V test. Screen is divided into sections by block graphics.
800-970 ask symbol and valency of a substance
980-1050 clear the previous question and answer, jump back for next question
1060-1310 list wrong answers to screen
1320-1500 list wrong answers to printer
1510-1630 input answers. The BASIC command INPUT tends to destroy graphics on screen if used, as it has a carriage return at the end.
1640-2060 data statements which hold the substances



As you no doubt know, learning symbols and valencies of certain substances is a fundamental part of most science courses.

It can be quite a difficult task to learn these values off by heart, but don't give up in despair. Here's a Dragon 32 program which will help you overcome this problem.

The program gives a list of substances to screen or printer. You settle down to committing these values to memory, then when you are confident, the program tests you. At the end of the test you are provided with a list of the questions you answered wrongly. You can also see a running total of your score, to see what improvements you have made.

The 31 substances included in this program are the common ones. If you wish to amend the program, add more data and change lines 140, 150, 160, 390, 560, 800, 830, 1170 and 1380.

Good luck with your revision!

Variables

A$(60,3) holds all data on substances
B$(31) used to record which questions have been asked, if they were answered correctly
A used in FOR... NEXT loops
C holds number of correct answers
R holds random question number
X holds x co-ordinate when setting up screen
Y holds y co-ordinate when setting up screen
**A$** used with INPUT and INKEY$ statements.

Hints on conversion

This program should RUN as it stands on the Tandy 32K colour computer. If you wish to convert it to any other computer here are some of the Dragon's commands:

CLEAR clears string space
ON GOSUB multiple branch statement
PRINT# -2 prints out to a printer
SET(X,Y,C) sets a point on the text screen to colour C. The resolution is 64*32.
PRINT @X prints at the point X on the text screen. The screen has 512 letters and is made up of 16 rows of 32 characters.

The rest of the commands are fairly standard to most BASICs.

```
10 REM ************************
20 REM *                      *
30 REM *                      *
40 REM * SYMBOLS AND VALENCY  *
50 REM *                      *
60 REM *         TEST         *
70 REM *                      *
80 REM *    BY IAN SELLMAN    *
90 REM *                      *
100 REM*                      *
110 REM************************
120 CLS
130 CLEAR 500
140 DIM A$(60,3)
150 DIM B(31)
160 FOR A=1 TO 31
170 READ A$(A,1),A$(A,2),A$(A,3)
180 NEXT A
190 PRINTTAB(3);"SYMBOLS AND VALENCY TEST"
200 PRINTTAB(3);"******* *** ******* ****"
210 PRINT:PRINT
220 T=6
230 PRINTTAB(T);"1] LIST S & V'S"
240 PRINT
250 PRINTTAB(T);"2] PRINT S & V'S"
260 PRINT
270 PRINTTAB(T);"3] TEST S & V"
280 PRINT
290 PRINTTAB(T);"4] END"
300 PRINT@422,"ENTER CHOICE> ";
310 A$=INKEY$
320 IF A$="4" THEN CLS:END
330 IF A$="" OR A$<"1" OR A$>"3" THEN 310
340 ON VAL(A$) GOSUB 360,510,630
350 GOTO 120
360 REM **************
370 REM *  LIST S&V  *
380 REM **************
390 FOR A=0 TO 2
400 CLS
410 PRINT"  SUBSTANCE";TAB(18);"SYMBOL";TAB(25);"VALENC
Y"
420 FOR B=A*11 TO (A+1)*11-1
430 PRINTA$(B,1);
440 PRINTTAB(20);A$(B,2);
450 PRINT TAB(28);A$(B,3)
460 NEXT B
470 PRINT@482,"PRESS A KEY TO CONTINUE> ";
480 IF INKEY$="" THEN 480
490 NEXT A
500 RETURN
510 REM ***************
520 REM * PRINT S & V *
530 REM ***************
540 PRINT£-2,"SUBSTANCE";TAB(20);"SYMBOL";TAB(28);"VALE
NCY"
550 PRINT£-2,""
560 FOR A=1 TO 31
570 PRINT£-2,A$(A,1);TAB(22);A$(A,2);TAB(31);A$(A,3)
580 NEXT A
590 PRINT£-2,""
600 PRINT£-2,""
610 PRINT£-2,""
620 RETURN
630 REM ******************
640 REM *   TEST S & V   *
650 REM ******************
660 CLS
670 FOR X=0 TO 63
680 SET (X,0,4)
690 SET (X,31,4)
700 SET (X,4,4)
710 SET (X,8,4)
720 SET (X,12,4)
730 SET (X,16,4)
740 SET (X,20,4)
750 NEXT X
760 FOR Y=0 TO 31
770 SET (0,Y,4)
780 SET (63,Y,4)
790 NEXT Y
800 FOR A=1 TO 31
810 PRINT@34,"QUESTION NUMBER>  ";A;
820 PRINT@98,"NUMBER CORRECT>  ";C;
830 R=RND(31)
840 IF B(R)<>0 THEN 830
850 PRINT@162,"SUBSTANCE> ";LEFT$(A$(R,1)+STRING$(18,"
"),18);
860 PRINT@354,"ENTER SYMBOL>  ";
870 GOSUB 1510
880 PRINT@226,"SYMBOL>  ";A$(R,2);
890 IF B$=A$(R,2) THEN PRINT@247,"correct"; ELSE PRINT@
247,"wrong";:B(R)=2:GOTO960
900 PRINT@386,"ENTER VALENCY> ";
910 GOSUB 1510
920 PRINT@290,"VALANCY>  ";A$(R,3);
930 IF B$=A$(R,3) THEN PRINT@311,"correct"; ELSE PRINT@
311,"wrong";:B(R)=2:B(R)=2:GOTO 960
940 C=C+1
950 B(R)=1
960 PRINT@450,"PRESS A KEY TO CONTINUE> ";
970 A$=INKEY$
980 IF A$="" THEN970
990 A$=STRING$(29," ")
1000 PRINT@354,A$;
1010 PRINT@226,A$;
1020 PRINT@290,A$;
1030 PRINT@450,A$;
1040 PRINT@386,A$;
1050 NEXT A
1060 CLS
1070 INPUT " DO YOU HAVE A PRINTER (Y/N)";A$
1080 IF A$="Y" THEN 1330
1090 REM ***************
1100 REM * WRITE WRONG *
1110 REM ***************
1120 B=1
1130 CLS
1140 PRINT"  SUBSTANCE";
```

DRAGON 32 PROGRAM

```
1150 PRINT TAB(18);"SYMBOL";
1160 PRINTTAB(25);"VALANCY"
1170 FOR A=1 TO 32
1180 IF B(R)=2 THEN PRINTA$(A,1);TAB(20);A$(A,2);TAB(28
);A$(A,3):B=B+1
1190 IF B>12 THEN GOSUB 1240
1200 NEXT A
1210 PRINT@480,"PRESS A KEY TO CONTINUE";
1220 IF INKEY$="" THEN 1220
1230 RETURN
1240 PRINT@480,"PRESS A KEY TO CONTINUE";
1250 IF INKEY$="" THEN 1250
1260 B=1
1270 CLS
1280 PRINT" SUBSTANCE";
1290 PRINTTAB(18);"SYMBOL";
1300 PRINTTAB(25);"VALANCY"
1310 RETURN
1320 REM ******************
1330 REM *  PRINT WRONG  *
1340 REM ******************
1350 PRINT£-2,"SUBTANCE";
1360 PRINT£-2,TAB(20);"SYMBOL";
1370 PRINT£-2,TAB(28);"VALANCY"
1380 FOR A=1 TO 31
1390 IF B(A)=2 THEN GOSUB 1450
1400 NEXT A
1410 PRINT£-2,""
1420 PRINT£-2,""
1430 RETURN
1440 REM ********************
1450 REM *  PRINT OUT  S&V  *
1460 REM ********************
1470 PRINT£-2,A$(A,1);
1480 PRINT£-2,TAB(22);A$(A,2);
1490 PRINT£-2,TAB(30);A$(A,3)
1500 RETURN
1510 REM ********************
1520 REM *  INPUT ROUTINE  *
1530 REM ********************
1540 B$=""
1550 A$=INKEY$
1560 IF A$="" THEN 1550
1570 IF A$=CHR$(13) THEN RETURN
1580 PRINTA$;
1590 IF A$=CHR$(8) AND LEN(B$)>0 THEN B$=LEFT$(B$,LEN(B
$)-1):PRINTA$;:GOTO 1540
1600 IF A$=CHR$(8) AND LEN(B$)=0 THEN 1540
1610 B$=B$+A$
1620 IF LEN(B$)>5 THEN RETURN
1630 GOTO 1550
1640 REM *****************
1650 REM *  VALENCY ONE  *
1660 REM *****************
1670 DATA HYDROGEN,H,1
1680 DATA LITHIUM,LI,1
1690 DATA SODIUM,NA,1
1700 DATA POTASSIUM,K,1
1710 DATA SILVER,AG,1
1720 DATA CHLORINE,CL,1
1730 DATA BROMINE,BR,1
1740 DATA IODINE,I,1
1750 DATA NITRATE,NO3,1
1760 DATA HYDROGEN CARBONATE,HCO3,1
1770 DATA HYDROGEN SULPHATE,HSO4,1
1780 DATA AMMONAM,NH4,1
1790 REM *****************
1800 REM *  VALENCY TWO  *
1810 REM *****************
1820 DATA MAGNESIUM,MG,2
1830 DATA CALCIUM,CA,2
1840 DATA BARIUM,BA,2
1850 DATA ZINC,ZN,2
1860 DATA NICKEL,NI,2
1870 DATA COPPER,CU,2
1880 DATA TIN,SN,2
1890 DATA MERCURY,HG,2
1900 DATA OXYGEN,O,2
1910 DATA SULPHER,S,2
1920 DATA SULPHATE,SO4,2
1930 DATA CARBONATE,CO3,2
1940 DATA SULPHITE,SO3,2
1950 DATA HYDROXIDE,OH,2
1960 REM *******************
1970 REM *  VALENCY THREE  *
1980 REM *******************
1990 DATA ALUMINIUM,AL,3
2000 DATA IRON,FE,3
2010 DATA NITROGEN,N,3
2020 DATA PHOSPHORUS,P,3
2030 REM ******************
2040 REM *  VALENCY FOUR  *
2050 REM ******************
2060 DATA CARBON,C,4
```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Buzzard Bait: 100 copies to be won from Microdeal

This game has been widely acclaimed for its graphics and action. Now's your chance to win your own copy of this Dragon chart-topper

This is your chance to win Buzzard Bait, Microdeal's five-star game for the Dragon 32.

We're giving away 100 copies of Buzzard Bait to the winners of this week's competition. Buzzard Bait costs £9.95 in the shops, so the hand-out is worth just on £1000.

Buzzard Bait is protected by the infamous dongle. Take this opportunity of examining the little black box which plugs into your joystick port and must be present whenever you load the game. It's an original way of beating the pirates.

The game received rave reviews from HCW's regular reviewer, who's a seasoned, perhaps cynical critic. He went bananas over it, claiming the graphics were the very best he'd ever seen on the Dragon. "Great... will provide you with many happy hours of relatively non-violent fun," he wrote. "A real winner which I would like to see on other machines too," he continued, awarding it 395/400 marks.

Buzzard Bait is a fast, exciting jousting game. The riders are mounted on birds and you must topple your enemy from his steed and turn him into an egg. As the game progresses, land masses crumble away, giving you more room to fly and allowing strategic manoeuvring.

If you stay on one wave for some time, the pterodactyl appears. If it touches you, you've had it. You can only kill it by jousting it in the throat (who said it was non-violent?). Perhaps it's best to avoid trouble at this stage, and steer clear all together.

As the game progresses, lava burns away the bridge. Watch out for the hidden danger — the Lava Monster which skulks in the murky depths and reaches out to grab unsuspecting birds and drag them to their deaths in the boiling lava. There is no escape once you have been touched!

Find the differences and you stand to win this brilliant game. So what are you waiting for?

How to enter

Study the two cartoons — there are a number of differences between them. Circle the differences on cartoon 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 Microdeal Competition, Home Computing Weekly, No. 1 Golden Square, London W1R 3AB. Entries close at first post on Friday August 3, 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.

The rules

Entries will not be accepted from employees of Argus Specialist Publications, Microdeal and Alabaster Passmore & Sons. This restriction also applies to employees' families and agents of the companies.

The How to Enter section forms part of the rules.

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Complete clearly and fully — if you are a prizewinner this will act as a label. Post to Microdeal Competition, Home Computing Weekly, No.1 Golden Square, London W1R 3AB. Closing date: first post, Friday August 3, 1984. Don't forget to follow closely the advice in the How to Enter section, including writing the number of differences on the back of your envelope.

Texas: the state of the stars

Here's a treat for owners of the TI-99/4A: five new programs reviewed by our team

Progpack TI-99/4A £

T. Wilmott, 3 Somerset Place, Somerset Bridge, Bridgewater TA6 6LW

Games to suit everyone's taste. Ten in all, though I could only get nine to load. Nevertheless, quite remarkable value for a fiver. Here's a quick run down of the titles:

Stop Thief — a collect and chase game where a foreman wanders round scaffolding dropping fivers. Lucky you must pick them up, for as long as you can!

Base Attack — you have five laser cannon to defend against an alien attack. Very addictive.

Bat Blaster — self explanatory.

Hostile UFO's — aliens again, that swoop and bomb this time.

Treasure Seeker — dig around searching for maps and treasure.

Cave Adventure — the one that wouldn't load, but, from reading the instructions, would appear to be a standard adventure.

Alien Overrun — differently coloured aliens move across screen. Zap them to survive.

Robo-killer — takes some thinking about. Your task is to kill 12 robots by laying pillars and bombs, but they close in on you after every move.

Mystery Game — infuriating but entertaining.

Well there they are. What more could any software hungry TI owner want, excellent games at a giveaway price. **J.W.**

instructions	95%
playability	90%
graphics	80%
value for money	100%

★★★★★

Ophyss TI-99/4A £6

Stainless, 10 Alstone Rd, Stockport, Cheshire SK4 5AH

The object of this rather unusual game is to keep a number of newly-hatched ophyss eggs alive by steering them around a serpentarium. An ophyss is a snake-like creature found in the Antarctic islands. The young ophysses (or ophyi?) must have nourishment, so they eat frogs.

In the two-player version a lifeline is displayed at each side of the screen. The length of this line shows how much nourishment each ophyss has, constantly decreasing. If an ophyss eats a frog, its lifeline returns to the maximum length and the ophyss grows by one unit. When it is 15 units long it expires, and a small ophyss emerges from its den. This ophyss must also grow to 15 units.

The opponent's tail may also be eaten. This does not give any nourishment, but 20 points are gained. When an ophyss has been bitten, it is paralysed for one move, so if possible, it should be bitten again.

In the one-player version of the game, the computer controls the opponent's ophyss, and there are seven levels of difficulty.

Overall, a good game that would be even better if in machine code on another computer. **J.J.**

instructions	95%
playability	80%
graphics	90%
value for money	90%

★★★★

Motor Cross/ Rally Cross TI-99/4A £7

Stainless, 10 Alstone Rd, Stockport, Cheshire SK4 5AH

These two programs are sold together for either joystick or keyboard use. Although good use has been made of the TI's BASIC facilities in an attempt to get the utmost speed, both programs are essentially identical. They differ mainly in the graphics used for gates, making this very expensive duplication.

Both are moderately challenging: you must drive around the screen, negotiating cones and trees and attempting to pass through eight gates. In Motor Cross only, the gates are numbered and must be negotiated sequentially. You have control of left and right turns only, which can be a little confusing as they are dependent upon the direction in which the car is heading.

There are five levels of play and your efforts are timed within the restrictions of TI BASIC. If you complete the course unscathed, you will receive a rating. I didn't even rate pathetic, as with the computer in control of the speed and no brakes I frequently became entangled with the trees.

If the games had differed more I would have considered this fair value for money.) **P.B.**

instructions	90%
playability	85%
graphics	75%
value for money	20%

★★★

Rivets/ Charset 2 TI-99/4A £4.95

You need a good head for heights in Rivets, though whether you'll find it a truly riveting experience is another matter.

The game starts on the 21st floor of a partially constructed tower block. The site foreman has it in for you! When all your workmates have gone home he makes you collect up the rivets they have left lying around. Trouble is, there are banana skins scattered. Slipping on one sends you down onto the next floor and loses a life. The same happens if you miss your step on girders. When all your lives have gone the building is displayed and you watch your death leap.

All this proceeds in a desperate race against time. There are five skill levels. As the game becomes more difficult you are given less time to finish and more banana skins to avoid.

Although fun at first, the game lacks sufficient variety to give it a lasting addictive quality.

Charset is a short program in which characters have been redefined and their hexadecimal codes placed in DATA statements.) **J.W.**

instructions	85%
playability	40%
graphics	40%
value for money	50%

★★

Escape from Mica TI-/4A £4.95

PiKaDee Software, 35 Parker St, Preston, Lancs PR2 2AH

It's hard and dangerous work being a captive of the evil Count of Mica. To obtain your release all the treasures from each of three fields must be collected. Each is surrounded by a high wall and there are two blocks of wall inside the field.

The treasure is guarded by a hungry man-eating monster. Here the two inner walls prove useful because if you can lure the monster behind one he will momentarily stop. Then you take what you can before he becomes active again.

Four hyperspace pills have been provided to use in each field. Taking one will immediately transport you to another random location within the field. This proves very handy when the monster comes too close for comfort. Sometimes, however, you can find yourself re-appearing just as near, or closer!

There are four skill levels. At the easiest you score 15 points per item, but there are more items and large inner walls. At the most difficult you score 60 points per item, there's fewer items and much smaller walls. **J.W.**

instructions	90%
playability	60%
graphics	50%
value for money	65%

★★★

Label printer

One particularly useful job a computer printer can do is printing self-adhesive labels. These are available from many office equipment suppliers and stationers in both tractor feed and friction feed forms for around 70p per 100.

This program allows input of the required lines for the label of your choice and formats them for printing. Standard labels are 100mm by 35mm and this allows about seven lines of 35 characters to fit on (with a 1525 dot matrix printer). If your labels are another size, then modify the program to suit. Owners of a 1520 plotter should also be able to add colour and variable character size routines into the program.

The program produces neat labels which can be used for many purposes, e.g. parcel labels, cassette inserts, floppy disc indexing, and anywhere else a neat set of labels will look good.

Note: As usual, cursor controls are included as REM statements but these need not be typed in.

Label printer
How it works

80-130 set up and input number of lines required
140-185 input lines for label
190-205 print label on screen
210-290 correct any errors
300-308 print in graphics mode if required
310-330 print label in printer lower case
340-400 set up for another label if required
500-560 subroutine to input a line of text

Label printer
Variables

TS(7) lines of text
A number of lines
TS line input
LS character input

Label printer
Hints on conversion

This program should pose no problems in converting to other micros and printers.
CHR$(8) print in graphics mode (no space between lines)
CHR$(13) carriage return
CHR$(15) print in normal mode
CHR$(20) delete character
OPEN 1,4,7 open file to printer in lower case

Tape filer part 1

Do you have lots of music tapes, and do you have a lot of trouble trying to remember which tune is where? If so, then this program is for you.

The program comprises three sections. One allows you to create a disc file for five cassettes with tape length, title, date and all names and artists catalogued. Another allows you to correct or modify the files you have created. The third section allows you to search quickly through all your files for a particular tune or artist (or both) and print up where this tune is to be found on your tapes.

The program is designed for disc users, although data could also be stored on cassette tape. Searching, however, would be very slow. Although made for storing tunes on cassette, small modifications would allow you to use the program as an index for your records, or even your tape or disc software.

This week's listing gives the file creation and modification routines. Next week, the reader section will be given to allow you to use your files.

Note: Tune and artist are filed as a single string, separated by a "spade" graphic. In the editor routine, you must put this in yourself. Total line length should be kept below 78 characters. The numbers in the data files are important to the running of the program, and should not be removed or changed. If the artist is unknown, enter this as "UN".

As usual, cursor controls are given in REM statements, but these don't need to be typed in.

Tape filer 1
How it works

40-70 set up and title
80-90 ask for highest tape on file
100-135 main menu selection
140-850 reader routine (see next week)
1000-1020 input start tape number and make up file-name
1030-1070 input tape length — for five tapes
1080-1130 input side title and date — for two sides
1140-1220 input tunes and artists
1230-1240 put tune and artists into single string
1250-1360 save data to disc
2000-2015 input start tape number and make up file-name
2020-2100 load data
2110-2210 list data, checking for interrupts
2220-2320 menu and choice selection
2330-2400 adding and deleting routines
2410-2480 resaving data file
2900-2960 trap disc errors and continue
3000 exit program

Tape filer 1
Variables

ARS$(10) artist's names
TU$(10) tune names
K2(10) number of references found
AL(10) length of artist's name
TL(10) length of tune name
D$(1000) data lines
M number of highest tape on file
FM$ current filename
N tape number
DA$ 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
T$ tune name or title
R$ artist's name
L tape length
D data counter
S side counter
C1, C2 data counters
K item to be edited

Tape filer 1
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)

Use your new technology to the full by automatically printing out labels, and organise your music collection with part 1 of Iain Murray's tape filer program

Make your life easier: print labels for everything

Listing for label printer

```
10 rem *** label Printer ***
20 rem *** by iain murray (c) 1984 ***
30 rem *** for home comPutin9 weekly ***
80 dim t$(7)
90 Poke 53281,1:Poke 53280,1
98 rem [clr] [blue] [lower case] [lock in lower case] [3 crsr dwn] [11 crsr rt]
99 rem [rev on] [rev off]
100 Print "■■■
```

```
539 rem [crsr left] [rev on] [rev off]
540 t$=t$+l$:print "■■";l$;"■ ■";:goto 510
549 rem [crsr left] [rev on] [rev off]
550 if l$=chr$(20) then t$=left$(t$,len(t$)-1):print "■■";l$;"■ ■";:goto 510
559 rem [crsr left]
560 print "■■ ":return
```

Listing for tape filer

```
10 REM *** TAPE FILER ***
20 REM *** BY IAIN MURRAY (C) 1984 ***
30 REM *** FOR HOME COMPUTING WEEKLY ***
35 REM *** PART 1 OF 2 ***
40 POKE 53280,6:POKE 53281,6
50 DIM AR$(10),TU$(10),K2(10),AL(10),TL(10),D$(1000)
59 REM [CRSR DOWN] [PINK] [WHITE] [CRSR DOWN]
60 SK=0:N$="■■THIS IS NOT ACCEPTABLE !■■"
69 REM [CLR] [WHITE] [4 CRSR DOWN] [13 CRSR RIGHT] [RVS ON] [RVS OFF]
70 PRINT "■■■■■■■■■■■■■■■■■■■■■■■■■■■■■ MUSIC FILER ■"
79 REM [3 CRSR DOWN]
80 PRINT "■■■GIVE NUMBER OF HIGHEST TAPE ON":INPUT "FILE : ";M
90 IF M<0 OR M<>INT(M) OR M/5<>INT(M/5) THEN 80:REM ** CHECK M DIVISIBLE BY 5
98 REM *** MAIN MENU ***
99 REM [CLR] [3 CRSR DOWN]
100 PRINT "■■■■YOU CAN :"
104 REM * EACH LINE STARTS WITH A [CRSR DOWN]
105 PRINT "■1) READ A FILE"
110 PRINT "■2) CREATE A FILE"
115 PRINT "■3) EDIT A FILE"
120 PRINT "■4) EXIT PROGRAM"
124 REM [2 CRSR DOWN]
125 PRINT "■■WHICH ONE DO YOU WANT (1-4) ?"
130 GET A$:A=VAL(A$):IF A<1 OR A>4 THEN 130
135 ON A GOTO 150,1000,2000,3000
998 REM *** CREATOR SECTION ***
999 REM [CLR] [3 CRSR DOWN]
1000 PRINT "■■■■GIVE NUMBER OF FIRST TAPE IN NEW FILE :":INPUT N
1010 IF N<M OR N<>INT(N) OR ((N-1)/5)<>INT((N-1)/5) THEN 1000
1020 W1$=STR$(N):W2$=STR$(N+4):FM$="TAPEFILE"+W1$+W2$:D=1
1030 FOR I=N TO N+4:REM ** LOOP FOR 5 TAPES **
1039 REM [WHITE] [4 CRSR DOWN]
1040 PRINT "■■■■TAPE NUMBER";I
1049 REM [2 CRSR DOWN]
1050 INPUT "■■GIVE TAPE LENGTH (IN MINUTES) ";L
1060 IF L<0 OR L>120 OR L<>INT(L) THEN PRINT N$:GOTO 1050
1070 D$(D)=STR$(L):D=D+1
1080 FOR S=1 TO 2:REM ** LOOP FOR 2 SIDES **
1090 D$(D)=STR$(S):D=D+1
1099 REM [CRSR DOWN] [WHITE] [CRSR LEFT]
1100 PRINT "■■TAPE";I;"(C -";L;"■■) SIDE";S
1109 REM [CRSR DOWN]
1110 PRINT "■GIVE TITLE OF SIDE, AND DATE :"
1120 INPUT T$:IF LEN(T$)<2 OR LEN(T$)>39 THEN PRINT N$:GOTO 1110
1130 D$(D)=T$:D=D+1
1139 REM [CRSR DOWN] [WHITE] [LIGHT BLUE] [WHITE] [LIGHT BLUE]
1140 PRINT "■■GIVE NAME OF ■TUNE■, OR "CHR$(34)"X"CHR$(34)" TO END SIDE :■"
1150 INPUT TU$
1160 IF TU$="X" THEN 1240
1170 IF LEN(TU$)>39 THEN PRINT N$:GOTO 1150:REM ** NAME TOO LONG **
1179 REM [CRSR DOWN] [WHITE] [BLACK] [WHITE]
1180 PRINT "■■GIVE NAME OF ■ARTIST■, OR "CHR$(34)"S"CHR$(34)" FOR PREVIOUS ";
1189 REM [BLACK]
1190 PRINT "ARTIST :■"
1200 INPUT AS$
```

```
1210 IF AS$="S" THEN AS$=AR$
1220 IF LEN(AS$)>39 THEN PRINT N$:GOTO 1200:REM ** NAME TOO LONG **
1229 REM [SPADE] IS SHIFTED "A"
1230 D$(D)=TU$+"♠"+AS$:D=D+1:AR$=AS$:GOTO 1140
1240 NEXT S:D$(D)="3":D=D+1:NEXT I:D=D-1
1248 REM *** SAVING ROUTINE ***
1249 REM [CLR] [WHITE] [3 CRSR DOWN]
1250 PRINT"■■■■■DATA INPUT COMPLETE"
1259 REM [CRSR DOWN] [RVS ON] [RVS OFF]
1260 PRINT "■INSERT DISK AND PRESS ■ SPACE ■ WHEN READYTO SAVE :"
1270 GET A$:IF A$<>" " THEN 1270
1279 REM [2 CRSR DOWN]
1280 PRINT "■■SAVING :"
1290 OPEN 1,8,15:OPEN 2,8,3,FM$+",S,W"
1300 INPUT#1,A:IF A<>0 THEN 2900
1310 FOR I=1 TO D:PRINT#2,D$(I):NEXT I:CLOSE 2:CLOSE 1
1319 REM [3 CRSR DOWN]
1320 PRINT "■■■SAVING COMPLETE"
1329 REM [CRSR DOWN] [RVS ON] [RVS OFF]
1330 PRINT "■PRESS ■ SPACE ■ TO CONTINUE :"
1340 GET A$:IF A$<>" " THEN 1340
1350 IF N+4>M THEN M=N+4
1360 GOTO 100
1998 REM *** EDIT SECTION ***
1999 REM [CLR]
2000 PRINT "■"
2004 REM [2 CRSR DOWN]
2005 PRINT "■■GIVE NUMBER OF FIRST TAPE IN FILE :":INPUT F
2010 IF F<0 OR F>M OR F<>INT(F)OR((F-1)/5)<>INT((F-1)/5) THEN PRINTN$:GOTO 2005
2015 F$="TAPEFILE"+STR$(F)+STR$(F+4)
2020 C=1:C2=0:OPEN 1,8,15:OPEN 2,8,3,F$+",S,R"
2030 INPUT#1,A:IF A<>0 THEN 2900
2050 INPUT#2,D$(C)
2059 REM [2 CRSR DOWN]
2060 IF C=1 THEN PRINT "■■LOADING ";F$
2070 IF D$(C)="3" THEN C2=C2+1:IF C2=5 THEN 2090
2080 C=C+1:GOTO 2050
2090 CLOSE 2:CLOSE 1
2099 REM [2 CRSR DOWN]
2100 PRINT "■■LOADING COMPLETE"
2109 REM [CRSR DOWN]
2110 PRINT "■PRESS "CHR$(34)"S"CHR$(34)" TO INTERRUPT LISTING, "CHR$(34)"C";
2112 PRINTCHR$(34)" TO  CONTINUE LISTING, OR "CHR$(34)"A"CHR$(34)" TO ABANDON"
2114 PRINT"LISTING."
2115 REM [CRSR DOWN]
2116 PRINT "■(NOTE THAT THE FILE CONTAINS NUMBERS AS WELL AS YOUR DATA.)"
2117 REM [CRSR DOWN] [RVS ON] [RVS OFF] [2 CRSR DOWN]
2118 PRINT "■PRESS ■ SPACE ■ WHEN READY :■■"
2120 GET A$:IF A$<>" " THEN 2120
2129 REM [RVS ON] [RVS OFF]
2130 FOR I=1 TO C:PRINT I,"■";D$(I);"■"
2139 REM [CRSR DOWN] [PINK] [WHITE]
2140 GET A$:IF A$="A" THEN PRINT "■■LISTING ABANDONNED■":GOTO 2200
2150 IF A$<>"S" THEN 2190
2160 GET A$:IF A$="C" THEN 2190
2169 REM [CRSR DOWN] [PINK] [WHITE]
2170 IF A$="A" THEN PRINT "■■LISTING ABANDONNED■":GOTO 2200
2180 GOTO 2160
2190 NEXT I
2199 REM [CRSR DOWN] [RVS ON] [RVS OFF]
2200 PRINT "■PRESS ■ SPACE ■ TO CONTINUE :"
2210 GET A$:IF A$<>" " THEN 2210
2219 REM [CLR] [3 CRSR DOWN]
2220 PRINT "■■■■YOU CAN :"
2229 REM [2 CRSR DOWN]
```

```
2230 PRINT "■■1) VIEW DATA"
2239 REM * EACH LINE STARTS WITH [CRSR DOWN]
2240 PRINT "■2) DELETE DATA ITEM"
2250 PRINT "■3) INSERT DATA ITEM"
2260 PRINT "■4) SWAP DATA ITEM"
2270 PRINT "■5) SAVE NEW DATA FILE"
2280 PRINT "■6) RETURN TO MAIN MENU"
2289 REM [2 CRSR DOWN]
2290 PRINT "■■WHICH DO YOU WANT (1-6) ?"
2300 GET A$:A=VAL(A$):IF A<1 OR A>6 THEN 2300
2320 ON A GOTO 2110,2330,2330,2330,2410,100
2329 REM [2 CRSR DOWN] [CRSR LEFT]
2330 PRINT "■■WHICH ITEM (1 -";C;"■■) : ";:INPUT K
2340 IF K<1 OR K>C THEN PRINT N$:GOTO 340
2350 ON A-1 GOTO 2360,2370,2380
2359 REM *** DELETE ITEM ***
2360 FOR I=K TO C:D$(I)=D$(I+1):NEXT I:C=C-1:GOTO 2220
2369 REM *** INSERT ITEM ***
2370 FOR I=C TO K STEP -1:D$(I+1)=D$(I):NEXT I:C=C+1
2379 REM [CRSR DOWN]
2380 INPUT "■NEW ITEM : ";D$(K)
2390 IF LEN(D$(K))>78 THEN PRINT N$:GOTO 2380
2400 GOTO 2220
2408 REM *** RESAVING ROUTINE ***
2409 REM [2 CRSR DOWN]
2410 PRINT "■■RESAVING ";F$
2420 OPEN 1,8,15,"S:"+F$:CLOSE 1
2430 OPEN 1,8,3,F$+",S,W"
2440 FOR I=1 TO C:PRINT#1,D$(I):NEXT I:CLOSE 1
2449 REM [2 CRSR DOWN]
2450 PRINT "■■RESAVING COMPLETE"
2459 REM [CRSR DOWN] [RVS ON] [RVS OFF]
2460 PRINT "■PRESS ■ SPACE ■ TO CONTINUE :"
2470 GET A$:IF A$<>" " THEN 2470
2480 GOTO 100
2899 REM *** DISK ERROR HANDLING ***
2900 CLOSE 1:CLOSE 2:CLOSE 3:CLOSE 4:CLOSE 5
2910 OPEN 1,8,15,"I0":CLOSE 1
2929 REM [4 CRSR DOWN] [PINK]
2930 PRINT "■■■■REQUIRED FILE NOT FOUND ON DISK !"
2939 REM [WHITE] [2 CRSR DOWN] [RVS ON] [RVS OFF]
2940 PRINT "■■■PRESS ■ SPACE ■ TO CONTINUE :"
2950 GET A$:IF A$<>" " THEN 2950
2960 GOTO 100
2998 REM *** EXIT PROGRAM ***
2999 REM [CLR] [24 CRSR DOWN]
3000 PRINT "■■■■
```

Games for hard-line addicts

Here's a batch of games that will keep you glued to your computer for hours. Our panel has sweated it out first — see what they think

Beach-Head £9.95

US Gold, Unit 24, Tipton Trading Est, Bloomfield Rd, Tipton, W Mids DY4 9AH

The object is to manoeuvre your fleet inwards to land where you will continue with tanks to destroy the mightly cannon Kuhn-Lin. On your way you must go through six sequences of attacks/strategies.

The first is an aerial reconnaissance in which you see a map. You must decide how you will start the game. You may go into direct battle or use the secret passage and take the enemy off guard.

The hidden passage has you guiding your ship past mines while avoiding missiles. This screen is quite hard but makes the next section easier.

Sequence three is in 3D. You must shoot enemy aircraft and in the following level attack battleships. A report is given after each shot.

Screen five is Beach-Head. For each ship you have left you get two battletanks. These tanks must travel through the defence system before blowing up Kuhn-Lin on screen six. The instructions state you need a few tanks to succeed.

The game loads perfectly and makes very good use of your computer's graphics and sound abilities. **K.I.**

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

★★★★★

Triple Tournament £7.95

Terminal, 28 Church Lane, Prestwich, Manchester M25 5AJ

With arcade/adventure games appearing in the shops, Terminal is replying with a three-in-one arcade game.

At the start you may select one life per game and play all three games or have all three lives on the game of your choice.

The first game is a cowboy "shoot it out" similar to one of the early arcade machines which started the video game craze a few years ago.

The second game is Space Race. It involves keeping your spaceship on a path and collecting points as you go. The concept is unoriginal and not that interesting.

The last game is Kamikazi, on the high seas. The object is to shoot and destroy various planes which tend to crash into your ship.

The graphics do not incorporate many new or good techniques. General quality is average. I won't write it off because it is better than some games although there is plenty of room for improvement. No instructions were supplied.

Once you have finished playing you get a breakdown of your scores for each life. **K.I.**

instructions	0%
playability	50%
graphics	45%
value for money	50%

★★★

Frantic Freddie Disc £12.95

Audiogenic, PO Box 88, Reading, Berks

If the adversaries in this game are typical of those met by British Telecom engineers who climb telegraph poles, I'm glad I chose another vocation.

Whilst the design isn't wholly original, the execution is superb. Display consists of a number of platforms linked by telegraph poles. On these levels are located pots of gold.

You control Freddie, whose aim is to collect the pots. Inevitably, they are guarded by nasties called Greeblies. Three nasties each have a different method of tracking Freddie down.

Each screen has different nasties including frogs, spiders, crabs and savage angelic-faced foes. If they catch you they throw you off the platforms. You hit the ground with a thud which causes the whole screen to shake.

Between screens, short amusing interludes are performed. The quality of design of the characters and their animation is excellent. Each screen is accompanied by a new, brilliantly performed piece of music.

The game is appallingly addictive and will keep you amused for hours. I feel it is overpriced; £9-£10 would be nearer the mark. Try it, you won't regret it! **M.W.**

instructions	90%
playability	90%
graphics	95%
value for money	80%

★★★★

Aquanaut £7

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

Interceptor is really improving its standards of software. This is a fairly good example of what it now produces.

The game is based upon guiding your submarine around the caves of Shallic. There are enemy submarines, heat-seeking missiles, mines and other deterrents to stop you completing your mission, which is to visit all the caves before returning to your base.

This game is very hard. No one can say it is easy or repetitive. Once you have got through a level you automatically re-start on your current level if you get killed.

A nice feature of the game is that you can decide how many lives you wish to begin with, three being the minimum and nine the maximum.

The graphics remind me of the lunar surface in Scramble. They have been implemented very well and seem to be flicker-free as they scroll in all four directions.

For anyone who likes Scramble-type games I recommend this one. Although it is not constant fast action, it is still very good. **K.I.**

instructions	15%
playability	70%
graphics	75%
value for money	80%

★★★

ACOS + £8.95

Melbourne Hosue, 151 Trafalgar Rd, London SE10

ACOS stands for Advanced Cassette Operating System. Melbourne House claims ACOS allows a cassette to be operated like a disk drive.

However, ACOS is merely a computerised version of what we do already; it notes counter number, program title, plus next available space and fast forwards to required position. Blank tape is 'formatted' via fairly lengthy process, and a directory header is put on it.

To SAVE or LOAD, ACOS must be present, and once the directory is loaded, you press appropriate recorder keys under program direction and, after SAVEing, save directory.

Directory lists all titles on screen, but does not LOAD or SAVE at any increased speed. Since you must LOAD ACOS the time taken to reach and load formatted program is actually longer than normal.

ACOS cuts tape loss between programs, could tidy up messy libraries, but is no substitute for disc drive.

Extra BASIC commands are most interesting and offer easier access to sound, graphics, sprites, collisions, interrupts and memory. The manual is technical. ACOS-written programs need it to run so it's useless for commercial purposes.

Free game, reasonable price. It could be useful. **D.C.**

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

★★★

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Down the drain?

Could one of your readers please help me? Two years ago I bought a TI-99/4A and now have the Mini-memory and Extended BASIC.

My problem is that I cannot get into the Mini-memory to use the line-by-line assembler. If a reader would write in I would appreciate it because at the moment it's £70 down the drain.

I would also like advice on a good Minimemory game for the TI.

And here is my list of high scores.

Alpiner 70,000
Car Wars 30,000
AtariSoft Defender 1m

Paul Bray, Leeds

Clear the orange block

I am writing in reply to C.R. Underwood's letter (HCW 66) about Jet Set Willy.

As the game stands it is impossible to reach the conservatory roof because of a bug.

You have to jump into the middle of the Banyan tree and then jump back again. But there is an orange block in the way that stops you.

To remove this block you have to do the following: MERGE the loader. When this is done, type CLEAR 32767: LOAD "" CODE. Press PLAY and the code will load but won't run. When loading is complete, type the following:

POKE 60231,0:POKE 42183,11:POKE 59901,82: POKE 56876,4

You could also POKE 35899,0 to give yourself unlimited lives, or it could be added at line 35 in the loader or left out altogether.

When the above POKEs have been entered you can then SAVE the game to tape by typing SAVE "JETSET" LINE 10: SAVE "JSWI" CODE 32768,32768.

Once SAVEd you can run the game by typing GOTO 40. You will still need to the your colour card to enter the code to play, but the POKEs will remove the attic bug, enabling you to go through there as many times as you like, as well as letting you go up the right hand side of the Banyan tree and into the conservatory roof.

With regard to Entrance to Hades, this room is a trap and on no account should you bother to enter this room. You will lose all your lives if you do.

I hope this will help anyone who has problems with Jet Set Willy.

L. Treece, Burton on Trent, Staffs

Willy: extra lives

I think all Jet Set Willy fans will like this. Now you can have as many men as you want.

The first thing you do is load the first bit and then break into the program. When you hear the beeps, stop the tape. Put at line 35: POKE 35899,0. Then load the next part of the program by entering RUN and starting the tape.

Can anyone tell me how to get into the conservatory roof to collect the glasses? So far I have collected 73 items.

In reply to G. Grant's letter (HCW 65) about Jet Set Willy: have you ever been to the wine cellar? There are steps leading to the forgotten abbey. You are to jump through the steps so that you can get through to the forgotten abbey, which is very hard.

I think your magazine is very good and I buy it every week.

Dean Pinder, Norwich

Willy: hints and tips

I am writing in reply to the Jet Set Willy query from C.R. Underwood.

The objects in Hades do not count as items. Falling through Hades (instant death) or jumping from the high ledge in the watch tower leads to the off licence.

There are 60 rooms and 83 items. The bars in Rescue Esmerelda count as two items, as does the object on the beach. There are also two invisible items. One is gained automatically when you enter the swimming pool.

The only way to reach the items in the conservatory roof is via the right hand side of the wall in the banyan tree. However, the way up is blocked by the red coloured square at the top of the right hand root.

Here are three POKEs which will allow you to reach all the items and finish the game.

POKE 35899,0 for endless lives
POKE 42183,11 to move the invisible item to the top ledge in the hall
POKE 56876,4 to change the red square into blue in the banyan tree and let you get up the right hand side of the wall.

Finally, there is an exit at the bottom right corner of the wine cellar, which isn't exactly obvious. This leads to the forgotten abbey, the bottom ledge of the security guards, then under the drive and to the tree root.

D.V. Fowell, Milton Keynes

Willy: now jump

I have found a way of jumping to various screens on Jet Set Willy, similar to the method used for Manic Miner.

First get to the right of the stairway on the first landing, then type WRITE-TYPER. Whilst holding down the key 9, press the combination for the required room. Unfortunately some of the rooms cannot be entered in this way.

My brother has also found an error in Atic Atac at the end. When he finds all three bits of the key and passes through the big doors, the message says CONGRATULATIONT instead of CONGRATULATIONS.

Mike Curtis, Weymouth, Dorset

Old faithful speaks out

I have been an avid reader of your excellent magazine since issue one. In the early days the price was 35p and it looked a dull magazine, but the programs and news items matched those in any other magazine. Now HCW costs 45p, though I must say it is now a colourful magazine and includes twice as many software reviews. Many of the original regulars are still in HCW, except the profiles of software houses. Will this interesting feature reappear?

One thing I never fail to read is the Letters page. There have been many debates in these pages. First of all it was the Oric breakdowns,' then the long debates on "my computer is better than yours'! After that came the excessively high cost of software, and now there are two issues readers are talking about — piracy and what computers should be used for.

There is no argument for piracy. Because of the massive loss of revenue by software houses, the price of software is bound to go up, so that the software houses can ensure protection against pirates. The computer world has suffered more than the record business and the big software houses only sell perhaps half the copies they would sell if this problem didn't exist.

So the only answer is to include a lock with every program, so the software companies say, so that the program can only run with this lock. Now you will be buying an extra item with your program, and if this happens an extra £2 or even £5 will be added on the price. Obviously it would be in every computer owner's interest that this should not happen.

A lot of people have also said it is a waste of time buying a computer just to play games on. I totally disagree with this. There are no moral restrictions on the use of a computer. When people spend £100-£400 on a computer surely it's up to them what they do with it and is no business of anyone else. Some computers are cheaper than games machines and produce a wider and just as good range of software. I can see no point in people worrying about what other people do with their computers.

Finally thank you very much for an interesting magazine and some high class programs and software reviews for the TI-99/4A. I would also like to thank Atarisoft for their range of cartridges for the TI-99/4A. My top score on Donkey Kong is 299,800. Is this a fair score?

N. Batram, Fringford, Oxfordshire

Home Computing Weekly has no immediate plans to feature profiles of software houses, due to shortage of space.

Help with elves

I write in response to M. Seall's letter (HCW 65) concerning the elvish clearing in the Hobbit (Spectrum version).

The way to get through the Magic Door is to 'wear ring' and then 'examine door'; upon which commands the computer will reply 'The magic door warns of elves approaching.' If these commands are repeated, usually several times, an elf will open the door, allowing you to pop through to the elven king's hall.

An alternative route to the other side of the Magic Door is to be captured by the elf on the forest road — if you are able to avoid the 'pale bulbous eyes,' that is!

The way to do this is, as soon as you meet the pale bulbous eyes, to move once in the direction in which you moved before meeting the eyes. Wait twice, and move once again in the same direction.

Conrad Clarke, Chertsey, Surrey

Grounds for divorce

First of all, thanks for a great mag. Even though there is a stretch of water between us, it's still nice to find out what's happening on the computer scene back home.

I recently bought Dambuster for the VIC-20. Value for money? It's burning my computer out. Sundays will never be the same again. If any of you VIC fans want to give the wife grounds for divorce, then buy Dambuster. It's on sale from Rabbit Software.

Bis nexte Mal — or in English, till next time.

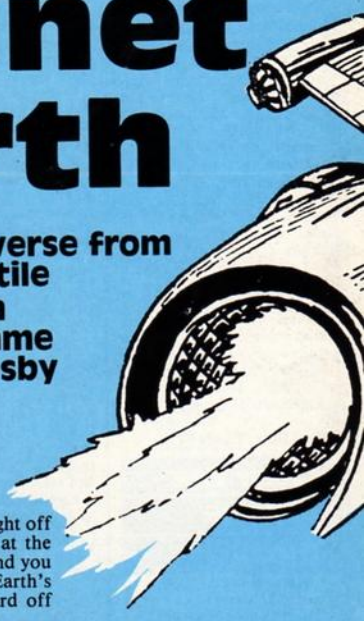
N. Whitehead, RAF Gutersloh, W. Germany

Send your letters to Letters, Home Computing Weekly, No.1 Golden Square, London W1R 3AB. Don't forget to name your computer — the best letter could win £5-worth of software. Got a problem with your micro? We'll soon be starting a queries page, so send your technical questions to Queries at the above address.

```
 1 REM
 2 REM ******************************
 3 REM ****** SPACE ACE ************
 4 REM ******************************
 5 REM *** BY J.R.CROSBY ***********
 6 REM ******************************
 7 REM
 8 REM
 10 REM **** VARIABLES & GRAPHICS ****
 20 CLEAR:GRAB:CLS:PAPER1:GOSUB840:HS=HS
 30 POKE#26A,10:GOSUB1040:LI=3
 40 CLS:TI=0:SC=0:AC=35:DO=13
 50 GOSUB930
 60 A=19:B=24:A$(1)="ab":B$="  ":D=25
 70 A$(2)="cd ":A$(4)="ef":A$(5)="gh"
 80 REM ****** PLATFORM & SHIP ******
 90 PLOTA,B,A$(1)
 100 PLOTA,D,A$(4)
 110 PLOTA,D+1,A$(5)
 120 REM **** EARTHS DEFENCES ******
 130 A$(6)=" ii    iii     iii   ii  iii  ii   ii"
 140 A$(7)="i      ii       i      i     ii     i"
 150 A$(8)="i     ii      i      ii     i     ii  "
 160 A$(6)=RIGHT$(A$(6),1)+LEFT$(A$(6),37)
 170 A$(7)=RIGHT$(A$(7),37)+LEFT$(A$(7),1)
 180 A$(8)=RIGHT$(A$(8),1)+LEFT$(A$(8),37)
 190 PLOT1,16,CHR$(3)+A$(6)
 200 PLOT1,18,CHR$(3)+A$(7)
 210 PLOT1,20,CHR$(3)+A$(8)
 220 TI=TI+1
 230 PLOT9,0,STR$(LI):PLOT20,0,STR$(TI):PLOT30,0,STR$(S
C)
 240 REM ******* MOVE SHIP ********
 250 MO=DEEK(783)
 260 IF MO=48351 AND A>3 THEN A=A-1:PLOTA+1,B,B$:PLOTA,
B,A$(1)
 270 IF MO=48255 AND A<36 THEN A=A+1:PLOTA-1,B,B$:PLOTA
,B,A$(1)
 280 IF MO=48375 AND B>2THEN B=B-1:PLOTA,B+1,B$:PLOTA,B
,A$(1)
 290 IF MO=48319 AND B<25 THEN B=B+1:PLOTA,B-1,B$:PLOTA
,B,A$(1)
 300 IFMO=48382 THEN ZAP
 310 REM ***** CHECK SCREEN *****
 320 IF TI>300 THEN 680
```

Deter ali planet Earth

Save the universe from invading hostile aggressors in this space game by James Crosby



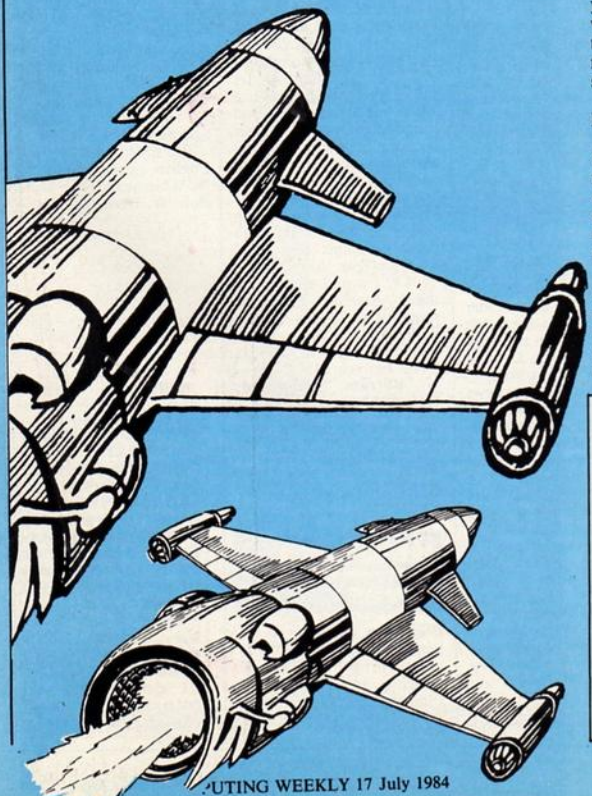
Venture into space and fight off alien attackers. You are at the controls of a spaceship and you must first get past Earth's automatic defencs to ward off hostile threats.

Once you are outside the forcefield which protects Earth, you launch straight into battle with alien invaders. You have a time limit on your task and you must strive to accomplish it and save the universe!

You have three lives and the highest score will be recorded.

There are two screens. In the first part the laser zaps, just making a noise, but in the second part it fires missiles, in an effort to thwart the evil forces trying to overcome planet Earth.

This program uses DEEK (783) instead of KEY$, since it reads the keyboard quicker. In the second part of the game, your spaceship moves vertically along the side of the screen.



Variables

10-70 variables, branch to graphics and instructions, set screen colours
80-110 plot platform and ship
120-210 plot earth's defences
240-300 move ship
310-370 check screen and score
380-470 second screen
480-550 plot ship and aliens
570-630 fire laser, check if alien is hit
650-670 hit alien, score
680-830 crash, new game
840-1030 redefine characters, set screen colours
1040-1270 instructions, tune

Hints on conversion

POKE hash 26A,10 switches key click and cursor off
CALLDEEK (hashFFFA) gives a warm start
DEEK (783) reads keyboard and can be replaced by KEY$, INKEY$
SCRN checks what is on screen
PLOT can be replaced by PRINT AT
PAPER,INK are screen coloura

Variables

First screen

A,B position of ship
A$(4),A$(5) launch platform
A$(6),A$(7),A$(8) earth defences

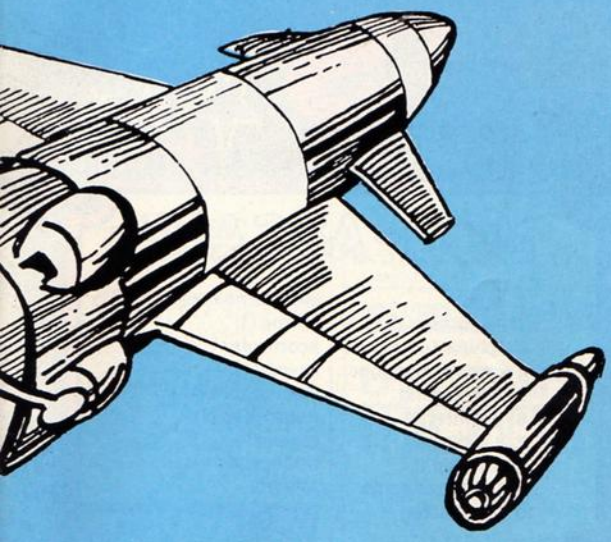
Second screen

A$(2) your ship
AC, DO position of ship
X,AL random position of aliens
MI missile position

Both screens

LI lives
TI time
SC score
HS high score
MO move ship

en attack on



```
 330 IF SCRN(A,B+1)=103 OR SCRN(A,B+1)=104 THEN 680
 340 IFSCRN (A+2,B)=105 OR SCRN(A-1,B)=105 THEN 680
 350 IFB<15 THEN 370
 360 GOTO160
 370 SC=SC+250:PING:GOSUB1010
 380 REM ***** SECOND SCREEN ******
 390 CLS:GOSUB1010
 400 WAIT100:
 410 AL=0:X=0:AL=INT(RND(1)*23)+3:X=INT(RND(1)*18)+2
 420 PAPER4:INK0
 430 PLOTAC,DO,A$(2)
 440 REM ***** MOVE SHIP UP & DOWN ONLY **********
 450 MO=DEEK(783)
 460 IFMO=48375 AND DO>2 THENDO=DO-1:PLOTAC,DO+1,"  " :
PLOTAC,DO,A$(2)
 470 IFSCRN(X+1,AL)=100 THEN GOSUB 680
 480 REM ***** PLOT ALIENS ******
 490 IFMO=48319 AND DO<26 THENDO=DO+1:PLOTAC,DO-1,"  "
:PLOTAC,DO,A$(2)
```

```
 500 PLOTX,AL," j":PLOTX,AL," j":PLOT37,AL," "
 510 X=X+1:TI=TI+1:IF TI=300 THEN 680
 520 IF TI=270 OR TI>290 THEN PING
 530 IFX>36 THEN 410
 540 IF MO=48382 THEN 570
 550 PLOT9,0,STR$(LI):PLOT20,0,STR$(TI)
 560 GOTO450
 570 REM ***** FIRE *****
 580 ZAP:MI=33:AS=DO
 590 PLOTMI,AS,"- "
 600 REPEAT
 610 IFSCRN(MI-1,AS)=106 THEN 650
 620 MI=MI-1:PLOTMI,AS,"- "
 630 UNTILMI=15:PLOT15,AS,"  "
 640 GOTO450
 650 REM ***** HIT ALIEN ******
 660 EXPLODE:PLOTX,AL,"  "
 670 SC=SC+20:PLOT30,0,STR$(SC):GOTO410
 680 REM ***** CRASH ******
 690 EXPLODE:PAPER3:WAIT50:PAPER5:WAIT50:CLS:PAPER1:INK
3
 700 LI=LI-1
 710 PLOT16,11,CHR$(10)+"OOPPSS":PLOT16,12,CHR$(10)+"OO
PPSS"
 720 WAIT300:GOSUB1010
 730 IFLI=0 OR TI>298 THEN 760
 740 IF SC<100 THEN 40  ELSE 380
 760 REM ***** NEW GAME ******
 770 CLS:GOSUB1010:WAIT50:PRINTCHR$(17):PRINT
 780 IFSC>HS THEN HS=SC
 790 PAPER1:INK3
 800 PRINT:PRINTCHR$(138)"HIGH SCORE :";HS
 810 PRINTCHR$(138)"HIGH SCORE :";HS
 820 PRINT"DO YOU WANT TO TRY AGAIN INPUT (Y/N)":PRINT:
INPUTA$
 830 IFA$="Y" OR A$="YES" THEN 30 ELSE CALLDEEK(#FFFA)'
WARM START
 840 REM ***** CHARACTERS **********
 850 FOR I=(46080+(ASC("a")*8)) TO (46080+(ASC("j")*8)+
7)
 860 READA:POKEI,A:NEXT
 870 DATA62,10,31,21,29,31,2,31,0,0,60,46,63,62,8,60
 880 DATA0,0,15,26,63,30,8,63,30,10,63,45,61,63,4,62
 890 DATA63,42,63,63,42,63,42,63,63,43,63,63,45,63,45,6
3
 900 DATA63,12,10,9,9,10,12,8,63,12,20,36,36,20,12,4
 910 DATA 0,0,33,45,63,45,33,0,60,8,30,63,30,8,60,0
 920 RESTORE:RETURN
 930 REM **** SCREEN COLOURS ******
 940 CLS:INK0:PAPER4
 950 FORI=48680 TO48840 STEP40
 960 POKEI,17
 970 NEXTI
 980 FORI=48880 TO 49080 STEP40
 990 POKEI,21
1000 NEXTI
1010 PLOT3,0,"LIVES: ":PLOT14,0,"TIME:":PLOT25,0,"SCOR
E: "
1020 PLOT9,0,STR$(LI):PLOT20,0,STR$(TI):PLOT30,0,STR$(
SC)
1030 RETURN
1039 REM ***** INSTRUCTIONS *****
1040 PLOT12,2,CHR$(12)+CHR$(3)+"SPACE ACE"
1050 PLOT5,4,"YOU ARE EARTHS LAST REMAINING"
1060 PLOT5,6,"SPACE ACE.SO ITS UP TO YOU TO"
1070 PLOT5,8,"STOP THE ADVANCING ALIENS."
1080 PLOT5,10,"BUT EARTHS OWN DEFENCES CAN"
1090 PLOT5,12,"NOT BE TURNED OFF SO YOU
1100 PLOT5,14,"MUST FIRST GET PASSED THESE."
1110 PLOT5,16,"USE THE CURSOR KEYS TO MOVE"
1120 PLOT5,18,"YOUR SHIP.PRESS THE SPACE"
1130 PLOT5,20,"BAR TO FIRE YOUR LASER."
1140 PLOT8,24,"PRESS ANY KEY TO CONTINUE"
1150 A$="114441771771144417717711444177177114444"
1160 FORA=1TOLEN(A$)
1170 N=VAL(MID$(A$,A,1))
1180 PLAY6,0,2,0:MUSIC2,7,N,9:MUSIC2,6,N,9:MUSIC3,3,N,
9
1190 WAIT10:NEXTA:PLAY0,0,0,0
1200 WAIT100:GETA$:CLS
1210 PLOT5,8,"THERE IS A TIME FACTOR IN "
1220 PLOT5,10,"WHICH TO CARRY OUT YOUR DUTY"
1230 PLOT5,12,"AFTER WHICH YOUR SHIP WILL"
1240 PLOT5,14,"SELF DISTRUCT."
1250 PLOT12,16,CHR$(12)+"GOOD LUCK"
1260 PLOT8,20,"PRESS ANY KEY TO START"
1270 GETA$:WAIT100:RETURN
```

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