micro Adventurer
April 1984 75p

Scott Adams meets the Marvel comic heroes

Realistic roles using your micro

Artificial intelligence in adventures
Science fiction: tools for research
War games: simulation models
LORDS OF TIME
Joins our range of acclaimed pure-text puzzle adventures, at £9.90, for:
BBC 32K COMMODORE 64 SPECTRUM 48K LYNX 48K NASCOM 32K ORIC 48K ATARI 32K

ADVENTURE REVIEWS
"Adventures which have a fast response time, are spectacular in the amount of detail and number of locations, and are available to cassette owners... Simply smashing!"
- PC, Dec 83
"Colossal Adventure is included in Practical Computing's top ten games choice for 1983: "Poetic, moving and tough as hell."
- Soft, Sept 83
"Colossal Adventure... For once here's a program that lives up to its name... a masterful feat. Thoroughly recommended!"
- Computer Choice, Dec 83
"Colossal Adventure is one of the best in its class. I would recommend it to any adventurer."
- Account User, Feb 84
"Adventure Quest... This has always been one of the best adventures for me as it seems to contain the lot. In all it took me about eight months to solve."
- PCW, 18th Jan 84
"To sum up, Adventure Quest is a wonderful program, fast, exciting and challenging. If you like adventures then this one is for you!"
- MLLUG issue 1.3
"Colossal Adventure is simply superb... For those who want to move onto another adventure of similar high quality, Dungeon Adventure is recommended. With more than 200 locations, 700 messages and 100 objects it will lease and delight!"
- Educational Computing, Nov 83

MIDDLE EARTH ADVENTURES
1: COLOSSAL ADVENTURE
A complete, full size version of the classic mainframe game "Adventure" with 70 bonus locations added

2: ADVENTURE QUEST
Centuries have passed since the time of Colossal Adventure and evil armies have invaded The Land. The way is long and dangerous, but with cunning you can overcome all obstacles on the way to the Black Tower, source of their demonic power, and destroy it.

3: DUNGEON ADVENTURE
The trilogy is completed by this superb adventure, set in the Dungeons beneath the shattered Black Tower. A sense of humour is essential!

THE FIRST SILICON DREAM ADVENTURE
1: SNOWBALL
The first of Pete Austin's second trilogy. The giant colony starship, Snowball 9, has been sabotaged and is heading for the sun in this massive game with 7000 locations.

THE LORDS OF TIME SAGA
7: LORDS OF TIME
Our congratulations to Sue Gazzard for her super design for this new time travel adventure through the ages of world history. Chill to the Ice-age, go romin' with Caesar's legions, shed light on the Dark Ages, etc.

Price: £9.90 each (inclusive)
Level 9 adventures are available from good computer shops or mail order from us at no extra charge. Please send order or SAE for catalogue to:

LEVEL 9 COMPUTING
Dept V, 229 Hughenden Road, High Wycombe, Bucks HP13 5PG
Please describe your computer
Letters

Hins and clues, a place to turn to for help, your opinions on adventures

News

Melbourne House releases an adventure-strategy game called Mugsy (picture). Britain will host the European Science Fiction Convention in 1985. Britannianna, a computer-strategy game, is in development. Targam, a computer-strategy game, is available for the Atari.

Software Inventory


How a hobbit's mind works

Noel Williams looks at the use of artificial intelligence in adventure games.

Fun and games with Scott Adams

The father of micro computer games, Scott Adams, tells how his multi-million dollar software business started in the spare room of his modest Florida home in 1978.

New role for micros

Gren Hatton argues that there is a role for micros in role-playing games and gives examples of where they may be used.

How to write a convincing plot

Is one of the first, most important steps for players new to the field of writing adventures. So John Fraser offers some research advice.

Adventure File

A comprehensive list of wargames, simulations and adventures.

Your Adventures

Programs from readers this month include a graphic adventure from Jeffrey Tuffin which incorporates the scrolling window technique used in The Hobbit.

Adventure Help/Contact

Tony Bridge gives hints (for those who wish to read them) on Valhalla — how to find Ofair, and The Hobbit, providing another clue on the goblin's dungeon and advice on how to escape the pale, bulbous eyes.

Competition

Tisch has discovered where the third Rune ring has been hidden. As well as a share in the treasure you could win a copy of either The Boss or Champions, from Peaksoft.

Editorial

PLAYING an adventure may take you into a brand new world — but it's often been pointed out that the concept itself is far from being new.

In fact, computer adventures have an honourable line of descent from — among others — role-playing games, although D and D fans have been heard to decry the new "bastard" offspring. As Gren Hatton shows in this issue, such attacks make little sense. Even ignoring the doors that software adventures can open, micros can play a very useful part in role-playing games. Fantasy games can almost be enriched by an element of realism, a point corroborated by John Fraser, who also draws attention to another line of descent — from science fiction.

But it's not enough to have convincing details or an impressive atmosphere. Strategy is too important. This is obviously true of war games — yet another honourable ancestor covered here — but it is no less so for adventures themselves. In fact the history of gaming must be nearly as long as the history of the human race. As Laurence Miller explains, war games themselves are directly descended from the planning done by military commanders before going to battle — and a propensity for fighting seems to be one of the most constant themes of history. Long-established board games such as chess are in fact highly formalised war games.

So adventures have an honourable, if mixed, ancestry, plus some very interesting cousins. Along the way there have been some curious mixed marriages as well — as just one example this issue looks at the "union" between Scott Adams, one of the founding fathers of adventures, and the Marvel comic book heroes, Spiderman and the Hulk.

This kind of cross-fertilisation is close to the heart of the European Science Fiction Convention being held this Easter in Brighton. For instance SF author Harry Harrison, who is planning software to accompany some of his novels, is expected to be there along with other celebrated writers. Science fiction films on show include Bladerunner (whose title is a pale reflection of the book on which it is based, Do Androids Dream of Electric Sheep?), and the Star Wars and Star Trek sagas. For diehard adventure fans there is a section dedicated to computer hardware and software. And dungeon masters need not feel neglected: for sessions will be held covering science fiction and fantasy role-playing and board-gaming — the only problem with this type of mixed marriage is that the resulting hyphenated surnames can become very cumbersome.

April 1984 Micro Adventurer
You’ve read the game... now play the book...

MY SECRET FILE
Program by Phil Nathans
Based on the best-selling Puffin book by John Astrop
A personal database for your darkest thoughts.
Do you have secrets you wouldn’t even confide
to your closest friend? Let alone your family?
Do you have secrets about your friends and family
you wouldn’t confide to anyone but yourself?
At last, you’re no longer alone. My Secret File turns
your personal computer into a personal confidante. And to
keep your confidences confidential, it’s even password protected —
because these days, you can’t even trust your micro not to blab.
Trust no-one: file your friends before they file you.
BBC Micro B ISBN 946895 40 4

THE UNORTHODOX ENGINEERS: THE PEN AND THE DARK
Adventure game program by Keith Campbell
Based on the story by Colin Kapp
Colin Kapp created the classic SF stories about the
Unorthodox Engineers — and now you can try to
solve the mystery of the indestructible pillar of
darkness and the riddle of contra-energy in this
mind-bending text adventure game.
Reading Colin’s story in this pack should help you. But once
you and your micro are locked into the problem, not even Colin
could get you out.
By special arrangement with an unspecified alien culture, Mosaic will let you
have the story along with the program — so at least you’re in with a chance.
Please read the story carefully... because we’d like to release our Spring
SF bookware blockbuster (Harry Harrison’s Stainless Steel Rat on micro for the
first time!) before you carelessly unleash contra-energy across the universe. Thank you.

Published by Mosaic Publishing Ltd
Marketed by John Wiley & Sons Limited, Baffins Lane, Chichester, Sussex PO19 1UD

Please send orders to: John Wiley & Sons, Dept. MA, Baffins Lane, Chichester, Sussex PO19 1UD
Please send: ............ copies of Unorthodox Engineers □ Spectrum 48K □ BBC 'B' ............ copies of Secret File □ Comm 64 □ BBC 'B' □ Spectrum 48K
(USA only)
To: name and address
Payment enclosed (£9.95 each including postage)

or please charge to Credit Card No ........................................................ American Express/Diners/Barclaycard/Access. Expiry date ................................
Meanwhile, can anyone tell me how to get the key and what I do with the icey body in Ship of Doom, it's driving me crazy.

Peter Clements,
42 Allendale Rd, Rainworth,
Nottingham.

Hobbit harangued

DURING the final months of 1983 I, like hundreds or thousands, were reading and hearing about the adventure of the year, The Hobbit. I have been fascinated by adventure games ever since a micro computer came into my home, having enjoyed many hours of fun and frustration while adventuring. Now it happened that a Christmas bonus came my way so I parted with £14.95 for a copy of the famous Hobbit adventure.

Some weeks have now passed since that first loading. I don't wish to spoil this adventure for others but it takes only four moves to get out of the Goblin's Dungeon to the ring; the quickest I have ever managed to accomplish this feat is 36. Yes 36 attempts, approx: 40 minutes real time to make just four moves, every time I move out of the dungeon a goblin comes and puts me in again one boring time after another.

It seems that because of this time-lapse style of gameplay I am unable to kill the goblins before they catch me. My commands are not entered until the game has decided what it is going to do.

I eventually managed to find Gollum about five or six moves away from the ring but because of the goblins this took about 1½ hours to achieve and on our meeting his only aim is to take the ring from me. I was once or twice asked a riddle by Gollum but when I replied he just walked away.

It is with much regret that I conclude this is the most stupid, inane, boring adventure I have ever had the misfortune to play. It is either trying to be too clever or it just will not work on my BBC B computer.

I am disappointed with this program because I am sure it must work better on other computers. I hope someone attemptingadventuring for the first time is not put off for life. I would be interested to learn whether others have experienced similar problems.

T. Swain,
31 Beechcroft Rd,
Oxford.

Favourite war game

I REALISE that you are dependent on advanced publicity from the software companies but some of the info on Dreadnought (January) wasn't quite correct.

Once you have played each side once, both players have a good knowledge of each other's strong and weak ships. I admit I am biased, I am a naval buff. The game is okay but could have been a lot better.

I can recommend Digital Integration's Fighter Pilot for the 48K Spectrum as a good simulation of modern air combat, even if it doesn't have anti-air missiles nor SAM's. Stompers by Imaginary appears to have a bug that makes it crash every other game. I first thought it was my Spectrum but no, it's the programming.

This game uses joysticks well but suffers from not having any input from a wargamer. It's quite like the APX Eastern Front for the Atari.

I've been running a game of Diplomacy on Prestel since October 1983. It's a lot smoother than the postal based form of playing it and a turn can be GMed and sent out within an hour or two. Likewise all diplomacy via the players is via Mailbox on Prestel.

The problem in the future may be the keying of a change on every Mailbox message. The call connect times are okay and will be better when all local computers can handle the full Mailbox facilities.

Micro Adventurer was a pleasant surprise but it would be convenient if you put issue numbers on the cover so I knew how many copies I had missed. How do I get back copies?

Frank Dunn,
32 Gateacre Park Drive,
Woolton,
Liverpool.

THE FIRST issue of this magazine was published in October 1983. You can obtain back copies by writing to the UK address for Micro Adventurer printed on page three.

Offer of help

A FRIEND and I have finished the following adventures and would gladly help anyone who is stuck. Artic: Planet of Death, Inca Curse (1/2 hours), Ship of Doom, Espionage Island, Golden Apple, Scott Adams: Pirates Cove, Voodoo Castle, The Mummy, Quick Silver, Smugglers Cove, Melbourne House: The Hobbit, Level 9: Adventure Quest (most), Dungeon Adventure (half) Snowball

Simon Clark,
4 Lower Tail,
Carpenders Park,
Watford.
Prisoner party fails in power bid

PRISONER fans should be encouraged by the show of solidarity at the Chesterfield by-election last month.

Seventeen after comrades rallied together at Chesterfield and registered their support for the Prisoner: I am not a Number candidate, Chris Hill.

Chris, 18, of Heathrow, formed the party shortly after The Prisoner TV series had finished screening.

By the early hours of the morning of Friday, March 1, Chris had won 17 votes, beating the Reclassify the Sun Newspaper as a Comic candidate by five votes and the Official Acne candidate by two.

Chris, who will begin a physics degree next year, said he formed the party to promote an appreciation of the TV series.

"There was one episode called Free for All, about parliamentary elections, and I thought that standing in this by-election would be a useful way to bring people's attention to the points The Prisoner was trying to make about government and society," Chris said.

In Free for All Number Six is elected as Number Two. The authorities brainwash him so that his policies comply with their wishes.

After he was elected to office and the effects of the drugs had worn off, Number Six told the villagers they were free to go, but none would leave.

One wonders if there is any significance to the 17 votes recorded at the Chesterfield by-election.

Could the results be a coded message from Number Six? Or perhaps there are 17 spokes on the smaller wheel of the pennyfarthing featured in the series (and once you've worked out the significance of this you'll know the identity of Number One). Or who is Number 17 and why did he let Tony Benn win the Chesterfield by-election?

Cabling adventures?

THE BRITISH Telecom sponsored Gamestar project will incorporate adventure, arcade and educational software in its programming service.

Gamestar project was developed by Cable Interactive Services, a division of British Telecom, as a value-added service for cable television companies.

Gamestar allows the cable television companies the chance to add to their programming service by offering subscribing households the opportunity to use a continually updated library of adventure, educational and arcade games.

Micronet 800, the computer oriented viewdata and telesoftware service, will be the supplier for the Gamestar project.

A spokesman for Micronet said that although it was early days for the project it was expected to get off the ground in late spring.

For £9.95 a month a cable subscriber will receive a Spectrum 48k, a modem, joystick and a choice of 20 games, which Rediffusion, the cable TV company, will update
Mugsy brings 'comic' relief to screen

MUGSY, an adventure-strategy based on a gangster, is the latest offering from Melbourne House. The player assumes the role of Mugsy, the godfather of a gang of Chicago thieves and hit-men. The gang is the toughest in Chicago and as Mugsy you have to control its members, organise bribes, weapons and protection rackets. You must continually keep one eye on your shoulder because hit-men from other gangs are out to get you. One slip-up could mean a shoot-out and perhaps the end of Melbourne House describe Mugsy as an interactive computer comic strip. Commands are given in a Cagney-style slang and the characters replies are presented on the screen inside a balloon.

Melbourne House hope that Mugsy will be on sale some time this month. It was written by The Hobbit creator, Phillip Mitchell, Alfred Milgrom, and Clive Barrett.

Initially Mugsy will be available for the Spectrum, and then the Commodore 64. It will sell for £6.95.

Marvel characters enter new age

THE MAJOR news for adventure fans from the LET International Trade Show held at the Heathrow Penthouse hotel, in February was the release next month of The Hulk from Adventure International.

The company's founder, Scott Adams, flew from Florida, in the US, to attend the last two days of the show.

Publicising the imminent launching of AI software based on the Marvel comic strip characters, were Spiderman and The Hulk, at various show stands.

The Hulk will be launched on May 1 simultaneously in the US, Canada, Australia, France, Germany and the UK. Other Marvel characters to be soon found on computer software packages include Spiderman, the Fantastic Four and Captain America.

Other companies planning new releases are Beyond, with Lords of Midnight for the Spectrum 48K.

It is a graphic adventure, which Beyond describe as the world's first epic game. They hope it will be the first in a series of games that will begin a new genre in adventuring.

Lords of Midnight was written by Starnet programmer Mike Singleton. He employs a graphic technique in the game called landscaping. This means that landscape unfolds as you move through the land of Midnight. Each of the 32,000 locations were drawn from the player's perspective.

Richard Shepherd representatives at the show said they expected a Commodore 64 version of Super Spy and Urban Uprising to be ready soon. Digital Fantasia have a new game on the market called WaxWorks. The game is set in a deserted waxworks museum where you are trapped. During your escape you have to fight Jaws, the shark, and dodge the arrows of Robin Hood.

VCR to be won

The major new simulation for the Commodore 64 you play the manager of a football club.

It is your job to organise the best possible team, make a swoop into the transfer market, spy on another club and send the team out to do their best each Saturday.

For successful clubs the rewards are a place in the league championship, the FA Cup and the European Cup.

But you'll also have to risk relegation or dismantle a big-money side.

INCENTIVE Software Ltd have launched a competition to find Britain's best adventurer.

The prize will be a £400 video cassette recorder.

The object of the competition is to complete a sentence, which is divided into three parts. A section of the sentence revealed successively in each part of the Ket Trilogy.

The first person to complete the sentence, which is possible only if 100% is scored in each game, wins the VCR.
VALHALLA is supplied on a 48K Spectrum program cassette, with VALHALLA player manual and presentation box. As VALHALLA uses the full 48K RAM, microdrives and full-size printers are not supported. ZX printer optional.

VALHALLA is normally available from stock, and orders are despatched by return. If, for any reason we are unable to fulfil your order within 14 days of receipt, we will notify you.

VALHALLA cassettes carry an unconditional lifetime replacement guarantee.

TO ORDER: (UK Orders Only) Simply complete the coupon, and FREEPAGE with your cheque/P.O. made payable to LEGEND (UK Mail Order).

Credit Card Orders: By phone 9:30-7:00 Mon to Fri, stating name and address. Card No. and term(s) required.

RETAILERS: Please contact your regular distributor or LEGEND (Trade Distribution) at the address below.

LEGEND (UK Mail Order) FREEPAGE
1 Milton Road, Cambridge CB4 1UY
(0223) 312453

MOVISOFT OPERATING SYSTEM UNDER LICENCE.

Post to: LEGEND (UK Mail Order) FREEPAGE
1 Milton Road, Cambridge CB4 1UY

Please send me: ......................... Copy/copies of VALHALLA for the 48K Spectrum.
I enclose cheque/P.O. for £...........
(£14.95 each incl. VAT and P&P).
Or I wish to pay by Access/Barclaycard/Visa

Card No. ................................

Please print name and address
Name ....................................
Address ...................................

Credit Card holder's signature.
How a hobbit's mind works

OWNERS OF The Hobbit or the excellent Valhalla will know what a difference even rudimentary artificial intelligence routines make to an adventure.

These two games seem to be a generation beyond the majority of adventures and, judging by their popularity, represent the direction that adventures are likely to go in the near future.

They are liked because of their first-class graphics and of the degree of non-random variation which is built into the games.

The Hobbit just would not be the same if boring old Thorin did not sit down occasionally to groan about gold or if Gandalf did not take it into his head to wander off at crucial moments.

However the behaviour of these characters at times seems capricious. They may listen to you and do what you want or ignore you. Just like real people, of course, but nevertheless it often seems random.

Persuasion

In Valhalla, on the other hand, though characters do wander in and out, they interact in a reasonably believable way. Not only that but they do so without any intervention from the player. In fact you can play Valhalla without ever moving your own character, you just sit back and let the other characters get on with it.

In both games you cannot solve the problems without help from the characters, but it is not just a question of finding the right pair of words to make them respond. You must behave properly, speak to them in a suitable form, or persuade them to act. In The Hobbit much of this speech can be done in a language pretty close to English.

All of this involves artificial intelligence of one kind or another. Adventures have always had a close link with AI because much of the early developments on mainframes were by psychologists and linguists trying to simulate human behaviour.

AI is mainly concerned with investigating the nature of human intelligence (and other behaviour) by discovering what would be involved in making a machine behave in a similar way.

There is no need to debate whether the resultant machines/programs are actually intelligent or not. All we need to believe is that the programs are something like some aspects of human intelligence.

For example, a great deal of academic work has been devoted to writing programs which play excellent chess. This is not because people wanted chess computers but because it was thought that getting a program to play chess well would show how a human being played the game.

It was assumed that chess was one of the most complex of human intellectual activities; a great deal would be learned about human intelligence.

But little has been learned about human intelligence from chess programs, though a great deal has been learned about gameplay, the nature of chess, systems design and writing programs.

The result has been chess programs that are consistently as good as the best club players and some which occasionally beat chess masters.

Similar successes have been made with other abstract games. Programmers have examined the structure of the game, examined the human behaviour that goes with it (such as decision making and problem solving) and written programs that do the same job.

If you think about it for a little while you'll see that an adventure game can be dissected in exactly the same way, but from a slightly different point of view.

Essentially, an adventure game is a simulation of certain kinds of human behaviour. It is a simulation which tries to create a more or less believable world which, though it may be unreal, contains many of the rules of normal human behaviour.

Adventures usually use English as the input and output language. They involve solving problems and making decisions, conflict and other kinds of interaction with creatures, and they may have creatures with their own personalities.

Most of the AI in adventures is to do with the use of language or the treatment of personality. The better the AI in such a game the closer input and output should be to real English, the less random the output, the more creatures behave realistically, the more sensitive they are to player's actions, the more they can act independently of the player and the more varied the game will be.

AI in games is thus an attempt to get an interesting balance between the total randomness of some dungeon-and-dragon-type adventures and the constant nature of some of the fixed-structured text adventures.

Events in the adventure should not be purely random or fixed. They should depend in a logical and realistic way on the actions of the player.

For them to be as close as possible to their real equivalents the program has to respond intelligently to complex inputs and the characters must behave intelligently.

How is this done? To answer this completely would take a book or two, but the broad outlines are simple. Let's take language first.

The language in an adventure is probably the most important aspect after the structure of the game. Players like programs with large vocabularies, sensitivity to different kinds of input and with imaginative and interesting output.

From the programming point of view there are thus three broad problems. One is designing an input routine which can analyse English accurately and send control to appropriate routines. The second is storing a great deal of text and being able to access it quickly. And the third is being able to create output which is interestingly related to the input.

The second problem, that of storage and access, is not strictly speaking the concern of AI. But you'll find that on micros, almost every time a program comes along that involves AI in some form data compaction, memory-saving and storage methods become important considerations.

This is one reason why the Spectrum has been in the forefront of adventure development rather than, say, the BBC. It has more RAM available to the user so more text can be stored and more flexible processing routines can be created.

As mass storage becomes cheaper with Sinclair's microdrive and the reduction in disk drive prices there will probably be an increase in games like the famous Zork which uses disk storage to compensate for lack of RAM. As these are produced there will be a corresponding increase in the flexibility of text routines and the AI built into them.

Flexible routines

In the next few months we will probably also see 16 bit micros within the price range of the average micro user, such as the recently announced Sinclair QL. As such micros will probably have at least 128K RAM as standard they will also cause an interesting series of developments in intelligent games.

For the present we are limited to 48K or less. The AI that goes into games is likely to remain somewhat primitive. The principles of much interesting AI are well understood but micros generally do not have the capacity to make them worth implementing.
For example normal text input consists of a verb plus a noun. The verb is an action the player wishes to carry out and the noun is the thing that he wants to act upon. HIT GOBLIN is an example.

There are a whole class of normal acts which it is very difficult to describe in this way, those in which some kind of instrument is used to carry out the action, such as HIT GOBLIN WITH ROCK. If you have a language system that recognises with as meaning use the second object mentioned to act on the first object you have not only created a much more useful input system but you have extended the vocabulary of the program without adding any words to it.

Every noun is potentially two words rather than one — it means something which can be acted on and something that can be used to act on another noun. So HIT SWORD WITH BOTTLE and HIT BOTTLE WITH SWORD can have different results. By adding one new input rule to your program you have doubled the intelligence of the program.

There are a large number of such rules, some of which are more useful than others. In all cases a little word, such as with acts as a signal that what follows it is to be treated in a special way.

In a similar way one can make output routines which create sentences rather than simply printing literal strings. Instead of printing the same message every time the player discovers a new object (you find an x), control can be passed to Create Output routine which uses some simple rules of grammar to put together a different description.

Alternatively the routine can create its output in a way that depends on the current status of the player. For example if his lamp has just been lit it might say ‘You see about 20 brightly shining jewels, glimmering with different coloured lights.’ But if the lamp was about to go out the same vocabulary could be used to say ‘A coloured light glimmers about you.’

For both text input and output the principle is:

- Discover a rule of grammar.
- Encode that rule as a routine.
- Flag all words which can be used by that rule.
- Write routines which are called by the flags and alter program variables accordingly.

In other words a parser is a piece of program encoding some of the grammar of English in such a way that other program variables can be altered if that rule is used. The precise alteration of the variables will depend on the words which are used when that routine is called.

For example the rule ‘with’ means noun2 verb noun1 with means bottle hits sword, implies that bottle and sword must have corresponding variables that signify breakability.

So to have meaningful but creative text we need to look-up tables of the relevant qualities of each of the possible nouns. If, for example, each noun has a code for how easy it is to break, another for how heavy it is to burn, another for how heavy it is and another for whether it can be used as a container or not, a sentence such as, ‘Drop the anvil on the barrel and catch the beer in the vase, then pour the beer on the burning carpet’ can be decoded in a sensible way.

Idiosyncratic

Of course this series of events could be found in one of the current generation of adventures, but if it was it would either be the only correct solution to the problem, or it would not work at all.

With some degree of intelligence in a program different solutions can be found, for the same problem. For example, ‘Carry barrel to carpet and drop it’ or ‘Break vase on anvil then open barrel with sharp end and carry carpet to pool of beer’ might all be possible solutions, and all could be decoded by the same routine, not by a different routine for each command in each situation.

This shows how intelligence can also be given to characters in adventures. Just as the player is essentially a file consisting of a set of variables (either the objects he has or she currently has or the current values of his strength, dexterity) so we can set up files or arrays which represent each character in the adventure.

Normally such characters are either a set of combat statistics or a subroutine for a limited kind of behavior. Intelligent characters however have additional data encoding their personal tendencies. Having a personality of a particular kind does not usually mean that you always do the same thing; only that you tend to do that thing. So the personality of a character can be represented as a series of probabilities.

Let’s set up a typical character, Orville the Oread. How gullible is he? He is likely to be duped 40% of the time. How greedy? Well, he is 65% likely to want the player’s treasure. How lazy? He is unlikely to move from his bed 95% of the time. How friendly? He is neutral to most people, i.e. 50%. How clever? He can only solve 2% of The Hobbit.

Now if a player comes along and tries to get past Orville he could offer him treasure and would probably have a 65% chance of success because of Orville’s gullibility. But if he does this he would lose his treasure.

Instead he could offer the worthless brass dandelion and pretend it is the Fabled Ninth Treasure of Moria. There is only a 2% chance that Orville will wonder what is happening; then there is a 40% chance that he will be fooled by the offer; and finally the same 65% chance that he will accept it.

Obviously this is more risky than the first alternative, but if it fails no treasure has been lost.

The decisions for the player here are much more complex and interesting than in a straightforward ‘Give me your gold or else I encounter. But we do not have to leave it there. Because we have a flexible language we can build conversation into the exchange.

Suppose that the adventure’s vocabulary has a list of adjectives such as marvellous, fantastic, fair, excellent, antique, elven and battered. Each of these can be held in a table with a value representing its effect on gullibility and greed.

If the player says ‘This is a marvellous antique’ then Orville’s gullibility may go up by 10% a his greed by 5%. But if he says ‘Would you like this battered dandelion’ it might go down by the same amount.

Similarly for most characters elven would be an adjective indicating the highest possible value but ores, not being too fond of elves, regard it as a major insult, reducing friendliness by 50%.

You’ll remember that Orville’s friendliness was only 50% to start with, so if the player tries ‘Seeing as it’s your friend I’m prepared to part with this fantastic elven artefact’, though Orville’s gullibility increases so does his rage.

By combining tables for languages with tables for objects and monsters, each table consisting of interactive variables, we can build up a complex set of interrelations with no adventure plot.

Noel Williams is author of “Invent and write games for the Spectrum” and “Intelligent games for the Electron”, both published by McGraw-Hill (UK).
Scott Adams: the fun and games man

Carmel Anderson talks to the father of micro adventure games, Scott Adams

SCOTT ADAMS' romance with computers began at age 17 in a high school maths class.

Ahead of its time for the 1960s, his school invested in an IBM 360 and terminal for its mathematics department and for Scott it was the beginning of a lifelong romance. "The terminal virtually became mine," he reminisces. "I fell in love with it and from then on I knew exactly what I wanted to do — work with computers."

His school days with computers were spent playing games on the IBM — noughts and crosses and learning how to write games, unwittingly setting the scene for things to come. Step two in building a multi-million dollar computer games empire for Scott was embarking on a computer science degree at the Florida Institute of Technology, which he completed in 1976. By 1978 he had started Adventure International in the spare bedroom of his Florida home.

After graduation, Scott went to work for Stromberg-Carlson making computerized telephone switches. An unexciting job for a computer games buff you might think, but there was method in his madness. At Stromborg Scott got to play with mainframe computers in his spare time. It was here that he first played Adventures by Crowther and Woods.

He was so impressed he wanted his friends to see it, but they were not permitted to enter the Stromborg offices. So Scott wrote an adventure for the TRS 80 Model I.

He called it Adventureland and it is believed to be the first adventure written for a microcomputer. "It took about a week to get something workable," Scott said, "and a year to get it to what it is today."

Adventureland received an enthusiastic reception. Several offers were made to buy the game. This is when the idea first struck that micro games could become a profitable sideline and Adventure International was conceived.

The company was originally called Saco Software. Through it Scott and his wife, Alexis, would sell programs on consignment from a computer store in addition to producing Adventureland cassettes, which were sold to friends or by mail order. "Adventure International virtually started when I sold my first games," Scott said. "Saco lasted about four months and I think we made about $50."

Scott bought his first computer, a Sphere in 1977. It was the second microcomputer ever produced. And it seems fitting that the owner of one of the oldest software manufacturing firms in the world became one of the first Sphere users. "It came in a kit and I had to assemble it," Scott said. "It had 4K memory and cost $650, which I thought was a bargain because nothing else was available then."

What now is a multi-million-dollar business began at home with Scott and Alexis producing small quantities of Adventureland cassettes. After a year dealers showed an interest in the business.

The first Adventureland cassettes were crudely presented. They were bereft of packaging and labels and were accompanied only by simple, typed instructions. The dealers wishing to sell the game urged Scott and Alexis to improve its presentation.

"They told us it was a great game and that they wanted to sell it, but said we needed packaging," Scott recalled. "We said, 'it's a great game, why do we need packaging?' The company replied: 'Trust us, you need packaging.'"

"Our first packages were plastic bags that were made to line baby bottles. They were sold in the quantities we needed and were just the right size for the cassettes. We folded a business card over the top of the bag, stapled it together and sent it to the dealers. And it did improve the sales."

In the years between 1978 and the present, the success of Adventure International has meant six moves, one a year, into a variety of dwellings from the humble to the bizarre. The most original building was a geodesic dome.

"It seemed like an interesting thing to do. State of the art technology so state of the art building," Scott said. The dome, which less than two years ago could
and the Hulk having just been taken in under the Adventure International umbrella

accommodate the entire company, now houses only the production facilities. The rest of the business is situated in 11,000
square feet of office space in a Florida residential area.

Alexis Adams runs the business side of Adventure International. According to Scott she has had a tremendous say in the
direction of the company. Her influence is apparent in game designs too, having written most of Voodoo Castle and co-
written Mystery Fun House.

Scott still writes most of the Adventure International games. His second and third adventures were written in 1979. Out of the
15 under his name Scott says that his favourite is usually the one he has just finished writing.

Writing games

"I enjoy both arcade and adventure games," he said. "Normally I don't play other people's adventures. I don't want to
subconsciously steal their ideas. I used to play Space Invaders and Pacman when they first came out. I thought they'd both be
winners. I used to like playing pinball so I guess it follows on from that. I seem to have the same taste as the general
public."

While in England for the LET Show, held at the Heathrow Penta Hotel in February, Scott had a chance to try some
of the micors popular in Britain. They included the Spectrum 48K, "impressive for the price", the Commodore, "nice to
use" and a short session on the BBC.

When writing an adventure Scott first decides on a theme within a science fiction or fantasy context, such as magic, ghost
towns, deserts or outer space. He then chooses which elements go into the adventure's environment and designs
puzzles "to make it interesting".

Contradicting the advice given by UK experts to budding adventure writers, Scott doesn't draw a map of his fantasy
land from which to work. He keeps all his ideas in his head until he writes them on the micro.

Scott has developed an aid to game writing known as an adventure creator language which he "uses for writing games
the same way other people use Basic". It's not for sale.

As a game is being written and on completion play-testers try it out. The adventure then is either revised or approved. Adventure
International uses the same system of evaluation for he freelance titles submitted.

A software review board picks the games. Their criteria are originality and suitability of the product for a mass market. "We look for
games that are leading rather than following," Scott said.

He sees the future of Adventure International firmily but not solely in games production. The company advertises 150
products in its catalogue. The programs range in price from £7.95, for an adventure, to £795 for an IBM integrated
business package (available in the US).

His next project is the release of the Marvel comic series on software. The first
game to hit the shops will be The Hulk,
which will be launched simultaneously, on
May 1, in the US, Canada, Australia, West
Germany and the UK.

Adventure International have been given
the exclusive rights for 10 years to all the
Marvel characters and Scott obviously is
excited about it. "It's perfect timing," he
said. "Marvel comics have been known all
over the world for years and so tie in well
with the life of an adventure program."

Video disks

The company also produces a strategy
game for beginners called War and a series
of three role-playing games called Maces
and Magic.

The popular adventure series has found
its way into the classrooms as well as the
lounge. Pirate Adventure has been used in
elementary schools to teach children
logic. Secret Mission was given to a
management group of college students to
solve. They had to buy resources such as
computer time and hire consultants to
work through the problems.

Scott believes that a player should expect to get about one to three months' worth of entertainment out of a
game. "The minimum time someone should
solve a game is one weekend," he said.
"It's unusual but it does happen.

"The rule of thumb we use for price
fixing is to compare a game to an
equivalent form of entertainment, such as
a film. Someone should expect to get a
fair bit of playing out of a game for the
price."

Scott thinks the next step in micro
gaming could be towards video disks, but
technology again is the restraining factor.
"It won't take off until they can be
produced cheaply." As with other aspects
of micro computer gaming, imagination
and technology are the only limits.
New role for micros

Gren Hatton describes how micro computers can add realism to role-playing games

AS READERS of this are probably aware, a role-playing adventure game is essentially interactive. It relies on the way in which each player responds to action by the other players. As a direct result, a high degree of realism is achieved in both the atmosphere of the game and the detail of play.

There are many different types of game, and in each case the action can be of the hack-andslay or solve-the-riddle variety or, more commonly, a mixture of the two.

The appeal of the game probably lies in the blend of a realistic amount of randomness and a set of defined rules. But it is the essential concept of a moderator or dungeon master, who acts as a referee, which undoubtedly gives the game its appeal.

Then, of course, there is the use of tabletop game aids, such as lead figures, floor plans, score sheets and copies of spells, which will fire a player's imagination.

With all this in mind, what then is the right way to use a micro in the playing of RPG's?

Impartial mind

Present day home computers are now powerful enough, either in speed or capacity, to carry out the complete adventure with sufficient realism. The result tends to be at best a game which briefly captures the imagination and at worst a repetitive, unrealistic dialogue between one player and a machine, carried on in kindergarten English.

This serves only to frustrate a player use to a more realistic game. The biggest drawback here is the loss of the dungeon master who provides an inventive but impartial human mind as moderator of the game.

Basically, the micro can either be used as the complete adventure module in itself or as a game aid such as automatic dice or an electronic score sheet. But to use the micro this way is a waste of its potential.

The solution is to combine the best features of tabletop RPGing, their realism and ability, to tax the players' imaginations, and the merits of micro's speed, accuracy and ability to generate random responses.

As a first step, forget the frills, such as sounds and fancy graphics. Let us examine whether a straight text-based system can be designed for use as a game aid rather than a game substitute.

As a vehicle for our thinking, we will consider a medieval Lord-of-the-Rings game, although the principles I will set out are just as valid for space, gangster or other adventure games.

There are several distinct stages in any RPG, which can be summarised as follows:

- Creating the characters, choosing names, deciding on various attributes (strength, intelligence, spells, initial value of cash-on-hand, purchase of armour, weapons and equipment).
- Gathering together with other players at an agreed starting point after absorbing background information and various rumours that will provide an incentive to start the adventure.
- Journeying from the start to a defined battleground or region (suggested by the pointers and clues) where the specified action is to unfold, be it searching for treasure, rescuing a hostage or killing an evil being.
- The specified action on the defined battleground: some see this as the main part of the game, others as merely an episode in the larger and more continuous game of life.
- The return, following victory or defeat, which may be another complete adventure in itself.
- Once back at home, the business of stocktaking takes place, including sharing out the treasures, disposing of goods found en route, paying-off hired assistants, repairing a damaged kit, curing wounds, relearning spells — the list is virtually endless.

Of course many experienced DM's will blend the final point with the first two so skillfully that the join never shows, and presto you are in the middle of another quest before you can get your breath back from the last one.

In this respect, as in many others, the human moderator or DM is an essential factor in achieving an absorbing and realistic game.

At this point, the task seems daunting, but don't despair. The micro-computer has a part to play. The secret is to look for jobs which can be isolated and given to it so that it earns its keep without reducing the spontaneous and interactive aspects of the game.

Character generation

Here are some suggestions for independent jobs that can be parcelled out at each stage of the game.

The generation of characters exploits the micro's best attributes. This produces personalities for an adventure which have at random. It automatically rejects any weak characters which fall short of a minimum criterion of usefulness, grades the rest (fighter, elf, thief) and assigns bonus attributes such as extra protection from being hit due to high dexterity.

The micro can easily save the worthwhile results in a matrix, or array and it avoids a great deal of the tedium of this preparatory job without losing any of the inherent interest in the outcome of each

10 LET d = INT(RND*4)
20 IF d = 0 THEN PRINT "In the marketplace"
30 IF d = 1 THEN PRINT "At the Inn of the Angel's Face"
40 IF d = 2 THEN PRINT "While loitering about near the docks"
50 IF d = 3 THEN PRINT "During the morning"
60 LET d = INT(RND*4)
70 IF d = 0 THEN PRINT "you pick up a scrap of paper which someone has dropped, and learn that"'
80 IF d = 1 THEN PRINT "you overhear two strange men talking. It seems that"
90 IF d = 2 THEN PRINT "you talk to an old blind beggar. He tells you that"
100 IF d = 3 THEN PRINT "you meet an old friend. During the conversation he mentions that"
110 LET d = INT(RND*4)
120 IF d = 0 THEN PRINT "a strange column of smoke was seen over the Eastern woods three days ago"
130 IF d = 1 THEN PRINT "there is a huge troll at the Western bridge. You must pacify it with a gift of raw meat"
140 IF d = 2 THEN PRINT "Odin Forkbeard has found a big blue gemstone, which has strange magic powers"
150 IF d = 3 THEN PRINT "there is a legend that a huge treasure lies under the Serpent's Rock" — but no-one knows where that is!"
URBAN UPSTART

An adventurous escape from 20th Century Suburbia with over 90 graphic locations.

Your Quest: To escape from Scarchoppe!
Scarchoppe is the sort of town where even the dogs carry flick knives! Where there's only one road in, and that's a one way street! The sort of town where rebuilding means a new coat of paint, and where people queue up to queue up for a job! Not many people come to Scarchoppe, and even fewer leave. The church bells chime three in the morning... the streets are deserted, now is your chance to Escap
from Scarchoppe! 48k Spectrum £6.50

RICHARD SHEPHERD SOFTWARE

ELM HOUSE, 23-25 ELMSHOTT LANE, CIPENHAM, SLOUGH, BERKS.

All programs are sold subject to the condition that they may not, by way of trade or otherwise, be lent, hired out, recopied or otherwise circulated without the written permission of Richard Shepherd
The Quill is a major new utility written in machine code which allows even
the novice programmer to produce high-speed machine code adventures
of superior quality to many available at the moment without any
knowledge of machine code whatsoever.
Using a menu selection system you may create well over 200 locations,
describe them and connect routes between them. You may then fill them
with objects and problems of your choice. Having tested your adventure
you may alter and experiment with any section with the greatest of ease.
A part formed adventure may be saved to tape for later completion. When
you have done so The Quill will allow you to produce a copy of your
adventure which will run independently of the main Quill editor, so that
you may give copies away to your friends. The Quill is provided with a
detailed tutorial manual which covers every aspect of its use in writing
adventures.

From The Golden Nib Of
The Quill
Comes a Gourmet Feast
for
Hungry Adventurers
Volume 1
of the
GOLD COLLECTION

A Superb collection of adventures for the 48K
Spectrum written with the Quill.
From the fertile imaginations of many authors, we
have selected this fine volume of adventures for
you to collect. Each adventure is complete in itself
and is presented in the distinctive livery of the
series to grace your software shelf as you build up
the collection.
The adventures are priced at only £5.95 each.

Selected titles available from good computer
shops nationwide including:-
W. H. Smiths, Boots, Menzies
Or direct from us by post or telephone

GILSOFT
30 Hawthorn Road
Barry
South Glamorgan
CF6 8LE
Tel: (0446) 732765

S.A.E for full details of our range
Dealer enquiries welcome

GOLD COLLECTION
fall of the dice. This produces a worthwhile result, much faster than the traditional manual method.

It is easy for rumours, an important initial job to be botched by the DM, who simply says, "You, the elf, have heard 1 and 6 on the introductory sheet; thief, you have heard 2, 3 and 7..." and so on.

This is a bold and uninteresting way of getting things started. It has two main drawbacks: everyone overhears the things which should be known by one player alone; it lacks realism.

But since it is by random chance that characters pick up the snippets of news and clues which start them in pursuit of a new quest, here is a job which is custom built for the micro.

Three sections

We answer the first criticism easily enough, since players can be sent one at a time to the computer so no dialogue can be overhead. To tackle the second we have to look for ways by which the computer can make itself as human.

This is not too difficult. We can write a program in three sections: A state where you collect the information, B state how the information is given to you, C state what the information is.

You may find yourself in the marketplace where you pick up a scrap of paper, and learn that a strange column of smoke was seen over the Eastern Woods three days ago.

For section A write down a number of different statements which all use the same format. For instance, in the marketplace; at the Inn of the Angel's Face; while loitering near the docks; during the morning.

Now do the same for section B. You pick up a scrap of paper which someone has dropped, and overhear two strange men talking. It seems that you talk to an old blind beggar. He tells you that you meet an old friend. During the conversation he mentions that...

(Finally, list out your rumors and clues in the last section.)...a strange column of smoke was seen over the Eastern Woods three days ago; there is a huge troll at the Western bridge. You must pacify it with a gift of raw meat; Odin Forkbeard has found a big blue gemstone, which has strange magic powers; or there is a legend that a huge treasure lies under the Serpent's Rock, but no one knows where it is.

Now combine any of the statements in A with any in B and any in C, in that order. In each case we obtain a complete sentence. I will refer to this concept as a random phrase generator.

In the above example, you can see that there are 4 x 4 x 4 = 64 possible different combinations. Clearly we could add to each section, and with eight entries there would be $8 \times 8 \times 8 = 512$ different sentence.

Using such a concept, information typical programming technique for the Spectrum is shown on the first page.

In the above program, only lines 120, 130, 140 and 150 would need to be changed by the DM between one adventure and the next. You can use this idea as a program in its own right, or build it in as a sub-routine in a larger program.

This article is too brief for me to go into detail here, but the principle of a data map, to hold a given territory (say the World of Greyhawk) as data references in a large three-dimensional array.

Two dimensions would be used to define the x and y co-ordinates of the position on the map, and these would be incremented by the player in answer to "which direction will you go next?" prompt via an INPUT command on the screen.

The third dimension of the array would store a code of (say) 20 digits, each from 0 to 9.

You could easily arrange to read this code two digits at a time, and thus for each x,y location produce a list of 10 numbers between 00 and 99.

If you have a sub-routine somewhere else in the program which holds a list of up to 99 keywords, you can use this list of numbers to write a 10-word descriptive sentence. The keyword list will make this clearer.

In this array listing, 15,23,0430504152-402535471, you find yourself at a location (x,y) = (15,23) on the map, which may run, say, from 1-30 in the x direction and from 1-30 in the y direction.

The description of this location would be a numeric string, 0430504152402535471.

The computer would have been instructed to read this string in pairs of digits as 04 30 05 41 52 40 25 35 47 41. After referring to the keyboard list by means of a simple sub-routine, it would print this out as, a bridge over a little river where three paths meet.

Of course this sort of map-holding takes a lot of RAM store. The above example uses a (30,30,20) array, which requires most of the available capacity of the 48K Spectrum. But it is infinitely more efficient than storing all the words at each location.

Return home

In the heart of the quest the most likely task for the micro-computer is to assist in fighting the melee against dragons, enemy troops, aliens etc.

Its ability to calculate random numbers, evaluate whether a hit has been scored from a particular blow, calculate the damage caused and remember everyone's hit-points saves messing about with dice, paper and rubbers, and allows players to think more about strategy.

I have written a demonstration program, which my own playing group refers to as The Battler. It enables us to explore some of the possibilities of using the computer to fight meelees.

The topic is only mentioned here so that I can build up in your minds the concept of a complimentary set of could be passed over in what appears to be a very realistic and chatty fashion. A computer-based game aids, each resident in a separate dedicated program.

The return home is another application for the map program mentioned above. Below are a number of possibilities for sub-routines which can be used interactively with the map routine. They are:

- The (random) danger of getting lost; obviously more likely if you have no map to carry with you, but equally possible if the map, which you do possess, turns out to have some mistakes in it.
- The (random) effect of changes in the weather; for example the need to seek shelter from a storm or the loss of bearings if it becomes foggy.
- The effect of day/night variation. This is not random and you need to add in a game-time clock as a sub-routine which can be updated each time the party decides to move on or rest.
- The slow progress you make when loaded with loot or when wounded.
The need to stop and rest at intervals.

The need to eat and drink at intervals (and the penalty in hit-point damage if you fail to do so).

The danger of meeting enemies, obviously greater in some areas of the map than others, but also subject to a certain amount of random chance.

Common theme

In any game, the moderator, or DM finds certain parts harder than others to manage. Disbanding and stocktaking after the adventure is one of them. I used to dread this stage of the game.

In easier stages, during a melee, for instance, everyone in the party generally working together towards a common aim, such as the defeat of the enemy who was attacking. The action may have been complex, but at least it had a common theme.

Or, for example, when on a journey the party generally moved as a group - camping, eating, sleeping, exploring and problem-solving all tended to be organised as group activities. In these situations, the DM generally had only one line of thought to pursue, and the game proceeded smoothly.

However, towards the end of a quest the action can become quite fragmented. For instance, on returning to the base camp a party of five adventurers could find that: the cleric was wounded and had to go to his monastery to seek a cure; the magician had to get off secretly to relern some spells, and collect some ingredients for his magic; the thief had to report to his Guildmaster. He also had a big heavy bag of treasure which he was carrying on behalf of the whole party.

The adventurers could also find the fighter staggering under the weight of a pile of weapons and armour plundered from dead enemies. It all has to be converted into money because the others want to share out the profits; or find the dwarf cross and tired. He thought that the thief was going to cheat them all. All he wants is to feed his mate, get his share of the money and go to an inn for a rest and a drink.

In this sort of situation the poor DM faces three distinct problems:

- To make sure that four of the players do not get bored while he is dealing with the fifth player in some lengthy discussion.
- To make sure that the other four players hear nothing at all of what is said to that fifth player at a time when he/she is supposedly acting solo. This point is particularly important: the realism of the game is increased a hundred-fold if the DM can get one player to report back to the others the results of some solo activity. This forces them to do some real acting.
- Stocktaking is difficult to do properly, with rewards and treasure being doled out, experience being totted up and players due for promotion suitably raised.

This last point again is easily mismanaged. It is quite unrealistic for the DM to say: “Ah yes, you third-level thief, you are now fourth level.” Much better to have the thief tested by his guildmaster and found suitable for some rewards (such as a new set of thieves’ tools, a rersher course in climbing sheer walls at the guild’s expense.

As a result the guildmaster might find the thief to be an accomplished cputurse and hands him a diploma with a list of new attributes.

At times like this every DM must wish for an assistant so that solo-action situations can be handled in parallel. Well, it is not too difficult to provide a solution.

I experimented with various approaches, and finally put together a sample program called Return to Thonger, which has been used in games to cater for many of the above possibilities.

Interactive game

The program provided a series of one-player interactive adventures in Thongor, a medieval town which as used as an operations base when adventuring.

Any readers interested in further information about this program should write to the author at Stonleigh, Middle St, Kilsby, Rugby, Warwickshire, enclosing a large SAE.

---

**ADVENTURES**

**48K SINCLAIR ZX SPECTRUM**

**The Knights Quest**

You are a Knight of Camelot, searching for Merlin’s lost treasure. On your way you will discover the Witches Tower, rescue a Princess held by the wicked Wizard of Tril. £5.95

**Pharaoh’s Tomb**

You discover the entrance to an ancient pyramid blocked by a rock. Once inside, you discover fire rooms, ice rooms and other traps set by the builders to protect the Pharaoh. £4.95

**Magic Mountain**

A rope above a rock fissure is the only way into this treasure. Is it real? Legends tell of vast stores of treasure but also of poisonous spiders, lizards and magic at work. £4.95

**Cree Y Gru**

An old deserted mining town holds the clue to the location of a lost gold mine. Once in the mine, your problems are not over - the roof cracks alarmingly and might cave in. £4.95

A full war-time escape adventure. As a prisoner of the Germans, you must escape through the network of tunnels, rooms and chambers. The fence around the camp is electrified and guards are everywhere. £6.95

Send SAE for full list.

---

**PHIPPS ASSOCIATES**

Prices include postage (outside Europe add £1.00 per item). Access and Visa cards welcome

---

Dept E FREEPOST EM463 (No stamp) 172 Kingston Road, Ewell, Surrey KT19 0BR Telephone 01-393 0283. 24 Hour answering.
High score for Pinball

Simulation Pinball Micro
Dragon 32 Price £8.00
Format Cassette Supplier
Microdeal, 41 Truro Rd, St Austell, Cornwall.

I was very sceptical when Pinball thudded through my letterbox on the principle that no one would ever write a good simulation of a pinball machine, an opinion based on various experience of video pool, etc, so I loaded it in expecting the worst.

The tape loaded with no fuss, even with the tone control on my cassette player set low, which was quite impressive as this is usually enough to bring most software to its knees.

After displaying the usual fancy opening-page-while-load-the-rest-of-the-prog routine, the program asks you which colour screen you wish to play on.

Take not this choice lightly! It is an irreversible decision, unless you want to re-load the tape.

Out of a choice of black, green and buff I found that buff was the least eye-straining. Then comes some more titres, a little burst of recognisable music and the game proper emerges an arcade-style pinball machine simulation.

Any pinball simulation has to make a choice between sticking to the playing area ratio of a real pinball machine and, having a game that only occupies the middle third of the screen, or filling the screen with playing area and praying that the general public will accept squareish pinball machines.

Microdeal have opted for the latter course. The overall size is slightly under square, and the actual playing area is pear shaped.

The ball itself moves in a fairly accurate manner, although I found that when moving really fast, the Dragon cannot plot every position that the ball passes through, and it sometimes disappears from view for a short time (although not often).

In general, this game of 16k of machine code is probably the nearest anyone is going to get to an accurate simulation, within the confines of the 3:2 screen ratio of the computer.

The game is fairly fast when playing, and I would give Microdeal eight out of 10 for attempting what is, after all, a fairly difficult thing to simulate.

It makes a refreshing change from annihilating aliens or aimless adventuring, anyway.

Wilf shot down in flames

Adventure Wilfred the Hairy, Olaf the Hungry Micro
Spectrum 48k Price £5.95
Format Cassette Supplier
Microhyde, 19 Worcester Close, Lichfield, Staffordshire.

This is a game with an amusing and intriguing title . . . unfortunately that's about all it has going for it.

Wilf (for short) gained points for easy and reliable loading, but promptly lost them for demanding that I "Stop the tape" part way through so it could give me some badly spaced instructions, largely duplicating those on the photocopied sheet which accompanied the tape.

The colourful insert boasts "High resolution action graphics", and indeed the pot-bellied stick figures of Wilf and Olaf move smoothly, if excruciatingly slowly, around the screen.

The map though, is built out of low-res block capture either Europe and the enemy stronghold or all continents except Europe.

The first problem is working out which of the amorphous blotches is Europe. Next you manoeuvre your man (Olaf, in blue), using the cursor keys, to position flags marking your territorial gains, while Wilf, controlled by the computer, does the same.

Contact with the enemy causes loss of ammunition which must be replenished at the home castle, and random events can affect the ammo levels too.

Moving onto a green area allows you to sail the sea in a jerky UDG boat. (Apparently sea-battles are possible, but despite playing for several hours none of Wilf's craft attacked me).

The idea is uninspiring and the execution is dismal. As well as the graphical short-comings, control of movement is slow and awkward, you can sail the ship to a landlocked lake, the messages sometimes disappear before they can be read and have no relation to the state of play (hostile tribes can attack you while you are right outside your own castle, for example).

The game is boring in the extreme. The computer plays a cagy game and despite covering all continents with blue flags and even somehow turning Wilf blue as well I couldn't beat it.

The option to play another human would considerably enhance the interest, but even then I doubt this game would hold many adventurers' attention for long.

Off to a good start

Adventure Mountains of Ket Micro Spectrum 48k Price £5.50 Format Cassette
Supplier Incentive Software Ltd, 54 London St, Bellingham.

What WOULD you do with a crimson fish? My bet is that it's a red herring, but then maybe the goblin needs a herring aid?

I'm stuck in the middle of the Mountains of Ket. I'm desperate to get through >
OPERATION GREMLIN . . .
A very different game that combines the intrigue of adventure with the real time, machine code speed of arcade action. The player must control not one, but EIGHT different troopers, each with their own character status, in the search for the weapons that will destroy THE GREMLINS.

DRAGON TREK
Dragon Trek is a new implementation of a classic game, taking full advantage of the Dragons hi-res graphics and sound capabilities. Your starship's impressive armament is comprised of high energy Photon Torpedoes and Phasers. Both long and short range scanners (in full graphics) enable you to track the Klingons and your onboard computer will give you extra tactical facilities. As commander you will have to use strategy and cunning to outwit the enemy.

THE RING OF DARKNESS

BRITAIN'S No. 1 ADVENTURE GAME FOR THE DRAGON 32 IS NOW AVAILABLE FOR THE 48K SPECTRUM AND ORIC

THE RING OF DARKNESS is a complete role playing adventure in hi-res graphics, featuring a detailed land filled with towns, 3D dungeons, forests and seas, and populated by kings, princesses, evil rangers and other strange creatures. All versions are identical with respect to the adventure. The Oric version is recorded in fast mode only. Many hours of mystery and suspense await you in your quest to find The Ring Of Darkness.

ORDER WITH CONFIDENCE: All titles in stock are dispatched by return of post.

SEND SAE FOR OUR FREE CATALOGUE.

SELECTED TITLES ARE ALSO AVAILABLE FROM GOOD SOFTWARE OUTLETS AND FROM BOOTS.

COMPLETE THIS ORDER FORM AND POST IT TO: WINTERSOFT, Dept. DU, 30 Uplands Park Rd., Enfield, Middx., EN2 7PT.

<table>
<thead>
<tr>
<th>DRAGON 32</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ring Of Darkness</td>
<td>£9.95</td>
</tr>
<tr>
<td>Dragon Trek</td>
<td>£6.95</td>
</tr>
<tr>
<td>Pepper's Game Pack</td>
<td>£6.95</td>
</tr>
<tr>
<td>Arties Designer</td>
<td>£6.95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ORIC-1 48K</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ring Of Darkness</td>
<td>£9.95</td>
</tr>
<tr>
<td>Operaion Gremlin</td>
<td>£6.95</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECTRUM 48K</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ring Of Darkness</td>
<td>£9.95</td>
</tr>
</tbody>
</table>

I enclose my cheque/PO for £

NAME

ADDRESS

WINTERSOFT 30, Uplands Park Road, Enfield, Middlesex EN2 7PT.

DEALER ENQUIRIES WELCOME 01-367 5720
THE EXCLUSIVE U.K. DISTRIBUTORS OF SCOTT ADAMS PRODUCTS

SCOTT ADAMS ADVENTURES AN OVERVIEW

By definition, an adventure is a dangerous or risky undertaking, a novel, exciting, or otherwise remarkable event or experience. On your personal computer, adventure is that and more.

Playing any of the Adventure series consists of three elements: you, the user; the games themselves; and the author, Scott Adams of Orlando, Florida.

If you’re tired of video games of bouncing balls or shooting targets, if you’re ready for an intellectual challenge that transports you to new worlds of experience; if you want to see what a skilled programmer can do with a micro, then one of Scott Adams’ games are sure to interest you. One early Adventure (Adventureland or Pirate Adventure) is a good place to start because the more Adams creates, the tougher his puzzles get.

1. ADVENTURELAND
   - Wander through an enchanted realm and try to uncover the 13 lost treasures. There are wild animals and magical beings to reckon with as well as many other perils and mysteries. This is the Adams Classic that started it all.
   - Difficulty Level: Moderate

2. PIRATE ADVENTURE
   - Only by exploring this strange island will you be able to uncover the clues necessary to lead you to your ultimate goal – recovering the lost treasures of Long John Silver.
   - Difficulty Level: Beginner

3. VOODOO CASTLE
   - The Count has fallen victim to a fiendish curse placed on him by his enemies. There he lies, with you his only possible hope. Will you pull off a rescue, or is he really down for the count?!
   - Difficulty Level: Moderate

4. SECRET MISSION
   - In this exciting Adventure, time is of the essence as you race the clock to complete your mission. In time or else the world’s first automated nuclear reactor is doomed! If you survive this challenging mission, consider yourself a true Adventurer.
   - Difficulty Level: Advanced

SPECTRUM AND COMMODORE 64 VERSIONS

- SPECTRUM:
  - £9.95 including V.A.T.
  - Postage & Packing

- COMMODORE 64:
  - £7.95 including V.A.T.
  - Postage & Packing

DEALER & DISTRIBUTOR

Enquiries welcome also
Panic Buyers welcome!

119, JOHN BRIGHT STREET, BIRMINGHAM B1 1BE
Telephone: 021-643 5102
Exclusive distributor of SCOTT ADAMS PRODUCTS
Swapping dragons for Germans

Adventure Wings of War
Micro Dragon 32 Price 19.95
Format Cassette Supplier
Salamander Software, 17 Norfolk Rd, Brighton, Sussex.

IF YOU'RE fed up with staggering around dungeons, battling with mythical creatures and playing endless adventures that all seem like a certain large cave game, then this is just what you need.

Written by the author of Franklyn's Tomb, Wings of War is a text adventure in which you play the role of Lt Roger Wilcox, parachuted into occupied France.

The aim of the game is to penetrate a German occupied chateau with the purpose of finding some blueprints and a prototype bomb, then you have to make your escape.

The first thing you notice is the neat screen layout. I don't know if this is typical of Salamander in general or just this author, but it wouldn't hurt a lot of games if they took a tip from this. You get five columns/boxes, all marked with their purposes: location, obvious exits, inventory, moves and communication — no need to type in or even look.

After a couple of false starts I eventually got into the chateau, but not before I'd spent ages trying to lay my hands on a pass because no pass no entry, so this was essential. Once inside I found a bewildering array (no pun intended) of objects: glass busts, frogs, scrap aluminium, cushions. I won't go on, but suffice to say that getting the plans and the bomb isn't easy, and will keep anyone busy for some time.

While a novice adventurer will be able to tackle this, an experienced adventurer will find much to amuse him in the chateau. Devilish traps, devious red herrings and the unusual background make the game clip along at a really good pace, making it a pleasure to play.

At the end — assuming you get that far — there is the promise of a sequel, which is appealing. I enjoyed this game, the combination of good screen layout, witty trilingual messages and action enough to satisfy the most jaded of adventurer's palates, will keep most gamers entertained for some time.

If you fancy a dangerous undercover mission in enemy occupied territory, buy this game, and if you don't then buy it anyway. PD.

A maze to whet your appetite

Adventure Fishy Business
Micro Dragon 32, BBC B, 48K Ori-1 Price 59.95
Format Cassette Supplier
Salamander Software, 17 Norfolk Rd, Brighton.

FISHY Business is the third of a trilogy of adventure, the other two being Franklyn's Tomb and Lost in Space, and all three feature Dan Diamond, who is a Salamander equivalent of Humphrey Bogart.

The program is self-running, display loaded machine code. Salamander never goes overload on their display loader, unlike for example Microdeal, whose opening pages would do justice to a Busby Berkeley musical.

This is quite a long program, all of 30K of machine code. I didn't know you could get that much into a Dragon 32, but then Salamander never did flinch from the impossible.

After the opening page the text adventure unfolds on a formatted screen. What this means is that the screen is split into three independent sections. The top left section gives an account of what you can see. The top right section gives a list of what you are carrying. The bottom five lines are used for input and computer response. This is quite a brilliant idea. It saves you typing LOOK and INVENTORY all the time.

The input is noun and verb, and also has a game save facility, which saves you having to type in the first 30 commands when you die.

As for the game, you wake up having just crashed your spacecraft on a desert island. The object is to find out who has sent for you, why, and then solve the problem. The first two objectives are easy. The third I haven't lived through to manage yet.

A word of warning: this game contains the meamest, evilist, most infuriating three-D underwater maze I have ever been lost in. What makes it worse is that there is no HELP facility. You can swim round and round for ever and when you resurface you are in the same place. There is a way out, but it is difficult to find. Obviously designed by a sadist, this is not for the faint hearted.

The rest of the game is not outstandingly spectacular, but it is certainly worth playing. There is a predisposition for red herrings and blue kippers, the meaning of which only becomes obvious towards the end.

There are a fair few useless objects, too. Since you are only allowed to carry six objects at a time, you have to plan what you carry well.

There are secret passages, magic words, and an awful lot of legwork to do.

As text adventures go, this one is quite good. It has some evil bits and some deadly bits, and Humphrey Bogart would have loved every minute. SS.
Back ing down a one-way street

The game is easy to map on squared paper once you leave the house, but do not let this fool you into thinking that the adventure is easy. Far from it, I have yet to escape from Scaithorpe although I know how I am going to do it.

The game has several quirks, one of the most interesting of which is that the time given by the program does not appear to follow the standard clock system as three successive digits of the speaking clock (yes, there is a useable phone) returned the times of 3:45, 4:42 and 3:54 respectively. I found this every time I played the game.

One of the more commercial points of the game is the graphic representation of the location you are at. Every location is illustrated even if some of the drawings are confusing and the border changes colour to match the pictures. These remain in the graphic window at the top of the screen for the duration of your stay.

If my presumption that the game was written in machine code is correct then the reaction times are slow and the look routine is ridiculously so.

The program, however, does allow you to enter up to 30 characters for your command. Commands can be strung by the use of the conjunction and but not &.

Most of the commands can be supplied to one letter and an object often does not have to be specified in the Take command. The vocabulary appears to be limited, even Get is not recognised. Take must be used.

I recommend Urban Upstart with reservation. The humour may not be appreciated by some people and the scenario is not pleasant.

Now I must return to the city streets, put my Frank Sinatra records (this is a clue) and try to find my way out of the police station without going to the hospital. JO

Pool from all angles

Simulation Eight Ball Micro Dragon 32 Price £38 Format Cassette Supplier Microdeal, 41 Truro Rd, St Austell, Cornwall.

This is an attempt to reproduce pool, a game which is gaining popularity in this country.

It comes from Amoco Software, the people behind Pinball.

Eight Ball, in my opinion, is a great improvement on Pinball. The pool simulation is an excellent game that is well written and should make a good part of any owner's collection.

The game auto runs, with the old, low-res title page, to give you the choice of colours black, buff or green. As is very often the case, black is a good choice here as definition is lost in the other modes. Full marks to Microdeal though, as the reset button on this game lets you rechoose the colour, a feature I have not found on any of their other games, most of which simply perform a cold start on depression of the reset button.

The game begins with player one placing the ball in the right-most quarter of the table to break. Having positioned the ball he or she must then select angle, spin and force.

The entire game is played with the joysticks, you select the angle by moving a cue around the outside the cueball until it is in the correct position.

The button is pressed and you position a spot on a larger ball at the top of the screen to determine the spin. The player then presses and holds the joystick button for a length of time proportional to the force he wishes to apply to the ball (from one to four).

Although this movement sounds complicated, it is in fact easy to master and allows a smooth, flowing game.

The program is not without faults. There is no score, just a winner and a loser. There is no graphic record of the pot order and the backspin appears to have a variable effect.

The balls move fast, smoothly and correctly. This is no mean feat when the maths involved is considered: First, the angles from the cushion have to be calculated using the second law of reflection. Second, the balls must transfer velocity to each other in elastic collision. Third, spin must be taken into account and must be transferred from ball to ball. All the maths must be done using addition, subtraction and multiplication of integers between 0 and 65536.

The sound is adequate if not particularly inspiring, but the feeling of satisfaction when you screw back into the perfect position for the eight ball is very gratifying.

To fans of pool and video pool I recommend this game whole-heartedly. To anyone else I would suggest you try it at your local computer shop to see if it is your type of game. You might find that it is just what you have been looking for. JO

Light cast on Dark secret

Adventure The Pen and the Dark Micro BBC 32K, Spectrum 48K Price £9.95 Format Cassette Supplier Mosaic, Baffins Lane, Chichester, Sussex.

"YOU'VE read the book — now play the game".

Like The Hobbit before it, this game is closely based on a previously written tale.

The tale is science-fiction, which is included in the booklet that accompanies the cassette. The story is The Pen and the Dark by Colin Kapp. It is one of a series featuring the Unorthodox Engineers.

The game instructions advise the player to read the first few pages of the story which sets the scene and reveals the object of the adventure. The remainder of the plot should only be read when the player is stuck.

The player assumes the identity of Fritz van Noon, head of a team known as the Unorthodox Engineers.

You are set the task of solving the mystery surrounding the appearance on the planet Libstra of a strange
Joys of breaking a M.U.L.E. in

Adventure M.U.L.E. Micro
Atari Price £29.95 Format Disk only Supplier Electronic Arts, 2755 Campus Drive, Matio, California, USA.
ZAP ... POW ... ker-rang ... zap! "OK, Cap'n, we've cleared this sector of aliens now what shall we do about their headquarters planet?"
Why, we develop it, of course.
Mule, according to the manual, is a game of exploration and resource development on another planet.
Electronic Arts is a relatively young company. They are among my favourite producers of software.

Not only are the games excellent, but they lavish care and attention on the smallest detail of their packaging and Mule is typical, the disk coming in a colourful sleeve.
The manual, too, is beautifully produced and takes the player gently through all the rules and regulations of the game.
You choose a character, there are eight to choose from, among them the Sphereoid, the Leggite and my favourite, the Bonzold. This is Mule's handicapping system - the Flapper, for instance, gets a bit more money, and a bit more time, and is a good choice for beginners, while the more experienced Mule-player can try the Humanoid.
Having chosen a character the players are treated to a screen containing the status summary of everybody participating, with the characters marching on to the accompaniment of some of the catchiest music heard on an Atari.
They take their places in the rank order prevailing at the time, and the summary shows the amount of money, land and goods owned by each character.
Land? That's right - after the Summary Screen, you'll see the ownership dropping you off, and then a large square starts moving from left to right over the playing area.

This is a plan view of a part of the planet, with a river running from top to bottom of the screen, and a few mountain ranges scattered about. When the square is over the plot of land you want to start developing, press the button on your joystick, and that plot becomes yours. Of course other players may want it too, so be quick. The plots are highlighted in the colour of the players owning them.

Improving tactical skills

IF you want an introduction to computer wargaming here it is. War 70 is not a game against the computer but against another player.
That is both its strength and its weakness. It is a good feature because it means no complex logic is needed to control the computer's decisions, moves and strategy, thus leaving a fair amount of memory free, which other games have to use.
Against this is the fact that you do not really need a computer to play. Much better games of the same kind can be played between two players using conventional boardgame or figure game rules.
However, I would recommend this game to anyone wanting to learn the basics of wargaming, with or without a micro computer. It contains both a strategic campaign game and a tactical battlefield game.
A great deal of the game has had to be formalised to fit it into the available space (all armies are initially the same size and composition, most units cannot cross hills, initial formations in battle are arbitrary and so on), but even so it preserves a first-class flavour of both the nature of campaign and battle games.
You control up to nine groups of up to two armies each, each army being a miniscule 167 men. These groups are marched across a stylised geographical map showing the cities of the two opposing countries and the routes between them.
Each turn you may reorganise groups or move up to four groups. (Actually you can move one group four times if you wish, which is a peculiar quirk of the program because it allows a "forced march" of extraordinary proportions). When one of your groups contacts an opposing group, a battle results and display is transferred to the tactical map.
The tactical map shows a random arrangement of trees, hills and buildings, together with the units of the opposing armies. Commands are given to each army alternately a unit at a time, with all the standard commands allowed.
One feature I particularly liked was that you could give a unit order it could act on in successive moves, or you could change the orders each move. This allows either realistic wargames in the Wargames Research Group style, or more free-flowing battles of the "he shot at me so I'm shooting at him" type.
All calculations are handled by the computer but experienced wargamers will find the combat system a little absurd. Nevertheless it produces an entertaining game, which is the main purpose of a program like this.
One feature I definitely did not like was the obvious built-in bias against players with the initials NW. Somehow the program always chooses the wrong player to be kind to. It can't be anything to do with my strategy ... NW
On your turn, you must decide what to produce. Mountains are best for mining, land near the river is best for food production, while flat land is best for energy production.

Straddling the river, at screen centre, is the town. This is where supplies must be brought, and where you pick up your Mule (you have to pay for it, of course). This, as you might know, is a Multiple Use Labour Element, and should be outfitted from the store containing the relevant supplies for the sort of production you have decided on.

Having outfitted your Mule you must then lead it out to your land and install it there where it begins producing.

If you have time left you can go back for another Mule, or make a quick gambling trip to the bar in town.

You can even, if you catch sight of it, go hunting the mythical wampus, who will give you much money to free him (he is a bit stupid, when he opens the door of his cave in the mountain, a bell rings, and you'll see a little light for an instance).

Random events will also figure during this sequence, throwing at you such things as acid rain and planetquakes.

Once all the players have taken their turns, the plots go through the production phase.

Then to the auction, which is where the players make good use of all the goods produced. Although the computer plays a mean game, the auction is where human opponents will really make the game special. Depending on how much of each good you have (and some are survival items, meaning that you will need to buy them if you are low on that particular item), you can become a buyer or seller in each of the three auctions, one for each good.

The computer will sell and buy goods to the players, the amount available depending on how much commerce has gone on in previous rounds.

After declaring your intention to be either buyer or seller, all characters can start to fix the buying and selling prices. The sellers, of course, will try to keep the price high, while the buyers will be keeping the price as low as possible.

The auction is carried out on a separate screen, with the characters ranged on either side.

The players move up or down the screen, the leading one on each side fixing the price.

When the players meet again, the final price is set, and trading begins.

This can become a raucous free-for-all, with buyers and sellers trying to keep apart, with the occasional teasing.

After all trading has been completed, the status summary is shown again (with that wonderful music), and then it's back to the playing area to develop more land.

What I've described is the beginner's game. There is also the standard game, in which land may be auctioned off by the store (another opportunity for a raucous few minutes) and with less Mules to use. There also is the tournament game, in which Crystite, a precious element, makes an appearance. This may be found by luck, or by paying the Assay office in town to check a sample from the plot in which you are interested. In the tournament game, a certain amount of collusion can be indulged in by the players, to keep another player from profiting too much.

The software has the highest price tag of any, and almost always is not worth the asking price. Any program from Electronic Arts is more than worth it, however, and MULE is among the best to be found on the market.

---

**Adventure The Ring of Darkness Micro Spectrum 48k Price £9.95 Format Cassette Supplier Wintersoft, 30 Uplands Park Rd, Enfield, Middlesex**

ALTHOUGH Wintersoft is a relative newcomer to the computing field, it has made quite a name for itself with Ring of Darkness for the Dragon micro.

It has now been enlarged and modified for the Spectrum market, and includes a fairly comprehensive instruction booklet (though no cassette insert).

The Ring is a role-playing adventure — you create your own character and this affects your progress in the game. There is a separate character generation program for this which is simple and easy to use.

After choosing a name for your character you are given 40 points to distribute between the attributes intelligence, strength, and agility.

You then select character type: elf, dwarf, or human, and choose a suitable skill, either thief, warrior, or wizard. The program then displays all the chosen attributes, giving you a chance to change anything you don't like.

The game takes place on a high-resolution map showing rivers, forests, and mountains, towns and mazes, which are represented by castles. My character appeared in the middle of the screen and I went east.

The map scrolled in the direction of movement and although the program has a lot of Basic, the response was fairly fast.

After only a couple of moves, I was attacked by bandits who appeared from nowhere. As well as leather armour and a dagger, I had some magic rappers so I tried casting a spell.

The computer told me that I could only use spells in dungeons, and while reading the combat instructions, I was beaten to a pulp.

You get attacked about every fourth move, which can become annoying after a while, though it was vital for gaining gold and experience points.

Enemies vary from bandits, which are quite easily dealt with (if you read the instructions properly first) to hidden archers, who are almost impossible to hit. Sometimes you can run away from attackers although often they will try to block your path.

---

**WINTERSOFT**

**THE RING OF DARKNESS**

On entering a town, Borderton, the land map disappeared and was replaced by a high-resolution map of the town. There was a pub, a magic shop, a smithy and armours and the palace, with cells beside it.

Guards stood at every corner and a jester ran about the town yelling "I've got the key."

In the next game, I visited another town, Port Stillwater, and was disappointed to find that it was the same as Borderton.

Ignoring the jester this time (I learn quickly don't I) I went into the palace to have a chat with the king. After offering my services, he gave me a quest to go forth and kill a Jelly Cube. Return when the quest is done."

After scouring the countryside for a Jelly Cube, I gave up and soon afterwards came across the Maze of Minos. This had to be loaded from tape, annoying but to be expected since it is your favourite mine, and mine, the three-D maze. Complete with high-resolution drawings, ladders, and ropes, and with a fast response, it was too much for this adventurer, who lost his way quite quickly.

A lot of hard work has obviously gone into producing this program. The map is very large — 10,000 moves according to the blurb, and there is a large variety of objects, weapons, spells and places to explore (it would spell the game to give any more away).

For the role-playing enthusiast, it is quite good value. BP □
IN THE MAKING

[Image of a comic-style illustration with characters in space suits, holding weapons, and a futuristic spaceship.]

[Address details and order form for Redshift Ltd., I.C. Manor Road, Stoke Newington, London N16.]

TEL: (071) 634 8900

Please send details on Apocalypse and other games.

NAME

ADDRESS

NOW TO ORDER

Redshift Raiders

No. Regular Raiders

No. Regular Nerulia

I enclose any cheque for £

[Form with options for Apocalypses and other games, and a note for senders to send details on Apocalypse and other games.]
THE HISTORY of gaming covers as long a span as the history of the human race. Whenever there has been anyone with any leisure time, the innate competitiveness of people comes to the fore whether it be a sport or something less active and designed to stretch the mind.

Leaving aside the physical (computers will only simulate the idea of sport, not the effort apart from wrist and finger strain) we are left with the games of the mind.

They range from the simplest gambling games to the most complex abstract games including an apparent newcomer — wargames.

Morality issues

This type of gaming is really one of the oldest in that it represents a direct descendant from the planning done by military commanders before going to battle just as chess and allied games are no more than extremely formalised, stylistic wargames.

At this point there is usually a discussion concerning the morality of playing games based on warfare, death and destruction. This type of argument is normally raised by people who have no knowledge of the subject or the degree of involvement by participants.

Most wargamers are strongly anti-war because of their use of wargames, which gives them a degree of understanding of the effects of warfare rarely exceeded by anyone outside the military. This is without acknowledging the importance of military history and its effects on history in general.

Board wargaming in its present form probably dates from Charles Roberts' game Tactics, produced in 1953 on an amateur basis. It was recently re-released by Avalon Hill Inc. as a celebration of 30 years of board wargaming.

In the succeeding years the number of companies involved in the field has grown from the original Avalon Hill set up in 1958 by Charles Roberts to far too many to list. The hobby has increased in popularity ignoring the even more successful offshoot of role-play gaming.

New meets old

At the same time the nature of board wargaming has undergone a number of changes. One of the most important is an increase in complexity tied to the increasing demand, from long-term wargamers who want improvements in the accuracy of the game as simulations, and a wider range of subjects covered.

It is at this point that the new meets the old and our new companion, the microcomputer, comes to the wargamer's assistance. It is excellent at marshalling large amounts of data and correlating tabular information.

The first games such as Tactics involved a purely abstract battle using less than 100 counters and a few pages of rules that were easy to learn. The games were more concerned with the use of combat units in different situations rather than precise simulations of historical battles or future conflicts.

Since then wargames which have been released involve 40 or 50 square feet of maps, several thousand counters and a hundred or more pages of rules, charts and examples of play.

From the early games, which required maybe a couple of hours to play, to these monsters, which require hundreds of hours, there are many points in between. The advent of computerised wargames covers the spectrum of wargaming, including some features which are difficult to simulate with board games.

In addition to games wholly played on a computer, there are also a range of hybrids available in which the computer is used as a controlling or assisting aid to playing a board game. This is very useful when using a computer with very limited graphics capability or for a game requiring extremely complex (and memory hungry) play information.

Just as in the field of board wargaming, the first computer wargames were of an abstract nature rather than concerning a particular battle, being designed rather to give the player experience at moving combat units in typical battle conditions.

Unfortunately, there is one major difference between board and computer wargaming. Anyone could attempt to use any boardgame, but with computers it is only possible to use games that are designed to run on the particular machine you own.

Furthermore, it takes a little more than calling a game a wargame before it actually is a wargame in the true meaning of the word. Many games being produced for


leaders saluted

microcomputers are calling arcade, fast-action games by this name just because they include tanks or aeroplanes.

A true wargame may be played in real-time (but is usually simplistic), such as Legionnaire by Chris Crawford. This can be mitigated against by the necessity for decision-making time required to deal with the strategic and tactical elements involved.

For economic reasons the first serious computer wargames originated in the United States, just like their antecedent boardgame relations. And in the same way one company, Strategic Simulations Inc., dominated the field but, unlike the boardgames field, it has yet to wield a major influence in this country because of the difference in the machines that control the respective national markets.

In the US the principal personal machine was the Apple which, due to cost, failed to gain a serious foothold as a home computer in the UK where the popular machines are the Spectrum, Commodore 64, Atari and BBC B.

SSI now has a wide range of titles, from introductory to extremely complex. They cover an array of historical and possible future conflicts, from Napoleonics through to American Civil War, World War II, age of sail to modern naval and modern ground warfare as well as a range of SF and fantasy battles.

These games, although predominately available on the Apple, are now being produced for the Atari and Commodore 64 machines as well as a few titles for the TRS-80 and IBM PC.

Currently there are no other serious wargames available that match the quality of the best that SSI produce although there are now a number of other companies producing wargames of a reasonable quality that are worth buying especially if your machine isn’t covered by this company.

Other companies involved in wargame manufacture include the original board wargamers, Avalon Hill, a subsidiary of which has produced a number of interesting titles ranging from the fascinating Legionnaire, produced by Chris Crawford, through to Paris In Danger (Napoleonic), TAC and Close Assault (both WWII).

Easy to choose

Although these games have a superb wargaming base, Avalon Hill still have to smooth off the rough edges on their computer games.

Other US companies, such as Broderbund, Epyx and Datamost, are producing interesting wargames for the Apple and Atari; well worth looking at if you own these machines.

Coming home to the UK the choices are far easier for anyone interested in serious wargaming as there are few companies operating in this area.

One of the originals is Molimex, whose wargames originated on TRS-80 computers and are now being made available on the BBC micro.

The only other major producer is a company called Lothlorien who currently produce the best wargames available for the Spectrum with versions available for BBC and Dragon machines.

Their early efforts strained the meaning of the word wargames but their latest offerings are more sophisticated with games, such as Johnny Reb, gaining popular support by providing an interesting game with a reasonable grasp of American Civil War tactics.

Another rising star is Red Shift who have adapted one of Games Workshop’s popular board game, Apocalypse, to BBC and Spectrum computers. It retains its original strategic flavour and the tactical options are enhanced by making good use of the computer’s number-crunching abilities as well as providing a large number of alternative scenarios.

There are also a number of games being produced to high standards by individuals but because major retailers, chain store outlets are insisting on high quality packaging, these games are unlikely to be easily obtained except by direct mail order.

Bright future

The future of computer wargaming is wide open proving increasingly popular with computer owners, who tire of reflex action games and require more sophisticated ways of filling their leisure time.

Currently the production of quality wargames is limited by hard economic reality in that writing a competent conflict simulation requires a wide range of skills and knowledge than in arcade games. This is combined with a greater investment of
time but with a far smaller market available to purchase such programs.

Originally in the US this type of commitment came from the dedicated amateur programmer endeavouring to see if it was possible to produce wargames on current microcomputers. Due to the larger number of wargamers in the US (numbers since the percentage of population is about the same as in the UK), such efforts found a ready market and led to the formation of companies such as SSI. In the UK the available purchasers for such simulations means it is far more difficult to gain a reasonable return for such effort.

This trend is changing and there is no reason why very sophisticated games programs cannot be produced for popular machines such as the Spectrum, provided the will to do it can be found.

The immediate situation in the UK means that if wargaming is a major reason for purchasing a microcomputer then the machines worth considering, in order of range of games (and quality) are Apple, Atari, Commodore 64 and Spectrum.

For most purchasers the Apple is still too expensive for home users and the range of titles available is rapidly being approached by those for the Atari, which must be the best UK purchase for wargaming both in range of titles and quality.

The Commodore 64 is beginning to have an increasing range of US titles made available and also has the superb graphics capabilities necessary, but it must be borne in mind that this machine as well as the Apple and Atari require at least one disk drive to access the best of the software.

Finally, the Spectrum offers the best choice of homegrown wargames for the least expenditure.

All this does rather beg the question why would anyone want to play wargames with a computer.

In real life, even in modern warfare, army commanders are woefully ignorant of the status of individual units on a battlefield. In boardgame simulations the player is usually in a senior command position for marshalling overall control of a conflict, but can see the exact situation of his own units and the opposition.

Changing situation

During the course of a battle the individual commanders would send messengers back to Napoleon giving information as to the actual course of events, requesting reinforcements and asking for further orders as well as acting on their own initiative.

At the same time Napoleon would draft further orders in response to these couriers and send additional orders out by courier.

All of this takes time, couriers can get lost or killed and, by the time messages have been interchanged over many miles, the situation is still changing.

This has been given the name the fog of war. It is very difficult to simulate using a board game without involving a considerable number of additional players, but it can easily be handled on a computer.

In SSI’s Napoleon’s Campaigns: 1813 and 1815 you are in the position of overall command, replacing either Napoleon or Wellington with an on-screen map showing the positions of your own forces (at least where you are told they are) and the locations of the enemy, as indicated by scouting reports.

To move your troops it is necessary to send a message to the corps commanders rather than move a unit directly and, just as in real life, the courier may not get through or the commander may decide to act on his own initiative.

Not only at this level but in many different ways the computer can provide a superior simulation. An example can be found with small unit actions when a number of hours are lost in arguments over whether one unit can see another so as to open fire, is immense yet the computer can calculate such things precisely without any argument or time lost in working it out.

The wargamer already has a number of options available concerning the use of microcomputers as far as direct gaming is concerned, both solitary where the computer is capable of providing a reasonable opponent and two-player with the computer acting as a genuinely impartial referee.
ADVENTURE GAMES are often based on futuristic scenarios which originated in science fiction novels, but they do have one major advantage over the printed versions: the linear nature of the book imposes unrealistic constraints on the invented world; how the characters respond to events and the sequence of those events cannot be altered however much the reader disagrees with them.

Such limitations are immediately overcome when a story is translated into a micro adventure and no doubt you have already experienced the enhanced realism that this creates.

Whether or not you have drawn inspiration from science fiction you would be well advised to do a little research in order to ensure that your game is logical and credible.

This point was emphasised in Andrew Peploe's article, *How to write your own adventures*, in the January issue, when he writes that "It is an advantage to know something about the subject you are writing a program about ... if you have a passion for science fiction then a space adventure might be a good one to start with." It makes sense to ensure that your spaceships at least look and behave like spaceships; that you have not forgotten the heat shield when descending through the atmosphere and so on.

There are a number of ways you can undertake the research such as with the aid of some useful reference books. These will provide answers to some of the many questions you are likely to ask when writing programs.

**Reliable guide**

Apart from the novels there are several convenient sources from which you can obtain plot summaries and the like. The most valuable of these is *The Encyclopedia of Science Fiction*, edited by Peter Nicholls, which is really the only comprehensive one-volume survey of the field available. It is also the most reasonably priced. For less than the cost of an average adventure tape you have access to almost every conceivable aspect of science fiction: authors, films, books, magazines and much more.

Each entry on an author provides a commentary on his or her major works, together with a listing of their other writings. There is also an extensive system of cross-references, so that novels on any particular theme can easily be located.

A couple of points should be noted however. Publishing information is limited to title, year of publication and any variant editions. Publishers and the contents of short story collections are excluded, although many stories are mentioned in the commentaries.

A more serious problem is that the text has not been updated since the original hardback edition was published in 1979. Criticism apart, this is a reliable, easy-to-use guide which is indispensable for anyone who enjoys science fiction and is contemplating writing a space adventure.

There are several other popular publications that you should find in your local library, although generally speaking these have been largely superseded by the Nicholls Encyclopedia and are best avoided.

For quick reference there is Mike Ashley's *Who's Who in Horror and Fantasy Fiction* and Brian Ash's *Who's Who in Science Fiction*, which is less reliable in hardback. If the Nicholls book is not available then you could dip into either Brian Ash's Visual Encyclopedia of Science Fiction or the Octopus Encyclopedia of Science Fiction, both of which, despite their titles, are not arranged alphabetically and are actually collections of essays with useful appendices.
We all enjoy a good action game on our home computers, but after a while doesn't chasing the alien across a screen wear a little thin? That's the time to take on the superior challenge of a Warmaster strategy game—plenty of action, plenty to think about, and plenty of titles to suit every taste.

Take on Warmaster and really put your home computer through its paces.

**CONFRONTATION**
Build-on game that offers a basic format for any modern, non-nuclear conflict. Contains a modern European scenario with facility to create others of your choice using air and land forces.
Two-player game.
Spectrum 48K
BBC-B
£7.95
£7.95

**RED BARON**
Offers the excitement of arcade action...but requires the tactical thought of war games. Pit your biplane against one or two of the Kaiser's aces in this aerial combat game.
Spectrum 48K
£5.95

**DREADNOUGHTS**
Suspense-filled high seas drama as the pride of the German Grand Fleet is locked in battle with the Royal Navy.
Two-player game.
Spectrum 48K
£5.95

**PARAS**
Dramatic all-graphics campaign.
Your hand-picked force has dropped behind enemy lines to capture a strategic river crossing. Two versions of the game with ten levels of play:
BBC-B
Spectrum 48K
Oric 1 48K (coming soon)
£5.95
£5.95
£9.95

**JOHNNY REB**
There's still plenty of fight left in the Confederate South as each side selects forces to manoeuvre on a full-graphics battlefield. Play against the computer or challenge a friend.
Spectrum 48K
BBC-B
Dreadnought
Spectrum 48K
Oric 1 48K
£5.95
£6.95
£6.95
£8.95

Available from John Menzies, Lightning Dealers and better software shops or clip the coupon for fast delivery.

Please send me (tick box)

[ ] Confrontation Spectrum 48K
BBC-B
 £7.95

[ ] Confrontation Oric 1 48K
 £8.95

[ ] Red Baron Spectrum 48K
BBC-B
 £5.95

[ ] Red Baron Oric 1 48K
 £5.95

[ ] Paras Spectrum 48K
BBC-B
 £6.95

[ ] Paras Oric 1 48K (coming soon)
 £10.95

[ ] Dreadnoughts Spectrum 48K
BBC-B
 £8.95

Free colour catalogue listing all Lothlorien games

I enclose a cheque/P.O. for £

[ ] made payable to M C Lothlorien

Please debit my Access No./

Name

Address

Send to: M C Lothlorien, Dept Paynton, Cheshire SK12 1AE.
Tel: Paynton (0625) 87842.
explore the
mysterious world of
Artic Adventures

NEW

The
Golden
Apple

48K Spectrum
You must set out on a quest to find the 'Golden Apple'. On your journey you will pass through mansions, travel overseas and onto an island, hunting your treasure.

ZX Spectrum Adventures £6.95
ZX 81 Adventures £5.95
All these games are instant-response machine code programs. Adventures B, C and D include cassette save routines.

STOP PRESS!

ADVENTURES A, B, C & D NOW AVAILABLE FOR COMMODORE 64

16/48K ZX/Spectrum
You find yourself stranded on a strange alien planet. Your aim is to escape by finding your captured spacecraft. But beware of the little green man who may get to you!

16K ZX81
You are in the middle of a South American jungle when you stumble across a strange Inca temple. Enter it to collect treasure and then try to return. But beware don't let greed be your downfall.

48K Spectrum
16K ZX81
While on a reconnaissance mission you are drawn to an alien cruiser on a humanoid slave mission. Try to escape from aggressive aliens, luscious androids and drunken barmen. Your only help is Fred the friendly android.

48K Spectrum
16K ZX81
You have to survive an engine failure while flying over an apparently uninhabited island in the South Atlantic. Use your wits to harase the enemy, but treat the beautiful native women with respect to escape from the island and return to an allied aircraft carrier.

Artic Computing Ltd.
Main Street, Brandesburton,
Driffield YO25 8RG.
10% Discount for 2 and 15% for 3
or more.
Cheques and P.O.'s made
payable to Artic Computing Ltd.
Dealer enquiries welcome.
Please state whether your order is
for ZX81 or SPECTRUM.
Access and Barclaycard
welcome.

Send S.A.E. (9 in x 6 in) for FREE
catalogue of our wide range
of programs.

ARTIC COMPUTING LTD.
Main Street, Brandesburton,
Driffield YO25 8RG.

Please rush me:
*Adventure A B C D E F
*for my HY81 £5.95 /SPECTRUM £6.95

I enclose a cheque for £
or debit my Barclaycard Access account.

NAME:

ADDRESS:

*Tick, delete or complete as applicable.
One excellent companion to the Nicholls Encyclopedia, although more expensive is Neil Barron's Anatomy of Wonder which contains almost 2,000 annotations of science fiction novels grouped within significant periods. Entries are arranged by author and include full publication details, with notes on awards received and so on.

In the related genre of fantasy and horror there are a couple of standard guides, but these are comparatively expensive. Fantasy Literature and Horror Literature are both edited by Marshall B Tymm and are basically annotated listings of books, together with much supplementary information. They respectively cover some 240 and 2,000 titles, including reference books.

Some of you may have seen Gene Wright's The Science Fiction Image in the bookshops. This large American encyclopaedia covers film, television, radio and the theatre, and is profusely illustrated with pages of colour and many black-and-white photographs. Unfortunately, however, as a review in an American science fiction news magazine, Science Fiction Chronicle, points out the book contains frequent errors and misleading statements and should be regarded with caution.

A far more reliable guide to films is The Science Fiction and Fantasy Film Handbook by Alan Frank. Films are arranged alphabetically and given thorough entries which include cast lists, plot synopses, quotations and more.

As for ensuring that you have got your scientific facts right, there are obviously many books which could be mentioned, but I shall confine myself to a selection of recent titles that are well worth sampling.

Of particular interest to space adventurers will be The Science in Science Fiction, again edited by Peter Nicholls. A similar book appeared a few years ago called The Illustrated Book of Science Fiction Ideas and Dreams but was somewhat less ambitious. The Science in Science Fiction is a rigorous examination of all sorts of themes and gadgets, such as time travel, cyborgs, aliens and artificial intelligence. A bibliography of background reading is also provided and should be valuable to those who occasionally find the book heavy going.

Science fact

For details on the solar system Man and the Planets, by Duncan Lunan, provides a planet-by-planet analysis of the solar system's resources and is a mine of information. So too is Kenneth Gatland's Illustrated Encyclopedia of Space Technology which is an excellent account of the development of the space industry and contains numerous diagrams and cutaway drawings.

Future war is the subject of David Langford's War in 2080 which speculates on the future of military technology and should be invaluable for designing those spaceships and laser weapons.

On the other hand, if you would like to know how to colonise other planets New Earths: Restructuring the Earth and Other Planets can be strongly recommended. James Oberg, mission flight controller at NASA deals with the science of terraforming, which means altering the planet's conditions to suit humans. The book is very readable and the author makes numerous references to science fiction as well as science fact.

These are just some of the books from which you should be able to find much useful information for your adventures. There are many more, such as author bibliographies, story indexes, even Star Trek technical manuals, the list is endless. But unless you are exceptionally enthusiastic and have few financial worries it would be more sensible to just purchase the Nicholls Encyclopedia and obtain the rest from the library.

Whatever you decide to do, remember that those glossy coffee-table volumes, while visually appealing, are not necessarily the most accurate. Check with other sources if you have any doubts.

You should find that a careful reading around the subject before launching into your adventure will be time well spent. Knowing where to find details of spaceships, aliens and the like, eliminates any frustration later on. It also means for the players that suspend in a game will be sustained instead of being shattered by obvious mistakes, such as impossible events occurring within the internal logic of the imaginary world.[1]
# ADVENTURE FILE

The most complete listing available of adventures, war games and real-life simulations — new entries should be sent to Adventure File, Micro Adventurer, 12-13 Little Newport St, London WC2R 3LD

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>GAME</th>
<th>PRICE</th>
<th>MICRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amiga Computers</td>
<td>Dracula</td>
<td>£5.95</td>
<td>Vic 20 E</td>
</tr>
<tr>
<td>8 The High St</td>
<td>Pharaoh's Tomb</td>
<td>£5.95</td>
<td>Vic 20 E</td>
</tr>
<tr>
<td>Analogue Software</td>
<td>Analog Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analog Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oak Rd South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haddleigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkshire</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>The Last Jedi</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>39 Maple Drive</td>
<td>Dragon</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Nevada Hill</td>
<td>Kane</td>
<td>£4.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>West Sussex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analogy Software</td>
<td>Analogue Adventure</td>
<td>£16.95</td>
<td>Atari E + drives</td>
</tr>
</tbody>
</table>
Armchair Thriller!

THE ULTIMATE SECRET?
WHEN you have endured the burning farmhouse and discovered a strange diary, avoided the football hooligans, met the shady lady, Japanese tourists, the pop star and the busker; avoided the gunmen, Eddy the crook and Scarface; visited the waxworks, the natural history museum and the arcade; worked in the street market, the agency or the cafe; travelled through France, Germany, Italy, Turkey and Israel, experiencing Abduls maze, the labyrinth and meeting a handful of very strange people on the way...
ONLY THEN can you be deemed worthy of discovering the ultimate secret.

ALTERNATIVELY you can play PETTIGREWS DIARY on your Dragon, BBC B or Electron, and learn the secret from the safety of your own armchair.
BUT DON'T JUST LISTEN TO US!
"Pride of place in this supplement for the most original and entertaining adventure... it's got to be value for money" Computer & Video Games adventure supplement.
"The best adventure game for the Dragon on the market that I've seen" Personal Computer News.
"I have nothing but praise for this unorthodox adventure" Micro Adventurer.
"If you like puzzles and mysteries you'll like this package" Computer Choice.

PETTIGREWS DIARY is available for only £7.95 from BOOTS and all major stockists or by sending a cheque/PO to us at:

SHARDS SOFTWARE, SUITE G, RAYCROFT HOUSE, WITTON ROAD, BARKING, ESSEX
(Access/Barclaycard orders phone 01-514 4871)
<table>
<thead>
<tr>
<th>COMPANY</th>
<th>GAME</th>
<th>PRICE</th>
<th>MICRO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I and III, CBM 64, Pet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GFS Sorceress</td>
<td>£21.95 Atari E, Apple II, TRS80 I and III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empire of Overmind</td>
<td>£21.95 Atari E, Apple II, TRS80 I and III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lords of Karma</td>
<td>£14.95 Atari E, Apple II, TRS80 I and III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fredericksburg</td>
<td>£25.95 TRS80 I and III + drives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tactical Armour Command</td>
<td>£28.95 Apple II + drives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Galaxy</td>
<td>£15.95 Atari E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voyager 1</td>
<td>£14.95 Atari E, Commodore Pet, IBM PC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pamby Software</td>
<td>Andromeda Quest £13.45 Atari</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isle of Harris</td>
<td>Controllers £18.95 Atari</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Player Miners £11.95 Atari E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Screen £19.99 Atari</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Golden Apples £5.95 Dragon 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Planetary Trader £5.95 Dragon 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surprise £8.95 Dragon 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alien Odyssey £9.95 Dragon 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scanner 13 £8.45 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mystery Manor £8.50 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alone at Sea £6.50 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nodging’s Quest £8.45 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Underground £8.45 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buntasket</td>
<td>The Castle £6.95 Spectrum, Ori</td>
<td></td>
<td></td>
</tr>
<tr>
<td>149 Monks Walk</td>
<td>Dictator £9.00 ZX81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bunglingford</td>
<td>Dragonquest £11.99 BBC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dungeons and the Beast £6.50 ZX81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adventure £5.95 ZX81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Old Father Time £9.50 BBC B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knad’s Kingdom £4.95 Vic 20 E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bungy Software</td>
<td>Mulberry House £5.95 Dragon 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liverpool</td>
<td>Canning Place £5.95 Dragon 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canmore Place £5.95 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liverpool £5.95 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ross £5.95 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surprize £5.95 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stepney</td>
<td>Old Father Time £9.50 BBC B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surrey</td>
<td>The Castle £6.95 Spectrum, Ori</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCS</td>
<td>Dictator £9.00 ZX81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Langton Way</td>
<td>Dragonquest £11.99 BBC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>London SE3</td>
<td>Dungeons and the Beast £6.50 ZX81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adventure £5.95 ZX81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Old Father Time £9.50 BBC B</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knad’s Kingdom £4.95 Vic 20 E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chameleon Software</td>
<td>Volcanic Dungeon £5.00 ZX81, Spectrum, Dragon 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheltenham</td>
<td>Black Crystal £7.50 ZX81, Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Warnings Adventure £5.00 ZX81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Crypt £4.95 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auto Chef £6.00 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Print Shop £6.00 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Airline £6.00 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dallas £5.00 Spectrum 48K</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Carmelot £5.00 Spectrum, ZX81, Laser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smuggler £5.00 Spectrum, ZX81, Laser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plunder £5.00 Spectrum, ZX81, Laser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>British Lawdon £5.00 Spectrum, ZX81, Laser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Byte £5.00 Spectrum, ZX81, Laser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gangsters £5.00 Spectrum, ZX81, Laser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abyss £5.00 Spectrum, ZX81, Laser</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inkoski £5.95 BBC, Spectrum, Vic 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chalksoft</td>
<td>Stone of Sklyphus £27.95 Atari plus drives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37 Willowsca Rd</td>
<td>The Golden Baton £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northwick</td>
<td>The Time Machine £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wroxeter</td>
<td>Arrow of Death £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chameleon Software</td>
<td>Escape from Pulsk £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheltenham</td>
<td>Corsic £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feasibility Experiment £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Wizard Akyz £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chameleon Software</td>
<td>The Golden Baton £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheltenham</td>
<td>The Time Machine £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Arrow of Death £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Escape from Pulsk £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corsic £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feasibility Experiment £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Wizard Akyz £29.95 Atari E, CBM 64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

April 1984 Micro Adventurer 37
AWARD WINNING SOFTWARE
FROM AUTOMATA

VOTED WINNERS FOR THE
BEST LEISURE SOFTWARE
OF THE YEAR BY THE
COMPUTER TRADE ASCIN.

AVAILABLE NOW FROM
SELECTED SHOPS AND
WHOLESALTERS, OR BY
DIRECT MAIL ORDER!
24 HOUR CREDIT-CARD-
HOTLINE (0705) 735242

JOIN THE PIMANIACS!

- Did you know that the PiMan and his pals live out
their outrageous lives every week on the back page
of a well known magazine?
- Did you know that the PiMan has made a stereo
L.P. and starred on television?
- Did you know that the PiMan's car is really from
the distant galaxy of Morris Minor, or that he takes
advice from a Yak?

If the answer to any of these questions is "yes", "no", "don't give me a monkeys", did you know that
AUTOMATA wants you to send us some more
MUNNY!!!

JOIN THE PIMANIACS, and get:
- the PiMan's monthly cartoon newsletter.
- your official Pimaniac certificate
- 20% off all of the PiMan's games,
T-shirts, records and Pi products
- advance news of the PiMan's plans.
- competitions, quizzes, special offers,
prizes and the mission to spread
Joy and Happiness across the planet.

JOIN THE PIMANIACS NOW!

I WANT TO BE A
PIMANIAC

My name: _____________________________
My address: ___________________________

Post Code: ___________________________

The length of my nose is: ____________
Today's date: _________________________

I enclose a year's subscription of
£5 (U.K.) £7 (overseas)

I am sending this off to:

THE PIMAN
AUTOMATA U.K. LTD.
27 HIGHLAND ROAD
PORTSMOUTH
HANTS PO4 9DA
ENGLAND
<table>
<thead>
<tr>
<th>COMPANY</th>
<th>GAME</th>
<th>PRICE</th>
<th>MICRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Old Piano</td>
<td>Exploring Adventures on the 64</td>
<td>£7.95</td>
<td>CBM 64</td>
</tr>
<tr>
<td>Factory</td>
<td>Exploring Adventures on the Vic</td>
<td>£7.95</td>
<td>Vic 20</td>
</tr>
<tr>
<td>43 Gloucester Cres</td>
<td>Exploring Adventures on the Spectrum</td>
<td>£7.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>London NWI</td>
<td>The Crystal Chalice of Quorum</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>St John St</td>
<td>The Temple of Zoren</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Ashbourne</td>
<td>Treasure Tombe</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Derbyshire</td>
<td>Gawn's Castle</td>
<td>£5.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Educational Software</td>
<td>The Adventures of Proto</td>
<td>£17.95</td>
<td>Atari + drives</td>
</tr>
<tr>
<td>c/o Mansoft</td>
<td>Escape from Perilous</td>
<td>£14.95</td>
<td>Atari</td>
</tr>
<tr>
<td>Unit A</td>
<td>Temple of Asphai</td>
<td>£27.95</td>
<td>CBM 64, Atari</td>
</tr>
<tr>
<td>Oak Rd South</td>
<td>Upper Reaches of Asphai</td>
<td>£15.95</td>
<td>CBM 64, Atari</td>
</tr>
<tr>
<td>Hadleigh</td>
<td>Curse of Ra 3</td>
<td>£15.95</td>
<td>CBM 64, Atari</td>
</tr>
<tr>
<td>Benfleet</td>
<td>Crush, Cumble Chomp</td>
<td>£21.95</td>
<td>CBM 64, Atari</td>
</tr>
<tr>
<td>Essex</td>
<td>Gateway to Asphai</td>
<td>£27.95</td>
<td>CBM 64, T999A</td>
</tr>
<tr>
<td>English Software</td>
<td>Sword of Faroed</td>
<td>£21.95</td>
<td>CBM 64, Atari</td>
</tr>
<tr>
<td>c/o CentreSoft House</td>
<td>Datestons of Ryn</td>
<td>£13.80</td>
<td>Atari, Vic 20</td>
</tr>
<tr>
<td>Unit 16</td>
<td>Invasion Onin</td>
<td>£17.25</td>
<td>Atari, Vic 20</td>
</tr>
<tr>
<td>Bloomfield Rd</td>
<td>Rescue at Rigil</td>
<td>£20.75</td>
<td>Atari E</td>
</tr>
<tr>
<td>Tipton</td>
<td>Star Warrior</td>
<td>£27.45</td>
<td>Atari E</td>
</tr>
<tr>
<td>West Midlands</td>
<td>Crush, Cumble and Chomp</td>
<td>£20.75</td>
<td>Atari E</td>
</tr>
<tr>
<td>Ipswich</td>
<td>Temple of Asphai 1</td>
<td>£27.45</td>
<td>Atari E</td>
</tr>
<tr>
<td>Temple of Asphai 2</td>
<td>Upper Reaches of Asphai</td>
<td>£13.80</td>
<td>Atari E</td>
</tr>
<tr>
<td>Essex</td>
<td>Curse of Ra 3</td>
<td>£13.80</td>
<td>Atari E</td>
</tr>
<tr>
<td>Crypt of the Undead</td>
<td>Dragon's Eye</td>
<td>£20.75</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>King Arthur's Heir</td>
<td>£20.75</td>
<td>Atari E + drives</td>
<td></td>
</tr>
<tr>
<td>The Nightmare</td>
<td>£20.75</td>
<td>Atari E + drives</td>
<td></td>
</tr>
<tr>
<td>Hellfire Warrior</td>
<td>£27.45</td>
<td>Atari E</td>
<td></td>
</tr>
<tr>
<td>Dornar in Dr杜兰特 2</td>
<td>£13.80</td>
<td>Atari E</td>
<td></td>
</tr>
<tr>
<td>The Keys of Acheron 3</td>
<td>£13.80</td>
<td>Atari E</td>
<td></td>
</tr>
<tr>
<td>Mornser Mazed</td>
<td>£27.45</td>
<td>Atari E, Vic 20</td>
<td></td>
</tr>
<tr>
<td>Escape from Yukan's</td>
<td>£20.75</td>
<td>Atari E + drives</td>
<td></td>
</tr>
<tr>
<td>Exodous</td>
<td>Pyramid</td>
<td>£4.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Penrice Drive</td>
<td>Espionage</td>
<td>£4.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Tivendale</td>
<td>Essex</td>
<td>West Midlands</td>
<td></td>
</tr>
<tr>
<td>Wareley</td>
<td>West Midlands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBC Systems Ltd</td>
<td>Star Trader</td>
<td>£7.99</td>
<td>BBC B, Electron</td>
</tr>
<tr>
<td>18 Castlefields</td>
<td>Star-Force Lander</td>
<td>£6.95</td>
<td>BBC B</td>
</tr>
<tr>
<td>Main Centre</td>
<td>Valley of the Pharaohs</td>
<td>£7.99</td>
<td>BBC B, Electron</td>
</tr>
<tr>
<td>Derby</td>
<td>Space Adventure One</td>
<td>£7.99</td>
<td>BBC B, Electron</td>
</tr>
<tr>
<td>Felix Software</td>
<td>Tombs of Dracula</td>
<td>£4.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>19 Leigham Ave</td>
<td>Tombs of Dracula</td>
<td>£3.95</td>
<td>ZX81</td>
</tr>
<tr>
<td>Panzer</td>
<td>Middlesex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gebelli</td>
<td>Dr Goodcote's Tavern</td>
<td>£21.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o Mansoft</td>
<td>Recreate-It</td>
<td>£17.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Oak Rd South</td>
<td>Hadleigh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benfleet</td>
<td>Essex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essex</td>
<td>Essex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cometine</td>
<td>Murder at the Manor</td>
<td>£6.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>16 Ben Ledi Rd</td>
<td>Kircaldy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gihsaff</td>
<td>Tasks/Time-line</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>30 Hawthorn Rd</td>
<td>Magic Castle</td>
<td>£4.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Barry Street</td>
<td>Diamond Trail</td>
<td>£4.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>South Glamorgan</td>
<td>The Quill</td>
<td>£14.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Wales</td>
<td>Wales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gatem</td>
<td>Kahtzaihms</td>
<td>£8.00</td>
<td>BBC B</td>
</tr>
<tr>
<td>77 Qualitas</td>
<td>Bracknell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berks</td>
<td>Berks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hewson Consultants</td>
<td>Heathrow: ATC</td>
<td>£7.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>60A St Mary's St</td>
<td>Nightline</td>
<td>£5.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Wolveringford</td>
<td>Dragonfly</td>
<td>£8.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Oxen</td>
<td>Quest Adventure</td>
<td>£5.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Impact Software</td>
<td>Oeb</td>
<td>£5.00</td>
<td>Spectrum</td>
</tr>
<tr>
<td>70 Redford Avenue</td>
<td>Edinburgh</td>
<td>£5.00</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Incentive Software Ltd</td>
<td>Mountains of Ket</td>
<td>£5.50</td>
<td>Spectrum 48K, ZX81</td>
</tr>
<tr>
<td>54 London St</td>
<td>Sheffield</td>
<td>£5.50</td>
<td>Spectrum 48K, BJC B</td>
</tr>
<tr>
<td>Infocom</td>
<td>Zork I, II and III</td>
<td>£28.75</td>
<td>Agora, Atari, CBM 64, IBM PC, TI Professional, CP/M systems (all plus drives)</td>
</tr>
<tr>
<td>c/o Softsoft</td>
<td>Central Way</td>
<td>£13.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>Felham</td>
<td>Midlands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inform</td>
<td>Deadline</td>
<td>£37.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>c/o CentreSoft House</td>
<td>Starcross</td>
<td>£37.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>Unit 16</td>
<td>Suspended</td>
<td>£37.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>Bloomfield Rd</td>
<td>Witness</td>
<td>£37.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>Tipton</td>
<td>West Midlands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrigue Software</td>
<td>Graveyard</td>
<td>£15.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Cranbrook Rd</td>
<td>Undertuk</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Kent</td>
<td>JRS Software</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Worthing</td>
<td>歌手</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Sussex</td>
<td>Journey to the Planets</td>
<td>£20.45</td>
<td>Atari E</td>
</tr>
<tr>
<td>J V Software</td>
<td>Green Ring</td>
<td>£7.00</td>
<td>Spectrum</td>
</tr>
<tr>
<td>c/o Mapsoft</td>
<td>Mania</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Unit A</td>
<td>Santa &amp; the Goblins</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Oak Rd South</td>
<td>Transylvania</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Hadleigh</td>
<td>Corridors of Time</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Benfleet</td>
<td>Kent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essex</td>
<td>JRS Software</td>
<td>£9.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Kenana Associates</td>
<td>Hell's Temple</td>
<td>£12.00</td>
<td>Orc 48K</td>
</tr>
<tr>
<td>1 Marlborough Drive</td>
<td>Worle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambridge</td>
<td>Avon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 9 Computing</td>
<td>Secret Mission</td>
<td>£5.00</td>
<td>Vic 20 E</td>
</tr>
<tr>
<td>229 Hugheen Road</td>
<td>Manchester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Wycombe</td>
<td>Lantern Software</td>
<td>£5.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Buckingham</td>
<td>Troll King</td>
<td>£5.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>4 Halliford Rd</td>
<td>The Black Tower</td>
<td>£5.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Tenterden</td>
<td>Kent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legend</td>
<td>Valhalla</td>
<td>£14.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>1 Milton Rd</td>
<td>Cambridge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBM 64, Atari, Ork, Liny, BBC, Spectrum, Nascom</td>
<td>£9.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colossal Adventure</td>
<td>Adventure Quest</td>
<td>£9.90</td>
<td></td>
</tr>
<tr>
<td>229 Hugheen Road</td>
<td>Colossal Adventure</td>
<td>£9.90</td>
<td></td>
</tr>
<tr>
<td>High Wycombe</td>
<td>Castle Adventure</td>
<td>£9.90</td>
<td></td>
</tr>
<tr>
<td>Backs</td>
<td>MC Lochlorien</td>
<td>£9.90</td>
<td></td>
</tr>
<tr>
<td>4 Granby Rd</td>
<td>Samurai Warrior</td>
<td>£4.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Checkle Hume</td>
<td>Samurai Warrior</td>
<td>£4.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Cheshire</td>
<td>Peloponnesean War</td>
<td>£4.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Cheshire</td>
<td>Johnny Reb</td>
<td>£5.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Private</td>
<td>Private</td>
<td>£4.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td>Roman Empire</td>
<td>Parus</td>
<td>£6.95</td>
<td>BBC B</td>
</tr>
<tr>
<td>Roman Empire</td>
<td>Roman Empire</td>
<td>£6.95</td>
<td>BBC B</td>
</tr>
<tr>
<td>Roman Empire</td>
<td>Roman Empire</td>
<td>£6.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Trypt of Athens</td>
<td>Tyrant of Athens</td>
<td>£6.95</td>
<td>Dragon 32</td>
</tr>
</tbody>
</table>

April 1984 Micro Adventurer 39
<table>
<thead>
<tr>
<th>COMPANY</th>
<th>GAME</th>
<th>PRICE</th>
<th>MICRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warlord</td>
<td>£5.50</td>
<td>Spectrum 48K</td>
<td></td>
</tr>
<tr>
<td>Warlord</td>
<td>£6.95</td>
<td>Orc 48K, Dragon 32</td>
<td></td>
</tr>
<tr>
<td>Warlord</td>
<td>£4.50</td>
<td>ZX81</td>
<td></td>
</tr>
<tr>
<td>Roman Empire</td>
<td>£5.20</td>
<td>Spectrum 48K</td>
<td></td>
</tr>
<tr>
<td>Bedlam</td>
<td>£5.95</td>
<td>Spectrum 48K</td>
<td></td>
</tr>
<tr>
<td>Confrontation</td>
<td>£7.95</td>
<td>Spectrum 48K</td>
<td></td>
</tr>
<tr>
<td>Dreadnoughts</td>
<td>£5.95</td>
<td>Spectrum 48K</td>
<td></td>
</tr>
<tr>
<td>Red Baron</td>
<td>£5.95</td>
<td>Spectrum 48K</td>
<td></td>
</tr>
<tr>
<td>Battle Zone 2000</td>
<td>£6.95</td>
<td>BBC, Dragon 32, CBM 64, Atari E</td>
<td></td>
</tr>
<tr>
<td>Maritech Games</td>
<td>Galaxy Conflict</td>
<td>£11.95</td>
<td>ZX81, Spectrum</td>
</tr>
<tr>
<td>9 Dilligburgh Rd</td>
<td>Galaxy Conflict</td>
<td>£14.75</td>
<td>BBC B, Dragon 32, CBM 64, Atari E</td>
</tr>
<tr>
<td>Easbourne</td>
<td>Conflict</td>
<td>£11.95</td>
<td>ZX81, Spectrum</td>
</tr>
<tr>
<td>Sussex</td>
<td>Conflict</td>
<td>£14.75</td>
<td>BBC B, Dragon 32, CBM 64, Atari E</td>
</tr>
<tr>
<td>Maritech</td>
<td>Quest of Mervadd</td>
<td>£7.95</td>
<td>CBM 64, Vic 20</td>
</tr>
<tr>
<td>c/o Soft Machine</td>
<td>Station Crescent</td>
<td>The Hobbit</td>
<td>£14.95</td>
</tr>
<tr>
<td>Blackheath</td>
<td>The Wizard and the Princess</td>
<td>£5.95</td>
<td>Vic 20</td>
</tr>
<tr>
<td>London</td>
<td>Phantom Slayer</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Melbourne House</td>
<td>Mansion Adventure 1</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>131 Trafalgar Rd</td>
<td>Space Monopoly</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>London SE10</td>
<td>Keys of the Wizard</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Microdeal</td>
<td>Jerusalem Adventure</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>41 Tennyson Rd</td>
<td>Williamsburg Boulevard</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>St Asulf</td>
<td>Ultimate Adventure</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>Cornwall</td>
<td>Escape</td>
<td>£8.00</td>
<td>Dragon 32</td>
</tr>
<tr>
<td>MikroGen</td>
<td>Soterer's Castle</td>
<td>£8.50</td>
<td>Spectrum</td>
</tr>
<tr>
<td>24 Agar Crescent</td>
<td>Mad Martha</td>
<td>£5.50</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Blackheath</td>
<td>Mines of Saturn</td>
<td>£5.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Berks</td>
<td>Mysterious Adventures: Golden Baton</td>
<td>£10.00</td>
<td>TRS80 I and III, Video Game 1 and II, Colour, Genie, BBC B</td>
</tr>
<tr>
<td>1 Backhurst Rd</td>
<td>Return to Earth</td>
<td>£10.00</td>
<td>Video Game 1 and II</td>
</tr>
<tr>
<td>Town Hall Square</td>
<td>Mysterious Adventures:</td>
<td>£10.00</td>
<td>Video Game 1 and II</td>
</tr>
<tr>
<td>Bletchley-on-Sea</td>
<td>Escape from Pulsar 7, Circo, Feasibility, Experiment, Wizard of Alvira, Pausen and Andromeda, Ten Little Indians</td>
<td>£10.00</td>
<td>Video Game 1 and II</td>
</tr>
<tr>
<td>East Sussex</td>
<td>Epic: Hero of Earth</td>
<td>£10.00</td>
<td>Video Game 1 and II</td>
</tr>
<tr>
<td></td>
<td>Hunt, Dungeon of each*</td>
<td>£10.00</td>
<td>Video Game 1 and II</td>
</tr>
<tr>
<td></td>
<td>Derolijen, Venus Must Live</td>
<td>£10.00</td>
<td>Video Game 1 and II</td>
</tr>
<tr>
<td></td>
<td>Battle of Britain</td>
<td>£15.53</td>
<td>TRS80 I and III, Video Game 1 and II</td>
</tr>
<tr>
<td></td>
<td>Concorde</td>
<td>£17.25</td>
<td>TRS80 I and III, Video Game 1 and II</td>
</tr>
<tr>
<td></td>
<td>Everest Explorer</td>
<td>£10.06</td>
<td>TRS80 I and III, Video Game 1 and II</td>
</tr>
<tr>
<td></td>
<td>Temple of Bub</td>
<td>£10.06</td>
<td>TRS80 I and III, Video Game 1 and II</td>
</tr>
<tr>
<td></td>
<td>Wimpus</td>
<td>£16.32</td>
<td>TRS80 I and III, Video Game 1 and II</td>
</tr>
<tr>
<td>Mr Micro</td>
<td>Dacul</td>
<td>£6.90</td>
<td>Orc 48K</td>
</tr>
<tr>
<td>69 Partington Lane</td>
<td>Mysterious Island</td>
<td>£9.90</td>
<td>Vic 20 E</td>
</tr>
<tr>
<td>Swinton</td>
<td>Gold Rush</td>
<td>£9.90</td>
<td>Vic 20 E</td>
</tr>
<tr>
<td>Manchester</td>
<td>Maze Software</td>
<td>Cavel Wolfenstein</td>
<td>£21.55</td>
</tr>
<tr>
<td>c/o Softc</td>
<td>Central Way</td>
<td>Feitham</td>
<td>£17.75</td>
</tr>
<tr>
<td>Middx</td>
<td>Black Dwarf's Lair</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>12 Whitebrook Rd</td>
<td>Time Bandits</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Warners End</td>
<td>Secret Valley</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Horsel Hempstead</td>
<td>Great Western</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Hors</td>
<td>Spectral Maze</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>OIC Ltd</td>
<td>Dodge Dealer</td>
<td>£6.50</td>
<td>BBC B</td>
</tr>
<tr>
<td>15 Burghhead Close</td>
<td>Counter Attack</td>
<td>£6.50</td>
<td>BBC B, Electron</td>
</tr>
<tr>
<td>College Town</td>
<td>On-Line Systems</td>
<td>Mission: Asteroid</td>
<td>£17.19</td>
</tr>
<tr>
<td>Camberley</td>
<td>Wizard and the</td>
<td>£21.79</td>
<td>Atari E + drives</td>
</tr>
</tbody>
</table>

**Unit A**
- **Company**: Princess
- **Game**: Ulysses and the Golden Fleece
- **Price**: £20.64
- **Micro**: Atari E + drives

**Unit B**
- **Company**: Peaksoft
- **Game**: Death's Head Hole
- **Price**: £5.45
- **Micro**: Dragon 32, BBC B, Spectrum 48K

**Unit C**
- **Company**: Esses
- **Game**: Don't Panic
- **Price**: £3.45
- **Micro**: Dragon 32

**Unit D**
- **Company**: Derbyshire
- **Game**: Lionheart
- **Price**: £6.95
- **Micro**: Dragon 32, BBC B, Spectrum 48K, Orc 48K

**Unit E**
- **Company**: Penguin
- **Game**: Spy's Denkle
- **Price**: £15.95
- **Micro**: Atari

**Unit F**
- **Company**: Philips Associates
- **Game**: Knight's Quest
- **Price**: £4.95
- **Micro**: Spectrum, ZX81

**Unit G**
- **Company**: Epsom
- **Game**: Greedy Gulp
- **Price**: £4.95
- **Micro**: Spectrum

**Unit H**
- **Company**: Surrey
- **Game**: Magic Mountain
- **Price**: £4.95
- **Micro**: Spectrum

**Unit I**
- **Company**: Premier
- **Game**: Adventure Plus
- **Price**: £7.95
- **Micro**: BBC
ARE YOU READY FOR THE PBM CHALLENGE?

Everybody's a king to his home computer. But are you ready to take the ultimate challenge of multiplayer play-by-mail (PBM) games, controlled by programs far larger and more sophisticated than most home systems can handle? Games for 10 players. Games for 150 players. Battling for the fate of galaxies. Exploring strange, intricately-constructed worlds. Rising to power through alien political systems. Arguing, double-dealing, fighting your way to victory.

FLAGSHIP magazine introduces you to Britain's fastest-growing hobby, with coverage of every computer-moderated game and amazing discounts for new games, worth over £10 in every issue! If you'd like to find out more, send £6 for 4 issues (or £1.75 for a sample issue) to:

FLAGSHIP (Dept MA), PO Box 714, Coleshill, Birmingham.
The No. 1 Football Game

Football Manager
Designed by Kevin Toms

Some of the features of the game:
★ Matches in 3D graphics
★ Transfer market
★ Promotion and relegation
★ F.A. Cup matches
★ Injury problems
★ Full league tables
★ Four Divisions

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

Addictive

* ZX81 Chart
Home Computing Weekly
1.8.63 and 1.11.83.

Comments about the game from press and our customers:
"Football Manager is the best game I have ever seen on the Spectrum and my personal favourite of the games on any machine... to the ordinary person it is an excellent value for money."

From software stockists nationwide, inc. WBMSMTL

NEW EXCITING ACTION ADVENTURES FOR THE BBC

Vampire Castle

WARNING: We strongly recommend that this game be played with the lights on. You will be plunged into horror and excitement by the real life, much more frightening real life tale of Dracula. Beware of the haunted house, the moody moonlight and the sound of the distant clock. Beware the monster that lurks around every corner. Beware the terror that surrounds you. Beware of the darkness. Beware of the terrible Dracula. Beware of your own death. One false move and you are finished. Try to survive and defeat the terror of Dracula but remember there are fates worse than death!

Flint's Gold

If you suffer from seasickness, beware! This will hit you square. This 16-bit adventure game may be the most exciting and addictive experience long enough to keep your attention! From the bottom of the ocean to the Spanish Main, to land of blood thirsty pirates. (But you may not return!

Both Games Feature • Surprise Teletext Graphics • Realistic Sound Effects • Event Music • Load/Save • and much more

AVAILABLE ON CASSETTE £6.95 (Inc.) or DISC (40/80 TRACK) £9.95 (Inc.)

If you want a real challenge with a difference send a PO or Cheque for your copies to:

MICROGRAF LTD., 190 Oxford Road
Reading, Berks, RG1 7NL
DEALER ENQUIRIES - 0344 481789

We also guarantee the highest royalties for quality software.

BRITAIN'S BEST-SELLING WEEKLY COMPUTER MAGAZINE

Each copy of PCW contains all the latest software and hardware news and reviews, programming hints, adventure corner and pages and pages of programs for the Spectrum, Dragon, BBC, Vic20 and Commodore 64 and other popular home computers.

Other features include:
□ Charts of all the top selling software and books
□ Full listing of all the new software releases each week
□ Free computer swap service
□ Pages and pages of classified advertisements

Still only 35p — best value for money

Available from your newsagent every Thursday

Or take out for £19.95 a year's subscription (51 issues) or £9.98 for six months.

Please send me a year's subscription to Popular Computing Weekly.
I enclose a cheque/postal order for 12 months (£19.95) or £9.98 (26 issues) for 6 months, made payable to Popular Computing Weekly, 12A Little Newport Street, London WC2R 3LD.
Or order through Access/Mastercard at 01437 4343.

NAME

ADDRESS
<table>
<thead>
<tr>
<th>COMPANY</th>
<th>GAME</th>
<th>PRICE</th>
<th>MICRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berks</td>
<td>Eversi Ascent</td>
<td>£6.50</td>
<td>Spectrum 48K, CMI 64</td>
</tr>
<tr>
<td></td>
<td>Ship of the Line</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td></td>
<td>Ship of the Line</td>
<td>£6.50</td>
<td>Spectrum 48K, CMI 64</td>
</tr>
<tr>
<td></td>
<td>Invincible Island</td>
<td>£6.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Devils of the Deep</td>
<td>£6.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Wizard of Wor</td>
<td>£29.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td>Rockian</td>
<td>c/o CentreSoft House</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>272 Argyll Ave</td>
<td>£6.99</td>
<td>CMI 64</td>
</tr>
<tr>
<td></td>
<td>Slough</td>
<td>£6.99</td>
<td>CMI 64</td>
</tr>
<tr>
<td></td>
<td>Salamander</td>
<td>£19.95</td>
<td>Dragon 32, Oric 48K, BBC B, Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>17 Norfolk Rd</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td></td>
<td>Sussex</td>
<td>£19.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td></td>
<td>Brighton</td>
<td>£7.95</td>
<td>Oric 48K</td>
</tr>
<tr>
<td></td>
<td>Jorvik</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td></td>
<td>Gigel</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td>Sharps Software</td>
<td>Pettigrew's Diary</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td></td>
<td>189 Eton Rd</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td></td>
<td>Ilford</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td></td>
<td>Essex</td>
<td>£7.95</td>
<td>Dragon 32</td>
</tr>
<tr>
<td></td>
<td>Richard Shepherd</td>
<td>£6.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Software</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trankleian Tower</td>
<td>£6.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Fins House</td>
<td>£6.50</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>22-25 Einsholt Lane</td>
<td>£4.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Copperhead</td>
<td>£4.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Slough</td>
<td>£4.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Berkis</td>
<td>£4.95</td>
<td>Spectrum 48K</td>
</tr>
<tr>
<td></td>
<td>Mission Asteroid</td>
<td>£17.95</td>
<td>Atari Plus drives</td>
</tr>
<tr>
<td></td>
<td>Systems</td>
<td>£14.35</td>
<td>Apple Plus drives</td>
</tr>
<tr>
<td></td>
<td>c/o Softtel</td>
<td>£17.95</td>
<td>Apple Plus drives</td>
</tr>
<tr>
<td></td>
<td>Central Way</td>
<td>£23.70</td>
<td>Atari, Apple (both plus drives)</td>
</tr>
<tr>
<td></td>
<td>Edale</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Midds</td>
<td>£28.75</td>
<td>Atari Plus drives</td>
</tr>
<tr>
<td></td>
<td>Cranston Manor</td>
<td>£28.50</td>
<td>Apple Plus drives (both plus drives)</td>
</tr>
<tr>
<td></td>
<td>Gulliver</td>
<td>£25.50</td>
<td>Apple, IBM PC (both plus drives)</td>
</tr>
<tr>
<td></td>
<td>Golden Fleece</td>
<td>£25.50</td>
<td>Apple, IBM PC (both plus drives)</td>
</tr>
<tr>
<td></td>
<td>Time Zone</td>
<td>£71.95</td>
<td>Apple Plus drives</td>
</tr>
<tr>
<td></td>
<td>Haunted House</td>
<td>£6.00</td>
<td>BBC B</td>
</tr>
<tr>
<td></td>
<td>156 Newton Rd</td>
<td>£6.30</td>
<td>BBC B</td>
</tr>
<tr>
<td></td>
<td>Burton-on-Trent</td>
<td>£6.30</td>
<td>BBC B</td>
</tr>
<tr>
<td></td>
<td>Pontois</td>
<td>£6.30</td>
<td>BBC B</td>
</tr>
<tr>
<td></td>
<td>Cuthello</td>
<td>£6.95</td>
<td>BBC B</td>
</tr>
<tr>
<td></td>
<td>Sinclair</td>
<td>£4.95</td>
<td>Spectrum</td>
</tr>
<tr>
<td></td>
<td>Stanhope Rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Camberley</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surrey</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sirrus</td>
<td>£27.95</td>
<td>Atari E + drives</td>
</tr>
<tr>
<td></td>
<td>c/o CentreSoft House</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 Lockharton Ave</td>
<td>£6.00</td>
<td>Vic 20</td>
</tr>
<tr>
<td></td>
<td>Edinburgh</td>
<td>£6.00</td>
<td>Vic 20</td>
</tr>
<tr>
<td></td>
<td>Software For All</td>
<td>£6.95</td>
<td>BBC</td>
</tr>
<tr>
<td></td>
<td>72 North St</td>
<td>£7.95</td>
<td>BBC B</td>
</tr>
<tr>
<td></td>
<td>London N6</td>
<td>£6.95</td>
<td>BBC B</td>
</tr>
<tr>
<td></td>
<td>Sulis Educational Software</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Church St</td>
<td>£7.95</td>
<td>Spectrum, BBC</td>
</tr>
<tr>
<td></td>
<td>Abbey Green</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bath</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sulis Educational Software</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 Church St</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abbey Green</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bath</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spectrum</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c/o CentreSoft House</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES TO THE TABLE**

**Atari**

The programs will run on either the Atari 400 or 800 unless E is specified, in which case extra memory is needed on the 400.

**BBC**

The programs will run on either of the BBC microns unless the model B is specified, which includes extra memory is needed on the model A.

**Drives**

If a program needs a disk drive system this is specified in the micro column.

**Spectrum**

The programs will run on either Spectrum model unless 48K is specified.

**ZX81**

All programs need a 16K RAM pack.
Machine code speeds up scrolling window

A graphical adventure for the ZX-81 from Jeffrey Tulloch, in Tyne and Wear.

THIS PROGRAM attempts to incorporate the scrolling window technique used in The Hobbit. It includes a short piece of machine code which speeds up the scroll.

The game is a graphical adventure. The action and a map are displayed throughout on the top of the screen while messages appear at the bottom window.

Line 1 requires 11 characters in REM statement to house the machine code. The code is poked into place by the routine at Line 2730. Care must be taken when typing in Line 2740, as this data must be poked.

The Line at 580 is also vital as it puts the address of Line 15 of the screen into the last print position variable of the ZX-81's operating system. It could be changed to scroll a different part of the screen in your own programs if you wish.

The listing was printed on an MCP60 printer so the ZX-81 character is a little difficult to achieve. Lower case has been used as inverse characters throughout. For the hash character read a graphic grey square. And the characters at the end of Lines 2410 to 2530 are half graphic grey squares. At Line 2540 is a 3/4 black block.

Send us your adventure listings — modules which readers can incorporate into their own games, short adventures and useful programming routines are all welcome. Please send us a printout and cassette along with a general description of the program and details of how it is constructed and can be used. If you want us to return your program, enclose a stamped, addressed envelope. If you have any queries on the listings, write to the appropriate author. Your Adventures, Micro Adventurer, 12-13 Little Newport St, London WC2R 3LD.
Middle Earth secrets come to light

Text from Paul Houmbart

THE PROGRAM, for the Spectrum 48K or 16K, will translate English sentences into Middle Earth Runes and vice-versa.

The program achieves this by redefining the computer's character set, changing the lower-case letters with the runes.

Line 30 tells the computer that the new character set starts at 31743, while line 20 redefines the lower-case characters.

Line 10 copies the entire set above Ramtop, which is reset to 31743.

Lines 100 to 430 contain the data for each rune, first with the character it replaces, then with 8 numbers for that rune.

When the user chooses English to Runes, the computer inputs (the English in a string). It then proceeds to check through the string, first checking for certain double-letter endings: lines 1060 to 1085, such as ng, and then translates the upper-case of the string to lower case. When this is printed, using a different string, line 1120, the lower case are printed as Runes.

Runes to English works in the opposite way. Each Rune is chosen by a code, which represents that Rune's position in a string, line 1225.

Double endings are checked by lines 1270 to 1330, otherwise the Rune's code is changed to the upper case equivalent, line 1260.

The English is set up in BS, which is printed by line 1330. If the user halts the program, then the character set is reset to point at 15615, line 9999.

This program has many uses. One example is to have a spell on a scroll written in the Runes, which will be translated when a certain object or action has occurred.

Another would be to have a password to open a door written on the door, turning to English if, say, the torch is lit. Finally, it could be used to simply give a program that special quality.

The program writer should contact the magazine so payment can be arranged.
SPECIAL NOTICE

4 BRAND NEW ADVENTURES FOR THE SPECTRUM 48K

GO TO HELL!! with 'Hells Bells'

Travel through hell, purgatory, limbo, etc., meet (among others) the undead, demons and the Angel of Death. Try to escape with B. Elzebub's hoard and your sanity!

BLOW UP THE GOVERNMENT with 'Gunpowder Plot'

Guy Fawkes has failed to blow up the Houses of Parliament — can you do better?

WRITE YOUR OWN ADVENTURE with 'In Search of the Quill'

An adventure about writing adventures? ... Yes! Can you find a copy of 'The Quill' and write an adventure game? ... we doubt it!

LET THE KIDS JOIN IN! with Dr Watt and the Darlings

Suitable for children or novice adventurers — travel through time and space. All games are fixed maze, text adventures, fully machine coded and include a 'Save Game' feature and have a vocabulary of over 200 words.

BUG-FREE

AMAZING LIMITED OFFER

ALL GAMES £5.50 EACH — ANY 2 FOR £10

TAPE £9.50

ANY 3 ON TWO TAPES £12.95

ALL 4 ONLY £16.60

1201 CLS : PRINT "RUNES TO ENGLISH"
1210 CLS : PRINT "RUNES TO ENGLISH"
1220 PRINT "RUNES TO ENGLISH"
1230 REM RUNES TO ENGLISH
1240 PRINT "RUNES TO ENGLISH"
1250 PRINT "RUNES TO ENGLISH"
1260 PRINT "RUNES TO ENGLISH"
1270 PRINT "RUNES TO ENGLISH"
1280 PRINT "RUNES TO ENGLISH"
1290 PRINT "RUNES TO ENGLISH"
1300 PRINT "RUNES TO ENGLISH"
1310 PRINT "RUNES TO ENGLISH"
1320 PRINT "RUNES TO ENGLISH"
1330 PRINT "RUNES TO ENGLISH"
1340 PRINT "RUNES TO ENGLISH"
1350 PRINT "RUNES TO ENGLISH"
1360 PRINT "RUNES TO ENGLISH"
1370 PRINT "RUNES TO ENGLISH"
1380 PRINT "RUNES TO ENGLISH"
1390 PRINT "RUNES TO ENGLISH"
1400 PRINT "RUNES TO ENGLISH"
1410 PRINT "RUNES TO ENGLISH"
1420 PRINT "RUNES TO ENGLISH"
1430 PRINT "RUNES TO ENGLISH"
1440 PRINT "RUNES TO ENGLISH"
1450 PRINT "RUNES TO ENGLISH"
1460 PRINT "RUNES TO ENGLISH"
1470 PRINT "RUNES TO ENGLISH"
1480 PRINT "RUNES TO ENGLISH"
1490 PRINT "RUNES TO ENGLISH"
1500 PRINT "RUNES TO ENGLISH"
1510 PRINT "RUNES TO ENGLISH"
1520 PRINT "RUNES TO ENGLISH"
1530 PRINT "RUNES TO ENGLISH"
1540 PRINT "RUNES TO ENGLISH"
1550 PRINT "RUNES TO ENGLISH"
1560 PRINT "RUNES TO ENGLISH"
1570 PRINT "RUNES TO ENGLISH"
1580 PRINT "RUNES TO ENGLISH"
1590 PRINT "RUNES TO ENGLISH"
1600 PRINT "RUNES TO ENGLISH"
1610 PRINT "RUNES TO ENGLISH"
1620 PRINT "RUNES TO ENGLISH"
1630 PRINT "RUNES TO ENGLISH"
1640 PRINT "RUNES TO ENGLISH"
1650 PRINT "RUNES TO ENGLISH"
1660 PRINT "RUNES TO ENGLISH"
1670 PRINT "RUNES TO ENGLISH"
1680 PRINT "RUNES TO ENGLISH"
1690 PRINT "RUNES TO ENGLISH"
1700 PRINT "RUNES TO ENGLISH"
1710 PRINT "RUNES TO ENGLISH"
1720 PRINT "RUNES TO ENGLISH"
1730 PRINT "RUNES TO ENGLISH"
1740 PRINT "RUNES TO ENGLISH"
1750 PRINT "RUNES TO ENGLISH"
1760 PRINT "RUNES TO ENGLISH"
1770 PRINT "RUNES TO ENGLISH"
1780 PRINT "RUNES TO ENGLISH"
1790 PRINT "RUNES TO ENGLISH"
1800 PRINT "RUNES TO ENGLISH"
1810 PRINT "RUNES TO ENGLISH"
1820 PRINT "RUNES TO ENGLISH"
1830 PRINT "RUNES TO ENGLISH"
1840 PRINT "RUNES TO ENGLISH"
1850 PRINT "RUNES TO ENGLISH"
1860 PRINT "RUNES TO ENGLISH"
1870 PRINT "RUNES TO ENGLISH"
1880 PRINT "RUNES TO ENGLISH"
1890 PRINT "RUNES TO ENGLISH"
1900 PRINT "RUNES TO ENGLISH"
1910 PRINT "RUNES TO ENGLISH"
1920 PRINT "RUNES TO ENGLISH"
1930 PRINT "RUNES TO ENGLISH"
1940 PRINT "RUNES TO ENGLISH"
1950 PRINT "RUNES TO ENGLISH"
1960 PRINT "RUNES TO ENGLISH"
1970 PRINT "RUNES TO ENGLISH"
1980 PRINT "RUNES TO ENGLISH"
1990 PRINT "RUNES TO ENGLISH"
2000 PRINT "RUNES TO ENGLISH"

DRAGON 32/64 BBC Model B/Electron
Atari 400/600/800 (48K) TRS80 C/C (32K)

747 FLIGHT SIMULATOR

Superbly realistic instrumentation and pilot's view in lifelike simulation which includes emergencies such as engine fires and systems failures. This program uses high resolution graphics to the full to produce the most realistic flight-deck display yet seen on a home computer. There are 21 real deals and 26 other indicators (see diagram). Your controls operate throttle, ailerons, elevators, flaps, drag, spoilers, landing gear, reverse thrust, brakes, etc. You see the runway in true perspective. Uses joysticks and includes options to start with take off or random landing approach. 'A real simulation, not just another game' (Your Computer, April '83).

Cassette £9.95 (£99 and VAT included).

Special Offer on Joysticks

Due to a scorch purchase or joysticks we are able to offer these tremendous discounts. (Price are per pair of joysticks — not sold individually — offer subject to availability).

Recommended retail price £17.50
Our normal price £15.50
Bought with 747 simulator ONLY £12.50

Above prices apply to BBC, Dragon and Tandy compatible joysticks.

For Atari compatible joysticks add £2.20.

Please send me by return 1st class mail:
.... Copies of 747 Flight Simulator at £9.95
.... Pairs of Joysticks at £10.95 per pair

Enclose cheque/p.o. for total of...

My computer is...

D.A.C.R Ltd (Dept. M.A.) 23 Waverley Road, Hinckley, Leics., VC Wigan, Lancashire

April 1984 Micro Adventurer 47
TWO free exchanges on joining our Software Exchange Club. SAE please: Allchange (M.A.), 35 Forseyke Avenue, Hull, HU6 0DS.

48K ORIC 1 Adventure. Lair of Maldred the Mighty. Difficult-Devious-Deadly. Only £5.00 from David Software, 29 Coopers Close, Stichlworth, Newmarket, Suffolk.

Format 40/80 Club (BBC disc user group 5 March Street, Bristol BS1 4AA. Adventure situation always included with monthly club disc. Sample issue £5.50. State drive format.

TWO new adventures from Dial Software. Mediaeval adventure or fantasy adventure for BBC Micro: £4.95 each inc. or both for £7.50p. Hours of entertainment. Send cheques to Dialsoft, 72 Downend Road, Downend, Bristol BS16 5UE.

INTRIQUE SOFTWARE, 129/4A Graphic Adventures. ADVENTUREMANIA, HCW revised volume 45 MANIA, Superb graphics and text £5.95 each. SAE for details.

INTRIQUE SOFTWARE (MA), Cranbrook Road, Tenterden, Kent TN30 6UJ. Dealers welcome (05620) 4726.

SOFT TOUCH CLUB. Write or phone for catalogue. Nearly 600 titles at discount prices. Automatic free membership. Examples: Arrow of Death 11/11 (Atari, BBC, CBM64) £8.95 each; Castle of Riddles (BBC) £8.95; Quest of Maravid (CBM64) £8.99, The Hobbit (BBC, CBM64, Oric, SP 48K) £12.99, The Quill (SP 48K) £12.99. No monies banked until order is despatched. Soft Touch (MA), 8 Clare Drive, Trapton, Northants. NN14 4TA. 08012 3404.

---

**DISPLAY AD INDEX**

A
Addictive Games ........................................... 42
Adventure International ........................................ 21
Adventure Zone ........................................... 34
Allchange ..................................................... 48
Artic Computing ........................................... 33
Automata ........................................................ 38

B
Bag Free ...................................................... 47

C
Craftsoft ..................................................... 48

D
D.A.C.C ....................................................... 47
David Software ............................................... 48
Dialsoft ........................................................ 48

F
Flagsoft .......................................................... 41
Format 40/80 .................................................. 48

G
Gibsoft ........................................................... 18

I
Incentive Software ........................................... 41
Intigue Software ............................................... 48

L
Legend ............................................................. 9
Level 13 ........................................................ 2
M.C. Luthien .................................................. 32

M
Micro Graf ...................................................... 42

O
Orion Data ...................................................... 52

P
Peaksoft .......................................................... 41
Phillips Associates ........................................... 18

R
Red Shift ........................................................ 26

S
Salamander ..................................................... 51
Shark's Software ............................................. 36
R. Shepard ..................................................... 15
Soft-Touch .................................................... 48

W
J. Wiley .......................................................... 4
Wintersoft ........................................................ 20

---

Here’s my classified ad.
(Please write your copy in capital letters on the lines below.)

<table>
<thead>
<tr>
<th>£1 20</th>
<th>£0 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>£1 00</td>
<td>£1 20</td>
</tr>
<tr>
<td>£1 80</td>
<td>£2 00</td>
</tr>
<tr>
<td>£2 60</td>
<td>£2 80</td>
</tr>
<tr>
<td>£3 40</td>
<td>£3 60</td>
</tr>
<tr>
<td>£4 20</td>
<td>£4 40</td>
</tr>
</tbody>
</table>

Please continue on a separate sheet of paper.

I make this ........................................... words, at 20p per word so I enclose £

Name ........................................................................

Address ......................................................................

..................................................................................

..................................................................................

Telephone ....................................................................

Please cut out and send this form to: Classified Department, Micro Adventurer, 12-13 Little Newport Street, London WC2R 3LD

---

18 Micro Adventurer April 1984
ANOTHER month, another cry for help from the Goblin's Dungeon.

This month it is Robert Allsop, from Chellaston, Derby. First of all Robert ensure that you have a friend with you; you will know this already from the HELP that you've given at this location. Now try this: ISNA/DYOT/WO*T/CHAO/RRKI/YNM: /EO*P/GEON/WW

The code here was aired in the March Help column, but to recap, start at the second letter and read off every other letter. When you reach the end, return to the first letter and repeat the process.

Once out of the dungeon, you will find yourself in the dark, winding passage. I hope that the clue will help any of you currently stuck in the Goblin's Dungeon. There is, you'll be pleased to hear, another even tougher one later. Best of luck!

Regular readers will have already seen this clue, as we covered the ground in last month's column. I'm not going to tell you how to get the Goblin's Dungeon for at least a couple of months. The Adventure Contact part of this page always has its fair share of Hobbit problems, as befits what must be one of the greatest adventures. Last month's was no exception.

One of the problems was regarding the pale, bulbous eyes. These are met by everyone playing The Hobbit, and have a rather nasty habit of dropping on you, if given the chance, and stinging you to death — very nasty. Last month, David Blundell was asking how to escape them, and said that not even the magic ring would help. That's not strictly true because you certainly need the ring, but this alone will not be enough. Decode this David: OGOO/OWN/ACE/TMTO/ WRI/CL/EN/T/SHA/ EM/NE/GO/AL/ARGE/ACT/ N.

Darren Cooper wanted to know how to get home from the Dragon's Lair. This is half of the adventure (though I'm not going to hazard a guess at the moment at which is better half — coming or going), as I won't give anything away here. I hope someone will contact Darren, though this is what the page is all about. Incidentally, I will say that a rather quicker method (which has its own dangers, though) is to allow yourself to be captured by the Woodelf.

Staying with the Spectrum, but in Artic's Planet of Death, Paul King asks: "How do I pick up the flint on the plateau?" Just typing PICK FLINT or TAKE works.

Vallhalla is still proving a very popular program. Many letters ask for help in getting started. Most of the problems centre around the fact that the player can often complete the second quest, obtaining Elvish, before the first, obtaining Ofnir. This is contrary to the manual, which states that quests must be completed in order. Actually, this is the only occasion on where manual order does not apply.

Let's see if we can give some hints on how to obtain Ofnir. It's always a good idea to nab as much food as possible throughout the game, as well as any keys you might come across.

First of all: DG/OA/TND/OD/P/SLU/AM/IN/NOIN/NBM/ILDO/GR/R You will need to follow the second part of the clue because you will not be strong enough to carry out certain chores later. Now: EIRF/KEY/OAUIN/CKAI/N/SGS/ON/M/WH

If the first part of the clue is not true, you will not be able to do the second part. Once you've done this: OG/KE/OTUY/TOP/U/ORRE/KRL/EE/ PN/TROY/KOH/EPWE/INLT/HLGE/RA/BEOS/FIN/LR0

You must be prepared to act swiftly at this point, otherwise you could easily lose Ofnir. You'll also need a lot of patience and all of that food! to get through this part of the game. Once you have Ofnir, other parts of the scenery will be open to you and you can proceed with the adventure. Reread the notes on page 9 of the manual.

**ADVENTURE CONTACT**

**MICRO Spectrum 48K Adventure The Hobbit Problem**
How do you find the boat; how to get to laketown? Name Stephen Wood Address 81 Glenuaun Rd, Birkenhead, Merseyside, L43 ORD.

**MICRO Spectrum 48K Adventure The Hobbit Problem**
How do you avoid being killed by pale, bulbous eyes? Name B Churchill Address 172 Mackenzie Rd, Beckenham, Kent.

**MICRO Spectrum 48K Adventure The Hobbit Problem**
How do you get to Thrain's key; out of the goblin's dungeon and the dragon? Name David Kingdon Address 1 Tavern Close, Beetley, Dereham, Norfolk, NR20 4BN.

**MICRO Spectrum 48K Adventure The Hobbit Problem**
Is it possible to open the portcullis? Name June Rowe Address 46 Hurdon Way, Launceston, Cornwall.

**MICRO Commodore 64 Adventure Twin Kingdom Valley Problem**
What do you kill the dragon in the desert king's castle on? Name David O'Neill Address 15 Broxside Rd, Caton nr Lancaster, Lancs.

**MICRO Vic 20 Adventure Pirate Cove Problem**
How do you open the chest and how do you get to treasure island? Name Andy Stubbs Address 95 Denvill Cres, Crossacres, Wythenshawe.

**MICRO Vic 20 Adventure Curse of the Werewolf Problem**
Can't get past the zombie with the staff; the staff is rare and on my side of the river Name Paul King Address 122 Balnagasic Circle, Torry, Aberdeen.

**MICRO BBC B Adventure Castle of Riddles Problem**
How to survive on the boat after the hang glider ride Name Graham Francis Address 32 Manningford Close, Winchester, Hants.

**HAVEN YOU BEEN**

**staring at the screen for days, or given up in disgust, stuck in an adventure whose problems seem insurmountable? Adventure Contact may be the answer. This column is designed to put adventurers in touch with one another. When you've stumped a fellow adventurer may be able to help — and you may be able to solve other people's problems. If you are having difficulties with an adventure, fill in this coupon and send it to Adventure Contact, Micro Adventurer, 12/13 Little Newport St, London WC2R 3LD. We will publish Adventure Contact entries each month in this special column.**

**Micro**

**Adventure**

**Problem**

**Name**

**Address**

April 1984 Micro Adventurer 49
ONCE MORE it is time to risk all that you have gained in the black dungeon working for Tisch.

Tisch has discovered the whereabouts of the third Rune Ring — the C Ring.

As usual through, her knowledge of the hidden ring is restricted but she has mapped out for you these eight sections of the maze.

You have no other information about the maze other than its general shape.

The maze is guarded by a troll, dozing, sitting at the gate. As you sneak in one of the entrances beside the gate, he spots you and then chases you.

Can you piece together the fragments of the maze? Clearly they must overlap in some places. Tell us which of the treasures, apart from the ring you have to get for Tisch, you manage to pick up along your quest.

As a tie breaker complete the following sentence in 15 words or less: I want to own a simulation because...

Your entry must arrive by the last working day in April. The winners and solution will be published in the June issue. You may enter only once. Entries will not be acknowledged and we cannot enter into correspondence on the result.

The best 20 answers we receive will win a copy of Peaksoft’s football management simulation. Champions is the name of the game for Dragon 32, BBC B, Electron and Spectrum 48K owners. CBM 64 users have a chance to win the new release The Boss. Let us know which machine you own when you send in your entries.

February winners

The winners for the February competition were:

- Michael Douglas, of Cleveland;
- E Walsh, of Berkshire;
- N C Parker, of Somerset;
- J o h n C o a d d w e l l, of Cambridge;
- L Gibson, of Lancashire;
- Keith Giscombe, of Droitwich;
- D Linsley, of Newcastle-upon-Tyne;
- G J Williamson, of Leicester;
- G Lingam, of West Sussex;
- A Bownes, of Co Antrim;
- J R Butler, of Rotherham;
- W Perry, of Salop;
- M Noble, of Muswell Hill;
- P Cockburn, of Cambridge;
- Julian Murgatroyd, of Warwickshire;
- G Gibson, of Lancashire.

The solution: 6, 2, 5, 1, 3, 4.

As you can see there are fewer than the 20 prize winners promised in the last issue. Could it be because the competition is too hard? Tony Roberts assures us not. Or, could it be that adventure fans won't venture into the land of real competition. Admittedly you only get one life but on the other hand you could win a new game to add to your collection. So let's see what sort of stuff you're made of. Compete against others who share your adventurous nature, and perhaps you'll win a prize.
TIRED of endless battles with orcs?
CONFUSED by interminable corridors and
limitless caves?
BORED by all the same old adventures?

TRY
THE
CRICKLEWOOD
INCIDENT
and
Wings of War

two new and different adventures from Salamander Software.

In WINGS OF WAR you play Lt. Roger Wilco, reluctant hero. The time is November 1942 - you must parachute into occupied France, disguised as a German Officer, infiltrate a secret arms laboratory hidden in a chateau, steal the plans and the prototype of a new bomb, and make your escape back to Blighty.

ROGER WILCOE
Star of Wings of War.

In THE CRICKLEWOOD INCIDENT, you, Arnold Q. Volestrangler the 14th heir to the Volestrangler fortune, find yourself bored out of your mind and looking for something to do until the laundrette opens. There's nothing for it but to leave your padded cell and search the wilds of London, Moscow, Hanoi and Wigan for the elusive Holy Grail. NOT for sheep of a sensitive disposition.

MAVIS HASTY
Not the star of the Cricklewood Incident.

Stimulate yourself for only £7.95 each.

Please add 50p p&p to all orders. Send A5 SAE for full catalogue.

Cheques or postal orders payable to:

Salamander SOFTWARE

17 Norfolk Road, Brighton, BN1 3AA Telephone: Brighton (0273) 771942

Look for these other new releases from Salamander Software

DRAGON - DRS (sophisticated database) £14.95
TURBO GRAPHICS (Educational & fun) £9.95

BBC - EAGLE (original arcade action) £14.95
BBC/ELETRON - TURBO COMPILER (BASIC Compiler) £4.95

Now available are versions of our best selling 737 Flight Simulator for BBC disk and ACORN Electron.
A sensational advance in computer game technology

Micro Command

You speak—The computer obeys

- Easily programmed voice control
- Sensitive to individual voice prints
- Instant response on screen
- Your attention can stay on the screen— not on the controls

For use with Sinclair ZX Spectrum Home Computer Units

Major price breakthrough Only £49.95 RRP

Further Distributor: Dealer and Export Enquiries Welcome
Orion Data
3 Cavenagh Street, Brighton, East Sussex
BN2 1NN
Tel: (0273) 672984