## Adycrontuer

## Can you defeat the Lords of Midnight?

## Computer war gan




# Adveliturer 

Editor Brendon Gore

Assistant Editor Martin Croft

Software Editor Graham Taylor Ataster Aobenturers

Tony Bridge
Mike Grace
Editorial Secretary
Geraldine Smyth
Advertisement Manager
David Lake
Advertisement Executive
Simon Langston
Administration
Theresa Lacy
Managing Editor
Brendon Gore

Publishing Director Jenny Ireland

Telephone number
(all departments) 01-437 4343

## UK address

Micro Adventurer, 12-13 Little Newport Street, London WC2R 3LD

## US address

Micro Adventurer, c/o Business Press International, 205 East 42nd Street, New York, NY 10017

## Subscriptions

UK $£ 10.00$ for 12 issues, overseas surface (excluding US and Canada) $£ 16$ for 12 issues, US and Canada air-lifted US\$33.95 for 12 issues.

Micro Adventurer is published monthly by Sunshine Books, Scot Press Ltd. Typesetting by In-Step Lid, 33-41 Dallington Street, London EC1. Printed by Eden Fisher (Southend) Ltd, Southend-on-Sea, Essex. Distributed by 'SM Distribution, London SW9 (telephone 01-274 8611, telex: 261643). ISSN 0265-4156. Registered at the Post Office as a newspaper. (C) Sunshine Books 1984. Telex: 296275.

Letters
4 Flight Simulators
Valhalla - treatment for Loki, Bulletin Boards, Blake's 7, The Quill, a roasting for SAE hoarders, and more

## News

Publishers turn pages to software, Doomdark's plans revealed, Quill gets the gift of tongues, Arthur meets the Aztecs, Level 9 update, and Warmaster's armies locked in Confrontation as the Bomb drops


## Lords of Midnight

Tips on Lords of Midnight from Phil McDonald, while author Mike Singleton reveals dark secrets (cover: Stuart Hughes)

## Level 9

A profile of the Austin family - the people who bring you colossal adventures

6
Programs for the ZX81, Spectrum, Atari, and BBC test flown

## Wargames

Laurence Miller spies out the way wargames programs differ in complexity

## Gilsoft Gold

Gilsoft hope to tickle your fancy with the Quilled Gold Collection - we try them out

## Software Inventory

New wargames, simulations, and adventures reviewed

## Arrays

Stephen Robinson shows how to use arrays to unclog your memory
Your Adventures 36
For the Spectrum, text tidying, more complex commands, and a Daley trip into a minder's nightmare. For the BBC, how to score $100 \%$ on Melbourne House's Hobbit clues

## Adventure Help

MAD's agony uncle, Tony Bridge, helps himself to a full page

## Adventure/Contact

Readers cries for help - doubled

## 1 Competition Corner

46
Beyond offer 20 chances to win Lords of Midnight, Kriegspiel, or Aztec

## EDITORIAL

SIMULATION GAMES allowing you to try your hand at masterminding an empire, a business or even a Chicago gang are proving increasingly popular. But when it comes to the real world some microcomputer companies are showing that they wouldn't do too well on their own games.

Building a small stronghold from which to launch one's attacks has not yielded much of a dividend for Jupiter Cantab, Camputes or Dragon Data. And a bigger base is of little use when it comes to attacking a bigger market. Sinclair may dominate the UK but it's failed once in the US, although it's going back for a second attempt with the QL. Commodore's global strategy has been more successful, with Atari and Texas Instruments bearing the brunt of its aggression. The news that General Haig is leaving political intrigues and military manoeuvres behind to direct operations at Commodore signals that the attack is bound to continue. Perhaps Atari should be trying to find a Patton in its ranks to respond to the challenge.
This type of resource allocation "game" has been around for a long time - in the real and the simulated world. When mainframe programmers weren't struggling with Adventure, they were playing Hamurabi - running a primitive kingdom whose people would revolt if they starved. More modern equivalents take you through a series of economic decisions: when to plant crops or invest in manufacturing, when to buy and sell, how to keep your people alive, and how to avoid making a loss or being deposed. Or, as our Mugsy reviewer described last month, when to buy or sell your clients, while keeping your hoods happy and avoiding being gunned down.

You make your decisions and then the program calculates their effects. The problem is that in the real world program, similar strategies can have different results: both Commodore and Dragon Data chose to invest in manufacturing - only Commodore got it right. Sinclair, on the other hand, chose not invest - they got it right as well. However, Sinclair's and Dragon Data's American failures suggest that attacking the US is not a wise way to allocate your resources.

But if you are successful, there's no need to rest happy with global supremacy - there's alwasy the galaxy to conquer. Such games are available for microcomputers, but tend to come into their own in computer-moderated postal gaming. Here you're pitted not only against the galaxy you're trying to colonise, but also against all those other players only a 16 p stamp away trying to do the same. Most of these games provide the possibility of collaborating with rival players, although most partnerships are said to end in bloodshed. It makes you wonder which of the wave of MSX machines will be the one to triumph, and which will be the first to fall.

## LETTERS <br> Send your hints, successes, complaints and compliments to <br> Letters Page, Micro <br> Adventurer, 12-13 <br> Little Newport St, <br> London WC2R 3LD <br> Bulletin board

THE Valhalla piece in May's issue was a godsend, but now that Colossal Caves is becoming larger, how aboiut something on that?
I have solved Planet of Death, Mysterious Adventure's Circus, and The Mountains of Ket (100 per cent!) I offer my services to anyone with problems. You can contact me via Bulletin Board, Liverpool Mailbox, or Computer Answers Bulletin Board - try it, it's fun!
Peter Hickman
332 Richmond Road

## Kingston

Surrey

## Blake's 7 Space City

I WOULD like to compliment Kerr Eastman on his very indepth and accurate article on Blake's 7. Very seldom do articles give due credit to a series such as this one.

Your readers might be interested to hear about Space City, the 1985 Blake's 7 convention: the address is 37 a , Byfleet Avenue, Old Basing, Basingstoke, Hants, RG24 0HR.
Alex Delicado
Committee member SpaceCity 85

## Quill happy

I AM writing in praise of Gilsoft's Quill. It is an excellent utility and already I am writing quality games. My
first, Bizarre, is a freakish dream of monkeys, lions, shopping trolleys, underwater breathing apparatus and giant fish fingers.

I would be grateful for any help in obtaining Felstrong in Valhalla, or any advice on Richard Shepherd's Urban Upstart. I can thoroughly recommend this game.

I am also interested in writing to people who have written decent games using the Quill and would be interested in exchanging theirs for mine.

By the way, with regard to Mike Grace's articles on the Prisoner. He's wrong - my mother is Number One.
Richard Robinson
143 Oakfield Rd

## Whickham

Newcastle upon Tyne

## Valhalla: help offered. . .

AFTER a month's perseverance, I have finally solved Valhalla - and what an excellent adventure it is! I have also solved The Hobbit, with a score of $881 / 2$ per cent, Urban Upstart, and Mackensie, all for the 48 K Spectrum. I am currently, tackling the Level 9 adventures.

If anyone wants to write to me, enclosing an SAE, I will be glad to answer any problems I can about the above adventures.
Chris Dale
41 Hoxton Road
Ellacombe
Devon

## . . . and brain surgery

HAVE I discovered something new about Valhalla? I've played it for two months, and have found Ofnir, Drapnir, and Felstrong, but so far I have got no further.

An early review of Valhalla mentioned that you don't have to play the game as a goody, so I've carried out some experiments and found out that not only can you get baddies to help you by killing goodies, but you can also change the personality of characters. If you keep asking Loki, a baddy, to attack other bad characters he begins to become good. Equally, the reverse applies - a goody can become a baddy.
I have found Valhalla compulsive to play, and wonder if any other readers have discovered other hidden facets of the game?

## Simon Pitman

Weybridge

## Apple sauce

I WAS very pleased to see Alan Blackham's program in May's Micro Adventurer. At last, something which would run on almost any computer, and not just the cheap and cheerful Spectrum! I adapted the program for my Apple 11e, including an input routine which allows a two word command. It recognizes about 15 verbs, and all the nouns in the game.


Playing the game, I found two minor mistakes. The first is that if you take the safe into a different room and then open it, the contents are transferred back to the original room. To stop this happening, add:
to line $1470 \ldots$. let $\mathrm{L}(2)=\mathrm{R}$ to line $1503 \ldots$... let $L(5)=1 R$

To empty the tin after feeding the monster, add:
to line $1513 \ldots$. let $C \$(4)=$ empty
These changes make the game more realistic. I do hope you print a few more games which can be used on a wide variety of computers.
Raly Tenbrink
Pembroke

## Reply paid

AS AN avid reader of Micro Adventurer since the first issue, I decided to let you know about a few problems I have had recently. You feature several letters each month from people who have finished adventures and offer help. I have written to several of these people, enclosing stamped addressed envelopes, but to date have never received a reply.

Why do people offer help if they don't intend to reply to letters? Is it just to see their names in print? I am stuck in Inca Curse, Castle and Ketil; if anyone can help, all letters will be answered.
W.H. Gray

87H Tower Drive
Midton
Gourock
Inverclyde

## Worth the money?

I HOPE you can save me money. I am new to adventure games, but already have Hobbit, Twin Valley Kingdom, the Level 9 adventures, plus others.

I'd like to know about a game called Planetfall, from Infocom. At $£ 36$ for a disc, it's very expensive.

## M. Farndon

## Lincs

COMMODORE has no plans to publish Planetfall in the UK yet. Can anyone say if it's worth £36?



## After the

## Bomb

ARTIC COMPUTING's Ground Zero has a topical story line; warning of an imminent nuclear strike sends the player scurrying for cover, either in a home made shelter, or in the municipal bunker under the town hall.

Apart from the certainty of vapourisation if caught outside by the blast, dangers include rioting, looting, and the general breakdown of the fabric of society. A lot to fit into your last three minutes!
The game is for the Spectrum 48 K , at $£ 6.95$. For every game sold, ten pence will be donated to an as yet un-named charity. Artic's Mareting Manager, Andy Nutton, says "Artic are not politically motivated. We're not even motivated."


# The publishers strike back 

THE domination of the adventure market by small software houses is to be challenged by the big guns of publishing, the traditional book companies.

Hutchinson Computer Publishing, the new computer arm of Hutchinson books, is to release text-and-graphics adventure programs based on the first two Lone Wolf game books, Flight from the Dark


Gary
Chalk
Wolf
Artist
and Fire on the Water, in September. The coding is being done by Five Ways, a Manchester based software house. The programs will include a real time combat system, used with a keyboard overlay.


While the adventures will be playable on their own, there will be page references on screen, referring players to sections of the books where more in depth descriptions of a particular scene will be found. The adventures, for the Spectrum $48 K$, will cost $£ 5.95$, or $£ 7.95$ with the paperbacks.

Graham Taylor, head of Collins Software plans to release a number of games by the end of the year, and will be concentrating on adventures.


Hutchinson's challenge to Penguin
"I have no interest in arcade style adventures," he said, "their day is past."

Penguin has no plans to rerelease The Warlock of Firetop Mountain as an adventure game, as opposed to an arcade game. But, the company is to
publish the next two books in the Fighting Fantasy series, The Forest of Doom and The Citadel of Chaos, as adventure programs. Programmers are Darryl Mattocks and Simon Ball, and the release date is set for Christmas 1984.

The original, best selling series


# Doomdark's Revenge 

BEYOND HAS sold 10,000 copies of Lords of Midnight in two weeks, according to publisher Terry Pratt. Most of these have been over the counter sales.

Mercenary giants and dwarves feature in the first sequel, Doomdark's Revenge. They will only help players if suitably bribed. The game should be ready by late September, although Beyond admit it may be delayed.
Interior scenes of keeps and citadels will appear in The Eye of the Moon, the third in the series. In both sequels, the landscapes will be substantially different to Midnight's screens.
Four entries for the novel prize have been received so far - the first within two weeks of publication. Three are quest


Terry Pratt
victories, one is a military victory.

The book of the game will probably not appear until some time next year. Beyond are still discussing it with several publishers, and, as Terry Pratt wryly commented to MAD, "there's no such thing as a fast book."

## Warmaster

M C LOTHLORIEN'S managing director, Mike Cohen, confirmed that adaptations of the Confrontation game system, allowing Ancient, Medieval, and Napolenic battles to be fought, are planned.

Also scheduled for release is the second scenario pack for Confrontation, which will probably cover Second World War operations in mainland Greece, Crete, and Poland. Like the first set of scenarios, it will be for the Spectrum 48 K and the BBC, and will cost

£5.95. The master program, which is needed to play, costs £7.95.

The autumn will see the publication of Redcoat, an American War of Independence game, for the Spectrum at $£ 5.95$, and for the Commodore $64, \mathrm{BBC}$, and Electron at $£ 6.95$.

## Aztec Art

Hill McGibbon, a new computer publishing company formed by three ex-directors of Heinemann, is to produce two text-and-graphics adventures in the autumn.

Provisionally titled King Arthur's Quest and Hunt for the Sun, the games will be 'video maps', where players will be able to look at different things within each location, and the pictures will change accordingly.
Five Ways will code the adventures, which will be for the Spectrum and Commodore 64 , at $£ 9.95$.

Dragonmeet ' 84 is on 28 July at Central Hall, Westminster. Admission £1, 10.00am onwards. All sorts of games and stands.

# Eden saw play 

LEVEL 9's Pete Austin is currently working on Red Moon, a fantasy adventure with text and graphics. The objective is to explore a maze of caverns to retrieve the Red Moon crystal, which must then be placed in the heavens. To make the task more difficult, the crystal is guarded by dragons.

## La plume de Commodore

THE QUILL is now available for the Commodore 64, at $£ 14.95$ for a cassette, or $£ 19.95$ on disk.

Versions for the BBC B, Oric, Atmos, and Atari 800 are currently being worked on.

A graphic utility for use with The Quill is also planned; 48 K Spectrum owners will be able to create their own graphic adventures.

Translation of another sort is also planned - German,

Players will be able to use up to nine spells, so long as they have the right focus objects with them. Iron armour can be worn for protection - but then no spells can be cast.

The game should be ready in about two months.
Also being coded now is the third in the Silicon Dream series, Return To Eden.


# War of the Solstice 

## Phil McDonald goes in search of the Ice Crown - the object at the heart of the Lords of Midnight

LORDS OF MIDNIGHT is described as an epic rather than an adventure, something completely new. After extensive testing - I have immersed myself till midnight and beyond - I think epic is a fair description.

Lords of Midnight is well packaged and includes an excellent instruction book, printed on best quality glossy paper. Here you will find the story of the mysterious Land of Midnight, and the war of the Solstice.

Also included is a keyboard overlay to fit the Spectrum keyboard. Unfortunately, I am one of the many people who have fitted a full stroke keyboard, and the overlay doesn't fit. Still, it is an excellent feature and makes the package that bit more professional. Inputs for the game are all by single key, but there are so many options that this does not detract from it.


Lords of Midnight author Mike Singleton revealed to MAD:

There are roughly $\mathbf{4 , 0 0 0}$ locations on the map of Midnight.

Possible allies include the Wise, Lords of the Free and of the Fey - and at least two rather unusual characters.

Thirty or more characters can be recruited to aid Luxor.

Lords will not always be in the same place; Ddomdark's armies can force them to move before you can reach them.

Icemark, a land to the north east of Midnight, will be the setting for the first sequel, Doomdark's Revenge. The third in the series will take place to the south of Midnight, and is to be called The Eye of the Moon.

A Commodore 64 version is planned, as is a French version for the Thomson micro.

At the start of the game, you control the four main characters. The central character is Luxor the Moonprince - he must rally the forces of the free to defeat the evil Doomdark (Spectrum). Luxor wears the moonring, which enables him to see through the eyes of his allies.
Morkin is Luxor's son, half man and half Fey. Corleth the Fey may be able to raise an army from the Forests of Midnight, while Rorthron the Wise may be able to seek help from the wise who live like hermits in their tall towers. If more than one person wants to take part, it is possible for each to play one or more characters, which is ideal for a family.
There are two methods you can pursue to defeat Doomdark. The first is to gather as many allies as possible to your banner and attempt to defeat the evil hordes on the bloody field of battle.
You could also send Morkin north to find the Tower of Doom and capture the dreaded Ice Crown. However, Morkin cannot be accompanied safely by an army and, having found the Ice Crown, must discover how to destroy it. The wise may be able to offer advice in this matter, but it's still up to you to fulfill the conditions.

Of the two victory conditions, defeating Doomdark's armies can be a protracted affair, likely to take several sittings (I still haven't done it). Fortunately, there is a save game option. It is possible to try either quest, or both simultaneously.
There are no animated graphics in Lords of Midnight and yet graphics are the strongest point in an altogether excellent program. By a method described as landscaping, the scenery is put together in blue and white. The perspective is superb.

There are no set 'pictures' in memory, each feature in view is constructed starting from objects farthest away and working towards you. However, it is all done in a
split second, before the view appears on screen. Therefore, you cannot see things which are hidden from view and some features may be partially obscured, say by trees.

Some of the features you will come across are citadels, keeps, towers, mountains, forests and lakes, all beautifully drawn. The best view of all is of advancing armies, banners flying. Any ally, denizen or enemy in the adjacent area in the direction in which you are looking, is drawn in the foreground in multicolour. There are 32,000 possible views, eight from each location. You can look and move N, NE, E etc. It is possible to hide in forests and mountains.

The first thing to do is to attempt to enlist some allies quickly. Having done that, you can use them to enlist further allies, thus freeing your main characters for more urgent matters. Enlisting an ally such as Lord Blood or Lord Shimmerill, automatically brings their armies to your aid. Visiting a ruin, a henge, a lith or a cave, you may find a magic sword such as Dragonslayer or Wolfslayer. On the other hand, you might find something altogether nasty.


If you want to frighten yourself, you could approach the pass to the north of the Plains of Blood to see Doomdark's hordes flooding through each night. Doomdark's warriors and riders have different shield emblems for each army. In addition to these, other nasties that you will encounter include dragons, wolves and skulkrin.

Atmosphere, that elusive ingredient sadly lacking in so many other adventures and games, fairly oozes from Lords of Midnight. You can spend hours just exploring the landscape. The book includes a map of the Lands of Midnight, which shows major features such as plains, mountain ranges and forests. However, if you are looking for the Keep of Lord Blood, you must search the Plains of Blood until you find the one he is at, for there are several.
I have not yet succeeded in finding all the possible additional allies and armies. You

aren't told how many, or where they are, but I would guess at about 20. They take quite a bit of controlling once you've found a dozen or more! There are several extra nice touches such as Gothic writing and, best of all, whichever character or ally you are controlling, their own heraldic shield appears on screen.


Each character has up to eight moves a day, depending on the terrain through which they are passing. Travelling in mountains can be particularly exhausting. Characters and armies can be invigorated
to a greater or lesser degree, depending on what fighting or travelling they have done. Exhaustion can be alleviated by resting at villages, citadels or keeps, or negated by drinking at magic lakes.

Even when a citadel or keep contains no new ally, you can recruit a few warriors or riders from the garrison. If an army is facing insurmountable odds, it is easier to defend a keep, or better still, a citadel, than fight in the open. Your characters' horses may be slain in battle, and your warriors become exhausted quicker than riders.

Doomdark bends the Ice Fear towards his enemies and if the Ice Fear is strong, his armies are harder to defeat. The Ice Fear can be diminished if Morkin captures the Ice Crown or by defeating Doomdark's armies. Your allies will be afraid to a greater or lesser degree depending on the strength of the Ice Fear. If they become too afraid, some of them may refuse to obey or even desert. Several armies can take part in any one
battle or seige. When all of your characters and allies have used their move allowances for the day, you press the 'night' key. At this stage Doomdark moves his armies and the outcome of any battles, sieges and skirmishes are decided.


Factors affecting battles include the strengths of opposing armies, the strength of the Ice Fear, the quality of your commanders and the involvement, or not, of Luxor. If Luxor is killed, you lose control of the Moonring and therefore all of your allies, unless Morkin can find the Moonring. If Morkin wears the Moonring, he can no longer continue his quest to destroy the Ice Crown.

To sum up, Lords of Midnight is well designed, well programmed, with excellent packaging, and is reasonably priced. This program deserves to be a financial success, to encourage other software houses to be more Adventurous. The author of Midnight, Mike Singleton, tells me there are two sequels in the pipeline. Personally, I can't wait!

| Adventure | $:$ The Lords of Midnight |
| :--- | :--- |
| Micro | : Spectrum $48 k$ |
| Price | $:$ £9.95 |
| Format | : Cassette |
| Supplier | : Beyond Software |



PETE AUSTIN, driving force behind Level 9 , belies the widely held view that only infant prodigies can be successful designers of adventure games. At 29, with two degrees from Cambridge, he may still be a prodigy - but he is no infant.
Level 9 began as a hobby for Pete and his two brothers, Mike and Nick. Their first game was for the Nascom. Called Fantasy, it was released in 1981; a few hundred have been sold since then, compared to the sales of Level 9's more recent titles such as Colossal Adventure, which has sold around 25,000.

The company was officially launched in 1983, but it was only when Pete's sister Margaret took over the marketing side that sales to distributors began.
Expansion is under way. Up to now, most of the programming has been done by Pete and his brother Mike, who is the machine code expert: but they are now recruiting outside programmers. Mike will be leaving for university soon; "We think he should do electronics or business studies," says Pete. "He'd learn nothing from a computing course."

The design of a Level 9 game takes about two months, up until now mostly of Pete Austin's time. Bought in designs are being used more frequently as they reduce Pete's commitment to a week spent "polishing". The problem with bought in designs, however, is that few of those submitted are of high enough quality to be published.

Programming takes another two months. Level 9 has its own language - A code as well as adventure, graphics and music generators.

## magical music

Music, Pete feels, is very important, but has previously been overlooked by gamè producers. He intends to have a score for his new games, including themes for various characters, to link the on screen action with the soundtrack.
Two more months then have to be spent on the production of tapes, and on packaging. Level 9 offer a hint sheet for each of their games; that also takes time to write.
The total time to produce an adventure is about six months.
The micros for which programs are most in demand are the BBC, the Commodore 64, and the Spectrum; but Pete sees a tailing off on Spectrum orders when, and if, the QL finally arrives.
The QL, Pete believes, will be an excellent micro for machine code programmers, and will have massive potential as a games computer. Level 9, however, have no plans to produce anything for it yet. As Pete comments, "we will develop programs for the QL when Sir Clive finally finishes developing the QL."
Turning to the competition Level 9's favourite adventures are from Infocom, who "take a great deal of care, and have a marvellous sense of humour."

Valhalla is not viewed too highly in High Wycombe. Pete suggests that certain elements in the design are cynical. He par-


From left to right, Level 9's Mike and Pete Austin
ticularly does not like the way in which the game has been slowed down; "HELP seems only to be answered about once in every ten appeals. The business of having to look for food or die, is also a 'brake' on the game."

The animated graphics are a plus, but Pete, who is working on a game based on the children's book, Eric the Viking, does not think the characters look like Vikings.

If Valhalla is the game of the moment, then Lords of Midnight, from Beyond, has to be the game of the near future. Pete had been playing it all night before MAD's visit, and his verdict is interesting.
"Lords of Midnight is the first really successful wargame for micro computers," he believes; "But it is not an adventure. Morkin's quest for the Ice Crown seems to be entirely a matter of luck."

Pete has managed a military victory, defeating Doomdark at Ushgarak. That game took him 20 hours. He refuses to reveal the final screen, however, as Beyond are using it as a security device. (His victory impressed Mike Singleton, the author of Lords of Midnight, who visited MAD's offices recently.)

Pete says that the game works extremely well as a strategy game. He particularly likes the way in which armies get tired, which forces the player to provide a reserve of fresh troops - a realistic touch lacking in many computer wargames.
Pete also applauds Beyond's packaging and artwork on Lords of Midnight - he knows just how hard it is to produce high quality support materials.

The quality of back up services offered by software companies is something that Pete Austin feels strongly about (probably because Level 9 has invested so much time and effort into such services).
Clue sheets in the box, he suggests, ruin a
game; on the other hand, he personally does not care for telephone enquiries. The solution which Level 9, along with other companies, adopted was to offer clue sheets to those who sent them an SAE, and proof of purchase. The response has ben phenomenal - the week before MAD's visit 100 requests a day were received.
About one third of Level 9's regular customers are female, letters and phone calls indicate. Pete certainly believes that adventure games offer many women, trapped at home by children, a more intellectual alternative to Mills and Boon.
Sexist game designs, therefore, are not welcome; the protagonist of Snowball is deliberately called Kim - a name that has no distinct sex attached.
Racism is also out: Pete is at present working on a design provisionally called Island. Having cut the cannibal cook pot scene, he has been having problems with the classic fairy-tale ending, in which the 'hero' gets the princess.
Level 9's plans for the next six months include the release of its own graphic adventures. In addition to Eric the Viking, being produced for Mosaic, the publishers, Pete is also working with Longmans, on a detective game.
Level 9's own titles will include Red Moon, a graphics adventure, and Return to Eden, the third game in the Silicon Dream series. Apart from those, there are a number of as yet untitled projects under way.
The final question Pete had to field was short: why Level 9?
"Levels are the sort of things you come across a lot in dungeons. And it's useful to have a number in the title. For one thing, you can slip adverts in your own games. You'd be surprised at the number of times nines turn up in our adventures." $\square$

# The wild blue yonder 

## Kevin Bergin pilots Spectrum and BBC flight simulators

PICTURE THE scene: "I say, Biggles old chap, the weather's triff - how about a spin in the old crate, what?"
"Sorry to be a bore, Ginger old worm, but I've got a spot of gippy tummy - must have been last night's bubble-and-squeak, don't you know?"
"Bad show, Biggles, old fruit. Tell y'what, I think I might just have a quick shufti round the old cabbage patch for the Hun. Be a good fella and load in the jolly old prog, what?"
"Right-ho, Ginger - tally ho!"
Even with a ZX81 Ginger would have had to decide which flight simulator to use. If you own a Spectrum, BBC or Atari micro, the choice is even wider. This review aims to help you pick the best for your flights of fantasy.

The good old lo-res, black and white ZX81 is not a machine that springs readily to mind when talking of flight simulators; but it was for this machine that one of the greatest programs yet written was produced. Psion's Flight Simulation was great in the sense that graphics like this had not been seen on the ZX81 before. It was also fun! But don't think that it was easy brilliant machine-coding ensured that Psion's plane, a twin-engined light aircraft, behaved very like the real thing.

The view from the cockpit shows the horizon, and as the plane dives, climbs and banks, so the horizon moves in a very realistic way. The instruments in front of the pilot include dials, digital readouts and bar displays; they show such information as speed, height, and fuel, and an artificial horizon as well as a comprehensive navigation system. Several beacons are dotted around the Psion landscape, and these all help the pilot to pinpoint the runway on which he must finally land.

## Overshot

As the plane nears the landing strip, it appears in view. The ZX's low resolution means that the lines of the runway must take the form of white pixels against the black background - but still, disbelief is suspended, so well-presented is the environment. As the plane approaches the runway, the perspective gradually changes, and the ground really does seem to reach up to meet the descending aircraft. It is even possible to overshoot the runway, and swoop round and round the airport, with the lines of the runway remaining coherent all the time.

If the pilot has time, there is a further option - ask to see a map (press the M
key), and the view from the window is replaced by a plan view of the "play" area. This gives you an idea of where the plane is in relation to the runway.

The controls are comprehensive; to make the plane bank, dive and climb, the cursor keys are used, and other keys are pressed to raise and lower the landing gear and flaps, apply and release the brakes, adjust the throttle and rotate amongst the beacons to facilitate taking bearings. There is no rudder control, but all in all, the plane flies quite realistically, although it seems very well balanced - set to level flight, it will happily purr away until the fuel runs out. Precision aerobatics are not really possible, though the controls are very responsive when it comes to necessary manouevres. There is a small question about the flaps put them down above a certain speed, and the plane crashes. This wouldn't happen in real-life, of course; similarly, a stall at a safe height is also fatal for the pilot in Psion's program. The ultimate thrill in this program, though, is the final landing.

Flight Simulation became the yardstick by which other ZX81 programs were measured (programs of any kind, that is, not only flight programs), and other flight simulators had a very hard job to compete. Hewson released its Pilot not long after Psion's program. Written in Basic, it didn't have the smooth responses typical of the earlier program. Rather than the keyboard being scanned, and the display being updated accordingly every nanosecond, Hewson's program works through the routines (this all takes about two seconds) - pumping away furiously at a control key while waiting for the keyboard to wake merely results in overcorrection, and another sickening plunge until the thing can be brought under control. No fine-tuning here! Hewson avoids the problems of coding the horizon by setting the whole simulation at night! Thus the range of hills which is such a hazard is not actually seen - just felt as you crash into it.

As for flying - once the pilot is accustomed to the annoying slowness of input from the keyboard, then the basics can be accomplished. Banking, climbing and diving are possible, as well as a rudimentary rudder control that adjusts the heading by one degree each time it is pressed. There is no map during the flight this time, but there is a "flight profile" at the end (when you've crashed), which shows all the mistakes you have made.

When the Spectrum was released, the

colour and enhanced graphics capabilities ensured that, sooner or later, flight simulator programs would start to appear. Sure enough, they did! Psion and Hewson both released new versions of their simulators.

For the Spectrum Pilot, Hewson again turned to author N Male, and, again, the program was in Basic. The instrument panel (drawn in white on blue) includes a large circular Air Direction Finder (ADF), which is permanently tuned to a ground beacon, and gives an indication of the plan's position relative to the beacon. Other instruments include a large, square Artificial Horizon, and the Instrument Landing System which gives an indication of the plane's attitude when landing, so that the pilot has a continual read out of the plane's position on the approach glide path. Readouts, like Airspeed, Heading, Altitude and so on, are in digital form. Again, an end-of-mission map is available for reference.
Then Hewson released Niteflite II, taking the place of Pilot. This made better use of colour, with the instrument panel being drawn in several colours (although the Artificial Horizon suffered a little in its resolution), and a rather more stylish "select option" screen. On-screen information was more comprehensive, with detailed readouts on the cloud-base, wind direction and so on. Also among changes for the better was the provision of brakes, taxiing on the runway, a (signed) assessment card of the pilot's performance, and much better instructions, "talkingthrough" salient points.

The major difference, however, was that input had been dramatically speeded-up, so that keyboard input was almost (not quite) immediate - and provision was made for joysticks. There is still, however, no credible feel of flying; stalling, at any height, is immediately fatal, as is putting down the undercarriage or flaps above a certain speed.

Psion's new version of Flight Simulation was the first true simulation available for

the Spectrum. Only three options are offered the user - Final Approach, Takeoff or In Flight. Again, the aircraft in question is a small, high-performance, twin-engined, propeller-driven airplane, and the view is from the cockpit window. Anyone who had seen the ZX81 version would be immediately at home with the Spectrum version - the horizon is now drawn in higher resolution, as is the comprehensive instrument panel.

Again, the feeling of actually flying is intense, and the keyboard is immediately responsive to any keypress. The Map is available here, too, but now it is in much more detail and shows two runways: Club is a small airfield with a rather short landing strip, while Main is an international airport with a much longer runway (much easier to land on). Also on the Map are a couple of lakes, and several beacons. These beacons can be used to attempt navigation to any point on the map. While the Map is on screen, the instrument display disappears, making it necessary to switch continually between the two displays while in flight.

## Thrilling

What makes Psion's program so thrilling is that the lakes and runways are seen in true perspective as the plane approaches them. Unfortunately, while the sky is light blue, the ground is a disappointing uniform dark blue, with the lakes in light blue.

Aerobatics can be indulged in - looping the loop is quite possible. Put down the landing-gear while in flight, though, or lower the flaps too far, and the plane suffers damage, maybe even fatal damage, as in so many of these micro-based simulators. Try dive-bombing the lakes or runways, however, and you'll swear that you are in a real plane - fantastic!

Fighter Pilot, from Digital Integration (written by D K Marshall), is an unashamed tribute to Psion's Flight Simulation. Here is a Map, showing, in this instance, four runways (BASE, TANGO, DELTA and ZULU), and several beacons which flash as
they are selected by the pilot - here, too, are mountains which must be avoided. Looking out of the cockpit's window shows light blue sky with, this time, a uniform yellow ground (no lakes, though, in DIland).

Your aircraft is an F1 Eagle, the USAF air-superiority fighter, with two turbofan Whitney engines, complete with re-heat. Sounds pokey, and it is! Selecting the Takeoff mode (there are several other Modes, and several levels of difficulty), allows you to use the performance to the full. Unlike the other programs we've seen so far, the brakes, realistically, have to be held on rev up to above the red line, brakes off, and away you go, hurtling down the runway and up into the sky in a near-vertical climb.

Within a few seconds, you will be travelling at 600 -odd knots (maximum speed is 1,440 knots at 60,000 feet, 800 knots at sea level), and you will already be at a height of 25,000 feet or so. What a contrast to Hewson's 80 knots at a puny 100 feet! Throw the F1 about the sky as much as you like - it's extremely difficult to control until a lot of practice is put in, but I imagine that it is a lot like flying the real thing (a Cessna is the closest I've got!).
The instrumentation is the most useful of all the programs so far - the Artificial Horizon looks authentic, with instant feedback, and the Roll and Pitch indicator is very useful in fine-tuning the plane's attitude. Navigation is simplicity itself. Select the Map, on which you will find all the salient features of the landscape along with the four landing strips. While the map is on-screen, the instrument panel remains at the bottom of the display; unlike many other simulations, it's perfectly possible to fly on instruments only, thanks to instant and continual updates. Pressing the N key displays the Next beacon you require - it will start flashing on the map, and its bearing is shown, along with your current heading, on the radar screen on your instrument panel.
A flashing cross shows the position of this beacon relative to your current heading

- steer toward the beacon, until the cross swings directly ahead of the little plane on the radar screen. Above the screen is your new heading, and the distance from the beacon. If you are going to land, the Instrument Landing System becomes operative within five miles of the runway, and this allows the pilot to fly down the correct approach path to the runway. Though this may sound easy, it isn't - I have to admit that I still haven't effected a successful landing!
This program would be a sensation, and a very accurate simulation, but there is much more - on the opening Option Screen, you will notice two selections that don't appear on others in this review. As the plane you fly is a fighter, all this training would be useless if it couldn't be put to some real use, and this is what you get in the Combat modes.
In the Combat Training mode, your task is to find the enemy (looking much like a medium bomber) and destroy him. A crosshair target and a readout of your remaining ammo help you, and the enemy will not fire back. Once you've had enough practice, it's on to the real thing, and this time the enemy will fire back if he has the opportunity. Things develop into a real dog-fight! Enemy planes are not visible until you are within a one-mile range - they will be at around a 5,000 feet altitude, and you must match height and speed in order to fight effectively. The enemy plans are not just there to be shot at, but also to seek and destroy your runways. As you'll need these to refuel and rearm, it is necessary to protect them at all costs.


## Accomplished

All in all, Fighter Pilot is a very accomplished program. A superb fighting machine with very sensitive controls, state-of-the-art navigational aids, and a worthy opponent - what more could the Spectrum owner ask of a Flight Simulator?
Before we leave the Spectrum, it is worth mentioning another Hewson program Heathrow. This is another simulation, but this time from the point of view of those on the ground. Air Traffic Control would seem to be an ideal candidate for computer control, and this program gives you some idea of what it must be like to juggle with all those incoming Jumbos and Concordes. As with its Flight Simulator, Nightflite, Hewson has elected to cater for both the 16 K and 48 K Spectrum from within one program, thus making the thing not quite as complex, maybe, as many people would like.
However, with the continually up-dated radar display, and multiple bar-charts showing aircraft headings, altitudes and so on, there is quite enough to digest for me! The instructions are complex, the display is complex - the whole program is a detailed simulation, including radio failure, emergencies, rogue aircraft and so on, and is recommended for the Spectrum-owner who wants to see what havoc may be caused by his stumbling around in other programs.

On now to the Atari. Strangely enough,
this machine, in every other sphere of "games" programs so much better than the Spectrum, has been poorly served when it comes to Flight Simulators. One of the first came from APX, the Atari Program Exchange, and is a 747 Simulator. Written in Basic by William J Graham, it is poor when set against the best for the Spectrum.

The only option is Final Approach, although the pilot may select Auto-pilot if so, all that remains for him to do is to decrease the engine revs when prompted, in order to keep the aircraft on the correct glide path. Manoeuvring is effected by joystick, and as the landing gear is lowered by pushing the stick to the right while pressing the fire button, this immediately sends your airplane off to the right. As little as 10 degrees off-course means that you have a mid-air collision. The instrument panel consists only of digital readouts (no circular dials here), although the runway is shown in a sort of 3D.

The sensation of flying is not particularly strong (and maybe isn't in a real Jumbo), and the program is rather more of an intellectual exercise in number-juggling. Like the vast majority of Atari programs, however, the APX Flight Simulator is, for some reason, extremely addictive, and you will find yourself returning to it again and again, as it seems so simple and yet so infuriatingly difficult to beat. The documentation is extensive, and includes a detailed "talk-down', so that even the first-timer has an even chance.

SubLogic's Flight Simulator II, which has been advertised for some time now as being available, will be the most exciting development in Atari flight simulators. Thousands of people are eagerly awaiting the program, on both sides of the Atlantic, and no-one, as far as I am aware, has seen it at the time of writing (June '84). It has achieved fame on the IBM machine as a yardstick of compatibility, and is justly held in high regard. It includes a World War I Air Ace scenario, with dogfights versus the Red Baron! Instrumentation and facilities are comprehensive, and the flying area includes the whole of the United States, with 80 airfields from Los Angeles to New York, user-defined weather and the time of day all making their impression. It will be expensive, but, also, the only "real"" Flight Simulator on the Atari.

The BBC machine is not one that is favoured with too many Flight Simulators - in fact, I have just two to look at this month. The first is 737 Flight Simulator from Salamander. This comes on a cassette which includes a version for tape loading, together with a version which can be saved to disk. The program is in two parts - the first allows the user to select all the parameters, such as designing an airfield, selecting take-off or starting in mid-flight, choosing between daytime and nightime flight, and so on.

After this initial set-up period, the "business"' part of the program is loaded, and the pilot finds himself sitting at the end of a runway, looking over the wellappointed instrument panel (everything you

need is here - and you'll need it). This assumes that the Take-off option has been selected - and a shock is in store! After take-off, the horizon suddenly disappears - the cloud base is at 35 feet!

## Wuck

I personally wouldn't want to fly in muck like that, but Salamander gives you no option, so continue we must - and on the way back, you'll find that the clouds have miraculously rolled back to 400 feet. Having struggled into the (very low) cloud, the pilot will obviously not see very much . out of the window (a good wheeze, this, which helps programmers out of a tight spot) - instead, the display is replaced by a radar screen. Suddenly, you are now an Air Traffic Controller. Against a blue background, the track of your aircraft is depicted in red, and, flying on instruments only, you must steer your plane into a landing.

For some reason, it seemed a lot easier to land the 737 after selecting the Final Approach option, than it was after a crosscountry navigation exercise. But the controls are very responsive, despite the fact that only one key at a time is read. So, you won't be able to lower the undercarriage while throttling back, while lowering the flaps. Each task has to be tackled in turn, and the pilot needs to be an ambidextrous octopus in order to negotiate the 20 or so keys that have to be manipulated.

However, there is a very helpful "BEEP"' option (which may be turned off) which informs the pilot of acceptance of his executive action. The Beep pales into insignificance, though, beside the whine of the engines, which increase in pitch as the throttle is opened, finally reaching the point when nothing short of a strategicallyplaced pillow mutes the shriek.

Looping-the-loop and other interesting pastimes are not available on Salamander's
airliner - but those pilots who like watching the instrument panel should have a good time.

Now, let's step back to Aviator, from Acornsoft. Let's be charitable, and say that the early releases from this company were "toes in the water" to feel the temperature - the more recent programs show very much more promise. And this is evident in Aviator,
Although the memory constraints of the BBC machine, I imagine, mean that the display consists of white "wire" lines, on a black background, the loss of colour is not noticed after a while. The aircraft you are flying now is a World War II Spitfire Mk3. Of all the planes in this War, the Spitfire is the best known today, and to be in the seat of this one is a real change from the Eagles and Jumbos of the other programs here.

An excellent manual, complete with detachable map of the countryside, and another sheet showing the keys to use, prepares the user for the experience to come. When the flight starts, the instruments are slowly drawn - no round instruments here, but octagonal - and the view from the cockpit window of the runway stretching before you. Start up and the very realistic sound of a prop engine is heard. Rev up, ease off the brakes, and away.

## Torque

The Beeb Spitfire is the most realistic of all the aircraft we have looked at in this review. Nowhere is this more clearly seen than in the first moments, when you, the pilot, are beginning the take-off. Although the Spitfire suffered from tending to drift to the right (as the torque of the spinning propeller pulled the aircraft's nose from the straight-ahead), the slight left rudder that would be necessary in real life is not needed here. As speed increases, the tail gently lifts off the ground, and the "joystick" has to be slowly eased back in order to keep the propeller from digging a nice little trough
along the runway. The Spitfire in flight is very responsive, just as in real life.
As with most of the other simulators, it takes a great amount of practice before a smooth flight can be undertaken, and, especially in the first few moments of the flight, it can be all too easy to stall the machine, and spin into the ground (it's not a long job, thank goodness, to start again!). One of the main drawbacks with the Spitfire, and one that caught many trainee pilots unawares, was the narrow track of the landing gear - a slight crosswind, causing the Spitfire to "crab" sideways on landing, would place a great strain on the steering characteristics of the landing gear, and easily cause a groundloop. I haven't had enough practice, yet, to be able to get close to touching down, but I have a feeling that this detail will not be programmed into Aviator. In most other details, however, the BBC Spitfire behaves pretty much like the original - which was a honey, and one of the best aircraft ever built.
The landscape consists of several trapezoid shapes, representing fields, and each of a different shape, thus allowing for some sort of recognition as you pass overhead. It's extremely difficult to tell one shape from another, but it is essential to learn how to do it - there are no beacons or other navigational aids in the Spitfire. You can also fly through the streets of a
small town or under a bridge. For these various feats, points are scored - more if you can do them upside down.
There is the added fillip in Aviator of combat - but not with Messchersmitt 109s. In a weird bit of lateral thinking, Acornsoft has seen fit to pit the Spitfire against strange alien spaceships shaped like elongated triangles. It seems rather incongruous to have to fight these. However, you can behave realistically turn away after firing, and the shells will continue toward the spot originally aimed at.

The combat part of this program, though, is not important (no way could anyone play this game as some sort of antique Space Invaders!), while the flying part is - and Aviator is certainly among the best to be seen so far on a microcomputer.

## Fringe

It is worth mentioning those "fringe" programs that require a certain amount of flying skills. These include, for the Spectrum, Zzoom and Omega Run (both place the player in the cockpit of a rather mystical aircraft - actually a "skimmer" in the case of Zzoom) and Fort Apocalypse and Chopper Rescue for the Atari and Commodore, which require the player to fly a helicopter remotely. Although these programs are nothing like real simulators,
they are worth looking at if you get a thrill from handling fast, manoeuvrable machinery.

The Flight Simulators we have looked at here seem to fall into one of two types. There is the "seat-of-the-pants" type, of which Aviator is a prime example, and the "fly-by-instruments" type, such as the APX Simulator and Jumbo Jet Pilot. Programs in the latter category tend to be intellectual exercises in which many details have to be balanced against each other. The feeling of flying is not particularly great, except for any view that you may have through the "cockpit" window. It is this sort of program that tends to place a heavy emphasis, rather unrealistically, on stress limits, so that lowering the undercarriage, for example, above a certain speed will immediately wreck the plane.
The other kind of Simulator lets the pilot pay more attention to the actual flying, and allows aerobatics, and also includes a certain leeway in structural limitations. The Spitfire program for the BBC is an extraordinarily accurate simulation, and, incidentally, addictive. The F1 Eagle program, for the Spectrum, is thrilling the pilot can almost feel the kick in his back as the throttle is pushed into the red, and the plane hurtles, at Mach 2, to 50,000 feet in just a minute or so.

Which one you prefer, Biggles, must be your decision.


## WE'VE GOT THE TALENTand our games prove it!

Amazing graphics, fast and furious action, challenging
strategy, compelling adventure - this first wave of games from TALENT has got the lot!
Written ty professional computer scientists using powerful new programming techniques (which leave machine code standing), these games have pushed home micros to the very limit!
SAOT YOURSELF A TALENT GAME TODAY-WEAEL GONG ALACES-EAST?


## ARCHIPELAGO

Dare you venture into the ancient undersea labyrinths which link the islands of the Archipelago? Fabulous jewels await you there - but the guardians of the treasure mark your every move, waiting to deal a
swift and terrible vengeance. How long can you swift and
survive?
Surviv
A fast
graphics animation-packed game with brilliant Commodore 64 (ioystick needed) Cassette 77.95 Disk 99.95

## KALAH

One of the oldest games in the world! Originally played by Bedouins using pebbles and holes scooped the mind of man for thousands of years. Superb graphics and music, with a choice of levels and depth of search. Easy to learn, fiendishly difficult to beat! Commodore64 Cassette 97.95 Disk 99.95

## LASER REFLEX

A new angle in alien zapping! Against a brilliant backdrop of stars, you must defend your asteroid
base from wave after wave of swooping mutating starships. Your defence- a powerful laser deflected against a giant mirror. How long can you hold out
before your defences crumble?
BBC Model $B$
$\begin{array}{ll}\text { BBC Model B } & \text { Cassette } f 795 \\ \text { Electron } & \text { Cassett } f 795\end{array}$
Electron Cassette $£ 7.95$

WEST
A compulsive adventure game set in a ghost town in the Wild West. Your task - to flush out a gang of bank robbers and retrieve their loot - with only your trusty steed and your six-shooter to aid you! Test the speed of your draw, your skill at cards, your powers of surviva!!
The first of a stunning series of adventure games from Allan Black, played in real-time.
Commodore 64
Cassette $f 9$
Commodore 64
BBC Model B (text only) - Cassette $£ 9.95$ Disk $£ 12.95$ Electron (text only) Cassette $£ 7.95$

## PANORAMA (H)

An outstanding graphics package for the ommodore 64. Features include: free-hand sketches, circles, ellipses, block move, copy and key control. PLUS texture definition and texture and colour fill. PANORAMA (H) uses the full colour facilities of the Commodore 64. Pictures can include text and can be stored and incorporated into BASIC programs. The programis menu-driven and comes We use PANOR AMA (H) to create all the graphics for our Commodore 64 games. Need we say more? Commodore 64 Cassette $£ 17.95$ Disk $£ 19.95$ SOFTWARE FROM SCOTLAND

48K Spectrum
The Quill is a major new utility written in machine code which ailows 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.
 Magic Castle
Rescue the Princess from the Magic Castle but beware of Vampires and Booby Traps.

Can you survive and complete your mission high in the sky over enemy territory?


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


Escape from the infamous prison maybe impossible, but what alternative have you?


Only you alone can save the world from the terrible power of the Mindbênder.


Help Barsak recover the treasures of his ancestors from the underworld of mythology.


Africa Gardens
What is the secret of the deserted
Hotel and where are all the guests?.
What is the secret of the deserted
Hotel and where are all the guests?

## Credit Card Order Line Personally Manned for 24 hours <br> Credit Card Order Line Personally Manned for 24 hours ㅇ: 022241361 Ext 430

30 Hawthorn Road
Barry
Soth Clamorgan
CF6 8LE
조: (0446) 732765

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 distictive 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
SAE for full details of our range
Dealer enquiries welcome

# War games how to beat the computer 

Laurence Miller battles his way through another collection of wargames programs for the BBC and Spectrum

PLAYER VERSUS computer war games provide one of the greatest programming challenges - requiring not only skilled programming but also a knowledge of war gaming and game theory. To illustrate the problems involved it is possible to divide computer opponent games into several categories, which also serve to describe the differing games available.

The first category is the simplest to program but can provide an interesting game if well done. Basically, the computer has a straightforward target to achieve and doesn't respond to its human opponent unless the player interferes with this prime aim. An interactive situation will only occur if it is caused by the player, as the computer will happily proceed to its objective without approaching the enemy forces unless they are directly in its path. Lothlorien's Battlezone 2000 for the BBC model B provides a good example of this type.

## Overwhelming force

Unfortunately there are also games which give the computer overwhelming force to disguise their basic simplicity. By setting the player nearly, or totally, impossible task in eliminating the opposition, such games appear more complex. The computer will attack the player's units whilst attempting to destroy an objective but is in fact programmed to attack anything within range with no realistic response to enemy forces. The computer is provided with such a concentration of force that the player will find any defence to be extremely difficult and any intelligent strategy to be worthless. One of Lothlorien's games, Redweed for the BBC, certainly illustrates this principle especially when compared with Task Force's War of The Worlds which covers a similar theme for the Atari, but with some understanding of the principles of providing a balanced war game involving strategy and tactics for the computer, as well as the human player.

A second category takes a little more pro-
gramming skill and is capable of providing an entertaining and challenging game. To provide a simulation of a competent computer opponent, this type of program introduces "real-time" gaming in that the computer's units move steadily and simultaneously with the player's moves. The computer is set a definite target (or targets) and moves continuously, attacking where necessary to meet its objective. The situation appears fully interactive, but fails to provide a realistic simulation in most cases because the "real-time" element is merely used to cover up the deficiencies of the computer opponent. The technique works well for man-to-man type war games but for larger scales of combat the rationale breaks down - with, for example, division-sized units covering tens or hundreds of miles in seconds.
Imagine's Stonkers is a prime example of this type of game. As one military leader, Major General Sir Jeremy Moore, has commented: 'I don't think this would hold my attention for long enough, though I'm sure my son would like it." It is unfortunate that such a technically proficient game should have such a shallow content when the effort in providing continuous movement could have been used to program an efficient computer opponent with limited intelligence.
A variant of the continuous movement game is one in which the human player has a definite amount of time for making a move, usually for each unit. This can work very well when you're controlling units ranging from individuals up to battalion and possibly regimental strength. In these circumstances such games allow a reasonable amount of planning time whilst applying the pressure appropriate to the commander actually on the spot - without incorporating ridiculous divisional-sized 40 mile movements in seconds.
A third category provides the best simulation from a wargamer's point of view, incorporating a genuine attempt at providing a computer opponent with artificial intelligence capable of strategic

and tactical analysis. Whilst not easy, this is by no means as difficult as it appears at first sight. Such a computer opponent needs to be programmed with its objectives and then a series of methods to accomplish them. It should recognise terrain effects on both mobility and combat, be aware of the principles of concentration of force, and be able to react to the player's strategy and tactics where this is required.

There are a few war games which show this type of technique in action on the Spectrum. One such game is Next War from Assassin Software. This deals with ground warfare in Europe in the event of a Soviet assault against Nato forces and offers five prepared scenarios and the option to design your own.

## "Battlezone 2000 an enjoyable and exciting game"'

Although there are several other types of war game, these three represent the majority of games available for the Spectrum and the other machines dominating the UK computer market (with the exception of disk-based Atari and Commodore 64 systems) so I'll take a closer look at some of the titles mentioned above.


Although only produced for the BBC B, Lothlorien's Battlezone 2000 represents an enjoyable and challenging game in the firsf category. Taken from Steve Jackson's boardgame Ogre, it provides an excellent transition from a boardgame to a computer game with the provision of a clearly defined computer objective. The computer opponent controls an Ogre which is a computer-controlled (rather apt) supertank bristling with deadly weapons ranging through missiles (long range and few), main batteries (medium range and few but reusable each turn), secondary batteries (short range, more numerous and re-usable each turn) and a number of anti-personnel weapons (many, but contact range and useful only against infantry). The Ogre also has a number of tread units which determine its movement points.

## Ogre

The computer opponent's objective is for the Ogre to exit the map on the side opposite to its starting point. That is precisely what will happen if no human controlled units interfere, because the Ogre will only attack anything that comes within range - it will not seek out and engage enemy units. The player is equipped with a variety of units to stop the computer, each type having its strengths and weaknesses which must be capitalised on if the player is to have any chance of winning. These units
range from infantry (short-range attack and medium movement) through GEVs (Ground Effect Vehicles with mediumrange attack, longer initial movement and secondary movement after attack - hit and run) to the howitzer (long-range, powerful attack and no movement after emplacement).

To beat the computer, it is necessary to stop the Ogre moving, and to destroy all its weapons before it exits the map. Due to the overwhelming power of the Ogre, it is necessary for the player to be very careful in the choice of tactics to use, and to ensure the best use of the individual units' strengths, eg move in with a GEV, attack then retreat to preserve the unit. It is necessary to develop specific tactics to deal with an Ogre. Once you start winning there are ten levels provided to extend the challenge.

In the third category Next War provides a real challenge for the war gamer with a simulation of combat on the plains of West Germany at some point in the near future. The player controls Nato forces consisting of an augmented brigade trying to deal with a Warsaw Pact force of two or three divisions. There are five scenarios on offer together with an option to design your own scenario. This simulation is not for those who like an easy life as the setup tends towards current thought of an invasion of Western Europe, ie Nato forces will be
performing superbly if they can slow the invading forces down long enough for reinforcements to arrive but are definitely not expected to beat an invasion with conventional weaponry.

## "The initial priority is simply survival"

Game scale represents two miles per square and 12 hours per turn with Nato's basic task being to survive for at least 25 turns, at which point reinforcement rates should allow the player to force a victory against the computer opponent.

The game features a multi-phase turn sequence which allows the player a plenitude of choices but a few points must be borne in mind. This is a simulation: as such, Nato forces should only attack a computer unit when they have a considerable local superiority. The initial priority for the player is simply survival in the face of overwhelming odds. This requires careful strategy in using your forces. Despite the odds in favour of the computer, this game definitely belongs in the third category and is well worth considering by any 48 K Spectrum-owning war gamer. $\square$

## Ruffling the feathers in the Quill's cap

Tony Bridge dips into adventure ink and Gilsoft Gold


Howard Gill of Gilsoft - giving you the opportunity to design your own adventures

I HAVE BEEN extolling the virtues of Gilsoft's Adventure Generator since the Quill was first released. Using this program, anyone with a Spectrum or a CBM64 can compose a machine-coded Adventure. There are a lot of people with the imagination to write absorbing scenarios, but coding these into a fullyfledged program usually proves too great a barrier. The Quill frees the user from the hard work of writing, debugging and so on, allowing full attention to be devoted to crafting the plot.
There is, however, a drawback to all this: the structure of all these Quill'd programs will necessarily be the same. The general layout of the screen and many of the responses (for example, DO YOU WANT ANOTHER GAME?) are recognisably Quill and nobody seems to have found a way round the final "OK HAVE A NICE DAY. BYE" So, while The Quill allows the author's imagination full rein, the scenario
really has to be special to stand out from the rest.

This month, I am going to look at a new collection of adventures from Gilsoft, the publishers of The Quill, and see how different writers handle the generator. Other software houses have released Quill'd Adventures in the past couple of months - in fact a flood of them! Some of them have gone to great lengths to make their programs look less like the result of an adventure factory. How do Gilsoft's own attempts differ?

Under the inclusive banner of The Gold Collection, the release consists of seven adventures, two of which, Magic Castle and Diamond Trail, have been with us for some while.

## Clive's problem

Diamond Trail is probably the very first Quill'd adventure, written by Tim Gilbert, one of the founders of Gilsoft. Released in

1983, it starts off with a nice title page, featuring a 3D Diamond (and Mr Gilbert's dog?), and then goes into the scenario. This consists of the usual groan-inducing play on poor old Sir Clive's name: "The Sinclive Diamond has been stolen from the Jewel Room of Spectraisia's Capital, Microdrivia. You must restore it in as short a time as possible, before the public begin to doubt its existence." Hello, a very subtle in-joke about the QL (and a year before its launch!).
The instructions that follow this opening are repeated in a fairly similar form in many of the Gold Collection Adventures: the player is reminded of the Verb/Noun convention, and that the program will accept the first four letters of an object's name, thus saving the player's poor little digits!
The screen layout in this Adventure is rather restrained - the default colours of white-on-blue are replaced by white text on

black paper. The responses, as is usual with any Quill'd adventure, are immediate. Almost straight away, the player is told that he feels hungry. In just about every adventure, this means that you have only a very limited number of moves before you die, and this concentrates the mind wonderfully! If you find a way of staving off the hunger, a man appears at every move to shoot you (this will eventually prove fatal), or you may get run over by a car, while standing, meditating your next move, in the middle of a road. Try stealing the church collection (but you wouldn't think of that, would you?), and you will be unceremoniously dumped into jail, where the local police have a unique way of dealing with petty criminals!

Diamond Trail is one of those adventures in which almost every move depends on what the player did in the previous move be prepared to keep going back to the beginning time and again while finding the best route through the puzzles.

## Castling

Magic Castle is written by Graeme Yeandle, and was the second Quill Adventure to be released. Oddly, there is no title screen, as with all the others in this collection. This adventure has a pretty succinct scenario - "You have to rescue the Princess who is imprisoned in the Magic Castle". Not exactly atmospheric, is it? Then follow the same instructions as in Diamond Trail, highlighting the fact that many of the Quill'd adventures can appear the same - but this one doesn't hold the attention like its predecessor. The same sort of hazards abound (beware the booby traps and vampires, says the blurb): minefields can easily be stepped into, with fatal results, and this time, the player gets thirsty, rather than hungry. That takes care of the booby traps - I'm afraid that I can imagine the Vampires!

It's a rather pedestrian adventure; that is, nothing really adventuresome happens (at least in the first stages - Gilsoft didn't
supply any maps or playsequences with this collection), and the player will die of sheer boredom. Besides, who wants to rescue another Princess? Let them stew, says I!
One of the newer programs in the Gold Collection is Devil's Island, (author: Colin Smith). After the title page (a lovinglydrawn skull set against a menacing prisonblock), we see again those instructions that we have come to know from the other Quill adventures - Verb/Noun, first four letters of the Noun etc. Somewhere in the two or three pages of instructions, the program tells you to refer to the cassette inlay for further instructions; but the inlay only tells you how to load the program, and that has presumably been accomplished by this time.

## Cruel

"Briefly, your task is to escape from the infamous prison on Devil's Island. Then, if you survive the perils of the surrounding jungle, to reach the mainland and freedom!" The first location is "a grim prison cell." You can see a filthy bed, a barred window, and a closed door. The door can easily be opened, and then it is out into the corridor, at the end of which is a clutch of cruel guards. One of these will shoot you without the slightest provocation, as I found to my cost.

There are one or two things to be found in the cell before you leave - these may or may not be of help to you later in your bid for freedom. The Guards will plague you at the start, as they are rather trigger-happy (although the Tasty Pie may keep their attention diverted for a moment!). Sound is also used in Devil's Island, even though it is the pitiful BEEP.

Although I didn't get very far with this one, I have the feeling that the later stages will prove to be v-e-r-y interesting!

Barsak The Dwarf seems to be suffering an identity crisis, with his name spelt in two different ways throughout the packaging. This adventure, written by $P$ \& $V$ Napolitana, seems to be the first part of a


Magic Castle
by Graeme Yeandle

## GILSOFT <br> 



series. The title page announces "Earlydays loading," which would seem to point to a follow up. The scenario of this PG-rated adventure goes like this: "In ancient days of the mythological underworld, the dwarves held the Nine Treasures. Now Barsak seeks the lost Treasure again. To complete the Adventure you must wear or carry all nine of the Treasures and sign the book at the end."

## Conan

The design of the screen is rather nice bright white text on a blue paper for the location descriptions, and dull white for WHAT NOW and the player's commands. Responses are in various hues, which all makes for a rather colourful display. Again, the player will start to feel hungry after a few moves, but it is a fairly simple task to find food to allay this feeling. Once hunger is overcome, thirst almost immediately becomes a problem, and one that is not quite so easy to overcome (well, I haven't managed it yet). There is a lot of tramping around the castle to do, and many of the objects lying around will put you in mind of a Conan-style novel - in fact, the player starts off with a broadsword.

The descriptions are fairly sparse, which makes it difficult for the player to feel involved - and when hunger or thirst set in for the umpteenth time, it's easy just to give up. As in all Quill'd adventures, of course, there is a SAVE-game feature, which may come in handy.

Just this week, I received a letter which relates to this very adventure:
"Dear Sirs,
Here is a cryptic clue for those of you still pulling your hair out trying to find the water:
Light will be needed and bones be heeded, to succeed you find what you keep delving in the deep,
Pray tell Charon's river is the spell to change bones to treasures.
Thank the Gods for the pleasures!
After this part, the Adventure is quite

## AMAZMNG GMN/E马 48K ZX SPECTRUM SOFTWARE <br> BY DAVID HARRISON The Last Jedl 48K spectrum instructions playability <br> $\underset{\substack{\text { graphics } \\ \text { value for money }}}{ }$ <br> $\rightarrow>$ | $\mathrm{n} / \mathrm{a}$ |
| :---: |
| $100 \%$ |

## THE LAST JEDI

48 K Text Adventure. 500 rooms. Full save facility. Manual. As the Last Jedi you must defeat the Emperor and his evil followers. "Excellent value with hours of intrigue"
"The game responds quickly to your typed commands and must be complicated enough for the most dedicated adventure fanatic" - HCW Review.

## ADVANCE TO MAYFAIR

The property trading game. Now you play against your computer. Full save facility. Manual. Supports ZX printer - all the features of the real thing and more. 48 K Spectrum.

## ISLETS OF LANGERHANS

$100 \%$ machine code text adventure - written using 'The Quill'. You must enter the human body, recover the islets and escape. Full save facility. 48K Spectrum.

## DEATHSTAR

$100 \%$ machine code arcade action in 3-D. Race Down The Corridor. Shoot the Alien Craft. Avoid the force walls and score a direct hit on the Reactor. Played on keyboard. Kempston cursor joystick. Interface 2. 48K.
£5.50
EACH
INC. P\&P
AMAZING GAMES SOFTWARE 39 Maple Drive
Burgess Hill
West Sussex RH15 8EX

From a small humble home to a magnificant estate? Take on one of lifes little challenges \& become a millionaire! Start up a Software Co, Buy, sell, Advertise, Deal with Honest Harry, Full Screen Graphic Representation of your current residence, + many other features. A compulsive game that grips you. SPECTRUM 48K £5.50


| OUR PROGRAMS ARE AVAILABLE FROM |
| :--- | ALL LEADING



## 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, intricatelyconstructed 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 12, Aldridge, Walsall, West Midlands WS9 OTJ.


pleasurable to play, with some both funny and hard puzzles to solve. I can't get past the Zombie yet, But I will, given time! Count your steps carefully, the path is a narrow one!
A Dungeon Delver, Barsak the Dwarf PS Try entering these commands: Elves, Dwarves and Barsak'

Thank you for the inside information, Barsak. I haven't worked out the clues yet, but it is quite amusing to enter those commands - this is the sign of a caring author!

## Crazy

Mindbender, by Paul Styles, is a very stylish adventure, written with a great deal of panache, and belying the underlying "sameness"' of Quill'd adventures. Sitting peacefully in your office one day, you hear the phone ring. This starts you off on another escapade through a prison complex. There are a lot of humorous remarks made by the computer, and the player will end up in a lot of crazy situations. Again, one of those adventures which require careful planning, and one through which you will have to plot every step on the way to the finish.
Spyplane (David Brammer) is a brave attempt to apply the Quill system to a different scenario. Spyplane is not a regular adventure - in contrast to the others in this review, it is more of a strategy game than a traditional adventure. You are the captain of a Long Range Maritime Aircraft flying at 15000 feet over the Arzelean Sea. "You are on patrol, with the objective of obtaining as much intelligence as you can about Turyan military equipment. The main objective revolves around either photographing naval vessels or recording other items encountered during the flight." So runs the scenario - a map is supplied, which is a bit of a change for an adventure game!

Another surprise is the Inventory, which takes the form of a detailed list of
electronic equipment, the uses of which you will have to discover. For one thing, injudicious use of the radio will alert the enemy to your presence, and I haven't worked out how to use it to full advantage. This does mean, though, that not only the usual N, S, E, W and so on are recognised as direction commands, but also compass bearings, to be found from the radio. The plane that you are controlling can easily, it seems, get lost in the cloud, although it is possible to descend to a lower height. Too much of this, of course, and your plane attempts to become a metal raft - not recommended!

A long list of words is given in the documentation, so the novice is not completely in the dark, but there are many more to be discovered during the course of the "adventure". As pilot of the plane, you may land the aircraft, but it is rather difficult (you wouldn't want it easy, would you?), as the enemy is on the alert. The puzzles in this adventure would seem to consist of how to avoid the enemy's unwanted attentions, how to land, and how to find the submarines which are skulking about as they tend to do!

Finally, to Africa Gardens, by T. Davids (or Davis - again, both spellings are included for luck!). Right from the title screens (the majority of title screen in this collection are by Terry Green, who also designed the cover artwork) the player is plunged into a very atmospheric game. Of all these adventures, only Mindbender approaches Africa Gardens in evoking a believable and tension-ridden atmosphere. This is achieved through descriptive passages filled with "soft chimes" and "whispering voices", and so on.

Africa Gardens is an hotel - but, of course, no ordinary hotel! The program starts with: "A MESSAGE FROM THE MANAGEMENT. WELCOME TO Africa Gardens, I DO HOPE YOU ENJOY YOUR STAY. MR ROBINSON INSISTS ON YOUR EVERY COMFORT IN THE HOPE THAT YOU EXTEND YOUR VISIT. INDEED, MR ROBINSON HOPES THAT YOU MAY BE AMONGST HIS MANY GUESTS WHO NEVER FEEL THAT THEY CAN LEAVE!" What a way to instil confidence!

There is treasure to be found in the old Hotel, but it is well hidden - there is even a Book of Spells, which, when found and used, will give you magic powers. The screen display is very colourful, with text and responses being given multi-coloured boxes, though the over-use of BRIGHT and FLASH becomes a bit wearing on the eyes. Unusually for a Quill'd program, graphics, albeit very simple block graphics, are used in many locations (they are very quickly drawn), and these serve to heighten the atmosphere. The puzzles contained in Africa Gardens are difficult, though logical enough, to hold the attention throughout the course of the game.

Which one would I recommend? Well, I have always believed that a good adventure relies more on atmosphere than on tough puzzles - though if it can combine the two,
so much the better. It is difficult to convey atmosphere at the best of times, but an Adventure Generator can be an insurmountable barrier; once a couple of programs written with The Quill have been seen, others become instantly recognisable, and then the program has to deliver a little bit more. It's almost as if the player says to himself: "If the author had to sit down and write all the code, as well as the plot, I could forgive him the occasional lapse in tension and storyline. With the help of THE QUILL, however, he ought to be producing perfect stories!’.

Of the present batch, I would not condemn any out of hand - Barsak, for example, will appeal to the bodybuilders amongst us, and the players who like a good Sword-and-Sorcery romp. Spyplane will be the choice of Flight Simulator fans (though, be warned, there are no on-screen instruments!). Mindbender is, as its title suggests, full of tough puzzles and humour and is probably the best "straight" adventure here - this is my joint favourite with Africa Gardens; the latter for sheer atmosphere, which makes up for slightly less troublesome puzzles.

## Coffin

The price of $£ 5.95$ is about the most that anyone could charge for these rather mainstream programs - 50p less would be better! None of them live up to the standard of presentation set by, for example, Nosferatu from Omni, with its superb documentation and packaging, including a page from a Diary, an old theatre ticket and so on, in the tradition of the best from Infocom. The cassette of this last adventure even comes nestling in a coffin! Now that's the way to make a Quillwritten adventure a little different!
Gilsoft Gold Collection
Spectrum 48K $£ 5.95$ each
Gilsoft
30 Hawthorn Road
Barry
South Glamorgan CF6 8LE


# Ultimate orchidsbeware! 

Adventure Sabre Wulf Micro Spectrum $48 K$ Price $£ 9.95$ Format Cassette Supplier Ultimate Play the Game, Ashby Computers and Graphics Ltd, The Green, Ashby de la Zouche,
Leicestershire LE6 5JU.
IF IT IS not top of the Spectrum charts now, it will be in two weeks. The only game currently around of the same standard and type is Jet Set Willy. This is Ultimate's game in the same genre, a multiscreen graphic adventure with superb graphics, instant response, and a whole host of varied monsters ranging from hippos to parrots to orchids.

As usual there are objects to collect as you wander through the maze. Collecting them is instantaneous as you pass over them. Your ultimate aim is to collect all four pieces of an amulet, but you tend to pay little attention to this as most time is taken exploring the jungle setting and coping with the monsters.

The orchids act something like potions in a more conventional game. Each one of the five has a different effect, but you need not pause to sniff them, because they act the moment you pass over and turn you an appropriate colour.

Purple orchids reverse the effect of the joystick or keyboard, which is a mean trick; yellow orchids delay you (unless you have previously visited a white orchid); red orchids turn you into an unkillable zombie; and blue double your speed. Unfortunately orchids only flower for a short while, so you have to be quick on your feet (or rather your fingers) to suffer the effect.

There is not enough space to describe all the game's features, but I don't think the blurb exaggerates by claiming fifty.

Control is by the QWERT keys (for left, right, down, up and fight) or joystick. The fighting animation is the best I've seen, with our hero flourishing his sword in the


> What's on the way in the adventure world - if you have a new adventure, war game or real-life simulation which you are about to release send a copy and accompanying details to Software Inventory, Micro Adventurer, 12.13 Little Newport St, London WC2R 3LD
best swashbuckling tradition.
In fact all the graphics are first class and even the transition from screen to screen (apparently instantaneous) only disturbs you the first time you play until you are accustomed to the flash.

My reviews are generally rather jaded - software by and large is very much the same. But Sabre Wulf has me wanting to use phrases like 'the best graphic game for the Spectrum I've ever seen' or 'this makes the Spectrum seem like a new machine'. One word of advice - if you do not have a joystick, buy one. It is not essential, but it improves the game no end. There is not much puzzle or intellectual struggle in this game but it will be difficult to find a better action adventure. Excuse me, my wife- has just left the Spectrum untended . . . NW


> Valhalla again

## Adventure Valhalla Micro

Commodore 64 Format

Cassette Price $£ 14.95$
Supplier Legend, National Works, Bath Road, Hounslow, Middlesex.
ANY ADVENTURE fan worthy of the name will have heard of, seen, and played Valhalla on the Spectrum. After all, as Legend insist on reminding us, it did win the accolade of Game of the Year from the BMA. The first adventure to use animated graphics, this game has now appeared for the Commodore 64. Has it survived the transformation?
The answer is an undoubted yes. If you've gazed enviously at the Spectrum screens of fellow computer enthusiasts and wished that the game was available for the 64 , you will not be disappointed.
Nice use is made of the powerful features of the 64 (even a picture to look at while the tape is loading, in nonturbo form unfortunately), including using the function keys to allow you to scroll through the text that you input and the replies generated from the computer, so that you can keep a track of the last few moves (twenty in all).
Some features have not survived the transportation from computer to computer.
In particular, when the various characters, food, drink etc. first appear on the screen, you are told who the characters are, but you are not told that the little blob to the left of the screen represents a sword, the little blob on the right represents a bottle of wine, and so on. You have to guess what these objects are meant to be, which isn't easy.

As on the Spectrum, you can just sit back and watch the action taking place, although this is not really a good way of solving an adventure game.
As far as I can tell, the story
line follows the same pattern as the Spectrum version, minus a couple of irritating bugs that caused the original to crash every now and again.

Nice graphics, no sound, but is it really an adventure game? If you liked the Spectrum version, you'll like this, but personally give me the original Adventure any day. PG


## ETXphone home

Adventure ETX Micro Spectrum 48-16K Price £5.95 Format Cassette Supplier Abbex Electronics, Tavistock House, 34-36 Bromham Road, Bedford, Herts.
THIS GAME, based around Mr Spielberg's profitable little celluloid piece, is very similar in play to Atari's own ET cartridge. It plays exceptionally well, and can be considered to have taken speech to its limits on the Spectrum.
There are two versions, one for 16 K owners and one for 48 K owners. The game loads on two sides with side one containing the loader, title page, and speech (for 48 K owners). After waiting the minutes this takes to load you are told to turn over and press play again. At last, one thinks, the game is about to begin. How much farther from the truth could you be!

The next program gives you the instructions with the option
to dump to the printer. This is most definitely to be advised as there are several symbols that must be remembered.

At last, the game now loads (providing you do not have a loading error at which point the game crashes meaning a total re-load) and starts to talk. As has already been stated, the speech is excellent and perfectly audible.

So, what does one have to do. This animated graphic adventure (second generation) has smooth, almost sprite like graphics. The ETX looks surprisingly like the film's cute hero although the boy (not called Elliot) looks rather skinny and deformed.

The idea is for ETX to find his intergalactic telephone which has been inadvertently split up into three pieces which have been put in pits around the area in which ETX "lives'. ETX must wander around until he has found these, then call his ship and return to the forest to be collected.

Things are complicated by the various hazards. For starters ETX has only a limited amount of energy that runs down at an alarming pace as he wanders around the area. Fortunately it can be regained

by getting some of the fruit that is lying around and eating it whilst in an "eat fruit" zone. Several other characters, however, inhabit this planet. One is the boy (Ernie), and the others are the doctor (an enemy of ETX) and the FBI agent (also an enemy of ETX). When they capture you they take you to their respective homes and then release you (which may not seem like much but uses a lot of energy).

As has already been mentioned there are several "zones" in existence. ETX Telepathy zone, Call ship
zone, Jump north-east zone, etc.

When in these zones you can wiggle your magic finger by pressing 0 (which produces a graphic reaction I would rather not comment upon) and activate whatever you want.

As a second generation adventure it lacks violence or any conflict, as ETX submits to all forces. But it does have a certain appeal to me to beat my personal best time. There is no doubt that it is a superb piece of programming but as a game it will be up to the taste of the player. See it before you decide to buy. JO

## Dungeon prowlers

Adventure Monsters and Magic Micro BBC 32 K Price f6.95 Format Cassette Supplier ISP Marketing Ltd. FOR THOSE of you novice dragonslayers who have never played a Dungeon \& Dragon micro game I should explain that much of the action takes place in actual combat with the monsters who prowl the
dungeon you are in the process of exploring. The game begins by allowing you to choose the name by which you wish to be known (e.g. "Olaf the Terrible'" or in my case "Freddy the Frightened!").
You may now choose the character type you wish to be (Fighter, Thief, Cleric etc.) and then choose your race (Elf, Human, Dwarf.) Finally, you may purchase the weapons and spells of your choice by buying them with your initial supply of gold pieces. You may now enter the black pit at your feet which is the entrance to the world of Monsters and Magic.

Sounds great doesn't it? However this game could give $\mathrm{D} \& \mathrm{D}$ a bad name. This is very similar to an earlier D\&D game for the BEEB called The Valley, which also had some uninspired Mode 7 graphics and beeps for sound.

One of the main fun aspects of D\&D is the companionship of fellow heroes using their individual skills to overcome the hazards that lurk in the dark. A good micro game must include this by at least allowing you to be the leader of a band thus permitting you to decide the important decision "Who enters that dark room

# Wrath of the Receiver 

Adventure The Wrath of Magra Micro Spectrum 48 K Format Cassette Price $£ 12.95$ Supplier Carnell Software Ltd., North Weylands Ind. Est. Molesey Road, Hersham, Surrey KT12 3PL
AS ADVENTURES grow ever more complex, there must surely come a point when it will be physically impossible to solve a particular game in one sitting: the Guinness Book of Records may have to open a new category, specifically for those people who have managed to solve the Wrath of Magra in a single attempt.
It is worth noting the amount of 'goodies' that you get for your $£ 12.95$ with this package. Two tapes, which together form the three adventures that comprise the Wrath of Magra, a detailed instruction leaflet (which gives a number of hints about playing the game), and a book
in the best 'Lord of the Rings' tradition, called The Book of Shadows. You'll need this book, since it contains details of all the spells that you'll be able to cast during the game, as well as giving a detailed description of the land you find yourself in: an interesting read in its own right.
Make no mistake, this is an adventure in the best gothic traditions. Your mission is to destroy the "most powerful sorceress in the Third Continent'", the evil Magra.
Rescued from death by the Ice Giants, she has been taken to her castle in the Black Mountains, and seeks only to create wickedness and evil throughout the lands. In her grip is the fair princess Edora, herself possessed by the power of Magra.
Given only a silver sword, a shield, a fur to keep you warm, a copy of the Book of


Shadows, and a 48 K Spectrum, off you go to do battle against the forces of darkness.

This is a great game, and it could take a lifetime to solve it. Presumably by then the fair princess Edora won't be worth
rescuing, but still.
The screen display shows an optional graphical picture of wherever you happen to be (which takes an age to appear), along with a chart of your progress. Time elapsed, your courage and stamina, and other details are all constantly displayed. The bottom part of the screen is the input window, used for typing in your commands (to the accompaniment of an annoying beep or two every time you press the enter key) and the computer's response.

For less than thirteen quid, this is well worth buying. Any game that forces you to drink mead in order to survive can't be bad. PG

CARNELL SOFTWARE has called in the receiver, but its titles may be bought by another company. MAD will keep you informed.

# The best books for the SUNSHINE Micro Adventurer 

Spectrum Adventures


ajor work by Tony Bridge and Roy Carnell which details the growth and development of Adventure gaming and then presents a full graphic Adventure game called 'The Eye of the Star Warrior' ISBN: 0946408076

## Commodore 64 Adventures

A blueprint for the construction and playing of Adventure programs based on a full text Adventure. ISBN: 0946408114
 adventures by Tony Bridge \& Roy Carnell

Look out for the Sunshine range in W.H. Smith's, Boots, John Menzies, other leading retail chains and through our national network of bookshops and specialist stores.
Dealer enquiries: 01.4374343



The Ultimate Concept in Role-Playing Adventures

* Graphical \& Text Games
* Customised Characters can be used again $\&$ again * Game-Save facilities
* Battle-Magic * Wandering Monsters
* Hidden Treasures

The Runelord Masterpack (Character Generation Module plus sample game) is now available for the ORIC-1 Each game can be played on its own or built into a massive 10 part quest! - new modules will be released over the next few months. Eacb game becomes increasingly more complex and will build into not just a game but a way of life!

## RUNELORD Masterpack



## TOP QUALITY HARDWARE FROM MCP. FOR THE ORIC-1

> GAMES CONSOLE - Speech synthesiser/joystick interface (Atari compatible) ORIC approved
> $£ 79.35$

## SOFTWARE-CONTROLLED JOYSTICK INTERFACE £23.70

RS232 INTERFACE - Communicate or control serial printers with your ORIC

ALL hardware, except RS232-C switch is modular and will plug into expansion port. Fully compatible with ORIC-1 peripherals

ALL PRICES INCLUDE VAT \& $\mathrm{P}+\mathrm{P}$


DEALER ENQUIRIES WELCOME.

MODULAR CONCEPT PERIPHERALS FREEPOST SWANSEA SA8 4ZZ
first". A wrong choice could send a Dwarf in to meet a Frost Giant!
This game is an endless series of boring battles with "A ORC" or "A GIANT" and little to choose between them. As the battles are conducted in real time, the screen is continually clearing between each strike causing you to miss the display of hit points. In addition, after each key selection by the player, the message PRESS ANY KEY is given which means you must press two keys for each decision - which is obviously a waste of time and effort. To add insult to injury, pressing a key which the program is not expecting causes the program to crash - which won't make you laugh if you have been playing for an hour building up your points.
There is more to a good D\&D game than giving pretentious names such as "The Hall of the Soul of the Dead King'’ to a square shaped. block on the screen, or using the random number generator, offset by some trivial irrelevant factor, to decide whether you're dead or not after three hits by "A ORC". This game comes with two sets of dungeon data, so having conquered the first you may progress to the second. Needless to say if I'm not there when you arrive - carry on without me. AM

## Dante's vision

Adventure The Inferno Micro Spectrum 48 K Price $£ 6.50$ Format Cassette Supplier Richard Shepherd Software, Elm House, 23-25 Elmshott

## Lane, Chippenham.

IT'S SURPRISING where some people get their ideas from. Who would have thought, for instance, that a 13th century epic poem concerning the medieval concept of Hell would make an addictive adventure? Well, Richard Shepherd Software certainly did and have followed the plot of Dante's Inferno quite closely. Now for those of you who don't happen to have a degree in medieval literature (and I'm one) this classic work forms part of the Divine Comedy which
describes the poet's search for an escape from the Underworld.
In the poem, Dante imagines himself lost in a dark forest and meets up with Virgil who promises to lead him out of it. They come to Hell, a deep pit in the ground with nine levels, or circles, where individuals suffer torment from monsters and devils. To escape they must pass through each circle until they come to the centre. Along the way they meet all sorts of mythical and historical characters: Cerebus, the three headed dog, Monos, Judge of the Underworld and so on.

The nine circles are not particularly inviting places. There is limbo, followed by the Plain of Howling Winds, then the Circle of the Greedy and later on a River of Boiling Blood. In marked contrast the ninth circle is where traitors are frozen in ice. Not a bad scenario for an adventure is it?

The game is somewhat reminiscent of The Hobbit, with castles, rivers to cross and several characters who appear to have minds of their own. Such comparisons are almost unavoidable - even more so when you consider the behaviour of Virgil, your guide and friend, who repeatedly tells you to hurry up and often replies with a blunt 'no' when you ask him a favour. I seem to recall someone in The Hobbit doing exactly the same thing.

One major difference, though, is that the real-time element which contributed greatly to the realism of Middle Earth, is lacking in this adventure. It does mean you can take as long as you like before entering your next instruction.
The game has one novel feature. You can switch the graphics off if you so wish, which saves time waiting for the pretty pictures to appear.

Unfortunately, the descriptions are inadequate on their own and you might just as well be reading a road map: "You wade across the river. You are in the first circle of Hell, limbo. The castle is here."

Nevertheless, you do face some tricky situations, which I could only resolve by referring to the hints sheet accompanying the publicity material. The help facility is also useful, although inputs which seemed obvious to me were often
incomprehensible to the computer.

I had no luck trying to kill Cerebus who stands stubbornly guarding the pathway to the Circle of Hoarders and Wasters. 'Throw stone' merely brought the response 'throw where?' and whatever I keyed in wasn't understood. And attacking Cerebus with the stone is no good either; a long
snake-like tail hurls me back to the entrance to Hell and the game begins again.

This is an adventure which will no doubt keep me occupied for some time yet; without the sophisticated animation of The Hobbit, it may not have such lasting appeal. JF

# Things fall apart afresh 

Adventure The Width of the World Micro Spectrum 48 K Price $£ 9.95$ Format Cassette Supplier Mosaic, Baffins Lane, Chichester, Sussex.
THIS IS Mosaic's second bookware package to have an adventure theme. Based on the story The Width of the World by science fiction writer Ian Watson, it deals with a rather intriguing notion. The world is expanding; a journey which would normally take a few minutes now takes hours. And strangest of all, people are disappearing without trace.

In the game you are Alan Roxbury, whose wife was one of the unfortunate victims of the so-called 'distance effect'

and disappeared ten years ago. You have been waiting ever since for the world to widen again, and now your chance to find her has finally arrived.

Although the book and software are in a combined package, the game does not follow the story but is really a sequel to it. You still need the story, though, as it sets the scene and provides valuable information for solving the
game. This way much of the fun of playing it is preserved.

The text reads well and is generously supported by clues and often extremely funny responses. Surprisingly, the word examine isn't recognised. Instead you use 'look' which allows you to examine specific objects, as well as to describe your location, and that caused me some initial confusion.

There appears to be no scoring system either, although that is probably unnecessary with this kind of game. As for the occasional grotty graphics, these seem rather superfluous and they take a while to appear.

Like The Pen and the Dark (Mosaic's previous bookware) this is at times an infuriating, but nevertheless entertaining, game. The most annoying feature of it is that whenever you reach certain locations, such as where your wife used to go shopping, you are overcome by the distance effect and the game begins all over again.

Which is rather like what happens when you get too close to the Pen in The Pen and the Dark. Indeed, The Width of the World is very much in this tradition. A strange force which, by all accounts, should not exist has weird effects on those who experience it.

The game conveys the essential mystery created in the book, and demands a considerable degree of patience and perseverance to play. If you enjoyed The Pen and the Dark you're likely to enjoy this one just as much. If not, I'd suggest tackling something a little less exacting to start with. JF

# When jets collide 

Simulation Heathrow Air Traffic Control Micro Commodore 64 Price $£ 7.95$ Format Cassette Supplier Hewson Consultants Ltd., Hewson House, 56B Milton Trading Estate, Abingdon.
THE PROGRAM is designed to produce a life like simulation of the function of Heathrow Air Traffic Control.

Firstly, a menu offers the choice of a useful demons-

tration exercise to study in conjunction with the instruction manual, and seven different air traffic situations through which to progress.
The system operates by means of a radar screen
display. An aircraft is represented by a small white block and short, dotted trace showing its present course and speed. All aircraft remain safely circling their respective holding stacks until called under your control by keyboard commands. From then on, radio communication is by way of abbreviated keyboard instructions to change speed, compass heading or altitude. To assist in monitoring aircraft movements, a current status display board is situated alongside the radar screen.
Your prime aim for each level is to land as many aircraft as possible (ideally ten or more), whilst strictly observing the flight and safety regulations for that particular level. The time limit is thirty minutes and is followed by a detailed assessment of your expertise.

Points are awarded on a more the better, quicker the better basis, but are deducted for any safety infringement, such as not maintaining adequate height and distance separation between aircraft. This specific breach of rules is accompanied by an audible alarm and could lead to a midair collision if not rectified.

The program incorporates some very useful special function keys, especially f5 and f1. These will either provide an instant score assessment to date, or an early end to a game (returning to menu), should you decide that your ailing score at that point is beyond redemption.

Judging by the accuracy of movement of the radar 'blips', the simulation was obviously well researched and is a very enjoyable exercise in concentration. LJ

## Global nuclear war

Game Computer War Micro
VIC 20 Format Cassette Price £5.95 Supplier Thorn EMI I ALWAYS thought Thorn EMI made those wide screen film adverts that Cinema owners play while you go to fetch your Choc-ice in the break, so I could not resist the thought that the leader page might also be in this form, but this was not to be.
The game is based on the movie "War Games", and the idea is that the North American Air Defence Computer has detected a cluster of incoming ICBM's, and is preparing to counter-strike. The missiles are only part of a simulation, but the Computer doesn't realise this, and is preparing a retributive strike. In order to prevent Global Thermonuclear war, you have to fly a simulation fighter and take the missiles out one by one, and also crack a code to close each American Missile Base down, one code per base.

The game, then, has only two screens. The first screen (the Main Display) is a map of North America, with black
shapes to represent the missile bases, white blips, the incoming missiles, a black blip, a missile aimed at NORAD, and at the side of the screen, the current score, and the current DEFCON, or defence condition. This starts at 5, and every time you fail to prevent a missile base becoming active, or NORAD is attacked, it drops one. At 1, global thermonuclear war ensues; nobody-wins. Finally on the left half of the screen is a bank of rapidly flashing lights in a $6 \times 9$ block, and a smaller $3 \times 3$ block underneath. I shall return to this little feature later.

The second screen is a view out of the fighter cockpit. What you see is a stylised landscape, and, in the top corner, an arrow to indicate where the missile is, if it is off-screen. The game works by swopping between screens. Each screen scrolls up rather nicely, instead of changing with a rapidity that makes you jump, as with some games. On screen one, you have a cursor. Place it over the missile you wish to destroy, and on comes screen two. Kill the missile within the time limit, and screen one scrolls back. Now you're on the bank of flashing lights. They freeze into a random position, and somewhere on the $9 \times 6$ grid is a match for the $3 \times 3$ grid pattern. It could be rotated or inverted, but it's there and you're still racing the clock. Find the correct position by
superimposing the small grid on the larger and you've closed the missile base. Then on to the next missile
The game is very fast moving. You can't really do any good using the keyboard, and you will do only marginally better with a bad joystick. The graphics are very good, and because of the two stage nature of the game, the game doesn't lose any of it's momentum. This is a thinking game, not
just another Zap-an-Alien borer. The game does not have difficulty levels as such, it just sends more and more missiles, and gives you less and less time to wipe them out.
Ultimately you lose; as they point out on the cassette insert, 'If global thermonuclear war is a game then the only winning move is not to play'. Fortunately, this is only a game, although, I must admit, it does have a certain fascination. SS


# Not much visible Beyond the Cover 

## Book Beyond the Arcade

Author Nicky Palmer Publisher John Wiley \& Sons/Mosaic Publishing

## Price $£ 6.95$

NICKY PALMER is a very well-known name in wargaming circles as an author, editor, contributor and critic as well as a games designer. It is therefore with a certain amount of respect that one approaches this latest volume from Mosaic Publishing.

Beyond the Arcade is subtitled Adventures and Wargames on Your Computer. It is a 150 -page book covering the subjects that you would expect, given the title. With a noticeably strong bias towards the American computers like the Atari, Apple, PET and IBM, half the book is devoted to a rather critical overview of available adventures.

When Palmer decides to venture into the ground held by British computers, he concentrates on the Spectrum, with the Dragon gaining an honourable mention.

Adventures like The Hobbit are looked at - he says that "it seems unlikely that this is quite the start of the new age of adventuring that the designers would have us believe," and then goes on to say, 'a stronger candidate for the New Age is Valhalla."

Adventures are covered rather sketchily - I couldn't, for instance, find any reference, except in the Appendix, to Infocom, or anywhere to Scott Adams, surely necessary candidates for inclusion in a round-up of adventures? There is passing reference to techniques, but really nothing from which a novice would gain.

There is also a very short chapter which gives a few hints on how to market your own adventure.

After a few rather uneasy pages devoted to adventures, Palmer eventually works his way round to wargames, and here he is on much firmer ground. The discussion quickly gives way to a look at Play-ByMail Computer-moderated Games, and this takes up half of the book.
All the old favourites take a bow in this section of the book - Keys of Bled, Starlord and Starweb among others, and they are all accorded much more space than many of the adventures seen in the first part of the book.
Here the novice PBM'er will find plenty of advice on playing these complex games. There follows advice on setting up your own PBM game (advice of the "buy a magazine and get an idea of what is

offered by other people" variety).
$£ 6.95$ is a very high price to pay for this book - it's a nice afternoon's read, but is too basic for the experienced computer wargame player, and not basic enough for the tyro. Palmer, I believe, wanted to
write a detailed volume about Play-By-Mail games, and was pressured into including Computer Adventures to pander to the current vogue. Thus the book falls between two stools, and ends up offering nothing new to anyone. TB

## Crusoe marooned

## Adventure Crusoe Micro

 Spectrum 48 K Price (not supplied) Format Cassette Supplier Automata UK Ltd, 27 Highland Road,Portsmouth, Hampshire, PO4 9DA
AS ROBINSON CRUSOE on an island which is not all that deserted, you must find seventy five treasures. Commands include single letter, single word and two word. Two things make Crusoe a little different from many adventures. Firstly it uses a split screen with three windows to display Crusoe's current status and the
input/output messages and the current graphic screen. The island is divided into a number of such screens and by moving off the edge of one, you enter the next. Each screen occupies

about a third of the Spectrum's total screen and is covered with graphics representing objects, creatures, and locations. Unfortunately no guidance is given as to what each means, until you get there, so your exploration is something like Crusoe's - a voyage of discovery.

The graphics are too cluttered to interpret easily, but they do give a very attractive map. This leads me to the second aspect of the game - the 'feel' of it. Automata have something of a reputation for quirky games, and Crusoe has its own distinctive atmosphere. No expense has been spared (well, some might have) to give a program which looks, feels and even spells like a seventeenth or eighteenth century
document. Of course it is difficult to know what a two hundred year old computer program would look like (historians have not done much research in this area) so Crusoe settles for a historical atmosphere rather than accuracy, but the overall impression is very favourable.
The combination of puzzle adventure and graphic adventure, together with this eighteenth century flavour, make this an interesting game. It plays well, though I found it very easy to get killed (funnily enough, this seems to happen in a number of games I play). If you are looking for something a bit beyond the conventional adventure, though based on the traditional structure, this is one to try. NW

## Thanks to arrays for the memory

Stephen Robinson's adventure explains how to use arrays in adventure programming


ALL OVER THE world programmers are retiring their joysticks and entering into the realms of puzzle solving fantasy. You, the user, can become lord and ruler of any world you care to create, where the only limitations are those of your own imagination, be it a world of dark sorcery and barbaric lore or far into the future where the endless stretches of the galaxy are yours to roam in search of your fortune. There are no rules or regulations to follow when writing an adventure as you are the creator and absolutely anything goes.

Writing an adventure can be very satisfying as you watch your friends trying to overcome the problems that you have set. As adventure games consist mainly of problems and puzzles to be solved great care must be taken in their planning stages. If the problems are too easy then the adventure becomes boring, the challenge no longer exists and the adventure is soon completed. Likewise, if the problems are too difficult the player may soon lose interest or will still be trying to cross the dark foreboding abyss months later. It is therefore very important to plan the various puzzles carefully, trying to strike a happy medium between the two. A good idea is to invite a friend to try the problems; this will give you some idea of the responses as it is very hard to judge them when you know the answers.

Many styles and techniques can be adopted when writing adventure programs. Adventure programmers are constantly searching for new techniques to use in their adventures, to simplify and shorten the various routines that are used. The most efficient that I have found so far is to base the complete system on a data array. By doing this memory is saved and the general structure of the program is far simpler and a good deal less tedious. The structure is formed mainly around variables that are constantly changing and must equal certain values before the game can be completed. The Spectrum's standard variables can be used but these are very limited unless you are prepared to take the long approach, though I must add that this method is very memory consuming and in an adventure program saving as much memory as possible is the key factor. In general such a program would take two or three times as much memory as one based on a data array.

## Subscripts

An array consists of a set of variables given the same name. In the demonstration adventure with this article the array L() is used. This bears no significance to the actual structure of the program as any single letter array can be used. The variables are distinguished by a number enclosed in brackets immediately following the array name. This is called a subscript. The array system uses a single subscript in the form $\mathrm{L}(1), \mathrm{L}(2)$, etc.

There are various ways of using an array in adventure programs. A separate array could be used for each section of the variables, for example the objects could be
held in the array 0() , creatures or monsters in the array M() , and so on for each of the categories. An area of memory would have to be set aside at the start of the program by dimensioning each of the arrays used. Using arrays in this way is fine, although if a save feature is to be included the program would have to save each array in turn. As many arrays could be used in the program, saving would appear clumsy and prolonged as each array would be saved and loaded separately, with the program stopping and starting to save each one. It would therefore be more efficient to use a single array for the whole of the program. By combining each of the arrays together as one, the save routine would be simplified and its presentation greatly improved.

## Reduction

To show how using an array is better than other methods we will look at the instruction that is used to pick up any objects that you may find. An early system that I used would take the first three letters of the object as the variable name for that object, the variable being equal to the location at which the object can be found, eg Lan would be the name given to the variable that represents the lantern. The number stored in this variable holds the location at which the lantern can be found. The program line to pick up an object using this method would therefore take the form: If N\$ (1 to 3$)=$ 'lan'' and lan $=\ln$ then let lan $=$ inv
where $\ln$ is the variable that holds your current location number and all objects, once they are taken, are made to equal the value held in the variable inv.

Although the program line itself is not really that long one must bear in mind that the line must be used once for each object ${ }^{*}$ in the adventure. If the program uses 50 objects the line will have to be entered 50 times and that will only cater for the take routine. The same must be used for dropping objects, printing the objects found at the various locations and to print all of the objects that you are carrying. So using this method would be very time consuming and a great deal heavier on the all important memory.

With the introduction of an array in which to store the objects, all of this can be reduced to a mere few lines. The length of the routine will remain the same whether the adventure uses 10 or 1,000 objects. The key to doing this is to store all of the objects in data statements somewhere within the program and to read them into an array when and where they are needed. To take an object using this method the program line would look like this:
If 01 (1to3) $=\mathrm{N} \$(1$ to3 $)$ and $\mathrm{L}(\mathrm{o})=\mathrm{L}(\ln )$ then let $\mathrm{L}(\mathrm{o})=$ inv
The only other lines needed in the routine are those to restore the object data and to set up the for-next loop. The program line above is repeated in the loop once for every object - in all, a far more efficient way of achieving the very same result.

To explain further the use of an array and exactly how they are used in the


program, a detailed look at the structure of one of the routines is needed.

Staying with the subject of manipulating the objects, the routine that allows the player to pick the objects up starts at line 1500 of the demonstration adventure. At this stage the program jumps to line 9600 where a check is made to ensure that a noun has been input, in this case to see that an object to be taken has been specified. If no object has been entered then $\mathrm{C} \$$ remains blank and the response "take what" is printed to the screen. Following this control jumps back to the start of the main loop at line 100.

Line 1510 checks that you are not already carrying too much. In this case the maximum number of objects allowed to be carried at any one time is set to 3 . The array variable $\mathrm{L}(14)$ is used to store the number of objects currently being carried Providing this is equal to a value of less than 3 the program is allowed to continue, otherwise a suitable response is printed and control again jumps to the main program loop.
Providing that you have passed this stage the program will now be at line 1515. This line firstly checks that you are inside the castle $(\mathrm{L}(25)=5)$ and that you have taken the giant's golden egg. If so the giant is awoken (by letting $\mathrm{L}(16)=1$ ) and there's no time to hang around for fear of being devoured by the overweight monster. .

The following lines form the heart of the take routine. Starting at line 1520 , the object data is restored. The data for the objects is held at line 9150 taking the form: DATA " object name ", object number By assigning a number to each of the objects it is far easier to manipulate them when checking that they are at your present location. Line 1530 starts the main loop that checks which of the objects is to be taken. In this case the value of 8 is used, as there are 8 objects used in the adventure. This of course, would vary according to the number of objects that you use in your own programs. The object's name is read into $0 \$$ and its number is read into the variable 0 .

## Matching

The next line (1540) is where it all really happens. Firstly the program matches the first three letters of the player's object input with the first three letters of the contents of O\$. If a match is found and the object $\mathrm{L}(\mathrm{o})$ is equal to the player's current location number, the value $\mathrm{L}(\mathrm{o})$ is changed to equal 10 showing that you are carrying the object. If after taking an object you type "look"' you will find that the object is no longer displayed at that location as its value is now 10 and you are carrying it. The inventory count is increased by 1 (ie $\mathrm{L}(14)=\mathrm{L}(14)+1)$ and the program jumps to line 9500 where the message " OK " is printed and the program returns to line 100 to repeat the process over again. If no match for $\mathrm{C} \$$ is found or the object is not found at the current location, line 1560 responds with the message "I don't see it here" and yes, it's back to the start of the main loop again.

As you can see, by applying a simple single dimension array to the program the routines are far shorter and save much of that all important memory for more detailed descriptions or more locations.

When using an array it is important to remember that an area of memory must be set aside at the start of the program. This is achieved with the DIM statement. In the demonstration adventure the array L() is DIMensioned to 25 as only this number of variables are used in the program.
An inventory routine is held at line 2200. This follows a similar pattern to that of the take routine, where line 2240 prints a list of all of the objects that are held by the player (all objects with a value equal to 10 ). The variable FL is a flag that is set to zero in line 2220. If nothing is being carried at this stage the program does not pass the if statement at line 2240 and FL remains unchanged, in which case line 2260 prints "nothing". If an object is equal to 10 then its corresponding string is printed and FL is changed to 1 .

## Flagging

The following shows the array L() and what each array number represents:
L(1) - Spade
L(2) - Gold piece
L(3) - Bucket
L(4) - Golden egg
L(5) - Silver key
L(6) - Golden key
L(7) - Axe
L(8) - Bean
$\mathrm{L}(13)$ - Equals 1 when bean is planted
L(14) - Inventory count
L(15) - Equals 1 when beanstalk has grown
L(16) - ditto when giant awakes
$\mathrm{L}(17)$ - ditto when hole is dug
$L(18)$ - ditto when bean is watered
$\mathrm{L}(19)$ - ditto when game is opened
$\mathrm{L}(20)$ - ditto when tree 1 is chopped down
$\mathrm{L}(21)$ - ditto when tree 2 is chopped down
$\mathrm{L}(23)$ - ditto when gate is unlocked
$\mathrm{L}(24)$ - ditto when bucket is full
L(25) - Holds player's current location number
$\mathrm{L}(1)$ to $\mathrm{L}(8)$ hold the location numbers for all of the eight objects. If $L(3)$ was to equal 9 then the bucket would appear at location 9, the meadow. At the start of the program the object locations are read from the data statement at line 9000 . This scatters the various objects at different locations according to the numbers held in the data statement. If you wanted to make things easier in the adventure you could change all of these values to 10 . On typing inventory you will find that you are carrying every object in the adventure, but that's cheating.
$\mathrm{L}(13)$ through to $\mathrm{L}(24)$ are general flags used throughout the adventure to check that various conditions have been met before the adventurer may progress through certain stages in the program. At initialisation these are all set to zero. When a condition has been met the value of that particular flag is changed to equal 1.

As an example, $\mathrm{L}(23)$ is the flag for the

```
    600g GO EuE GE00
```



```
z
```




```
TH 1-
70M INKC M
O-N
FBM INFUT August 1984 Micro Adventurer 33 & & %
-2,
```




```
B以D FEDO FO
```


## SIX NIGHTMARES for owners of the

## SHARPIMZ-\%け®

# TOMBS OF KARNAK 

 DRAGON CAVES ICE WARRIORS only $£ 6.95$ each
castle gate. If this is locked then $\mathrm{L}(23)=0$. Once unlocked, however, the value changes to 1 , showing that the gate has been unlocked. All that now remains is for the gate to be opened. The flag for this is held in $\mathrm{L}(19)$ which, having entered "open gate", changes its value to 1 allowing you a safe passage east and into the cold draughty castle. If at this stage the gate has not yet been unlocked the program jumps to line 3520 where a suitable reply is printed and it's back down the beanstalk to find the right key.

The inventory count at $L(14)$ keeps a record of how many objects you are carrying (as described earlier).

Though using an array has many advantages to adventure games writers, one routine that is particularly improved is the ability to save an adventure at any part during the game and then to load it back, taking up from exactly where you left off. On any adventure of considerable size this is an essential feature. Otherwise players would have to start the game from the beginning every time they played.

Fortunately the Spectrum has a save function that will save a complete array in the form:
SAVE "file name" DATA L()
where L is the name given to that particular array. Various other features can be added to the routine to enhance the program, such as the ability to verify the saved array. This would give players far greater assurance, knowing that their previous month's adventuring had not been spent in vain.
The routine that performs this function starts at line 6500 . This is the main line in the routine as it saves the array. Really this is all that is needed in the save routine but adding a few extra lines makes the routine far more useful to the player. Once the array has been saved line 6510 prompts the player to rewind the tape and prepare for verification. All prompts printed during the save and load routines are printed to the input window at the lower part of the screen. This is done so that they do not interfere with the screen layout, leaving the screen clear for communication between the player and his puppet. this is achieved by inserting "hash 1." after each print statement. The ink colour is changed in line 6520 to the same colour as the paper so that the filename does not appear on the screen. Line 6530 simply verifies the array.

Once this is completed another prompt for the player is printed and control jumps to line 500 where a description of your present location is printed. Obviously if a save feature is used then provision must be made to load the array back into the computer. The routine that performs this starts at line 7000 and is achieved in a similar fashion to that of the save routine.

## Completing

I hope that this article brings many of you budding adventure writers out of that dark uncharted forest you've been wandering around in for weeks, looking for the answer that will solve some of your adventure writing problems.

## It＇s all right by＇er indoors

From Alastair Moore of Solihull
THIS PROGRAM was written on a 48 K Spectrum，but it will run on a 16 K Spec－ trum if the poke statements are left out．In it you take the part of Arthur Daley，en－ trepreneur．All instructions for playing are included．It is quite a lively little text adven－ ture which should please and amuse people of all ages．
10－90 Opening statement and variables 100－170 Attack variables
180－210 Through the door，location
variables
Fight and variables（win or lose） Incidents and variables（fights etc）
Victory message
360－390
400－475
480－660
680－790
800－1030 Opening picture，instructions option and instructions

Your Adventures this month features two programs for that trusty old workhorse， the Spectrum，and one for the BBC．For the Spectrum， Alan Davis contributes a two part short string handling routine．The first part adds to the complexity of commands a program can accept，and the second tidies up text．K．Dixon＇s BBC program decodes Melbourne House＇s Hobbit clues．Finally，Alastair Moore takes us into the world of TV＇s Arthur Daley，with a short text adventure based on Arthur＇s nightmares． try not to get knocked on the＇ead．

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




```
            10 PRPER 1: BORDER 1: INK 7: C
LS
            20 LET {=10: LET E=0: LET }c=
            30 LET m=0: DIM w 中 (480)
            40 PRINT "ARTHLIR"S NIGHTHARE":
            PRINT
            50 PqUSE 100: CLS
            52 G0 sub 720
            55 GO TO ETQ (RND*E) +1
            8® IF L<1 THEN ED TO EBG
            90 LET a 京= "%ER INDODRS" AND 沙
=1)+("DAUE" AND m=2)+{"D.I.CHISH
OLM" AND m=3)+ "D=5.LIONES":AND 驾
=4) + ("MOURNFUL MORRIS" AND # =5) }
    ("TERRY" AND m=E.!
```



```
    GHT 1; a鞂 FLASS
    160 IF m=2 OR m=5 OR m=E THEN L
ET c=c c+1
            170 G0 Ta 2こ0
            180 PRINT ENHERE IS A DLIRR. SIR
YOU WANT TO ED THRDL{EH}\mathrm{ F%:
*NH
    185 POKE 23617,236
    190 INPLT d事
    20. IF d事="Y" OR d市="y" THEN EC
```



```
    TQEFORINT *..BO YOU WANT TO FIE
HTOR RLIN IF,RI?`
225 POKE 23617, 236
    230 INPNT bOR h=1 TO 4: BEEP =5,-RND%:
    10-5: NEXT M
        240 CLS
        250 IF'b市="F" OR b市="f" THEN ER
```



```
T\=L=.5: GO TO 402
            270 PRINT \MOU ARE FASEINE T
            HRQUGH"."THE UTNCHESTER."F口O心㇒夫见"
                2v? EEEP 5, -RND*10-5: FAUUŚŚE Sl
                275 G0 SUB \20
```



```
@UE FALLEN DQUNN A DRAIN!": LET &
    =1-1: PALISE 5Q: ED TC 5
```



340 FOR $9=6$ TO 11：REEP 9 ， 3 园， 3
NEXT LET $m=$ INT（RND＊E）+1
345 IF $m=1$ OR $m=3$ OR min THEN 4 ET $l=1-1 \mathrm{~m}=1 \mathrm{PRINT}$ M $=3$ ，YROU HAUSE BEE N INUHRED！
350 BEEP $5,-R N D * 10-5:$ PAUSE SR RINT IFOM＝Z OR M $=5$ OR M $=$ OE THEN F RINT YOU DEFEATED THE＂̈ FLABH
 $0,2 * 9$ BEEP $9 ノ 100,9:$ BEEP $9,1 Q Q$, 2＊9 NEXT 9 G GO TO ${ }^{9} 4 \mathrm{~B}$

370 IF $L<1$ THEN GO TO Ese
 $\mathrm{ET}_{390}^{\mathrm{C}}=\mathrm{CO}{ }^{1}$ TO 180
390 GRINT 180. YOU HAUE COME TO A CROSSROAD＇，＇． YOL CAN EO．IN ANY DIREETOIN＂EUTHMEN－NDRTH＂．．＂HEETV 410 POKE 23617，236
420 INPUT D ${ }^{4}$ ．
430 IF RND？ 8 THEN EQ TQ $72 E^{2}$
440 IF d中＝＂N＂OR d事＝＂n＂THEN EO $40=70$
$450 \frac{1}{6}$
4．50 IF $d$ 事＝＂E＂OR d事＝＂e＂THEN EO
TO 480 IF $d \&=" w "$ OR $d \phi=" w "$ THEN GQ 40,180
475 GO TO 410
480 LET $t=I N T$（RND＊E）+1
S10 LET t虫＝＂DIAMANDS＂ANS $t=11$ + （＂GOLD＂AND $\tau=2$ ）+ （＂SILUER＂ANE $t=33+($ EMERALD 5 AND $t=4)+($＂RU日 ES＂AND $t=5)+($ SAPHIRES＂AND $2=5$ 570 PRINT ‥＂YOU HAUE FQUND MA ＊：PRUSE 50
580 LET $e=e+(5000$ AND $t=1)+1100$ 0 AND $t=2)+(500$ AND $t=3)+(4020$ A ND $t=4)+(3000$ AND $t=5)+(2000$ AND $\mathrm{t}=6$ ）
530 PAUSE 50 ：GO SUR $72 a$
640 PAUSE 190
E6Q GO TO EQ．．．THATS THE END OF
THE GAMEN：＂AS YOL ARE DEAD！＂
700 PRINT ．．．．＂Y解 KILLED＂；c：＂M
ONSTERS＂．＂AND FOUND TREASURÉE Mil
 E BO THEN PRINT FLASH 1 BR BRGHT URAT Ø，$\because$ ；＂YOU ARE，CARAYINE TRERE 750 IF $C \geqslant O$ THEN PRINT AT 3 ，园 OU HAUE KILLED．．．FLASH $3 ; 6 ;$ FEA SH O；＂MONSTER＂，
735 IF $C>1$ THEN PRINT＂S＂
740 PRINT RT 4，Q；INUEREE 3；FL

ASH 1；＂YOUR STRENGTH IS＂；INUEF SE O；10은 10；
750 FOR $y=-R N D * 3 Q$ TR RND＊5Q
750 EEEP－007，y
770 NEXT 780 PRINT 6 ， 0 ；PAPER RND＊ 7 ；

790 RETURN
BOD BORDER I：PAPER 5：POKE בЗB 09，50
810 FOR $n=0$ TO 255：PLOT 3 ， 13 ：

 Ton，154：FLOT n，156：PLót ni， 550 PLOT $n, 48$ ：PLOT́N，46：PLOT 5,44 820 FOR＇ $\mathrm{m}=68$ 중 136 ：PLOT 0 ， PLOT $2, m$ ：PLOT $4, m$ ：PLOT $巨$ ，$m$ ： $\mathrm{PL}_{2}$ OT 255，m：PLOT 25：3，m：PLOT 251，m PLOT 249，m：NEXT m
 DRAW 10，30：DRAM 10，－50
 PLOT 97，n：PLOT 1E2，n：PLOT 13.3 E n：PLOT 167，n：PLOT 197，n：NEXT
 57，102：DRA以－25，－25
860 PLOT 187， 1 B LOT 187， 77 ：DRAW－20，0：PLロT 177
 ． 570 PLLOT 2E22， $1144.5:$ DRAW $-25,12$
 256
8GQ TNPLT Z事

 TO 16 1000 CLS ：PRINT INK 日；AT 3，4；＂T 1010 PRINT INK 0 ；＂You are Arth ur Daley who after a hard days w ork goes home，once home you fali

thurs＇nightmare Now enter Ar de him safely
lecting treasure
the monsters．Who appear ading form，or fittwr．fitiends ande Io30 PAUSE 1000：GO TO Ia

# Unriddling the Hobbit clues on the BBC 

From K Dixon in London
IF YOU need help with the help Melbourne listing could be for you．It is a clue－clues in Melbourne House＇s book Guide to House is providing for the Hobbit，this decoding program written to help with the playing the Hobbit．

```
1OREM＂\(* * * * * * * * * * * * * * * * * * * * * * * * * * ~\)
2OREM＂＊CLUE DECODING PROGRAM＊ 3OREM＂＊TO HELP WITH CLUES IN＊ 4OREM＂＊GUIDE TO PLAYING THE＊ 5OREM＂＊HOBEIT＊
6OREM＂＊BYK．N．DIXON 3／05／84＊
7OREM＂＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊＊
```

```
    80 *TV255
    90 MODE }
100 REPEAT
110 INPUT LINE"" "CLUE", clue$
120 PRINT FNcaesar(clueक)
130 UNTIL FALSE
140 END
150REM"****************************
160 DEF FNcaesar(imputक)
170 LDCAL loop%,text%
180 text $=CHRक(134)+"
190 FOR 100p%=1 TO LEN(imput &)
200 new%=FNletter(input$,100p%)+24
210 IF new%=56 THEN new%=32
220 IF new%) 122 THEN new%=new%-26
230 text$=text$+CHRक (new%)
240 NEXT 100p%
250 =text$
260REM"***************************
270 DEF FNletter(string$, posn%)
280 LOCAL text%,x$
290 text%=ASC (MID$(string$, posn%,1))
SOO IF (text%<>32 AND text%<ES) OR (text%>90 AND text%<97) OR text%> 122 THEN
        =32 ELSE = (text% OR &2O)
```


# String Handling tying up loose ends 

From Alan Davis of Lancaster
THE LISTING gives two short string handling routines which I have found useful when writing adventure programs for the Spectrum. They may be included in your own programs as they stand, and simply called with a GOSUB. Please note that lines 1 to 220 contain a demonstration program, included here to display the capabilities of the routines. It may be omitted if not required.
Decoding a sentence of up to four words (Lines 500 to 540 inclusive): The standard two-word (verb-noun) input of many adventures has its limitations. This routine enables more complex commands to be entered: TELL ELF OPEN DOOR, for example; or GIVE COIN TO GOBLIN. An input string, $\mathrm{z} \$$, is separated into its constituent words when the subroutine is called, the words being stored in the strings $\mathrm{a} \$, \mathrm{~b} \$$, $c \$$ and $\mathrm{d} \$$. Each of these strings may then be tested against the program's vocabulary. ( $\mathrm{a} \$$, for example, will be tested against the verbs, and so on.) The program itself is very elementary, and simply searches the input string for spaces, slicing it into words as appropriate, but the increased range of commands that becomes possible makes its use well worthwhile.

Fitting a string to the screen (Lines 800 to 830 inclusive): This routine takes a string, $\mathrm{z} \mathrm{\$}$, of any length, including spaces, commas, and full stops, and prints it tidily on the screen without words breaking at the end of a line, and without spaces, full stops or commas appearing at the beginning of a line. It may be used with good effect when printing inventories, objects present at a location, or even location descriptions themselves (stored as strings in DATA statements or arrays). For example, one
might start with $\mathrm{z} \$=$ "You can see", splice on the strings for objects present ("an old hat" "a dead mouse" etc,) - and then call the subroutine for printing to the screen.

The final result uses less screen space than the common method of listing each object on a separate line, and gives a pleasant continuous flow to the program's presentation. (Especially given extra touches like the use of commas and inserting "and" before the last object.)


```
        103 PRINT "To quit this pragram
        Iם@ INPUT "piease Enter 1, e, or
        3", LINE }\times\mathrm{ 串
```




```
        111 IF UAL x古=1 THEN GQ SUE EQQ SHEN GQ ELB 15&
        133 IF MAL x茾=3 THEN STOD
        114 PALEEE
        115 GO TO 100
        150 CLS: TNPLIT "PLEBSE Enter t
He string to be gromngedylAny
```




```
    18% RETV&N
    20% ᄃLS : INPUT "PLEase ET|E! t
be sentenie ta be decmded,:", LIN
```



```
2Q
words of your SNNT ShE segpreate
EIE PRINT ; PRINT, 事: PRINT, t
*SRRINTH{员
    491 REM
    4g会 REM
    4g% 吅E
    495 REM
```





```
3)
505FOR 3 =1 T0
```

 SIE IF XSZ THEN PRINT＂NO MORE thari four urords are altamed． Sorryil：FAUSE Iog：RETURN 515 IF $\dot{z}$ 事 $(i)="$ THENLET a $(x)=$ i－1 5 520 NEXT
 URN
535 LET b串二z串（a（1）＋2 TO a（2））

3 ：RETURN



```
791 REM
```

You are in a well－lit room，an emporium of some sort． Is this the place of which the old man spoke？For there， on the shelf in front of you，is the object of your quest， the fabled tome wherein the greatest products of the imagination can be found．You have the magic one pound note in your hand．You know what you must do．

Your command：GET IMAGINE ${ }^{\text {TM }}$ MAGAZINE


A monthly publication for all players of adventure games． With a complete role－playing game scenario in every issue，plus a complete service of news，reviews，personal comment and feature articles． of every month．

IMAGINE magazine－available from all leading newsagents and games shops，or write to：




THE FIRST adventurer asking for help this month is S Campbell, of Manchester: "Dear Tony, I am well and truly stuck in The Curse of Crowley manor by Adventure International. I have battled with the creature in the numeral lock room for about two months now, and I am completely baffled." Can anyone help?

Scott Adams, the owner of Adventure International, is obviously not above giving other authors a crack of the whip. He has let Jyym Pearson, and his co-author, Norman Sailer, have a go (or rather, several goes) at writing Saigon, Escape from Traam and Earthquake 1906, as well as Crowley Manor. If anyone has intimate knowledge of these adventures, please let me know of your experiences.

Still on Adventure International problems, Neil Smith of South Wirral is stuck in Secret Mission. To defuse the bomb, Neil, try the Pail - it might be of some use.

In Castle of Riddles for the BBC, Neil is having trouble with the Bear. To get past the Bear is a matter of timing first, LOOK, then go North, go NE, go NW, go North again. Now you should be by the North gateway: thanks to David Swain for these hints.

As for help, Neil offers his address to anyone wanting advice on the following adventures: Adventureland, Pirate's Cove (how do I get some light? TB), Voodoo Castle, Zok's Kingdom and The Quest of Merravid. The place to write is 78 Chester Road, Childer Thornton, South Wirral, Cheshire L66 1GL.

## Viking Hobbit

From Bardufoss in Norway, Einar Nilsen writes: "I would be most grateful if you could give me some guidance on The Hobbit. How do I cross the Black River? And how do I get through the Magic Door in Elvenking's Hall?

At the Black River, Einar, you must have the Rope from earlier in the adventure. Then try LOOK ACROSS RIVER - then THROW ROPE, and PULL ROPE. This will snare the boat, and pull it back to you. Then CLIMB INTO BOAT. It will move across the River, and then you CLIMB OUT. To get through the

easily, you will have a hard time finishing the adventure EXAMINE DOOR. You will have to wait a turn or two now, and then the Door will open. Actually, in The Hobbit, you will find that it is often a good idea to WAIT every once in a while.

J Dyton of Milton Keynes also writes asking for help in The Hobbit. 'I am stuck in the Goblin's Dungeon and I cannot exit through the window. I am also stuck in the Elven King's Dungeon, and cannot get out alive. Everytime I try, I get swept against the Portcullis. I cannot avoid being killed by the Pale Bulbous Eyes. And I cannot find the boat to cross the river."

Well, J Dyton, you have covered. just about all the problems that any Hobbit encounters in the first part of the game! Your problem with the boat should have been answered earlier (or at least point you in the right direction).

The Goblin's Dungeon, I'm afraid, is the classic Hobbit problem - everyone (including myself!) has been stuck here at one time or another. But ask the program for Help and you will get a good clue. You must ask someone else to lift you up; Hobbits are small after all! It is important not to carry too much at this point, or you will weigh too much to be lifted and don't forget to OPEN the window before trying to GO THROUGH.

The Elven King's Dungeon is straightforward to escape from, IF you have the right objects with you. You'll notice that the door is red, so it would make sense to find a Red Key. If you have the Ring with you, then wear that. However, while you may escape rather

Magic Door, you will need to be wearing the Ring. Then without Thorin, so you would be well advised to help him escape too.

Read the book carefully to find the method of getting through the Trapdoor, away from the Butler, who will be a problem immediately after getting through the Red Door. Then, making sure that you are wearing the Golden Ring, which makes you invisible (again, read the book), help Thorin to escape before you in the same way.

To escape death from the Pale Bulbous Eyes - which belong to the Necromancer all that needs to be done is to WAIT! Actually, you need to WAIT twice, then move East to West. If the Necromancer follows you, you may have to WAIT again in the next location.

After looking at these clues, the Hobbit-less reader may have gained some idea of the complexity of this Adventure. So much depends on what has been done or discovered before! Regular readers of this column may also be wondering why I have not employed the usual code in giving the clues. Melbourne House has recently released a book, called $A$ Guide to Playing the Hobbit, which is exactly that. It is a measure of The Hobbit's sophistication that a book like this can be written without spoiling the adventure. If you are playing the adventure, buy the book, and if you have completed the adventure, still buy it, because it will show you more ways of playing the game.

Mr K Price writes from Birmingham: "Could you please help with a couple of adventures, which I am playing on my Commodore 64?
"The first is Bug Byte's

Twin Kingdom Valley. I have reached the Castle but I need the treasure chest of the Desert King. Unfortunately, the Desert King wouldn't give me the chest (so I killed him and nicked his Crown!) - can you give me a clue?
"The second adventure is not so good, but still has some challenging problems (too good, some of 'em). It is Aztec Tomb by Alligata Software, reviewed in MAD, March issue. I am stuck by the cliff in the boat. I have tried various ways of getting to the cliff, but I keep getting killed."

## Desert King

Richard C Hewison, of Luton, is also playing Twin Kingdom Valley, and also has trouble with the pesky Desert King. Can anyone help these intrepid adventurers?
Richard has other problems: "How do I get the Bronze Key from the Witch in the Maze? How do I kill the Dragon and the Witch in the Castle? How do I get to the Armoury? Also, I am having a lot of trouble with about five secret doors."
To get the Bronze Key from the Witch, HFEI/ CRRS/YTSG/TIAV/ LELH/ BEAR/ LTL. Still stuck with those doors, Richard? Try EDRR / SIMN / EKET/ THTE / OWSA / ETEE/ TRHA/ETDW/ OAOJ/R.
To kill the Dragon, you will need some Help, and from who better than the Giant? However, you will need to make him well first, so swim in Watersmeet, after freeing him. This last tip comes from Jon Hughes of Birmingham, who was mentioned last month. He is having trouble getting the last 100 -odd points in TVK. Can anyone tell us how to kill the Sand Lurker to get the Silver?

Back to Richard's problems. Can anyone help in killing the Witch? In return, Richard would be glad to give help to anyone stuck in Franklin's Tomb, for the Dragon or BBC, from Salamander Software (how do I get out of the Aquarium, Richard?). Write to him at 16 Bushmead Road, Luton, Bedfordshire LU2 7EU.

I'm afraid that I had many more letters to answer, but they will have to wait for next month - Happy Adventuring, and don't forget to let me know of your Hints 'n' Tips.

MICRO Spectrum 48 K Adventure Snowball Problem Can you repair the broken droid; if not what can you mend and how? Name David Linsley Address 8 Manor House Rd, Jesmond, Newcastle-uponTyne.
MICRO Spectrum 48K Adventure Atic Atac Problem How do I kill the mummy and what use is the treasure? Name Mike Hunt Address 12 Dellney Ave, Haywards Heath, West Sussex, RH16 3ND.
MICRO Vic 20 Adventure Adventureland Problem How do I get the object out of the lava? Name Graham Giller Address 39 Walton Close, Ernsford Grange, Coventry. MICRO Spectrum 48K Adventure Planet of Death Problem How do you get the lift to work? Name Nancy Jones Address 6 Victor Rd, South Kirkby, Pontefract, West Yorkshire, WF9 3PF.
MICRO Commodore 64 Adventure Ring of Power Problem What is the password that will enable me to get the ring? Name David Baille Address 62 Hillside Ave, Kettering, Northants, NN15 6EF.
MICRO Commodore 64 Adventure Adventure Quest Problem How do I interpret the scroll and what do the white dots mean? Name Tony Scott Address 52 Jesmond Rd, Croydon.
MICRO Spectrum 48K Adventure Valhalla Problem I can't find the first object Ofnir (the Key) or get to El Vinos? Name Andrew Barrington Address 20 Eastlands, Ronley Park, Stafford, ST17 9BB.
MICRO Spectrum 48K Adventure Valhalla Problem I have Felstrong but where is Ofnir and how do I get to him? Name John McNairn Address 10 Ettrick Cres, Dryburgh, Dundee, Scotland.
MICRO Spectrum 48K Adventure Valhalla Problem Where do I find the fourth quest object and how do I get there? Name William Mason Address 29 Lime Tree Grove, Shirley, Croydon, Surrey.
MICRO Spectrum 48 K Adventure Black Crystal Problem How to get past the mummy on map 4? Name Steve Bebbing Address 172 Sandy Lane, Walton, Liverpool, Merseyside.
MICRO BBC B Adventure Escape from Pulsar 7 Problem How do I use repaired lathe

and what do I put in the electrical edge connector? Name Ashley Wainwright Address 6 Falkland Rd, Sheffield, South Yorks.
MICRO Spectrum 48 K Adventure The Castle Problem Unable to light torch, get out of chasm, tower, maze Name David Pashby Address 6 Cleghorn St (first-floor flat), Dundee, Tayside, Scotland.
MICRO Spectrum 48 K Adventure Snowball Problem Where is the first part of the spacesuit? Name Stephen Rettie Address 18 Saltcoast Drive, Grangemouth, Stirlingshire.
MICRO Spectrum 48 K Adventure Quest Problem How do you get into the castle after unlocking the door with the long key? Name Dave Gillam Address 27 Herschell Rd, Exeter, Devon.
MICRO Spectrum 48K Adventure Espionage Island Problem How do I get out of the plane? Name Matthew Woods Address 111 Annesley Lane, Selston, Notts.
MICRO Atari Adventure GFS Sorceress Problem How to persuade crab to go with you; how to wake Selena; how to destroy cement wall? Name Chris Bone Address 10 Garst
on Drive, Garston, Watford, Herts.
MICRO Atari Adventure Colossal Adventure Problem How do you get high enough to smash the mirror? Name Martin Pearson Address 12 Grahame Ave, Pangbourne, Reading, Berks
MICRO Oric 1 Adventure Death Satellite Problem How to get weight to workshop? How to open the plexi-glass cabinet? Name Martyn Newman Address 62 Middleton, Bretton, Peterborough.
MICRO BBC Adventure Castle Frankenstein Problem Where is the paraffin for lamp? Name P.A. Mears Address 17 Bourne Vale, Hayes, Bromley, Kent BR2 7JN
MICRO BBC Adventure Secret Mission Problem I have the bomb, and am wearing the suit - but how do I defuse the bomb? Name Neil Smith Address 78 Chester Road, Childer Thornton, South Wirral.
MICRO CBM64 Adventure Heroes of Karn Problem Can't kill witch, spider, or bat. What to do with mandolin, lyre, and harp. Name Chris Grigor Address 10 Oak Close, Felixstowe, Suffolk.


MICRO Lynx 48 K Adventure Adventure Quest Problem How do I get the insulating suit to go through the fire and how do I get the earth stone from the spider? Name J Colenso Address W. Oakfield, Oakfield Rd, Hooton, Merseyside.
MICRO BBC B Adventure Adventure Quest Problem How to remove serpents from pyramid across the desert to enter temple and what is the orchid used for? Name James Adrin Address 3 Eastholme Gardens, Burton Stather Wear, Scunthorpe.
MICRO MTX512 Adventure The Boy on the Burning Deck Problem How to rescue Peri from the burning Deck? Name Graham Cluley Address Malvern, Seaton Rd, Camberley, Surrey
MICRO CBM64 Adventure Colossal Adventure Problem How to use 'Fee Fie Foe' puzzle in giant's room. Name Andrew Cole Address 59 Clifton Ave, Benfleet, Essex
MICRO Spectrum Adventure Denis Problem How to find a drink in the first 10 turns? How to get what the copper has for me? Name A.V. McCombe Address Quorn House, Burbo Bank R d, Blundellsands, Liverpool L23 6TH
MICRO Spectrum Adventure Lords of Time Problem How to overcome the gladiator, and what to give the Gods? Name Mike Brunton Address 5 Maybury Rd, Bornton, Edinburgh
MICRO CBM64 Adventure Zork 1 Problem How to enter Hades, how to open the grating in the clearing. Name Nigel Morse Address 11 Green Leafe Ave, Wheatley Hills, Doncaster, DN2 5RG
MICRO BBC Adventure Philosopher's Quest Problem How to find the solicitor, what significance are the stars? Name Donald McLay Address 6 Balvicar Drive, Queensparr, Glasgow
MICRO Dragon 32 Adventure El Diablero Problem How to enter the cave? Name Paul Dutton Address 25 Green Lane, Thornton, Merseyside, L23 1TJ
MICRO Vic 20 Adventure Voodoo Castle Problem What to do with suit of armour, and where is the lamp? Name Stephen Bowes Address 104 Western Rd, Goole, Nth Humberside

## MICRO COMPUTER AUCTIONS

Regular monthly auctions for all micro hard- and software.

Send now for entry form or next catalogue, to
MICRO COMPUTER AUCTIONS (MA)
Northington House
59 Grays Inn Road
London WC1X 8TL
Tel: 01-242 0012 (24 hours)

## THE LAIR

A new concept in Adventuring for BBC Micro 32K.
Features include:

- 200 locatıons
- Character Classes: Apprentice,

Warrior, Priest or Elf

- Foes shown in gory detail
- Save Game facility

Tape $£ 6.50$ - Send Cheques/P.O.s to

## UTOPIA SOFTWARE

42 Sutton Park Road, Seaford,
E. Sussex BN25 1RP

BUNTASOFT - great adventures, stupid prices. Marooned, 16 K Vic-20. Well written, good value Micro Adventurer - £4.50. Kraal's Kingdom, 16K Vic-20, 48K Spectrum. Five star quality - Home Computing Weekly - £4.95. Many more. SAE for catalogue. See us at The Walthamsoft '84 Show.
Buntasoft, 1 Chipping Hall Cottages, Chipping, Herts SG9 OPG.

SUSPENDED ON Disk for Commodore 64. New, unused present (wrong machine). £23. Cowdenbeath (0383) 511925.

DRAGON'S LAIR - adventure for the unexpanded Vic 20. $90+$ locations. £4.95. Sardinesoft, 100 Spottiswoode Street, Edinburgh.
RHIANNONS CITIDAL presents Ivor Escape from the Asylum, Regain Mega Million Enterprises, Stole by Ivor. Over 120 locations, cheques, P.O.'s for $£ 4.50$ to Rhiannons Citidal, 21 School Lane, North Hykeham, Lincolnshire.
NEW 48K SPECTRUM M/C Adventures - Craze, Crazier, Stronghold and Safari. Hours of entertainment $£ 3$ each, all four $£ 9$. SAE list. Odyssey Computing, 28 Bingham Road, Sherwood, Nottingham.
48K SPECTRUM. "Sherwood Forest" - The Graphic Adventures of Robin Hood, only $£ 4.50$ from Delta 4 Software, The Shieling, New Road, Swanmore, Hants SO3 2PE.
SURVIVOR. 48K SPECTRUM. Survive the Aftermath of a Nuclear War. The adventure game you could play for real one day. £4.95 from Redwhite Software, 23 Thornhill Street, Canton, Cardiff CF5 1RD.

## Here's my classified ad.

(Please write your copy in capital letters on the lines below.)

| £0.20 |  | $£ 0.40$ | £0.60 | £0.80 |
| :---: | :---: | :---: | :---: | :---: |
| £1.00 |  | £1.20 | $£ 1.40$ | £1.60 |
| £1.80 |  | £2.00 | £2.20 | £2.40 |
| £2.60 |  | £2.80 | £3.00 | - $£ 3.20$ |
| £3.40 |  | £3.60 | $£ 3.80$ | 1 $£ 4.00$ |
| £4.20 | - | £4.40 | Please continue on a separate sheet of paper |  |

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

Name
Address $\qquad$

Telephone

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



TISCH doesn't know a lot about the traps defending the seventh runic ring. It's easy to see though, sitting at the back of this giant keyboard.

At the front is a notice which reads "scale me to take the ring', So that's just what you do, starting at the C note on the front row, and moving to adjacent keys till you collect the ring and return to the front row.

Some of the scales weren't complete, but that didn't seem to matter; you didn't stand on any key twice, though, and you took the shortest route, to avoid booby traps.

What key was the last you touched?


To move on to June's problem; the answer is room 2. Many of your solutions were ingenious - but wrong. We had enough right ones, though, to pick the winners, so here's a list of the astute twenty.
D. Greasby of York, E. Williamson of Leicester,


Stuart Cullen of King's Lynn, Dennis Hallman of Leytonstone, G. Warren of Eltham, Russell Goring of Crofton, Andras Millward of Aberystwyth, Ann Hirst of Wakefield, Tony Hitchens of Gosforth, Auhe de Vries of the Netherlands, Joe McDowall of Greenhills, Martyn Norton of

Streetly, S.P. Millinship of Nottingham, M. Rawson of Denmead, Patricia Bates of Norfolk, Brendan Pollitt of Stranraer, P. Serbert of Pannal, Michael Lawrie of Blackburn, Steward Fleming of Callander, and J. Fraise of Wigan.
They will all be receiving a copy of Valhalla from Legend.
The solution to this month's problem will be published in October. As a tie-breaker, complete the following sentence in 15 words or less: "I want to win a Beyond game because . . ." Your entry must be received by the last working day in August. Good luck!




