The computer strategy and simulation magazine

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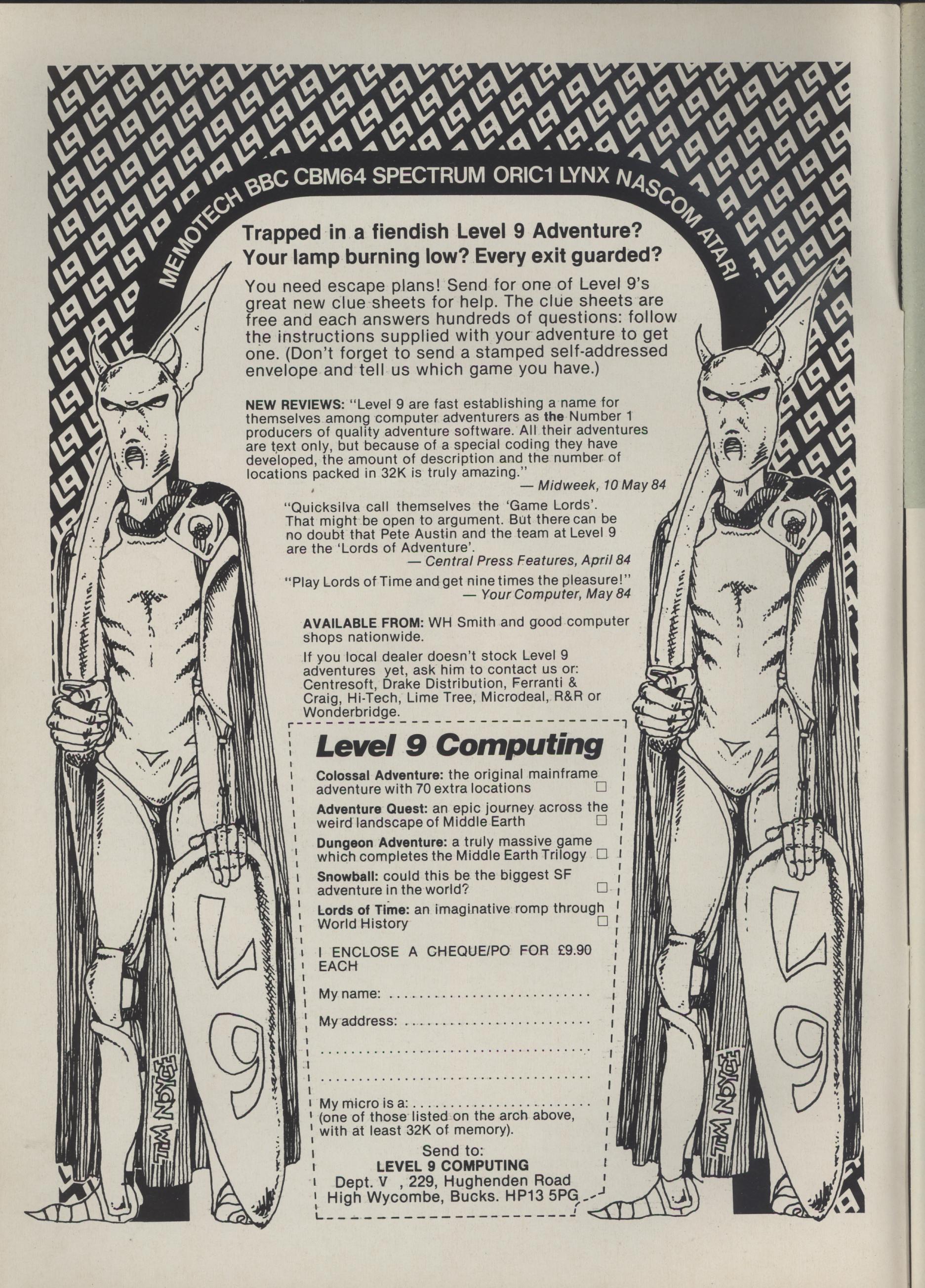
**75p** 

Up, up and away with flight simulators

Adventure systems of the future

Battling with the computer

Array programming



## Adventurer

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#### ADVENTURES • WAR GAMES • SIMULATIONS

#### Letters

Surprising results on Snowball, stonking revealed, help offered on a range of games, co-writers sought, and Basicode tape details — all in this month's letters

#### News

Graphic adventures on the way from those masters of compression, Level 9; ways to make work more fun; latest developments on the next world science fiction conference; and War of the Worlds begins as Lothlorien adds to its Warmaster series

#### **Dungeon "masters"**



From rags to riches in role playing — we talk to Ian Livingstone and Steve Jackson, authors of the Puffin fighting game book series and owners of the Games Workshop

#### Up, up and away

We take to the skies to test out flight simulators for the Dragon, Commodore 64 and IBM PC. Next month is the ETA for the BBC and Spectrum versions (cover: Stuart Hughes)

#### **Future systems**

Using today's technology to build a game playing system for tomorrow — a look at the future for sophisticated, interactive gaming systems

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#### 4 Battling the computer

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Tony Bridge finds Suspended well up to Infocom's usual standard — and that's praise indeed — so take a cyrogenic trip to save the world

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The problem of incompatibility has dogged the micro world, but a language called Basicode promises a solution — John de Rivaz explains what's involved and looks at some array programming techniques

#### **Your Adventures**

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If you fancy a trip to the Castle Dungeon then try this adventure for the Pet, Commodore 64 and Vic 20 — and for Spectrum owners there's an adventure programming aid which will randomly create any number of locations and save all the information necessary to draw a colour picture of each plus a description

#### **Adventure Help**

AA

If you're in trouble or have some advice to pass on this is the page for you

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Incentive Software puts its games on the line this month, offering 50 cassettes as prizes

#### EDITORIAL

THERE'S AN OLD science fiction joke about the future: "When it comes it'll probably be very boring, because there will only be one of it." Not if you own a micro, though.

In this issue Gren Hatton uses today's technology to take a look at what the future might bring. He's envisaged a system based on a 16-bit multi-tasking micro with 128K bytes of RAM (and yes we've actually got some QLs in the office now). His micro has multiple input/output interfaces connecting to . . . well, you name it. A microphone would give direct control by spoken commands, say with a 100-word vocabulary. An allophone-based speech synthesiser would provide responses, while an audio disk would create background noises and special effects.

Disk drives would give storage for specific adventure data such as maps and for interactive modules covering character generation, etc. A video disk would store 30,000 to 40,000 still pictures on each side, tied in to the actual adventure and sending instructions to the audio system. A main screen would display the disk pictures, overlaid by microgenerated graphics, while a second screen would give on-demand displays of such things as character attributes and weapons.

What could you do with such a system? Well, it's more a case of "what couldn't you do?". The first ever adventure was played on mainframes; written in Fortran, it took over 200K of memory. You can buy it on cassette now. The possibilities as this trend reverses are endless. Perhaps the QL, for all the gibes its title has attracted, will bear out on the micro one of the possibilities of quantum science — the existence of many parallel worlds, constantly being created.

However, it can take a long time for potential to be exploited. Witness Essex University's Multi-User Dungeon. A real time, interactive adventure based on a mainframe, the game could easily be extended to include more than its present coterie of fans—but it won't be available commercially until next year (and even that's meant to be a secret). It may be an exciting world but it can still certainly be a very slow one.

#### LETTERS

Send your hints, successes, complaints and compliments to Letters Page, Micro Adventurer, 12-13 Little Newport St, London WC2R 3LD

## **Basicoding** cassettes

READERS OF June's article on my Basicode 2 adventure writing system may like to know that cassettes of the program at £2 each post free are available from RTL, Westowan, Porthtowan, Truro, TR4 8AX. To use one of these cassettes readers will need a Basicode kit for their computer, and some machines may require the program to be modified before it will run. Details will be with their kits. John de Rivaz

## The magic of maths

Porthtowan

Truro

ONE OF your editorials raised the question of why teachers have not used the medium of adventures with their undoubted learning potential. The brief answer is lack of time and expertise, together with a distaste for the aggressive setting.

However, a group of us in the Association of Teachers of Mathematics has just launched L — A Mathemagical Adventure, which has captured the imagination of almost every teacher — primary or secondary — who has seen it.

The setting will be familiar to your readers — a weird palace with complex geography, puzzling descriptions, clues, and objects of worth. But it is also a journey through a series of mathematical or logical problems and rooms with fascinating mathematical features. As you so rightly say, adventures make children talk

to each other and mathematics is about communicating.

To make it suitable for educational use, we have ensured that it is non-violent and not biased towards the male gender. Schools are granted permission to make copies for children (and parents or teachers) to use at home. No adult has yet "solved" it in under six hours.

The program is on 40 track disk for the BBC B and costs £10 from ATM, Kings Chambers, Queen Street, Derby DE1 3DA.

Ruth Townsend Advisory Teachers for Maths Croydon

## Naming names

I AM writing to criticise Laurence Miller's article "In defence of originality" (May issue). I loved the article's attack on a game where moving about in a lift in the dark is certain death.

However, I was quite annoyed that this was written "without mentioning any names". The whole point of writing that sort of thing is to warn people who are about to unwittingly waste (sorry about the split infinitive) their money, and the article fails to do this (point taken — ed). Other than that, I agreed with every word Mr Miller said.

Incidentally, there is another game, overpriced and overrated, where something similar happens: if you climb into a chest and close it behind you, it goes dark. Fair enough, but if you try to open the chest

or do anything else other than move around, you fail. If you move around, you go somewhere and fall over, eventually dying.

I won't mention any names, but there's a character in it who sings about gold from time to time. . .

If anyone has a Quill but no imagination and would like to collaborate on an adventure game, I would be pleased to hear from them. I have eight years of experience in SF-Fantasy (I am 21), am currently writing a humour - fantasy novel, and I have ideas for an adventure some complicated, all fair and reasonable. I also have engineering qualifications and a reasonably wide knowledge of astronomy, so that I could write (or advise) a space adventure that is realistic.

Paul G. Beardsley Westerlies 100 Southleigh Rd Havant Hants

#### Help offer . . .

WE STUMBLED across your magazine two months ago and were delighted with it. We've now stopped taking our previous computer magazine and buy yours instead.

We have a Spectrum and have successfully completed the following adventures: Level 9's Colossel Adventure and Snowball; Melbourne House's the Hobbit; Phipps Associate's Pharaoh's Tomb; Carnell's Black Crystal; Richard Shepherd's Super Spy; Ultimate's Atic Atac; and Imagine's Alchemist.

If anybody needs help with the above they can write to us, but please enclose a SAE or we will not be able to reply.

We're stuck on Valhalla — where, oh where is Drapnir? Any help would be appreciated.

Michele and Kristian Morris

19 Hawks Park
Lower Burraton
Saltash
Cornwall

STUMBLED? Well, we trust you didn't fall as well. Thanks for the offer of help and we hope somebody can do the same for you in Valhalla.

We've also had offers of assistance from Mrs M C Marshall who has solved Level 9's Dungeon but is stuck on Bug Byte's the Castle. The address to write is 1 Saltmarsh Close, Higher Bebington, Wirral, Merseyside.

Jonathan Taylor would also be pleased to offer assistance — on the Hobbit, Heroes of Karn, Quest of Merravid and Ring of Power. Jonathan's address is Barnard Castle School, Durham House, Barnard Castle, Co Durham.

Remember to enclose a SAE if you take up any of these offers.

#### ... help plea

WHILST playing Level 9's Snowball on my Spectrum, I discovered that pressing X results in being injected by a robot and ending up in a cell.

On escaping, I discovered a large part of the game. Does this happen on all the versions? Can one reach the cell without entering X?

I am also having trouble passing the tank on Espionage Island. Hope someone out there can help me.

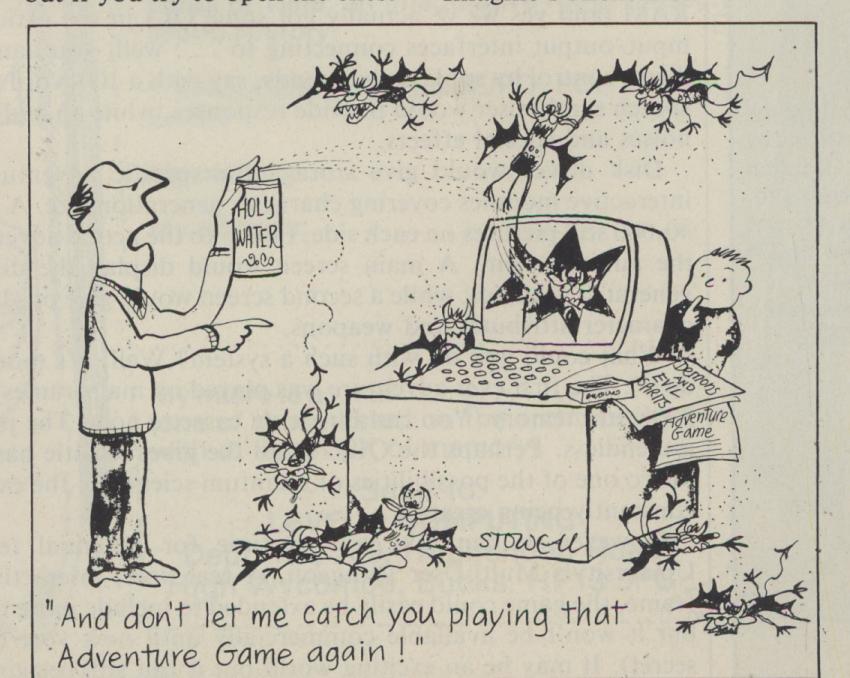
James Jennet 73 Bechers Hough Green Widnes Cheshire

#### Stonking

GOOD NEWS. I can answer your reviewer Tony Bridge's query about the origin of 'Stonkers'.

"To stonk" is World War II British Army slang for "to attack with mortars".

Not many people know that. Christopher R Shute West Midlands





# Fight. District Total Total



## ADVANCED PILOT TRAINER

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

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### NEWS DESK

If you think you've something newsworthy, call 01-437 4343 and let us know

# Round the world with Lothlorien

M C LOTHLORIEN'S Warmaster series continues to expand, and more Adventure-master titles are also on their way.

Four add-on scenarios for Confrontation are due for release early this summer. Confrontation itself includes a basic format for any modern, non-nuclear conflict and a modern European scenario.

The add-on scenarios will take users further afield. Angola in Africa is one of the choices, while the Sinai desert option involves the Israelis trying to capture the desert or the Egyptians taking Jerusalem. A third scenario, Afghanistan, covers the local conflicts with the Russians.

Nearer home, another option assumes a German invasion of south east England after Dunkirk, with Hitler attempting to capture London.

These add-ons have been developed by Lothlorien in response to requests from Spectrum users. Other scenarios are expected for the BBC B version, although not necessarily the same ones.

The company is also working on translating Special Operations to the CBM 64 and Oric Atmos—while a 64 version of Johnny Reb has just been released with a Memotech one to follow.

On the adventure front Stolen Lamp has been converted from the BBC to the Electron while two more titles are being developed.

# Level 9 hits graphics trail

A NEW range of adventures with graphics are on their way from Level 9 along with conversions of its present titles to run on other micros.

Conversions for the Memotech MTX micros will be ready in June, and the company — whose games include Colossal Adventure, Snowball and Lords of Time — is working on Dragon versions for later release.

Other machines being considered for conversions are the Amstrad, QL and the MSX range — with Microdrive and BBC and CBM 64

disk versions being available this summer.

Level 9's Pete Austin commented that Amstrad versions should be available nearer Christmas. Versions for the MSX micros, a range of Japanese machines which are intended to be compatible with each other, depend on "how standard the system really is".

For the QL, Pete prefers to wait and see how the machine settles down. The size of memory on the QL makes graphics a possibility once any initial bugs have been ironed out.

But graphics will definitely be available on the new range of titles under development, initially for the BBC, Spectrum and CBM 64, "but maybe for others as well".

Pete is reluctant to reveal details of the new adventures at this stage but promises 200-300 pictures. Inevitably this means that the games will be smaller than Level 9's present text-only titles — but only "slightly smaller".

Pete explains that "about the best graphics compression techniques" are being used so that 300 pictures only take up 6/7K of memory.

CC STRATEGY GAMES

WE'RE PUBLISHING this photograph to celebrate Newcastle's return to the First Division and Spurs' European success. Now if only Exeter had done better we could have managed some real across-the-country coverage in just one sentence. Oh yes, the photo also celebrates the arrival of United, the latest strategy game from CCS. It costs £5.95 and runs on the Spectrum 48K. You, the team manager, have to try and take your team from the Fourth to the First Division, eventually winning the League Championship (perhaps Newcastle's new manager should give it a go). The game can also be played in Postal United's postal league, enabling you to pit your wits against rival managers. Also new from CCS is Plunder, a £6.95 Spectrum conversion for the BBC and Electron micros. The object in Plunder ("we wuz robbed") is to search for gold on the high seas as you play the role of an Elizabethan sea-captain.

## CRL's War opens

THE COUNTDOWN is over for War of the Worlds — at least for Spectrum owners who can buy the game in the shops now for £7.95.

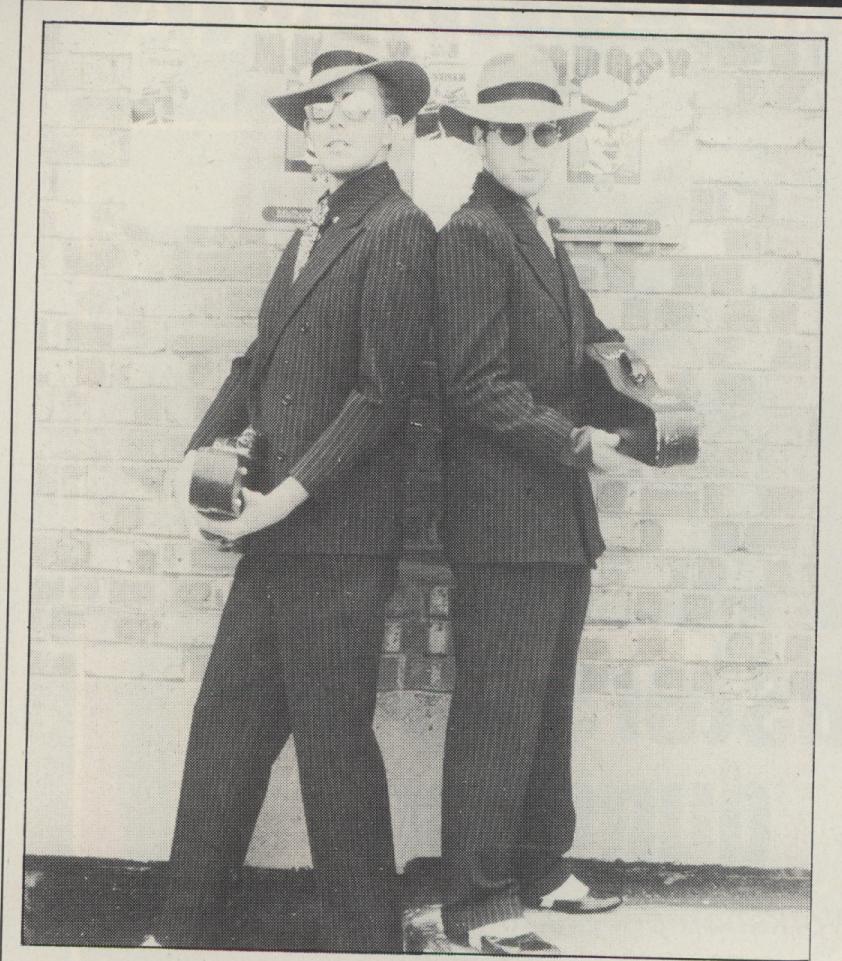
But users of other micros will have to keep counting. Versions for the CBM 64 and the two Oric micros are scheduled for September, followed by BBC B and Electron conversions one month later.

The game, from CRL, is based on Jeff Wayne's War of the Worlds record, itself an adaptation of the H G Wells science fiction classic.

CRL's Clement Chambers describes the game as "a crossover, combining arcade, adventure and strategy". You play the part of a journalist who has to travel through six special locations to reach the seventh, Dead London.

You must travel in the correct sequence, at the correct times and on the correct days, keeping track of items such as your stamina along the way, while resisting attacks from the Martians and redweed.

There are more than 100 graphics screens in War of the Worlds.



IT WAS a dull day in the office: the only thing that needed doing on the typewriter was some dusting and the spiders were making merry in the "in-tray". What do you do when things are so quiet? Well, you have somebody come through the door with a gun in his hand. Enter Mugsy and Louey, two guys from south of the river (Richmond in Surrey to be exact). That's Mugsy on the left without any chewing gum being used to pin back his ears — and Louey's on the right, standing on the step (James Cagney would never have stopped so high). And their mission? Promotion of Melbourne House's new game Mugsy. Well, we've reviewed it guys, but we're not sure if we've got it quite right. Just in case, please make a note that all further correspondence, violin cases, etc should be sent to our reviewer and not to us.

## Tomorrow, the world

THE CAMPAIGN to bring the next science fiction world conference to Britain is gathering momentum.

Although it's usually held in America ("like the so-called World Series of baseball games" comments the UK faction), Worldcon can be won for other countries by determined bidders.

The UK's determination is shown by the fact that it is campaigning already — for an event that will not be held until 1987. However, the decision on where to hold the conference will actually be taken next year.

The British campaign thinks it has history on its side. The first ever science fiction conference was held in Britain in 1937 — and the first British world conference was held in 1957.

But they add: "Forces of evil are ranged against us, in the form of two strong North American bids." To resist these evil forces, the British campaign is looking for support from "everyone who'd like to see this important international event return to Britain".

You can help by publicising their bid, contributing to campaign funds or sending £1.00 for pre-supporting membership (deductible from the conference registration fee if the bid is successful).

The address to write is Britain in 87, 28 Duckett Rd, London N4.

# On the lighter side of business

LIFE'S NOT all hard work on business machines such as the IBM PC, the Apricot and the ever-increasing Apple range.

For the Apricot Kuma Computers has released a text-based adventure called the Isles of Artuan. The game, already available for the Sirius, involves escaping from the island by facing "all the hazards of this bizarre realm". Kuma promises that full use is made of the memory size of the Apricot.

Across the Atlantic, American firm Sir-Tech is converting its Wizardry series of Apple adventures for the IBM PC and PCjr — and for the Apple IIc as well.

The trilogy has dominated the US games charts and won numerous awards. A fantasy role playing game, it involves the player creating parties of adventurers who explore the uncharted depths of a dangerous maze of dungeons in search of loot and glory.

With each successful campaign, the characters gain experience that makes them more powerful and better able to work their way deeper into the maze to decipher the various riddles and clues.

The first part of the trilogy, Proving Grounds, has been released for the PC, PCjr and Apple IIc (in a version compatible with the Apple II, II + and IIe). The second and third scenarios, Knight of Diamonds and Legacy of Llylgamyn, "are being readied for future release".

Sir-Tech comments that in the new Apple version "Wizardry will automatically seek out and utilise the 128K of RAM in the IIc to provide faster and more reliable game operation".

Also for Apple users, but this time Macintosh owners, Infocom is releasing its range of 12 titles — including the Zork trilogy, Deadline and Suspended. Infocom refers to its games as "interactive fiction". Most reviewers hate the description but love the games.

The Macintosh move makes the "Mac" operating system the 21st to be supported by Infocom.

## Channel 8 widens its range

OWNERS of the Sord M5 micro need no longer feel neglected for versions of the Mysterious Adventure series are on the way from Channel 8, which already offers the games for the Dragon, CBM 64 and Atari micros.

The first Sord conversions are expected to be available at the beginning of July on "intelligent cassettes". This means that the games are textonly on the basic machine, but switch to include graphics once the expansion memory pack is added.

Similarly the Dragon 32 versions have only occasional graphics, but full on the 64.

Waxworks is the latest title announced in the Mysterious Adventure range. Midwinter and After the Fire are next in line, bringing the total to 13.

Channel 8 covers the Dragon, CBM 64, Atari and now Sord end of the market, leaving Spectrum, Oric and BBC owners to Digital Fantasia.

Each adventure comes on cassette and costs £9.95, but Channel 8 is "looking seriously" at Atari and CBM 64 disk versions according to John Williams. He wants to sell these at "as low a cost as possible" and is aiming at the £14.00 mark.

IAN LIVINGSTONE and Steve Jackson, authors of the Puffin fighting game book series and owners of the Games Workshop, have literally gone from rags to riches since they first became commercially involved in board war gaming nine years ago.

But their friendship and interest in fantasy games goes back to secondary school days, and has only been interrupted briefly for tertiary studies: Steve in biology and Ian in economics. Little did they know at the time that their degrees bore little relation to the direction in which their careers took only four years later.

Their first step into the board gaming business was launching a newsletter play-by-mail game players called the *Owl and Weasel* in 1974. It was produced in their spartan one-bedroom flat in Shepherds Bush. Soon after this the Games Workshop was established.

The newsletter was aimed at a UK audience but some copies were sent to American companies and enthusiasts. One issue landed in an equally impoverished flat in Wisconsin where the creator of Dungeons and Dragons, Gary Gygax was desperately looking for a distributor for his game.

After reading the newsletter Gary sent Ian and Steve Dungeons and Dragons. They played it, thought it was great and asked if they could be his UK agents.

"He was in the same situation as us," Ian said. "We both were only small (businesses) and equally naive and he was having no luck in having the game marketed or sold in the States."

Gary agreed to their proposition and sent Steve their first order of six. The next order was for 10 and that number quickly grew to the hundreds.

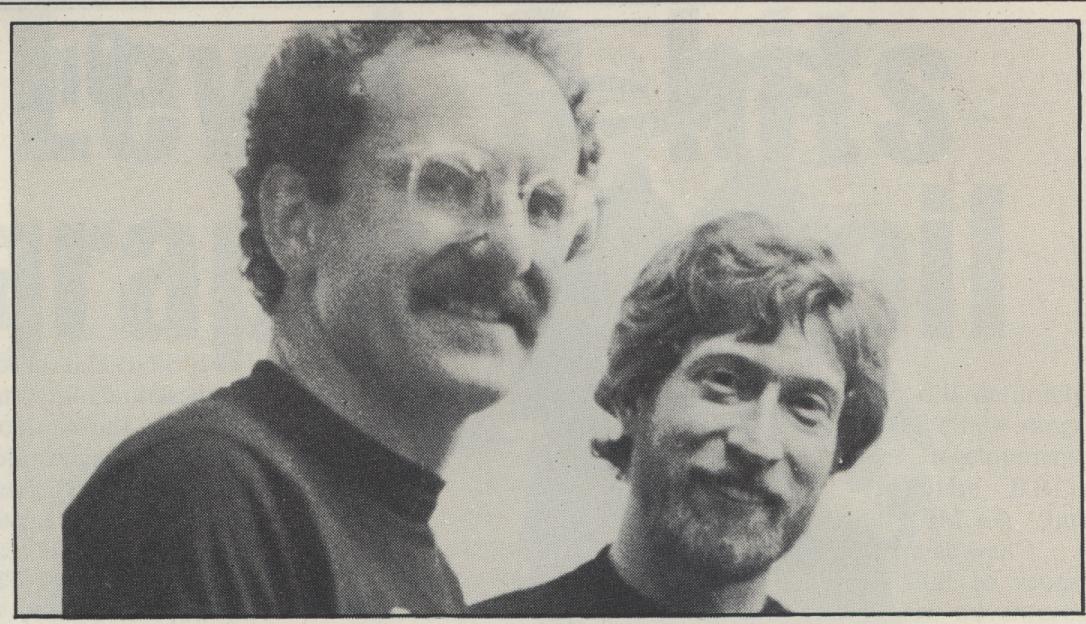
#### **Cottage industry**

"The Irish landlady became irate when large parcels began to arrive and people came around wanting to buy the game," Ian said. In a few months the flat was too small for the business and in June 1976 Steve and Ian had to leave.

"We jacked in our jobs, left the flat and went to the States," Ian said. They spent the time fruitfully — visiting various games shops, getting the UK rights to import various games "and generally having a good time".

When they returned to London they had nowhere to live but this was a minor problem for the penniless but enterprising board game enthusiasts. They rented a small room at the back of a real estate agent's office in Shepherds Bush, joined the squash club next door "so we could have showers in the mornings" and slept (and lived some of the time) in their van parked in the street. Within one month they moved into a flat and, in Ian's words, discovered luxury.

Acting now as an agency for several games companies they were soon able to afford to expand their "cottage" industry. In late 1976 they rented premises



## Masters of the dungeon

The Games Workshop people tell Carmel Anderson their rags to riches story

in Dalling Rd, Hammersmith, and opened their first shop.

Meanwhile the Owl and Weasel, with a distribution of 42,000 at the end of May 1977, had folded. The following June Steve and Ian launched the White Dwarf, an up-market newsletter and today a monthly magazine specialising in roleplaying games.

With their rags era finishing, their riches were just beginning. "Business from here began to get serious," Ian said. At the end of 1978 the pair opened their first factory in Nottingham. It was called Citadel and produced, as it still does, massive quantities of role-playing figures. They then opened four more shops: in Birmingham, Nottingham, Manchester and Sheffield, and began manufacturing board games.

The first games they produced, Talisman, Judge Dredd and Battle Cars, were sold through hobby and games shops as well as in their own shops. "We thought they'd be suitable for book shops and libraries," Ian said, "but that idea didn't take off."

In 1982 Ian and Steve decided to convert games into books for Puffin. Their first fighting fantasy game book was Warlock of Firetop Mountain. "Penguin weren't very keen on the idea," Ian said. "They didn't think it would sell." But within the first year 40,000 copies were sold and Warlock of Firetop Mountain went to the top of the children's book best seller list where it remains today.

Succeeding books included Citadel, Forest of Doom, Starship Traveller, City of Thieves, Deathtrap Dungeon and the King of Lizard Island. Collectively 1 million copies have been sold.

Warlock of Firetop Mountain is the only

book in the series to be packaged with software for a micro, the Spectrum 48K. The cassette bears scant resemblance to the book.

Using the book for a player is similar to playing a text adventure, but the equipment or hardware needed is more rudimentary, being pencil, paper and dice. Software packages for *Forest of Doom* and *Starship Traveller* are due out soon.

To keep ahead of their competitors the Games Workshop employs 90 people, two of whom work full-time on games development, and various freelance writers, some of whom sent their ideas in on the offchance that they may be used.

"We get loads of people writing in with game ideas all the time," Ian said. "The standards vary from very high to scribble on the back of cigarette packets."

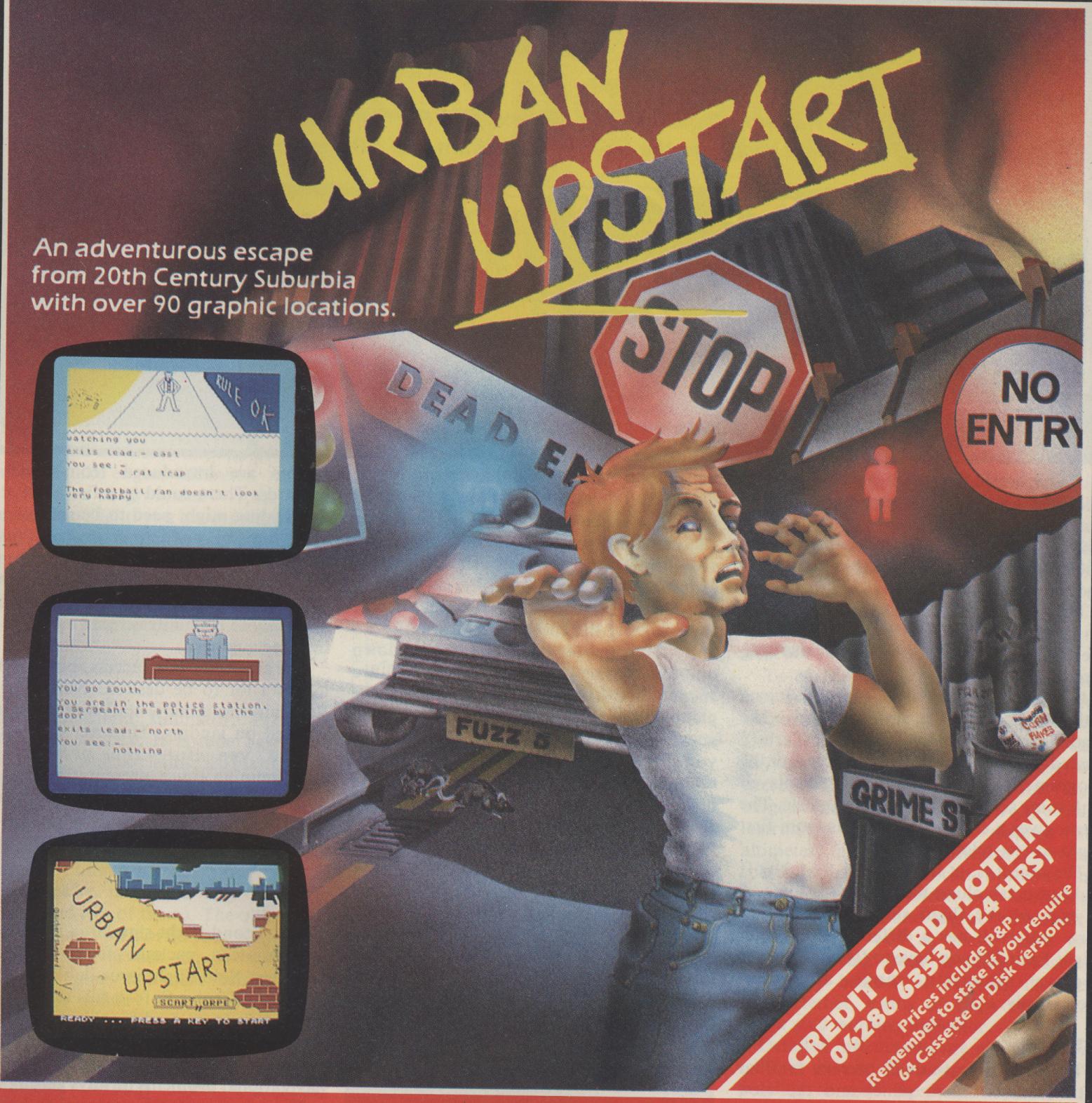
The Workshop manufactures a dozen of its own games and imports about 400 others from the US, France, Germany, and Holland.

And what of future plans? First the UK, then the world might be the motto for the businessmen who started as Warlord fans in a small flat in Shepherds Bush. In February they were back in the US to arrange the launching of all their games and establish Games Workshop offices there. According to Ian the American concern consists of a few freelance representatives and a small office — a bit reminiscent of Shepherds Bush days, but when it becomes more established . . .

There are plans for other factories and a new shop in Nottingham, and perhaps the development of gaming aid programs for micros, computer programs relevant to role-playing games, such as Dr Who.

With eight shops in England, one each in Scotland and the US and another to be opened this year in London, a magazine and more games on the way, no-one can deny that the boys from the Bush have made good.

## "ADVENTURES INTO IMAGINATION"



#### Your Quest: To escape from Scarthorpe!

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

48K Spectrum £6.50 Commodore 64 £6.50 (Cassette) £9.50 (Disk)

### RICHARD SHEPHERD SOFTWARE

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

# UD, UD and away Kevin Bergin looks at CBM 64 and IBM PC flight simulators— next month is the ETA for Spectrum and BBC versions SPEED ROLL TICE VSI + VSI +

IF YOU are fed up with watching glossy holiday ads and seeing glossy TV programmes that make you go green with envy, try buying a flight simulator for your micro and take off into the clouds, up up and

This review looks at three flight simulators for the CBM 64 — and one for the IBM PC to give you a taste of the "big time".

First up is Flight Path 737 from Anirog Software, a £7.95 cassette package. The loading time is very swift as it is "Turbo" loaded from cassette. Having loaded the program, the start up screen is displayed with some soothing background music. The menu gives a choice of six levels from first flight to test pilot.

The object is, at least in part, to take off and not crash along the way, as is the case in each of the flight simulators included here. But each has a different theme: in Flight Path 737 you have to fly a jet airliner over a mountain range and land successfully.

#### **First**

The first thing to do is become familiar with the instrument panel and the view given from the cockpit. The instrument panel is very realistic, with runway heading, airspeed, altitude, heading, flap indicator and a few other vital instruments as well as a view of the runway, or whatever is directly in front of the plane. The player must start the jet taxi-ing and set the correct runway heading, or — be warned — the plane will crash.

Having lined up for take off the flaps must be set and power increased to 200 knots. The joystick is used to climb to the indicated height, of course keeping the speed within the correct limits and raising the undercarriage and flaps. Having achieved this, a warning light will inform you when the correct height is reached and the jet must be levelled off and the new runway heading set.

The last part of the flight is merely

landing the plane without having any major disasters. To do this the speed descent and heading must be correct constantly, and the flaps and undercarriage must be lowered at the correct time. Then touchdown at the right speed, not too bumpily, and finally stop the jet by reversing the engines before careering off the end of the runway.

By the way that is just a brief rundown on level one. If any disasters are encountered in your flying techniques the plane will probably crash, but never mind your errors will be displayed and somehow you survive to try again.

There are five other levels and the difficulty increases the higher the level. For each level the height of the mountains is increased and the length of the runway decreased making it harder to climb above the mountain range instead of caressing the side of the mountain with the jet. Other

Dragonfly II Hewson Consultants, 60A St

Dragon 32

**CBM 64** 

£14.95

Mary's St, Wallingford,

factors are introduced from level two onwards. There could be a fire at any time, the landing might need to be smoother, or there can be sudden crosswinds just at touchdown — that can be tricky. On level six the runway has decreased to 1.5 miles, the mountains are 9,200 ft. high and you are likely to encounter crosswinds and fires in some engines.

The simulator is a success, but my flying leaves a lot to be desired. Numerous jets flew into mountains, stalled at take off or crashed on landing. However not wishing to be vengeful, the performance, programming and presentation of this package makes it a winner. Many hours have been happily spent "reviewing" this package and it is recommended whether or not you ever intend to learn to fly.

#### Solo

The second flight simulator for the 64 is an American package from Microprose Software. Solo Flight is available on disk or tape from Centre Soft in this country. The disk version was used for this review and is priced at £14.95. The fact that it is American may well account for my terrible navigational problems (always getting lost).

There is an extensive manual to help the player use the simulator. Basically the scenario is to take off from a small aerodrome (there is a choice of which one) and proceed to a previously chosen destination and land. You will need a joystick in port two for Solo.

The flying is done from outside the aircraft, not the cockpit (perhaps standing on the wings and switching the balance?). Seriously though, the player has a 3D view of the craft and the area (the view can be altered with cursor keys) as well as an instrument display in the bottom of the screen.

When the program is initialised a demo mode will proceed within 20 seconds if the player does not start. It is adviseable to watch this at least once to get an idea of what will happen. When you are finally

	£6.95	Oxfordshire
	Flight Dragon 32 £7.95	Dragon Data, Kenfig Industrial Estate, Margam, Pt Talbot, West Glamorgan
<b>となるとは、これのできなりとなるとなるとなるとなるとなっている。</b>	Flight Path 737 CBM 64 £7.95	Anirog Software, 29 West Hill, Dartford, Kent
	Flight Simulator IBM PC £35.00	Microsoft, Piper House, Hatch Lane, Windsor, Berks
THE RESIDENCE OF THE PROPERTY	Pilot 64 CBM 64 £7.50	Abbex Electronics, Tavistock House, 34-36 Bromham Rd, Bedford
STATE	Solo Flight	Microprose Software, c/o

CentreSoft, CentreSoft

House, Unit 16, Tipton

Trading Estate, Bloomfield

Rd, Tipton, West Midlands

ready to play there is a large range of flights to choose from.

The player has a choice of airport departure and arrival as well as of weather conditions. There is also a Mail pilot game. In this mode the player races the clock to deliver the mail and faces suddenly changing conditions and surprise emergencies. There is also a mode to practise landing. The best mode to start in unless you are a skilled pilot is practise landing or simply taking off and landing in optimum conditions.

Apart from the practise landing mode the pilot must take off in a reasonable fashion and navigate visually and with instruments to find the chosen destination and then execute landing procedures. Although this sounds straight forward there are many variables. The pilot may select to fly in adverse weather conditions or on instruments alone. Some of the airports are above sea level, others are close to mountains — landing at these can be extremely difficult. The Mail pilot game can include all of these variables as well as emergencies like engine failure.

It's hard to be grounded — that is the effect of Solo flight: you always want to try again. This is certainly the best of the light plane flight simulators reviewed here. It gives a realistic instrument display and the navigational instrumentation performs wonderfully. Microprose must be set to do well with Solo.

#### **Pilot**

The third flight simulator, Pilot 64, comes from Abbex. It is tape based and costs £7.50. Abbex claims: "This title has received a great deal of praise from professional pilots..." Whilst this may well be the case this reviewer has a few reservations.

The first minus for Pilot is the control's 'no joystick?'; there are only keyboard controls (and lots of them). The object is to view a map and memorise your route, then take off from Norwich airport in your 30 seater prop plane. You must then negotiate cross winds, military air zones and other hazards.

The plane is flown at night and the pilot must rely heavily on memory and instruments. Whilst there are many controls to remember for height, throttle, banking, etc, there is enough time to control the craft once you have become used to it. The one real disadvantage is that, having finished the flight or crashed, you are given a message and the game stops. This is not professional programming!

Though it is not an easy plane to fly or control and despite the untidy programming, Pilot can bring much frustration and entertainment. It is a great shame that pilots and programmers don't get together and produce a good flight simulator. Pilot is on the expensive side for what you get, but could be worth it for you (don't forget to look before you buy).

The fourth and final package is Flight Simulator for the IBM PC from Micro-

# Taking to the air on the Dragon

Margaret Norman dons her flightsuit and tests two Dragon flight simulators

THE TWO programs reviewed here are both flight simulators for the Dragon 32 at around the same price — but there the similarities end.

The first thing you notice about Dragon Data's Flight is its overpackaging. The single cassette and four pages of instructions come in a box which could easily hold two cassettes and a fair-sized book. Hewson's Dragonfly, on the other hand, is supplied in a standard cassette box, with the instructions in very small print on the inlay. Perhaps both producers could learn a lesson from those software houses which provide packaging suitable for the amount of program documentation required.

Flight is a very basic flight simulator — so basic, in fact, that it scarcely merits the description. This "aircraft" is controlled only by a joystick; you can move the plane vertically or sideways only. No flaps to raise or lower, no undercarriage to worry about, no danger of stalling or going into an uncontrollable dive — all you have to do is to steer in a straight line.

#### Easier

To make life even easier, at the two lowest skill levels you are shown plan and elevation views of the aircraft and the required flight path. You get an instrument display as well, with three instruments, the first giving your position in relation to the required flight path, the second an artificial horizon, and the third an altimeter. At the two higher levels of difficulty you have only these instruments with which to land the plane.

Your only task is to land the aircraft on the runway. If you crash, you are rewarded with a not very spectacular crash sequence; if you come in too high, you are instructed to "go around", which in practice means just starting again. When you land the aircraft successfully (not a very difficult task) a synthesised voice says "perfect landing".

This program might provide a gentle

introduction to simulators for children, but most people will find its facilities much too limited to give any lasting enjoyment.

Dragonfly is a much more realistic simulation. Here you are at the controls of a light aircraft on the runway at Norwich airport; you have to take off, fly a circuit and land again at Norwich, or fly to Hethel airport a few miles to the south.

#### **Impressive**

To enable you to do this, you have an impressive array of controls and instruments. Controls bank the aircraft and raise or lower the nose (using the keyboard or a joystick), increase or decrease RPM, raise or lower the flaps or gear (keyboard only). There are nine instrument dials on the display: an altimeter, air speed indicator, vertical speed indicator, artificial horizon, instrument landing system, turn indicator, RPM, fuel gauge and engine temperature indicator. As well as these, there are displays giving your heading, bearing from the beacon at Hethel, distance from Hethel, status of flaps and gear, and a stall warning indicator.

Detailed instructions are given on how to fly a circuit. The snag is that it isn't possible to read these and operate the controls at the same time; on your first few attempts, you really need an assistant to tell you what to do when. Once you have done it a few times it becomes easier, of course, and you can use the instruments more and the written instructions less.

The difficulty can be varied by selecting the wind speed, from 0 to 5, and the amount of fuel you take off with. As a raw beginner I selected the easiest options, and still found it quite hard.

This program does have a few snags. The map of the airports is remarkably hard to follow, and the controls are quite slow to respond. However, the dsisplay is as good as you could expect on the Dragon, and it should keep you happily occupied for a long time.

soft. It comes on disk and costs £35.00. To use this with your IBM (if you have one) you will need a colour graphics adaptor.

This time the scenario is the North American continent, with a large number of possible routes and a choice of 22 airports to take off from in your Cessna 182 plane. The conditions you fly in can also be selected, from clear in daylight to hurricanes at night. Once you have mastered the basics of the simulator there is a game included in the package called British Ace. This is a World War One dogfight game, in which you are the ace and must shoot down at least five German fighters with different capabilities. If you are not good enough at plane handling this game will be over quickly!

#### Realistic

The simulator is very realistic: you fly in real time with incredible detail of airport layout and instrument display. The view from the cockpit is fairly good and there are nine possible viewing angles. Before starting you are asked the type of monitor you are using, in order to make the best possible use of the monitor. A demo mode can be selected or back up for the master disk, alternatively you may start flying.

Having chosen to fly, you must taxi ready for take off. This is relatively easy in good conditions, but once in the air navigation is hard and control of the craft

is definitely "droopy". Messages from the controller are flashed on the screen and there is sound for the plane (don't bother with this). Landing the plane is probably the most difficult aspect of the simulator and the only way to master it is with practice.

This flight simulator is not for those who want a kind of game: it is for the more serious and dedicated. There is a 100 page manual which explains the aircraft's controls and instruments. If you are really serious you would do well to take the advice given in the manual and get a set of navigational maps and flying manuals to help you. The instrumentation readout, aircraft control, graphical display and realism of the simulator are excellent and recommended as long as you love flying planes.

So you have quite a choice here — not to mention a few problems. If you own an IBM PC 64K with a colour graphics adaptor and don't mind spending £35.00 on a flight simulator (cheaper than lessons) then Microsoft's flight simulator is the one for you. It could take you from being a complete novice to quite an expert certainly it would prepare you for lessons. You will need to be serious and to spend money on extra flying manuals and navigational maps (the manual gives a list).

64 has a lot to offer for the CBM 64, but certainly be taking up flying lessons.

the program is not very tidy and the displays leave a lot to be desired compared with the other two. However, it will provide some useful instruction on flying (especially at night!) and could be useful so long as you are prepared to put up with the frustration of the game suddenly stopping.

#### Choice

This leaves us with Flight Path 737 from Anirog and solo Flight from Microprose. These two are hard to compare or make a choice between. Solo Flight could be described as being for the less serious as it does not give a view from the cockpit and will allow you to recover from dreadful mistakes. It does provide a lot of entertainment and arguably a lot of flying practice and hints. Flight Path 737 from Anirog and Solo Flight from Microprose. different because you are flying a jet airliner as opposed to a light plane. This simulator seems to use the 64's features to the full and provides some pretty convincing flying experience. There are no second chances should you make a mistake, but the view and the flying are absolutely gripping.

The rating is then Microsoft's Flight Simulator for the serious and Flight Path 737 for those with a 64, but perhaps you should buy Solo Flight as well! After many In terms of actual flying difficulties Pilot hours with these four simulators I will

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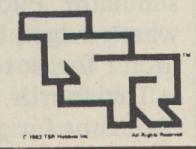
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## Future gaming

Gren Hatton unwraps his crystal ball

WE HAVE SEEN the adventure game for the home computer come a long way since those early heady days when the thought of a full 1,000 bytes of memory spelt unlimited power. No longer do we have to sit still for a castle with only four, very similar, rooms or wonder what the rooms look like; we can explore very detailed dungeons with many sectors. And programs such as the Hobbit and Valhalla bring us a degree of visual display which must seem highly sophisticated to those who sat and thought hard for three or four days in order to save 25 precious bytes in some early ZX80 program.

But no-one really believes that things will stay as they are at present. We can already see the computer hardware market poised to take giant strides with the advent of 16-bit working. This enables us to do away with the current limitation of 64K byte as the largest store which our computer can address, and machines such as the QL will call upon store area which is large enough to be really useful.

machine we get two more big advantages the ability to multi-task and a set of interfaces which will allow us to support a much wider range of peripherals.

What then is the direction in which games machines will progress? This in itself is a very wide-ranging question, and correspondingly difficult to answer. There will be a big increase in the diversity of computer games as the machines grow more sophisticated, but it is unlikely that this will lead to a big variety in computers or their peripherals — the manufacturers will want these to be standard products, after all. It is far more likely that we shall see standard hardware being shaped into specific configurations for particular applications. Thus the hardware for a roleplaying game system might be configured differently from the hardware for an advanced arcade-style spceship simulator, but still use many of the same individual hardware units.

In order to look more deeply into our crystal ball, I will consider the shape which With the coming of a more grown-up may emerge for a hardware configuration appropriate to advanced role-playing.

In a series of articles earlier this year I suggested that a typical role-playing adventure game can be broken down into a number of distinct interactive phases or stages, with each stage being treated as a separate computer program, complete in its own right. For example:

- creating a party of heroes
- providing the impetus to adventure, in the form of background rumours, hints and clues
- creating a map across which the party can journey to reach the place where the specified adventure is to take place
- dealing with melees and combat situations
- the adventure itself at the specified location
- stock-taking and evaluation at the end of the specified adventure

All this has been dealt with in elementary form in the previous series of articles (April and May issues).

#### Interaction

At that time it was proposed that the adventure should be text-based, and several suggestions were made for a series of related program modules which could be used in an interactive fashion by resorting to disk-overlay techniques. In these, the characteristics of the party of heroes would be maintained in an array which would be transferred intact from one program module to the next as the action unfolded, thus enabling constant record to be kept of hitpoints, value of goods on hand, weight penalties, spells used to date and so forth. Clearly there would be other variables in the adventure which would have to carry forward from one program module to the next — some examples would be:

- the time of day or night
- record of the location of the party on the map, which must be maintained whilst the party may have stepped out of the map program into (say) the melee program or the stock-taking program
- record of the rumours known to each of the party

The form which such a set of interactive text-based program modules might take is suggested in figure 1.

The relation between each of the modules is shown in brief, although it will immediately be clear that a considerable amount of interaction will occur between some of the specific modules. For instance, the melee module is one which is certainly long and complicated enough to be a module in its own right, but nevertheless it will be referred to quite frequently in traversing the map module, for instance.

This means that we cannot afford long waiting-times whilst the system down-loads one module, loads another one and boots it up. It is quite inevitable, then, that our thoughts turn to disk-overlay as the only means of storing the overall set of program modules and accessing them during play. Here again, there are at least two alternatives, namely floppy disk and Winchester. Obviously floppies are the >

#### Generation of party of players, with attributes, classes, bonuses and initial gold a\$(a, 10, 10)

A holding array of basic variables containing full details on a party of "a" characters, where a is a number between 1 and 10

A holding array of the gold held by each member (plus three initially empty columns which will hold the food, water and weight penalty of each player)

#### Initial arming, picking up rumours and clues to initiate a quest hour, min, day, am, pm, hr

All associated with the timeclock which is introduced at this stage

> hun Number of hours since party last fed Number of hours since party last slept

#### Travel across country to the destination of the quest

x, y, p\$ Co-ordinates and four-word description of the party's current location c\$(3)

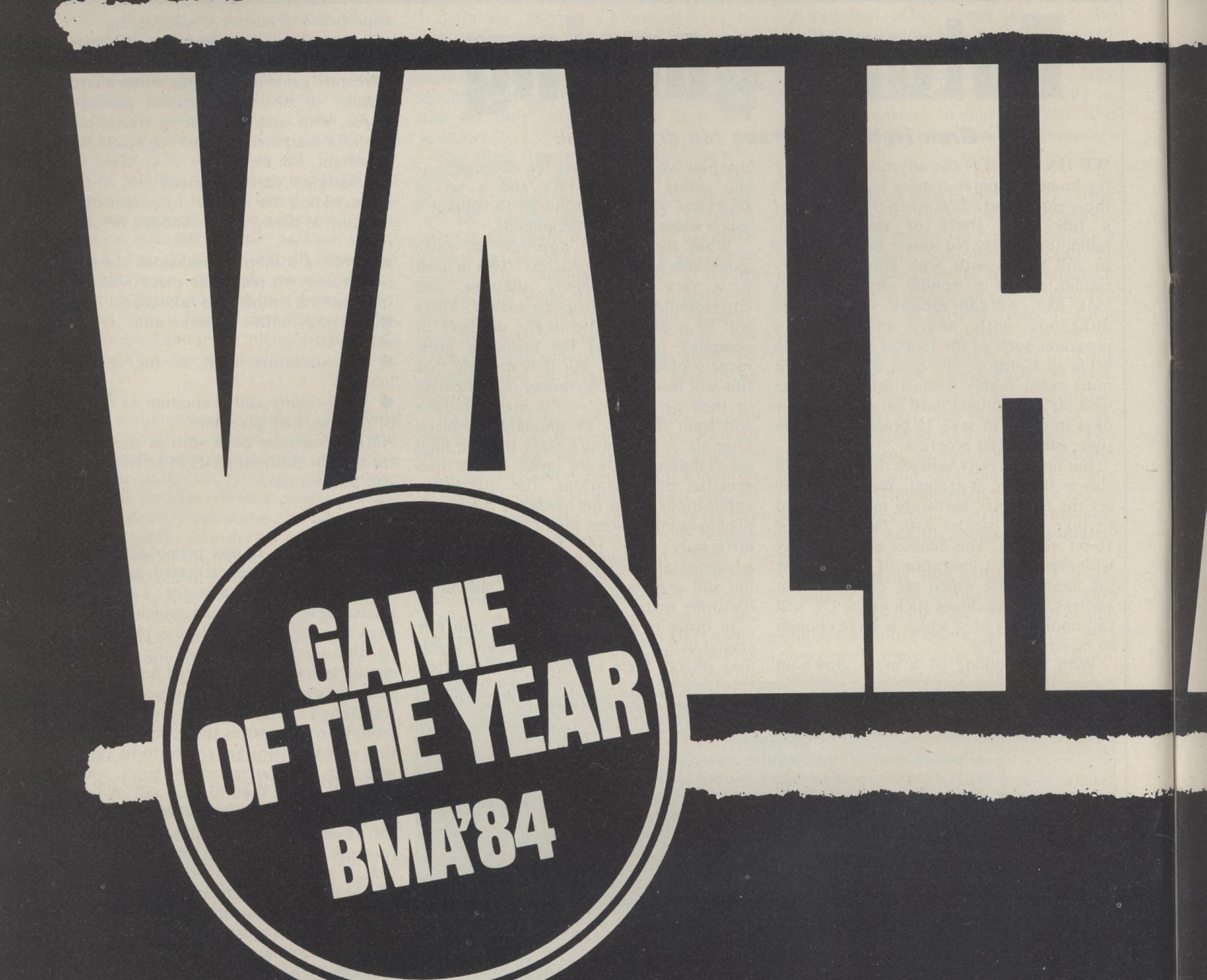
A one-byte three-digit array holding permissive flags, appropriate to the party's current location or type of terrain, availability of food - drink, and any direction(s) in which travel is not possible

> g\$(1) The party's current means of transport wnew, wold Variables monitoring state of weather

Quest at the destination, using an expanded map (plus riddles, dangers, problem solving and aptitude tests)

Travel across country to a new destination OR return to base camp

Figure 1 — simplified inter-relation of program modules (variables in italics)



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However, we must be practical, and recognise that floppy disks for PCs will be available long before market demand is strong enough to create a supply of hard disks for PCs, and that floppy disks will remain significantly cheaper than hard disks as long as we are talking of storage requirements significantly below 10 megabyte, as is the case here. In any event, we can probably live quite well with the modest time, typically 5-10 seconds, which it should take a floppy system to swap one program module out of RAM, store the variables, load and boot up another program module. So it is likely that our first interactive gaming system will use floppy disks as its overlay mechanism.

#### Displays

It is worth sparing a thought at this stage for the form which our screen display will take. So far, we have talked of the set of program modules as being only text-based—this does not mean that it will always remain so, and my opinion is that it will not. We can already look at the games in professional high-street arcades and see the shape of things to come, in the way that increasing use is being made of the video disk to provide real TV moving pictures which can be accessed fast enough to back up the action of a real-time interactive game.

The video disk machine has not so far caught on in the domestic market, or indeed in business. This is partly because video disk machines tend to be expensive compared with video tape recorders, and there has been no attempt successfully made at producing a standard between manufacturers. Also the disk machine is

apparently less versatile, since it can only be used for playback; and many people who buy a video tape recorder intend to do some home recording as well as playing back hired or bought tapes.

The manufacturers of domestic hifi and video goods are really still waiting to see what public demand is likely to be, and apart from one or two half-hearted promotions there has not been a solid push to reduce the cost of video disk machines by tooling up for quantity production and saturating the market.

Of course, the one great drawback of the tape recorder is that it has very slow access time when compared with a disk system. When you are simply playing back a recording of music or moving pictures in real time, this does not matter in the slightest, but the video disk does come into its own when we start to consider it as part of a computer system. The video disk can hold hundreds, even thousands, of filmsnippets a few seconds in length alternatively it can hold a much greater number of still photographs. And these pictures can be indexed and retrieved with great precision and at great speed, exactly as is the case with computer programs stored on a Winchester or a floppy disk.

Games applications will immediately be quite obvious — for instance, the holding on a video disk of a series of pictures which can be indexed and called up from mapping-type games routines by reference to the current map coordinates and those of the surrounding map cells. Such pictures could, for instance, be overlaid with graphics constructs generated by the games computer to simulate the movement of player-characters around the territory currently being explored.

Pie in the sky? Well, maybe it's not here right now, but some of the manufacturers of true arcade game-machines have already

started to use real video pictures as part of the screen display, as I mentioned above. What's more, we are now just starting to see the advent of video disks for home computers. For example, Adam Computers recently announced that it is aiming to provide a video-disk add-on facility to its Coleco machine; and a 12 inch one-gigabyte optical disk store is nearing completion by Xerox – Thompson CSF.

At present such inventions are not for the amateur computer user - apart from anything else, they are limited by high price and unavailability of application software — but it can only be a matter of time before increasing market demand forces the pace and produces sensibly-priced hardware packages with reasonably friendly user software. At the same time, work in industry towards the so-called electronic office is recognising the value of the video disk as a storage medium for certain incorruptible (read-only), longterm (poweroff) or specialist (eg photographic) data; and it may be that office-system development will also provide a spur to the development of low-cost video disk media. Figure 2 shows details of typical video disk capacity.

#### Speech

Speech modules also present tantalising possibilities for sophisticated gaming. There are two basic ways of making the computer speak to you. One is to give it a vocabulary and then instruct it which of the list of words to use in a specific case. The other is to use a proprietary add-on box which builds up any desired word or words from a set of basic sounds, known as allophones. For instance the word "action" would be written and built up as LET a\$ = "ac(cc)—(sh)un" or some similar instruction.

The second system looks more unwieldy, because it involves a separate add-on unit with interlink cables, etc, and because it looks more difficult to write down the instructions in your program which will make the box speak. However, this is not really the case. It does not in general take up many more bytes in your program to instruct the allophone box to speak than it does to issue the spoken text as a PRINT or DISPLAY instruction on the screen. And although allophone language is a little unfamiliar at first it is no more difficult than learning to use a helpful new command in Basic. The real advantage of the allophone system is that there is quite literally no limit to the words which you can make the box speak, unlike the other system which is restricted to the 50 or 100 words which you originally bought or put in.

The obvious disadvantage of today's speech boxes — and this applies equally to both systems — is that they sound like robots and you need to get used to the sound before you can accept it without demur. This is obviously a bit of a problem whenever you need to have the computer distinguish between two or more different characters which it may be playing, and it

MODE	MOVING PICTURE	STILL-FRAME
Basic capacity of 1 side of a 12" disk	90,000 frames (= 36 minutes play)	54,000 frames
Selection method of any specific frame	By unique 5-digit frame number	By unique 5-digit frame number
Search time for whole disk	maximum 24 secs, average 12 secs	maximum 24 secs average 12 secs
Search time within a ''sector'' of 100-200 picture frames	_	well within 1 second

In a typical adventure, we might have 4 or 5 maps or even more, for instance:—
a) The main terrain map, say 30x30 squares each 5 miles x 5 miles

- b) An expanded map of say 2 of the 5-mile squares which happen to have large towns or cities within them, and also an expanded map of the square in which is the aim of our quest, say a region of gloomy mountains and forests
- c) A detailed map of the castle, cave network or suchlike which is the heart of the quest (we may need 2 or more of such maps)
- Of course, (c) is a sub-set of (b), which in turn is a sub-set of (a).

The map in (a) has 900 separate sectors, each requiring one video picture. However, in practice each picture should really be 9 pictures, since we have to cater for typically 3 different states of the weather and 3 conditions of daylight-darkness. This leads to a minimum of 8,100 picture frames for the map in (a) — and if we had chosen 4 weather

different states of the weather and 3 conditions of daylight-darkness. This leads to a minimum of 8,100 picture frames for the map in (a) — and if we had chosen 4 weather conditions we should need 10,800 picture frames! The same is true of the maps in (b), although we can cheat a bit on the maps in (c) and dispense with weather and light — dark variations. Hence a total of 54,000 picture frames will soon be used up.

Figure 2 — details of typical video disk capacity

can be a bit offputting if the ruffian who is menacing you talks in exactly the same disembodied voice as the holy cleric at the monastery where you stopped for a meal two hours ago.

There is no sign at present that manufacturers are going to tackle this problem, much less overcome it. Getting the computer to speak to you like HAL in 2001 is in fact a big job in all senses of the word. It requires very sophisticated software and enormous processing capacity and speed as a minimum, so it looks as though this will stay beyond the limits of small and medium-sized games systems for quite a long time to come.

However, the allophone add-on box is quite a versatile substitute to have in the meantime, providing that we realise its shortcomings and learn to program our games structures to live within them. A worthwhile step in the short term might be for computer manufacturers to develop a plug-in ROM chip for allophone speech which can be fitted inside the case of the computer so as to reduce the clutter of

desk-top hardware.

Of course, since we have now dealt with the generation of proper TV screen pictures and at least a rudimentary form of spoken commentary, it is only natural to think of adding background sounds and special audio effects. For instance, if the screen picture shows a busy marketplace we ought to hear crowd noises, whilst a forest scene should be backed up by rustling sounds from the undergrowth, and so on. Furthermore, the sudden arrival during the game of a hideous foe should be accompanied by a suitable scream, groan, roar, whilst the sound of echoing footsteps should be heard when we have decided to look around the corner in the dungeon which we are currently exploring.

#### Sound

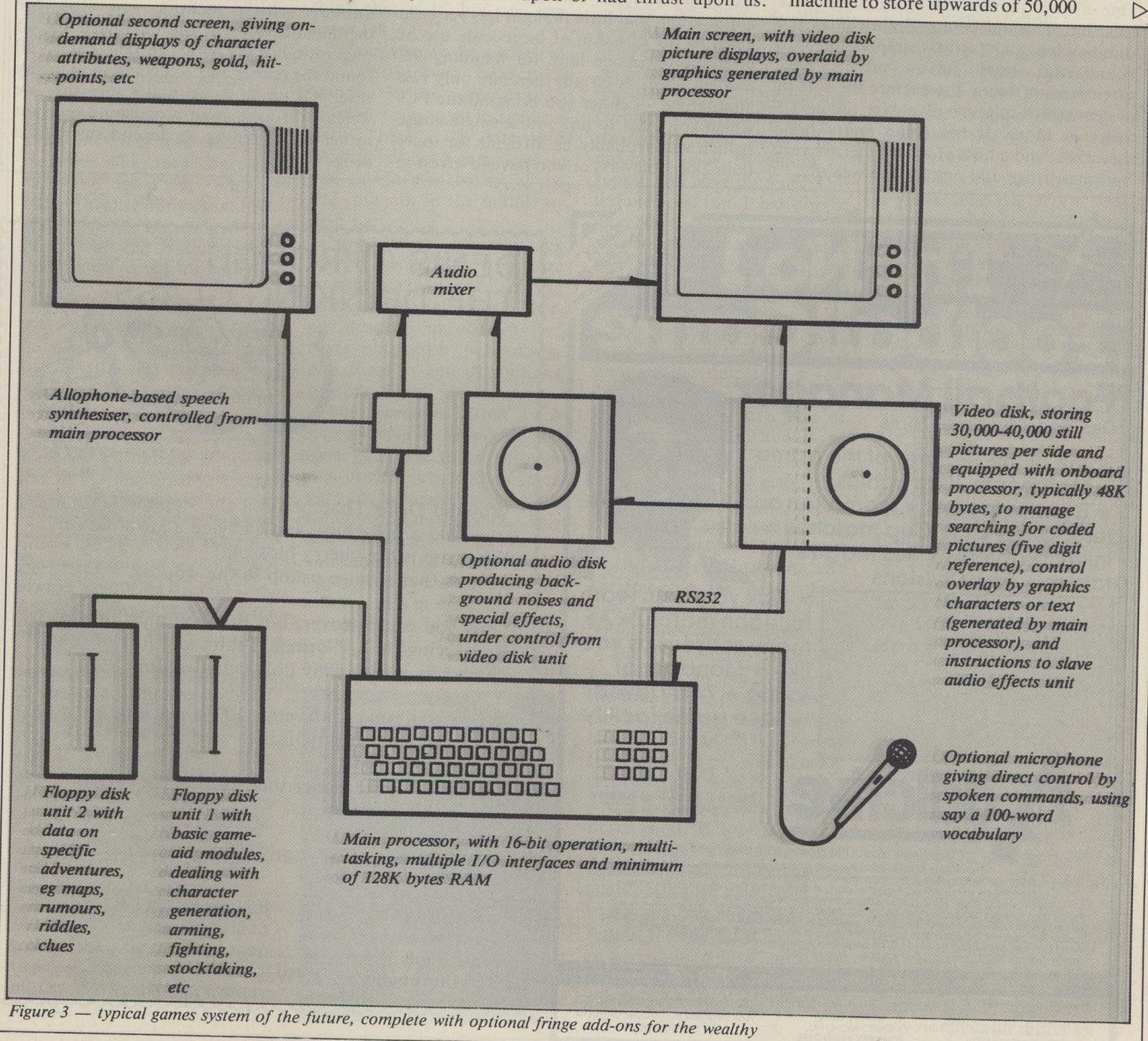
There are, as implied above, two different types of effect called for here. Firstly, a sound to go with the picture which we see on the screen, and secondly a sound to go with the action which we have just decided upon or had thrust upon us.

These two types of sounds may be produced by a single device, but they will probably get their "cues" from two different sources.

In both cases, what we need is a "library" of special effects noises, typically containing 5- or 10-second recordings of about 100-200 different sounds, each of which is capable of being:

- brought on-line within 1 or 2 seconds
- played once only or alternatively looped to run continuously
- added to so as to create "specials" for those who want to develop their own programs
- accessed from two different software routines which may reside in different hardware sources

At first the problem seems simpler than I have suggested above — it ought to be possible to get the background sound from the same video disk machine as is already producing the background picures. However, this is not such a simple matter; the reason being that we shall want the disk machine to store upwards of 50,000



separate background pictures. The only way to achieve this density is by accepting that the background pictures will be stillframe and not moving. As you will appreciate, we cannot get what I might term "moving-picture sound" from a machine which is being used to give singleframe displays.

All this is getting a bit technical and involved. What it boils down to is that we shall probably need a dedicated audio-disk system quite separate from the video-disk system which produces the picture. Put this simply, it is clear that the addition of background sounds and effects could cost a lot of cash in return for the benefit that we are likely to get. For this reason, it seems likely that they will be considered an unnecessary frill by any manufacturer planning commercial development of a games system of this type.

If back-up disks, speech modules, audio units and video disks represent the components of a sophisticated gaming system, how should they be configured? One always regrets asking questions like this, but it would be a real anticlimax if I didn't give an "artist's impression" to round this brief survey off. I have attempted in figure 3 to picture the sort of system which might evolve over the next 5 years or more. It has some pretty basic essentials, and a host of what I feel are very (which will probably be difficult for more rather than coming to depend on it as a optional fringe add-ons for the wealthy.

The important thing to realise is that nothing in the system represents new technology — it is all here already in one or other usable form. All that is lacking is that some parts have not yet come down sufficiently in price; that the market has not yet emerged sufficiently to convince manufacturers that development of standard interfaces will be a profitable venture; and that, of course, a host of gaming software standards will need to emerge if this sort of activity ever takes off seriously.

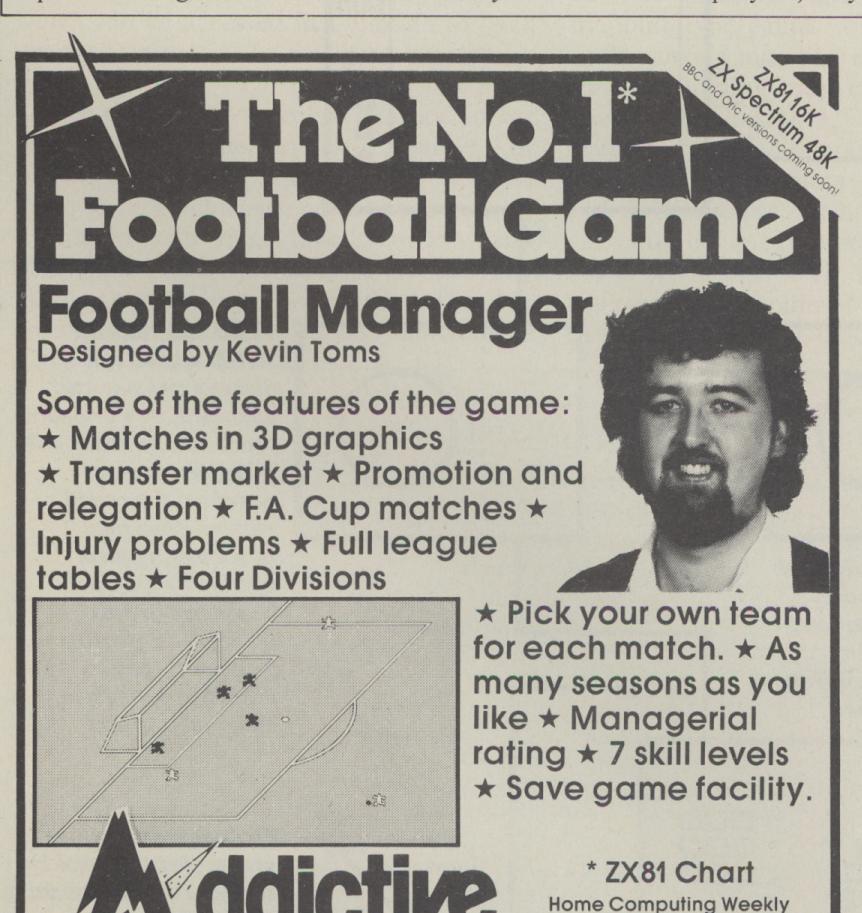
#### **Networking**

There is one aspect of the future which I have not explored in this article, and that is the possibility of linked multi-terminal roleplaying game systems. This doesn't mean that I don't see it coming, for I am sure that it will arrive before much longer. What isn't so clear is how such systems will obtain their software, and how they will be interfaced. The black art of networking PC systems is still in its infancy, as anyone will tell you who is currently into office automation, and little thought has yet been given to the question of large-scale use of domestic telephone lines for handling PC modem links. After all, there are only two alternatives — either you bring all the PCs which you want to link into a single house than 2 or 3 players) or you have to invest in

the cost of telphone links. It's not so much the technical difficulty which will hold this back as the fact that telephone lines cost a small fortune when you start tying them up for hours on end on a regular basis.

However, some of our universities have already started exploring the possibilities of this type of gaming, and of course it's custom-built for research establishments with quantities of dumb terminals linked to an enormous mainframe machine with hundreds, even thousands, of megabytes going spare. Perhaps some reviewer in ten years' time will pour scorn on my views, but I don't see networked systems except as the next stage, when most of the things I have described in this article have already happened.

And, finally, an ethical footnote: it's not at all the purpose of this article to foresee either doom or salvation in the possible coming of more grown-up and realistic games systems for the home. Some feel that tomorrow's youth will retreat into a catatonic withdrawal from the world to a game-world where they can be king or queen, whilst others see possible therapeutic value in the intelligent use of such toys. For my part, I reckon that it's all round the corner and will come soon in any case: it's up to us to make sure that we welcome it as a mind-broadening relaxant drug.



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The crowning glory of this game is the short set pieces of match highlights which show little

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stick men running around a pitch, shooting, defending and scoring... It is a compulsive game but people who cannot take game sessions of 9 hours or so, which happened on one

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# Following yonder Java Star

Adventure The Mystery of the Java Star Micro Dragon 32
Price £5.75 Format Cassette
Suppliers Shards Software,
189 Eton Rd, Ilford, Essex.
SHARDS SOFTWARE, when they wrote Pettigrews Diary, landed themselves well and truly in it. I mean, when you've written the third greatest computer adventure ever, anything else is going to be an anti-climax, unless you then write the second greatest adventure ever.

The Mystery of the Java Star is Shards first post-Pettigrew offering, and although fairly good, certainly does not rate the title second greatest computer adventure ever.

The idea of the adventure is to find a wreck of a ship that sank in 1776 and find the treasure. The Java Star is a ruby and not a ship, which I did not realise until about half-way through, but then if you don't read the instructions it doesn't tell you until part two anyway.

The adventure is in four parts, each a BASIC program loaded by a machine code header page.

The game is worth loading just to see the loader pages. It makes me wonder if, one day, someone will release a tape of the 10 all-time greatest loader pages, but I digress.

The concept of a BASIC adventure never does thrill me for two reasons. One, they are always as slow as BR and two, one can always cheat and find the passwords.

Shards have, to a great extent, limited the possibility of cheating by having optional random routes through the program. I will explain: part one is a magic puzzle. The object is to piece together the 64 pieces of a page of text, arranged in an eight by eight grid, into a readable message, then repeat the process on a map in a similar condition.

You start the adventure with £12000 and you can get help to piece the text and map together, but each time it costs money. Now, the more astute of you out there may say,

## SOFTWARE INVENTORY

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

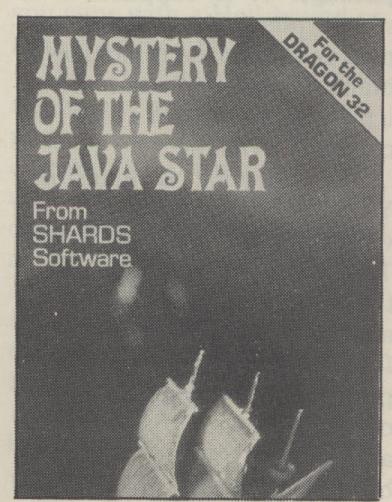
"Why not break in and peek at the listing to get the message?" Shards answer to such despicable cheats is to have different texts chosen at random when you run the program. I have had four different ones so far, and I think that is it, but one can never tell.

In part two we get a touch of the Pettigrews: searching London for the necessary info in order to proceed to the next part. There is a part save facility, but not a game save, ie you can save each part at the end, but not in the middle of each part.

Now, let us just sidetrack here to this facility. It is more frustrating than part four in terms of user interaction. It is not possible, or at least I've never managed it, to load say, part three in and to continue just like that.

The variables from each section have to be saved, and then you have to go through the process of loading each part in sequence, along with the appropriate variables. This take absolutely aeons to do, and renders the whole facility slightly less useful than an ashtray on a motorbike.

Part Three is a map of the world. Armed with the information gained in London, one



searches the world for an island that may contain the site of the wreck. Having found the correct site, the last part gives us another re-cap of a technique used in Pettigrews Diary, in the first part of that esteemed adventure.

Here we have a similar situation and way of presenting it on screen: an aerial view of all three decks of the ship, a pixel-sized dot that represents you, and a clock in the corner that shows how much of your 10-minute air supply you have used up. This is quite good fun. It can also be incredibly boring, since the two items you are searching for, the ruby and gold, are placed in random places, and can take ages to find.

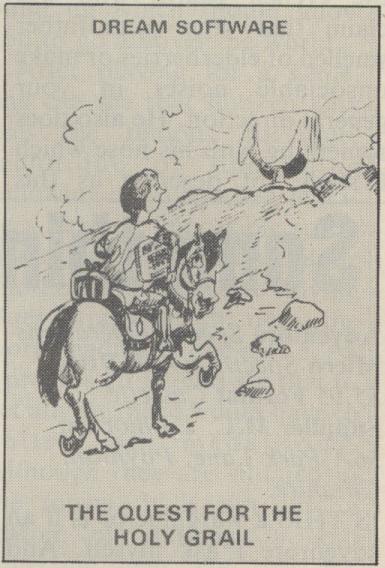
It is also excrutiatingly slow. I don't know if the idea was to simulate the time that a real diver in a diving suit takes to do things, but it is a case of nice game, shame about the speed.

At the end of the game, you get a percentage score. If you have cheated and just loaded in the last part of the game without loading in the variables of the other three parts, then you can end up with some curious scores.

The percentage score is worked out by the average of the four parts, and just doing the last part can cause you to have a score of 25% while at the same time still having recovered the Java Star.

On the whole, the game is fairly good. It took me three days to crack this, as opposed to three weeks for Pettigrews Diary. It isn't as good as Pettigrews, but Shards are now setting a standard in this type of adventure so Java Star is still vastly better than most. I shall certainly be most interested to see the next. SS

# Not much success on Quest



Adventure The Quest for the Holy Grail Micro Spectrum 48K Price £5.95 Format Cassette Supplier Dream Software, PO 64, Basingstoke.

BASED ON the film Monty Python and the Holy Grail, this program is advertised as the world's first funnyised graphic adventure. A big claim but does it live up to it?

I must say that having been a Python fan for 15 years I was more than pleased to give this the once over. The packaging is excellent, being a well-illustrated box in full colour. During the five minute load, a very good title page is displayed. By now I was delving into the illustrated leaflet which was supplied. It is well written and includes amusing semi-cryptic clues.

Plunging straight into the fray, I found myself in a well-displayed blacksmiths forge. During my explorations, I also came across caverns, hills, Camelot, of course, and a cess pit. In all, I visited approximately 80 locations. I am pleased to say that this adventure is laid out well, making map-making easy. Another plus is the fast response times.

The graphics can be switched on or off, though I left them on permanently, as they are drawn very quickly. With the exception of one or two locations such as the blacksmith's forge and Camelot, the graphics are fairly nondescript and a lot

of them are used for more than one location.

This adventure does bear a passing resemblance to the film, with the three-headed knight and the knights who say 'nic' making guest appearances. Not to be forgotten is the French guard, who will claim that your grandfather smelled of elderberries or make unsociable noises in your general direction. He also does something with his nose which I shall not describe as this

review is all in the best possible taste.

Problem solving is fairly straightforward, and this was the program's main downfall in my opinion. I completed the whole of the adventure on a Sunday morning. As for the claim of funnyised, well yes, I did smile once or twice, but really there's not enough humour there to substantiate it. I would have liked to see a lot more Pythonesque items and phrases.

The overall plot and layout of the adventure were more than adequate, but there are not many objects to manipulate and hence not enough problems to be overcome. Also, having few objects, it does seem a bit pointless to have such a large number of locations, only to be told at the vast majority of them that you see nothing.

Having said all that, I did enjoy the Grail, but would have felt somewhat annoyed if I had bought the adventure and completed it in a mere

couple of hours. PM

### Something Special

**Adventure** Special Operations Micro Spectrum 48K Price £5.95 Format Cassette Supplier M.C. Lothlorien, 56A Park Lane, Poynton, Cheshire.

IS THIS a wargame or is it an adventure I ask myself. And quick as a flash the answer comes back: "Yes it is!"

I cannot classify Special Operations. It has many of the elements of a quest-type of squad level tactical decisions combat game for those tricky encounters with enemy patrols.

because the essence of the game is discovering one or for exploring and the combat several items. In the first maps for dallying with enemy scenario you must find the patrols. However, when you secret compound and report to find the compound a full base, having been parachuted screen map of this is given, so into an enemy forest. In later you can see that graphically it scenarios you must find your is well thought out and way into the compound or the interesting. even more secret complex, take photographs or find secret that you command consists of books of cyphers, sometimes

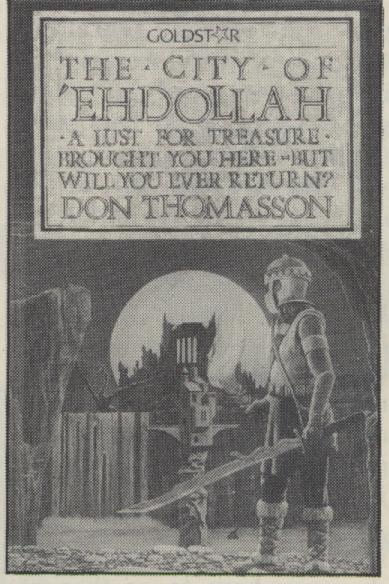
falling foul of a German patrol.

This game is really too full to give a fair description. It uses an excellent input system, once you get used to it, requiring two-letter combinations to carry out instructions but no pressing of the <ENTER> key. So it is almost as friendly as single key input but allows 26 \* 26 possible commands. The adventure but is set in World screen is split into three - a War II, involves a fair number constant left-hand display of the forest, a constant three-line and includes a small graphic space at the bottom for commands and messages, and a right-hand graphic area for It is really an adventure showing various tactical displays, such as the cave maps

The special operations group plans or commit acts of five people chosen for their sabotage. You have to wander skills (with a range of 30 through the forest exploring possible skills ranging from caves and pits, sometimes acrobat to linguist to pilot). finding useful treasures like Only by experience do you learn which combinations of skills work best in which scenario and one of the difficulties of playing the game is the fact that the most important people seem to be killed first. So the combat section is not an irrelevant decoration but an important aspect of the game.

> In fact the whole game plays very much like a commando raid on a foreign territory and I heartily recommend it. One small piece of advice - don't order your sniper to use his skill when there is nothing to shoot at; you won't be pleased by the results. NW

# not much



Micro Spectrum 48K Price £9.95 Format Cassette Supplier Dorling Kindersley Software, 1-2 Henrietta St, London.

THE CITY of 'Ehdollah is a first attempt by Goldstar to break into the lucrative adventure market with what could be quite an interesting package. It is supplied in a sturdy plastic box with foam packaging and even includes a manual similar to some of the up-market adventures currently available.

The storyline is plausible. You find yourself in the vicinity of the lost City of the Toggalids, which is now under the control of an evil sorceror, and have heard tales of the fabled Great Ruby from which power can be gained. Many others before you have attempted to attain this prize but you, naturally, are going to

succeed. It is once you begin your attempt that you run into problems.

The adventure has obviously been well storyboarded but it suffers from a serious lack of vocabulary and a very badly written database. The manufacturers say that they doubt anyone will be able to complete the quest in one sitting. This does not surprise me as the whole system relies heavily on an element of chance. I have found that in many instances simply your choice of direction is enough to get you killed. For example: walking north in the garden will result in falling off a cliff whose existence had not even been hinted at and if you go west through the hole in the wall into the giant bats lair you find yourself unable to return to the garden with no explanation offered as to why.

A commendable attempt has been made to include a combat system but, unfortunately, it does not come up to scratch. A normal combat system (as used in the Fantasy Role Playing Games, which I am sure many of us are familiar with) takes into account the Strength, Stamina, Dexterity and weapons of the player character to determine the amount of damage suffered by either combatant.

Unfortunately the Goldstar version relies far too heavily on a purely random hit or miss factor. In one area I came upon a relatively weak monster with a stamina of only six compared to my 20 yet I took 14 points of damage before finally killing it. You may only eat six times and each meal restores four points. I'm sure you can see this gives you very little chance of survival.

I would, in all seriousness, advise Goldstar to withdraw this package immediately and enlist some help to rewrite the whole system as well as debugging the adventure. SC

## Go get vampire

Micro BBC B Price £6.95 - £9.95 Format Cassette - Disk Supplier Micrograf, 120 Oxford Road, Reading, Berks.

YOUR sleepy country village is troubled. Each morning you find sheep and cattle brutally killed, and one day, one of the villagers mysteriously disappears! The whole day is spent searching for him, but to no avail. That night, you are woken by the sound of organ music and spine-chilling screams. You glimpse an inhuman figure vanishing into a nearby ruined castle. A candle winds its way to the topmost tower. Suddenly there is another shrill scream, and the light is extinguished, leaving only the music. This can only mean one thing . . . Count Drac's back!

You, as a leading citizen, bravely (?) volunteer to enter the castle, and destroy the Count in his lair. The adventure starts with you at the castle's front door (a pretty good place to start). Once inside the castle, a clock informs you of the fact that you have a limited number of moves until midnight, and we all know what happens in Dracula's castle at midnight, don't we? As it turns out, midnight comes in handy, but also brings its own problems.

While waiting for the main part of the program to load, the computer plays Bach's Toccata and Fugue (it's a good try, but just a bit frantic). The simple mode 7 graphics and sound that crop up occasionally are good, but not exceptional. The response time is fast, but a strange point is that the screen clears before displaying a room description. The items, when inventoried, are displayed in random colours, which is sometimes difficult to read, and even harder on a monochrome screen. There appears to be



## More slick needed

Adventure Sunken City Micro Dragon 32 Price £7.95

Format Cassette Supplier Slik Software, 19 Sancroft Street, London SE11.

SUNKEN CITY is the inviting title of a new adventure from an unfamiliar software house, Slik Software. As soon as I read the cassette inlay which says that "if thick white vertical lines appear on the screen, press break, and re-run the program" I was given the impression that the program was not "slik" after all, but rather shoddily finished.

This was reflected in playing the game, where I found more irritating bugs: sailing along the coast rubs out that part of the coastline; the game sometimes stops with ?FC error in 800, and occasionally after meeting a minstrel the map is not drawn up. Thankfully these bugs rarely occur. All the same I don't think another few weeks spent at the keyboard polishing up the program would have gone amiss.

Running the risk of having the game crash, I got down to the adventure. The scenario is inadequately explained on the inlay card, so for the most part it's all about exploring and finding things out for yourself, which is, I think, one of the best parts of an adventure anyway. The main playing screen is a map of the world,

only one spelling mistake in the program, which is much better than most. The load-save facility is swift and mug-proof.

Vampire Castle is a welldesigned adventure, with some very ingenious puzzles. What would you do with a heater, a piece of music-paper and a hang-glider? And how would you cope with a Hell-hound or Frankenstein's monster?

This certainly is an addictive adventure, and is good fun to play. There is a great originality throughout this adventure, and it will keep you on your toes all the way. Those adventurers who do not like mazes (I know how you feel) will be pleased to know that there does not appear to be one here.

Vampire Castle is suitable for both experienced and not experienced adventurers,



but when entering towns or for special messages the action switches to a new screen which may be high or low resolution, producing a pleasant mix which is rather reminiscent of Pettigrew's Diary by Shards Software.

The adventure starts in North America, with just enough money, food, and mortality, to get the player to the next town. Frequently (perhaps too frequently) a grizzly bear or a wild mule is only too happy to deal you about 20 to 30 injuries, less if you have a good weapon.

The animals change from country to country, eg kangaroos in Australia, sharks in the sea, and head-hunters in Africa, although the nature of these never change: they injure the adventurer, and the adventurer kills them. Learning to take these into account, as well as the lack of

although the "novices" will have to work hard. That is not to say that experienced adventurers will have it easy. A very good adventure that is a joy to play, and worth the money. Go get it! AT

## drunk all

Adventure Denis through the drinking glass Micro Spectrum 48K Price £5.50 Format Cassette Supplier Applications Software Specialities, 8 St Paul's Road, Peterborough.

utility, allowing someone with no programming skill at all to

food, transport, money, etc, is all part of the game, and though it's not easy to know what to do at first, skills soon build up which should allow you to go all over the world.

After playing for a while, one can see that Sunken City uses the famous adventure technique of one thing following on to another, ie it is very hard or impossible to do one thing until you have done another, as opposed to having clues straggled all over the world leading to one place. As I progressed I could see that to get any further I would have to collect six medallions. Although they are situated in the towns, it is not just a matter of walking in and collecting them. The quest for these medallions will take you to far away places and forgotten lands, and it's all very exciting. When I at last collected six medallions, I traded them for . . . well, I won't spoil it for you but that wasn't the end by a long way.

Sunken City took me five hours solid playing to solve, and when seen in perspective, the bugs and the maddening omission of a save game feature are a small price to pay for such a captivating adventure which will, as the advertisement says, "challenge your skill and ingenuity and keep you glued to the screen for hours." MG

produce professional quality machine-coded adventure games. One of the first commercial fruits of this admirable skeleton program is Denis through the Drinking Glass, an adventure in which you play Denis Thatcher, the Premier's consort who is about to embark on a holy quest for the mythical Gravedigger's Arms.

No, don't get your hopes up! There's nothing faintly mythic or mystic about this game. It's just a weak political satire set in contemporary Britain, peopled by politicians and public figures like "Woy" Jenkins and the Greenham Common Women instead of dragons and trolls.

It's not a bad idea, and THE QUILL is a marvellous there's plenty of scope for an author of wit and imagination to cut loose. Indeed Denis D

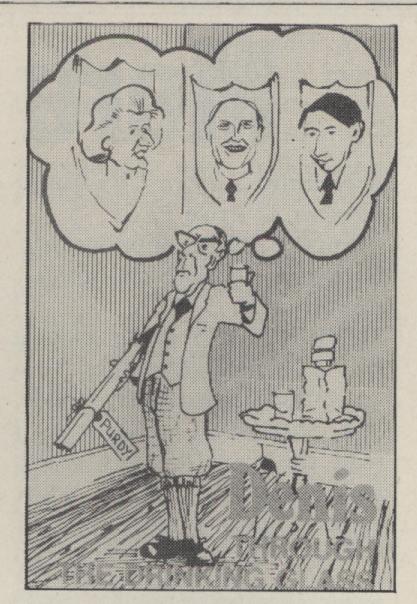
Ashows quite a lively sense of humour and forced a grin or two along the way. All things being equal, I was quite looking forward to a change from spaceships, dungeons and monster-bashing.

But all things aren't equal. In this game they are balanced overwhelmingly against the player. At the start you find yourself in Denis's study at Number 10, disturbingly equipped with bed and wardrobe as well as bookcase and desk. The room descriptions are entirely in verse. Bad verse. To call it doggerel would be to underrate the poetic abilities of the average Yorkshire terrier. Still despite this, and the occasional spelling error, a certain atmosphere is created, mostly one of paranoia and oppression.

EXAMining the wardrobe was useless, but I found out eventually that LOOK

WARDROBE did the trick. Clumsy, but I could live with it. Not so the endless ways to die . . . well, nothing quite so dramatic, but still the end of the game. Meeting Maggie, stepping into the street without due thought for one's personal appearance, sneaking out, meeting a policeman — all meant starting again. A challenge is one thing, but this was attrition!

Still, using the Quill's builtin save option even this could have been overcome, if it wasn't for the author's pièce de résistance. I can almost imagine him cackling with glee when he came up with the idea. Denis, you see, has a drink problem. He can't function without alcohol. To play at all you need to keep him perpetually tipsy . . . and in this game "tipsy" has a very precise meaning indeed. If Denis takes a drink too many he's drunk - end of game; if



he waits too long between drinks he sobers up — end of game. There are no messages to warn you this is about to happen. Denis must drink every tenth move, no sooner or later, so you must note down every input as you enter it. Boring, awkward and infuriating. It adds that final

touch of unplayability to an already difficult game. And since Denis's trusty flask is well-hidden, getting started at all is a major achievement.

To be honest, if I hadn't been able to run this game through my own copy of the Quill to see how it worked and then edit out the bits that make it unplayable, I'd never have seen enough to review! If you have the Quill you might find this program interesting (it's certainly bizarrely constructed) — otherwise only for those with the patience of a saint. **DD** 

# It's all Brooklyn to me

Adventure Mugsy Micro Spectrum 48K Price £6.95 Format Cassette Supplier Melbourne House, Castle Yard House, Castle Yard, Richmond, Surrey.

MELBOURNE House became a legend with the Hobbit, and all new releases are bound to be compared on quality. So does Mugsy live up to its famous cousin?

To be fair to Melbourne House, Mugsy is not a Hobbit II or Son of Hobbit. In fact Mugsy is not an adventure at all, more a strategy game with random factors and an arcade element thrown in for good measure — but I'll come back to that later.

During loading, I was treated to the best title page I've ever seen. Throughout the program, its graphics are "state of art" for the Spectrum. If you thought Hobbit graphics were good, wait till you see these. There are two animated sequences: one of a hit man in a bar, and the other (my favourite) of a car drawing up outside a cafe and riddling the windows with bullets.

The object of the game is to become a successful gangland boss and all the dialogue is in gangster slang. There is a natty little tune, but sound is used very sparsely in the game.

Many moons ago (before the micro was born) a game called Hamurabi was written on a mainframe computer. The object, as most of us know, was to plant crops, buy and sell

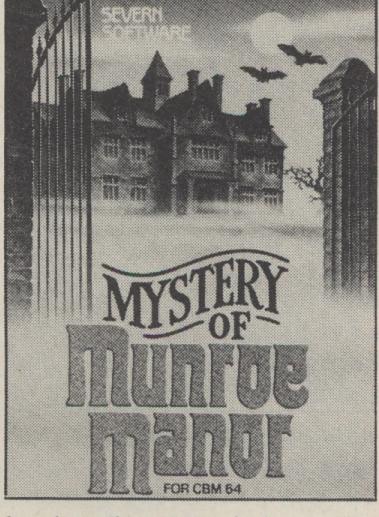
## Go Manor stomping

Adventure Mystery of Munroe Manor Micro CBM 64 Price £8.50 Format Cassette Supplier Severn Software, 15 High Street, Lydney, Gloucestershire.

MYSTERY OF Munroe Manor is billed as a graphic adventure. It is graphic in the style of the Hobbit, with some animation. There are some 70 screens and Severn says a competent adventurer will take at least 50 hours to find one of the solutions.

The game takes some 15 minutes to load with a pause for the instructions and some fairly good animation. The screen is black whilst the game loads so don't switch off. The scenario is a lonely manor house on the moors which belongs to an infamous explorer, who one day disappears leaving a nice puzzle for all you adventurers to solve. The ghosts are supposedly wailing, the wind whistles and all that stuff. Certainly the mirror talks too much.

The game starts in the hallway of the house with the player's current position displayed in mutlicolour. The graphics do actually hold clues for the player and are worth studying carefully. The bottom three lines are reserved for text



leaving the rest of the screen for graphics.

Unfortunately there are two bugs. The first one is the ability to move the cursor around the screen: this spoils the screen display, but does not effect the game. The second bug is: do not "feed dogs", instead drop meat. Severn is aware of these bugs and will of course correct them.

The game handles the commands in the usual way: a verb and a noun. There is no HELP facility and LOOK is used in place of EXAMINE. The command G is used to find the available exits from the current room. Severn claims more than one solution to the game. As the game was not completed for this review "no

comment", but the starting sequence must be exact or the player just shifts from room to room endlessly.

However, once started you will have fun "reading" the text and "inserting" your answers. Some of the usual tricks are used, like repeating commands if they don't seem to work, or coming back to the same spot later and trying the same command.

One feature of the game not mentioned on the cassette cover is the use of sound. Although there are no masterpieces of music, the effects do enhance the game.

Severn says it is soon to release other adventures for the 64 — hopefully they will be as good or better than this one. After some effort and advice I completed nearly half of the adventure and found it hard going and very frustrating. Never mind, there is of course a QUIT option to put you out of your misery.

The price and quality (assuming bug corrected) of this adventure certainly make it worth buying and playing. It should keep newcomers and 'experts' busy and entertained for many hours. So here's hoping you have many gripping times stomping through Munroe Manor. KB

wheat, keep your people alive, and not be deposed. Well, Mugsy is basically Hamurabi dressed up with fancy graphics. For wheat, people and deposed, read clients, hoods and hit.

As for the arcade game, approximately every four years, a contract is taken out on you and you must shoot the hit man before he gets you. Either way, the sequence only lasts about 10 seconds each time.

Mugsy is mildly addictive, but I must admit to being a bit disappointed with it. Having chosen a good theme, and produced stunning graphics, more invention could have gone into the game mechanics.

I have to admit though, even with a lot of all singing, all dancing programs about, I still enjoy playing Hamurabi. PM

## Faust heads for

Adventure Faust's Folly Micro Spectrum 16K Price £3.50 Format Cassette Supplier Abbex Electronics, Tavistock House, 34-36 Bromham Rd, Bedford. IF YOU buy an adventure which is tailored to fit a 16K Spectrum, you cannot really expect a very good game to be squeezed into the available memory, even using advanced techniques of machine code and text compression. When the programmer avoids such sophistication altogether and attempts to write the adventure in 7K of Basic, then the result is likely to be very poor indeed.

Such is the case with Faust's Folly, which cannot be recommended even to adventure-starved 16K Spectrum owners, despite its attractively low price. The cassette packaging is simple and unattractive and features incorrect instructions for loading the game - always a bad sign.

To save precious memory, and extra printing on the sleeve, the game is preceded by an introduction, which sketches a scenario: you have to find and explore Faust's Folly. This is a secluded hideaway populated by a number of mutants from the

dawn of time and full of lots of treasures which, unusually for an adventure, you can just carry, all at the same time. Your mission is to collect all the treasures and escape with your life.

The adventure accepts the usual verb-noun two word input, although its vocabulary is highly impoverished and there are some graphics. GW

### It's all in the name

Adventure Suicide Island Micro Spectrum 48K Price £6.00 Format Cassette Supplier Dollarsoft, 3 Everard Glade, Bradway, Sheffield. SUNDAY morning 10am: the lounge. I slip Genesis on the hifi and collapse into the comfy chair. What could possibly spoil the sense of blissful inner peace thus created? Read on.

This is not going to be an extensive review I'm afraid, as I could not get the program to stay in the Spectrum long enough to find out too much about it.

Suicide Island does not have any loading problems. I know — I had plenty of practice. This is a two part adventure, one part recorded on each side of the tape. The object is to escape from the island in part two with the treasure.

Graphics are spread spasmodically through the adventure, and they are fairly mediocre. I wish software houses would either produce detailed graphics or not bother at all. To have the top half of the screen blue and the bottom half green to denote sky and grass is simply not good enough. Too many progams are including these kind of graphics nowadays to qualify as "graphic" adventures. This "wasted" memory would be far better used in enhancing the atmosphere of a text adventure.

There is no text window on the screen and, consequently, both text and graphics scroll upwards. No help command is available and computer response is almost nonexistent. Unrecognised and invalid inputs are just ignored which means that an intelligent guess does not even get a "you

can't do that . . . yet".

Many buildings are described in the text and defy all attempts to gain entrance. These appear to be mere window dressing, and therefore rather pointless. By now I had entered commands on several occasions only to be faced with a black screen followed by a © 1982 Sinclair Research Ltd.

Sunday morning 11am: have I really got to load this again?

Suicide Island lacks also in atmosphere, and there are one or two silly mistakes, such as dropping the food only to find it still in your inventory. One

location describes a field to the north (you can't go north) and another one says there is a tree to the south. On going south there are no trees to be found.

Arriving at a shop, I find that it is closed, so I "wait". Okay, so I have another look and yes, you guessed wipeout.

Sunday lunchtime: scraping remnants of my Spectrum off the wall.

This program is aptly named Suicide Island as it constantly self destructs. If this is a preproduction version, there's a lot of work to be done. If not. . . PM

### Good as Gold

Adventure Flint's Gold Micro BBC B Price £6.95 - £9.95 Format Cassette – Disk Supplier Micrograf, 120 Oxford Road, Reading, Berks.

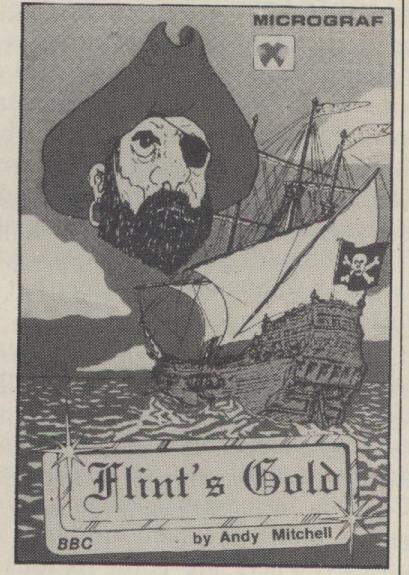
IN A dockside bar you overhear two old pirates talking of Flint's Gold, a vast hoard of pirate's treasure buried somewhere in the Spanish Main. They speak of a brigand by the name of Long John Silver, and of a lost treasure map... Rather hastily, perhaps you rush off to search for Flint's Gold.

The adventure starts with you wandering around the back-streets of the port, and that, after an instruction, you your search.

adventure has sound, graphics only found two "havn't and and music in addition to a Spanish Maine". An errorgood setting. As you load, a trapped save-load routine is very good representation of the provided. Sailor's Hornpipe is played (à This adventure is very adventure.

The problems encountered ammunition.

fast, but an irritating feature is needs feeding. AT



after getting yourself some are met with a response like essential equipment, you set "Aye, Jim Lad", "OK off to find a ship. Having done Matey" or something similar. this you proceed to a pirate's This gets surprisingly annoying island, where you continue very quickly. A very good point of Flint's Gold is its lack This 18th century sea-borne of spelling mistakes. I have

la Snowball). The graphics compelling, and gets consist of very simple mode 7 progressively harder as you get animation, but still amusing. closer to its conclusion. It is The sound effects are the best I great fun to play, even though have heard on any program. you might be tempted to switch The graphics and sound only the sound off after a while. appear for certain sequences, One interesting feature is otherwise it is a silent text a flintlock pistol with a seemingly endless supply of

are most original, and on the Flint's Gold is a very whole have amusing solutions, enjoyable adventure to play, even more so if you get it and makes a refreshing change wrong. I don't know if I got it from the spaceship or dungeon right, but Long John came to scenario. It is suitable for all an untimely end. Problem is, players really, although the less I'm not much better off now. experienced may need a little The response time is very help. Must go now, the parrot

# Battling it out with the computer

Laurence Miller draws up the lines for battle and picks the war game winners

AMERICAN war games may be regarded as classics but UK software is rising to the Atlantic challenge. This month I intend to look at some games for the Spectrum (also available on other machines including the BBC and Commodore 64 as well as the Oric). But before getting down to individual cases, I'll take a look at some of the mechanics of computer war games and try to define some terms so that we're all talking the same language.

Whilst talking about war games I'll actually be referring to strategic and tactical conflict simulations — which embraces anything from Diplomacy style games to man-to-man battle simulations. I'll even be covering chess and economic games under the same umbrella in future articles. There are good reasons for such wide-ranging coverage as closer examination reveals more similarities than differences between these apparently disparate subjects.

The most important similarity concerns the raison d'être behind this form of gaming — thinking. All these games require the gamer to think about actions before taking them, planning each move and trying to estimate the results of each action with an eye to final victory. When games move away from this basic foundation they cease to be serious war games and start to become war toys. These are offensive — and provide grounds for attack by the ignorant on the whole area of war gaming as everything gets tarred with the same brush.

#### So-called

This leads onto the appearance of the so-called real-time war game, as typified by such games as Imagine's Stonkers, a "classical war game that could be played and enjoyed by arcade and adventure fans as well". It's strange that no-one would dream of suggesting that chess should be turned into real-time action to appeal to arcade fans, but apparently it's fine for war games — even though chess is the archetypal, classic war game. Apparently it's okay to use fast action techniques for war games to cover up programming

inefficiencies and lack of a reasonable computer opponent because no-one's going to take the games seriously anyway. It's rather sad to see arcade techniques applied in such a way as to negate the whole idea of serious gaming instead of being used to complement it.

Currently there are three classes of wargames: player versus player, player versus computer, and player versus player or computer. The first type predominates in the UK market, probably because it is the easiest to program as it only requires the programmer to make use of the strengths of computers. Number crunching, array handling, random number generation and display are the only real necessities for the player versus player game — enabling the numeric complexities of probability to be handled efficiently and invisibly, and allowing the gamers to concentrate on strategy and tactics. These games can be played solitaire with the gamer taking both sides — something long familiar to board war gamers and capable of providing an enjoyable, interesting challenge, although they are definitely at their best with human opponents. Examples of these are Red Shift's Apocalypse, Rebel Star Raiders and Nebula — and Lothlorien's Confrontation.

#### **Necessity**

Player versus computer games pose an entirely different problem for the programmer in that they require everything needed for the first type but are dominated by the necessity of providing a programmed opponent. The best way to provide such computerised opposition requires the development of sophisticated artificial intelligence routines, especially if predictability is to be avoided. Unfortunately there are other ways to provide an electronic opponent which can provide a superficial impression of interesting opposition and are far easier to program. These methods include making the computer forces so powerful that they are virtually unbeatable. As most people do not enjoy banging their heads against a brick wall this quickly gets tedious, especially if it is combined with one of the



Red Shift in gear — the team behind Apocalypse

other major get-outs — the so-called realtime method which often includes accessing routines too slow to deal with the computer's operational speed.

The main principle behind this method involves continuous movement by the computer and player. This would be reasonable for man-to-man actions over small distances but proves to be a farce when games portray division-sized units covering tens or hundreds of miles in seconds. That's not real-time war gaming, it's designed to reduce the player's decision-making to the computer's level rather than trying to raise the computer's decisions towards those of a human player.

Some of the games involving a computer opponent include Lothlorien's Redweed, Johnny Reb and Battlezone 2000; Imagine's Stonkers; and Assassin Software's Next War.

The third category offers the best (and sometimes the worst) of both previous types and dominates US war gaming where disk is the main way of handling software. It is in the minority in the UK where tape holds sway and most software is in the rut of "the whole program must be memory resident" rather than multiple program overlays being standard. This situation should improve as disk drives become more common (and cheaper) and more alternative fast storage methods arrive such as microdrives from Sinclair.



and Rebel Star Raiders, at the forefront of simulations for more than one player

Amongst the games available, Red Shift is proving to be a superb exponent of the 2+ player simulation. Its first release, Apocalypse, has been expanded with the release of additional scenario packs, despite already being well equipped with four scenarios and a multitude of options. It is not equipped with a computer player although combat can be handled automatically. Intended for 2 to 4 players and available on the Spectrum 48K and BBC, this game can be addictive to play although in war gaming terms it is very simple. The decisions available to players are very basic but cover a large number of permutations which combine to make an enthralling game.

Each player receives revenue which may be used to purchase the deployment of troops, naval units and nuclear weapons (deployment of these reduces revenue in the area). Following deployment players are allowed movement and, if entering an area, battle follows with an abstracted series of attack – defence options either at the players choice (hidden from opponents) or by randomised computer selection. The final aim is open to player choice and can be based on control of player defined centres (at the start of the game) or revenue figures as defined in the instructions.

For the serious war gamer this must be defined as a "beer and pretzels" game but for the beginner it provides a solid

grounding in the principles of gaining territorial control. As a board game it has proved immensely popular but on a computer it offers even more, especially with the vastly extended options both included and available as extensions. The main caveat I feel towards this game is one that applies equally to many games of this type of the Spectrum, and that is the somewhat sluggish response to the keyboard controls. This time-lag can prove very frustrating in a long game. If you can get several people to play with you, the scope of the game widens with all the additional fun of diplomacy, alliances and back-stabbing. By the way, for those who disapprove of the subject matter, the original game was written by a CND member and it is essentially anti-nuclear war . . . try it and you'll see!

Far more in the manner of the traditional war game but with an SF theme is Rebel Star Raiders, a two player, tactical, manto-man combat game with each player controlling between 20 and 30 characters depending on which of the three scenarios you use (more are promised). Each scenario provides a full screen display of the combat area with each player's combat areas coloured to delineate initial deployment zones. Combat and action are handled in a realistic and easily understood fashion with allowances for movement, wounds, weapon type, armour effects and much

more.

The program even forces you to pay close attention to the location of your own forces when engaged in ranged combat, as you can, hit them if they are in your line of fire. It is possible to move and fire in the same turn but combat uses movement points, thus reflecting the fact that firing at a target will slow you down. All necessary information is available to players including percentage chance to hit a target, number of shots left, movement point cost for an attack and much more. Although designed as a two player game, it is still excellent to play both sides solitaire as the victory conditions for each side are different.

If you've ever wondered what it would be like to capture Moonbase Alpha from the surface, or board a spaceship and capture it, or defend it from capture, then this is the game for you. Control functions seem more precise and less sluggish than Apocalypse which helps to contribute to the action — but you must still try to have an overall plan of attack or defence. Without one it is too easy to be overwhelmed by a well coordinated attack.

The last game in this section is a relatively new program from Lothlorien called Confrontation which is designed to allow simulation of any twentieth century warfare excluding nuclear and CBW weaponry. It includes one scenario (Twin River for the Spectrum and Stalingrad in the BBC version). At first sight it appears to be a relatively complex simulation with many options but once played will feel very familiar to long-term war gamers as it is very similar to the introductory war game Blitzkrieg from Avalon Hill.

#### Range

A wide range of combat units are provided including armour, mechanised infantry, engineers, flak, anti-tank, scouts, infantry, artillery, paras, transport planes, fighters and ground attack aircraft. These combine with a multitude of terrain types to offer a wide range of player constructed scenarios. There is a maximum limit of no more than 35 units a side which places the game in the area of low complexity compared to board war games, with even Blitzkrieg having considerably more units available.

But, in the home-produced market, it is one of the most sophisticated programs of this type and provides a challenging contest for two players. Independent scenario production is a good idea if somewhat slow and tedious, but Lothlorien has also promised to release a range of ready-made scenarios which gives something to look forward to.

Provided you can accept the inbuilt limits, such as the necessity of remembering the identity of your own units (unit type is only shown if a unit is in line-of-sight of the opposition), then this is one of the best two player simulations available on the Spectrum (and should be for the BBC but I've not got this version yet). And it's also an interesting solitaire exercise playing both sides.



The Quill is a major new utility written in machine code which allows even the novice programmer to produce high-speed machine code adventures of superior quality to many available at the moment without any knowledge of machine code whatsoever.

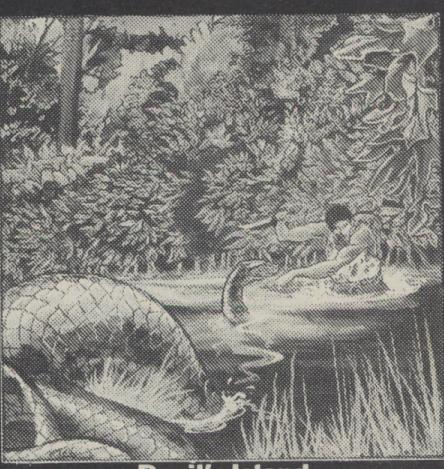
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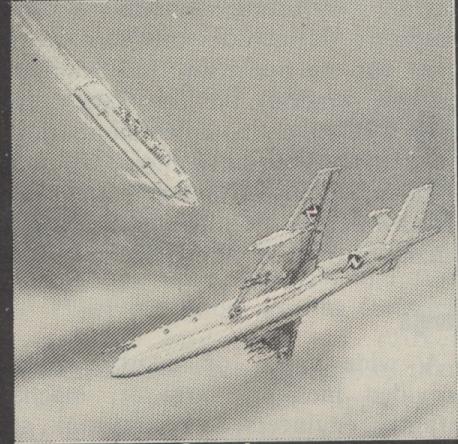
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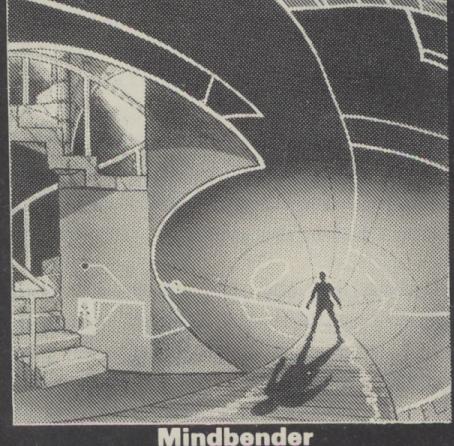
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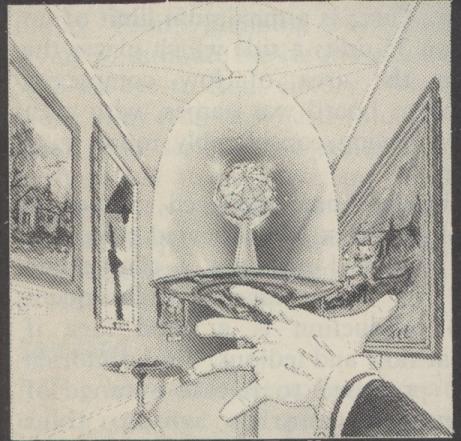
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MERCENARIES, SMUGGLERS, thieves, computer geniuses and murderers may sound like unlikely heroes for a science fiction adventure series — but not for Blake's 7. It was the variety and depth of these characters that contributed to the tv programme's popularity.

Blake himself, as I explained last month, was the most obvious freedom fighter, determined to rid the galaxy of the "totally corrupt" rule of the Terran Federation.

Vila Restal was the thief: "A thief isn't what I am, it's who I am". Jenna Stannis was the smuggler, and an expert pilot — "the criminal's criminal". The computer genius — and Spock-like believer in the powers of logic — was Kerr Avon. Olag Gan was the group's strongman, with a limiter in his skull to prevent him killing again. The sixth member, Cally, added her telepathic abilities to the group's range of skills — and vulnerabilities.

These were the "good guys". Blake's two main antagonists were equally paradoxical: Servalan, Supreme Commander of Space Command, a "tasteless megalomaniac" with a love/hate relationship with Avon; and Space Commander Travis, the antithesis of all Blake stood for.

The early episodes in the series concentrated on introducing these characters, culminating in the group's acquisition of an alien space ship which they renamed the Liberator. Its computer, Zen, brought the complement to seven. Once in space, the characters were free to develop.

#### Race

The next major development in the series occurred in the last episode of the first series. Professor Ensor, developer of the Tarial Cell, an important component present in virtually every computer possessed by the Federation, had developed a new computer capable of tapping, without a direct connection, into any computer containing the Tarial Cell. A race ensued between Servalan and Blake as to who could get to it first. Blake gets it but finds that Orac, as the computer is known, has acquired much of the irascability of its inventor. One of its first performances was to show a prediction of what looks to be the Liberator exploding. With that the series ends.

Nine months later, a year from the start of the first, the second series opened with the Liberator being forced to return to its creators. The episode ended with the Liberator (with the aid of Orac) destroying its sister ship thus fulfilling the prediction from the end of the last series.

Shadow, the second episode, was one of the interesting episodes where everything came together: a well written script by Chris Boucher (the script editor for the entire series), unsurprisingly the writer with the best understanding of the characters; superb visuals and good acting from the whole cast; a story of the Mafia-like Terra Nostra Moondiscs, the telepathic creatures that produce a narcotic called 'shadow'; and an alien intelligence using Orac to enter this Universe. The episode was an example of

# On the move in space

Kerr Eastman on the action in Blake's 7

the series at its best.

As the second series progressed it was increasingly concerned with Blake's obsession to destroy the Federation's computer nerve centre known as Control. Without it, Blake reasoned, such a widely scattered empire as the Federation would cease to exist effectively. The first attempt at Control in the episode Pressure Point resulted in the storming of a heavily guarded empty room (the widely publicised location of Control) and the death of Gan. This death and the utter failure of the attack led, in the next episode Trail, to Blake retreating to an uncharted planet, without the support of the rest of the group, to sort out his guilt feelings. With Gan's death, doubts over Blake's leadership were never greater, especially from Avon.

On Blake's return the following conversation took place which showed the apparent rift between Blake and Avon. Avon: "One day they're going to leave you. They were almost ready this time." Blake: "I thought they might be." Avon: "You handle them skilfully." Blake: "Do I?" Avon: "But one more death will do it." Blake: "Better take care then. It would be ironic if it was yours."



Gun law in Blake's 7: Soolin . . .

The last three episodes of the second series concerned the search for the real location of Control, code named Star One. After several false trails Star One's location was discovered and at the start of the last episode in the second series Blake was ready to make the move that would mean the end of the Federation. What Blake in fact faced was his greatest dilemma. Star One was a planet on the edge of the galaxy. As Blake arrived it was being taken over by aliens from the Andromeda Galaxy as preparation for a galactic invasion. Travis had betrayed all mankind and was helping with the invasion. Blake was injured in the fight with the aliens on Star One, realising that destroying Star One would mean certain victory for the aliens. After getting back to the Liberator, Avon takes charge as they prepare to hold off the invasion fleet single handed until the Federation Fleets arrive.

#### **Damage**

The first episode of the third series Aftermath opened with the end of the battle with the aliens. The Liberator was badly damaged, although repairable. As life support began to fail the crew ejected in life support capsules. By the end of the episode Avon was back on board the Liberator, bringing with him a girl who was to become a replacement for Jenna, who we were never to see again.

Dayna Mellanby, played by Josette Simon, was the daughter of a weapon's expert who had been involved in a revolt on Earth. Upon its failure he had taken his daughter to hide on the planet where eventually Avon's life capsule was to land. Still quite young and brought up in isolation by her father, Dayna had a curious attitude to life.

Her father admitted she had a genius for weaponry systems, although she couldn't understand her father's attitude about killing only when necessary. Dayna: "I like the ancient weapons. They demand more skill. When you fight with them the conflict becomes more personal, more exciting." Avon: "More dangerous." Dayna: "Of course, without danger, there's no pleasure."

Servalan, now President of the Federation, had been visiting the victorious Federation Fleet towards the end of the battle when her ship was hit and forced to crash land on the same planet as Avon. Like Avon she was helped by Dayna and her father. She killed Dayna's father when he discovered her trying to steal Orac which left the Liberator with Avon. This earned Dayna's undying hatred and a vow to kill Servalan.

All was not well back on the Liberator, however, when Avon and Dayna teleported on board, leaving Servalan on the planet. It had been boarded by Federation troops, though they couldn't control it. The captain turned out to be a mercenary on the run from the Federation who had "acquired" a captain's uniform. With his help Avon regained control of the Liberator.

Del Tarrant, played by Steven Pacey, trained as a Federation Officer but >



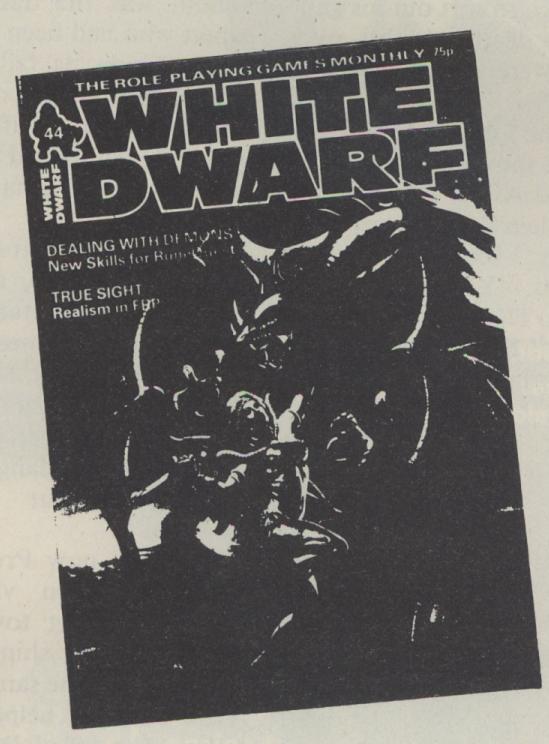
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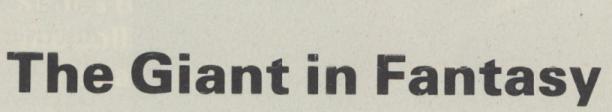




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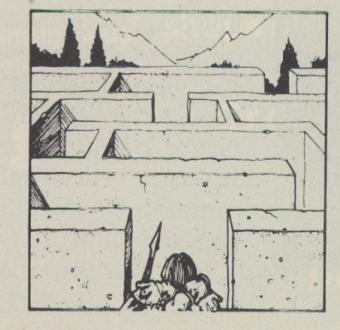
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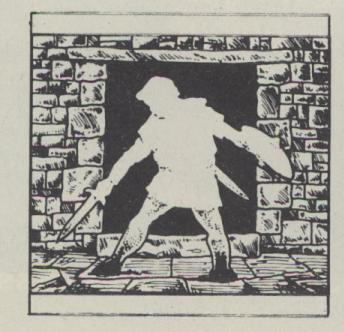
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□ turned mercenary after deserting. Like Dayna he was much younger than Avon, with all the strength, confidence and single mindedness of youth. Not liking to be led, Tarrant often came into confrontation with Avon.

This is well shown in this conversation with Avon. Tarrant: "I know what's been needling you right from the start. With Blake gone you thought you'd got it made, didn't you. Thought you'd got control of the ship and a crew of three who'd say 'Yes Avon, whatever you want Avon'; but you reckoned without me." Avon: "That wouldn't be too difficult." Tarrant: "Oh I don't think so . . . I'm faster than you and I'm sharper . . . As far as it goes I've made a success of my life. But you, the only big thing you tried to do you failed at. The greatest computer swindle of all time, but you couldn't quite pull it off could you? You failed Avon. But I win, not just at games, at life." Avon: "You also talk too much." Tarrant: "Be thankful I'm restricting myself to talk." Avon: "Now that's interesting. You mean you can do something else?"

Both Josette Simon and Stephen Pacey put in creditable performances as the two young newcomers to the crew of the Liberator. Dayna's character was perhaps the weakest of the two. After a slightly uncertain start Tarrant developed well, his abrasiveness maturing as the series progressed.

#### Gone

Vila and Cally were picked up at the end of the second episode, returning the crew of the Liberator to full strength. One of the weaknesses in the third series was the lack of any real explanation why little or no attempt was made to find Blake and Jenna.

Blake was gone and the Federation was in tatters after the destruction of most of the Fleet and Star One in the battle with the aliens. The crew of the Liberator lost the singular purpose that drove the series beforehand. This enabled the writers to write some episodes which explored the regular characters to a greater extent.

City on the Edge of the World was the first of these and was definitely Vila's episode. The first of several quite superb episodes in this series, it concerned Vila's attempt to break through a mysterious doorway in a ruined city and his ensuing relationship with the outlaw girl Kerril, played by Carol Hawkins. The door turned out to be the entrance to a transportation device which gave instant transportation to a star ship that took off from the planet many years previously. This ship had landed on what was to be the new home world for the residents of the world Vila had been sent to. Tarrant had forced Vila to help the outlaws who wanted the door open. Out of earshot of Tarrant, Vila came up with this superb line: "I'll get you for this Tarrant, I'll tear your arm off and beat you to death with the wet end."

Vila's relationship with Tarrant was never very good. Unlike Avon, Tarrant did not fully appreciate Vila's worth to the group.

The next episode was Children of Auron. Supposedly Cally's episode it unfortunately only confused matters over Cally's background, some aspects apparently contradicting what had previously been learnt of Cally's people.

Rumours of Death, the next episode, was a different matter entirely. What occurred was a turning point for Avon, the beginning of the deterioration of his mind. The story concerned Avon's search for the killer of Anna Grant, the girl he had loved and lost after his capture during his attempt at defrauding the Federation banking system. He had understood she had been arrested after him, interrogated and killed.

His search led him to Servalan's Presidential Palace and, to his surprise, to Anna, played by Lorna Heilbron. It turned out that the Federation had thought Avon was "political" and has assigned a top agent "Bartholomew" to watch him. As Servalan told Avon the information that confirmed Anna to be Bartholomew, Anna pulled a gun on Avon. Avon shot her before she could shoot him. Holding the dead Anna in his arms Avon announced: "Of all the things I've known myself to be I've never recognised the fool."

The effect on Avon of this cannot be understated, Anna was really important to Avon. She was the only person he had really given himself to, as we see in a flashback to his time with Anna. Avon: "Trust is only dangerous when you have to rely on it." When asked by Anna if he trusted her he replied: "Oh yes, I'm afraid I do."

Avon returned to the Liberator after just missing death at the hands of Servalan saying: "The rumours of my death . . ." Tarrant: "have been greatly exaggerated . . ." Avon: "Well . . . slightly exaggerated."

The next episode Sarcophagus was, to say the least, different — one of the strangest, most unusual episodes made. It was written by Tanith Lee, a science fiction/fantasy writer. Her first television script, it



... newcomer Tarrant ...

described the occurrences after the Liberator came across an alien ship drifting unpowered. Cally, Avon and Vila teleported aboard to investigate the ship and found a single chamber containing a corpse. An energy build-up on board the alien ship then forced them to return. Avon and Vila had difficulty teleporting forcing Cally to return for them just before the ship exploded. Cally brought two objects back with her, a ring which she put on and a device which she managed to activate after Avon and Orac had failed to. The corpse was a member of a telepathic race to whom death was only an interim stage. It was using Cally's life force to bring itself back to life, drawing energy from the Liberator to create a new body for itself partly in the form of Cally.

#### Reduced

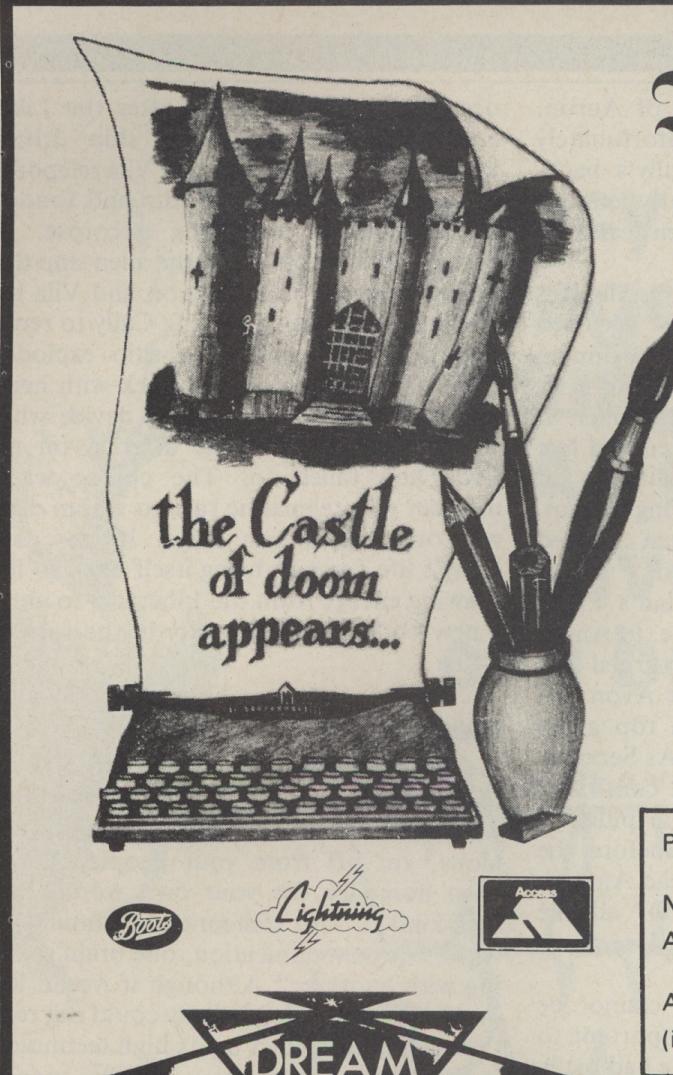
Cally was gradually reduced to a comatose state as the alien gained power over her with these words: "You've been so long alone, cut off from your people. You've been homesick for your own world, your own kind . . . for someone to communicate with, true communication, one brain speaking with another." Although it would lead eventually to her death Cally could not resist the alien mind, aided by its high technology in the form of the ring.

Meanwhile the rest of the crew were trying to resist the alien, golden figure with Cally's face. All to no avail until Avon corners it and taunts it into trying to kill him. This roused Cally into fighting the alien, stopping it from killing Avon and so giving him the chance to remove the ring from the alien's finger. The ring gone, the alien was no longer able to sustain its new body and returned to death, releasing Cally from her coma.

It is difficult to put over the atmosphere present throughout this episode in a simple description. Also, unlike most episodes, its meaning was not fully explained as the episode progressed. Thought was required to understand fully what was happening. A superb performance from Jan Chappell as the alien as well as Cally, and good support from Paul and the rest of the cast made it, for me, the best episode in the whole four series.

The last but one episode of the third series was Deathwatch. Like City and Rumours of Death it provided insights into one of the main cast's character. This time it was Tarrant's turn. In another script by Chris Boucher we see another more sympathetic side to Tarrant as his elder brother gets killed: a pawn in a plot by Servalan to draw two independent planetary systems into the Federation.

Which brings us to the last episode of the third series Terminal, again scripted by Chris Boucher. Unknown to the rest of the crew, Avon altered the course of the Liberator following instructions, seemingly, from Blake. While following the instructions, the Liberator passed through a cloud of liquid particles (liquid in a vacuum? Spot the lack of a scientific adviser). The instructions led to the artificial planet Terminal where  $\triangleright$ 



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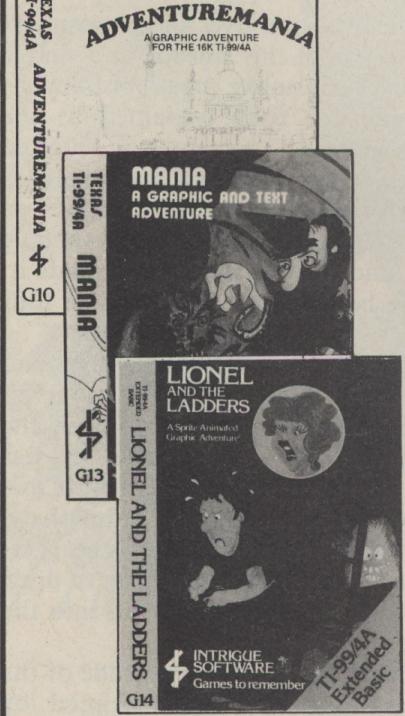
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Avon teleported down alone warning the rest of the crew not to follow.

Avon was drugged and captured and made to believe he'd seen Blake. On board the Liberator things had started to fall apart. Liquid particles on the hull from the cloud it passed through were eating the whole structure of the Liberator away. Cally and Tarrant, on the planet looking for Avon, were captured. The Liberator was demanded by Servalan as the price of their lives. Before Avon could object Cally and Tarrant agreed. Dayna and Vila were teleported down to Servalan's base on the planet and Servalan and her aides teleported up.

Vila, the last to leave, advised the aide operating the teleport: "You should always be careful about getting a second-hand spacecraft. They can be very unreliable." The group watched helplessly as Servalan took the Liberator out of orbit. One of the outriggers snapped off and then the ship disintegrated in a ball of energy. Avon: "She won, we . . . I let her take the Liberator." Tarrant: "No she didn't win. We all come out losers."

The fourth series brought a change in producer and a change in the emphasis in the show. Many episodes seemed to lack the certain something that made the previous three series special. There were exceptions, however, particularly the first and last episodes, Rescue and Blake.

#### **Stranded**

Stranded on Terminus without the Liberator, Avon and Dayna investigated the spaceship Servalan left behind. As they were observing it from a distance one of the native creatures of Terminus entered the airlock, setting off a massive explosion. This triggered off more explosive charges set by Servalan in the base where the rest of the group waited. Cally was killed, Tarrant injured and Orac damaged in the explosions. Avon and Dayna returned to find Vila pulling an unconscious Tarrant out of the wreckage.

Shortly afterwards a stranger calling himself Dorian, claiming to be a salvage expert, arrived on board an old spacefreighter named Scorpio. The group then "persuaded" Dorian to take them with him as massive earthquakes and volcanic eruptions started, set off by even more charges set by Servalan. The Scorpio returned to Dorian's base on the non-Federation planet Xenon. Once on the base Dorian disarmed the group and explained that he had planned to bring them there as he needed them. He had found a cave deep in the base which gave him eternal youth in return for the life force of others. As a group Avon and the others would be better than an equivalent number of individuals.

As Dorian remarked: "One of the group was killed before I got there. But the group remains, bound together by time and pain and the need to survive." To Avon: "That's why I came for you . . . After what you've been through you couldn't fail to care for each other. Even you, Avon . . . You

belong to them, Avon. Just as they belong to you."

The group only escaped from Dorian after Vila found the Federation blaster he dropped just after he arrived. Avon used it to kill what remained of the previous person to fall victim to Dorian's cave, causing, in turn, Dorian's death to catch up with him. This left the group with a base, a ship (if somewhat old and tatty) and a replacement for Cally as Dorian had had a companion, innocent of his darker side.

Soolin, played by Glynis Barber; was an expert with a gun. Her parents had been killed when she was a child. She spent her youth training until she was good enough to kill her parents' killers. Her reasons for staying with the group were always obscure, as was most of the emotional side of her character. Usually in the background, except towards the end of the series, there was little or no chance for the character to develop. Within these constraints Glynis Barber did a good job of portraying Soolin.

With the Federation expanding rapidly back to its original size and beyond, Avon came to the decision that hiding would no longer suffice. As he was later to say: "In the end, winning is the only safety." He decided to take on Blake's role of leader of a rebellion. This decision, so untypical of the Avon we used to know, was another indicator to the way he had changed since Blake left and Anna died. Throughout the fourth series more and more hints were dropped as to his gradually more unbalanced state of mind.

The majority of the fourth series' episodes dealt with Avon's attempts to get help to fight the Federation. Without the Liberator, direct confrontation was impossible, the attempts were doomed to partial failure at best. Which brings us to the last episode — Blake.

With all previous attempts to get help having failed, Avon announced that Orac had found Blake. He was on the planet known as Gaudi Prime, surprisingly living as



. . . and Blake (photos here and in June ©BBC)

a bounty hunter. On its approach to the planet Scorpio was attacked by several ships. Damaged, it made a barely controlled descent to the planet's atmosphere. With Tarrant staying at the controls the rest of the group teleported off. Tarrant then made a bad crash landing and was found in the wreckage by Blake. Blake was using his cover as a bounty hunter to recruit for a rebellion. While testing Tarrant, and before he could reveal the truth, Tarrant escaped. Meanwhile Avon, Vila, Dayna and Soolin had arrived.

#### Bleeding

Tarrant finds the others just as Blake appears. Tarrant: "He sold us Avon. All of us, even you." Avon: "Is it true?" Blake: "Avon it's me, Blake." Avon: "Stand still! Have you betrayed us? Have you betrayed me?" Blake: "Tarrant doesn't understand." Avon: "Neither do I." Blake: "I set all this up. Yes, Avon I was waiting for you." Blake stepped towards Avon. Three shots rang out from Avon's gun. Blake collapsed, bleeding from the wounds. As he died, he murmured "Avon".

A Federation agent appeared, Dayna went for her gun and was shot by the agent. Vila kicked the gun out of the agent's hand and knocked her unconscious. Federation guards started to appear: Vila, Soolin and Tarrant were shot by the guards.

Which brings us full circle, for this is where I began in June. Of all the fourth series' episodes Blake had the most power. Full of atmosphere, good visuals, acting and dialogue it could almost have been from an earlier series, except for the ending. Rarely has the producer been so determined to end a series. It can be argued that only Blake is dead, that the others are only stunned (The Federation used similar such weapons in the episode Project Avalon). It may even not have been Blake as at least one of the clones created of him in an earlier episode was still alive when we last saw him.

So far the BBC has shown no signs of making another series nor of repeating the whole show. Perhaps it is for the best that there never is a fifth series, but as for a repeat showing . . .

Anyone interested in reading more about Blake's Seven should consult *The Programme Guide* by Tony Attwood. It contains a guide to all the episodes, complete story synopsis, interviews and an index to most things in the series. For anyone wishing to join a fan club, below is a list of those I've found (apologies to any I've missed out):

Horizon, 48 Gresham Gardens, London NW11 8PD; Liberator Popular Front, 63 Pastures Way, Lewsey Farm, Luton, Beds.; Vilaworld, 83 Clarendon Road, Shirley, Southampton; Imipac, 111 Morley Hill, Enfield, Middx; Gathering (Paul Darrow), 14 Chartwell Close, Church Stretton, Shropshire; Affinity, 7 Beechley Road, Bournemouth, Dorset; Link Up, 7 Windmill Road, Langton, Blandford Forum, Dorset. There are also clubs in Australia and the USA. Please remember to send a sae if you write to a fan club.

# Suspended in time

#### Tony Bridge gets hung up on Infocom's latest

HERE BEGINS a transcript of interaction with Suspended. Suspended is a trademark of Infocom, Inc. Copyright © 1983 Infocom, Inc. All rights reserved.

>ARL

IRIS: In the Weather Monitors.
WALDO: In the Gamma Repair.
SENSA: In the Central Chamber.
AUDA: In the Entry Area.
POET: In the Central Chamber.

>SENSA, GO TO HYDROPONICS MONITORS
FC: Cryolink established to Sensa.
SENSA: Order input acknowledged.
Output on arrival.

WHIZ: In the Advisory Peripheral.

SENSA: Sensory mechanisms match goal

directive. I am at the Hydroponics Monitors.

>LOOK AROUND
Internal map reference -- Hydroponics
Monitors

Meters and electrons within this room seem extremely variable with each passing second.

SENSA INTERRUPT: Secondary tremor detected in lower level. Intensity: 7.3. Projected damage: Cooling systems for FCs in Maintenance Area.

>IRIS, LOOK AROUND
FC: Cryolink established to Iris.
IRIS: Internal map reference -Weather Monitors
I don't mean to complain, but it would

be nice if I got repaired.

>POET, GO TO WEATHER MONITORS
FC: Cryolink established to Poet.
POET: All life's a stage, so just
consider me a player. See you.

>WALDO, GO TO WEATHER MONITORS

FC: Cryolink established to Waldo.

WALDO: I'm on my way. Expect a report
on arrival.

POET INTERRUPT: As much as I can be anyplace, I'm here at the Weather Monitors.

>POET, LOOK AROUND
FC: Cryolink established to Poet.
POET: Internal map reference -Weather Monitors
They puff and billow and strain a bit,
roar then ebb with time.
In the room with me is Iris.

>AUDA, GO TO SMALL SUPPLY ROOM
FC: Cryolink established to Auda.
AUDA: I hear you loud and clear. Talk
to you when I get there.

This adventure, from Infocom, comes in a large box, with a white mask like face (obviously of a body held in deep-frozen suspension) staring out at the beholder — removing this from the box reveals the screaming, terror-filled truth beneath.

#### Classics

Unless you've been locked in the Goblin's Dungeon for a couple of years, you will know that Infocom produces the classic Zork series of adventures, I, II and III, and that it is held in universally high regard all over the world. The scene-setting in these adventures is evocative and witty, many descriptions spreading over two screenfulls of text. These can be turned off if required with the BRIEF command this shortens the descriptions to a short sentence; or another command, SUPERBRIEF, tells the program to give just the name of the location when entered the second and subsequent times. The parser, that part of the program that interprets the player's input, is capable of recognising long compound sentences. The parser will even intelligently complete any unfinished command for you, based on the likeliest input expected from the player in the current situation.

Suspended, by science-fiction writer Michael Burlyn, is a unique addition to Infocom's range. Released last year, it comes in unique packaging — and the adventure itself is unique. The game comes on disk and runs on a range of micros, including Apples, Ataris and the Commodore 64.

Blissfully unaware that your life is about to change, you receive a communication from Ignatz Feroukin, Vice President of Memoes at the Lottery Commission HQ at Contra Central. You are the winner of the semi-millenial Lottery, and as such have the honour of serving as Contra's Central mentality for — the next 500 years? Of course, you aren't immortal, so you must be placed in a state of limited cryogenic suspension (deep freeze!). In this sleep-like mode, your mind will monitor the Filtering Computers that maintain the delicate balance of the planet's surface-side



environmental systems.

The previous winner, one Gregory Franklin, woke up some 33 years too early, lost his sanity and decided to create an emergency. Under his influence, the weather (totally controlled now) and the Transit System became pschycotic, their only aim to kill off the population. It is your job to take matters in hand and restore all systems to normality with minimum casualties.

Don't worry, you're not alone: six robots have been assigned to help you. Each is capable of different tasks, and their names should give you an indication of their capabilities. There are:

Iris: her ability to describe her immediate surroundings and objects approaches what a human might see in most circumstances Waldo: an industrious robot, built for manipulating objects

Sensa: can detect vibrational activity, photon emissions and ionic discharges, as well as automatically performing the analysis of diffraction indexes (it says here!)

Audo: is capable of processing and interpreting auditory signals

Poet: was originally designed as a diagnostic robot. Having been somewhat altered over time by the Filtering Computers, he now makes the best of what he perceives by touching objects, and his output is sometimes bewildering, being couched in obscure couplets

Whiz: is an interfacing device between you and the Central Library Core, which is a huge data bank.

All the robots have between one and five "grasping extensions" with which they can pick up objects.

There is, somewhere, a seventh robot seven feet tall, with multiple grasping extensions, verbal circuits and heavy-duty shielding against acid damage. This nice little number was irreparably damaged by good old Gregory Franklin. I haven't come across this one yet, but I have an awful feeling that it won't be a pleasant meeting. . .

#### Calm

Your task is to use these robots to restore order and calm to Contra, and the human population on the surface.

Many adventures are conducted by means of a "puppet" - that is, the player instructs the computer (the puppet) what to do. For example: "I see a four-leafed clover, what do I do?". Any commands from the player are to this puppet - if death results at any time, it is the puppet - computer that succumbs. Just about all the remaining programs are of the "third person" variety. Thus: "You are standing on a chocolate marshmallow. What do you do now?".

To repeat myself, Suspended is unique, in this regard as in so many others (almost the only thing this program has in common with other adventures is the English language) — the player has not one, but six puppets at his command. Each robot, as we've seen, has a particular speciality, and

thus, each will give you a different interpretation of the immediate surroundings it. finds.

The best way to understand this is to send all six to the same location and see the reaction of each one, which is where this article began. Your commands to the robots are channelled through the FCs, who open a link which remains until you order a new one to be opened. Two or more robots can be communicated with simultaneously. Each command takes one cycle, during which the unlucky human population is reduced — this is your score (you start with some 30 million and lose them by the thousand on each move. Who said adventuring was easy, or even humane).

Thus, you can conduct your search through a multitude of locations at the same time, receiving varying information. As one move consigns thousands to the Great Red Yonder, a robot may be directed to a remote location, from where it will report once arrived, while you get on with more pressing matters.

#### **Commands**

Many of the commands (the Filtering Computers recognise some 600+ words) are of the traditional variety - QUIT, SCORE, EXAMINE, LOOK, LISTEN and so on — but many others you will not have come across before. DRAG commands a robot to pull another, out of action, robot away to another location, where it may well be able to give vital information or even be repaired. BOTH allows two robots to process the same command.

Commands may be of the simple verbnoun type (TAKE SPANNER) or of a more complex construction, such as TAKE THE SPANNER AND TURN THE BOLT. THEN TAKE THE PLUG AND EXAMINE HOLE.

In case you think that this might be like the command structure in some other adventures, don't forget what I hinted at in the introduction - merely typing the robot's name and <RETURN> causes the program to work out, from the prevailing situation, what the player actually requires to be done (admittedly, with the occasional odd result).

With any other adventure, map-making is an essential first step — when I load up a new game, the first run-through is merely reconnaisance, while I map out all the locations, along with all the objects, puzzles and so on. Suspended is again different in this respect. It must be the only adventure which supplies the player with a complete map! After all, with six "personae" all wandering around giving sensory reports, you would soon get hopelessly lost — the map comes complete with six rubber counters representing the robots, and these can be moved around the map as you move the robots around the adventure.

function, all useful in their own way, and obvious from the names — Whiz, however, could be the most unusual and interesting.

He actually plugs into the Central Library Core, where all knowledge is kept. Thus, the data in the Historical Peripheral may be accessed, to give historical information about some object found elsewhere in the complex, and the Technical Peripheral will give technical information. The Index Peripheral will give you an idea of whether the Library actually knows anything at all about the object. If you don't have the faintest idea what is going on (a likely and understandable state in this adventure), the Advisory Peripheral is attuned to provide Hierarchical Information for Newly Terraformed Systems.

So what are you doing here? As we've seen before, the six robots are to help you (prostrate in your cyrogenic tube) in processing information about the Complex, and also to repair the malfunctioning Filtering Computers. They are connected by umbilical cables, which must be replaced in order to keep the three computers balanced. Your half dozen metal friends can use their grappling extensions, under your control, to achieve this. But be warned - Franklin the Frosted Fruitcake has left a booby-trap for you; an innocent-looking cable which, if connected to an FC, may cause total mayhem!

While continually monitoring your robots, you must also keep an eye on the systems controlled by the FCs - the Weather System, the Food Production and the Transport Systems. You will be woken up from time to time to cope with a particularly nasty problem that only a human can deal with.

#### Completing

Documentation is up to Infocom's usual high standard, with background information, a couple of memoes, and a list of the more important commands, along with several abbreviations that will save your weary fingers (for example, ARR = All Robots Report). Although hints on strategy are given, they won't be of much use — the usual unconscious clues that blurb-writers give away when talking about word combinations (TAKE SPADE - aha, there's a spade in this adventure!) are present here, but most of the examples are pretty odd: TAKE THE ROUGH DEVICE AND THE BUMPY CHIP?

If you ever suceed in completing this adventure (let me know!), you needn't throw it away — beyond the standard game is the advanced, harder, and expert games. Beyond these is the configure mode, in which certain parameters can be set to the player's own design. For example, in which turn should the Earthquake start? Beyond all these is the Impossible game. Complete this one, and Infocom will give you an expenses-paid trip to Contra, where you will take over the running of Contra for the next 10,000 years. Beat that one, Automata!

So, Infocom has done it again! Each new Each robot, as we've seen, has a different release from this company is a major event for Adventure-dom, and Suspended must be rated a success even by Infocom's terrifyingly high standards.

## Changing locations automatically using Basicode

John de Rivaz introduces the Basicode language and puts it to work

THE PROBLEM of incompatibility dogs the micro world, but a language called Basicode 2 promises a solution.

Basicode is a "kernal" langauge which runs on various micros, provided you've bought the appropriate translation program — available from the BBC for micros such as the Spectrum, BBC B and Commodore 64. The BBC also broadcasts Basicode listings on its Radio 4 Chip Shop program.

This article looks at using Basicode to provide automatic location changing — but the techniques described apply equally to other Basics, so don't be deterred if you haven't got a Basicode kit yet. As further encouragement, advice on translating Basicode to machine-dependent Basics is given towards the end of the article.

#### **Background**

But first a bit of background. In the June issue of Micro Adventurer a system of writing adventure games in Basicode was described, introducing the Chrononauts series as an example game.

This system involves most of the data for the adventure being fixed as DATA statements. There is only one string array, and that is the object table. The object table consists of a single string for each object. It is introduced to the program as DATA statements, but this time these are loaded into an array and the array is manipulated by the player's commands.

Listing one shows the object table in the second Chrononauts adventure, the Graveyard. This is really the heart of the game.

The listing starts with a letter denoting the object, a text description of the object, and a further string of characters that are used as flags for various actions by the computer. One of these characters is the location of each object. The locations are denoted by letters of the alphabet, but there is no reason why two characters cannot be reserved for larger numbers of locations. The text message must be somewhat short, but a further DATA table of additional text is used. This starts with the letter of the object followed by the extra text. When the command look is issued, every such DATA statement is printed, with the exception of the initial identifying letter.

For example, line 26160 is a cleared rockfall. It can be made if a rockfall (object O), a shovel (object E), and a pick axe (object D) are present. As it is not present initially, the last letter of the line is a blank. If it is climbed into, the player is moved to location E. Of course, it can't be moved, killed, destroyed or burnt.

And now a programming solution to a problem of logic. Adventure games frequently result in the player being killed, and he then re-starts the game and tries again, and eventually he solves the puzzle. This is, of course, totally illogical. In real life, once one is dead that is it. There is no second chance, and the possibility of a personal afterlife is now even questioned by some of those people who still have religious beliefs.

A better representation of the situation would be to stop a killed player ever attempting that adventure again, but this would hardly be popular. However, the concept of Immortalism, the use of science and technology to extend life and eventually eliminate death, does have a logical answer — which actually stems from computing.

#### Clones

If a programmer is working on a program, he will save the program every so often. Should there be a power cut, he does not lose all of his work, but only that between the last saving and the cut. Indeed, the same would apply were the computer to catch fire and be totally consumed. All that would be required would be to load the program into a replacement computer.

In Immortalism, the concept exists of saving the program and data in the brain at periodic intervals, and these can be replayed into a clone should the individual concerned die. In the Graveyard this concept is used, except that the player is provided with a transmitter which continually sends program and data in his this. If the player is killed (by supposed you add or remove an object. vampires) he is re-constituted within his ship, and the objects he was carrying are outlined in this article. The June issue of

left at the location where he was killed. The "vampires" conveniently remove his remains.

Line 15400 checks to see if an object is worn or carried, and if so line 15410 re-sets its location to that at which the player is killed. Line 15430 re-sets the player's location to that of the ship, where his brain patterns are played into the clone.

#### Sirens

In the third Chrononauts adventure, the Sirens of Space, an alternative to killing the player is used. Actually in this case he can be killed by outright stupidity in one instance, although this sequence would probably be avoided by most adventure enthusiasts as it is so obvious.

However, the most likely problem he will meet is being rendered unconscious, and whilst he is unconscious some of the objects are shuffled around the locations. In fact, he can perform actions to prevent this sequence happening, but clearly with a regular re-distribution of objects this can take some time to achieve.

Shuffling the objects is programmed quite simply, as in Listing 3 from the Sirens of Space. Since the object strings have a single character which denotes their location, a subroutine is called that inserts another character there. A DATA statement, line 15220, is used to contain the letters defining the objects that can be so moved, and each object is then called in turn at line 15230 and its location is randomised in line 15340. The subroutine 260 is the Basicode subroutine that puts a random number between 0 and 1 into variable RV.

I would like to stress the technique used of putting a slash (/) at the end of the data statement, and checking whether this is present before jumping out of the routine. I have used this technique extensively in this system, instead of FOR NEXT loops, because it makes for far easier alteration. All you have to do is to add another object. If a FOR NEXT loop is used, you also have brain to his time ship. Listing 2 illustrates to alter the FOR NEXT variable each time

There's various ways to use the ideas

```
26000 Rem OBJECT DATA. Object letter, description, start loc. 26001 Rem penultimate W indicates it can be worn
 26002 Rem A b before this indicates it can be burned
 26003 Rem A k before this, killed, and a d destroyed.
26004 Rem An f before this means it can be filled
 26005 Rem any other letter means it can be emptied,
 26006 Rem and the letter is the contents. u=used for fill 26007 Rem The next five are the ingredients required
26008 Rem to make this item. If(5, fill in with $ 26009 Rem If they are all $, then it can't be made. 26010 Rem The next letter is an i if the object is not
 26011 Rem used up when making something.
26012 Rem If instead of a W the penultimate letter is a 26013 Rem letter, it means the object can be entered, and 26014 Rem the location of its interior is the letter. If 26015 Rem the letter is an "*" it simply means the object 26016 Rem cannot be taken. It can only be taken if the 26017 Rem if a W or a -. The location w cannot be used for
 26018 Rem for the inside of an object.
26026 Data "A) A coffin. -*****-Bb-d*E"
26028 Data "B) A body. -*****u-b-d* "
26030 Data "C) A locked gate. -*****----*I"
26040 Data "D) A pickaxe. i*****u---d-J"
26050 Data "E) A shovel. i*****u---d-J"
 26060 Data "F) Holy water. i ******u---d* "
 26070 Data "G) A font. -*****-F--d*A"
26080 Data "H) A newsheet. -*****u-b-d-N"
 26090 Data "I) A tin hat. -****u-b-dWJ"
 26100 Data "J) A box of matches. i *****u-b-d-0"
 26110 Data "K)
                             A box. -*****uLb d-0"
26120 Data "L) A key. i*****u---d- "
26130 Data "M) A sack. -*****ufb-d-P"
26140 Data "N) A flame oun. -******u---d-J"
26150 Data "O) A rockfall. -P****---*C"
26160 Data "P) A cleared rockfall. -ODE**----E "
26170 Data "Q) An unlocked gate. -RL***-----K "
26180 Data "R) A locked gate. -Q****----*H"
26190 Data "S) A Lunatic Asylumn. -****----*L"
26200 Data "T) Ruins of a lunatic asylumn. -SN***----* "
26210 Data "U) A Vampire. -*****----
 26220 Data "V) An unlit lamp. -*****u---d-0"
26230 Data "W) Tar oil. i*****u--bd*Z"
 26240 Data "X) A lit lamp. -VJ***u---d- "
 26250 Data "Y) A red bottle -*****uf--d-I" 26260 Data "a) A blue bottle -*****uf--d-I"
 26270 Data "b) A person. -*****--bkd-I"
26280 Data "c) A coded message. -*****u-b-d-7"
26990 Data "/"
26998 Rem
Done.
```

Listing one — the object table

```
15250 Rem
15260 Rem Return player to ship
15270 Rem
15280 Print:Print" However I am"
15290 Print"carrying an apparatus that sends"
15300 Print"continuous updating information on"
15310 Print"the program and data in my brain"
15320 Print"to the ship's computer. As soon as"
15330 Print"I am killed, the computer activates"
15340 Print"a brainless clone and plays the data"
15350 Print"into it. Thus I have invulnerability!"
15360 Print"However, I must now start again from"
15370 Print"from the ship, and all the objects"
15380 Print"are left where I was killed."
15390 ForN=1ToTH:X$=Right$(TH$(N),1)
15400 IfX$()"^AndX$()"*"Then15420
15410 TH$(N)=Left$(TH$(N),Len(TH$(N))-1)+LO$
15420 Next N:Rem objects dropped.
15430 LO$="P":Print
15440 Print"Any key to continue":Gosub210:Goto2020
19000 Rem
Done.
```

Listing two — drop objects and return to ship

```
15190 Rem randomise objects.
15200 ForN=2 To TH:Restore 15210
15210 Rem objects to be randomised
15220 Data "B", "C", "D", "G", "I", "J", "N", "/"
15230 Read X$: IfX$="/"Then15360
15330 If Left$(TH$(N),1)()X$Then15230
15340 Gosub260:X$=Chr$(RV$14+65)
15350 TH$(N)=Left$(TH$(N),Len(TH$(N))-1)+X$: Goto15230
15360 Next N
Done.
```

Listing three — randomising objects

Micro Adventurer had a listing of the first Chrononauts adventure, Morphostasis, and you could start by getting that working. Alternatively, obtain a listing of Basicode cassette of the three adventures as detailed below, then modify their tables to suit your own plot. Either choose a plot that is similar to the type of plot in these adventures, or, if you are more adventurous, use additional Basicode statements to modify the special sections. See how the second and third games evolved from each other. Ideally, the original core of subroutines (take, fill, climb into, etc) described in the previous article can be used in conjunction with many different games. Writers will add new routines such as those described here to make new types of games.

As Basicode becomes more popular, broadcasting stations throughout the world will want to take this material. In theory, it should be possible to transmit Basicode by CB radio locally. Morphostasis has been sent to the BBC, although at the time of writing I do not know whether they will be broadcasting it.

#### **Translating**

Listings of the three Chrononauts adventures are available from the address below. Send two 12½p stamps for each adventure required. You will receive the listings, which are very long, to type into your machine. Owners of Sinclair machines will have to change the string handling from MID\$ etc to the simpler Sinclair system. Unless they have Basicode kits, users of all machines will have to insert a line 10 "GOTO 1000" and compose routines to clear string space in line 20 according to the value A, and GOTO1010. Also subroutines will have to be composed as follows:

100 Clear screen and set cursor to left hand corner.

200 Check for keypress and put in IN\$. If none, IN\$ = "".

210 Call 200 until key pressed.

260 Give random number RV between 0 and 1.

If you type in one of the programs, then entering the other programs can be performed by merely changing lines, as a lot of the code is common.

Or the adventures are available priced £2 each on cassette post free. These are recorded to the Basicode standard, and should only be ordered by those who already have Basicode kits for their machines. Deduct 25p for each additional program after the first ordered at the same time.

A free fact sheet on the practice of Immortalism in the USA is also available. It gives details of further reading, including a recent best seller on life extension. Also listed are addresses from which monthly magazines can be obtained. There is, of course, no obligation to purchase any of these.

And, finally, the address to write to is RTL, Westowan, Porthtowan, Truro TR4 8AX, Cornwall. © John de Rivaz.

## ADVENTURES

This month's Your Adventure contributions are aimed at Spectrum, Vic, Pet and CBM 64 owners. For the Commodore machines we're offering Castle Dungeon Adventure with 50,000 locations (so make sure you don't get lost). You have to make your way to the bottom of an old dungeon where you'll find a key - to open all the goldfilled chests. Beware of pits and creatures in the dungeon. For the Spectrum Adam Bull contributes an adventure programming aid which will randomly create any number of locations and save all the information necessary to draw a colour picture of each plus a description.

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

## aid to adventures

From Adam Bull in North Humberside for the Spectrum 16-48K

THIS FAIRLY short program will randomly create any number of locations and save all the information necessary for a two-thirds of the screen colour picture of each, as well as a written description. The pictures will include hills, trees, grass, bushes, rivers, and one of a number of buildings.

All the information for each picture can be saved using just one number in an array, and the whole process takes just a few seconds.

The program relies on the fact that the random number generating function RND can be made to start off in a definite place in its sequence of numbers using the RANDOMIZE command. All the elements of each picture are placed on the screen separately using the RND function to determine their position, but before this process begins the RANDOMIZE command is used to start RND off in a certain place. Thus, the picture for each location is always the same, since the RND function will always produce the same sequence of numbers after being set by RANDOMIZE.

Just like the pictures, the written descriptions are created using RND from a number of parts which are assembled into a w,x,y,z: General purpose variables.

complete sentence and displayed after the picture has been drawn. The only piece of information needed to produce a picture and description is therefore the number used to set the RND. This one number can easily be saved in an array.

Although my program creates open air scenes, the basic idea could obviously be used to create any sort of scenario. If memory is short, it could be used just for creating the descriptions without the pictures, and it could also be used to form a "rooms" connection table".

As it stands, my program sets up a ten by ten area, which you can move about in using the cursor keys. This is merely to give some idea of what the program can do and what variables need to be created to make it work. It would be easy to add more descriptions, types of scenery, etc.

The variables used are:

a(): The array which holds the RND seeds. It is set as ten by ten, but this can be changed as desired.

p,q: Your current location in a().

d£: Holds the description of the current location as it is built up.

x£,y£: Used in creating the description.

h: Makes sure the hills don't go off the screen or below the trees.

i: The colour of the building.

GO SUB 9500: 9=1: GO TO 50 THEN GO TO 30 LET P=P+(INKEY\$="6" AND P (1 0) - (INKEY s="7" AND P)1) LET q=q+(INKEY\$="8" AND 9 (1 0) - (INKEY \$= "5" AND q>1) BEEP .1,20: PRINT AT 8001 REM \* DRAW PICTURE 5002 REM \*\*\*\*\*\*\* 8010 RANDOMIZE a (p,q): LET ys=" 8020 PRINT AT 15,0;"=-= 8030 LET ds="You are in 8040 RESTORE 8510: LET X=INT (RN D\*4): FOR y=0 TO x: 8060 LET h=150: PLOT 0,h: FOR y= 1 TO 17: LET w=RND\*x\*3-RND\*x\*3: LET w=w-(w AND h+w)175)+(w AND h -w (130): LET h=h+w: DRAW 15, w: EXT y D\*4): FOR y=0 TO x: READ X \$ 3080 NEXT y: LET ds=ds+xs+ys 3090 LET ds=ds( TO 32) +"with RESTORE 8530: D\*5): FOR y=0 TO X: READ X \$ 8110 NEXT y: LET d\$=d\$+x\$+" tree 5."+y\$: LET d\$=d\$( TO 64) +"There 8120 FOR y=4 TO 8

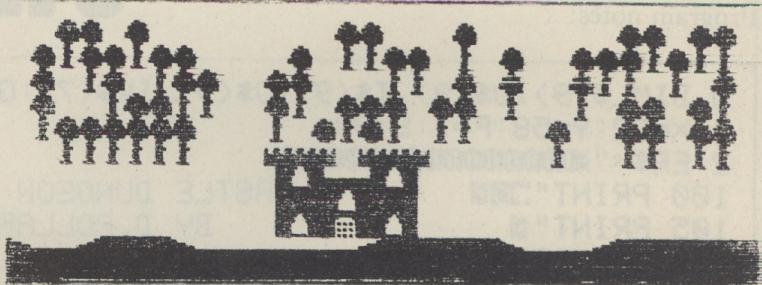
1: PRINT AT Y,W; INK "J"; AT 4+ INK 0; "K": NEXT I: RESTORE 8540: D#4): FOR y=0 TO X: 8150 NEXT 9: LET d==d+x++94: LE T ds=ds( TO 96) +"and a" 8160 IF X (2 THEN FOR y=10 TO FOR Z = 0 TO RND \*14: PRINT AT ND #31; INK 1+(3 AND X=1); "I": NE XT Z: NEXT Y 8170 IF X=2 THEN PRINT AT INK 5; "M\_\_L 11 8180 IF X = 3 THEN FOR Y = 10 TO FOR Z = 0 TO RND \*14: PRINT AT Y, R ND \$31; INK 4; "H": NEXT 8190 RESTORE 8550: LET X=INT (RN D\*10): FOR y=0 TO X: READ X\$ 8200 NEXT Y: LET ds=ds+xs+" " 8210 RESTORE 8560: LET X=INT (RN D#51: FOR Y=0 TO X: READ X\$ 8220 NEXT U: LET i=X: LET ds=ds+ × \$ + " " 6230 RESTORE 6570: LET X=INT (RN D\*4): FOR y=0 TO X: READ X\$ 8240 NEXT Y: LET ds=ds+xs+"." 8250 RESTORE 8580+10 #x 8260 LET Z=RND #25: FOR y=1 TO READ X5: PRINT AT 8+4, Z; INK i; X \$: NEXT 9 8270 PRINT AT 16,0; d\$: RETURN 3500 REM \*\*\*\* 8501 REM 8502 REM "n upland", " mountainous" 8520 DATA "land", "area", "place" 8530 DATA "few", "some", "lots of" "many", "many, many" 8540 DATA "marshy patch", "grassy spot", "river", "bushy patch" 3550 DATA "n empty", "n eerie", "n old", "n ancient", "n overgrown", " deserted", " tonety", " strange" " broken-down"," occupied" 8560 DATA "black", "blue", "red", pink", "green" 8570 DATA "castle", "keep , "shack" 3580 DATA "CCC CCC", " B B","BRB" 8590 DATA "cccccc", " 3500 DATA "CCC" 3610 DATA " "," DE" 9000 REM \*\*\*\*\*\*\*\*\*\*\*\* 9001 REM \* SET UP ADVENTURE \* 9002 REM \*\*\*\*\*\*\*\*\*\*\*\* 9010 RANDOMIZE : DIM a (10, 10) 9020 FOR X=1 TO 10 FOR y=1 TO 10 9030 9040 LET a(x,y) = INT (RND \* 9000+1)9050 NEXT Y: NEXT X: RETURN 9500 REM 关头头头头头头头头头头头 9501 REM \* U.D.G. DATA \* 9502 REM \*\*\*\*\*\*\*\*\* 9510 RESTORE 9500: FOR X = 0 TO 10 3: READ Y: POKE USR "a"+x, Y: NEX T X: RETURN 9520 DATA 255,131,1,85,1,85,1,85 ,231,195,195,129,129,129,129,255 9530 DATA 0,0,153,153,255,255,25 5,255,255,255,195,195,203,195 9540 DATA 195,195,1,3,7,15,31,63 ,127,255,128,192,224,240,248,252 9550 DATA 254,255,255,255,129,12 9,129,129,129,255,66,164,20,27 9560 DATA 220,63,124,186,0,0,32, 16,20,56,24,0,24,62,126,127,255 9570 DATA 255,63,28,24,24,28,24, 24,24,24,50,0,3,31,255,255,255, 9580 DATA 255,255,0,192,248,255, 755,255,255,255

Some pictures produced:



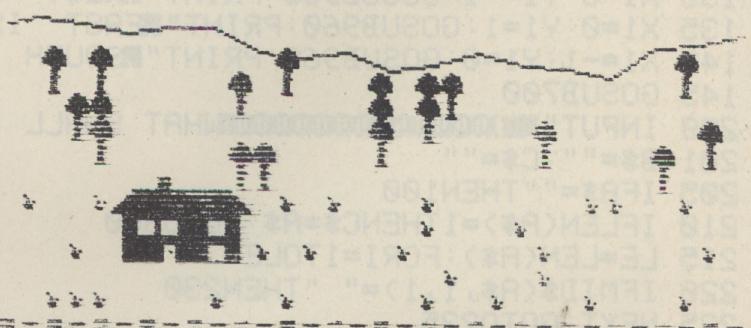
You are in an undulating land with many trees.
There is a marshy patch and an eerie red keep.

(1,1)



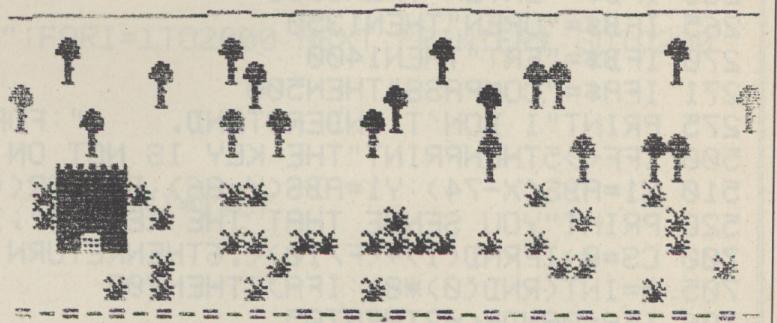
You are in a flat region with many, many trees. There is a river and a deserted green castle.

(2.1)



You are in a mountainous place with some trees.
There is a grassy spot and an overgrown green shack.

(2,2)



You are in an undulating region with some trees.
There is a bushy patch and an old red tower.

(5,5)

From D. Pollard in Nottingham

IN CASTLE Dungeon Adventure for the Commodore 64, PET or Vic 20 computers you must make your way to the bottom of an old dungeon where you'll find a key.

This key will open all the gold filled chests. Beware of pits and creatures in the dungeon, there are objects to be found that will help you with them.

The program has been written so that it will run on any of the Commodore computers with very few changes. For the PET all the colour control characters should be ignored and the POKEs in line 350 removed.

For the Vic 20 the colour control characters not available e.g. BRN should be changed for one that is available. The PRINT statements should be changed so that the text is correctly spaced for 22 columns and the number of spaces in ER\$ changed to 20. The POKEs in line 3500 need to be changed to POKE 36879, and a suitable screen and border combination. Program notes:

# Castle Dungeon trip for Vic, Pet and 64 owners

0-2	Set up variables
100-140	Print location, description and
	surroundings
200-271	Check command for the
	appropriate subroutine
500-520	COMPASS subroutine
700-775	Fighting subroutine
800-820	Movement
850-780	Slices S\$ after the decimal
	point
900-950	Selects the location, descrip-
	tion and object
1000-1045	Read in locations,
	descriptions, objects,
	creatures, hits, weapons
1100-1140	GET/TAKE subroutine
1150-1160	INVENTORY subroutine
1200-1210	HELP subroutine
1250-1265	CLIMB subroutine
1300-1330	ENTER subroutine
1350-1375	OPEN subroutine
1400-1425	EAT subroutine, adds to
	strength
	Data read by lines 1000-1045
1600-3040	End of game
3510-3690	Instructions

```
0 DIML$(9),D$(9),T$(9),O$(9),IV$(7):GOSUB1000:GOSUB3500
  X=32:Y=58:F=1:S=80
  ER$="अववायावायावायावायावायावाया
                                                              7"
   PRINT"
                      CASTLE DUNGEON ADVENTURE
                          BY D. POLLARD
 10 GOSUB900
115 PRINT"XMYOU ARE IN A "; T$; " "; D$; " "; L$
116 IFF=5ANDX=74ANDY=86THENO$="KEY"
117 IFL$="mPIT"ANDIV$(5)=""THENPRINT") TOTAL ARREST GOTHER ! ":FORI=1T02000:NEXT:GOT02
020
120 PRINT"XXI CAN SEE A "; O$
125 X1=1:Y1=0:GOSUB960:PRINT"X NORTH IS A "; V$
130 X1=0:Y1=-1:GOSUB960:PRINT" WEST IS A "; V$
135 X1=0:Y1=1:GOSUB960:PRINT" EAST IS A ";V$
140 X1=-1:Y1=0:GOSUB960:PRINT" SOUTH IS A "; V$
145 GOSUB700
200 INPUT" INDUMNOMONOMONOMONOMINAT SHALL I DO NOW
                                                              201 B$="":C$=""
205 IFA$=""THEN100
210 IFLEN(A$)=1THENC$=A$:GOTO800
215 LE=LEN(A$):FORI=1TOLE
220 IFMID$(A$, I, 1)=" "THEN230
225 NEXT: GOT0235
230 B$=LEFT$(A$, I-1):C$=RIGHT$(A$, LE-I)
235 IFB$="TAKE"ORB$="GET"THEN1100
240 IFAs="INVENTORY"THEN1150
245 IFA$="HELP"THEN1200
250 IFB$="GO"ORB$="RUN"THEN800
255 IFB$="CLIMB"THEN1250
260 IFB$="ENTER"THEN1300
265 IFB$="OPEN"THEN1350
270 IFB$="EAT"THEN1400
271 IFA$="COMPASS"THEN500
275 PRINT"I DON'T UNDERSTAND. ":FORI=1T02000:NEXT:PRINTER$:GOT0200
500 IFF<>5THENPRINT"THE KEY IS NOT ON THIS FLOOR": GOTO200
510 X1=ABS(X-74):Y1=ABS(Y-86):DI=SQR((X112)+(Y112))
520 PRINT"YOU SENSE THAT THE KEY IS"; INT(DI); "ROOMS AWAY. ": GOTO200
700 CS=0:IFRND(1)+(F/10)<.6THENRETURN
705 A=INT(RND(0)*8):IFA>7THEN705
706 IFA=0ANDF<=2THEN705
710 AM$=AM$(A):AS=AS(A):W=0
711 PRINT"XXXXXA ";AM$;" IS ATTACKING YOU. ":FORI=1T01500:NEXT
712 INPUT" TIMUHICH WERPON DO YOU WANT!
```

```
713 FORI=0T07: IFIV$(I)=A$THEN715
 714 NEXT: GOTO718
 715 FORI=0T02: IFA$=W$(I)THENW=W(I):GOT0719
 717 NEXT
 718 PRINT"YOU CAN'T USE THAT. ": FORI=1T02000: NEXT: PRINTER$
 719 CS=CS+1:AH=INT(AS/2):AC=INT(RND(1)*AS)
 720-IFACK=AHTHEN730
 725 PRINT"THE ";AM$;" MISSED YOU.":FORI=1T01000:NEXT:PRINTER$:GOT0740
 730 AA=INT((AS/2)*RND(1))+INT(AS/2)
 731 IFIV$(2)="SHIELD"ANDRND(1)>.25THENAA=AA/3
 732 PRINT"THE "; AM$; " STRUCK YOU "; HI$(INT(AA/20)); ". ": FORI=1T01000: NEXT: PRINTER
 735 S=S-AA: IFSC1THENGOT02030
 740 HP=INT(S/2)+W
 745 C=INT(RND(1)*S)
 750 IFCC=HPTHEN760
 755 PRINT"YOU MISSED THE "; AM$; ". ": FORI=1T02000: NEXT: PRINTER$: GOT0719
 760 HW=INT(RND(1)*W): IFHW(3THENHW=5
 765 PRINT"YOU HIT THE ";AM$;" ";HI$(INT(HW/4));".":FORI=1T01000:NEXT:PRINTER$
 770 AS=AS-HW:IFASC1THENPRINT"THE ";AM$;" IS DEAD.":SC=SC+INT(100-CS):FORI=1T0100
 0:NEXT:RETURN
 775 GOTO719
 800 IFC$="N"ANDX<100THENX=X+1
805 IFC$="S"ANDX>1THENX=X-1
810 IFC$="E"ANDY<100THENY=Y+1
815 IFC$="W"ANDY>1THENY=Y-1
820 GOTO100
850 FORI=1T09
855 IFMID$(S$,I,1)="."THEN865
860 NEXT: GOT0870
865 S$=RIGHT$(S$, LEN(S$)-I)
870 RETURN
900 S$=STR$(SQR(X*Y*F)):GOSUB850
910 L$=L$(VAL(MID$(S$,2,1)))
920 D$=D$(VAL(MID$(S$,3,1)))
930 T#=T$(VAL(MID*(S*,4,1)))
940 O$=O$(YAL(MID$(S$,5,1)))
950 RETURN
960 S$=STR$(SQR((X+X1)*(Y+Y1)*F)):GOSUB850
970 V$=L$(VAL(MID$(S$,2,1)))
980 RETURN
1000 FORI=0T09:READL$(I):NEXT
1010 FORI=0T09:READD$(I):NEXT
1020 FORI=0T09:READT$(I):NEXT
1030 FORI=0T09:READO$(I):NEXT
1035 FORI=0T07:READAM$(I),AS(I):NEXT
1040 FORI=0TO5:READHI$(I):NEXT
1045 FORI=0T02:READW$(I),W(I):NEXT:RETURN
1100 IFC$<>O$THENPRINT"I CAN'T SEE A ";C$;" ":GOTO200
1105 IFC$="SWORD"THENIY$(1)=C$:GOTO1135
1110 IFC$="SHIELD"THENIV$(2)=C$:GOTO1135
1115 IFC$="AXE"THENIV$(3)=C$:GOTO1135
1120 IFC$="KNIFE"THENIV$(4)=C$:GOTO1135
1125 IFC$="ROPE"THENIY$(5)=C$:GOTO1135
1130 IFC$="CHEST"THENPRINT"IT IS TOO HEAVY. ":FORI=1T02000:NEXT:PRINTER$:GOT0200
1131 IFC$="KEY"THENIV$(7)=C$:GOTO1135
1132 PRINT" F CAN'T DO THAT. ": GOTO200
1135 PRINT"I HAVE THE "; C$; " NOW. "
1140 GOTO200
1150 PRINT"YOU ARE CARRYING :-
                                                ":FORI=1T07
1155 IFIV$(I)<>""THENPRINT"A "; IV$(I)
1156 NEXT
1160 GOTO200
1200 PRINT"I UNDERSTAND THE FOLLOWING: -"
1210 PRINT"HELP, TAKE, GET, INVENTORY, GO, RUN, CLIMB,
                                                    ENTER, OPEN, EAT, COMPASS . " : GOT
0200
1250 IFC$<>"LADDER"THENPRINT"I CAN'T DO THAT":FORI=1T02000:NEXT:PRINTER$:GOT0200
1255 IFO$<> "LADDER"THENPRINT"I CAN'T SEE ONE":FORI=1T02000:NEXT:PRINTER$:GOT0200
1260 F=F-1: IFF=0THENGOT02000
                                                                      Continued on page 43
```

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Mike and Peter Gerrard are regular contributors to Which Micro? and Personal Computer News. Peter Gerrard is the author of many titles in the Duckworth Home Computing list, including the Exploring Adventures series, and contributes to Popular Computing Weekly, Commodore Horizons and Micro Adventurer.



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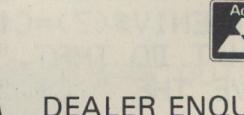
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```
1265 PRINT"OK.":FORI=1T02000:NEXT:GOT0100
 1300 IFC*="TRAPDOOR"THEN1310
 1305 PRINT"I CAN'T DO THAT":FORI=1T02000:NEXT:PRINTER$:GOT0200
 1310 IFO*="TRAPDOOR"THEN1320
 1315 PRINT"I CAN'T SEE ONE":FORI=1T02000:NEXT:PRINTER$:GOT0200
 1320 IFF<>5THEN1330
 1325 PRINT"I CAN'T OPEN IT":FORI=1T02000:NEXT:PRINTER$:GOT0200
 1330 F=F+1:PRINT"OK.":FORI=1T02000:NEXT:GOT0100
 1350 IFC$="CHEST"ORIV$(7)="KEY"ANDO$="CHEST"THEN1360
 1355 PRINT"I CAN'T DO THAT
                                   ":FORI=1T02000:NEXT:PRINTER$:GOT0200
 1360 GC=INT(RND(1)*300)+200
 1365 PRINT"INSIDE THE CHEST ARE"; GC; "GOLD COINS."
 1370 FORI=1T02500:NEXT
 1375 GD=GD+GC:PRINT"
                                                                   ":0$="":GOT0200
 1400 IFC$="FOOD"THEN1410
 1405 PRINT"NO WAY.
                                       ":FORI=1T02000:NEXT:PRINTER$:GOT0200
 1410 IFO$="FOOD"THEN1420
 1415 PRINT"I CAN'T SEE ANY.
                                       ":FORI=1T02000:NEXT:PRINTER$:GOT0200
 1420 PRINT"OK. THE FOOD REFRESHES YOUR TIRED BODY. ":S=S+10:O$=O$(0):IFS>85THENS=8
 1425 FORI=1T02000: NEXT: PRINT"]
                                                                    ":GOTO200
 1500 DATA" PIT", CORRIDOR, ROOM, TUNNEL, "NOTOMB", CAVE, HALL, PASSAGE, ROOM, CAVE
 1510 DATA" MDARK", "MGLOOMY", LARGE, "MFRIGHTENING", "MSPOOKY", "MUNINVITING"
 1520 DATA"MBLOODSPLATTERED", "MSTONE", "MSMALL", "MDARK"
 1530 DATAWET, DAMP, "MWARM", "GCOLD", DRY, WET, "GCOLD", "MWARM", DAMP, HUMID
 1540 DATA" INNOTHING", LADDER, SWORD, CHEST, SHIELD, ROPE, FOOD, TRAPDOOR, AXE, KNIFE
 1550 DATA"MORAGON",100," BATM",10,DWARF,20,DOG,10,WOLF,20,COBRA
 1560 DATA30, TARANTULA, 20, "MAILD HORSEM", 40
 1570 DATASOFTLY, LIGHTLY, FEEBLY, ROUGHLY, HARD, VERY HARD
 1580 DATASWORD, 20, AXE, 15, KNIFE, 10
1600 PRINT": CASTLE DUNGEON ADVENTURE
1605 PRINT": BY D. POLLARD
1610 RETURN
2000 GOSUB1600
2010 PRINT"XXX YOU MANAGED TO GET OUT OFF THE DUNGEONSALIVE ";
2011 PRINT"WITH A SCORE OF"; SC
2015 GOT03000
2020 GOSUB1600
2025 PRINT" WOW YOU COULD NOT GET OUT OF THE PIT AND SOHAVE STARVED TO DEATH. " : GO
T03000
2030 GOSUB1600
2035 PRINT"MUMA YOU HAVE BEEN KILLED BY A "; AM$; "."
3000 PRINT"M YOU COLLECTED ";GD;" GOLD PIECES."
3005 PRINT" NO YOU WANT TO VENTURE INTO THE DUNGEONAGAIN ? YES OR NO ?"
3010 INPUTA$
3020 IFA$="YES"THENRUN
3030 IFA = "NO"THENPRINT"BYE . " : END
3040 GOTO3010
3500 POKE53280,11:POKE53281,8:GOSUB1600
3510 PRINT" NO YOU ARE EXPLORING THE DUNGEONS BELOW AN";
3520 PRINT"OLD CASTLE LOOKING FOR TREASURE THAT HAD";
3530 PRINT"BEEN HIDDEN THERE . THERE ARE MANY"
3540 PRINT"DANGEROUS ANIMALS THAT HAVE WANDERED IN ";
3550 PRINT"OVER THE YEARS .SO , IT IS BEST THAT YOU";
3560 PRINT"TAKE ANY WEAPONS YOU FIND ."
3570 PRINT"% TO MOVE FROM ONE LOCATION TO ANOTHER , ";
3580 PRINT"JUST TYPE THE FIRST LETTER OF THE"
3590 PRINT"DIRECTION YOU WANT TO GO ."
3600 PRINT"E.G. 'N' TO GO NORTH ."
3610 PRINT"X TO DO ANYTHING ELSE , TYPE IN A VERB , ";
3620 PRINT"A SPACE AND THEN A NOUN ."
3630 PRINT"E.G. TAKE AXE TO GET AN AXE IF THERE ";
3640 PRINT"IS ONE AT THE CURENT LOCATION ."
3650 PRINT"M SPECIAL ONE WORD COMMANDS ARE :-"
3660 PRINT"HELP , INVENTORY AND COMPASS ."
3670 PRINT'N
                        PRESS ANY KEY . TI"
3680 GETA$: IFA$=""THEN3680
3690 RETURN
```

THE GOBLIN'S Dungeon raises its ugly head again! This is one of the most vexing of all the puzzles in the Hobbit, and a location in which many people (including myself!) get stuck for a long time.

Mr B M Harris of Pinner is the latest — ask for HELP, Mr Harris, and you'll be told that "A WINDOW SHOULD BE NO OBSTACLE TO A THIEF WITH FRIENDS". In the book of the Hobbit, Bilbo is sometimes called, by other characters, "a thief". And if you should have a "friend" with you in the Dungeon, he may help you. It is a good idea, though, to make yourself a little lighter, maybe by eating any food you have with you?

Another adventure that Mr Harris is stuck in, is Colditz, the excellent new Phipps Adventure. To negotiate the tunnel: CGEE / LTOF / FLFO / IOCR / EBTO / HAER / NDPS / RFOR / PORM / OPOA / FR.

The final problem that Mr Harris has is in Colossal Adventure, the Level 9 program. To get the batteries from the vending machine, Mr Harris, just use the coins, bearing in mind what you must do to get anything from

If you need advice or have some to offer write to Tony Bridge, Adventure Help, Micro Adventurer, 12-13 Little Newport St, London

a vending machine.

Staying on the subject of Colossal Adventure, which I would recommend as one of the best modern versions of the original mainframe adventure, we find David Brain, who has managed to get as far as the endgame, but cannot progress any further.

WC2R 3LD

You do not tell me your location, David, but at some point, you will have to go through a door (and close it behind you!) and then DOWN a staircase. There you will find a jade pendant, which, incidentally, will do strange things to your light, so be careful! That's all I can tell you with the information you have given me so far.

David goes on: "I can, in return, offer some clues". He suggests that if you're held up at a certain bridge you should try TTHOE / NP / ASSASY // TMOALGLI / CT / RWOOLRLD // GIINV / ES / AHMIEM / ERGOGO SM/. And if you're stuck at the start of the endgame try DTRAOKPE // IDTY / NAANMDI / TGEO // TBOA / CDKW / AARNVDE / SB / LTAHSTE / NI / T. David has changed the code somewhat here — he has placed the backslashes between the words of his clues.

David can also offer help with Snowball — since he has finished it (and he adds: "The reviews I have read of it don't seem to show its full potential"). David's address is: 9 Barnhill Road, Liverpool L15 5BE.

Several more people have offered help: David Linsey, 8 Manor House Rd, Jesmond, Newcastle-on-Tyne NE2 2LU. This David will gladly give help on the Hobbit, Artics A to E, Black Crystal, McKensie, Urban Upstart, Snowball and Invincible Island.

Jon Hughes, of Flat 2, Gem House, Aston St, Gosta Green, Birmingham, will give help on all the Acornsoft adventures for the BBC, as well as most of Level 9's, together with Firienwood, Secret Mission, Pimania (but not, of course, the treasure), most of Twin Valley Kingdom (can anyone help with the finish?) and the Hobbit, and finally, Dragonquest.

If you take them up on their offers, don't forget to enclose a SAE for the reply. As you will have noticed, I don't get very much room each month to answer your queries — I'm working on getting more space, but maybe Ed (he who must be obeyed!) will be swayed by a flood of petitions!

#### ADVENTURE CONTACT

MICRO Spectrum 48K
Adventure The Castle Problem
How to get through the wall on
the other side of the chasm
Name M C Marshal Address 1
Shallmarsh Close, Higher
Bebington, Wirral.

MICRO CBM 64 Adventure Heroes of Karn Problem How do I get out of the castle dungeon? I have with me the frog, tinder box, bible and bag of gold Name B Philipou Address 65 Weymede, Byfleet, Surrey.

MICRO Electron Adventure
Twin Kingdom Valley Problem
Once you have got the treasure
chest and secret of life what do
you do? Name E Rice Address
10 Osborne Gardens, Belfast 9.
MICRO Vic 20 Adventure
Pirate Cove Problem What do
you feed the crocodiles, so you
can unlock the door to get the
lumber out? Name R A
Broughton Address 17
Blackwater Avenue,
Colchester, Essex.

MICRO Spectrum Adventure
The Hobbit Problem Can't get
across the forest road without
something falling and stinging

me Name David Benjamin Address 6 Pownall Rd, Hounslow, Middlesex.

MICRO Video Genie Adventure Savage Island Part 1 Problem Where to find the

. HAVE YOU BEEN staring at the screen for days, or given
up in disgust, stuck in an adventure whose problems seem
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This column is designed to put adventurers in touch with one
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able to help — and you may be able to solve other people's
problems. If you are having difficulties with an adventure,
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Adventurer, 12/13 Little Newport St, London WC2R 3LD.
We will publish Adventure Contact entries each month in
this special column.
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Micro			
Adventure			*
Problem			
	31 3XA	\$8	
Name	309 20		
Address			*****
a facin to Chesarion De			

small piece of wire for the alien machine Name David Sampson Address 47 Limetree Ave, Kiveton Pk, Sheffield.

MICRO Atari 800 Adventure Zork II Problem How do I get the red sphere and how do I get a ball for a game of baseball? Name Nigel Baker Address 82 Crescent Drive South, Woodingdean, Brighton.

MICRO Dragon 32 Adventure Pettigrew's Diary Problem Who am I looking for at the travel agency and hotel in chapter two? Name Dennis Jackman Address 36 Walkin St, Kilkenny, Eire.

MICRO BBC B Adventure
Castle of Riddles Problem
How to avoid being killed by
the bear Name Darren
Richardson Address 6 Cedarhurst Rise, Newtownbreda,
Belfast.

MICRO CBM 64 Adventure
Snowball Problem How do I
use the command chair? How
do I get past the robots to the
lance? Name Michael
O'Connor Jr Address 36
Fairchild House, Fanshaw St,
London N1.



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## COMPETITION CORNER

Tony Roberts tests
your skill — send
your answers to
Competition Corner,
Micro Adventurer,
12-13 Little Newport
St, London WC2R
3LD

# "F" is for friendly

THIS MONTH the black dragon Tisch has asked you to decipher the message alongside this old and tattered map. Never before has the black dragon done anything other than order you to do as she wished, so things must be

A GAME OF GOVERNMENT MANAGEMENT

looking up.

The message gives directions to take if you are to uncover the sixth runic ring — the F ring — on the wild and terrible island mapped here.

Can you discover the grid square in which the ring lies hidden? Remember — it's the F ring you need to find.

And how did the search for May's D ring fare? The answer is that the top and left D-

shaped loops form the ring: each jewel is just one number of sides different from its neighbours (3, 4, 5, 6, 5, 4, 5, 4).

The three winners are Anne Drummond of Edinburgh, Paul Cockburn of Cambridge and Michael Switzer of Southampton. Each will be receiving a Micro Command speech recognition unti from Orion Data.

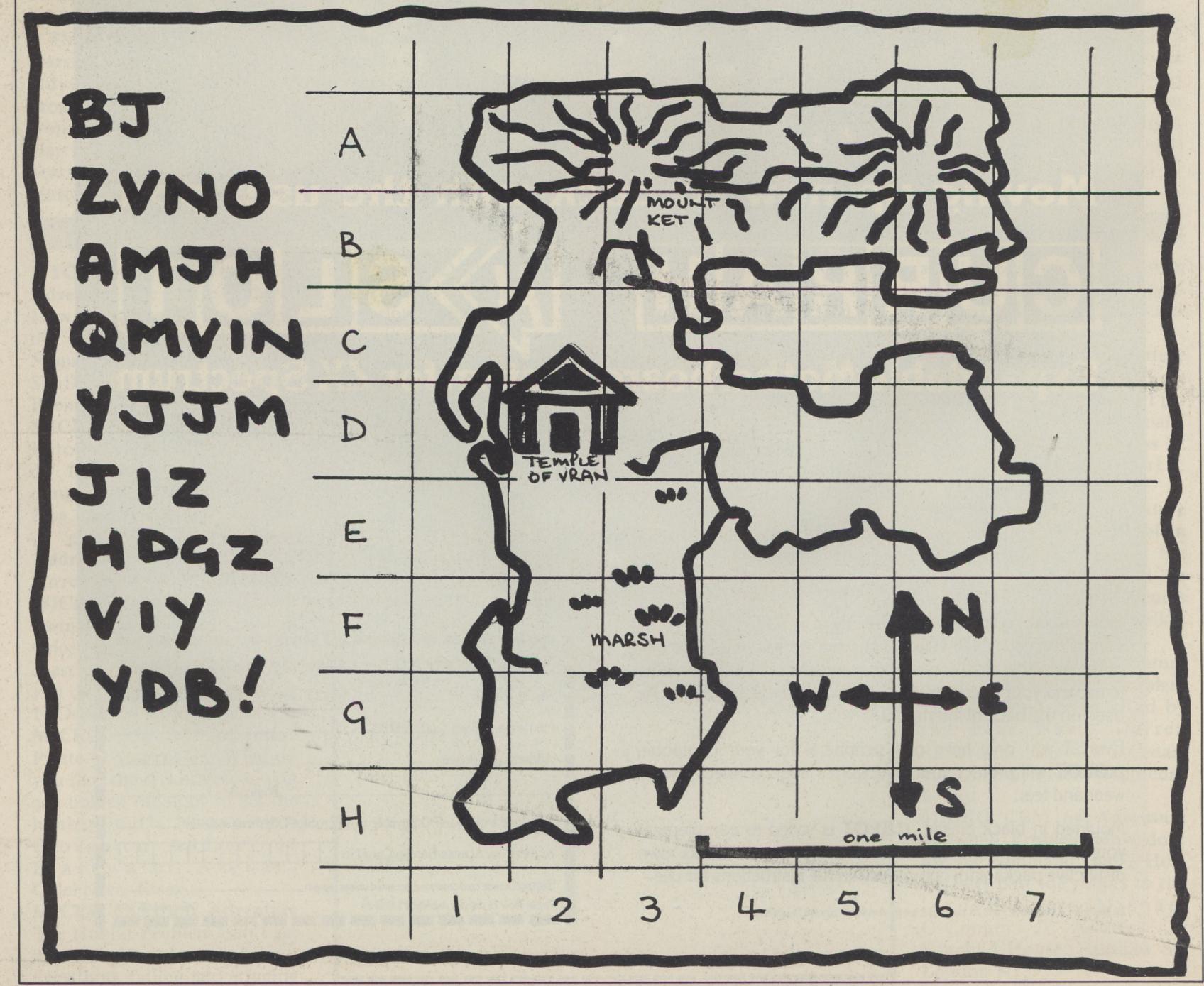
There's 50 prizes to be won this month so the odds are in your favour. Incentive Software is offering the 50 winners either Mountains of Ket, Temple of Vran or 1984. Each is available for the Spectrum 48K; 1984 also comes for the BBC B. So let us know which one you're after.

to

ch

Entries to the competition in this issue must arrive by the last working day, in July. The winners and solution will be announced in our September issue. You may only enter once and entries will not be acknowledged.

And this month's tiebreaker, to be completed in 30 words or less, is: "I want to own an Incentive Software game because . . ."







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