



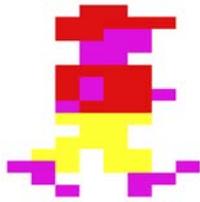
SAS Squad



HEADCASE HOTEL

By Stephen Scott

For users of the BBC B, Master, Master Compact,
Acorn 32-bit series (under emulation),
PC (under emulation) and
Apple Macintosh (under emulation)



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HEADCASE HOTEL

Code:

Version 1.1 (21st August, 1995)

Code and graphics by Stephen Scott

Based on an original idea by Christopher West

April 1992 - April/May/June 1995

Revised update for running on !65Host and !6502Em software August 1995

Written for 8-bit and 32-bit Acorn machines (under BBC emulation), plus PC and Apple Macintosh (under BBC emulation)

Manual:

Version 1.0 (28th April, 1996)



Welcome

Headcase Hotel is my second arcade game for - initially - the BBC Micro. My first game was *Androidz*, which is detailed in the first SAS Squad listing book. These booklets are self contained projects detailing the game, plus the complete listing for you to type in.

Whatever happens, I hope you enjoy reading this text, typing the listings in, and playing the game.

Compatibility

This game was developed on an unexpanded BBC Micro Model B, fitted with OS 1.2, BASIC version 2, and Acorn 1770 DFS. This is essentially the standard setup for many users. It should nonetheless work on every machine, except the Model A, which only has 16k of memory, far less than the total size of the game. The prospect of a 32-bit version of *Headcase Hotel* can only be determined by the amount of feedback I receive. As it stands, *Headcase Hotel* cannot run in Basic V on the 32-bit Acorn machines. It must be run under an emulator.

This version of *Headcase Hotel* contains special delays for Risc PC owners to slow down the action, when the game is played on !65Host. These commands, which are clearly marked within the third listing, should be removed if you are going to play the game on any other machine, or if you are running the more accurate !6502Em by Warm Silence Software.

Apart from the BBC Micro and 32-bit BBC emulators, there are also emulators available on the PC, Mac, and other machines. So it is likely that *Headcase Hotel*, and *Androidz* will also work on this software. The only way to find out is by trying it.

Typing in the game

There are three listings to type in. They can be typed up using a text editor such as !Zap or !Edit on the 32-bit Acorn machines. The first listing, to be saved as HOTELSP, will create a sprite file called SpData on the current disc. Listing 2 should be saved as HOTEL1, and Listing 3 should be saved as HOTEL2. To play the game, type CHAIN"HOTEL1". The listings are correct; they are taken directly from a working version, so any bugs and mistakes are likely to be of your own doing!

Introduction

It seems that every few years or so, I get the sudden compulsion to write a game on the BBC Micro. The first time was in August 1993, with *Androidz*, which was subsequently published in the June 1994 issue of *Acorn Computing* magazine. However the magazine closed in February 1995, through lack of sales, leaving no newsstand magazine to support the 8-bit world. The only things keeping the market alive are the existence of a fair number of PD libraries around the world, plus thousands of enthusiasts. Although I can't send my game to a magazine anymore, I can now



make my games as big as I like, without being told it is too big for a subscription disc!

This documentation is an account of how I came to develop the game. As you may well have guessed, I do not write games particularly often. When the inspiration comes, then I try my damndest to get the game finished, without being snarled up in overcomplicated programming and giving up in frustration.

The following text contains details of the original idea, who thought of it, and how, three years later, the game finally came into being, albeit in a different style from what it was originally intended to be.

The story starts in 1991, when a friend of mine, Chris West, started plans on a game he intended to design and program on his Amiga, called *Hotel Madness* (read on for details of the name change). According to him, it would have the style and gameplay of the established products of the time, such as *Shadow of the Beast* and *Fantasy Island Dizzy*, i.e. a platform game. I told him that I would attempt to write a version of the BBC Micro. He initially scoffed at the idea, saying it wouldn't be possible. I then reminded him of Amiga games such as *Barbarian II*, *Last Ninja* and *Sim City*, which had been successfully converted. He quickly changed his mind!

I decided on the Beeb, because I had no other choice. It was the only machine I could program on. Although I had an Acorn A3000, I couldn't really get to grips with it at the time, and it was mainly used for playing games. Besides, I felt more encouraged to push the Beeb to its limits with this game, something you can't really do on your own, on a more powerful machine. This is my view of the entertainment industry today. All these powerful machines, but being underused by uninspired games design. Why not buy a Beeb? They're cheaper, and more fun to use, if you're prepared to face it's uninviting *non-Windows* interface!

Using some drawings and designs that Chris gave to me, I began on the game. But then the whole thing began to fall apart. My GCSEs were coming up (I was 16 in 1991 - the age of taking these exams), and Chris decided to give up on the game, having got stuck on the programming, and eventually losing all enthusiasm for the game. It wasn't long after him that I also gave up on my version. I spent up until then, doing the graphics. As soon as I tried to tackle the game code, I ended up getting completely stuck.

I returned to the game in April 1992 for a short while, and attempted using interrupt-driven music, but I still didn't tackle the game code. There was also the small problem of A level studies, plus I was finally getting the hang of programming on the A3000. So *Hotel Madness* was resigned to disc-box oblivion. Well, at least until three years later.

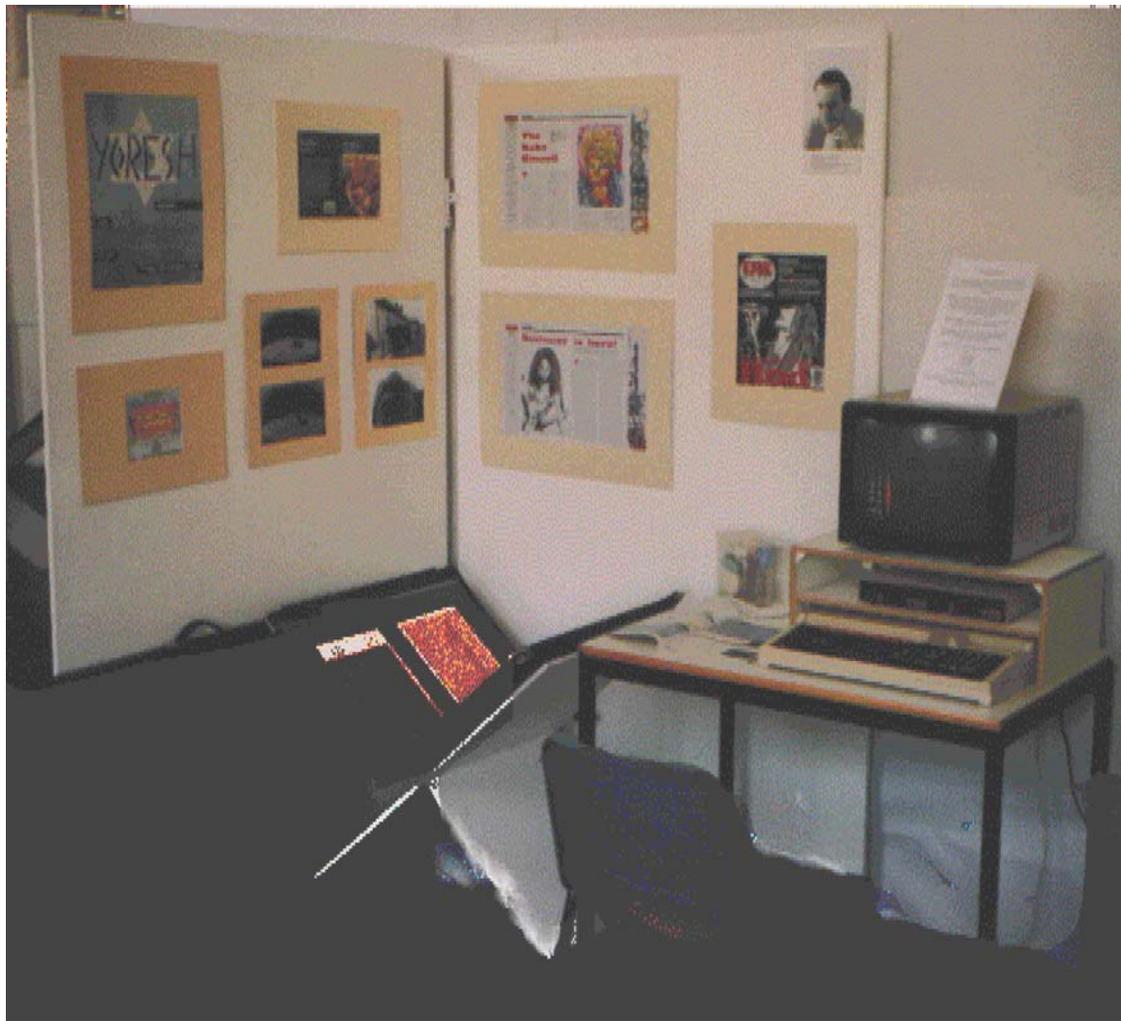
I only returned to the game by chance. It was mid-April 1995, and being bored, decided to look through my Beeb disc collection. And lo and behold, I found the remnants of *Hotel Madness*. This time I could now get it finished, because I had some good reliable code to refer to, in the form of *Androidz*, my first game, mentioned earlier. Both *Androidz* and *Hotel Madness* use the same basic design; they were both maze games, where the level is printed on screen, and you move a character around within it, collecting, shooting and/or avoiding objects to achieve a result. So I had already moved away from the original design of a platform game, to an overhead maze-style game.

The problem was that *Androidz* used fairly basic graphics, in the form of single coloured characters, defined using the VDU23 command in Basic. This technique is described in detail in the *Androidz* book.

To define multi-coloured characters, machine coded sprites are needed, not Basic defined ones. *Hotel Madness* would therefore use these to make the game characters and objects more exciting to look at. Now, myself and sprites have this little understanding. I design the sprites, and when I try and print them on screen, they don't! So I had initial problems getting the blighters to appear properly on the screen.

By the time the Easter holidays of 1995 were finished, I had completed the main game code





My graphic design end of year show, plus Headcase Hotel, at Berkshire College of Art and Design, Reading

and had basically finished doing the graphics. Or so I thought at the time. It was at this time that I changed the name of the game from *Hotel Madness*, to *Headcase Hotel*. The former name had pornographic overtones, a 'seedy' feel about it!

The main reason I pulled out all the stops to complete the game was that I showed an early development version to a lecturer at Berkshire College of Art and Design in Reading, where I was studying in my second year of a two year BTEC National Diploma course in graphic design. She encouraged me to finish the game and exhibit it at the college's end of year show in June 1995, so everyone could admire the end product. I now hold the position - so far - of being the only student to have displayed video game work in the history of the show, which is something I am quite proud of.

At the time of writing, I am now progressing on a three year degree course in Electronic Media, at Staffordshire University in Stoke on Trent. Here, we do not use 8-bit machines. We use Apple Macintoshes with loads of fancy graphics capabilities and expensive software, all running at 8-bit speed. I seem to spend most of my time waiting for things to happen on the machines, rather than doing, but there's university funding for you.

Now, are you sitting comfortably? If you cannot sit comfortably, then try and stand or kneel comfortably, as you read this nice story that will set the scene for the game...

The story



It can be cold in London. The chill wind sends a shiver up your spine, and you suddenly think, "Why am I here? What is the point in staying in this horrid little country. I want to be somewhere nice and exciting. I need some added spice to my life. Darn it, I'm gonna do something about it." You decide to find work abroad.

Looking in a national newspaper, you find an advert for a hotel cleaner, required for a very swish establishment in the south of Bulgaria. A very quaint place Bulgaria, you think, so quaint, I've never heard of the bleedin' place (apart from that character in *The Wombles*, but that's another matter).

You consult your atlas, and you are delighted to discover that Bulgaria lies next to Turkey, in the Black Sea, next to the Med. Okay, so its not actually in the Med, but the weather will be the same. Brilliant! Awaiting you will be the delights of sun, sea and se... hang on, don't get your hopes up. You've got to get the job yet.

You leave the relative security of your job as professional fag-end collector for London Underground, and you journey onward to Bulgaria. At last, your life can now take a turn for the better!

The phone call was rather strange. The hotel owner, a woman, immediately snapped you up, no questions asked. Perhaps you were the first to answer the ad. You look at the details you hurriedly scribbled on a scrap of dirty fag paper. The woman stipulated that you were to meet up with a cloaked gentleman at the airport, on arrival, and then await further instructions. You wonder at the strangeness of it all. A cloaked man, in a hot climate such as Bulgaria - very weird. Ah, its nothing. You are just too glad to leave England.

You arrive at the airport, and luckily the weather meets your expectations. Very warm. So lucky you were to wear just a shell-suit, because beads of sweat are already glistening on your brow. As you enter the arrivals lounge, you meet up with the gentleman. He greets you with a low pitched voice. He has a hood over his head, and you notice he has a vice-like grip on your hand as you exchange pleasantries. He lets go, and beckons you over to the terminal exit, where outside, you can see a horse-drawn carriage. As you rub your hand free of the pain on your trousers, you diligently amble along beside him with your tatty suitcase in the other hand. He opens the carriage door to let you in. This display leads you to the conclusion, that this horse drawn carriage is going to be your transport up to the hotel. Blimey! They must treat you well at this establishment, and you're not even an employee yet!

It turns out that the gentleman is the driver, so you are alone in your carriage. He sets off, and you leave the noise and bustle of the airport and city. The place around you becomes more and more quiet, as you leave the built-up area and enter the countryside. You begin to feel tired. The old jet-lag has set in. You decide not to fight it, and drift off slowly to sleep. The only sound you hear is the gentle trotting of the horse's hooves...

You wake up in a cold sweat, and find that you are still in the carriage. You look outside, and find that it's pitch dark! With the light of the moon your only source of seeing the world around you, you squint at your watch. You are horrified to discover that you have been asleep for more than ten hours. Where must this man be taking you? You peer out again, and your eyes adjust themselves to the scene of a mountain track, looking out over a steep sided valley, laced with pine trees. The air is cold, very cold. You begin to shiver, your shell-suit now becoming a burden to your warmth. Feelings of *deja-vu* creep in - one of the reasons you left England, was to get away from the cold weather. And now you're in some more of the same!

You look up to speak to the driver. "Excuse me sir, but can you tell me where we're going?"

"To the hotel." A fairly simple, and obvious reply. But you are unrepentant. "But I thought the hotel was close to the airport."

"Ah, but to be the best hotel in the area, you must be far and away from any noise and pollution, in the peace and serenity."

That seemed to explore the argument in full. Oh well, there's no turning back now. You look ahead of the horses, and see some dim lights ahead. The lights come steadily closer, until you make out the shape of a large mansion.

The horse and carriage enters through a wrought iron gateway and onto a gravel drive. The horses stop alongside the front door. "If you would care to step out the carriage, sir." This is clearly your destination, so you collect your belongings, and step out of the carriage.

You thank the driver, and make your way up a short stone carved staircase, leading to a large set of oak doors. You knock at the door. By now you are well aware that this was not the sort of location you had in mind. You like to party all night, and be around people. This was not the place for it. You sigh, and look up at the gothic style arch which surrounds the door. The shape of a bat comes down at you. You jump, but then realise that it's just a sculpture.

It seems like an age before you hear the sound of footsteps from within the mansion. You then hear the jingling of keys, followed by the click of a turning lock, before the door slowly creaks open, and you are bathed in light. A tall silhouette then masks out the light. Looking up, you can make out the features of a very old, craggy face dressed in a butler's uniform. "Good evening, sir" he utters in a deep croaky voice.

"Good evening," you reply in a mixture of joy and apprehension, mostly the latter. Blimey, you think, this seems a darn spooky place. Why is it always mugs like me that end up in places like this? Once again, you emphasise the fact that you cannot turn back now, a fact further compounded by the sudden realisation that the horse and carriage have disappeared from behind you. My, you think, that *is* very strange, considering that they didn't even make a sound.

You look back at the silhouette. "I've come about the job.", you add. After a long pause, the silhouette responds, "Ah, you are the vict ... ahem ... new employee. Do come in."

As you enter, you think, what was that word he nearly said? Could it have been victim? No, your imagination is getting the better of you. This is just a simple job, that will pay you relatively good money, and you get most of the day free for other pursuits. Although, come to think of it, there won't be that much to do in a lonely place such as this. Ah, everything will be all right.

"My name is Egor". Disregard everything you thought of before. Egor? Where have I heard a name like that before? "I am the servant of this establishment. Let me take your belongings, and I shall fetch the manageress. Please, take a seat."

Egor takes your suitcase and walks away. You look around you, and find that you are in the hotel reception. It all looks remarkably swish, albeit a little dusty. Regal coloured wallpaper, with gold emblems upon it, and a massive oak staircase ahead of you, lead you to believe that this place does not seem so bad after all. Your knowledge of Bulgarian history and culture is scant, so you assume that the aesthetics of the reception are akin to the country's past. At the top of the staircase is a lift. Ah, the first sign of modernism you've noticed for quite a while. In the corner is a very comfy looking armchair. You make your way over to it, and you sit down. You cry out in shock, as the bottom sinks, and then curse yourself. "Damn it, I've only been here five minutes and I've already broken something." You quickly cover up any evidence of breakage on the chair, before you sit down gently on the edge of another seat.

You look over to the reception desk, and see most of the room keys hung up behind. There can't be that many guests here. Not surprising really, considering the long journey you had, and by horse and carriage, for goodness sake. You still wonder at why the hotel is so far away from civilisation, despite the opinions of the driver.

From a doorway behind the reception desk, what you assume to be the manageress walks elegantly around the desk, towards you. You try your hardest not to stare at her sheer beauty, and you try even harder to stop your jaw dropping. I will not even attempt to describe her appearance - you will just have to use your imagination.

You stand up and introduce yourself. "Good evening. Welcome to the Hotel Assylham. I am





Look, there you are in the bottom right corner, trying to dispose of hot dogs.

Fran Magenta, the manageress." You can barely keep control of your bodily functions as she speaks in a deep and frightfully sexy tone. Perhaps your stay here will not be so bad after all. "If you would care to follow me into my office." Your mind starts churning out mental pictures of you and her together. Did she say 'Step into my office', or 'step into my orific...'. You block out this notion, disgusted at yourself.

As the two of you make your way to the office, you exchange neat pleasantries, such as 'How was your journey?', 'How long has this hotel been here?', 'This is a beautiful country', and the not so wise 'Are you married?' A slight slip of the tongue, and you apologise profusely. Luckily Fran does not mind, and returns a sly smile. I'm amazed you haven't fainted yet, from all this.

The office is well laid out, with a big varnished oak desk positioned in front of a set of bay windows, with the velvet curtains half drawn, looking out over a large, but rather overgrown garden. The room is quite dimly lit by some oil lamps on the far wall. She sits down in her chair with a graceful manoeuvre of her shapely behind, and offers you to sit down in a nice leather armchair directly opposite her across the desk. You slowly sit down, thinking of the earlier accident. Finding that this chair is quite sturdy, you relax and slide about in the chair as she explains to you what the job entails.

Now, finally we come to some important information, that is what you actually do in the game. Well, since you have been employed as a cleaner, then what you do is basically clean up the place. Collect fag-ends, loo-rolls, items lost by guests, and so on and so on. Why, did you think it was going to be a holiday?

Right now, you feel as though you are going to settle in rather well, but then Fran suddenly turns quite serious, and says, neigh, almost bellows, "I should warn you, however, that our guests do not take very well to hotel cleaners. As long as you stay out of their way, you will...", she pauses, "...come to no harm. If you irritate them, or do anything to ruin their stay, then I will put a black mark on your record. Get three marks and you are fired. Is that clear?". Well that seemed pretty final. "Yes, clear as finely polished crystal." you say.

"Okay then, I shall let you get some sleep.", she says, returning back to her previously cheery



tone. "You've had a long journey, and it will be a long day tomorrow. Don't let me down. You look like a good, strong worker, the sort I like." You blush slightly, somehow quite flattered by that last remark. "I will call Egor. He will show you to your room." She gets up and beckons you to follow her out of the office. She rings the bell on the reception desk. Almost immediately, Egor appears from around a corner. "Have you dealt with our new employee's belongings?"

"Yes I have, madam." Egor replies in his gruff voice. "Very well then, show him to his room."

"Yes, madam. If you would care to follow me sir." You look back at Fran as you follow Egor up the staircase. "Goodnight. And thank you."

"That's okay. You just get some sleep. You'll need it. Goodnight." Fran beams back at you. You feel quite relaxed by that smile. Perhaps too relaxed?

You continue to follow Egor up the staircase to the lift. Egor presses a button and the doors slide open. You and Egor enter the lift. Egor presses a button with the number '10' printed on it, and the doors slide shut.

It's not long before the doors reopen out onto a carpeted lobby. You both step out. You look around and notice how long the corridors are. They are far longer than the width of the mansion itself. In fact, they appear to stretch for several hundred yards. You finally realise that you are actually underground. The lift went down, not up! All those feelings you had before, begin to drift back. This hotel is very weird.

"Oh, you think so, do you, sir?", Egor replies angrily. Trust you to think aloud.

"Oh, I'm sorry. I didn't mean that. I haven't been to many hotels in my life, so I'm not one to judge.", you answer cautiously.

Egor looks at you suspiciously. "Come this way, sir." Despite your best efforts, you can tell that Egor was deeply offended by your comment, and your attempts at further conversation fall on deaf ears.

"This is your room sir. All your belongings are inside. You know how to open a door. I shall bid you goodnight." He hands you the key, and walks back to the lift.

"Goodnight, Egor." You turn to put the key in the door and it creaks open. Before entering, you take one last look at Egor, but he is nowhere to be seen.

You enter your room, and turn the light on. The room is quite sparse, compared to the luxuries of the reception. It's more like a student hostel room. One bed, a wardrobe, a desk and a small bathroom. Nothing else. Not even a window, which is not surprising, because you are underground. On the bed is your suitcase, and a uniform. In the corner of your room lie your cleaning implements. Everything has been prepared for you.

You close the door, and get ready for bed. It's gonna be a long day tomorrow. And it turns out to be a very, very long stay indeed...

Did you enjoy that story? Good wasn't it? But that is only the beginning. The best is yet to come. And that is what you do in the game.

As you will have fathomed out, the hotel consists of ten floors. You start from the lowest, level 10, and work your way up using the lift. But in order to reach the next floor, you must clear the present one of a selected item of rubbish. At the same time, you must avoid the hotel guests. And let me tell you that these guests are a right bunch of darn strange characters. But they are all the same in their attitude towards you. Touch them, and they will complain to Fran, who will add a black mark to your record. If you get three black marks, you are fired. And it's a long way back home, and to what? Questionable weather, and a lousy job collecting rubbish on Tube trains...

Now the only way to continue the story, is by playing the game. There are two possibilities. You either keep your job, and further discover the mysteries of the hotel, or you get slung out. It's as simple as that.

Game keys:



Z	move left
X	move right
P	move up
L	move down

S/Q	Sound on/off
Delete	Pause
Copy/End	Unpause
D	Quit game

In order to collect objects, you must be lined up with them. You will only get stuck otherwise!

You will start each level by emerging from the lift. On occasion, the guests may be nearby, so you must move quickly, or you'll have failed before you even started!

Miscellaneous information

The game is fairly responsive on a BBC Micro, despite the amount of animation that has to be done. The game uses multi-loading techniques to save memory, and keep things separate. It is best, therefore, that the game is played from disc. If you are still a tape-based user, then get a life!

The front cover of this booklet is the actual loading screen of the game, which cannot be published as a listing. This screen was produced using some ancient Beeb package I came across by the name of *Megadraw*, published on the disc-based subscription magazine *Fast Access* in the early 1990s. As you can tell from the quality of the screen, the package is a dream to use. The game sprites were done using the *Arcade Game Creator* package, that came from the pages of *Electron User* magazine, during the summer of 1988.

The music was the hardest part of the game, because I am no musician, and getting music to play in the game involves venturing into the realms of assembly language, which I am useless at. I did however, find some music composition and playback programs in various magazines, which were invaluable. I used a program called *Jingle*, from the December 1989 issue of *The Micro User* magazine (the forerunner to *Acorn Computing*), to produce the short, snappy tunes.

Programming Diary

The following text is a diary of events concerning the development of the game, from its discovery in April to the version that now accompanies this text file. It is mostly un-edited, and is written in a different tense, but I hope you enjoy reading it anyway.

It starts about a week after I discovered it. There are references to two games by Mike Goldberg called *Five Alive* and *Dickie Brickie*, which were published in the June 1989 and March 1990 issues of *The Micro User* magazine respectively, plus my game *Androidz*.

19th April, 1995

I have hit a problem concerning the sprite collision routine, as used by *Five Alive*. It's routine pokes the screen memory, and magic numbers appear which are unique to each sprite. But some of my sprites do not work! I have found, however that this screen poking has something to do with colour, because only my sprites which actually fill most of their spaces, actually work. If there is too much black in the sprite, the magic number comes up as 0, which is the same as a



blank space. Hence, this is useless for collision detection.

I will, therefore, have to find another way of detecting sprites. One probability is using the memory map array method I used in Androidz. The tricky part is converting the screen location address into normal x,y, coordinates. The solution is in the Five Alive listing, where normal x,y coordinates are picked at random for placing objects, before being converted to a memory location. In theory, all I have to do is reverse the operation. The disadvantage to this, is that it uses up memory, and makes the programming long-winded. But this seems like bliss, compared to having to redraw the sprites!

21st April, 1995

In just two days, I have managed to sort out the main problems of the game. I now have multi-frame animation for the man character, and the collision detection routines work. I have not added the code for collecting the objects yet, and this is probably the only remaining obstacle. Once this is sorted, I only need to tidy up the game, and add the finishing touches. At the moment, the projected date of completion is April 30th.

23rd April, 1995

After a break of two days, I returned to redefine some of the monster sprites. Artistic talent can change a lot in three years, and the older sprites left a lot to be desired. They are now redefined and look a lot better, for monsters!

I must now start college, and concentrate on my final major project. This, of course, will affect the final date of completion. I won't set a firm date, but I am looking at finishing the game before I finish college, which will be June 30th. I will show off my efforts to college, and see what they think. Its about time their Beebs were put to good use!

9th May, 1995

Its certainly been a while since I last wrote. I have been concerned with college work of late. I did, however, find time to redesign some of the game sprites. Some of them looked a little shabby.

I have now hit the thorny problem of collecting objects. I shall need to follow the Dickie Brickie code quite carefully. I must also cope with the problem of reprinting the objects when the monsters walk over them! This action was avoided in Dickie Brickie, possibly due to speed problems. If this is the case, then I am in trouble!

Some of the collectable sprites I have redesigned, are useless for detection, because they don't use the top left segment, which is used for collision detection. The result is that you can walk through, or at least half through them! This cannot do. It will be interesting what happens, by the time I write my next entry.

15th May, 1995

Another week has passed by extremely quickly. I have to get this game finished by the end of June. This is because, along with Androidz, Headcase Hotel will be proudly displayed at my college end of year show. The fact that I am the only known games programmer on the course will add that extra special something to my display of work.

I have now redefined the collectable sprites, so that they can now be detected by yourself. I have yet to sort out reprinting the objects when they are either collected, or deleted by the monsters.

I must also start work on some presentation screens, plus get the hang of Speech! I want my



title to have some speech to set the scene. I also want some extra collectable objects, such as bonus lives or points etc.

Basically, I have a very long way to go, with only six weeks left until the show. Yike!

24th May, 1995

A significant day this is. Apart from the small matter of my 20th birthday, I completed the main game code. The objects can now be collected and repositioned. All I need to add are the possible bonus symbols. These will be easier to handle, because they don't need repositioning. Once they're gone, they're gone!

I came across an excellent mode 5 art package on one of my 'Fast Access' discs. Called Micro Draw, it has some very good features. This is the perfect program for my presentation screens.

6th June, 1995

Its been two weeks since my last entry. The deadline is only a few weeks away. But I have completed the loading screen, and very nice it is too! I am also working on some carpet sprites, to liven up the backgrounds. I am also looking at the possibility of organically designed levels. Levels would be assembled using segments. These segments would be picked at random and printed side by side, producing a new level every time you played. I wrote a demo program to show the principle. Unfortunately, you end up with a level that in places is totally blocked off. I can either be very careful with my segment designs, or use a system of natural selection, where certain segments are far more important than others.

Either way it is a very interesting idea. I am trying to get a presentable version finished, because a friend who works where I work, wants to have a copy to look at over the week. I'm well on my way there.

12th June, 1995

Silly fool forgot the disc! I got worked up for nothing, because of his brain shutdown. Still, I have definitely completed the sprites. I scrapped the carpet idea. It would slow down the game, redrawing the carpet after each movement!

I tried out the random level idea, but it wasn't successful. Some segments need more priority over others. Otherwise, you get inaccessible levels! It's still an interesting idea, but I won't use it for this particular game.

Headcase Hotel is now at version 0.2. Version 0.1 was the first playable version, with titles and game over bits and bobs. Basically the game shell was complete. Version 0.2 has the proper sprites, and so graphically, this is the full version. I am now going to add some VDU definitions for the bonus blocks. There is still the prospect of sound and music to look forward to, plus some more screens and presentation to sort out. I've only 2 weeks left to complete the game!

16th June, 1995

Yesterday I had a day off college, so I spent it on the game. The main task was defining some bonus icons. I scrapped using VDU definitions - they looked too dull compared with the multi-coloured sprites. I made ten icons, some of which were based unashamedly on the Dickie Brickie game with which I used the code. My favourite is the lightning strike icon, which cycles the background colour of the level, making a groovy, psychedelic effect. I programmed the blocks in, and now I have an almost complete game. I still want to add some sort of bonus stage though.



I really need to think of an end sequence for the game too. I also think I need to add extra levels - ten seems a bit limp. I want to do another ten, but is there room?

Basically, although I have got the main code sorted out, I also need to do a high score table, plus the presentation, and of course the sound.

With less than two weeks to go, this will be an interesting time in the development of the game. I can at least move my game up to version 0.3

14th and 18th August, 1995

Two months is a long time to miss out in a diary. I managed to get the game ready for the show, and I must say it went down really well, although I wish I added a joystick routine, because some people were really shy of the use of the keyboard. This was despite my admittedly limp efforts to put tape on the game keys.

During July and August, I rewrote the game, using machine code routines to draw the screen and plot the sprites. There was a point where I thought the collision detection had failed, but it turned out to be a simple case of wrongly named variables in the important routines. This was now version 1.09.

Version 1.10 would be the first version to appear on the 32-bit machines.

20th August, 1995

I used my serial-link transfer program to get the game across onto my Risc PC. Unfortunately, the game itself and the diary text file wouldn't transfer. So I have spent today retyping them in on the PC. The trouble may be due to the fact that the serial-link program is from 1988, and is showing signs of creaking. But I use it so rarely, that I find it unjustified to pay for an upgrade I may never use very often.

Having done this, I took a deep breath, and ran the game. I wasn't surprised to find an error message staring at me in the face. Initially I thought it was just a typing error. But the message was 'Too many FORs'. I suddenly thought of the restrictions imposed on !65Host regarding certain keywords. Being a software emulator, !65Host cannot cope with overly complex programs. I replaced the FOR loop with a REPEAT...UNTIL loop and managed to get the game running. The trouble was that it was running too fast! Well I do own a Risc PC!

The game was running so fast, certain objects wouldn't redraw when deleted, either by my character, or the monsters. This would mean some extensive rewriting. The problem with this, is that any time delays I add would slow the game down to an acceptable speed on the Risc PC, but for older and slower machines, it would be slower than the original Beeb version.

21st August, 1995

I added a time delay to the main game loop, so the game runs at a more playable speed. I have also altered the random position functions to procedures, so I could get rid of the GOSUB calls sprinkled about the program. I have also altered the game keys to Z, X, P and L.

The game is now finished, and put up to version 1.11. As far as I know, everything works. And that concludes the diary.

And finally



I hope you have enjoyed reading this booklet, and better still, enjoyed playing the game. If you have any queries or bug reports concerning other machines, or anything in general, then write to me at the following address:

Stephen Scott
17 Northcroft Villas
Egham
Surrey
TW20 0DZ

Although at the time of writing I am at university, my term time address and e-mail number are likely to change too much to warrant inclusion here. The above address is more permanent, since it is my parents address!



Listing 1

```
10 REM Hotel Madness Listing 1 (HOTELSP)
20 REM Sprite Data Construction
30 REM by Stephen Scott
40 REM (c) 7th July,1992
50 REM Original idea by Chris West
60 REM on Amiga (unwritten) (C) 1991
70 REM
80 REM Wall data finished off
90 REM 19th April, 1995
100 :
110 MODE7:H%=&4F00:HIMEM=H%
120 PRINT`"Building sprites..."
130 REPEAT
140 READ a$
150 IF a$>" !H%=EVAL("&"a$):H%=H%+4
160 UNTIL a$=""
170 PRINT`"Saving the sprite data as 'SpDATA'"
180 X%=&700:Y%=X% DIV 256
190 $X%="SAVE SpDATA 4F00 "+STR$~H%
200 CALL&FFF7:END
210 :
220 REM Collectables data
230 :
240 DATA F2F2233,7A7D6B4F,4C448888,6B0F4E4C,3E7D7A7D,1031
7,6B6D6B6D,F0F6B6D
250 DATA 61C1D3A,C58B8306,C4C88000,396264EA,75626441,1031
32,60C1D3A,C58B8206
260 DATA 1283A170,DD773301,841C58E0,BBEECC08,6633BBBB,606
2E3F,ECCDDDD,606CF47
270 DATA AAEE99FF,99EE99DD,888844CC,44444444,1000000,100,
5444444,50E
280 DATA 1030201,1100110,F01010F,860E0F87,2D431221,669F0F
0F,2E0E0E0E,CC6E
290 DATA 20253010,0,212468C0,C0426060,30101000,4426021,88
084,0
300 DATA 44004433,88888888,62222CC,A090905,58A8A89,609090
9,6,0
310 DATA FFFF,53537000,44448888,2CECE000,73636373,7043734
3,ECACACEC,E0ECACAC
320 DATA 55665577,2A190447,44CE46CC,27376EEE,47040808,775
56655,EE6E3727,CC44CC44
```

```
330 DATA 8F8F88FF,11234747,2E2E22EE,884C4C,11111111,77442
222,0,CC448888
340 :
350 REM Baddies data
360 :
370 DATA 71717133,75717171,AA26EECC,D5B162EE,26041767,FF7
74707,EE75557D,FFEEEE248
380 DATA 60B0F07,FFF9F967,F0C0A0C,1D1F1F05,E0E0F67,306050
B,AA22AA19,E090F0E
390 DATA 27523010,E0D22755,4EA4C080,70B44EAA,41585D2,1003
1726,28A1AB4,800C8E46
400 DATA 10000304,30A0101,8020001,C20E0884,34120710,1E351
A12,C9C3A50E,CB86CACA
410 DATA 44373711,77333366,DD193B11,EEDDDD55,DD999999,223
33399,CCCCCCCC,88
420 DATA FFAAAAE,1C0D0F05,EAAAAEE,6060E04,8183818,30706
04,2028202,80C0C04
430 DATA FDD57030,D0E3FDD,FBBAE0C0,50AFFBB,F5FA3D3E,11336
644,F5FAF5FA,88CC6622
440 DATA C0D0D0A0,F478383,D0B0E0C0,68A83870,73F7F0F,3C430
403,68686868,C803060
450 DATA 82278250,A8986450,A450A060,A050A45E,22AA,6098AA2
2,2098A850,A050E098
460 DATA 44E0A060,22022202,22705060,44044404,55111111,669
D9D9D,AA888888,669B9B9B
470 :
480 REM Lift doors data
490 :
500 DATA F5FAF5FA,C7CBC7CB,265537AB,E0E0E00F,C7CBC7CB,C7C
BC7CB,E0E0E0E0,E0E0E0E0,9CDD9CB9,E1E1E10F,EAE4EAE4,6A6C6A6C
,E1E1E1E1,E1E1E1E1,6A6C6A6C,6A6C6A6C
510 DATA FAF5FAF5,CBC7CBC7,266626A3,1100000F,CBC7CBC7,CBC
7CBC7,11117733,111111,9DDC9DBA,101010F,E4EAE4EA,6C6A6C6A,10
1CD89,1010101,6C6A6C6A,6C6A6C6A
520 :
530 REM Record,brush & man frame data
540 :
550 DATA A5A596F0,F0A5A596,96B487F0,F087B4B4,F7F7F7F7,F0F
7F7F7,FEFEFEFE,F0FEFEFE,B4B4D2F0,F0D2B4B4,5A5AB4F0,F0B45A5A
,F7F7F7F7,F0F7F7F7,FEFEFEFE,F0FEFEFE,5A5A3CF0,F05A5A3C,5A5A
3CF0,F03C5A5A,F7F7F7F7,F0F7F7F7,FEFEFEFE,F0FEFEFE
```



560 DATA 1010101,1010101,0,0,70010101,AA55AAF0,C0000000,A
A44AAE0

570 DATA 3213311,3B373301,C48CC88,CDCECC08,3030103B,E0660
60,C0C080CD,7066060

580 DATA 3333311,3B373301,CCCC88,CDCECC08,3030103B,E0660
60,C0C080CD,7066060

590 DATA 3037711,33333301,8CCCC88,4C4CCC08,10103023,30110
10,8080C0CC,8088080

600 DATA 3037711,27233301,8CCCC88,CCCCC08,10103033,20638
30,C080C04C,4024360

610 DATA 1333311,23233301,C0CEE88,CCCCC08,10103033,10110
10,8080C04C,C088080

620 DATA 1333311,23233301,C0CEE88,CECCCC08,30103013,2042C
60,8080C0CC,406C1C0

630 DATA 3333311,3B373301,CCCC88,CCCECD09,3030103B,E0660
60,C0C080CC,70660

640 DATA 3333311,33373B09,CCCC88,CDCECC08,30301033,E0660
,C0C080CD,7066060

€ 650 DATA 3213311,3B373301,C84CC88,CCCECD09,3030103B,E0660
60,C0C080CC,70660

660 DATA 3123311,33373B09,C48CC88,CDCECC08,30301033,E0660
,C0C080CD,7066060

670 :

680 REM Wall data

690 :

700 DATA B40F7869,D2960F96,B40F7869,D2960F96,F69E10F,50F7
869,F69E10F,50F7869

710 DATA AB4CAF02,AF02AE1B,AE1BAB4C,AB4CAF02,AE1BAB4C,AB4
CAF02,AF13AF1B,AF1BAB4C

720 DATA 780F785A,D20FD25A,780F785A,D20FD25A,780F785A,780
FD25A,780F785A,780FD25A

730 DATA 1B141B05,1B141B14,3172F5FA,F5723110,39363936,C57
27D36,F5FAF5FA,58AE5FA

740 DATA D2D2F0F0,B5B597D3,9EDADAD2,F2B4B4BC,E3F2F2B4,F4E
5E5E7,7C7E7A7A,F0F0F4F4

750 DATA BFFEF4FE,F4FEBF1F,BFFEF4FE,F4FEBF1F,BF1FBFFE,FFF
EF4FE,BF1FBFFE,FFFEF4FE

760 DATA A7D7A7F1,F87CBC5E,BE5EBE78,E3D7A75F,AE4E8C5F,E1D
7A7D7,2313015F,F85EBE56

770 DATA F2FEF8CB,1E1E787B,C30E0E0C,F2FEF8CB,7A7B781E,121
6707B,C3CBF8FE,F1FFF8CB

780 DATA 6C7C7F0F,7A787F7C,63E3EF0F,4B0FEFE3,7A7A7A7A,F78
7A7A,ABEF0F4B,FEFABAB

790 DATA 8487300F,85852525,850D610F,850525A5,A5852525,879
40525,850525A5,F812DA5

800 DATA 00000000,00000000,00000000,00000000,00000000,000
0000,00000000,00000000

810 DATA FAF5FAF5,CBC7CBC7,266626A3,F,CBC7CBC7,CBC7CBC7,0
,0,9DDC9DBA,101010F,E4EAE4EA,6C6A6C6A,1010101,1010101,6C6A6
C6A,6C6A6C6A

820 :

830 REM Bonus items

840 :

850 DATA F0F0703,F0F686C,1F1F2E4C,1F1FD1D9,494D493E,3070F
4D,595D599B,4C2E1F5D

860 DATA F0F0703,F0F6A68,1F1F2E4C,1F1FD5D1,4D494D49,3070F
3E,5D595D59,4C2E1F9B

870 DATA 3D3E0703,3D3E3D3E,939B2E4C,939B939B,3D3E7D3E,307
1F1E,939BD59B,4C2E1717

880 DATA F0F0703,7C6C3F0F,1F1F2E4C,51D19B1F,1F1F3E3E,3070
F0F,17179393,4C2E1F1F

890 DATA 1F0F0703,492C3E3D,171F2E4C,59939B93,1E2C4949,307
0F0F,17935959,4C2E1F1F

900 DATA 1E2E0703,F0F0F1F,171F2E4C,D9D59B93,3E6C3E1F,3070
F1F,171F1793,4C2E9317

910 DATA 3E0F0703,F0F4D69,9B1F2E4C,9B595DD1,1F0F1F1E,3070
F1E,171F1717,4C2E1F17

920 DATA F3F0703,F3F2E3F,9B9B2E4C,1F9B1F9B,2E1F2E2E,3070F
2E,9B179B9B,4C2E1F9B

930 DATA F0F0703,F790F7C,1F1F2E4C,1FD31FD7,F3D0F3E,3070F1
E,1F971F9F,4C2E1F1F

940 DATA 1E1F0703,6C0F2E49,17172E4C,D51F9B59,1E492E0F,307
0F1F,17599B1F,4C2E1F17

950 DATA ""

960 DATA F3F0703,F3F2E3F,9B9B2E4C,1F9B1F9B,2E1F2E2E,3070F
2E,9B179B9B,4C2E1F9B

970 DATA F0F0703,F790F7C,1F1F2E4C,1FD31FD7,F3D0F3E,3070F1
E,1F971F9F,4C2E1F1F

980 REM TELEPRT

990 REM X=2/Y=16

1000 DATA F0F0703,F790F7C,F3D0F3E,3070F1E,1F1F2E4C,1FD31FD
7,1F971F9F,4C2E1F1F



Listing 2

```
10 REM Headcase Hotel Listing 2 (HOTEL1)
20 REM Instructions and setup
30 REM By Stephen Scott
40 REM Version 1.1
50 REM 18th-21st August, 1995
60 REM
70 :
80 *TV255
90 ONERRORMODE7:REPORT:PRINT" at line ";ERL:END
100 MODE7
110 VDU23;8202;0;0;0;
120 FORA=1TO8:READA$
130 PRINTTAB(1,1+(A*2));CHR$131;A$;
140 NEXT
150 FORA=1TO5:READA$
160 PRINTTAB(4,7+A*2)CHR$131;A$;
170 NEXT
180 PRINTTAB(2,20)"V1.11"
190 PRINTTAB(0,22)"21/8/95"
200 PRINTTAB(0,0)CHR$145STRING$(7,CHR$96)CHR$237
210 FORY=1TO22
220 VDU31,7,Y
230 PRINTCHR$145CHR$106CHR$140CHR$153
240 NEXT
250 PRINTTAB(7,23);CHR$145CHR$42CHR$244;STRING$(29,CHR$11
2)
260 VDU28,10,22,39,0,12
270 PRINTTAB(0,9)CHR$133"Do you want instructions?"
280 REPEAT:A$=GET$
290 UNTILA$="Y" ORA$="y" ORA$="N" ORA$="n"
300 IFA$="Y" ORA$="y" PROCinst
310 IFA$="N" ORA$="n" PROCload
320 END
330 DATA H,E,A,D,C,A,S,E
340 DATA H,O,T,E,L
350 DEFPROCinst
360 CLS
370 PRINT'CHR$131" You have been employed
by"CHR$131"the Hotel Assylham to clean"CHR$131"up its
ten floors. This is
"CHR$131"done by collecting a given"CHR$131"amount of a s
```

pecified item"CHR\$131"of rubbish."

```
380 PRINT'CHR$134" Roaming around each floor"CHR$134"are
the hotel guests. They"CHR$134"don't take kindly to your"
'CHR$134"presence, and will complain"CHR$134"to the manage
ment if you"CHR$134"touch them. You will then be"
```

```
390 PRINTCHR$134"given a black mark on your"CHR$134"empl
oyment record. Get three"CHR$134"black marks and you are"
CHR$134"fired!"
```

```
400 PRINT'CHR$133" To exit the floor, go to"CHR$133"the
open lift doors."
```

```
410 PRINT'SPC9CHR$135CHR$136"HIT A KEY";
```

```
420 *FX15,0
```

```
430 A=GET
```

```
440 CLS
```

```
450 PRINT'CHR$130" Use the following keys to"CHR$130"mov
e around the screen:"
```

```
460 PRINT'SPC6;CHR$130"Z = Move left"
```

```
470 PRINT SPC6;CHR$130"X = Move right"
```

```
480 PRINT SPC6;CHR$130"P = Move up"
```

```
490 PRINT SPC6;CHR$130"L = Move down"
```

```
500 PRINT'CHR$129" In addition, the following"CHR$129"ke
ys can be used during"CHR$129"gameplay:"
```

```
510 PRINT'SPC6;CHR$134"S = Sound on"
```

```
520 PRINT SPC6;CHR$134"Q = Sound off"
```

```
530 PRINT'CHR$134"Delete = Pause"
```

```
540 PRINT SPC3;CHR$134"Copy = Unpause"
```

```
550 PRINT'CHR$129" D = Quit game"
```

```
560 PRINTTAB(0,21)CHR$135CHR$136"HIT A KEY TO LOAD THE GA
ME";
```

```
570 *FX15,0
```

```
580 A=GET
```

```
590 PROCload:ENDPROC
```

```
600 :
```

```
610 DEFPROCload
```

```
620 REM Borders
```

```
630 VDU23,224,31,63,112,224,192,192,192,192
```

```
640 VDU23,225,255,255,0,0,0,0,0
```

```
650 VDU23,240,248,252,14,7,3,3,3,3
```

```
660 VDU23,227,192,192,192,192,192,192,192,192
```

```
670 VDU23,228,3,3,3,3,3,3,3,3
```

```
680 VDU23,229,192,192,192,192,224,112,63,31
```



```

690 VDU23,230,0,0,0,0,0,255,255
700 VDU23,231,3,3,3,3,7,14,252,248
710 REM Score letters
720 VDU23,232,238,136,136,232,40,40,238,0
730 VDU23,233,238,170,170,172,170,170,234,0
740 VDU23,234,224,128,128,200,128,128,232,0
750 REM
760 REM Record block
770 VDU23,236,170,84,170,84,170,84,170,0
780 REM Black Mark
790 VDU23,237,0,0,0,56,56,56,0,0
800 REM Level symbol
810 VDU23,238,254,186,214,186,214,186,214,0
820 VDU23,241,129,66,36,24,24,36,66,129
830 VDU23,242,16,16,16,146,84,56,16,0
840 VDU23,255,255,255,255,255,255,255,255
850 REM Bonus icon sounds
860 REM Teleport icon
870 ENVELOPE1,1,8,0,0,10,0,0,127,-1,-1,-3,126,100
880 REM Gain black mark/hit monster
890 ENVELOPE2,1,50,50,30,30,30,30,127,-1,-1,-1,126,100
900 REM Lose black mark
910 ENVELOPE3,1,-1,1,-2,5,5,5,127,-1,-1,-1,126,100
920 REM Pause
930 ENVELOPE4,1,2,-1,15,3,3,2,10,-1,-1,-1,126,126
940 REM Doubler
950 ENVELOPE5,1,1,-2,1,5,18,8,126,-1,-1,-8,120,90
960 REM Down level
970 ENVELOPE6,3,-1,0,0,246,0,0,0,0,-1,-3,120,120
980 REM Collectables
990 ENVELOPE7,1,-12,40,2,10,13,14,127,-1,-1,-3,120,120
1000 REM Thunderbolt
1010 ENVELOPE8,4,-4,-1,-1,20,20,20,1,0,0,0,1,1
1020 :
1030 REM Monster movement
1040 ENVELOPE9,1,4,-3,0,20,10,0,127,-1,-1,-4,20,20
1050 REM Got object
1060 ENVELOPE10,1,90,90,90,40,40,40,126,-1,-3,-4,120,20
1070 REM Game over
1080 ENVELOPE11,4,-4,-8,1,14,14,14,126,-1,-1,-1,120,120
1090 PAGE=&1100:CHAIN"HOTEL2"

```

Listing 3

```

1100 ENDPROC
10 REM Headcase Hotel Listing 3 (HOTEL2)
20 REM Game code
30 REM Tidied up listing
40 REM Version 1.11 (21st Aug '95)
50 REM By Stephen Scott
60 *LOAD SpData 4F00
70 ONERRORMODE7:PROCerror:END
80 DIM HS$(8),HS$(8)
90 RESTORE110:FORI%=0TO7
100 READHS$(I%),HS$(I%):NEXT
110 DATASTEVE,25000,GRAEME,24000
120 DATABLUEBOTTLE,18000,ECCLES,16000
130 DATALISTER,12000,CAT,8000
140 DATAKRYTEN,6000,RIMMER,1000
150 MODE5:VDU23:8202:0:0:0:
160 PROCinit
170 REPEAT:S%=0:q=FALSE:PROCborder
180 L%=1:REPEAT
190 ob%=L%+4
200 h%=FALSE:d%=FALSE:dlev%=FALSE:d1%=0
210 str%=FALSE:stp%=0:ct%=0:xl%=0
220 ys%=0:ds%=1:nasty=1:DL%=&7FE0
230 PROCgetlevel
240 PROCcenterlevel
250 PROCplacenasties
260 REPEAT:PROCd(5):REM Risc PC delay
270 IFRND(40)=2PROCplonk
280 IFstr% VDU19,0,RND(7);0;
290 IFstr% SOUND3,-4,RND(255),1
300 IFys%=0PROCkeys
310 IFys% ANDRND(40)=2 ys%=FALSE:SOUND1,3,50,1:SOUND1,3,5
8,1
320 IFstp%=0PROCmovenasties
330 IFstp%=1ct%=ct%+1:IFct%>200stp%=0:FORI=0TO3:!!&74=N%(I
):?&76=2:!!&77=(&5020+(L%*&20)):CALLsprite:NEXT:ct%=0
340 IFob%=0 ANDX%=&5D98 d%=TRUE
350 IFh%PROCmark:h%=FALSE:IFli%<>0PROCplace
360 UNTILd% OR dlev% OR q ORli%<1
370 REM
380 IFli%<1 ORq PROCx:L%=10:GOTO420

```



```

390 REM
400 IFd%PROCdone:d%=FALSE
410 IFdlev%PROCdownlevel:dlev%=FALSE
420 L%=L%+1:UNTILL%=11
430 IFli%<1 li%=3:GOTO440
440 PROChigh
450 UNTILO
460 :
470 DEFPROCerror
480 PRINT"Error from Headcase Hotel:"
490 PRINT"Version 1.11 (21/8/1995)"
500 PRINT`
510 REPORT:PRINT" at line ";ERL:END
520 ENDPROC
530 :
540 DEFPROCinit
550 DIM N%(4),obj(9)
560 RESTORE580:FORa%=0TO9
570 READobj(a%):NEXT
580 DATA51,58,112,255,1,16,51,255,119,255
590 d%=FALSE:plonk=0:S%=0:li%=3
600 h%=FALSE:ob%=2:f%=5
610 sx%=&5D00:W%=0:w%=0:o%=0
620 DIM F%(9)
630 RESTORE650:FORa%=0TO9
640 READF%(a%):NEXT
650 DATA&5300,&5320,&52C0,&52E0,&52A0
660 DATA&5340,&5360,&5280,&5380,&53A0
670 DIM c%(3),lk%(3),d%(7),L%(3)
680 c%(0)=-640:c%(1)=16
690 c%(2)=640:c%(3)=-16:DIMblk(10)
700 RESTORE720:FORa%=1TO10
710 READblk(a%):NEXT
720 DATA120,255,90,15,239,150,240,225,238,15
730 lk%(0)=0:lk%(1)=8:lk%(2)=320:lk%(3)=328
740 FORa%=0TO7:d%(a%)=1:NEXT
750 L%(0)=-640:L%(1)=16
760 L%(2)=640:L%(3)=-16
770 FOR I%=0 TO 2 STEP 2
780 P%=&4A00:[OPT I%
790 .draw LDA#13:STA#80:LDA#&88:STA#74
800 LDA#&5A:STA#75
810 .init LDA#19:STA#81

```

```

820 .again LDA#2:STA#70:LDA#82:STA#77
830 LDA#83:STA#78
840 .loop2 LDY#0:LDX#16
850 .draw2 LDA(&77),Y:STA(&74),Y
860 INY:DEX:BNE draw2
870 CLC:LDA#74:ADC#&40:STA#74
880 LDA#75:ADC#1:STA#75:CLC
890 LDA#77:ADC#16:STA#77
900 LDA#78:ADC#0:STA#78:DEC#70
910 BNEloop2
920 SEC:LDA#74:SBC#112:STA#74
930 LDA#75:SBC#2:STA#75:DEC#81
940 BNEagain
950 CLC:LDA#74:ADC#80:STA#74
960 LDA#75:ADC#1:STA#75:DEC#80:BNEinit
970 RTS
980 .blank LDY#0:LDX#16:.draw_e
990 LDA#0:STA(&74),Y:INX:DEX:BNEdraw_e
1000 CLC:LDA#74:ADC#&40:STA#74
1010 LDA#75:ADC#&01:STA#75:DEC#76
1020 BNEblank:RTS
1030 .sprite LDY#0:LDX#16:.draw_d
1040 LDA(&77),Y:STA(&74),Y:INX:DEX
1050 BNEdraw_d
1060 CLC:LDA#74:ADC#&40:STA#74
1070 LDA#75:ADC#&01:STA#75:CLC
1080 LDA#77:ADC#&10:STA#77
1090 LDA#78:ADC#&00:STA#78:DEC#76
1100 BNEsprite:RTS:] :NEXT:ENDPROC
1110 :
1120 DEFPROCborder
1130 COLOUR1:PRINTTAB(0,0)CHR$224;STRING$(18,CHR$225)CHR$2
40;
1140 FORY=1TO30:PRINTTAB(0,Y)CHR$227;TAB(19,Y)CHR$228;:NEX
T
1150 PRINTTAB(0,30)CHR$229;STRING$(18,CHR$230)CHR$231;
1160 VDU5:GCOL0,2:MOVE500,1000:VDU238
1170 MOVE800,1000:PRINT"x"
1180 MOVE(1279-224),1000:GCOL0,1
1190 VDU236,236,236:MOVE48,1000
1200 GCOL0,3:PRINT"000000":VDU4

```



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```
1210 ENDPROC
1220 :
1230 DEFPROCgetlevel
1240 VDU5:GCOL0,3
1250 IFL%=10 THENMOVE64,1000:PRINTL%:ELSE MOVE0,1000:PRINT
L%
1260 MOVE300,1000:PRINTds%:VDU4
1270 RESTORE(4090+(L%*40))
1280 READa,b,c
1290 VDU19,1,a;0;19,2,b;0;19,3,c;0;
1300 !&82=(&53A0+(L%*20))
1310 CALLLdraw
1320 st%=&5A88
1330 A=1:REPEAT:READA$:j%=1
1340 FORi%=st% TOst%+288 STEP16
1350 b=VALMID$(A$,j%,1)
1360 IFb=1 THEN 1380
1370 !&74=i%:?&76=2:CALLLblank
1380 j%=j%+1
1390 NEXT:st%=st%+640:A=A+1:UNTILA=14
1400 !&74=&5B10:?&76=2:!&77=&5180:CALLLsprite
1410 !&74=&5B20:?&76=2:!&77=&51A0:CALLLsprite
1420 sx%=&7B08:FORo=1TOob%
1430 !&74=sx%:?&76=2
1440 !&77=(&4F00+(L%-1)*20):CALLLsprite
1450 sx%=sx%+16:NEXT:sx%=sx%-16
1460 ENDPROC
1470 :
1480 DEFPROCcenterlevel
1490 X%=&5D98:me=0:PROCd(50)
1500 !&74=&5B10:?&76=2:!&77=&5520
1510 CALLLsprite
1520 !&74=&5B20:?&76=2:!&77=&5540
1530 CALLLsprite
1540 !&74=X%:?&76=2:!&77=&5380
1550 CALLLsprite:REPEAT:PROCd(10)
1560 me=me+1:IFme=4:!&74=&5B10:?&76=2:!&77=&5180:CALLLsprit
e:!&74=&5B20:?&76=2:!&77=&51A0:CALLLsprite
1570 UNTILme=9:ENDPROC
1580 :
1590 DEFPROCplacenasties
```

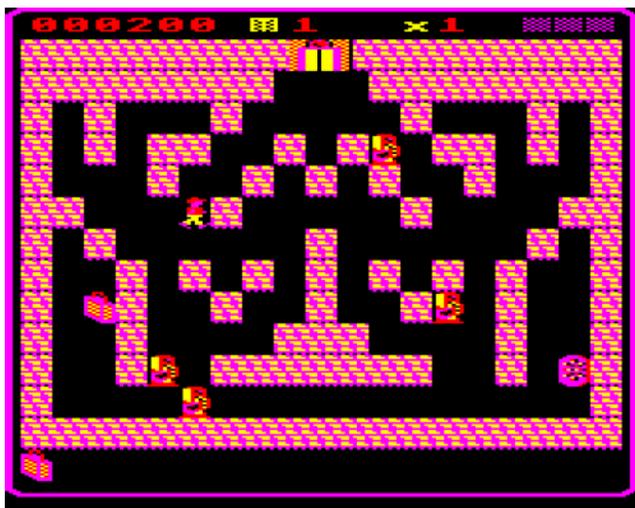
```
1600 FORn=0TO3:PROCr2
1610 N%(n)=P%
1620 !&74=N%(n):?&76=2
1630 !&77=(&5020+(L%*20)):CALLLsprite
1640 NEXT:PROCr1:OB%=P%
1650 !&74=OB%:?&76=2
1660 !&77=(&4EE0+(L%*20)):CALLLsprite
1670 ENDPROC
1680 :
1690 DEFPROCkeys
1700 IFINKEY-67:o%=0:y%=1:PROCm1(8,X%,X%+16,X%+336)
1710 IFINKEY-98:o%=2:y%=3:PROCm1(-8,X%+8,X%-8,X%+312)
1720 IFINKEY-56:o%=4:y%=0:PROCm2(-320,X%+320,X%-320,X%-312
)
1730 IFINKEY-87:o%=7:y%=2:PROCm2(320,X%,X%+640,X%+648)
1740 IFINKEY-90REPEATUNTILINKEY-106
1750 IFINKEY-17 THEN *FX210,1
1760 IFINKEY-82 THEN *FX210,0
1770 IFINKEY-51 q=TRUE
1780 ENDPROC
1790 :
1800 DEFPROCm1(a%,b%,c%,d%)
1810 IF?c%<>0 OR ?d%<>0PROChb:IFG%<>3ENDPROC
1820 W%=(W%+1)MOD2+o%
1830 !&74=X%:?&76=2:CALLLblank
1840 X%=X%+a%
1850 PROCYou(X%,F%(W%)):ENDPROC
1860 :
1870 DEFPROCm2(a%,b%,c%,d%)
1880 IF?c%<>0 OR ?d%<>0PROChb:IFG%<>3ENDPROC
1890 w%=(w%+1)MOD3:W%=w%+o%
1900 !&74=X%:?&76=2:CALLLblank
1910 X%=X%+a%:PROCYou(X%,F%(W%))
1920 ENDPROC
1930 :
1940 DEFPROCYou(x%,m%)
1950 !&74=x%:?&76=2:!&77=m%:CALLLsprite
1960 ENDPROC
1970 :
1980 DEFPROCmovenasties
1990 bad%=(bad%+1)MOD4
2000 IFRND(4)=1PROCc2
2010 bp%=(N%(bad%)+L%(d%(bad%)))
```



```

2020 IFbp%=X%PROCY:h%=TRUE:ENDPROC
2030 IFbp%=DL% THENdl%=0:DL%=&7FE0
2040 IFbp%=OB% ANDob%>0 PROCreplace
2050 IF?bp%=3ANDbp%<>X%PROCY:ENDPROC
2060 yes%=0:FORi%=0TO3
2070 IF?(bp%+lk%(i%))=0yes%=yes%+1
2080 NEXT
2090 IFyes%=1PROCc2
2100 IFyes%=4PROCY:ENDPROC
2110 IFyes%=0ANDbp%<>X%PROCC:ENDPROC
2120 IFyes%=3ORyes%=2PROCY:h%=TRUE:ENDPROC

```



```

2130 PROCy:ENDPROC
2140 :
2150 DEFPROCY
2160 SOUND2,9,140,1
2170 !&74=N%(bad%):?&76=2:CALLblank
2180 N%(bad%)=bp%
2190 !&74=N%(bad%):?&76=2
2200 !&77=(&5020+(L%*&20)):CALLsprite
2210 ENDPROC
2220 :
2230 DEFPROCC
2240 p%=RND(4)-1
2250 t%=?(N%(bad%)+L%(p%))
2260 u%=(N%(bad%)+L%(p%))
2270 IFt%=0 ORt%=3 ORu%=X% ORu%=obj(L%-1)d%(bad%)=p%
2280 ENDPROC
2290 :
2300 DEFPROCC2
2310 IFd%(bad%)MOD2=0p%=RND(2)*2-1

```

```

2320 IFd%(bad%)MOD2=1p%=RND(2)*2-2
2330 t%=?(N%(bad%)+L%(p%))
2340 u%=(N%(bad%)+L%(p%))
2350 IFt%=0 ORt%=3 ORu%=X% ORu%=obj(L%-1)d%(bad%)=p%
2360 ENDPROC
2370 :
2380 DEFPROCplonk
2390 U%=&5540+(RND(10)*&20)
2400 IFU%=&5580 ANDx1%=1 ENDPROC
2410 IFU%=&5580 x1%=1
2420 IFU%=&55A0 AND L%=1 ENDPROC
2430 IFU%=&55A0 AND dl%=1 ENDPROC
2440 IFU%=&55A0 dl%=1:DL%=&7FE0
2450 IFU%=&5580 AND li%=3 ENDPROC
2460 IFU%=&5680 AND stp%=1 ENDPROC
2470 PROCr1:!&74=P%:?&76=2
2480 !&77=U%:CALLsprite
2490 IFU%=&55A0 DL%=P%
2500 ENDPROC
2510 :
2520 DEFPROCChb
2530 hit%=0
2540 FORht%=0TO3:IFX%-N%(ht%)=-c%(y%) ANDstp%=0 hit%=1
2550 NEXT
2560 IFhit%=1 h%=TRUE:!&74=X%:?&76=2:CALLblank:!&74=X%:?&7
6=2:!&77=F%(W%):CALLsprite:ENDPROC
2570 hs%=X%+c%(y%):G%=?hs%:H%=hs%?4
2580 IFG%=obj(L%-1)PROCgotit:ENDPROC
2590 IFG%=3PROCwhatbon
2600 IFG%=blk(L%):ENDPROC
2610 ENDPROC
2620 :
2630 DEFPROCgotit
2640 !&74=hs%:?&76=2:CALLblank
2650 SOUND1,10,100,15:PROCin(50*ds%)
2660 ob%=ob%-1:!&74=sx%:?&76=2
2670 CALLblank:sx%=sx%-16
2680 IFob%<=0:!&74=&5B10:?&76=2:!&77=&51C0:CALLsprite:!&74
=&5B20:?&76=2:!&77=&51E0:CALLsprite:ENDPROC
2690 PROCreplace:ENDPROC
2700 :

```



```

2710 DEFPROCreplace
2720 !&74=OB%:?&76=2:CALLblank
2730 PROCr1:OB%=P%:!&74=OB%:?&76=2
2740 !&77=(&4EE0+(L%*20)):CALLsprite
2750 ENDPROC
2760 :
2770 DEFPROCmark
2780 SOUND1,2,90,1:!&74=X%:?&76=2
2790 CALLblank:li%=li%-1:VDU5:GCOL0,0
2800 MOVE((18-li%)*64)+24,1004:VDU237
2810 VDU4:ys%=0
2820 PROCd(130):ENDPROC
2830 FORe=1TO4:FORd=0TO3:!&74=N%(d)
2840 ?&76=2:CALLblank:FORF=1TO80:NEXT
2850 !&74=N%(d):?&76=2
2860 !&77=(&5020+(L%*20)):CALLsprite
2870 NEXT:ENDPROC
2880 :
2890 DEFPROCplace
2900 PROCr1:X%=P%:FORe=1TO4
2910 !&74=X%:?&76=2:CALLblank
2920 SOUND1,-9,200,1:PROCd(20):REM Risc PC delay
2930 !&74=X%:?&76=2:!&77=F%(f%)
2940 CALLsprite:PROCd(20):NEXT:REM Risc PC delay
2950 ENDPROC
2960 DEFPROCcr1
2970 P%=(RND(18)*16)+(RND(12)*640)+&5A88
2980 IF?P%<>0 ORP%?8<>0 ORP%?320<>0 ORP%?328<>0GOTO2970
2981 ENDPROC
2990 DEFPROCcr2
3000 P%=(RND(18)*16)+(RND(6)*640)+&6708
3010 IF?P%<>0 ORP%?8<>0 ORP%?320<>0 ORP%?328<>0GOTO3000
3020 ENDPROC
3030 :
3040 DEFPROCd(del)
3050 TIME=0:REPEATUNTILTIME>del:ENDPROC
3060 :
3070 DEFPROCin(N%)
3080 MOVE48,1000:GCOL3,3:VDU5
3090 PRINTRIGHT$("0000"+STR$(S%),6)
3100 VDU4:S%=S%+N%:MOVE48,1000:VDU5

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```

3110 PRINTRIGHT$("0000"+STR$(S%),6)
3120 VDU4:ENDPROC
3130 :
3140 DEFPROCwhatbon
3150 !&74=hs%:?&76=2:CALLblank
3160 k%=0:RESTORE3200
3170 REPEAT:k%=k%+1:READgv%
3180 UNTILgv%=H%:GOSUB(3200+(k%*10))
3190 H%=0:ENDPROC
3200 DATA108,104,62,15,61,31,105,63,124,73
3210 h%=TRUE:RETURN
3220 SOUND1,3,182,1:VDU5:GCOL0,1:MOVE((18-li%)*64)+24,1000
:VDU236:VDU4:li%=li%+1:RETURN
3230 SOUND1,6,100,1:dlev%=TRUE:d1%=0:RETURN
3240 SOUND1,7,100,1:PROCin(500*ds%):RETURN
3250 SOUND1,7,150,1:PROCin(200*ds%):RETURN
3260 str%=str% EOR1:RETURN
3270 SOUND1,4,170,3:ys%=TRUE:RETURN
3280 SOUND1,5,100,1:IFds%=9RETURN ELSEVDU5:GCOL3,3:MOVE300
,1000:PRINTds%:ds%=ds%+1:MOVE300,1000:PRINTds%:VDU4:ENDPROC
3290 SOUND3,1,190,1:PROCr1:!&74=X%:?&76=2:CALLblank:X%=P%:
G%=0:PROCYOU(X%,F%(W%)):RETURN
3300 FORI=0TO3:FORJ=1TO10:!&74=N%(I):?&76=2:!&77=RND(255):
CALLsprite:SOUND2,-15,RND(150),1:NEXT:!&74=N%(I):?&76=2:!&7
7=(&53A0+(L%*20)):CALLsprite:NEXT:stp%=1:ct%=1:RETURN
3310 :
3320 DEFPROCdownlevel
3330 VDU19,0,0;0;24,32;64;96;960;
3340 GCOL0,128:CLG:VDU24,1213;64;1246;960;
3350 CLG:VDU26:VDU5:GCOL0,0:MOVE572,1000
3360 VDU255,255:GCOL3,3:MOVE300,1000
3370 PRINTds%:VDU4:L%=L%-2
3380 VDU26,28,1,29,18,2,26:COLOUR130
3390 COLOUR1:FORI=2TO27
3400 PRINTTAB(1,I)STRING$(18,CHR$242);
3410 NEXT:COLOUR128:FORI=2TO27
3420 PRINTTAB(1,I)STRING$(18," ");
3430 NEXT:ENDPROC
3440 :
3450 DEFPROCdone
3460 VDU19,0,0;0;24,32;128;96;960;
3470 GCOL0,128:CLG:VDU24,1213;64;1246;960;
3480 CLG:VDU26,28,1,27,18,2:COLOUR130:COLOUR0

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3490 VDU26:M%=1:N%=2:O%=18:Q%=27:R%=1:Ss%=1
3500 c=1:H%=241
3510 REPEAT:COLOURc:c=c EOR1
3520 VDU31M%N%,H%:VDU310Q%,H%
3530 N%=N%+R%:Q%=Q%-Ss%
3540 IFN%=1ORN%=28:M%=M%+1:R%=-R%:N%=N%+R%
3550 IFQ%=1ORQ%=28:O%=O%-1:Ss%=-Ss%:Q%=Q%-Ss%
3560 IFM%=10 THENH%=32:COLOUR128
3570 UNTILM%=19:VDU5:GCOL3,3
3580 MOVE0,1000:PRINTL%:MOVE300,1000:PRINTds%
3590 IFL%=10 PROCwin:ENDPROC
3600 ENDPROC
3610 :
3620 DEFPROCx
3630 q=FALSE:VDU19,0,0;0;
3640 VDU24,32;52;1246;1004;:GCOL0,129
3650 CLG:GCOL0,0
3660 SOUND0,-10,3,100:SOUND1,11,80,1
3670 SOUND2,11,79,1:SOUND3,11,78,1
3680 VDU5:GCOL3,3:m$="GAME OVER"
3690 FORa=1TOLENm$
3700 MOVE168+(a*80),(16*32)+24
3710 PRINTMID$(m$,a,1):NEXT:GCOL0,0
3720 FORX%=0TO2200STEP80
3730 VDU25,4,8+(X%-512):0;25,5,8+X%;1024;25,4,1280-(8+(X%-
512)):0;25,5,1280-(8+X%);1024;:NEXT
3740 PROCd(200):VDU24,32;52;1246;1004;
3750 GCOL0,128:CLG:VDU4:ENDPROC
3760 :
3770 DEFPROCwin
3780 VDU4:COLOUR3:PRINTTAB(3,10)"OH WELL DONE!";TAB(1,13)"
You have finished";TAB(6,15)"the job."
3790 PRINTTAB(2,20)"Hope you enjoyed";TAB(5,23)"the game!!
"
3800 PROCd(300)
3810 VDU24,32;52;1246;1004;:GCOL0,128
3820 CLG:VDU4:ENDPROC
3830 :
3840 DEFPROChigh:*FX21,0
3850 *FX15,1
3860 IFS%<=HS%(7) THENPROactable:ENDPROC
3870 VDU4:COLOUR1:PRINTTAB(2,2)"CONGRATULATIONS!"
3880 VDU5:GCOL0,3:MOVE(3.5*64),(1024-(5*32)):PRINT"Your sc

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ore of":VDU4:COLOUR2:PRINTTAB(7,7)RIGHT$("00000"+STR$(S%),6
):VDU5:MOVE(3.5*64),(1024-(9*32)):PRINT"qualifies you":MOVE
(6.5*64),(1024-(11*32)):PRINT"for the"
3890 VDU4:COLOUR3:PRINTTAB(4,13)"Hall of Fame"
3900 PRINTTAB(2,15)"Enter your name:";TAB(5,17)::COLOUR2:
&900=&200A0905: ?&904=&7F:A%=0:X%=0:Y%=9:CALL&FFF1
3910 I%=9:REPEAT I%=I%-1
3920 UNTIL I%=1 OR HS%(I%-1)>S%
3930 FOR V%=8 TO I%+1 STEP-1
3940 HS$(V%)=HS$(V%-1):HS%(V%)=HS%(V%-1)
3950 NEXT:HS$(I%)=$&905:HS%(I%)=S%
3960 PROactable:ENDPROC
3970 :
3980 DEFPROactable
3990 VDU24,32;(2*32);1246;1008;
4000 GCOL0,128:CLG:VDU26:VDU4
4010 COLOUR130:COLOUR1:PRINTTAB(2,2)" HEADCASE HOTEL ";:CO
LOUR3:PRINTTAB(3,4)" HALL OF FAME ":COLOUR128
4020 FORJ%=0TO7
4030 PRINTTAB(1,J%*2+8)HS$(J%)STRING$(12-LEN(HS$(J%)),".")
;RIGHT$("00000"+STR$(HS$(J%)),6):NEXT
4040 PRINTTAB(2,26)"SPACEBAR TO PLAY"
4050 *FX15
4060 REPEATUNTILGET=32
4070 VDU24,32;(2*32);1246;1008;
4080 GCOL0,128:CLG:VDU26:VDU4:ENDPROC
4090 :
4100 REM Level Data
4110 REM Logical colours
4120 REM 13 lines of data (19 chrs wide)
4130 DATA5,3,1
4140 DATA11111111111111111111,1111111100011111111,101000100
0001000101,1010110010100110101,1000100101010010001,11000010
00001000011,1010000001000000101
4150 DATA1001010101010101001,1001001001001001001,100100001
1100001001,1001001111111001001,1000000000000000001,11111111
11111111111
4160 :
4170 DATA1,3,2
4180 DATA1111111111111111111,1000011100011000001,101101111
1001011101,1011011111101011101,1011011111101010101,10000000

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00001010001,1111101111101010001
 4190 DATA1000001110000011101,1011100000111000001,101110111
 1111011101,101110111111011101,1000000000000000001,11111111
 1111111111
 4200 :
 4210 DATA1,7,3
 4220 DATA11111111111111111,11111110001111111,100011001
 0100110001,1001000100010001001,101001000000100101,10101000
 11100010101,1000101100011010001
 4230 DATA1001010000000101001,1100010100010100011,101000001
 0100000101,1000000100010000001,1111111100011111111,11111111
 1111111111
 4240 :
 4250 DATA1,3,4
 4260 DATA11111111111111111,1010000000000000001,101010111
 1111111001,1010100000000000001,1000101110000000001,10101000
 1111111111
 4270 DATA101010100000000011,1010101010010110001,101010111
 1010001101,1010100001001101001,1010100001000101101,10001000
 01000101001,1111111111111111111
 4280 :
 4290 DATA4,6,5
 4300 DATA11111111111111111,1000000000010000001,100100011
 0110010011,1011001000001001101,1001001000001001001,10010100
 00000101001,1001001001001001001
 4310 DATA1001001000001001001,1100100110110010011,110000000
 1000000011,1000000000000000001,1000010100010100001,11111111
 1111111111
 4320 :
 4330 DATA5,4,1
 4340 DATA11111111111111111,11111110001111111,111110000
 1000001111,1111101111101110001,1000001000101101101,10111010
 10101100101

4350 DATA1000101011101110001,1110100000001100111,100010110
 1101110111,1010001111100010111,1010100000111010101,10001111
 10111000001,1111111111111111111
 4360 :
 4370 DATA2,1,4
 4380 DATA11111111111111111,1000010100010000011,101010010
 1001101001,1001000000100010011,1010010010000010001,10001001
 00101001101,1001001001000100001
 4390 DATA1010010010010010101,1000100110101001001,100100100
 0000100101,1010011101111010011,1100000000000000001,11111111
 1111111111
 4400 :
 4410 DATA1,5,6
 4420 DATA11111111111111111,1000000000000000001,1011111111
 0111111101,1000100010100000101,1010001010101101101,10110110
 10100111101,1010010110110110101
 4430 DATA 1010100010110000101,1010101110111101101,10100000
 10100000001,1011111110111111101,1000000000000000001,11111111
 1111111111
 4440 :
 4450 DATA7,1,3
 4460 DATA11111111111111111,1000000100000001111,111110000
 0000010001,1000001111110000001,1000010000000111111,11100000
 00001000001,1000111111000000001
 4470 DATA1001000000011111101,1000000000100000011,101111110
 0000000101,1100000001111110001,1000000010000000001,11111111
 1111111111
 4480 :
 4490 DATA2,4,1
 4500 DATA11111111111111111,1000000100010000001,101101000
 1000101101,1001011110111101001,1101000100010001011,10010100
 01000101001,101101111111101101
 4510 DATA1001000101010001001,1101110101010111011,100100000
 1000001001,1111011101011101111,1000010000000100001,11111111
 1111111111



