

**THE GRAPHIC
ADVENTURE
CREATOR**

SPECTRUM

INCENTIVE SOFTWARE LTD.

THE GRAPHIC ADVENTURE CREATOR

For the Spectrum Computer

CONTENTS :

SECTION ONE

- 1.1 Introduction
- 1.2 Loading Instructions

SECTION TWO

- 2.1 Writing Adventures
- 2.2 Verbs
- 2.3 Room Descriptions
- 2.4 Messages
- 2.5 Nouns And Objects
- 2.6 Adverbs
- 2.7 Conditions
- 2.8 Begin Where?
- 2.9 Save And Load
- 2.10 Delete Data

SECTION THREE

- 3.1 Graphics
- 3.2 Graphics Commands

SECTION FOUR

- 4.1 Test Adventure
- 4.2 Player Commands

APPENDIX A

Definitions and Conditions for the
Demonstration Adventure

APPENDIX B

Tables and Charts

(1.1) INTRODUCTION

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Welcome to the GRAPHIC ADVENTURE CREATOR!

This manual is intended as a simple introduction to the writing of adventures using GAC. The GRAPHIC ADVENTURE CREATOR is best thought of as a small programming language specifically designed for the writing of adventure games. Although it is smaller than other programming languages such as Basic or Pascal; it can perform all of the complex tasks needed to write an adventure program; and although the instructions may seem a little complicated at first, a little time spent studying this manual will enable you to write your very own large scale adventures, far more easily and efficiently than in basic or machine code.

Any adventures that you write using GAC are your own work, and may be sold as such without any prior permission being sought or payment to us being made. However in this case, you should include with your adventure something to the effect that it was written using the GRAPHIC ADVENTURE CREATOR, (C) 1986 by Sean Ellis/Incentive Software.

And now on with GAC!

CREDITS

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(1.2) LOADING INSTRUCTIONS

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The Graphic Adventure Creator (GAC) cassette contains four files. These are :

1. "GAC" - The Creator itself
2. "QS" - The Quickstart file
3. "ADVINMAN" - Adventure in Manual file
4. "RANSOM" - A small Graphic Adventure

To load GAC, type LOAD"" and press enter. Once loaded, QS or ADVINMAN can be loaded by selecting T from the Main menu - these are data files.

QS - Quickstart, sets you up with the most commonly used verbs etc and common messages. A complete listing of its contents is contained in Appendix B, along with several other useful tables and charts.

ADVINMAN - Sets up the small adventure in the manual to work through and even edit!

The fourth file RANSOM is an example of a graphic runnable adventure created using GAC and can only be loaded from a reset machine with LOAD"".

Write an Adventure in 30 Seconds! (For a Bit of Fun!)

First LOAD GAC in
Then "T" to load in QS (Quickstart)

Press "R" - Start Stopwatch!
Press "1" (enter)
Type "A Cave" (enter) (enter) (enter)
Break (Caps-shift, Space)
Press (enter) - Stop Stopwatch!

The screen will display :

A Cave
What now?

Try a few inputs

Presto! - A VERY simple adventure in 30 seconds?
Well look at it this way - it can only get better!

To get back to the main menu press 'Break', 'Break', 'Break'.

This simple example demonstrates how quick and easy GAC is to use. With a little time and imagination you will soon be creating professional Graphic Adventures!

Let Your Creation Begin!

(2.1) SECTION TWO - WRITING ADVENTURES

There are several elements necessary to the writing of adventures using GAC. These are displayed on the Main Menu which is the first thing you will see after loading up.

For convenience, the menu is arranged in alphabetical order, to make it easier for you to remember which keys to press, to call up any part of GAC. At the top of the menu screen you will see the display showing "MEMORY FREE", which shows the memory free, believe it or not!

You may write the elements of your adventure in any order you like, although you may find that some orders may make things easier than others.

What follows is a brief description of what each element of the main menu does, and detailed instructions of how to enter each one, in an order that you might choose to enter them.

(2.2) VERBS

Verbs are the words with which you will actually tell the computer what to do when you are playing an adventure. For example EAT or DROP. Directions such as WEST or UP are also included. GAC allows you to enter and edit your own verbs when writing an adventure. Some of the most commonly used verbs are already in the Quickstart File; however since GAC allows you to enter up to 255 verbs, your imagination is the only limit to the commands you can give your adventure.

After pressing V on the Main Menu, you should see a prompt on the screen *EDIT VERBS* and a pointer >.

To enter a verb, simply type in a number followed by your verb. When you press ENTER, the verb will be entered on the screen in alphabetical order.

If two or more verbs have the same meaning and you wish both to be accepted ie. "Get" and "Take", simply allocate them the same verb number. Try to think of as many similar words as you can in this way, as this will make your adventure more friendly.

EDITING - To edit, move cursor to the appropriate word using cursor keys, (Caps-shift, 6 & 7) - press ENTER and edit the word when the word is corrected press ENTER.
DELETE - Position the word to be deleted by the cursor and press Delete, (Caps-shift, 0).
COPY - Caps-shift, 1 (Edit), will retrieve the last word deleted

There is a brief summary of these instructions at the bottom of the screen

NOTE: the verbs in the Quickstart File may be edited in exactly the same way as any other verbs.
More information about the use of verbs may be found in section(2.7) CONDITIONS.

PRESSING BREAK WILL RETURN YOU TO THE MAIN MENU

(2.3) ROOM DESCRIPTIONS

The term room can be used to refer to any location in your adventure. For example, "a forest", "a car", "a strange alien world" and so on. GAC allows you, memory permitting, to use up to 9999 of these rooms, and to specify the connections to and from each room. You will probably find it easier if you have decided in advance, what each room is and how they are connected, plan it on paper first?

On pressing R on the main menu, the prompt "Which room number?..." should appear. At this point enter a room number, followed by ENTER which will give the prompt "Room # is...". You can then enter your description which can be up to 255 characters followed by ENTER.

You will then see the prompt "CONNECTIONS ARE?" These connections are specified in terms of a VERB, which must be from the list already specified, followed by a space, followed by the room number it connects with. For example EAST 20.

You may have as many connections from a single room as you can fit into 255 characters, all on a single line and followed by ENTER.

ie. EAST 20 WEST 18 NORTH 19 SOUTH 21 JUMP 49 (ENTER)

You will then see prompt asking for a picture number, this is to link the location with the appropriate picture if you wish to have one. In which case you should enter a picture number followed by ENTER. If you do not want a picture, simply press ENTER. This will return you to the prompt "Which room number?..." again.

All of the above may be edited at any time by using the cursor keys. BREAK at any point will return you to the WHICH ROOM? prompt, and BREAK at that point will return you to the Main Menu.

More information about the use of room descriptions can be found in section (2.7) CONDITIONS.

EDITING TEXT AND NUMBER INPUTS (this applies to all sections)

Cursor keys 5 and 8 will move the cursor left and right, DELETE (Caps-shift 0) deletes left of the cursor and EDIT (caps-shift 1) deletes the character at the cursor position and right of the cursor.

PANIC BUTTON!!!

At any time press BREAK, (several times if necessary) to return to the main menu.

(2.4) MESSAGES

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Messages are the pieces of information, prompts and so on, that appear on the screen when you play an adventure. For example WHAT NOW?, or YOU CAN'T DO THAT. Many of the most common system messages, numbers 240 to 255, such as these are contained in the Quickstart file. GAC allows you to enter up to 255 messages that can appear at any point in your adventure.

When you press M on the Main Menu, the prompt "Which Message number?..." will appear. You should then enter a number followed by your message, this may be up to 255 characters long. Then press ENTER which will enter your message and give the prompt "Which Message number?..." again.

To edit a message once it has been entered, simply recall the message and edit it using the cursor keys.

Please note that messages 240 to 255 should all be defined, since these are essential system messages without which, your adventure will not run. You can edit these messages, but you should be careful to preserve the meaning. For example, message 242 PARDON? could be changed to YOU WHAT?

Pressing BREAK will return you to the prompt EDIT MESSAGE? and BREAK from there will return you to the Main Menu.

More information about the use of messages can be found in section (2.7) CONDITIONS.

(2.5) NOUNS AND OBJECTS

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Nouns are the "things" that your adventure will recognise. For example, BOOK, SWORD and so on. You should not be too confused by the fact that GAC frequently requires you to define things both as nouns and as objects; once as a noun so that the adventure will recognise it, and then as an object so that the program can move it around and do things with it. For example, SWORD is defined as a noun, but since you may wish to pick it up during your adventure, you must also define it as an object. Another example makes clear another point. If your adventure requires you to light a lamp, LAMP must be defined as a noun, and you must also define two objects, AN UNLIT LAMP and A LIT LAMP .

When you press N on the main menu, the prompt *EDIT NOUNS* will appear. Apart from this, the procedure for entering and editing nouns is exactly the same as that for editing verbs. (2.2)

When you press O on the main menu, the prompt WHICH OBJECT NUMBER? will appear.

You should then enter a number from 1 to 255 followed by ENTER. You will then see the prompt OBJECT # IS....

You can then enter the object description of up to 255 characters followed by ENTER. This will produce the prompt "Starts in room #". Enter the location number of the room you wish this object to start off in. The prompt "and weighs" will then appear. Enter the weight you wish to allocate to this object and press ENTER.

If the start room number remains at zero, the object is assigned to ROOM ZERO ; a special room which cannot be travelled to, which contains "dead" and "unborn" objects. For example, a piece of cake once eaten will be assigned to room zero.

BREAK will return you to the main menu.

More information about the use of nouns and objects can be found in section (2.7) CONDITIONS.

(2.6) ADVERBS

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In GAC adverbs are used for two sorts of things. Firstly to describe the precise way a verb is used. For example, MOVE SLOWLY or PUT DOWN GENTLY.

Secondly they are used to differentiate between similar nouns. For example if your adventure has three differently coloured boxes, the adverbs will specify the colours, RED, GREEN etcetera.

On pressing A on the main menu, the prompt *EDIT ADVERBS* will appear. Apart from this the procedure for entering and editing adverbs is exactly the same as that for editing verbs and nouns.

More information on the use of adverbs can be found in section (2.7) CONDITIONS.

(2.7) CONDITIONS

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When using GAC the conditions form the internal commands that begin to make your game appear intelligent.

All the terms you have specified and the data you have entered is now drawn together to form the structure of your adventure.

Conditions tell the adventure that if certain conditions are met, then it is to do something. i.e. "If x is true then do y".

Or you can build up conditions to a more complex level.

i.e. "If x and y are true then do t",

or "If z and q are true then do y and x", and so on.

GAC has a special format for writing these conditions. For example, if you have defined a verb number sixteen to mean "Examine" and a noun number 2 to mean "Room", then a condition using these terms might read :

"IF (VERB 16 AND NOUN 2) LOOK WAIT END"

Translated this means if 'Examine Room' is typed in, describe the current room and wait for a new command.

The Conditional list below separates the words used for the "Conditions Part" e.g. If (Verb 16 and Noun 2) and those used for the "Action Part" after the first close bracket), i.e. LOOK WAIT END Subscripts used (a, c, m, ms, o, n, r, v, x and y) - See Appendix B.

i. CONDITION PART

VERB v	Is verb v typed ? (v is a number) VERB 7 will give a TRUE answer if verb number 7 was typed, otherwise it will give a false answer.
NOUN n	Is noun n typed ? (similar to VERB)
ADVE a	Is adverb a typed ? (similar to VERB)
HERE o	Is object o here ? (i.e. in the same room as you ?) If you are in room 3 and object 1 is also in room 3, then HERE 1 will give a TRUE answer because object 1 is here.
CARR o	Is object o being carried ?
AVAI o	Is object o available for use (i.e. here or being carried)
o IN r	Is object o in room r ? If object 1 is in room 3, as above, then 1 IN 3 will be TRUE, but 1 IN 4 will be FALSE.
WEIG o	Gets the weight of object o. In our adventure, WEIG 2 would give the value 20, which is the weight of the rat.
SET? m	Is marker m set ?
RES? m	Is marker m reset ? (There are 256 markers, numbered 0 to 255. They are used to store information that can be in one of two states, like doors which are open or shut, lights which are on or off, etc. There are three which are important for the adventure program : Mkr 0, if set, means that a room has been described since it was last reset. Mkr 1, if set, means you are in a light room. Otherwise you are in a dark room.

Mkr 2, if set, means you have a lamp or some other source of light.

If markers 1 and 2 are both reset, then the program will refuse to describe rooms, coming up with the "It's dark" message instead, since you are in a dark room without a lamp.

Mkr 3, if set, disables the scoring mechanism when you exit from the game.

CTR c	Gives you the value of counter c.
x EQU? c	Is x equal to the value of counter c ? There are 128 counters, numbered from 0 to 127. They are most frequently used to store the number of moves since a particular event, (e.g. in the dark). Counter 0 holds the score and counters 126 and 127 hold the turns count since the start of the game.
TURN	Gives the number of turns since the start of the game.
ROOM	Gives you the room number of the room you're currently in.
AT r	Gives a TRUE answer if you are at room number r.
condition AND condition	will give a TRUE answer if both of the conditions give TRUE answers. e.g. VERB 1 AND NOUN 2 will be TRUE only if verb 1 and noun 2 are both typed.
condition OR condition	will give TRUE if either condition is TRUE, or both.
condition XOR condition	will give TRUE if one of the conditions is TRUE and the other FALSE.
NOT condition	will give a TRUE answer if the condition was FALSE, and vice versa. So NOT VERB 1 will be TRUE if verb 1 is NOT typed.
x < y	Gives TRUE if number x is less than number y.
x > y	Gives TRUE if x is greater than y.
x = y	Gives TRUE if x is equal to y.
RAND x	Gives a random number between 0 and (x-1). So RAND 10 will give any number at random in the range 0 to 9.
VBNO	Gets the number of the verb in this command.
NO1	Gets the number of the first noun in this command.
NO2	Gets the number of the second noun in this command. These are used to check word order, and to GET and DROP objects without having to have a condition for each one.

ii. ACTION PART

LOOK	Describe the room you are in at the moment
DESC r	Describe room number r
PICT	Turns the picture display on
TEXT	Turns it off, giving a text adventure

GET o Get object number o. If it isn't here, or you've already got it, or it's too heavy, then the appropriate message is printed.

DROP o Drop object number o. If you haven't got it, then the appropriate message is printed out.

x SWAP y Exchange objects x and y. In our little adventure, 1 SWAP 5 will exchange the lamp and the lit lamp.

OBJ o Describe object number o

LIST r List all the objects in room number r

LIST WITH Lists all the objects carried with you.

o TO r Move object number o to room r. To destroy an object move it to room 0.

SET m Set marker m

RESE m Reset marker m. See SET? and RES? for an explanation of markers.

x CSET c Set x to be the value of counter number c

INCR c Increase counter c by one. The maximum is 255.

DECR c Decrease counter c by one. The minimum is 0. Trying to increase past 255 or decrease past 0 is ignored.

GOTO r Go to room r and describe the new room.

CONN v This checks through the connection table for a connection from the current room using verb v. If one is found, this gives the room number of the room you would move to if you took the connection, if not, then it gives zero. As an example, if you were in room 3 in our adventure, CONN 4 would give 2 because in the connections from room 3, verb 4 (W) would take you to room 2.

STRE x Set the maximum weight you can carry to x. STRE is short for STRENGTH.

BRIN o Brings object o here, (if it exists)

FIND o Find object o and move to it, (if it exists). This does not acknowledge any restrictions, (such as connections), so it could be useful in a magic spell or something.

SAVE Saves the current game position to tape or disc.

LOAD Loads the current game position from tape or disc. These are useful for continuing a game after tea or after you get killed !

WAIT Waits for a new command.

OKAY Prints "Okay" and awaits a new command.

EXIT Stops the game. The player is NOT asked, so this is for use when the player gets killed or wins.

QUIT The player is asked if he wants to continue, and if he types "N", for "NO" when asked if he is sure, the game continues, otherwise the game is abandoned. On abandoning the game, the score and the number of moves taken is displayed, if not disabled by setting marker three.

MESS ms Print message number ms.

PRIN x Print number x.

LF Prints a LineFeed. Everything from here is printed on a new line.

WITH Is equal to the room number of where things are put when you are carrying them.

HOLD x Holds up the game for x fiftieths of a second. For example, to freeze for 10 seconds, do HOLD 500. (Or until a key is pressed).

x + y As you may expect, this returns the value of x added to y.

x - y And this gives the value of x - y.

There are several things to note when writing conditions. Firstly all operations are performed from left to right. The second thing to note is that GAC requires spaces both inside and outside brackets, and also between words such as 'verb' and 'noun' and their numbers.

Thirdly, x and y need not be simply numbers, they can be more complex expressions. However you should note that since GAC performs all it's operations from left to right, you should be careful about the order in which you enter things. Put any COMPARISONS first, i.e. IF (VERB > 5 AND NOUN 9) QUIT END

The conditions are checked by GAC at three different points, and are entered as High Priority, Low Priority and Local. See flow chart at back of manual to see the order in which these are actioned.

HIGH PRIORITY conditions are checked for BEFORE the adventure prompts for a player command. It checks for such things as whether you are still "Alive" ! Whether a light is flashing etc.

Pressing H on the main menu will get the prompt "Which line number?" You should enter a number in order, i.e. 1, 2, 3 etc etc. GAC will not recognise a line number such as '5' when you have only entered two conditions so far, although it will insert a condition earlier in your list and remember accordingly. "ENTER" will give you the prompt "Line number _ is...", at which point you should enter your condition and press "Enter" which will give you the "Which Line number" prompt again. "BREAK" returns you to the main menu.

LOCAL CONDITIONS are checked for after the player has entered a command, they deal with things local to a particular room. For example, whether a particular object is in a room or it might execute a player command to go to another room, or open a door at that location.

Pressing C on the main menu will give the prompt "Room Number?" Entering a number followed by "Enter" will give the prompt "Which line number?" Thereafter the procedure is exactly the same as for High Priority Conditions, except that each Room has it's own set of line numbers, (1, 2, 3 etc).

LOW PRIORITY CONDITIONS are also checked for after a player command is entered, but are not associated with any particular room. For example, they might check whether you are carrying a particular object, independent of the location. After pressing L on the main menu, the procedure for entering and editing Low Priority Conditions is exactly the same as that for High Priority Conditions.

Further examples of High, Local and Low Priority Conditions can be found in Appendix A.

(3.1) SECTION THREE - GRAPHICS
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(2.8) BEGIN WHERE ?
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The last element of your adventure, at least as far as the text is concerned is to specify which room your adventure starts in.

Pressing B on the main menu will give the prompt to enter start location number.

Entering a room number followed by "ENTER" means that your adventure will start at this room. To change the start room, simply enter a new number.

"BREAK" will return you to the main menu.

(2.9) SAVE AND LOAD
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SAVING

Pressing S on the main menu, you will be asked if you wish to save a "Data File" or a "Runnable Adventure".

If you press 'D' for 'Data File', it will prompt for a file name. Enter your file name followed by 'Enter' this will save your Data which can be loaded into GAC at a later date for further development.

If you press 'R' for runnable adventure followed by 'Enter' your data will be saved as a Runnable Adventure, which can no longer be loaded into GAC for editing but will run on its own.

LOADING

Pressing T on the main menu followed by a file name will load a Data file into GAC for editing.

To load your Runnable Adventure type LOAD" and press ENTER.

NOTE : Do not attempt to load a runnable adventure into GAC. It will run on its own !

(2.10) DELETE DATA
=====

Pressing X on the main menu will delete all your data.
N.B. Loading a new data file will have the same effect.

The Graphics part of GAC will enable you to draw pictures to go with the room descriptions in the text part of your adventure

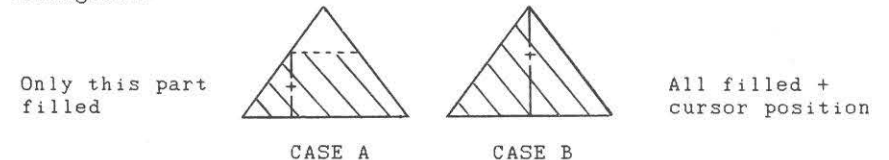
Press G from the Main Menu to enter the Graphics section. You will see displayed a Graphics Window and a Status Board, together with the prompt "Which Picture number?..."
Enter the number of the picture you wish to begin the design on.

The Status Board from left to right :

- PEN AND PAPER - The Pen starts "off" the Paper. The cursor will not leave a trail and is free to be positioned without affecting your picture. The Pen will be in the down position whilst actually drawing. (L, E & R)
- INK - The colour in this box shows the current status of the Ink of the Pen.
- PAPER - The colour here shows the current status of the background, (the paper colour).
- X & Y - These indicators show the current position of the cursor. The bottom left corner X = 0 and Y = 0.
- LAST - This shows the last command used.
- PIC - The picture number you are presently designing.

The Fill Routine is designed to be fast and it can cope with irregular shapes, but you may need to press "F", (or "A" or "S"), more than once. If an area is left unfilled, then you can just move the cursor into that area and press "F", (or "A" or "S"). On the finished picture this will be unnoticeable.

Here is a simple method which will allow you to get the best results from your filling (sounds like an advert!). If your shape has a high point, position the cursor directly under it. If it has a low point, position your cursor over it. Here is an example using a triangle...



The area filled is worked out by the fill routine checking up and down from the cursor position until it hits something, giving a horizontal band of colour.

Finally, we have another very useful feature. This is the ability to merge pictures together. For instance, you find that, in your adventure you have a single basic cave shape, which you want to use in many of your pictures, but details differ. It is possible to include a picture already created into the picture you're in, by pressing "M", typing the number of the picture you want to include, and pressing ENTER. This is then drawn over the top of anything already there, (I usually do this right at the start and then draw around the merged picture). It is a very useful feature which saves a lot of time and memory too.

If you should run out of memory in one particular picture, you can get round this by moving to an unused picture and merging the full picture into the new one before continuing with your drawing.

Designing and drawing pictures on the Spectrum is hindered by the Spectrum's own 'Attribute Problem'. If you hold 'G' whilst at a picture, you will see a grid of bright and not so bright squares light up - each square is 8 by 8 pixels. The Spectrum itself will only allow two colours in any square at any one time, one is called the Paper Colour and the other the Ink Colour.

By careful positioning of lines, ie. on the edges or corners of Attribute Squares, you can still get several areas of colour joining at one point. As you draw lines, GAC will update all the attributes as the line is elastic banded, this will aid effective positioning. Also as previously mentioned holding the 'G' key will overlay the Attribute Grid over your picture.

There is a demonstration picture (No.99) on the 'Advinman' file that you can step through, edit, add to, delete or whatever! (Load in Advinman using the T option, press G and enter 99).

By careful design you can create stunning graphics like those included in the Ransom adventure.

(3.2) GRAPHICS COMMANDS

=====
Arrow Keys (5, 6, 7 & 8) - Move the cursor
Arrow Keys + Caps, Shift - Move the cursor (steps of 8) quicker
L (1st press) - Line - Fixes one end of the line, (pen goes down). Now move the cursor about.
L (2nd press) - Line - Fixes other end of the line, (pen goes up).
E (1st press) - Ellipse/Circle - Sets centre (now move cursors).
E (2nd press) - Ellipse/Circle - Fixes Ellipse/Circle
R (1st press) - Rectangle - Sets a corner (now move cursor).
R (2nd press) - Rectangle - Fixes Rectangle.
D - Dot - Prints a Dot at cursor position
I - Ink Colour
P - Paper Colour
V - Flash 0 = off 1 = on 8 = transparent
B - Bright 0 = off 1 = on 8 = transparent
T - Text Area and Border Colour
G - Grid showing Attribute positions
F - Fills from cursor area in INK
A - Fills from cursor area in PAPER
S - Shaded fills from cursor in a shade of Current Ink and Current Paper
W - Draws whole picture
M - Merge picture - prompts for a picture number and merges that picture with the one currently displayed. Note some shades will not merge well and a 'fill' will not fill past obstacles in the present picture.
C - Cursor - when held will highlight the cursor position.
Arrow Keys (5, 6, 7 & 8) and Symbol Shift - Steps through your pictures to allow editing.
S Shift 5 (left arrow) - Steps back one command

S Shift 8 (right arrow) - Steps forward one command
S Shift 6 (down arrow) - Steps back five commands
S Shift 7 (up arrow) - Steps forward five commands
NB. When stepping through your picture you can still add and change the commands as normal.
Z - Jumps to start of picture
Delete - Deletes last command
Caps-shift 9 - Deletes from current position to end
BREAK 1st time - Prompts new picture number
BREAK 2nd time - Return to main menu

NB. For a Spectrum + or Spectrum 128 the arrow keys move the cursor in steps of 8, for accurate positioning use keys 5, 6, 7 and 8. (Left, down, up and right).

(4.1) SECTION FOUR - TEST ADVENTURE

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To test your adventure, get back to the main menu and simply press "ENTER" to enter the adventure.

When you are testing an adventure, the way to return to the main menu is to press BREAK as usual. This gives you the message "Press D for diagnostics or 'BRK' to BREAK..." If you press the "D" key, then all the markers and counters will be displayed on the screen. For the markers, a filled circle indicates "SET" and an unfilled one indicates "RESET". The values of the counters are given as you would expect. To get back to the game press any key. If you press "BREAK" again, then you will get back to the main menu.

The error routine prints out a message indicating the nature of the error, plus a line of conditions if the error occurred in one of the condition tables.

Message not found means you have referred to a message that does not exist. If you get this immediately, check that you have entered the system's special messages at numbers 240 and above.

Room not found means you have tried to describe, or move to, a room that doesn't exist.

Object not found means you have tried to pick up, drop, or describe an object that does not exist.

Marker not found means you have tried to access a marker which does not exist.

Counter not found means you have tried to access a counter which does not exist.

Illegal value means you have tried to look for a verb, noun, or adverb with a number greater than 255, or you have tried to load a counter with a number greater than 255.

Here are a few hints for solving errors :

- i. Suspect typing error. Check that you really mean what you have said.
- ii. Have you forgotten to enter the room/object/message being referred to? If so enter it.
- iii. Have you forgotten to delete this condition which you didn't need, having deleted the objects/messages used by it?

(4.2) PLAYER COMMANDS

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This section looks at the commands a player gives when he plays the adventure. It is intended to give an idea of the complexity of the commands the adventure will understand.

Each command line consists of one or more simple commands, which in turn consist of a verb, and maybe an adverb and one or two nouns. Any word which the command interpreter does not understand as being a noun, verb or adverb is ignored.

Let us take a typical line and see how the program looks at it.

Get the gold, examine it, put it in the box then go north

Let us assume that the vocabulary includes :

NOUNS : 3 GOLD VERBS : 1 NORTH ADVERBS : 1 IN
 7 BOX 7 GET
 255 IT 8 PUT 16 EXAMINE

The command line is split into separate commands by the following : ".", ",", "!", "?", ":", ";", "and" and "then", so it becomes :

Get the gold ","
Examine it ","
Put it in the box "then"
Go north

Each of these is scanned for verbs, adverbs and nouns in that order, and any found have their number stored.

	VERB	ADVE	NOUN1	NOUN2
Get the gold	7	0	3	0
---	---	---	---	---
Examine it	16	0	255	0
---	---	---	---	---
Put it in the box	8	1	255	7
---	---	---	---	---
Go north	1	0	0	0
-----	-----	-----	-----	-----

Then all occurrences of noun 255 ("It"), are replaced by the last noun typed before that, giving

	VERB	ADVE	NOUN1	NOUN2
Get the gold	7	0	3	0
Examine it	16	0	3	0
Put it in the box	8	1	3	7
Go north	1	0	0	0

These values are then passed to the connection table, and then to the conditions. See diagram in Appendix B.
Note that all the letters in the vocabulary entries are significant - there is no truncation to only four or five letters. Thus RIVER and RIVET, TROUT and TROUSERS, and others like these are distinguished between.

APPENDIX A

=====

Definitions and Conditions for "ADVINMAN"

i. NOUNS

1 TORCH 5 SERPENT
1 LAMP 6 DOOR
2 RAT 255 IT
3 KEY
4 GOLD
4 BAR
4 TREASURE
5 SNAKE

ii. VERBS

1 NORTH 9 LOOK 15 LOAD
2 SOUTH 10 LIST 15 RESTORE
3 EAST 10 INVENTORY 16 EXAMINE
4 WEST 11 QUIT 17 LIGHT
5 UP 12 TEXT 17 ON
6 DOWN 12 WORDS 18 EXTINGUISH
7 GET 13 PICTURES 18 OFF
7 TAKE 13 GRAPHICS 19 UNLOCK
8 DROP 14 SAVE 20 SCORE
1 N 2 S 3 E 4 W 21 EAT
5 U 6 D

iii. ROOM DESCRIPTION

Room No.	Description (as it would appear)	Connections
1.	You are above the ground. There is a cave entrance to the east.	(press ENTER)
2.	You are in a large cavern. Passages lead east, west and south.	E 3
3.	You are in a cave. A snake is asleep in a corner and exits lead east and west.	W 3
4.	You are by a small lake. The only exit is west.	(press ENTER)
5.	You are outside a castle. A tunnel leads to the north and a large door can be seen to the east.	(press ENTER)
6.	You are in the castle strongroom. A door stands open to the west.	W 5

iv. OBJECTS

No.	Description	Starts in room	Weight
1.	a lamp	1	10
2.	a dead rat	5	20
3.	a key	4	1
4.	a gold bar	6	100
5.	a lit lamp	0	100

v. MESSAGES

240 What now ?....
241 You can't
242 Pardon ?
243 Press a key for another game....
244 Are you sure (Y or N) ?
245 You've already got that.
246 You haven't got that.

247 You can't see that.
248 You're carrying too much to pick that up.
249 Your score was
250 and you took
251 It's dark. You can't see a thing.
252 I can't find that anywhere.
253 You can also see
254 Okay
255 turns

i. Conditions - Local Don't type in the comments !

Room 1
IF (VERB 3) RESE 1 GOTO 2 WAIT END
If you typed "EAST", reset the dark/light marker, goto room 2 and wait for a new command.
Room 2
IF (VERB 4) SET 1 GOTO 1 WAIT END
If you typed "WEST", set the dark/light marker, goto room 1 and wait for a new command.
IF (VERB 2) SET 1 GOTO 5 WAIT END
And a similar condition for going south too.
Room 3
IF (VERB 7 AND NOUN 5) MESS 14 HOLD 200 EXIT END
If you typed "GET SNAKE" then print message fourteen to say how it reacts, freeze for four seconds and end the game.
IF (VERB 3) SET 1 GOTO 4 WAIT END
Again another move-from-dark-room-to-light-room condition, this time east.
Room 4
IF (VERB 4) RESE 1 GOTO 3 WAIT END
I'll let you work this one out (hint - look at rooms 1, 2, 3)
IF (VERB 7 AND NOUN 3) CTR 0 + 20 CSET 0 END
If you typed "GET KEY" then add twenty to counter 0 (the score)
IF (VERB 8 AND NOUN 3) CTR 0 - 20 CSET 0 END
If you typed "DROP KEY" then subtract 20 from ctr 0 (the score)
Room 5
IF (VERB 3 AND SET? 3) GOTO 6 WAIT END
If you typed "EAST" and marker 3 is set, (i.e. if the door has been opened), goto room 6 and wait for a new command.
IF (VERB 3) MESS 7 WAIT END
If you typed "EAST" then print message 7 and wait for a new command. Note that the door cannot be opened since if it was, the last line would have worked and we would be waiting for a new command by now.
IF (VERB 19 AND NOUN 6 AND CARR 3) SET 3 MESS 10 WAIT END
If you typed "UNLOCK DOOR" then set marker 3, (mark the door as open), print message 10 and wait for a new command.
IF (VERB 1) RESE 1 GOTO 2 WAIT END
It is another light-to-dark movement, this time north to room 2

ii. Conditions - Low Priority

Those marked "*" are included in the Quickstart file.

IF (VERB 20) MESS 249 PRIN CTR 0 MESS 250 PRIN TURN MESS 255
WAIT END
If you typed "SCORE", print message 249, your score, message 250, the number of turns you had and message 255. Then wait for a new command.

IF (NO1 = 0 AND VERB 7) MESS 19 WAIT END
If you typed "GET" by itself or with an unrecognized word, print message 19 "I'm sorry, but I don't know what one of those is..."
IF (NO1 = 0 AND VERB 8) MESS 19 WAIT END
And similarly for "DROP".
IF (NO1 = 0 AND VERB 16) MESS 18 WAIT END
And again for "EXAMINE".
IF (VERB 7 AND NOUN 1 AND HERE 5) GET 5 OKAY END
If you typed "GET LAMP" and there is a lit lamp here, then get it, print "OKAY" and wait for a new command.
IF (NO1 < 5 AND VERB 7) GET NO1 OKAY END
If you typed "GET" and a noun with a number less than 5, then get the object with that noun's number. This only works because the objects and the nouns which refer to them have the same number. (A very useful trick!)
IF (VERB 8 AND NOUN 1 AND CARR 5) DROP 5 OKAY END
If you typed "DROP LAMP" and you've got a lit lamp, then drop it, print "Okay" and wait for a new command.
IF (NO1 < 5 AND VERB 8) DROP NO1 OKAY END
If you typed "DROP" and a noun whose number is less than 5, then drop the object with that noun number.
IF (VERB 16 AND NOUN 1 AND AVAI 5) MESS 5 WAIT END
If you typed "EXAMINE LAMP" and you have a lit lamp available then print out its more detailed description and wait for a new command.
IF (NO1 < 5 AND VERB 16 AND AVAI NO1) MESS NO1 WAIT END
If you typed "EXAMINE" and a noun whose number is less than 5, then print out the message with that noun number, it being the more detailed description of that object, then wait for a new command.
* IF (VERB 11) QUIT END
If you typed "QUIT" then quit.
* IF (VERB 9) LOOK WAIT END
If you typed "LOOK" then describe this room and wait for a new command.
IF (VERB 21 AND NOUN 2 AND CARR 2) DROP 2 2 TO 0 MESS 17 WAIT END
If you typed "EAT RAT" and you are carrying it, drop it, move to room 0, thus destroying it, print message 17 ("yum, yum") and wait for a new command.
* IF (VERB 10) MESS 239 LIST WITH END
If you typed "INVENTORY" then list the objects with you and wait for a new command.
* IF (VERB 13) PICT OKAY END
If you typed "PICTURES" then turn them on, print "OKAY" and wait for a new command.
* IF (VERB 12) TEXT OKAY END
And similarly for "TEXT".
IF (VERB 17 AND NOUN 1 AND AVAI 1) 1 SWAP 5 CTR 0 + 20 CSET 0
MESS 15 SET 2 WAIT END
Type this all on one line. If you typed "LIGHT LAMP" and you have an unlit lamp, then exchange the lit lamp for the unlit one, tell the user that he has lit the lamp, increase the score by 20 and await a new command.
IF (VERB 18 AND NOUN 1 AND AVAI 5) 1 SWAP 5 CTR 0 - 20 CSET 0
MESS 16 WAIT END
And similarly for "LAMP OFF" ("EXTINGUISH LAMP").

* IF (VERB 14) SAVE OKAY END
 If you typed "SAVE" then save the game position to tape or disc.

* IF (VERB 15) LOAD LOOK WAIT END
 If you typed "LOAD" then load in a previously saved game position.

iii. Conditions - High Priority

IF (RES ? 6) SET 6 STRE 111 3 CSET 1 END
 If marker 6 is reset (if this is the first move) then set marker 6 to say that it isn't the first move any more, set the strength and counter one to hold value three.

IF (RES ? 1 AND RES ? 2) DECR 1 END
 If you are in total darkness, then decrease counter number one.

IF (1 EQU ? 1 AND RES ? 1 AND RES ? 1) MESS 20 END
 If counter one has reached value 1 then print that you can hear footsteps.

IF (0 EQU ? 1) MESS 21 EXIT END
 If counter 1 has reached zero then tell the player he has been "got" by the spider, and end the game.

IF (AT 3 AND RES ? 4 AND CARR 2) SET 4 MESS 13 DROP 2 2 TO 0 WAIT END
 If you are in room three with the rat and the snake hasn't been fed yet, mark the snake as fed, print the message to say so, and move the rat to room 0, destroying it.

IF (AT 3 AND RES ? 4) MESS 8 EXIT END
 If you are in room three without the rat and the snake hasn't been fed yet, then say that it kills you and exit from the game.

IF (AT 1 AND CARR 4) MESS 9 EXIT END
 If you are back at the start carrying the gold then you win !

GET AND DROP

Here is another useful feature! To save putting a Get and Drop condition in for each and every object, here are two very useful condition lines that will enable you to get and drop any object, (up to No.10 in our example), at any location. To do this simply ensure the Noun numbers match the Object numbers. ie.

NOUN 1 = Hat OBJECT 1 = a hat

and enter Low Priority Condition lines :

IF (NO1 < 10 AND VERB 7) GET NO1 OKAY END
 IF (NO1 < 10 AND VERB 8) DROP NO1 OKAY END

APPENDIX B ===== Tables and Charts

THE QUICKSTART DATA FILE

The "Quickstart" data file contains all the system messages, many useful verbs, and several of the common low priority conditions associated with them. This is to allow you to get straight in to writing the adventure that you want to write, without having to worry about things that are included in all adventures. The full contents are :

VERBS		NOUNS	
-----		-----	
6	D	255	IT
6	DOWN		
8	DROP		
3	E		
3	EAST	239	You are carrying
16	EXAMINE	240	What now ?....
7	GET	241	You can't.
13	GRAPHICS	242	Pardon ?
10	INVENTORY	243	Press a key for another game...
9	L	244	Are you sure ? (Y/N)...
10	LIST	245	You've already got that.
15	LOAD	246	You haven't got that.
9	LOOK	247	You can't see that.
1	N	248	You're carrying too much to pick that up.
1	NORTH		
13	PICTURES	249	Your score was
11	QUIT	250	and you took
15	RESTORE	251	It is dark. You can't see.
2	S	252	I can't find that anywhere.
14	SAVE	253	You can also see
2	SOUTH	254	Okay
7	TAKE	255	turns
12	EXIT		
5	U		
5	UP		
4	W		
4	WEST		
12	WORDS		

LOW PRIORITY CONDITIONS

IF (VERB 9) LOOK WAIT END
 If you typed "LOOK", redescribe the room you're in and wait for a new command.

IF (VERB 10) MESS 239 LIST WITH WAIT END
 If you typed "INVENTORY" then print "You are carrying" and list all the objects that are with you.

IF (VERB 11) QUIT OKAY END
 If you typed "QUIT" then ask the adventurer if he is sure, and if he responds Y (for YES) then quit, otherwise print OKAY and wait for a new command.

IF (VERB 12) TEXT OKAY END
 If you typed "TEXT" then turn the pictures off.

IF (VERB 13) PICT OKAY END

If you typed "PICTURES" then turn the pictures on.

IF (VERB 14) SAVE OKAY END

If you typed "SAVE" then save the game position to tape or disc.

IF (VERB 15) LOAD LOOK WAIT END

If you typed "LOAD" then load a previously saved game position from tape or disc, then describe the room you are in.

i. ACTUAL GRAPHICS COLOURS

-
- 0 BLACK
 - 1 BLUE
 - 2 RED
 - 3 MAGENTA
 - 4 GREEN
 - 5 CYAN
 - 6 YELLOW
 - 7 WHITE
 - 8 TRANSPARENT - ie. If paper is set to 8, you can draw over all colours of paper leaving the paper colour unchanged. (Ink, Flash or Bright).
 - 9 CONTRAST - ie. If ink is set to 9, the ink used will be either White or Black, whichever is the greater contrast to the current paper colour. (Or Paper).

ii. SUBSCRIPTS USED WITH CONDITION WORDS

-
- a - adverb number
 - c - counter number
 - m - marker number
 - ms - message number
 - o - object number
 - n - noun number
 - r - room number
 - v - verb number
 - x,y - any numbers

iii. WORDS USED IN CONDITIONS

Words	Markers	Counters	Rooms	Commands
VERB v	SET m	CSET c	GOTO r	OKAY
NOUN n	RESE m	INCR c	CONN r	WAIT
ADVE a	SET? m	DECR c	ROOM	EXIT
NO 1	RES? m	CTR c	AT r	QUIT
NO 2		x EQU? c	DESC r	
VBNO		TURN	LOOK	

Objects	Decisions	Tape and Disc	
GET o	OBJ o	IF	SAVE
DROP o	LIST o	END	LOAD
o SWAP o	WEIG o		
HERE o	STRE o		
CARR o	o TO r		
AVAI o	BRIN o		
o IN r	FIND o		

Other

MESS ms	x = y
x + y	WITH
x - y	PICT
condition AND condition	TEXT
condition OR condition	RAND x
condition XOR condition	PRIN x
NOT condition	HOLD x
x > y	LF
x < y	

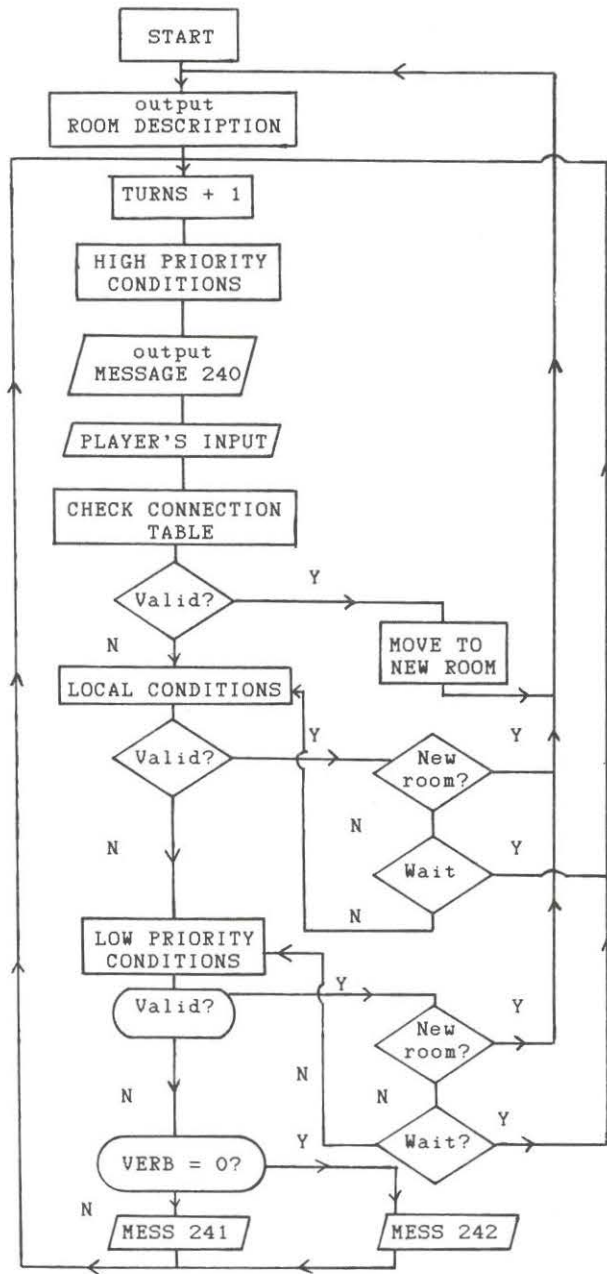
iv. COUNTERS AND MARKERS USED BY THE SYSTEM

Counter	0	- Holds the score
	1 x 126	} Count the number of turns since the beginning
	256 x 127	} of the game.
Marker	0	- If set means that a room has been described since last reset.
	1	- If set, you are in a light room.
	2	- If set, you have a source of light.
	3	- If set, disables the scoring mechanism.

v. RANGES OF NUMBERS

	No. allowed	No. of characters
Rooms	1..9999	255
Objects	1..255	255
Messages	1..255	255
Verbs	1..255	35
Nouns	1..255	35
Adverbs	1..255	35
Graphics	1..9999	
Markers	0..255	
Counters	0..127	
[Which store]	0..255	

240 : "What now?"



241 : "You can't"
242 : "Pardon?"

The internal commands QUIT and EXIT return the player to the first room with the program initialized. There is no end as such.