## THE GRAPHIC ADNNivi

## THE GRAPHIC ADVENTURE CREATOR

For the AMSTRAD CPC range of personal computers

USER MANUAL

V 1.0
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by Sean Ellis, November 1985

## INCENTIVE SOFTWARE

The Graphic Adventure Creator $-1-$ loading instructions
Writing Adventures $-2-$ getting started
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Handy Data Sheets - A $\quad$ Appendix A

## LOADING INSTRUCTIONS

This program is protected by the LENSLOK (*) system. Please read these instructions carefully.

KEEP YOUR LENS IN A SAFE PLACE AS THIS IS YOUR KEY TO THE PROGRAM.

## TAPE

1. Insert the cassette into the datacorder and rewind it.
2. If you have a CPC 664 or 6128 , or you have a disc drive attached to a 464 then type
3. Press the green [CTRL] key and, keeping it pressed, push the small [ENTER] key.
4. A message will appear, saying "Press PLAY then any key...". Press the PLAY button on the datacorder, and then any key on the keyboard.
5. The program will then load and start running.
6. A large "H" will appear on the screen, along with the words "GRAPHIC ADVENTURE CREATOR", and "< Contract Expand $>$ ".
7. PHOTO 1 - Taking your LENSLOK, unfold it and lay it flat on the screen. Then use the left and right cursor keys to adjust the width of the "H" until it is the same length as the lensholder. Then press any other key.
8. A pattern will appear on the screen. PHOTO 2 - Fold the lensholder, taking note of the "This side out" and "top" markings on the lensholder, and stand it on the screen.
9. PHOTO 3 - Close one eyeand, holding your head at least 12 inches away, align the centre of the lens with the vertical line on the screen. You will see the characters "OK" in the lens.
10. Keep the lens in the same position and press a key on the keyboard. Two more characters will appear on the screen. Press these two characters on the keyboard and the Graphic Adventure Creator will take over.
11. If you are too slow, or you make a mistake, then two more characters will appear. Three attempts are allowed before it is necessary to reload the program.

DISC

1. Type

> RUN"GAC" [ENTER]
2. Continue from step 5 in the tape instructions.

## TAPE AND DISC CONTENTS

The tape and the disc each contain four files : the GAC itself, the QUICKSTART file, the adventure in the manual, ADVINMAN, and a demonstration adventure RANSOM. Ransom is a demonstration to show the quality of graphics possible using the GAC, and uses the format of adventure similar to ADVINMAN.

The order of the files on the tape is :
SIDE 1: "GAC", "QS" SIDE 2: "ADVINMAN","RANSOM"
And on the disc, the files are called:
"GAC.BAS", "QS.ADV", "ADVINMAN.ADV", "RANSOM.BIN"
The GAC and RANSOM can be run using RUN "GAC" and RUN"RANSOM" respectively QS and ADVINMAN are data files to be loaded whilst the GAC is running.

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Welcome to the world of the Graphic Adventure Creator !
Hold it ! There's no need to turn the computer on yet. Starting an adventure without a clear idea of what to do is usually about as fruitful as starting to bake a cake, when you haven't decided if it's going to be a Christmas cake or a Victoria sponge ! ( If you really can't wait, go and play with the graphics in section 3 and come back to this bit.)

Before you start, you should really have a clear idea of what you want the adventurer to do. ( I do, anyway... if I try to sit down and just write an adventure I don't know what's going on ! ) In most adventures there is a well defined task to perform: get out of the cave system with the treasure, or: rescue the beautiful monster from the ravening princess.

Here is what I would do in setting up a small adventure:
First, set the task. Let us make our hero find some gold.
Then, work out a map of the place our intrepid hero will be whilst attempting to complete his task, including where any objects are at the start. Here it is:


Let us give some basic descriptions of the rooms:
ROOM 1: You are above the ground. There is a cave entrance to the east.
ROOM 2: You are in a large cavern. Passages lead east, west and south.
ROOM 3: You are in a cave. A snake is asleep in a corner and exits lead east and west

ROOM 4: You are in a small cave. The only visible exit is west.
ROOM 5: You are by a small castle, with a tunnel leading to the north. A large door can be seen to the east.

ROOM 6: You are in the castle strongroom. A door stands open to the west.
Note that we have not included the objects in the room descriptions, since these can move around and may not always be there.

If you go into the snake cave, then the snake will eat you, unless you have the dead rat, in which case they will eat that instead. The door must be unlocked before you can go east from room 5. Note that you can't pick up the sleeping snake ( if you try it will wake up and kill you ! ) so we don't need to include this as an object.

So, at first glance, there are four objects: the lamp, the rat, the key and the gold. In fact, it is easier if there are FIVE, and we include a lit lamp as a separate object. Thus it is easy to see if we have a lighted lamp with us or not, and lighting the lamp merely involves swapping the unlit lamp for the lit one. But the lit lamp doesn't exist at the start, and where do we put the lamp when we've finished with it ? Easy, room ZERO. This is a sort of limbo room where dead or unborn objects go, and they cannot be found or picked up.

So the objects are:
OBJ 1: a lamp rat
OBJ 3: a small key
OBJ 4: a gold bar
OBJ 5: a 1it lamp
Starts in room $\frac{1}{5}$, and weighs 10 units
Starts in room 5, and weighs 20 units
Starts in room 4, and weighs 1 unit Starts in room 6, and weighs 100 units Starts in room 0, and weighs 10 units
The weight is there in case you want to restrict the items you can carry, as we do in this case. Let's set it to llo, so that you can't carry the lamp, the gold, and the rat at the same time.

The next thing to do is work out the connections between the rooms. These should only include unconditional moves ( ones which can always be done and which change nothing.) The move room 1 to room 2 is not included because the
light changes between light and dark, and the move room 5 to room 6 is not allowed either because it can only happen when the door is open. These entries should go in the condition table, which we will come to later.

So the connections are:
From
(none) $\begin{array}{ll}\text { room 2: EAST to } 3 \\ \text { room 3: } & \text { WEST to } 2\end{array}$ room 4: (none) room 5: (none) room 6: WEST to 5
The last one is included since if you are in room 6, then you must have opened the door.

The next part is the bit that does all the decisions which make playing the adventure possible... the conditions.

These come in three parts: local conditions which only apply in one particular room, high priority ones which, as you may expect, occur before the adventurer types in as his command and the low-priority conditions, which occur after the player input.

By way of illustration, here are the local conditions for the adventure, expressed in informal English for the moment.

ROOM 1: If you type "EAST", say that it's dark, and go to room 2
ROOM 2: If you type "WEST", say that it's light, and go to room 1
ROOM 3: If you type SOUTH", say that it's light, and go to room 5 .
If you type "GET SNAKE" then tell you that it has has bitten you, and stop the game.
ROOM If you type "EAST" then say that it's light and go to room 4
4: If you type "WEST" then say that it's dark, and go to room 3
ROOM 5: If you type "UNLOCK DOOR", then open the door and print a message to say so, then wait for a new command. If you type "EAST", and the door is open, then go to room 6 If you type "EAST", and the door is closed, then tell the adventurer that he can't walk through doors, and wait for a new command.
If you type "NORTH", say that it's dark, and go to room 2
In order to tell the adventurer things, the messages are used. There should be a message for all the situations you want to inform the adventurer of. For the moment, you shouldn't use messages numbered 240 and above.

Here are the messages we will need :
MESS 1: It is a small, battery operated lamp
MESS 2: It is a freshly dead rat. Looks tasty!
MESS 3: It is a small silver key
MESS 4: It looks very valuable
MESS 5: It is a small lamp,shining brightly.
[ these are more detailed descriptions of objects l..5]
MESS 7: You can't walk through doors,you know!
MESS 8: The snake wakes up,comes over, and bites you. The poison takes hold immediately. You die.

MESS 9: Well done! You got out with the gold! You are rich!
MESS 10: The door unlocks and swings open.
MESS 13: The snake wakes up,comes over, and eats the rat. It then returns to its position.

MESS 14: The snake, not surprisingly, takes a nasty turn and bites you. The venom kills you.

MESS 15: It lights up brightly.
MESS 16: It goes out.
MESS 17: It tastes even better than it looks! Yum yum!
MESS 18: You find nothing much.
MESS 19: I'm afraid I don't know what that is.
MESS 20: You hear scuffling footsteps nearby...
MESS 21: A giant spider with glowing red eyes ieaps from the shadows and neatly severs your head with powerful jaws before devouring you.

Now, let's look at the low-priority conditions, which are those which are used to interpret commands and to generally manipulate the adventure "environment", and are not specific to one room. They are, again, in informal english for the time being.

If you typed "SCORE" then print out your score and the number of moves.
If you typed
If you typed
If you typed
If you typed
If you typed
If you typed "EAT RAT" then drop the rat, destroy it, and print message 17.
If you typed "INVENTORY" then print message 6 and list all the objects you are carrying.

If you typed "PICTURES" then turn the pictures on.
If you typed "TEXT" then turn the pictures off.
IF you typed "LIGHT LAMP" and you have an unlit lamp ( object 1 ) available, then print message 15, exchange objects 1 and 5 , and add 20 to your score.

If you typed "EXTINGUISH LAMP" and you have a lit lamp available, then print message 16 , exchange objects 5 and 1 , and subtract 20 from your score.

These are all the low-priority conditions. It also gives us our vocabulary we need. The vocabulary is set up as nouns (which usually refer to objects ), verbs ( which are "doing" words like "GET", "DROP", and "UNLOCK"), and also adverbs, which tell us how to do things, and ( apologies to students of the English language - I know these are really prepositions, where to put things.

For example, in the commands:
UNLOCK DOOR' CAREFULLY and
"carefully" and "in" would be adverbs.
In our little adventure there are no adverbs, but the nouns and verbs are:
NOUNS: 1 TORCH,LAMP
2 RAT
3 KEY
4 GOLD, BAR, TREASURE
5 SNAKE, SERPENT
6 DOOR
255 IT
VERBS: All those listed in the quickstart file ( standard ones like North, South, Inventory, etc )
16 LIGHT, ON
17 EXTINGUISH,OFF
18 UNLOCK
19 SCORE
20 EAT
Note that we give all the words with the same meaning the same number. This is so that the conditions do not have to check for "TORCH", "LAMP", or "LIGHT" just to get the torch. They merely ask if noun number 1 was typed, and if any of the above was typed, they are all noun number 1 so the condition recognizes any of them.

Finally, on the conditions, here are the few high priority ones. These are "done" before the user types anything, so there is no way he can affect them.

If this is the first move, then set the strength to 110 , set the number of moves left in the dark to 3 , and record that this isn't the first move any more.

If you are in room 3 and the rat is not available, and the snake hasn't already had it, then print the message to say it bit you and end the game.

If you are in room 3 and the rat is present then move it to room 0 ( ie remove it from the game), print the message to say the snake has eaten it, and mark that this has happened.

If you are in room 1 with object 4 (the gold) then print message 9 and stop the game.

If you have the torch available, then set marker 2 , otherwise reset it.
If you are in the dark without a torch, decrease the number of moves left in the dark.

If you have one move left and it is dark, print message 20
If you have no moves left and it is dark, print message 21 and end the game.

And that marks the end of the conditions. We will see the format to enter them in in section four.

## SECTION THREE

Graphics

This is perhaps the most satisfying part of writing the adventure, since you can see the results take shape before your very eyes. However, bear in mind that it is better to play a good adventure with no pictures than a bad one with paintings by Constable !

To try out the graphics, load up GAC (follow the instructions on the tape) This will give you a display of the main menu. If you look down the menu, you will see the word "Graphics", with the "G" in a different colour. Press "G", which will allow you to then edit the graphics. The screen will clear, showing a window, a compact menu below it, and the question "Which picture number ?...". Press key "l" and then key "ENTER". The question will disappear and a little cursor will appear in the centre of the window.

Try moving the cursor about, using the cursor keys. It moves by one dot on the screen at a time, useful for fine detail. If you press SHIFT as well as the cursor key, then it moves by steps of 8 dots at a time, which is better for quick movement.

Now press the "D" key. If you look on the little menu below the window, you will see the word "Dot". This is what you have just done - put a dot on the screen. Move the cursor about and try putting some more dots on the screen. When you have nine or ten, go on to the next paragraph.

Press the "DEL" key. The last dot will disappear. Keep pressing it. The dots all disappear in reverse order. This is because the "DEL" key deletes the last thing you drew.

## Now for lines.

Press the "COPY" key and the pen on the right hand side of the screen will contact the paper, indicating that you are ready to draw. Then move the cursor about and you will see that it drags a line around with it. To fix the other end and complete the line, press COPY again, and the pen will come off the paper. The cursor is now free of the line. Try this out a few times then delete the lines using "DEL".

Lines are great for drawing pictures, but I did promise colour earlier. To change the colour of the ink you want to draw in, press I ( for "INK" ). You are then asked "Which ink ( $0 . .3$ ) ...". On the left hand side of the screen is a set of numbers followed by coloured squares. These are the colours of the various inks you can use. Choose one of these ( not 0 for the moment ) and press that key 1,2 ,or 3 . The pen on the right of the screen will change colour. Draw a few lines and experiment with changing colours. You see all the lines you draw after a colour change are drawn in the new colour.

If you want to keep what you have just drawn and move to a new drawing, press ESC. This will give you the "Which picture number ?..." again. Enter a number other than 1 and then ENTER. This will give you a new clean window. Don't worry about your drawing in picture l. It's still there and you can get back to it by pressing "ESC" again and replying "l" to the question "Which picture number ? ...". If you are now confused at having found yourself back in the main menu, don't worry, you must have pressed "ESC" twice. Just press "G" again to get back to the graphics.

So far, we can draw line drawings. These are not terribly interesting. It would be better if we could fill areas with solid colour. This is possible using key "F", but don't use it yet - it has limitations and we have to explain how to change its colour using the "S" command (for SHADES ).

Draw a box on the screen (use lines ). Then press "S". You are faced with the question "Which two inks to shade with (0..3) ?...". This is because the FILL command can fill areas in solid colours or shades between two colours. If you want a solid colour, then choose an ink ( 0 to 3 ) and press that key TWICE. If you want a shade, press the key for one colour, then for the other. If you do not see what I mean, don't worry, all will become clear in a minute.

Then move the cursor into the box you have drawn and press "F". The box will fill with colour. Try drawing a few boxes and filling them with different colours.

Now the fill routine was designed to be fast, and it can cope with all irregular shapes, but you may need to press "F" more than once. If an area is left unfilled, then you can just move the cursor into that area and press
"F" again. 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...

Only this part filled


Case A


Case B

## All filled

+ cursor position

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.

You only need to re - do the "S" shading command again if you change the colour. If you have several FILLs the same colour there is no need to re-type "S" in between them.

Please note that you can fill any area of solid colour not shaded areas, as, due to their composition, you will only fill one pixel.

If you want to change your choice of colours, then use "C" for Choose colours. This will ask you which ink you want to change the colour of . Then, when you press the ink number ( 0 to 3 ), it will ask you for two actual colours in which to display the ink. The keys for the colours can be found in the handy reference sheet (Appendix A), and if you press two the same ( eg "BB") then the ink will be steady ( ie just blue), but if you press two different, then the ink will flash between the two colours ( eg "BF" gives flashing blue/red). Try this, but use with care... don't make inks 0 and 1 the same or you won't be able to see any of the writing on the screen! (If you do, you can change them back to sensible colours by pressing the ESC key until you get back to the main menu).

So far, everything we have drawn has been straight. Now for some light relief, move the cursor to about the middle of the screen ( or move to a new picture using "ESC" if you like this picture) and press "E". Now move the cursor about (use SHIFT as well). This will give you an ellipse (a squashed circle) which you can change the size and shape of. To freeze it in position press "E" again. This is useful for drawing suns,moons, clouds, and holes in the floor, etc.

You can draw rectangles, too, in the same way as ellipses, except press the "R" key, once to start, once to finish. Try it and see.

Note that ellipses and rectangles may not appear to be complete while being stretched,especially if they are small. This is rectified when they are fixed in place with a second press of "R" or "E":

By now, you've probably noticed that in the top right hand corner of the screen there is the word "LAST" with a letter underneath it. This tells you what the last thing you did was (the command key you pressed is displayed, or an oblique line for a line). This is useful if you are deleting things, especially FILLs, since these are often preceded by an "S" command which is not always obvious. If you delete a FILL, then the "LAST" character will turn to "S" if it was preceded by a SHADES command. This is very useful in conjunction with the next feature.

## EDITING PICTURES

The CTRL key and the cursor keys will step you backward and forward through the picture step-by-step so that you can insert things half-way through.

CTRL-left takes you back one command (similar to DELETE in that the last thing disappears, but it is not deleted)
CTRL-right takes you forward one command
CTRL-up takes you forward five commands
CTRL-down takes you back five commands,
SHIFT- $>$ deletes everything from this point in the drawing to the end, and $W$ gives you the Whole picture back again.

This part is fairly easy once you get used to it, but very difficult to explain. Try playing around with it if you want.

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 "p", 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.

## SECTION FOUR

The Conditions
How to enter them
－－－ー－ー－ー－ー－ー－ー－ー－
The conditions decide what to do in the adventure．There are three types： local，high priority，and low priority，as I discussed in section two．They are＂done＂in the following order ：

> Print start room description

> Do HIGH PRIORITY conditions

> Get the adventurer＇s command

> Check for connections and if so，move

> Do LOCAL conditions

> Do LOW PRIORITY conditions

They are translated from English into a special form which the computer finds easy to understand．As an example，let＇s take the condition＂If you typed LOOK then describe the current room＂．It becomes．．．

IF（ VERB 7 ）LOOK WAIT END
Let us look at this in more detail．The general form is ．．．
IF（ some conditions ）some actions END
If the conditions are true，then the actions are performed．
VERB 7 gives a TRUE answer if verb 7 （LOOK ）was typed．
LOOK describes the room you＇re in．
WAIT awaits a new command．
So the condition is built up．
You can use many words in the conditions．These are ：
i．CONDITION PART

| VERB | Is verb $n$ typed？（ $n$ is a number ） <br> 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 $n$ | Is adverb $n$ typed ？（ similar to VERB ） |
| HERE $n$ | Is object $n$ here（ ie 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 $n$ | Is object $n$ being carried ？ |
| AVAI $n$ | Is object $n$ available for use（ ie here or being carried） |
| $\times \mathrm{IN} \mathrm{n}$ | Is object $n$ in room $x$ ？If object 1 is in room 3 ，as above， then 1 IN 3 will be TRUE，but 1 IN 4 will be FALSE． |
| WEIG n | Gets the weight of object $n$ ．In our adventure，WEIG 2 would give the value 20 ，which is the weight of the rat． |
| SET？$n$ | Is marker $n$ set |
| RES？$n$ | Is marker $n$ reset ？ |

CTR $n$ Gives you the value of counter $n$.
$x$ EQU? $n$ Is $x$ equal to the value of counter $n$ ?
(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 l, 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. )

There are 128 counters, numbered from 0 to 127 . They are most frequently used to store the number of moves since a particular event (eg 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 $n$ Gives a TRUE answer if you are at room number $n$.
condition AND condition will give a TRUE answer if both of the conditions give TRUE answers.
eg 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.
$\begin{array}{ll}x<y & \text { Gives TRUE if number } x \text { is less than number } y . \\ x>y & \text { Gives TRUE if } x \text { is greater than } y .\end{array}$
$x=y \quad$ Gives TRUE if $x$ is equal to $y$.
RAND $x$ Gives a random number between 0 and $(x-1)$. So RAND 10 might 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.

LOOK Describe the room you are in at the moment
DESC $n$ Describe room number $n$.
PICT Turns the picture display on
TEXT Turns it off,giving a text adventure.
GET $n$ Get object number $n$. If it isn't here, or you've already got it, or it's too heavy, then the appropriate message is printed.
DROP $n$ Drop object number $n$. 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

| $\begin{aligned} & \text { OBJ n } \\ & \text { LIST } n \\ & \text { LIST WITH } \\ & \times \text { TO } n \end{aligned}$ | will exchange the lamp and the lit lamp |
| :---: | :---: |
|  | Describe object number $n$. |
|  | List all the objects in room number $n$. |
|  | Lists all the objects carried with you. |
|  | Move object number $x$ to room $n$. To destroy an object move it to room 0 . |
| $\begin{aligned} & \text { SET } n n \\ & \text { RESE } n \end{aligned}$ | Set marker $n$. ${ }^{\text {Reset marker } n \text {. See SET? and RES? for an explanation }}$ |
|  | markers. |
| $\begin{aligned} & \text { XCSET } n \\ & \text { INCR } n \\ & \text { DECR } n \end{aligned}$ | Set $x$ to be the value of counter number $n$. |
|  | Increase counter $n$ by one. The maximum is 255. |
|  | Decrease counter $n$ by one. The minimum is 0 . |
|  | Trying to increase past 255 or decrease past 0 is ignored. |
| GOTO n CONN n | Go to room $n$ and describe the new ro |
|  | This checks through the connection table for a connection |
|  | from the current room using verb n. 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 |
|  | example, ${ }^{\text {give }} 2$ because in the connections from room 3 , verb 4 ( $W$ ( ) |
|  | would take you to room 2 . |
| STRE $n$ | Set the maximum weight you can carry to $n$. STRE is short for |
|  |  |
| BRIN n FIND n | Brings object $n$ here ( if it exists ) |
|  | Find object $n$ 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. |
| $\begin{aligned} & \text { SAVE } \\ & \text { LOAD } \end{aligned}$ | Saves the current game position to tape or disc |
|  | Loads the current game position from tape or disc. |
|  | These are useful for continuing a game after tea or after you get killed ! |
| $\begin{aligned} & \text { WAIT } \\ & \text { OKAY } \\ & \text { EXIT } \end{aligned}$ | Waits for a new command. |
|  | Prints "Okay" and awaits a new command. |
|  | 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 number three. |
| MESSPRINLFLF | Print message number $n$. |
|  | Print number $n$. |
|  | 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 $n$ | Holds up the game for $n$ fiftieths of a second. For example,to |
|  | freeze for ten seconds, do HOLD 500 |
| + | As you may expect, this returns the value of $x$ added to |
| $x-y$ | And this gives the value of $x-y$ |

In all the above, $n, x$ and $y$ need not be simple numbers. They $c a n$ be complex expressions ( like $2+2$ instead of 4 or other words returning values, like NOl or CTR 1), but expressions should be enclosed in brackets. In fact, the program will enclose everything in brackets when you next edit the conditions. For example
will become :

```
IF ( VERB ( 3 ) ) GET ( 1 ) OKAY END
```

The translation is in a very similar order to the English condition as you might write it. You can see the translations of the conditions in the next section. Things that are TRUE are given a number value of l, and things FALSE are given a value of 0 . This can have an effect on the ordering of the conditions, since THEY ARE WORKED OUT FROM LEFT TO RIGHT. To work out

$$
\begin{aligned}
& 2+2+\text { CTR }(9) \\
& 4
\end{aligned}
$$

But to test if counter 9 is greater than $4+5$ needs more care... WRONG

$$
\begin{aligned}
& \operatorname{CTR}(9)>4+5 \\
& \text { true }=1+1=5=6
\end{aligned}
$$

This six is not a true-or-false answer and may lead to confusion. RIGHT

$$
\backslash_{9}^{+}<T_{7}^{5}<T_{R}(9)
$$

$$
=\text { TRUE (1) }
$$

This is a real true-or-false answer. In general in conditions, put all the more complicated things which require two numbers first ( eg,,+-$\rangle,\langle,=$ and so on) and there will be no bother. If you can't see a way round it, try using counters for storing intermediate results.

## SECTION FIVE

Our Small Adventure
Final Data with notes

This is the final data for our adventure as it stands. In this section I will also cover how to type things in, and how to edit them if you go wrong. The adventure can be found on the " B " side of the tape ( or elsewhere on the disc), saved as a GAC data file.

Firstly, the nouns and verbs. To enter these, run the program, which will give you the main menu. Press either "N" for nouns or "V" for verbs, and the screen will then show a display consisting of an arrow, "EDIT NOUNS" or "EDIT VERBS" at the top, whichever you typed, and a small menu at the bottom.

TO ADD A NEW WORD just type its number, a space, then the word itself. Then press the ENTER key. This will move the entry you typed in to beside the arrow. Note that any words after the first will be ignored, and the word will be inserted in alphabetical order.

TO DELETE A WORD use the UP and DOWN keys to move the arrow to the word which you want to delete, then press the DEL key. To restore the last word deleted, press the CLR key ( next to DEL ).

TO EDIT A WORD, use the UP and DOWN keys to move the arrow to the word you want to edit, then press the ENTER key. The word will then be moved to the bottom of the screen, where you can edit it using the left and right cursor keys, the DEL key and the CLR key ). When you are satisfied, press ENTER to return it to the list.

TO RETURN TO THE MAIN MENU press the ESC key, as usual.
The nouns and verbs to type in are:


FOR EASE OF LOCATION, THE GAC WILL SORT THESE ALPHABETICALLY.
Now for the room descriptions. Get back to the main menu, and press key "R". The screen will clear and show "Which room number ?...". You can enter the room descriptions in any order, but for ease, let's do it in order. So the first room is room one, so type l then press ENTER. The screen will clear, showing "Room 1 is ...", and a little cursor. This cursor means that you can type things in. Type in the room description, then press ENTER. Don't try not to split words over the end of a line ; when you run the adventure this will automatically be formatted for you.

NOTE- It is useful to enter the verbs before the room connections are made.

You should now see "Connections are..." and another cursor. Type in the connections and press ENTER. For example, " W 2 " from room 3. If you have done something wrong, then you will get one of two messages.

The first is "Error: no such verb" which means that it didn't understand one of the words you typed in. Have you entered the verbs yet ? If not, it won't understand any verbs because it doesn't know any. If so, press ESC until you get back to the main menu, then enter the verbs you will need. Alternatively, you may have spelled one of the words wrongly ( or differently to the way you spelled it in the verb table). If so edit the line and correct it. Then press enter.

The second is "Error: can't move to room 0", which means either you've missed out a room number, or a space perhaps, or the room number is actually 0 . The solution is to correct the room number, or insert a space or a new number.

The last part asks which picture goes with this room. If you don't want a picture, answer 0. As with all parts of the GAC, this section is fully editable so if you wish to include a picture here later there is no problem! If you do, give the picture number of the one you want. Note that it must already exist, otherwise you will get "Picture doesn't exist" and a chance to correct it.Several rooms can use the same picture.

This brings you back to "Which room number" again. If you have finished, press "ESC" to get back to the main menu, or the next room number if you haven't. Here are the room descriptions:

Room No. Description ( as it would appear )
1 You are above the ground. There is a cave

2 You are in a large cavern. Passages lead east,west and south.

3 You are in a cave.A snake is asleep in a corner and exits lead east and west.

4 You are by a small lake. The only exit is west.

5 You are outside a castle. A tunnel leads to the north and a large door can be see $n$ to the east.

6 You are in the castle strongroom. A door

## Connections

> entrance to the east.

3 ( press ENTER ) stands open to the west.

I will leave pictures up to you !
The objects are accessed by pressing key "O" from the main menu. The entry procedure is very similar to that for the room descriptions, in that you give the object number, then the object description, then extra information ( the weight of the object and where it starts). One additional feature is that, if you are asked "Which object number ?...", then just pressing ENTER will take you on to the next object. Try it and see.

Here is the data for the objects:

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

Note that the descriptions should always start so that things like :
You haven't got a lamp
You are carrying a lamp, a dead rat, a gold bar
make sense. The easiest way to do this is to start tham with "a","an", or "some", in small letters. It mars an adventure slightly to see: You haven't got A lamp
or You haven't got Lamp
which don't read well.
The messages are entered by pressing key "M" whilst in the main menu. You are asked which message number, then what the message is. Our messages are to be found in section two, where we introduced them, so I will not repeat myself here.

As well as these, there are some messages the system uses, and you should
enter these,too. They are put in as messages so that you can change them you wish. They are:

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.
The use of these will become clear ( I hope ! ) whilst playing the game.
The above messages are included with many useful standard verbs, nouns, and low priority conditions in another file on the "B" side of the tape ( or elsewhere on the disc). It will save you having to type in these standard messages every time you reset the GAC, by just loading them in. Details of what is included in this package are given in appendix $B$.

Last, but certainly not least, are the conditions. These are accessed by "L" for low priority, "H" for high priority, and "C" for conditions (local) from the main menu. They are all dealt with in much the same way, except that with the local conditions you must give their room number first, and when you press ESC, you get back to the "Which room number" rather than the main menu. To get back to there, press ESC again.

The first thing that happens is you get a prompt saying "Which line number". Enter 1 to start with, since we want to start on the first line. Press the ENTER key and "Line 1 is..." and a cursor will appear. Type in the conditions and press ENTER. If all is well, you should get back to the "Which line number ?..." prompt again. To go on to the next line just press ENTER at this point.

If all is not well, then you will get "I don't understand" and the line will be redisplayed for editing. There are several reasons why this can occur.

The first is that it doesn't understand a word you have typed. Eg
IF ( VREB 1 ) GOTO 3 END
will fail because it doesn't understand the word "VREB". It should, of course, be "VERB".

The second is that the brackets don't match. Neither of
$\left.\begin{array}{l}\text { IF (VERB ( } 1 \\ \text { or }) \text { GOTO } 3 \text { END } \\ \text { IF VERB }(1)\end{array}\right)$ GOTO 3 END
will work ; the first has one "(" too many, the second has one ")" too many.

The third is that you have a result not going anywhere. For example IF ( VERB ( 1 ) ) $2+2$ END
the result of $2+2$ ( ie 4 ) is not being used by anything. This will lead to an error.

The other common thing done is not to leave enough spaces in the line. The words are detected by the spaces between them. This example IFVERB 1 GOTO 3 END
will fail because the GAC does not understand the word "IFVERB"

The conditions we need are:
i.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 4 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 O 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 (ie 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 open since if it was, the last line would have worked and we would be waiting for a new comand 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.Low Priority Those marked "*" are included in the Quickstart file

IF ( VERB 20 ) MESS 249 PRIN CTR O 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 ( NOI $=0$ AND VERB 7 ) MESS 19 WAIT END If you typed "GET" by itself or with an unrecognized word, print message nineteen "I'm sorry,but I don't know what one of those is..."
IF ( NOI $=0$ AND VERB 8 ) MESS 19 WAIT END And similarly for "DROP"
IF ( NOI $=0$ 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 ( NOI < 5 AND VERB 7 ) GET NOI 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 ( NOI < 5 AND VERB 16 AND AVAI NOI) MESS NOI WAIT END
If you typed "EXAMINE" and a noun whose number is less than five, 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 22 TO O MESS 17 WAIT END
If you typed "EAT RAT" and you are carrying it, drop it,move it 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 O 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 O 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 on disc or tape

* IF (VERB 15) LOAD LOOK WAIT END

If you typed "LOAD" then load in a previously saved game position.
iii.High Priority

IF ( RES? 6 ) SET 6 STRE 1113 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 ( O 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 22 TO O 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 REES? 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 (ÁT 1 AND CARR 4 ) MESS 9 EXIT END
If you are back at the start carrying the gold then you win!

The final thing is to tell the program which room to main menu, option "B", begin where, will show you where moment. To change this, delete the number present ( press the CLR key
several times ) and type the new room number, then return. Our adventurer starts in room l.

Now, you can save the adventure on to tape or disc by pressing "S" in the main menu. If you have a disc drive you will be asked "Disc or Tape ?...". If you want to save to disc, press "D", to tape press "T". Then you will be asked whether you want to save a Data file or a Runnable adventure. A data file can be loaded in to the GAC program again using the "T" command from the main menu. The runnable adventure option saves an adventure which you can play without having to load the GAC first. For example, let's say you saved the adventure under the name "TESTADV". After saving to tape or disc, and resetting the machine, typing RUN "TESTADV" then ENTER will load the adventure in and start it. Note that you cannot edit the adventure this way. This is useful for writing adventures that you want to give to friends so that they cannot look at how you wrote the conditions and solve the adventure that way, or if you wish to sell the adventure. If you do wish to sell your adventure, you will NOT be asked to hand over any payment whatsoever to us. You have created the adventure, so the credit is deserved by you! But, that said, you should include with the adventure something stating that it was written using the Graphic Adventure Creator, (c) 1985 by Sean Ellis/Incentive Software.

In the GAC, anywhere where you are asked for a name for saving something on tape, be it a game position, data file,or runnable adventure, preceding the name with a star "*" will select the fast ( 2000 baud) tape speed. If it is omitted, the "supersafe" slow speed is selected. If you are saving to disc this mode of operation is entirely ignored. For example, calling your data file "MYDATA" will save at the slow speed, calling it "*MYDATA" will save at the fast speed. This does not call the file on the tape "*MYDATA", however: the leading "*" is ignored.

To test your adventure, get back to the main menu and press "ENTER" to enter the adventure. If all goes well, you should be able to play it. There are several errors that can occur, though.

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. This is most probably where the error occurred. However they can occur when scanning the connections or trying to print out messages in situations like "You don't have a gold bar", in which case they are not printed.

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 which 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 in or you have tried to load a counter with a number greater than 255.

The situations are so varied that I cannot hope to explain what to do in any situation, but 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 ?

## EDITING AND DELETING THINGS

To edit something, follow the procedure to enter it, and instead of empty lines to enter things on, you will get what was there before. To skip to the next part just press ENTER. You are free to edit things as you go along, but don't press ESC before you get to "Which room/object/line number ?..." because if you do, the new information will not be loaded back into memory.

To delete something, follow the procedure to enter it, but edit the first bit of data to be a blank line (no spaces, nothing ! ).

For example, to edit object one to read "a torch" rather than "a lamp", press "O" from the main menu, then enter 1 for the object number, edit the object description from "a lamp" to "a torch", then press ENTER, then press ENTER until you get back to "Which object number ?..." at the bottom, then press ESC to get back to the main menu. It sounds difficult to explain, but it is rather easier to do!

When you are testing an adventure, the way to return to the main menu is to press the ESC key, as usual. This gives you the message "Press D for diagnostics or ESC to escape...". 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 "ESC" again, then you will get back to the main menu.
There is one very useful feature on the main menu which I have not yet mentioned. This is the printer menu, which allows you to print out any of the sections of data in the adventure to an Amstrad printer (or a compatible one). To access it,press "P" from the main menu, upon which the printer menu will appear on the screen. You may now press the appropriate key for the section you want to print out ; L for low priority conditions, R for room descriptions, etc.

If you want to stop printing, or you have attempted this without a printer attached, hold the ESC key down until the cursor reappears by the "Select one of the above please..." message.

This feature is especially useful for listing out vocabulary, messages, room descriptions, and objects, so that they can be referred to when writing the conditions.

SECTION SIX
Commanding the Adventure
A deeper look at player commands

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 command 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: $\quad 3$ GOLD
VERBS: 1 NORTH
7 GET
8 PUT 16 EXAMINE
ADVERBS: 1 IN

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 then scanned for verbs, adverbs, and nouns in that order, and any found have their numbers stored.

```
Get the gold
Examine it
Put it in the box
Go north
VERB
7
16
8
1
1
```

ADVE
0
0
1
0

| NOUN1 | NOUN2 |
| :---: | :---: |
| 3 | 0 |
| 255 | 0 |
| 255 | 7 |
| 0 | 0 |

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

Get the gold
Examine it
Put it in the box
Go north

| VERB | ADVE | NOUN1 | NOUN2 |
| :---: | :---: | :---: | :---: |
| 7 | 0 | 3 | 0 |
| 16 | 0 | 3 | 0 |
| 8 | 1 | 3 | 7 |
| 1 | 0 | 0 | 0 |

These values are then passed to the connection table, and then to the conditions.

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 disinguished between.

## ABOUT THE AUTHOR

The Graphic Adventure Creator is the result of over a year of intensive programming and development by Sean Ellis, a nineteen year old undergraduate in Cybernetics and Computer Science at Reading University. The Graphic Adventure Creator has been designed and developed specifically for the Amstrad range of CPC computers, with the aid of lots of coffee and a battered copy of "The Hitch Hiker's Guide to the Galaxy".

## APPENDIX

APPENDIX A<br>-----------<br>Handy Reference Sheet

Colours for graphics
SPACE: black
A: blue
B: bright blue
C: redjbrown
D: magenta
E: mauve
F: bright red
G: purple
H: bright magenta

I: green
J: cyan
K: sky blue
L: yellow/brown
M: white/grey
$N:$ pastel blue
0: orange
P: pink
$Q$ : pastel magenta

R: bright green
S: sea green
T: bright cyan
U: lime green
$V$ : pastel green
$W$ : pastel cyan
$X$ : gold
$Y$ : pastel yellow
Z: white

Words used in conditions

| Words: | VERB $n$ | NOUN $n$ | ADVE $n$ | NO1 | N02 | VBNO |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Objects: | $\begin{aligned} & \text { GET } n \\ & \text { OBJ } n \end{aligned}$ | $\begin{array}{ll} \text { DROP } & n \\ \text { LIST } \end{array}$ | $\begin{aligned} & x \operatorname{SWAP} y \\ & \text { WEIG } n \end{aligned}$ | HERE n STRE n | CARR $n$ $\times \text { T0 } n$ | AVAI $n$ BRIN n | $\begin{aligned} & x \text { IN } y \\ & \text { FIND } \end{aligned}$ |
| Markers: | SET $n$ | RESE $n$ | SET? n | RES? $n$ |  |  |  |
| Counters: | : CSET $n$ | INCR $n$ | DECR $n$ | CTR $n$ | $\times$ EQU? $n$ | TURN |  |
| Rooms: | GOTO $n$ | CONN $n$ | ROOM | AT $n$ | DESC $n$ | LOOK |  |
| Command: | OKAY | WAIT | EXIT | QUIT |  |  |  |
| Decision: |  | END |  |  |  |  |  |
| Tape: | SAVE | LOAD |  |  |  |  |  |
| Other: | $\begin{aligned} & \text { MESS } n \\ & x>y^{\prime} \\ & \text { PRIN } \end{aligned}$ | $\begin{aligned} & x+y \\ & x<y \\ & \text { HOLD } \end{aligned}$ | $\begin{aligned} & x-y \\ & x=y \\ & \text { LF }=y \end{aligned}$ | $\begin{aligned} & c \text { AND } c^{\prime} \\ & \text { WITH } \end{aligned}$ | $\begin{aligned} & \text { c OR c' } \\ & \text { PICT } \end{aligned}$ | $\begin{aligned} & \text { c XXOR c' } \\ & \text { TEXT } \end{aligned}$ | $\begin{aligned} & \text { NOT } c \\ & \text { RAND } \quad x \end{aligned}$ |

> Ranges of numbers
> Rooms: 1 .. 9999
> Objects: 1 .. 255
> Messages: $1 \ldots 255$
> Verbs: 1 .. 255
> Nouns: 1 .. 255
> Adverbs: 1 .. 255
> Markers: 0 .. 255
> Counters: 0 .. 127
> [ which store: 0 .. 255 ]

## APPENDIX

## APPENDIX B

## 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

6 D
6 D
6 DOWN
8 DROP
3 E 3 EAST
16 EXAMINE
7 GET
13 GRAPHICS
10 INVENTORY
9 L
10 LIST
15 LOAD
9 LOOK
1 N
1 NORTH
13 PICTURES
11 QUIT
15 RESTORE
2 S
14 SAVE
2 SOUTH
7 TAKE
12 TEXT
5 U
5 UP
4 W
4 WEST
12 WORDS

NOUNS

255 IT

MESSAGES
239 You are carrying
240 What now?...
241 You can't.
242 Pardon?
243 Press a key for another game...
244 Are you sure? ( $Y / N$ )...
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 is dark. You can't see.
252 I can't find that anywhere.
253 You can also see
254 Okay
255 turns.

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 tha 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.
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[^0]:    * LENSLOK is a trademark of ASAP Developments Ltd.

