Introduction

The PResS is a very powerful and versatile text compressor for
use with The Quill Adventure Writing System. It can be used with
both graphic and text-only adventures, and most of the "Patch"
routines are available.

The Expander is a companion program to the PResS, which enables
the writer to add text to a database beyond the normal top limit.
When used to write a "text only" adventure in conjunction with
the Quill and PResS, more than 40K of text is possible.

Before using either of the programs, you should ensure that you
fully understand how to use The Quill and The Illustrator.

Although a SAVE/LOAD to/from microdrive feature is included in
both programs, you are advised to save your databases to tape
regularly. Microdrive "crashes" are not uncommon, and you will
need a tape save of both text and graphic databases to assemble
the final adventure.

As always, careful planning is necessary to ensure you get the
most out of the facilities available to you. For instance the
PResS works by replacing sequences of characters with "tokens" so
you should try to be consistant in the way your text is
presented, and the Expander can only AMEND descriptions and
messages so there must be the correct number present (even blank
ones) before it's used.

With the Quill, Ilustrator, PResS and Expander you have the power
to produce adventures of a professional standard.

I hope you have as much pleasure using these two programs as I
had writing them. (most of the time!)

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USING THE PReSS

When writing your adventure, you will have extra considerations to bear in mind if you intend to use the PReSS.

I M P O R T A N T

The golden rule is:- DO NOT INCLUDE TOKENS anywhere in your TEXT.

"Tokens" are those keywords (OUT, IN, RUN, LET etc.) and double symbols (<=,<>,>=,) which can be inserted with one keypress. The PReSS will ignore such tokens when compressing, but as it uses them to replace text which runs the finished adventure will expand them into text - producing garbage. "Text" means location descriptions, messages, system messages and object text. You are, however, free to use User defined Graphics (U.D.G.s) and block graphics (those on the number keys) as they are treated like any other characters.

There are also a number of useful enhancements available, which use flags 27 and 28. These are covered in the "Patch" section later in this manual.

If you are writing an adventure with graphics (Illustrator) you need to finalise the text section first so that you know how much memory is available for pictures. With the PReSS, you should find that you can write a FULL SIZED text adventure which when compressed will have plenty of room for your graphics database. No longer need graphics be at the expense of good descriptive text!

A "text only" adventure can now use all the memory, with the help of the Expander, and a compressed database may be expanded then re-compressed until you reach the top of memory. The "logic" of the game (Status and Event tables, flags etc.) should be finalised early on, as you will be unable to use the Quill to edit the entries once you have gone past the Quill "ceiling".

Be sure to keep copies of early versions of your adventure database (clearly labelled) so that you can go back and make amendments if bugs are found in the finished adventure. As dictionaries are saved without a "header", you should ALWAYS label the cassette with the nature of the dictionary saved on it. You're going to need some spare cassettes.

Although a compressed database may be loaded back into the Quill, do not rely on being able to edit the compressed text because,
a) it will look very odd; a jumble of keywords; and
b) the compressor can split colour control codes giving "invalid colour" errors.

You can get round a) by selecting "amend", then press EDIT (CAPS SHIFT & 1) to clear the edit buffer, then re-type the amended text. If b) occurs you will have to edit the original database and then recompress using option (D) - see later.

LOADING The PReSS

The PReSS may be loaded directly from BASIC, using LOAD "", or more usefully may be loaded from the Quill or the Expander by using the LOAD DATABASE option - leaving your text database intact in memory. If you have loaded from BASIC you should load in your database before using any other options. The PReSS can tell if there's a database in memory, and will produce an "Out of DATA" error if you attempt to do anything other than load a database.

The MAIN MENU is similar to that of the Quill and includes the usual options to load/save/verify a database. However, the other options will be new to you.

(A) LOAD DICTIONARY - This option allows you to load into a buffer a dictionary you have previously saved to tape. It can then be used with option (D) below. The PReSS will allow only a dictionary to be loaded, and will ignore any other code file you try to load.

(B) SAVE DICTIONARY - Allows you to save a dictionary created using the Compile and Compress option (C). This is a very useful facility, as it allows you to compress another database (probably written in much the same style) with option (D). This is very much faster than (C). If a compressed database is in memory, it will be the dictionary contained in it which is saved. It's a good idea to save the dictionary after the compressed database to save you the trouble of having to load in a database just to extract its dictionary.

(C) COMPILE AND COMPRESS - This option is very powerful, and will simultaneously compile the best possible dictionary from your database and carry out compression. If your database is not in English, or is written entirely in BLOCK CAPITALS, or you simply want the best possible compression, then this is the option to use rather than (D). After selecting (C) you will be asked "Fast or Slow?". (Pressing "SPACE" rather than F or S will take you back to the Main Menu). Fast will take between 30 minutes and one hour, depending on the size of the database, while Slow will take ten times as long. "Fast" will always produce a better result than using a dictionary from another database, and "Slow" will usually produce a better result than Fast.

The PReSS will look at 50 (or 500 on Slow) combinations of characters and use the one which occurs most often. It will do this for each of the 90 tokens used to replace text. After pressing F or S you will be asked "Locations or Messages?", if both texts are of sufficient length. If there is more than 1K difference, the PReSS will flash the L or M to show which is longer. If you just press Enter, the PReSS will choose evenly between the two texts when selecting character patterns to search for. Pressing L or M will "bias" the PReSS in the ratio of 3:1 in favour of your selection.

The PRess uses a pseudo random element when deciding where to start looking for character patterns within the Location and Message texts, so if you have the time you may wish to experiment. The differences in bytes saved will not usually be more than 200, but if you're anxious to extract every last byte the option is there.

After pressing L or M, the screen will show a countdown from 90-0 so you can see how compression is progressing. Above the countdown figure you'll see a couple of character squares which should be constantly changing colour. They are there just to show you that the computer has not gone to sleep! (For the technical: every time the PRess finds an occurance of the pattern it's looking for it increments the DE register pair to keep a count. "E" is then used for the colours).

When compression is finished, the countdown will show "DONE", the dictionary just compiled will be inserted into the database, and the screen will show the number of bytes saved by the compression. Also shown will be the top of database figure i.e. the first spare byte after your compressed database. You'll need this figure if you are going to use your own machine code routines as explained in the Pokes section. (If you forget it, it's always shown when selecting (T) to load a typeface).

The compressed database should now be saved to cassette (for safety) or you may wish to save just the dictionary for later use as the (D) option only takes a few minutes to compress.

N.B. If you select (C) with a database in memory which is already compressed (even if you've since added more text) the PRess will know what you mean and select option (D) instead.

The database to be compressed MUST have AT LEAST 2000 bytes in either Location or Message texts to function properly. If for some reason you are attempting to compile and compress a database with less than the above amount of text, you will get the error message "Nonsense in BASIC" either right at the start or, more annoyingly, part way through the attempted compression. If this happens, you must re-load your database (which may have been corrupted by the aborted compression) and use option (D) instead, after loading a suitable dictionary.

(D) USE DICTIONARY - You can compress a database in 2-3 minutes using this option. If you're using the dictionary specific to the database in memory the result will be identical to that obtained using the (C) option.

When the PRess is first loaded, there will be a general purpose dictionary already in the buffer. If your adventure has been written in English, in the usual mixture of CAPITAL and lower case letters, then this dictionary will produce a result which should be quite good - but not as good as (C) would have produced.

Whilst compressing, a countdown from 90-0 is displayed (similar to (C) above) but without the coloured squares. After compression the number of bytes saved and new "Top" value are shown, just like the (C) option.

If you add text to a compressed database, perhaps along with other amendments to the game's logic, you can re-compress by loading in the PRess (LOAD DATABASE from the Quill or Expander) and selecting option (D). Obviously, only "fresh" text will be compressed so don't expect another 8K!

If the dictionary you're using is TOTALLY incompatible with your database (most unlikely to happen) the "bytes saved" report will show an astronomical figure (½65000) which means your database is now LONGER then it was before, as the new Top value will confirm. As all dictionaries tend to include double spaces, CHR$ 6's etc., I have been unable to get this to happen whilst testing the program.

(I) SAVE DATABASE - This works exactly as in the Quill, but if you make the FIRST character of the file name a colon (:) the program will save the database to microdrive 1. The colon counts as part of the filename, and will be shown on a CAT. The database is saved to microdrive as a PRINT file, and it is not possible to verify it. For this reason, together with the occasional unreliability of microdrives, it is advisable to make periodic saves to tape also. Unless your Quill is version C05 or above, you will need a tape copy in order to make amendments with the Quill. The Expander will load microdrive files saved from the PRess and vice versa.

(J) VERIFY DATABASE - As with the Quill. Will not verify a database saved to microdrive.

(K) LOAD DATABASE - Works as with the Quill, but will attempt to load from microdrive 1 if the first character of the filename is a colon.

This option is also used to load the Expander (leaving the database intact in memory) or the Auto-saver program.

(T) LOAD TYPEFACE - This option is available only when a compressed database is in memory, otherwise you get "Parameter Error". A typeface (also known as a character set or font) consists of 96 characters starting with "space" and ending with the copyright symbol, and must be exactly 768 bytes long. There are many typeface designer programs on the market (including the excellent one from Gilsoft which comes with many ready-made sets) which will let you design your own. It does not matter from which address the typeface was saved.

The FIRST typeface loaded will be brought into action with Patch routine No. 6, while the SECOND typeface loaded will replace the Spectrum ROM character set. Trying to load a third set will produce the error report "Number too big".

You should use this option immediately after compressing, as you will then know exactly how many bytes you have spare for graphics or extra text.

N.B. The PReSS will load your typeface INTO THE SCREEN as a temporary measure, in case you get a tape loading error. After successful loading, the database will be moved up, and the typeface inserted above the dictionary. If any error does occur, the database will be left alone and you can attempt to load again.

Before loading, the current "Top" value is shown, which is updated after successful loading.

If there isn't enough room for the typeface (remember the PReSS needs 768 bytes itself at the top of memory) you'll get an "Out of memory" error. This is one reason why you should load your typeface(s) immediately after the first compression.

The first typeface sits at address 27789, and the second at 28557, so you can over-write them with other typefaces later (from BASIC) if you've loaded in the wrong ones or in the wrong order. PEEK 27567 will tell you how many typefaces are present in a compressed database.

PATCH ROUTINES

When writing your adventure there are a number of extra facilities available to you. Please read the following carefully to get the most from them. The Flag 28 numbers have been kept the same as in the original Patch program for maximum compatibility with databases written for that program.

All the features use NO ADDITIONAL MEMORY. This means that you will have the same "space" for your adventure as normal. You will, of course, need to include some extra commands in the database to invoke the various routines.

HOW TO USE THE "PATCH" ROUTINES

COLOURS

In a "normal" Illustrator adventure, you don't need to worry about the colours used in pictures, as the text is quite separate and the player never sees the two together. However, your pictures will now be displayed with the text.

To make things as easy as possible, The Patch alters the Illustrator interpreter (using quite an extensive re-write) so that the background colours, as specified in the Graphics Start Table, are carried through to the Quill. The Illustrator also sets PAPER 8 (transparent) and INK 9 (contrast), so your text should always be readable no matter what background colours you have used for the picture. You can, of course, use colour control codes buried in your Location Descriptions and Messages to over-ride the paper8/ink9 effect.

The background colours for a picture will be used, even if the pictures have been turned off or if the picture is not drawn because the player has previously visited the location. You can therefore rely on the Illustrator to set the colours for all locations which have a picture.

If a location is a "Subroutine", the Illustrator will NOT set any colours, and the colours used will be unchanged from the last location. This could mean that such a location will use different background colours depending on the direction in which the player is travelling. If this could be a problem, you can cater for it by specifying the wanted colours in the Event Table, and deleting the Movement Table entries.

If a player uses SAVE (or RAM SAVE) at a "subroutine" location, the colours used will be those current when using LOAD (or RAM LOAD). There is no easy way of overcoming this, but the colours will be properly set at the first location which has a picture. (This is also true in a "normal" Quill or Illustrator/Quill adventure).

FLAG 27 - THE LINE NUMBER

BEFORE a picture is drawn, Flag 27 must be set to the Line Number at which text printing is to start. It is recommended that you always use Location as an introduction screen, with no picture, and include the following entry early in the Status Table:- AT 0 LET 27 ** ANYKEY GOTO etc., where "**" is the line number appropriate for the first picture.

The Line Numbers used are not, unfortunately, the same as in BASIC. They are numbered 1-24 FROM THE BOTTOM OF THE SCREEN, so if Flag 27 is set to 15 - printing will commence on "BASIC" line 8. (If you use a value of less than 4 or more than 24, the Patch will ignore you and use a "default" value which is set as standard to 12. You could, therefore, use the default value throughout the adventure and release flag 27 for use as long as its value is 0 or greater than 24. You can also change the default value - see the later "POKES" section).

Resist the temptation to keep changing the picture size and the value of Flag 27. Remember that players travel "backwards" through an adventure at times, and you need Status or Event table entries to change the Flag.

When a picture has not been drawn, because there is no picture or the player is revisiting a location, printing starts at the top of the screen as normal.

The location descriptions may be as long as you like. If the description cannot all be printed under the picture, the prompt "More..." will appear in the bottom left of the screen. The computer then waits for the player to press a key before scrolling the text/picture and printing the rest of the text.

FLAG 28 & PAUSE - THE ROUTINES

All the other routines are accessed by setting Flag 28 to the appropriate number and using a PAUSE command. You can place the necessary entries in the Status or event Tables. The use of PAUSE in this way may seem a little strange at first, but you'll soon get used to it.

After a Routine has been executed, Flag 28 is RESET (i.e. made ZERO) so that any further PAUSE commands behave normally. This has been done to save memory, as otherwise you'd have to Reset it yourself after every use of a Routine. Some of the Routines use the value of the Pause to determine how many repeats, which also saves memory.

The following table shows the necessary setting for Flag 28, and also shows the effect of the number that you use after Pause. A "*" in the Pause column means any number may be used, as it has no effect, but you must still include a Pause command.

Value of Flag 28	Routine	Effect of PAUSE No.
0	Normal Pause Effect	Normal
1	Sound Effect 1 (Rising Siren)	Length
2	Sound Effect 2 (Telephone)	Repeats
3	Sound Effect 3 (Falling Siren)	Length
4	Sound Effect 4 (Electric Shock)	Repeats
5	Sound Effect 5 (White Noise - Long)	Repeats
6	Sound Effect 6 (White Noise - Short)	Repeats
7	Revert to normal typeface (or second one loaded)	
8	Use alternative typeface	*
9	Wipe routine (Text only)	*
10	Replace System Message 1 with System Message n	*
11	Set "Objects Conveyable" to value of Pause	n
12	Super-Quit (Restarts Adventure)	
13	Crash (Re-Sets Computer)	*
14	Increase "Object Conveyable" by value of Pause	n
15	Decrease "Objects Conveyable" by value of Pause	n
16	Normal Key-click	*
17	Low-pitched "beep" Key-click	*
18	High-pitched "beep" Key-click	*
19	Turn Pictures OFF - use pause value of 255 (OFFh1)	
19	Turn Pictures ON - any other pause value (the above two routines are for Split Screen only)	
20	Not used. (see text).	
21	RAM LOAD - Use Pause value of 50 (L = Roman 50)	
21	RAM SAVE - Use any other Pause value.	
22	Alter SAVE/LOAD flag number to Pause value	n

N.B. Any other value for Flag 28 produces the normal PAUSE effect, but Flag 28 is not cleared.

As an example, an entry (in Status or Event Table) of:-
   "LET 28 1 PAUSE 200 LET 28 4 PAUSE 2 PAUSE 50"
would cause:- A rising siren to sound (quite long), followed by the electric shock, followed by a pause of one second.

A more detailed description of each routine is given on the next pages.

THE ROUTINES IN DETAIL

0) A value of 0 (or any value greater than 22) for flag 28 will mean that a PAUSE command in the Status or Event tables will behave normally.

1) "LET 28 1 PAUSE n" will invoke the RISING SIREN sound effect. The value of PAUSE will determine the length i.e. the number of "notes" in the sound. The starting pitch is fixed.

2) The TELEPHONE sound effect is very distinctive, and consists of TWO warbles followed by a pause of 1 second. The pause value determines the number of repeats.

3) The FALLING SIREN uses the same starting pitch as 1) above, and is used in exactly the same way.

4) This is more than just a sound effect, and does the following:- All the attributes on the screen are made "negative" in that black becomes white and all the colours take on their "opposite" (blue/yellow etc.). There is then a short burst of white noise accompanied by a multi-coloured striped border. If you use an EVEN number for the Pause value, the screen will end up as normal. An ODD number will give a very odd effect.

5) The LONG WHITE NOISE sound effect, can be quite effective when used with repeats (pause value) and can sound like machinery.

6) The SHORT WHITE NOISE sound effect is actually a variant of 5) above, and is used in the same way.

7) "LET 28 7 PAUSE * " will cause the Quill to revert to the normal Spectrum type-face. The initialisation routines in the interpreter will also do this; a "QUIT" (or SUPER-QUIT) will always re-set the type-face to normal. If you loaded two typefaces, the second takes the place of the normal Spectrum ROM set.

8) "LET 28 8 PAUSE * " will switch to alternate typeface. If you did not load a typeface after compression you'll get a lot of garbage on the screen!

9) The WIPE routine (only available in text-only adventures) is called with a Flag 28 value of 9. The pause value does not matter but it should normally be followed by a CLS command or you will get some very odd effects. If it's used just before a GOTO loc. no., you may omit the CLS as the Quill will clear the screen before making the jump. If, for some strange reason, you do not possess a Series C Quill, you will be able to use "wipe" in the last named manner only, as Series A Quills do not have a CLS function.

This number just does a CLS in split screen adventures, but can be used as a spare number for your own routine.

10) "LET 28 10 PAUSE n " will cause the System Message "I can also see:-" to be replaced with System Message n. If n $\frac{1}{2}$29 the command is ignored. System Message 1 is reset after a Quit.

Note: System Message 5 is now spare for use by this routine.

The Quill will now choose between System messages 2, 3 and 4 in the ratio 45:45:10, when asking for input.

11) "LET 28 11 PAUSE n " will SET the maximum number of Objects Conveyable to the value of n.

12) "LET 28 12 PAUSE * " will cause a complete RE-START of the game, (SUPER-QUIT). This routine (and the normal QUIT) will also do the following "house-keeping":-

    Objects Conveyable re-set.
    Type-face re-set to normal.
    Pictures: ON:.
    Key-click normal.
    Save/Load flag reset to 255.
    + all usual re-sets as per normal Quill.

You should note that the player will NOT be asked "Do you really want to quit now?" (or whatever you have amended the System Message 12 to read) so you should warn the player of this fact in the instructions, or use a different word to invoke the routine. You should not include this routine as a hidden feature of the adventure, as some players can be quite big blokes.......

13) This routine (note the number!) will completely clear the player's Spectrum - just like RANDOMISE USR 0 or pulling the plug out. The player should certainly be warned of this (if you include the feature) and it's best to use some peculiar Vocab. words (like ZXZX ZXZX) to invoke it.

It is, of course, a handy way for the player to end a session without going through the normal QUIT routine or pulling the plug. You could, perhaps, also use it in a multi-part adventure where a password needs to be entered in part 2, but use a countdown flag to give the player the chance of making a couple of mistakes before making him/her reload.

14) "LET 28 14 PAUSE n " will INCREASE the maximum number of Objects Conveyable by n, but will not go past 255.

15) "LET 28 15 PAUSE n " will DECREASE the maximum number of Objects Conveyable by n. This routine is best used to add realism. e.g. If the player is carrying something heavy, or is tired, or is wearing something restricting he/she will not

be able to carry as many objects. If the offending garment is removed, or the heavy object is dropped, use routine 14 to amend objects conveyable.

16) This routine RE-SETS the key-click to the normal Quill type. The pause value is ignored, but must be included.

17) "LET 28 17 PAUSE * " will change the key-click to a low pitched beep. You could use this to warn of approaching danger, low energy, nearing the goal, wrong direction etc. If you tell the player of the significance in the instructions, it will add to the excitement.

18) This routine is similar to 17) above, but the key-board will emit a higher-pitched beep. Resist the temptation to over-use the above two routines - a beeping keyboard may annoy some players.

19) "LET 28 19 PAUSE 255 " will turn the pictures OFF. This can be very useful, and would normally be under the player's control to allow him/her to step quickly through your adventure to a certain point then restore the pictures. It has no effect on the picture already on the screen, unless you follow it with CLS! You could perhaps use the feature as a penalty, but then the player wouldn't see your works of art.

ANY OTHER value of pause, will turn the pictures ON, which will also have the effect of re-setting the pictures i.e. they will all be drawn the next time they're visited whether or not they've been visited before. If you include the command "DESC" after this routine, the player will get visible confirmation (if there's a picture) as the picture is drawn.

20) This number is spare to enable you to call your own machine code routines - see the pokes section later.

21) The following entry in the Event Table will invoke a RAM SAVE:-
    LET 28 21 PAUSE *   where * is not 50
(It's up to you to define the words which invoke it)

    LET 28 21 PAUSE 50   will invoke a RAM LOAD, and your player will be instantly transported to the position saved, just like a normal cassette load - but quicker.

If a player attempts a RAM LOAD without having first done a RAM SAVE, the Patch will simply ignore the command.

It should be obvious that the RAM-SAVEd game position is lost when the computer is switched off or cleared but a cassette save could immediately follow a RAM LOAD at the end of a partially successful sesion!

22) This routine will be new even to users of the Patch. It allows you to alter the "flag" used when saving/loading a game position. AS Z80 hackers know, a code file is usually saved with a flag value of 255, and the Quill is no exception. However, an entry of the form: LET 28 22 PAUSE 121 will alter this flag, for both loading and saving, from 255 to 121 (or whatever number you choose). This will stop players loading in saved game positions from other adventures as they'll be ignored.

When the player completes Part 1 of a multi-part adventure, you can change the flag again to match the different number you've set in part two. Thus the player can only load in a position from part one if it was saved from the correct position. This should make the writing of multi-part adventures a good deal easier.

N.B. The current number of Objects Conveyable, the Typeface and Key Click currently in use, are all SAVEd with a game position (RAM or Cassette). Immediately after a LOAD or RAM LOAD the Quill will use these values to set Typeface etc. before returning to the game.

POKES

The first figure given is for split screen adventures, the second (in brackets) is for text only - if applicable.

The default value for the printing line on split screen pictures is set to 12 (about halfway down the screen). This can be changed by POKEing address 64405 with the line number you wish to use as a default value. REMEMBER:- numbers start at 1, from the BOTTOM of the screen. DO NOT use a value less than 4 or greater than 24.

The "More..." message may be amended (split screen only). It sits at address 27331 and is 11 bytes long. The first two bytes are 20 (inverse) and 0. POKE 27332, 1 for an inverse message. The next two are 18 (flash) and 0. POKE 27334, 1 for a flashing message. The next 6 consist of "More.." at addresses 27335-27340, followed by 46+128=174 for the last full stop with the top bit set. If you change the prompt, you MUST add 128 to the ASCII code of the last character. You can lengthen the message by a couple of bytes only.

To change the cursor, you will need to POKE the following addresses:-

27166 & 27154 (27113 & 27101)	POKE with 255 minus ASCII code of cursor required. (It's 255 minus 32 = 223 for a space as standard)
27161 (27108)	POKE with 255 minus ASCII code of "marker" (ie "¼" as standard)

27160   POKE with 255 for a non inverse marker.
(27107)

27153 & 27165 POKE with 255 for a non-flashing cursor.
(27100 & 27112)

To alter the save/load flag right from the start, POKE 25071
(25065) with the number you wish to use. You can still change it
later, but a re-start will put it back to the value you've used
in the above poke.

If you know a little machine code, or have access to ready made
re-locatable routines you can use Patch routines 20 and 9 (9 for
split screen only) to call your machine code. All registers
(except IY) are saved by the Patch, and the routine should exit
with a RET. On entry to your routine, the A & B registers will
both contain the Pause number you used, and the HL register pair
will hold the entry address to the routine. You need to POKE the
low/high bytes of the address (which you get from "Top") into the
relevent location in the Patch routine table. The two byte
address for routine 20 is at 24993 and for routine 9 at 24971.
In text only adventures you may like to use routine 19 which is
unused. Its two byte address is at 24991. It should be quite
easy to use a music generator (like the Music-Box) which allows
you to assemble to any address.

THE E X P A N D E R

This program (found on the other side of the cassette from the
PResS) is most useful for Text-only adventures where room does
not have to be left for graphics. It gives 6938 bytes extra on
version CO2 and 7338 bytes extra on version CO5. With good
compression this could mean about 11K extra!

The Expander can be loaded from BASIC with LOAD "" (in which case
it also loads in a dummy database) or more usefully from the
Quill or PResS by using LOAD DATABASE.

When loaded you will see a menu rather like a cut-down version of
the Quill, which is indeed what the Expander is. It sits in low
memory, below your database, and allows you to AMEND Location
Texts and Message Texts WHICH HAVE ALREADY BEEN INSERTED using
the Quill. It CANNOT insert a new location or message, nor can
it amend objects, system messages or Event/Status table entries.

Before using it, you should have already inserted the correct
number of blank entries into the database using the Quill, and
then as much text as possible should be inserted in the usual
way. It's a good idea to just insert L52,L53, M14,M15 etc. in
the Locations and Messages for which you have insufficient memory
in the Quill, so that you can test the adventure properly. The
game should have been thoroughly tested before using the
Expander, as once you go beyond the "ceiling" of the Quill you
will be unable to amend any of the other tables.
The number of bytes spare is shown on the Main Menu and at

convenient points in the program. When you have only 768 bytes
left, the figure will flash to alert you to the fact that the
database is now too large to be loaded into the PResS. If you
are simply using the last bytes in the memory - after compression
etc., then you can load the SAVER (TEXT only) from the Expander.

The LOAD/SAVE/VERIFY database options work in the same way as for
the PResS and the SAVE/LOAD to/from microdrive 1 option is also
available.

The sub-menus for Location and Message texts allow printing on
screen or printer, and the amending of text.

The PResS may be loaded from the Expander with LOAD database, as
long as 768 bytes are spare. The database in memory will be left
intact ready for compression, or re-compression. If you compress
too early on in the process of building-up your text the
compile/compress option will be unaware of words which are later
added. However, the longer the database the longer it will take
to compress.

There is a copy of the TEXT auto-saver recorded after the
Expander.

THE AUTO-SAVERS

There are two "auto-saver" programs recorded on the cassette
after the PResS. The first is for Split-screen graphic
adventures, and has a filename of "SPLIT". The second is for
Text-only adventures, and has a filename of "TEXT".

SPLIT SCREEN

You must use your final version of the compressed database to
"initialise" a graphics database in the Illustrator. You'll then
know how many bytes you have for the pictures. Once the pictures
are completed, save the graphics database to cassette. Load in
the PResS (or the Quill) and load your text database.

Select LOAD DATABASE again, and type in the filename SPLIT.
Restart the tape to load in the auto-saver. Once loaded, you'll
see the prompt "LOAD DATA" so load in the Graphics database.

You then get the prompt "SCREENS?". If you have a loading screen
to load, press "y" and load the Screens file which can be the
whole screen (including the bottom two lines) and may have been
saved from any address. Once loaded you should press ENTER to
save the whole game to cassette. If you answered "n" to the
prompt "SCREENS?", you'll get the usual "Start tape and press any
key" message.

The program saves a short BASIC loader, followed by the SCREENS
if applicable (plus some machine code on the end to load the game
code without spoiling your picture with the usual "Bytes:"
messsage!) followed by the game code in one part.

If you press "b" when the program is waiting for a keypress, you'll be back in BASIC. ***BEWARE*** RAMTOP is VERY low (242991) so enter your POKEs ONE AT A TIME and DON'T try to use microdrives. If you don't need the auto-saver anymore, you can CLEAR 24662 to give yourself more room. To re-enter the auto saver (if you have not moved RAMTOP) enter RANDOMIZE USR 23390 to get the "SCREEN$?" prompt again.

You'll find that the game will have been saved with filenames as follows. The BASIC loader takes the name of the Graphics database. The SCREEN$, if there is one, takes the first 9 letters of the above name plus the keyword SCREEN$, and the game code also takes the first nine letters plus the keyword CODE.

You can if you wish load the auto-saver from BASIC, using LOAD "". If you do this you must LOAD the GRAPHICS database FIRST. You'll then get the LOAD DATA prompt again, and the text database is then loaded. Otherwise the procedure is the same as if you loaded the auto-saver by the first method, but the saved game will take its name from the text database.

TEXT ONLY

After the SPLIT saver on the cassette, and after the Expander on the other side, is the the TEXT auto-saver. To use it LOAD the Expander, LOAD your text-only database, then use LOAD database again to load the auto saver typing in the filename TEXT. You're taken straight to the prompt "SCREEN$?", and you should proceed as for the SPLIT saver above. However, the re-entry address to the auto-saver is 23392 this time.

If you prefer you may enter BASIC as soon as you get the "SCREEN$?" prompt, for SPLIT or TEXT, and immediately CLEAR 24662. You can then save your game code with SAVE "name" CODE 24663,40873.

The minimum BASIC loader you can use is

10 CLEAR 24662: LOAD "" CODE: RANDOMIZE USR 25000

SAVING SCREEN$ TO CASSETTE

After The "TEXT" saver on side 2 of the cassette, you will find two very short blocks of code named "SCREEN$ SAVE CODE 1" and "SCREEN$ SAVE CODE 2". If you LOAD each of these into the Illustrator, using Main Menu option "F" - LOAD GRAPHICS, you will be able to SAVE your pictures to cassette as a SCREEN$. To do this, select option A - GRAPHICS from the Main Menu, then option L (+ loc.no.). START YOUR RECORDER BEFORE PRESSING ENTER, as the SCREEN$ is saved immediately after drawing. This routine replaces the printer COPY facility.