

REVISOR

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PREFACE

Thank you for purchasing REVISOR, a useful aid to revision. Whether you are a student, a teacher or just want to learn you should find REVISOR indispensable.

REVISOR has been designed to enable the storage of information so that it can be reviewed either as multiple choice questions, as question and single answer or as pages of text utilising the unique 'memorise' facility. 'Memorise' enables sections of the screen to be blanked and restored repeatedly under your control helping in the necessary 'parrot-fashion' learning of facts.

Perhaps most importantly of all each question can have an associated explanation. So often revision programs simply display facts without teaching the pupil anything. Sensible explanations can greatly enhance a revision and learning package, and avoid the situation where pupils can only answer the questions they have seen before because they have no knowledge of the principles involved.

Multiple choice questions are marked automatically and the results can be output to a printer if required. Thus it should be possible to leave a group of pupils with a multiple choice test on the OL and see how they fared when the test has finished without having to be in attendance the whole time. While the use of OL's in schools is not widespread you may find this facility useful.

Editing is extremely quick and simple, and you have full control over screen layout.

Any or all pages of the file can be output to a printer thus greatly speeding up the production of printed multiple choice tests.

There is a lack of good revision software for the OL and we hope REVISOR will help fill the gap. If you create files which you think may be useful to others we would be pleased to consider them, either for packaging with REVISOR itself or for distributing as revision files in their own right. Just send the files to us on microdrive cartridge for an immediate reply. Of course if you wish to advertise and distribute your own revision files only, for use with REVISOR we shall have no objection.

Before you begin to write your own files we suggest you load the example files to give you an idea of what can be achieved and more importantly how to achieve it. Full instructions on how to use the files are given on page 13.

We hope you find REVISOR useful.

GETTING STARTED

To load REVISOR reset the computer, place the microdrive cartridge in drive 1 and press F1 or F2. The boot program will offer you the choice of multitasking with Superbasic or of working solely within REVISOR. The multitask option is preferable since it enables switching between REVISOR and Superbasic (or any other multitasking programs you have running) by pressing CTRL C. This is useful if you wish to initialise a printer or obtain a directory for example. REVISOR will now load from microdrive 1. If you own disc drives it is a simple matter to alter 'mdvi_' in lines 110 and 160 of the boot program to 'flpi_' or whichever device you wish to use.

REVISOR can also be loaded directly by using the command

```
EXEC mdvi_rev (or flpi_rev)
```

which will allow the use of CTRL C to return to Superbasic. EXEC_W can be used but will not allow a return to Superbasic until REVISOR is abandoned. Once REVISOR has loaded you will be asked for a file name. If you do not wish to load a file then just press ENTER. The file names used within REVISOR are the same type as those used in Superbasic. Examples of suitable file names for loading and saving operations are :

```
mdvi_quiz      flpi_test1
```

If you type a file name the length of the file is determined and the minimum amount of memory which must be reserved to accommodate the file is displayed. Now you are asked to reserve enough memory for the file. If you just wish to replay the file and you will not be needing any space for editing then just specify the minimum amount required. However if you intend to edit the file or you are starting a new file then you should reserve as much memory as you are likely to need. Once memory has been reserved it cannot be increased without abandoning REVISOR and reloading. The workspace size should be entered in units of one kilobyte (ie.1024 bytes). For example typing

```
10      (press ENTER)
```

will reserve 10K or just press ENTER to reserve 20K which is enough space for about 20,000 characters. The maximum which can be reserved on a standard 128K QL is about 40K.

If you specified a file name then an attempt will be made to load the file. Whether this is successful or not the main options menu will be displayed.

MAIN OPTIONS

The following options are available

Replay	Save	New
Edit	Load	X-eXit
Windows	Merge	Design

To select an option press the initial letter.

There now follows a description of each of the options in turn.

EDIT

A REVISOR file consists of a series of pages each of which can be in either question/answer format or text format.

Questions and answers are always displayed on the same page whereas a text page has the screen to itself. The text page has a number of special features when it is REPLAYed and these are discussed fully under that option.

An explanation can be attached to each question if required.

Editing in either format is achieved by selecting the EDIT option. Initially a question window and five answer windows are displayed. The number of answer windows displayed can be altered using the DESIGN option.

The active window for entering text is indicated by a dotted border and a flashing square (the cursor). To move between windows press ALT UP or ALT DOWN.

Text can be entered in two modes; insert mode and overwrite mode. To switch between modes press SHIFT F4.

INSERT MODE

In insert mode characters typed at the keyboard are inserted into the text on screen at the cursor position. Text to the right of the cursor is moved to the right to make room for the typed character. If the end of the line reaches the edge of the window then the part of the line to the right of the cursor is moved down to the next line leaving the remainder of the line blank for typing text. If the cursor reaches the end of the line then a new blank line will be created on the next line and the whole of the current word being typed will be moved to the new line. Note that no new line will be created if this would have resulted in some text moving off the bottom of the window. Characters can only be entered within the confines of the window.

OVERWRITE MODE

In overwrite mode typed characters also appear at the cursor position but they overwrite the character beneath them and text is not moved to make room for the new character. Hence new lines are not generated automatically and must be specifically requested by pressing ENTER (see below).

In either mode there are a number of cursor commands and these are listed below.

CURSOR COMMANDS

UP (↑)	Move cursor up one row	
DOWN (↓)	Move cursor down one row	
LEFT (←)	Move cursor left one character	
RIGHT (→)	Move cursor right one character	
CTRL LEFT	Delete character left (see below)	
CTRL RIGHT	Delete character right	
CTRL UP	Insert line above current line	
ALT LEFT	Cursor to start of line	
ALT RIGHT	Cursor to end of line	
ALT CTRL LEFT	Delete cursor line	
ALT CTRL RIGHT	Delete line to right of cursor	
SHIFT UP	Cursor to top of window	
SHIFT DOWN	Cursor to end of text	
ALT UP	Move to previous window	-(Question/Answer
ALT DOWN	Move to next window	-(format only

ENTER

Pressing ENTER will insert a new line into the text below the current line. Text to the right of the cursor position is moved onto the new line and the cursor moves to the start of the new line. Hence pressing ENTER has the effect of splitting lines at the cursor position.

CTRL LEFT

The most frequent use of CTRL LEFT is to delete one character to the left of the cursor. However if the cursor is positioned at the start of the line CTRL LEFT will link the current line with the previous one. If the total length of the new line is greater than the width of the window then the end of the line will overflow onto the next line.

During editing the function keys are used as follows :-

F1 Move to previous page
 F2 Display page as it will appear when it is replayed.
 F3 Access extended commands
 F4 Redraw screen
 F5 Move to next page

Pressing F1 or F5 will move to the previous or next page respectively. Keeping either key depressed will move rapidly through the file without displaying each page. The current page number is shown at the top right of the prompts window.

During editing the layout of the text is essentially the same as it will appear during REPLAY. However the borders are not displayed and the layout will change slightly if text from page 0 is incorporated (see below). Pressing F2 will REPLAY the page and then return to the editor.

F4 redraws the screen. This is useful if another program disrupts the screen display and is not likely to be needed otherwise.

F3 allows the extended commands to be used :-

GOTO	WIPE	MOVE	ON/ANS
COPY	DELETE	KEYS	TEXT

To select a command press the initial letter. To abandon a command at any stage press ESC.

GOTO - displays the specified page. Type the page number followed by ENTER. If the number typed lies beyond the end of the file or if just ENTER is typed then a blank page will be created at the end of the file.

COPY - copies the current answer window to another answer window, the displayed page to another or a block of pages to a new position. To select window, page or block type W, P or B. If you are COPYING a page or block you will be asked to specify a destination. The copy will be inserted immediately before the destination page and the file will be renumbered to allow for the insertion. The old page will not be removed from the file and hence there will now be two identical pages within the file. If you are COPYING a window then the window to be copied will be highlighted and surrounded by a thick dotted border - this may obscure some of the text but it is not permanent. Use UP and DOWN to select the window to which you wish to copy and press ENTER. Note that the text in the window will be completely overwritten. The old window will not be cleared.

WIPE - clears the current window or the whole of the displayed page. Press W or P.

DELETE - removes text from the file. The current window, the displayed page or a block of pages can be deleted. This command should

be used with care since text which has been deleted cannot be restored. Press ESC to abandon the command if you access it accidentally. Press W to delete the current window, P the displayed page and B for a block. W and P act immediately but B requires a range to be specified as for the COPY command. The difference between DELETE and WIPE is that DELETE removes the page from the file whereas WIPE simply clears the page, which remains available for re-entering text.

MOVE - is similar to the COPY command in operation except for two important points; firstly, after the page has been copied to the destination it is DELETED so there is only one copy of the page in the file, and secondly, when MOVEing an answer within a page the window is inserted at the new position and no windows are overwritten. After MOVE the file is renumbered hence it is possible that, although the page has been moved to the correct position within the file relative to the other pages, it may not be at the absolute number specified in the destination. It should be noted that if you intend to REPLAY the pages at random (set by the DESIGN option) then the position of the page within the file will make no difference when it is replayed. For this reason MOVE is intended for use when you want to create an ordered file perhaps with progressively difficult questions or with a page of prose followed by multiple choice comprehension questions. Since MOVE and COPY insert pages immediately before the destination page it is simple to MOVE a page to the start of the file simply by specifying a destination of 1. However pages cannot be MOVED directly to the end of the file since they are always inserted before the end page. This is easily overcome by MOVEing the end page to a position before the pages you have just moved resulting in these pages being at the end of the file.

KEYS - simply displays the direct commands available during editing.

TEXT and ON/ANS - alters the format of the page between text and question/answers format. When either T or Q is pressed a blank page is created at the end of the file in the respective format. When subsequent new pages are created by moving to the end of the file they will be in the format last specified by T or Q. A page always remains in the format in which it was first created.

In addition to the above commands there are three direct commands available when editing :-

- CTRL A Set correct answer
- CTRL E Enter/exit Explanation window
- CTRL S Warning sound when window full(on/off)

Pressing CTRL A cycles through the label windows highlighting the label attached to the correct answer. This is the answer which will be used in the auto-marking during REPLAY. CTRL A will have no effect on a TEXT page or if the maximum number of answers per question has been set to one.

CTRL E allows you to type text into the explanation window. Press it again to return to the question window. To move to the explanation on the next or previous page press F5 or F1. Text pages have no explanation and if you move to a text page or past the end of the file then the CTRL E will be cancelled. For more information on the explanation window see DESIGN and the example files.

CTRL S will alternately switch on and off the audible warning when the window becomes full.

Page 0

Page 0 is not normally REPLAYed since it contains text in

question/answer format which can be repeated throughout the file in selected questions.

If a question, answer or explanation window has the character '#' (ie SHIFT 3) at its top left corner then on REPLAY the text in the corresponding window of page 0 will be displayed above the text of the current window. The '#' character should be the only character on the first row since the remainder of the row is ignored.

Page 0 in combination with '#' is especially useful if you have a number of questions with similar explanations. For example, the example file 'chem' has a copy of the Periodic Table stored in the explanation window of page 0. Each question in the file has an explanation consisting of a '#' symbol followed by a specific explanation for that question. Hence when the file is REPLAYed the Periodic Table appears before each explanation but is only stored once in memory. Note the use of '[' (left bracket) to indicate the bottom blank line of the text to be inserted.

Text from page 0 cannot be incorporated into a page which is in text format.

WINDOWS

There are five main window types:-

Question Answer Explanation Label Text

Question and answer windows are always displayed on the same screen. The maximum number of answer windows to be displayed during editing is set by the DESIGN option. During REPLAY the number of answer windows displayed depends on the number of answers typed for that particular question. Blank answer windows are not displayed during REPLAY.

The explanation window can appear either on the same screen as the question/answer windows or it can have a screen to itself (set by the DESIGN command).

The text window always has the screen to itself.

Each answer window has an associated label window which is attached at its top-left corner. The width of the answer window as set by WINDOWS is reduced by the width of the label window and allowance should be made for this when setting the answer width. The width of the label window is determined by the label text size. Similarly the width of the text window includes one column on each side of the window for the arrow heads which appear during replay.

Window size, position, colour and text size can be changed at anytime by selecting the WINDOWS option. Press the initial letter to select a window type. Now press P, I, B or T to cycle through the paper, ink, border colours and the text sizes respectively. The text sizes displayed correspond to those available when using the Superbasic CSIZE command. The effect of the changes is shown in the example window. Note that in screen mode 4 there are only four colours available and in mode 8 only the larger text sizes are available.

To change the window size and position press S. The screen will be cleared and the current size and position will be shown. Use the cursor keys to alter the position of the window. Pressing SHIFT with the cursor keys moves the window 10 pixels at a time. Press ALT with the cursor keys to change the window size.

If the question or answer windows have been selected then both types of window will be displayed together so that they can be positioned relative to each other to ensure that no overlap occurs. Although it is possible to overlap windows this is not recommended since text will obscure other text as it is typed.

The windows must be large enough to accommodate the text which is to be stored or that has already been stored. If the window size is reduced so that text which could previously be displayed now lies outside the window then it will not be possible to edit the text. If this situation occurs (after the window or text size has been altered or after merging a file which used larger windows) then you are given the option of WIPEing the offending window (in which case the text will be removed from the file), or of pressing ESC to return to the main options menu. You should then select WINDOWS to make the text size smaller or enlarge the window.

In REPLAY, if the window is too small for the stored text then the text outside the window is ignored and no error is given.

DESIGN

 This option alters the way in which pages are displayed when they are REPLAYed or PRINTed. To select an item to change press the initial letter of the row. The first six rows simply alternate between 'YES' and 'NO' while the remainder require further input - just follow the instructions in the prompts window.

Q-Question mark (Yes/No)

Displays a question mark at the end of each question.

P-Pages random (Yes/No)

Causes the pages to be displayed at random. If a range has been defined for REPLAY then only the pages within the range will be randomised. The order of pages within the editing file is not altered. Every page within the range is displayed only once.

A-Answers random (Yes/No)

Randomises the order in which answers are displayed for each question. The correct answer label remains with the correct answer so that automatic marking of responses still occurs.

C-Cancel edit facility (Yes/No)

When set to YES prevents use of the EDIT, MERGE, WINDOWS and DESIGN options. This is useful if you are creating a file for somebody else to use and you do not wish them to alter the file in any way. Alternatively you may wish to prevent yourself from accidentally deleting any text in a completed file. To restore the edit facility from the main options menu press the ALT, CTRL, SHIFT and CAPS LOCK keys simultaneously. The method of restoring the edit facility is not displayed on the menu since this would defeat the object of switching it off in the first place.

E-Explanation separate (Yes/No)

If set to YES causes the screen display to clear before the explanation window is displayed - either during EDITING or during REPLAY. If set to NO the explanation window will be displayed at the same time as the question/answer windows. Any text in the explanation window is displayed during EDITING but is not displayed in REPLAY until the question has been attempted (if it is a multiple choice question) and TAB has been pressed. The example files supplied show different uses of the explanation window.

B-Beep (Yes/No)

Choosing an answer in a multiple choice question will make a sound if beep is set to YES - an encouraging (hopefully!) ascending tone if the response is correct and a descending tone if incorrect.

L-Label Type

Sets the type of keys which will be displayed in the label windows and which will be accepted as a response to a multiple choice question. There are three possible types :-

- (i) the function keys (F1-F5)
- (ii) letters (A-E)
- (iii) numbers (1-5)

Note that if the function keys are chosen the label window will be two characters wide as opposed to only one character wide with the other types. Hence the answer window width will be reduced by one extra character width.

F-File to be linked

Sets the file which is automatically loaded and replayed at the end of REPLAYing the current file. No attempt is made to open the file at this stage, and if the file is not valid the error will not be reported until an attempt is made to load the file at the end of REPLAY.

M-Mode of screen

Alternates the screen mode between four and eight colour mode. In eight colour mode the smaller text sizes are not available and in four colour mode only the colours red, green, white and black are available. When a file is LOAded the screen mode automatically changes to the same state as it was when the file was SAVEd.

P-Prompts

Moves the prompts position either from the top of the screen to the bottom or vice versa.

N-Number of answers per question

Sets the number of answer windows available for text input during EDITing (from 1 to 5). During REPLAY only answer windows which are not blank are displayed.

ESC - returns to the main options menu

SAVE,LOAD and MERGE

Each of these options requires a file name to be specified. SAVE will offer a suggestion for the file name - just press ENTER to accept the supplied name. Alternatively rub out the old name by pressing CTRL LEFT and type a new file name.

SAVE - will save all the pages or the specified range of pages to the specified file. Window size/positions etc. and the values setup by DESIGN will also be saved. Page 0 is always saved whether a range has been specified or not.

LOAD - will load a file which has been previously SAVED. Only files which have been created by REVISOR can be LOADED. The previous file will be removed from memory and you should therefore ensure that it has already been SAVED. Note that the screen mode after LOADING will be the same as it was when the file was SAVED.

MERGE - will insert a file at the end of the present file. The present file is not altered in any other way. Page 0 of the file to be merged is not loaded unless there are already no other pages in memory. Therefore you should not use '#' / Page 0 with files which are to be merged unless you alter Page 0 of the present file so that it is suitable for the merged file.

If an attempt to SAVE,LOAD or MERGE a file fails then an error will be given and you have the opportunity to edit the file name or just press ENTER to try again.

Press ESC to exit.

PRINT

To print out the current file to a printer or other device press P. You will be asked whether you wish any explanations to be printed and whether you wish the correct answers to be indicated in multiple choice questions. Press 'Y' for YES or 'N' for NO in both cases. Obviously if you are producing a printed multiple choice test for a group of pupils you will need to specify NO to both questions, unless you are printing a master copy for yourself.

Next you should specify a file name for output. Suitable file names might be :

ser1 mdvi_printout flp2_quiz_lis

Once the file has been opened you can either specify a range of pages to be printed (press R) or the whole file starting at page 1 (press ENTER).

Output should be suitable for your printer if it is EPSON compatible but if you have any special requirements then the output file can be exported to QUILL. If you wish to export to QUILL you should add the extension '_lis' to the file name (eg mdvi_quiz_lis). This file can now be imported to QUILL by loading QUILL, selecting the FILES option pressing 'I' for IMPORT, and typing the file name. Once imported the file can be printed using the QUILL printer driver set up for your printer.

PRINT is affected by the values set up in DESIGN.

Each page is numbered sequentially starting at 1. If 'Random pages' has been set to YES in DESIGN then the page number will be followed by a

number in brackets which is the page's absolute page number in the non-randomised editing file.

The labels of correct answers in multiple choice questions will be surrounded by asterisks if you requested that correct answers should be indicated.

WARNING *** If you specify for example 'ser1' for output and there is no printer attached to serial 1 then the program will effectively lock up as it tries to access the printer.

NEW

This option clears the current file from memory. Since the file is not saved first you are asked to confirm by pressing 'Y'. The values set up in the DESIGN option and the position and size etc. of windows is not altered.

X-eXit

Pressing X inactivates REVISOR and returns to Superbasic. Files which have not been saved prior to this command cannot be restored. Press 'Y' to confirm.

REPLAY

This option displays each page in turn within a specified range. After selecting the option just press ENTER to display every page in the file or R to define a range.

Pages are displayed in the same order as they appear during editing unless 'Pages random' in the DESIGN option has been set to YES. Similarly the order of answers to each multiple choice question is governed by 'Answers random' in DESIGN.

When a page has been displayed you can either select an answer by pressing the appropriate key (if the page is a multiple choice question), press ENTER to move to the next question or press ESC to end the REPLAY. If the question has only a single answer you should press SPACE to reveal it.

When a response has been made to a multiple choice question either 'CORRECT' or 'INCORRECT' will appear together with the key pressed and the correct answer.

If an explanation has been written you will be able to view it by pressing TAB.

When text pages are replayed two arrowheads appear on either side of the text window. These arrows can be moved individually or together using the cursor keys; LEFT and RIGHT select the arrow to be moved (the active arrow will be flashing); UP and DOWN move the arrow up and down the edge of the window one row at a time. Pressing 'L' links the arrows so that both arrows move together and the relative distance between them remains the same.

Press C to clear the text
R to restore the text
S to restore that text which has been cleared
and clear text which is already on the screen

Note that all actions affect only the text between the arrows. Hence it is possible to blank and restore one line, a block of lines or the whole screen repeatedly as you try to memorise it. An example of the display and possible use of a text page in one of the example files is explained on page 13.

If you wish to use the Swap facility (Press S) then you should ensure that the paper colour of the text page is black. This is because Swap uses XOR printing to achieve its aim and if the paper colour is not black then the text will simply change colour rather than be cleared.

When the end of the range is reached, or ESC is pressed, the number of pages shown, together with the number of questions attempted and the number answered correctly, will be displayed.

You now have four options open to you. Press the function keys to choose :-

- F1 Replay all the pages within the range.
- F2 Replay all pages except those multiple choice questions answered correctly. Note that if the file contains text pages or questions with single answers then these will be displayed as well as incorrectly answered questions.
- F3 Print out the results to a device (for example a printer or microdrive file). A typical print out is shown overleaf.

1:A 2:C 3:B* 4:? 5:? 6:C*

? = answer not required or not given
* = incorrect answer

Pages displayed = 6
Questions attempted = 4
Questions correct = 2

The response to question 1 was A - the correct answer. Similarly question 2 was answered correctly.

Questions 3 and 6 were answered incorrectly.

Pages 4 and 5 were either not attempted or they did not require a response (ie. they were text pages or they had only a single answer).

Note that if 'Random Answers' has been selected then the answers shown are not necessarily the same as the actual keys pressed since the result print out refers to the position of the answers in the non-randomised editing file. For example the correct answer to question one is 'A' but since the answers were randomised the correct answer actually appeared next to 'C'. The user pressed 'C' to indicate the correct answer and in the above print out this response appears as 'A'.

F4 Load and auto replay the LINK file.

The file to be linked is set in DESIGN. The file is LOADED (hence the present file will be lost if it has not already been saved) and the whole file is REPLAYed starting at page 1. If the attempt to load the file fails then an error will be given and you should press any key to return to the main options menu. Note that the previous file will still be stored in memory if the link file could not be opened.

EXAMPLE FILES

The files included on the supplied cartridge illustrate a number of the features of REVISOR which are not immediately obvious from reading the previous pages.

Before using REVISOR ensure you have at least 2 back-up copies of all the files on the supplied cartridge.

The five files supplied are :

```
french
french2
chem
phys
quiz
```

To view the files load REVISOR and select the LOAD option. Assuming the cartridge is in microdrive 1 type in the name of the file you want to view preceded by mdvi_ (eg mdvi_french). Even if you want to transfer the files to disk at a later stage it will be simpler initially if the files are loaded from microdrive.

Once the file has loaded select the REPLAY option and press ENTER to indicate you want to see the whole file. Once the REPLAY has finished or you have ESCaped press F4 to load the next example file. All the files are linked so that they will load one after the other from microdrive 1. If you want them to load from disk you will have to change the link file name in DESIGN (- For a full description of REPLAY see page 11 of this booklet).

Each file has a number of features worthy of note and when you have reviewed all the files you should examine the way in which each achieves its particular form of display, with particular reference to the DESIGN and WINDOWS options.

The files are now described : -

'french'

This file tests knowledge of French vocabulary. The English word is displayed followed by the French equivalent when the space bar is pressed. The words are presented at random and will appear in a different order every time they are REPLAYed. The file can be added to either by direct EDITing or by MERGing another file. Hence week by week the vocabulary you might be supplied with as a pupil can be added to the file. The most recent vocabulary can then be tested, by specifying a range for REPLAY, or the whole file can be REPLAYED.

'french2'

The first three pages show the various tenses of three regular French verbs. These pages are 'text pages' and as such incorporate the 'memorise' facility whereby sections of the text can be blanked and restored repeatedly to help in committing the words to memory.

When the first page is displayed press the LEFT cursor key to select the left arrow. Press DOWN to move the arrow to the 5th row next to 'je porte'. Now select the right arrow by pressing RIGHT and move the arrow to the 10th row ('ils ont porte') using UP. Pressing C will clear the text and R will restore it. S will alternately clear and restore.

If you press L the arrows will be linked so that the relative distance between them remains the same. Press DOWN to move both arrows to the second block of tenses and repeat the process (until you have learnt them all !!!)

Page 10 of this file is also a 'text page'. However this page can be treated slightly differently. To just view page 10 press ESC twice to return to the main options menu and reselect the REPLAY option. Now press R again to define a range, and type 10 (followed by ENTER) in response to

each of the 'From / To' prompts. Once page 10 is displayed press RIGHT to select the right arrow and move it to the top of the page using UP. Now link the arrows (Press L) and move them down to the first line of French. Press C to clear this line. Move them down to clear the next line of French, and so on until only the English translations are on the page. Move the left arrow to the top of the page and the right arrow to the bottom. Now if you press S the French text will be displayed and the English text will be cleared. Obviously you do not need to Swap the whole page at once and you could concentrate on just one portion by moving the arrows closer together.

Pages 4 to 9 of the file simply ask you to conjugate the displayed verb before pressing SPACE to reveal it. Note the use of page 0 in conjunction with '#' to repeat the first two lines of each page.

'chem'

A series of multiple choice questions are asked at random. Note that not only are the pages displayed at random but also the answers to each question are displayed in a different order every time the question is shown. To answer the questions press one of the function keys F1-F5. After you have attempted the question press TAB to reveal the explanation. Some of the explanations show part of the Periodic Table followed by text specific to the question which has just been asked. The Periodic Table is stored in the explanation window of page 0. Each explanation starts with a '#' symbol which indicates that the text in page 0 should be printed before the current page's text (see this booklet, page 5). The explanation has been positioned so that it does not overlap the question window when it is displayed. Also 'Explanation separate' has been set to NO so that the screen is not cleared before the explanation is displayed. However this causes problems if the file is edited since the answer windows and explanation window overlap during text input. Therefore before EDITing select DESIGN and set 'Explanation separate' to YES so that the explanation has a screen to itself.

REVISOR automatically allows for the fact that not all questions have the same number of possible answers.

'phys'

This is an ordered file and all pages appear in the same order every time they are replayed. Page 1 and page 6, which contain instructions for the completion of each stage of the file, are simply question windows with no answers. The multiple-choice questions, pages 2 to 5, each use the same set of possible responses and hence these are stored once on page 0 and repeated for every question using '#'. Pages 7 to 15 are 'text pages' and the 'memorise' facility can be used as described for 'french2'.

'quiz'

This is a multiple choice general knowledge quiz. Questions and answers are displayed at random. The response from the user is accompanied by a sound according to whether the response was correct or incorrect. This can be switched off from DESIGN. Each question has an explanation. In this case the explanation is sufficiently short that it can be included on the same screen as the rest of the question without obscuring any other windows. Therefore, unlike 'chem', it is not necessary to alter 'Explanation separate' in DESIGN. The editing facilities have been cancelled to prevent users altering the file in any way. To restore the EDIT facility press the ALT, CTRL, SHIFT and CAPSLOCK keys simultaneously.