DESKTOP PUBLISHER

SPECIAL EDITION

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DESKTOP PUBLISHER
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VERSION 2.0

SECTION 1. INTRODUCTION

DESKTOP PUBLISHER SPECIAL EDITION V2;O is a complex and function-filled program that will allow any user to produce professional and polished results with an expanded QL - a minimum of 512K RAM expansion is needed. Further, the determined user will be able to produce stunning effects that will make owners of Macintoshes, STs, Amigas and lesser micros go green with envy. Anyone who needs to produce an A3, A4, A5 or Foolscap page can include graphics and text of any size or style and obtain a hard copy on an EPSON-compatible printer.

The program itself is very substantial: so largo that it cannot fit on a single microcartridge! While it is sufficiently user-friendly to allow you to get it up and going with ease without reference to this manual, in order to gain a full knowledge of all of its workings you will need to work through this manual with the program running in front of you. Once you are familiar with the multitude of options with which you are provided, it will be possible to work with only an occasional glance at the control keys (almost always available at the touch of a button, and summarised in section 18 of this manual) or by calling up a menu containing the commands you desire.

The best way to get to grips with this program is to experiment: try things that we haven't suggested and you may be pleasantly surprised! You can do almost anything without causing lasting damage to the page. You will not be truly competent with this program until you have used it for many weeks, so it is best to keep plugging away.

DP DESKTOP PUBLISHER V2.0 is written in SuperBASIC and M68000 MACHINE CODE and compiled using DIGITAL, PRECISION'S TURBO for the absolute ultimate in speed, compactness, power and compatibility.

DESKTOP PUBLISHER V2.0, like the rest of DP's range of programs, is not protected against unauthorised copying and theft: this has obvious advantages for you, in that you can make backups freely and transfer the program freely from one medium to another. But the absence of copy protection has a big disadvantage for us. It means that every time you sell or give away a copy of DESKTOP PUBLISHER to someone, we lose a sale that would have helped us to fund more development of QL software.

There is no QL software publisher so large and committed as DIGITAL PRECISION. But the flow of new QL software from DP, and the availability of older titles, depends upon the honesty of a circle of buyers.

DIGITAL PRECISION will remain active in the QL market for the foreseeable future, but future products can only appear if people are willing to pay for them.

In effect, against the trend - especially on top-quality products - we have taken a gamble on your honesty. Please don't let us down.

We offer rewards for information which enables action (civil and criminal) to be taken against software pirates, big and small. Of course, we hope to spend our time more productively.

SECTION 2. MACHINE REQUIREMENTS

To allow for all the commands necessary to produce a complex page, your QL must have a memory upgrade of at least 512K (640K RAM all told) and must have at least one disk drive.

If you have bought DESKTOP PUBLISHER V2.0 without reading our advertisements, and were unaware that a memory expansion was needed, please order a 512K expansion (high speed RAM) from us - the cost is a mere £109.95! If you do not have a disk drive, we can supply you with an NEC DSDD 3.5" drive for £139.95, a dual NEC DSDD 3.5" drive for £214.95, a disk interface without RAM for £.79.95, and a superb disk interface with 768K RAM (total 896K !!) for just £194.95! The combination price for the dual disk drive and 768K disk interface is just £404.95. If you already have a RAM expansion of insufficient capacity (ie; less than 512K) you can send it to us - we will give you an allowance against the cost of any of the hardware we have mentioned. If you cannot afford the hardware, please return V2.0 to us (including this manual) with an SAE (50p stamp) and we will send you V1.0, which will work with 256K expansions and cartridges.

If you want to produce hardcopy, you need an EPSON-compatible printer; if you are not sure whether your printer is EPSON-compatible, try to obtain printed output on it from Easel, using the standard Epson driver.

Cartridges can, of course, be used to store pages - the disk drive is needed because the main program cannot fit on a cartridge. Winchesters and other mass storage devices are usable too, since the program accepts all filenames in the standard QDOS form (ie; win1_doc_page or flp3_advert). A digitiser can easily be used: just save the results using SBYTES filename, 131072, 32760 and load in the screen tile with DESKTOP PUBLISEHER or EYE-Q.

To save an entire page to a device, it should have at least 188 sectors free. This is close to the maximum for a microdrive cartridge but an easy fit for any floppy disk.

A FILE CALLED UPDATES IS SUPPLIED. IT CONTAINS USEFUL ADDITIONAL INFORMATION NOT GIVEN IN THE MANUAL. Please read Updates either:

> (a) by using The EDITOR or
> (b) by entering copy flp1_updates to scr
> > pausing the output with CTRL+F5 and restarting it with Enter or
> (c) by entering
> > copy _n flp1_updates to ser1
> > with an initialised printer attached to ser1

SECTION 3. BACKING UP

We strongly advise that the first thing you should do on receiving your program is to make a backup copy. It is better if you load the program from a copy rather than use the master.

To make a backup copy, put the disk into flp1 and a blank disk into flp2 and enter
> LRUN FLP_1_BACKUP
Now simply follow the prompts!

SECTION 4. THE PRINTER DRIVER

Now that you have copied the program, you can alter the one piece of code that may need altering to suit your system: THE PRINTER DRIVER. This is the section of code that converts the data held in the computer's memory into the screen dump, which is the finished product. Unfortunately, not all printers use the same standard and it is likely that your printer will not conform with the default driver supplied (written specifically for the BROTHER M-1109 and compatible with others of that ilk). If, however, you are willing to see if your printer is compatible with the default code, skip this section and continue at SECTION 5.

Changing the printer driver is not difficult: all you need is the manual that came with your printer (so you can find out what codes your printer needs for various effects).

TO ALTER THE PRINTER DRIVER

i. Place DESKTOP in flp1 and then enter
   LRUN FLP1_ PRINTER

ii. You will be asked which device holds DESKTOP: type flp1

iii. Now you will be asked for your printer's code, for specific tasks: LINE SPACING, SINGLE, DOUBLE, QUADRUPLE DENSITY GRAPHICS and BACKSPACE. You will also be asked for information such as the BAUD RATE, to which port your printer is connected, and whether your printer uses one or two codes for LINEFEEDS.
   When giving codes (you should never supply more than five) press enter TWICE after you have given your final code. The customises program is written in SuperBASIC, so if your printer is totally non-standard you may still be able to do the needful by listing the program source and amending it.

iv. Finally, your copy will be updated and the printer driver will be configured to its new settings.

SECTION 5. LOADING THE PROGRAM

Place the disk in flp1, reset and then press **F2**.
After loading, press any key and you will be presented with the menu screen: this is the top level of DESKTOP PUBLISHER, from which all other modes can be accessed.

At the top left-hand side of the screen will be a large, white rectangular box: this is the CAMEO, a miniature representation of the page on which you are currently working. It provides you with an easy way of judging how your work is getting on, without your having to waste time getting a printout. The two arrows show the number of pixels present in both planes: in the default mode it should show 800 down by 960.across (we will see how to change this later on in the manual). At the bottom right-hand side of the screen is a box which currently contains **'PAGE 1'** and **'VERTICAL'**. Finally, at the top right-hand side of the screen is the menu itself, with 11 immediate options.

If you look at the menu window, you will notice that the first option is highlighted (white ink on red paper.). Now press the down arrow: the red bar should zip down the menu and settle on the final option; pressing the up arrow should reverse the process. This is the menu bar. It is one of two methods of selecting your option, the other being simply to press the key shown between the two brackets next to the option. A menu bar of this type is available almost every time you have to choose from 2 or more options.

SECTION 6. PAGE CONFIGURATION

Before you do any work, you will have to choose the shape - more exactly the orientation - of the A4 page. It is perhaps best if you have a sheet of paper in front of you as you read this section. Hold the paper so that it is the same way up as this page. This is henceforth referred to as a VERTICAL page (also known as a. PORTRAIT page.) This is the mode you are in now (as you can see from the box at the bottom right-hand side of the screen). In this mode the default page consists of 960 pixels across (160 columns of the smallest text) by 800 pixels down (80 rows of the smallest text).

Now turn the page so that its longer edges are lying horizontally: this is a SIDEWAYS page (also known as a LANDSCAPE page) and it has different dimensions. These are 800 pixels across (133 columns of the smallest text) by 960 pixels down (96 rows of the smallest text). It is perhaps, more suited to pin-up sheets, tables and pamphlets than to newsletters and posters.

To change modes, move the menu bar down (using the arrow keys) to the PAGE CONFIGURATION option, and press the **SPACE BAR** (alternatively, press the **0** key).

The option window should now reflect the new choice of option. Each page can have a separate orientation. Press the **1** key and the orientation for PAGE 1 should switch to its alternative setting; if you have two pages, hitting the **2** key will have the same effect on PAGE 2. When you have finished your choice, press the **ESC** key to return to the main menu. If you have changed the orientation of the page, the bottom right-hand box will change to reflect your choice.

The CAMEO does not change shape when the page it is representing has a SIDEWAYS orientation. Remember that the side labelled 960 is the bottom of the page, and the side labelled 800 is the left-band edge.

SECTION 7. EDITING THE PAGE

7.0 INTRODUCTION

Now you have made your choices about the page, you can get down to making your mark! Move the menu bar to option **1** and press **SPACE**. You will then be in the SELECT SECTION MODE and the CAMEO will contain a light green box. This represents the section of the page that you will be editing, and its co-ordinates are shown in what was the main menu window. The **X** and **Y** co-ordinates of this section of the page, and any other cursor, are shown in an easy-to-understand way. The page provided is large, and since co-ordinates of the order 765 right by 764 down would be very hard to digest, positions are shown in multiples of 8 pixels or what will be referred to as 'squares'.

Therefore, under this system, x=48, y=32 would be shown as 6.0 , 4.0, the co-ordinates being exact multiples of 8. If you move to a position which is not a multiple of 8, the number of individual pixels is shown after the decimal point:
> ie; x=53 , y=35 would be shown as 6.5 , 4.3

Press the arrow keys and the box will move about: the co-ordinates always reflect its position. If you are editing a SIDEWAYS page, you will have noticed something peculiar: pressing the right arrow causes the box to move up the screen. However, remembering that, for sideways pages, the X and Y planes are transposed, all becomes clear. Notwithstanding the fact that the box appears to move up the screen, in reality it is moving to the right of the page.

Apart from the arrow keys, 3 other keys are being read:
> The **ESC KEY**, which returns you to the main menu
> The **ENTER KEY**, which, when held down with the arrow keys, will move the light green box one square at a time instead of the normal 4 squares
> The **SPACE BAR**, which confirms your selection and enables you to begin the editing process.

Press the **SPACE BAR** and you will enter the first edit mode.

7.1 TEXT MODE

This mode allows you to carry out 5 major operations. Before describing these operations, we will briefly discuss the screen layout which you see in front of you, starting with the far right-hand side.

THE INFORMATION WINDOW
The long, thin, red window on the far right is the INFORMATION WINDOW. It contains all the information on screen co-ordinates, character sets, font details and page position.

In this mode it shows 10 different parameters:
> The current mode at the very top. Initially this is MODE TEXT.
> **PAGE X and PAGE Y** - These contain your position, as described above (SELECT SECTION MODE).
> **REAL X and REAL Y** - These are added to your current position on the screen, the PAGE X and PAGE Y values, giving the exact position of the cursor on the page.
> **DRAFT QL** - The program has 21 integral QL character sets; any of these can be selected to represent DRAFT, BOLD, ITALIC or anOTHER type. This parameter will be followed by a letter, representing the set which is currently selected for gold, and either an ON or an OFF indicating the current style that text will be shown in. At startup the letter indicating the draft character set will be A, and it will be followed by an ON. Below this will be a selection from the character set. Set A is the standard QL one we all love to hate.

BOLD QL - This shows the set currently selected for BOLD and it follows the same style as the **DRAFT QL** parameter.

ITALIC QL - As above.

OTHER QL - As above.

STIP - As with the QL ink command, text can be printed with a variety of different stipples. This allows for different shades of grey (shown next to STIP).

Below the information window is a small box defining the function keys. Always provided in the main modes are:

F1 - CURSOR (abbreviated to CUR)
F2 - RULER (abbreviated to RUL)
F3 - GRID (abbreviated to GRD)
F4 - STATUS (abbreviated. to STS)
F5 - CONTROLS
SHIFT + F1 - OPTIONS
More about these later.

To the left of the displays just described is a small, white strip with horizontal lines running across it. This is the VERTICAL RULER: it is present in all the edit modes. On this ruler one large division represents one inch, and the smaller lines represent one twelfth of an inch.

The largest portion of the screen is taken up by the page section which you are currently editing. This section is 400 pixels across by 2S6 pixels down and represents just 13% of the default A4 page (whenever we refer to the screen in future we mean this large, white section). Finally, at the far left of the screen is a green or black bar, which acts as a CAPSLOCK INDICATOR. Put CAPSLOCK on and it will change to green with a low pitched beep. Turn CAPSLOCK off and it will change to black with a high pitched beep.

7.2 MOVING THE CURSOR

Now press the arrow keys: the black square at the top left-hand side of the screen will move and the REAL X and REAL Y co-ordinates will change with it. This square is your cursor. It should stop when it hits one of the edges of the screen. Much finer movement of the cursor is possible by holding down the CTRL key in conjunction with the arrow keys. Try this and the cursor will move only one pixel at a time in the specified direction.

SCROLLING THE SCREEN

The cursor keys hold still more surprises. Hold down the SHIFT key in conjunction with an arrow key: provided that it is possible, the screen will scroll in the required direction, and the section of page which you are editing will change. The effect is like that obtained from the select section menu, but the positioning is more accurate. Although at the moment the screen is completely white and no immediate change is visible, you can see what is happening by looking at the PAGE X and PAGE Y co-ordinates. If you are still unsure, wait until you have something on the page and all will be clear.

CHANGING THE CHARACTER SET

To change the character set, hold down the **ALT** key in conjunction with the **UP** or **DOWN** arrows. A window appears and you are asked which QL set you wish to change: press **D** for **DRAFT**, **B** for **BOLD**. **I** for **ITALIC**, **O** for **OTHER**, or make your selection with the menu bar. Then another window will be displayed, showing you all the sets provided. Choose the new set with either its letter or with the menu bar. After selection the changes will be recorded.

CHANGING THE STIPPLE

To change the stipple (shown next to the **STIP** parameter), press the **BACKSLASH** key: the display will cycle through all the available stipples.

7.3 PUTTING PEN TO PAPER

To put some text on the page in this mode you must first open a window. First of all, place the cursor at some place near the centre of the screen and press the **SPACE BAR**: this defines the top left-hand corner of a box. Now move the cursor to the right and downwards - the lower right-hand corner of the box will follow the cursor. If you wish to change the position of the box press the **ESC** key and the box will disappear (the top left-hand corner of the box will have been reset). To define the bottom right-hand corner of the box press the **SPACE BAR** again: the contents of the box will turn green. This is not an incurable malady.

Now a window will appear and you will be prompted for character size. All QL character sizes are available. The value for width is entered first and then the value for height. The character size required can be found from the table below:

WIDTH	SIZE	HEIGHT	SIZE
0	6 pixels	0	10 pixels
1	8 pixels	1	20 pixels
2	12 pixels		
3	18 pixels		

NB: Some of the character sets only work with a character width of 1, since they use the entire character grid for extra definition. When set to a different size, they will behave unpredictably.

When you have made your choice, you will be asked to confirm it. You do this by pressing the **ENTER** key. Pressing any other key will allow you to amend your choice.

You will now have a cursor inside the green box and will be able to type in text much as you would when using Quill or Editor. There are, however, many refinements. While typing you can switch between character sets: you can use any/all of the 21 QL SETS supplied. Word delete and word movement keys are supplied. Further, there is a WORD WRAP facility whereby you can type without watching the screen and still be certain that no word will be split between lines. And finally you can have individual words or letters underlined or inversed (black on white becoming white on black) or both!

Here are the control keys:

UP arrow :	the cursor moves up one line, maintaining its column position.
DOWN arrow :	the cursor moves down one line, maintaining its column position.
RIGHT arrow :	the cursor moves to the right by one character on the current line (or to the first character on the line below).
LEFT arrow :	the cursor moves to the left by one character on the current line (or to the last character on the line above).
SHIFT+LEFT arrow :	the cursor moves left to the previous word on the line.
SHIFT+-RIGHT arrow :	the cursor moves right to the next word on the line.
CTRL+LEFT arrow :	the character to the left of the cursor is deleted and the left arrow action is taken.

CTRL+RIGHT arrow :	the character under the cursor is deleted and the cursor remains in the same position.
CTRL+SHIFT+LEFT arrow :	the word to the left of the cursor is deleted and the cursor is moved to the beginning of that word.
CTRL+SHIFT+RIGHT arrow :	the word to the right of the cursor is deleted and the cursor remains in the same position.
CTRL+ALT+RIGHT arrow :	the whole line is deleted and the cursor moves up one line.
ENTER :	the current line moves down a line, allowing the insertion of a line .
F4 :	Displays a menu which allows you to change the definitions of the DRAFT, BOLD, ITALIC and OTHER sets. If you do not wish to make an alteration, press ESCAPE: otherwise, using the ARROW keys and SPACE BAR or the D, B, I or O keys choose the set you wish to change, and then on the following menu choose the new character set using the menu bar or a letter between A to U. After this you will be returned to editing your text. Whew!
F5 :	Displays a menu which allows you to turn WORD WRAP, UNDERLINING or INVERSE on or off, or to change the style you are typing in say from DRAFT to BOLD. Either use the menu bar or press the key corresponding to the letter shown in brackets next to the desired operation. When you have finished press ESCAPE to return to the text input mode.
CTRL+L:	Text load (more on this later).
ESC :	Finish text entry.

After you have finished entering your text, a window will open near the top of the screen, displaying five options. If this window obscures your view of the text, it can be moved by using the RIGHT ARROW key. To select an option press the key corresponding to the desired option number, or use the menu bar. The options available are :

1. JUSTIFICATION OF TEXT

    You will be shown five options: **LEFT**, **RIGHT**, **CENTRE**, **OFF** and **PARAMETERS**.

    LEFT JUSTIFICATION - This lines up all text along the left margin, providing a neat edge.

    RIGHT JUSTIFICATION - This lines up both edges of the text resulting in very neat columns.

    CENTRE JUSTIFICATION - This causes the text of each line to be centred between the left and right margins. This is useful for titles and menus.

    PARAMETERS - his allows you to change the conditions for right justification using a menu bar. These conditions are:

    JUSTIFY TO : This toggles between **WORD** and **CHARACTER** - it is initially the former, with which right justification is achieved by adding to the spaces between the words. Pressing **SPACE** while the menu bar is at this position changes the setting to **CHARACTER** with which justification is achieved first by adding spaces between the characters on the line and only then splitting the remaining gap between the words.

    SPREAD WORD OVER WINDOW : In the popular press individual words often end up on a line all to themselves. In this situation the word is often spread across the entire column for clarity. This option allows you to select whether or not this will happen. Press the **SPACE BAR** to toggle between **YES** or **NO**.

PERCENTAGE LINE FILL : Some lines such as ones at the ends of paragraphs often look better when they are not justified. This option allows you to select which lines will be right justified and which will not. Using the **LEFT** or **RIGHT ARROW** keys change the percentage (which must lie in the range 0% - 1O0%) which represents how full a line has to be before right justification takes place.

> At 0% all lines will be right justified.

> At 50% lines more than half full will be right justified.

> At 100% only completely full lines will be right jusitifed.

MAXIMUM NUMBER OF PIXELS : This limits the right justification routine by specifying the biggest permissible gap. Change this setting with the **LEFT** or **RIGHT** arrow keys - permitted values lie in the range 0 - 100 pixels, and infinity.

> At a setting of 0 it can add no pixels.

> At INFINITY it can add as many as it needs.

When you have finished, pressing **ESCAPE** will return you to the main justification menu.

Both Centre and Right justification are carried out to an accuracy of one pixel, to allow for highly professional-looking results.

2. <u>CHARACTER SETS</u>

After selecting this option you will he presented with the normal character set selection menu. At the top will be the words **ORIGINAL SET**. Select the character set you want to change. After this the words **NEW SET** will appear. Now select the character set you want the original one to become. For example, if you choose character set A as the **ORIGINAL SET** and character set H as the **NEW SET** then every character of your text in set **A** will be changed to set **U**. It acts in much the same way as the SuperBASIC recolour command where one colour can be changed to another.

3. <u>CHANGE STIPPLE</u>

This option changes the stipple of the text. Its use will initiate a cycle through the stipples available. Stipples are usually most effective with large character sizes.

4. <u>EDIT TEXT</u>

If you spot a mistake in your text this command takes you back to the editing window to make corrections. Controls are exactly the same as before. Pressing **ESCAPE** after editing will return you to this menu.

5. <u>5. EXIT</u>

When you are satisfied with the look of your text, press option **5** and you will be presented with the final menu. If you are completely happy, press **K** for **KEEP**: this will store the text on the page and return you to your box and cursor. If you think the text still needs some work, press **R** for **RETURN**, and you will be returned to the previous menu. If you are completely disgusted, then press **D** for **DISCARD**: the text on which you were working will be erased and you will be returned to the point from which you entered the text edit procedure.

7.4 LOADING TEXT FROM A FILE

To do this, follow the procedure detailed in section 7.3, until you reach the stage where you enter the text. Now press the **CTRL+L** keys. The **LOAD TEXT WINDOW** will be revealed showing you the parameters associated with this option.

Basically you can load in any ASCII file and place it onto your page. Special facilities are included so that you can load in QUILL_LIS or _DOC files as well as maintain full compatibility with EDITOR (or other pure ASCII) documents. When the text loader encounters a control code in the chosen file it can switch to a different character set, toggle underlining and so on. With this powerful feature a piece of text can be given exactly the same appearance on the page as it had when it was created.

The first parameter in the window is DEVICE and NAME and at the start this will be blank. To enter the filename you desire move the menu bar over the parameter and press the **SPACE BAR**: you can now edit the filename in the standard way, finishing by pressing the **ENTER** key.

The next parameter concerns the action to be taken on the occurrence of a linefeed in the text. This can be either **YES**, in which case a line will be dropped when a linefeed occurs (thus preserving the integrity of paragraphs) or **NO**, in which case the text will be loaded as one long line of characters. Your choice depends on the text to be loaded in. If, for instance, the piece of text uses lines longer than those in the text window then the text itself will be broken into many separate lines if linefeeds are included. Toggle the setting with the **SPACE BAR**.

The third parameter tells the loader what to do with control codes. If you are loading a QUILL file then this parameter will always be YES. But if you are loading an EDITOR file where a CTRL B might represent BOLD ON, you can specify whether you wish attention to be paid to the codes or not. If you ignore the codes with the setting at NO then text will always appear in the DRAFT character set. Toggle this as before. For more information on control codes and the EDITOR refer to the EDITOR manual (section on DRIVER).

The fourth parameter gives information as to whether the file to be loaded is a QUILL file. There are 3 settings, NO, LIS and DOC. If set to NO the incoming text will be treated as an ordinary ASCII file. If set to LIS the text will be loaded as a QUILL_LIS file (as produced with the PRINT command from Quill). If set to DOC the text will be treated as a DOC file (as produced with the SAVE command from Quill). If you load a piece of text in an incorrect format an error may occur - but not a crash, of course! In a QUILL file superscript and subscript characters will be represented as the **OTHER** set.

AUTOSIZE TEXT is next. If this is set to NO then the text will be loaded in the character size already chosen. However, it is set to YES, the incoming text will be sized to give the best fit in the selected window. Auto sizing is best done when CONFIGURATION (the next option) is set to **NONE** and **LINEFEEDS** are set to **NO**, otherwise spaces will be added to the text, spoiling the fit a bit.

The final parameter is **CONFIGURATION**. This defines how the text will be configured in the window. There are 3 settings: **WORD WRAP**, **AUTO-HYPHEN** and **NONE**. If set to **WORD WRAP**, spaces will be added to ensure that no word will be broken over 2 lines. At **AUTO-HYPEN** any word that is split will be hyphenated if more than 2 letters of the word can remain on one line; if this requirement can't be fulfilled then the word will be wrapped. If set to **NONE**, nothing will be done to the incoming text.

Pressing **C** while in the **TEXT LOAD** window will allow you to change the control codes for non-QUILL documents. There are six codes for DRAFT, BOLD, ITALIC, OTHER, UNDERLINE and INVERSE. They take the form of a single character code between CTRL+A (CHR$(1)) and CTRL+Z (CHR$(Z)), excluding CTRL+I and CTRL+J which are used to represent TABS and LINEFEEDS.

For example, to set or change the code for ITALICS, move the menu bar over the ITALICS code and press the **SPACE BAR**. Then press **CTRL+G**. The code for ITALICS will now be **CTRL+G**. This means that whenever a CTRL+G is encountered in incoming text, the character set will be switched to the one selected for ITALICS. When you have finished press the **ESCAPE** key.

Pressing **ESCAPE** while in the TEXT LOAD window will return you to the level you were at before you pressed **CTRL+L**. Obviously, all the changes you made to the TEXT LOAD parameters have been remembered.

Finally, pressing **L** will load in the text, configure it according to your specifications and place it in the window. Note that any text present in the window before the load will be irretrievably fort.

You can select a part of the text you may wish to edit, using the **UP** and **DOWN** arrow keys. The text will scroll allowing you to select portions that were not originally visible. When you are finally satisfied press the **ESCAPE** key. You can now edit the text in the normal way.

In case you discover that your decisions re linefeeds, file type, type, control codes etc. were inappropriate, load text over what is already there by pressing **CTRL+L** again.

If you want information on how to load text over an area larger than the visible screen, refer to the section of the manual concerned with PAGE GLOBALS.

7.5 INVERSING AN AREA OR DRAWING A BOX

Most of the other commands in this mode are much simpler: the following is a good example. To INVERSE (ie; swop black and white) an area, open a window as you did for text entry, but do not press the **SPACE BAR** a second time. Instead, press the SHIFT and N keys. The contents of the window will be inversed. Drawing a box is similar. Open the window as before. When it is in the correct position, press the **SHIFT** and **/** keys: the box will now be permanently drawn on the screen - it is the permanence that differentiates boxes from windows. These two functions are of great use when labelling a diagram. The effect of both commands depend on the current stipple. If, for instance, the stipple is a check pattern then both the inversi.ng and the box drawing will be done in a checked "fashion".

CUT AND PASTE

CUT AND PASTE allows you to copy one area of the screen to another and is very easy to use. Open a window much as you would for inversing it, but, instead of **SHIFT+N**, press **CTRL+SHIFT+V** all at once (this is the CUT). The area inside the box will be unaffected, but a duplicate of it will now be stored in memory. Move the cursor to where you want the copy to be located and press **CTRL+SHIFT+X** (this is the PASTE). The duplicate will be drawn from memory and a copy placed on screen, provided that there is room for it. If you have made a mistake in your positioning, press U IMMEDIATELY after the PASTE: this will UNDO what you have done. Undo only works if the U is the first key pressed after the PASTE.

The duplicate stored in memory will remain intact, so that you can PASTE many times without repeated CUTTING. In fact, it remains intact no matter what you do (you can even CUT from one page and PASTE to another). There are only 2 limitations to this CUT AND PASTE option: the first is that the area cut must fit on the screen, and the second that both the paste and the cut are done only to an accuracy of one square. As a result, you should only cut when your X co-ordinate is an exact value: if not the area that you cut will not exactly match the area under the box. This is never a nuisance as you can always cut a bit more than you need.

SCROLLING A WINDOW

The contents of a window can be panned or scrolled in any direction. As before, open the window over the portion of the screen that you want to scroll, then use the **ENTER** key in conjunction with the arrow keys to scroll and pan the window. All graphics going over the edge of the screen while being scrolled will be lost.

7.6 THE FUNCTION KEYS

If remembering these key presses is a hit of a struggle, help is at hand (at finger, really). Each of the function keys is programmed to perform a particular task. The tasks are listed below :

F1 - Toggles through the cursor forms in turn (Square, Lines, Cross hairs, box).

F2 - A ruler appears in the middle of the screen. Each of the large divisions represents an inch and the smaller divisions one twelfth of an inch.

F3 - A grid appears. Each one of the grid squares is equal in area to four cursors. This has many uses, most of which are illustrated in MODE FONT where a standard size character is equal in size to one square on the grid.

F4 - A window containing the system parameters will be displayed, not only for this mode but also for the others. Cursor positions are given in pixels.

F5 - A window containing the functions and their associated key presses (only those relevant to the present mode) will be displayed.

SHIFT+F1 - A menu will appear showing you most (sometimes all) of the functions that are at your disposal. To perform the operation move the menu bar to the desired command and press the SPACE BAR. This is of great use to those who can't remember anything at all.

From this menu it is also possible to access 2 commands not available by direct key presses: saving and loading the screen, Select either of these and you will be asked for device and file name. The screen will then be saved or loaded as if by the SBYTES command, allowing it to be loaded in by art programs (such as EYE-Q) for retouching.

CHANGING MODES

To advance to the next editing mode, press the SHIFT+ALT keys. This method works in all modes except the final one, where, of course, there are no further modes to advance to. To reverse this operation and enter the previous mode, press the ESC key. This works in all anodes except the first.

RETURNING TO THE MAIN MENU

To return to the main menu, press the CTRL+ESC keys. This works in the first and second modes. You will return to the main menu at the select section stage. This is helpful if you wish quickly to access another portion of the page.

7.7 FONT MODE

In DESKTOP PUBLISHER a font is a character set of much higher definition than (any of) the QL character sets. It consists of a 16 x 15 grid of graphics on which a variety of different operations can be performed before committing it to paper. A font has 75 of these 16 x 16 graphic shapes in it: there are 12 default fonts. This allows for the easy inclusion of up to 900 (= 75 * 12) different graphic shapes at one time. On startup, two of the fonts are dedicated to graphic patterns and 10 are dedicated to letters and punctuation of varying style. These are not permanently 'fixed' – you can redesign them at will with the built-in FONT DESIGNER.

This is the most versatile and complex of all of the modes. With it you can manipulate fonts in any combination of 11 different ways (ways include italics, magnification, bold, inverse etc) - over a million possibilities!

The information window now displays all the parameters essential to this mode. It shows the current status of all the commands that are available to you. It also shows the current font and the last key pressed. The font is also shown to you in part at the bottom of the INFORMATION WINDOW. Each line of symbols represents a group of characters as follows:

TOP LINE	UPPER CASE LETTERS
2nd LINE	LOWER CASE LETTERS
3rd LINE	THE NUMBERS 0 TO 9
BOTTOM LINE	PUNCTUATION MARKS

The position of the cursor when you enter the Font mode is taken as the left margin. If you press **ENTER** the cursor will return to this spot with the addition of a vertical displacement according to the setting of the variable LINEFEED. The entry of text is not confined purely to the screen boundaries as the display scrolls to accompany any letter which would otherwise disappear off the right-hand side. This margin feature is therefore highly useful when entering large amounts of text.

As usual, the cursor can be positioned using the arrow keys; pixel by pixel positioning is supported as before as is scrolling the screen with the **SHIFT+ARROW** keys. Diagonal motion is not supported.

Text entry in this mode is rather easy: simply press the key that you wish to be printed. There may be a tiny delay while calculations are performed. If you make a mistake, pressing the **BACKSLASH** key will clear the character square that the cursor is positioned on.

It's time for a type-in example. What you see on the screen will now depend on the font that you are 'in'. Fonts A and L have only graphic symbols: if you typed with these fonts things may be hard to read! If you were not in either of these fonts a subtle variation the may still occur. Not all of the fonts are totally devoted to one style of lettering. Some may contain two different upper case sets (one on the upper case keys and the other on the lower) so your message may be a hotchpotch of differently styled letters. Also the text should appear smoothly spaced: each character has an associated width (this is called character proportionality). For example, characters such as I and J will not have too wide a border on each side.

For the time being use the **ALT** key in combination with the up or down arrow keys to change the font to FONT F: this is perhaps the most suitable font to demonstrate all the functions at your disposal. Scroll the screen till you get a blank white page. Exit and re-enter Font mode so that this position gets defined as the left margin, ensuring that the cursor on re-entry is near the top left-hand corner of the screen. Now turn on **CAPSLOCK**. Let's get cracking!

7.8 FONT MANIPULATION

THE MARGIN FEATURE : ALT+L : Type the word DESKTOP and then press **ENTER**. The cursor receives a LINEFEED (according to the value next to the parameter LNF) and should now be one square, below the base of the letter D. On depressing the **ENTER** key the X co-ordinate is made equal to what it was when you first entered this mode. The Y co-ordinate has had the number of pixels in the LINEFEED parameter added to it. The LINEFEED parameter is called LNF and will be listed in the right-hand column of parameters near the bottom of the screen: it should read 24. To change it use the ALT+L keys, make it equal to 40 and type DESKTOP followed by **ENTER** again. The cursor should now be 3 squares below the letter D. The linefeed required to make the bottom of the above letters match with the tops of the next line is 16. Now type a long message so that the screen scrolls to fit it all in, again press the **ENTER** key and the cursor should find its way back to the letter D notwithstanding the scrolling.

UPSIDE DOWN AND REVERSING : ALT+P and ALT+R : The UPSIDE DOWN function does as you might expect. Its parameter is named UPS: it will be reading OFF at the moment. Press **ALT+P** and it will turn on. Now type DESKTOP again and the letters will appear upside down. To turn this function off press ALT+P again. Reversing a character turns it into its mirror image. Its parameter is REV: it will read OFF at the moment. To turn it on press **ALT+R**. Type DESKTOP and the characters will now be back to front. As before, turn it off with the same keys **ALT+R.** A powerful feature of this program is that these functions can be mixed. If you should ever want it you can have an inverse, upside down, reversed, bold and magnified character!

ROTATION : ALT+T : Any character can be rotated through any multiple of 90 degrees. This parameter is named ROT and next to it is an arrow. The arrow represents the orientation of the character. An up arrow shows no rotation, a right arrow means 90 degrees etc - toggling is done with **ALT+T**.

UNDERLINING : ALT+U : This is the first of the extended functions where invoking the command will present you with a window of options. In this mode you are allowed 4 types of underlining. Press **ALT+U** to see the list.

> 0 - No underlining
>
> 1 - Single, solid line
>
> 2 - Single, dotted line
>
> 3 - Double, solid line
>
> 4 - Double, dotted line

For instance press the 3 key or make your selection using the menu bar and the number next to the parameter UND will change to 3. Any text now typed will have a solid double underline below it.

ITALICS : ALT+I : Press the **ALT+**I keys. The window presented will show the two different forms of since the letters are allowed to slant both left and right. Select option 1 using the same method as for the underlining and ITA will now have the letters RIG next to it (RIG stands for RIGHT, LEF stands for LEFT). All characters will now slant to the right. Be careful! Since the delete key **BACKSLASH** will still delete a square errors may be harder to correct in this mode. Unlike most other desktop publishing packages, any set of characters can be made ITALIC. This saves a great deal of space as special italic sets need not be stored.

INVERSING   ALT+V : Press the **ALT+V** keys and the inverse window displayed as INV will now be shown. The inverse in DESKTOP PUBLISHER is not merely the simple white on black mode of most graphic packages - you can alter the character with much more precision to allow for not only full inversion but also for other effects. The character can be thought of as right rows each two pixels deep: any of these rows can be inversed separately. The window will show a large white rectangle with numbers beside it. If you press a key from 1 to 8 the row that this digit represents will be inversed. This is shown both next to the number and

also at the top right of the window so that you can see what the final effect is like. To fully inverse a character simply have all of the rows in the black (ON) state. To exit the INVERSE window press ESCAPE key. The parameter INV holds the value of the inversing and has arrange of 0 to 255. 0 represents no inverse, 255 full inverse.

MAGNIFICATION : ALT+X and ALT+Y : To access this command you can either press **ALT+X** or **ALT+Y**. The magnification window displayed as XMG and YMG will show you a grid containing a red square. This square represents your current character size. You can change this with the arrow keys until the red square is the size of the character you want. When you have finished press the SPACE BAR. Alternatively, you can exit using the **ESC** key, which will also turn the settings to (0,0). The magnification parameters are XMG (X magnification) and YMG (Y magnification). A value of XMG=3 , YMG=4 will mean the sizes will be multiplied by 3 in the X-plane, and by 4 in the Y-plane (0 by 0 is 2 squares by 2 squares). Here you will find that the only limitation on mixing effects is that XMG cannot exceed 9 when ITALICS are on (either LEFT or RIGHT). All other spacing parameters such as the LINEFEED are scaled up in accordance with the magnify command.

MERGE AND STYLE : ALT+M and ALT+S : The MERGE facility is very powerful and permits stunning effects to be obtained. To access 'Displayed as MRG' press **ALT+M**. A display of font A will be shown: this font is special in that any of its symbols can be merged with those of any other, this allows for patterned text. Using the arrow keys, move the cursor inside the window to select the character to be merged with. Since you may not understand the command as yet, place the cursor over the cross hatch pattern at the top left of the window and press the **SPACE BAR**. The window will vanish and parameter MRG will now have a 1 next to it. If you type a message the letters will now appear on a grey background - they have merged with the first character of FONT A. To change this merging and to produce different results press ALT+S. The style window will now appear and present you with 3 different styles.

    1. **OR**: In this style (the one you just saw) whenever a pixel occurs in either the merge character OR the character you want printed that pixel will occur in the final result.

    2. **XOR**: This style is perhaps the strangest. Wherever a pixel occurs in either merge character or the character you want printed, but not in both, that pixel will occur in the final result.

    3. **AND**: This is perhaps the simplest. A pixel will only show in the final result if it occurs in both the merge character and the one you want printed. In the example above the (MRG=1) the characters will appear grey on a white background.

Press the key with the number of the STYLE you want and next to the parameter STY will appear OR / AND / XOR as appropriate.

It is best to experiment with MERGE and STYLE to see the results that can be obtained. To turn MERGE off, enter the merge window with **ALT+M** and press **ESC**.

DESCENDERS : ALT+D : If you now turn CAPSLOCK off and type some lower case letters you will notice that the y's, p's, q's, j's and g's do not descend. As some fonts store UPPER CASE letters in the lower case set, it is not desirable for them to descend. To turn DESCENDERS on press **ALT+D** 'Displayed as DES' and try these letters again. To turn the DESCENDERS back off, press **ALT+D**.

BOLD : ALT+ B : To demonstrate BOLD it is best to use FONT B. You can switch to this font using the UP and DOWN arrow keys in conjunction with the **ALT** key. The effect will also be easier to see with MERGE off. Type a message. Then using **ALT+B** turn BOLD on (Displayed as BLD) and type it again. The characters will appear thicker. Use **A.LT+B** again to toggle BOLD to off.

MISCELLANEOUS COMMANDS

DISPLAY FONT : ALT+K : This displays the entire current font and shows the key press that each individual character is associated with. Press any key to leave this function.

CLEAR ALL PARAMETERS : ALT+C : This simply resets all of the parameters to their 0 or OFF states.

CHANGE FONT : ALT+F : Pressing this will present you with the font menu. To switch to a different font press the font's identifying letter. This saves scrolling through all the available fonts.

ADVANCE TO DRAW MODE : SHIFT+ALT : Goes forward to Draw mode.

RETURN TO MODE TEXT : ESC : Goes back to the Text mode.

RETURN TO SELECT SECTION : CTRL+ESC : Returns to the Select section mode

To gain the most from the font manipulation mode you need to be experienced with all its functions. To spur you on, we have included a Special Effects page at the back of the manual. But remember - we are merely scraping the surface.... much more is possible!

7.9 DRAW MODE

To get to this mode, ensure that you are in Font node and press **SHIFT+ALT**. In this mode you can add simple pieces of artwork, fancy borders, patterns and other effects to your (already blossoming?) page. This is done by giving you the facility to place different shapes onto the screen. Each shape consists of an 8 x 8 pixel grid known as a brush. These brushes can be mixed on the page (using the XOR mode detailed in the previous section) to allow for greater variety than would otherwise be possible.

The contents of the INFORMATION WINDOW will now be very similar to its contents when in TEXT MODE. There are a few additions, however:

      A parameter called BRUSH which graphically shows the current brush that you are working with.

      A large grid showing all of the available brushes. This grid is complete with its own independent cursor.

To operate in this mode, move the cursor as you have in the past but try holding the SPACE BAR down at the same time. The cursor will leave a trail behind it. Now go off the edge of the screen. The screen will scroll one square at a time to ensure that you never leave it. This is the most accurate scrolling of all - in all other modes the scrolling was two squares at a time. Now try using the arrow keys with the SHIFT key held down: the green cursor in the grid of the INFORMATION WINDOW will move. So will the graphic shape next to the BRUSH parameter and the main cursor in the screen itself: they will match the brush under the grid cursor. If you now move, again holding the **SPACE BAR** down the trail will have changed to this new brush. Further variation is possible: press the **ENTER** key and the main screen cursor will change to its inverse and back again. This manoeuvre in effect doubles the number of brushes at your disposal.

As already stated, brushes in this mode can be combined to produce a different result. This can be seen if you go over an area of brush-produced graphics with another brush. Some combinations of squares produce useful and pleasing results, some do not. Some good combinations are shown in the DEMONSTRATION PAGES at the end of this manual. An offshoot of this is that it you go over a square that already contains a brush graphic, with the same graphic, that graphic will disappear. If you accidentally go over an area of text with a brush, the mess can be removed by carefully going over the area again. If, however, you want complete removal, the **BACKSLASH** key will erase a square.

Others keys read in this mode are :

ESCAPE : Returns to Font mode.

SHIFT+ALT : Advances to Line mode.

7.10 LINE MODE

This mode allows you to draw lines and arcs on the screen, giving you the chance to add complex graphics to your page. To get to this mode ensure you are in Draw Mode and press the **SHIFT+ALT** Keys. The most important thing to remember in this mode (and the next one) is that the REAL X and Y co-ordinates no longer refer to your exact position on the page. This is because the line and arc commands work on a different grid and things such as negative screen positions have to be allowed. The controls, however, are much the same as before.

The line (or arc) consists of 2 independent points between which a line is drawn. At the moment both co-ordinates will be at the centre of the screen - therefore the line is invisible. To see the line press and hold down any of the **ARROW** keys. A line will spring from the centre of the screen to your changing cursor position. Pressing the **SPACE** bar now will draw the line: the cursor positions will remain the same.

If you could only draw lines from the centre of the screen this facility would be of little use! Press the X key to eXchange the ends of the line and move the cursor again. The cursor which was previously at the centre of the screen will move and the cursor you were moving will now stay still. It is therefore possible using the arrow keys, the **SPACE BAR**, and the **X** key to draw a line from anywhere to anywhere on the screen. For finer control of the cursors use **CTRL** in conjunction with the arrow keys as before.

You may also notice that you can go off the edges of the screen. This is always allowed in this mode and the next one.

Drawing an arc is just as simple. Set up a line ready to be drawn as before and instead of the **SPACE BAR** use the **ALT** key in conjunction with either the **LEFT** or **RIGHT** arrow keys. The line will be bent into an arc, whose curvature you can control, in the direction specified by the arrow key. This arc can then be moved around the screen just as the line was.

Warning: There is a known QDOS bug in the arc drawing routines: the bug causes arcs to disappear at times!

Other controls read in this mode :

ESCAPE : Return to Draw mode.

SHIFT+ALT : Advance to Circ mode.

U : UNDO : If you are unhappy with your work on the screen then the UNDO function will restore the screen to it's image when you first entered the mode, or when you last scrolled the screen, whichever was last.

7.11 CIRC MODE

In this mode the ARROW keys and the use of **CTRL** key is exactly the same as in Line mode. But instead of a Line you have control of a CIRCLE or an ELLIPSE. At first there should be a small circle in the middle of the screen. This can be moved with the **ARROW** keys and drawn with **the SPACE BAR**.

To make the circle bigger or smaller use the **UP** or **DOWN ARROW** keys in conjunction with the **ALT** key: the circle will grow or shrink. This will be reflected by the parameter RADIUS which is shown in the INFORMATION WINDOW. You can make the changes in RADIUS more gentle by holding down the **CTRL** key.

The ALT key can do other things as well. Hold down the **ALT** key in conjunction with the **LEFT** or **RIGHT** **ARROW** keys to bend the circle into an ELLIPSE (we are changing it's ECCENTRICITY). This newly generated ellipse can of course be manipulated as if it was a circle.

You can rotate the ellipse by holding down the **ENTER** key in conjunction with the **LEFT** or **RIGHT** arrow keys. Once again both the ROTATE and ECCENTRICITY commands can be made finer in operation with CTRL key.

Other keys read in this mode :

> **ESCAPE** : Return to Line mode.
>
> **SHIFT+ALT** : Advance to Fill mode.
>
> **U** : UNDO : If you are unhappy with your work on the screen then the UNDO function will restore the screen to it's image when you first entered the mode, or when you last scrolled the screen, whichever was last.

7.12 FILL MODE

This mode gives you control of a texture fill routine. The textures can be any of the 75 characters on any of the 12 character fonts. These textures can also be inversed, reflected or turned upside down. This allows up to 75*12*2*2*2 = 7200 combinations - in fact, there are more because you can design your own textures.

The REAL X and Y co-ordinates once again reflect your true position on the page. The cursor is now represented by a set of crosshairs - it marks the place where the fill will take place. In the INFORMATION WINDOW are two additional parameters - FONT and CHARACTER, which specify the FONT letter and CHARACTER number of the fill pattern. Below is an example strip of the basic fill pattern - without reverses, inverses, and always right way up.

The fill routine can fill any shape with white contents and a black border with any texture - and it is fast too.

To change the fill texture press the **UP** or **DOWN** arrow key with the **ALT** key - as you did to change a font in Font mode. A window will appear: it shows the current basic fill pattern, the parameters concerning inverse, upside down and inverse, and the controls needed for operation.

These keys are :

> **UP or DOWN ARROW** : Increase or decrease the CHARACTER number.
>
> **CTRL + UP or DOWN ARROW**: Increase or decrease the current FONT.
>
> **I** : Toggle INVERSE on or off.

      M : Toggle MIRROR IMAGE on or of

      U : Toggle UPSIDE DOWN on or off,

      F : Fill current shape from cursor position.

      ESCAPE : Leave texture change window,

When you have selected the texture, move the cursor to the inside of the area and press the **SPACE BAR**. When filling is finished you can either KEEP the results or DISCARD them - select which by pressing either **K** or **D**, or by using the menu bar provided.

While a shape is being filled you can abort the fill by pressing **CAPSLOCK**. This lets you have semi-filled shapes. After you have pressed CAPSLOCK you will be returned to the KEEP/DISCARD menu.

Other ley read in this mode

      ESCAPE : Return to Circ mode.

SECTION 8. PRINTING THE PAGE

This is option (5) in the main menu. It allows you to send your newly-designed page to your printer in two different ways. As usual, you will need to enter a few pieces of information to specify the exact mode of printing.

    i.   NUMBER OF PASSES :
        This can be a number between 1- 5 and it governs the number of times the print head will print a line, each time adding more ink and making the page darker and more clearly defined. For a printer with a new ribbon, a density of 1 or 2 should be fine, but older ribbons may need a higher setting. The higher the setting, the longer a page will take to print. Make your selections with the number keys or the menu bar.

    ii.   You will now be asked how you want the page to be printed :
        As either an A4 or a FOOLSCAP page. An A4 page will be printed exactly like the CAMEO. A FOOLSCAP page will be long, thin and will have opposite orientation, eg: a vertical page printed as FOOLSCAP will appear sideways, and a sideways page printed as FOOLSCAP will appear vertically. Make your selections with the number keys or the menu bar.

    iii.   You will now be asked in which density the page should he printed :
        This is SINGLE, DOUBLE, or QUADRUPLE density. Chosing DOUBLE will print the page with the same dimensions as the cameo, QUADRUPLE will print the page with half the normal width, and SINGLE will print the page with twice the normal width. These options depend, of course, on your printer having SINGLE, DOUBLE and QUADRUPLE graphics modes. Make your selection using the menu bar.

    iv.   You will then have to confirm that you wish to proceed :
        If you do, you must ensure that your printer is ON LINE and properly connected to the correct port.

At any time during printing, pressing **CAPSLOCK** will abort the print run and return you to the main menu.

SECTION 9. WIPING THE PAGE,

This section's titles speaks for itself. The penultimate option on the MAIN MENU (option (=) , safely tucked out of the way) is used to wipe the page of all data. THIS IS NOT REVERSIBLE - USE IT WITH CARE. On selecting this option the main menu window will change to red and a danger sign will be seen. If, despite these warnings, you still wish to continue with WIPE, press the Y key. The page that you are editing will be cleared to white.

SECTION 10. PAGE GLOBALE

Upon selecting this you will be presented with another menu:

      (**S**) SWAP PAGES
      (**U**) UPSIDE DOWN
      (**M**) MIRROR IMAGE
      (**I**) INVERSE PAGE
      (**D**) DIMENSIONS
      (**L**) LOAD TEXT

These commands involve the entire page and not just a small section of it. You can exit from the menu without doing anything by pressing the **ESCAPE** key.

    (**S**) <u>SWAP PAGES</u> : You can have 2 pages in memory at the same time. To swap between them just select this option. The 2 pages can have different orientations, but they must be the same size. If one of the pages is of maximum size 1280x800 then the second page is disabled (NOT AVAILABLE).

    (**U**) <u>UPSIDE DOWN</u> : When selected, this option turns the page upside down - useful when printing on both sides of an A4 page.

    (**M**) <u>MIRROR IMAGE</u> : This turns the page into it's mirror image.

    (**I**) <u>INVERSE PAGE</u> : This inverses the page, swapping black and white.

    (**D**) <u>DIMENSIONS</u> : The default page size is 960 by 800 pixels. However, this is not fixed, and other sizes - both larger and smaller - can be chosen:

          480 x 400
          480 x 800
          800 x 400
          800 x 800
          960 x 400
          960 x 800
          1280 x 400
          1280 x 800

    These dimensions can also represent different sizes of paper. For instance the 960 x 400 page when printed sideways with double density gives A5. The 1280 width pages are for printers which are MX type: these have a double density resolution of 1280 pixels causing a normal A4 page to be printed too small. The 1280 x 800 page takes up a lot of RAM: due to this only 1 page of this size is allowed. When changing the page dimensions the current page is not lost - it just becomes unreadable. Hence you can recover your old page by changing the size back again.

So if you need a page of a differing size to the default, prepare it as your first task - you cannot design the page and then change it's size while maintaining page integrity.

(**L**) LOAD TEXT : The original ways of entering text onto the page were fine for small notices and articles - there was a limit imposed by the visible screen on maximum size. This option allows the loading of much larger files into windows up to the size of a whole page. The previous contents of the area will be overwritten, so be careful!

To load text over the entire page you open a window over the CAMEO. On first selecting this option you are given a cursor in the CAMEO, (a red or black square depending on the background) the co-ordinates of this cursor in the main menu window, and a close up of your position on the page in the area below the main menu window.

The **ARROW** keys will cause the cursor to move, **ALT** plus the **ARROW** keys will cause the cursor to move by a larger amount, and **CTRL** plus the **ARROW** keys will cause the cursor the move by a smaller amount (this only applies to vertical motion - maximum horizontal accuracy is one square).

As before, position the cursor at the top left of the desired window and press the **SPACE BAR**. Move the cursor to the bottom right hand corner of the window and press the **SPACE BAR** again. If at any time you are unsatisfied with what is going on, press the **ESCAPE** key to return you to the main menu. Now you will be asked if the text to be loaded should be represented by a QL set or by a 16 x 16 font. Make your selection with the menu bar. Next you will be asked to give the character size that the text will be loaded in.
Please note that loading in 16 x 16 fonts with a horizontal magnification may take a very long time.

You will now be presented with the LOAD TEXT window. For QL character sets everything is the same as for a normal text load. For 16 x 16 fonts AUTO SIZE TEXT is disabled and the CHANGE CONTROL CODES option is greatly changed. Instead of a control code just switching between character sets, it can also turn on either BOLD, ITALICS, UNDERLINING, INVERSE, MERGING, or change the STYLE.

Press C and a table will be displayed showing the current parameters. At start up it should look like this:

	CODE	BLD	UND	ITA	INV	MRG	STY	FON	
DRAFT	CTRL D	OFF	OFF	OFF	OFF	OFF	OR	B	--- means
BOLD	CTRL B	ON	---	---	---	---	---	---	the
UNDERLINE	CTRL U	---	ON	---	---	---	---		parameter
ITALICS	CTRL T	---	---	RIG	---	---	---	---	will remain
INVERSE	CTRL V	---	---	---	255	---	---	---	unchanged
OTHER	CTRL O	---	---	---	---	1	AND	---	

Say the text being imported contains the control code to turn DRAFT on, **CTRL+D**. As per the table, all of the parameters would be turned off and the font would become FONT B for the portion after **CTRL+D** (in fact, the text interpreter generates an automatic **CTRL+D** at the beginning of a document). Let us pretend that somewhere later in the document a **CTRL+T** was encountered. Now BOLD, UNDERLINE, INVERSE, MERGE, STYLE and FONT would remain unchanged, and ITALICS would get turned to RIGHT.

To change these control codes move the menu bar to the desired one and press the **SPACE BAR**. You will now be asked 8 questions concerning the parameters (so that the QL's copy of the above table can be filled in). To return to the TEXT LOAD window press the **ESCAPE** key. When all is done press L to load in the text.

You will now be able to justify the text. This works in exactly the same way as before. Both QL character sets and 16 x 16 fonts can be justified to any degree. If you wish to leave the text unchanged, you can either choose the OFF option or press the **ESCAPE** key.

Finally you can place the text onto the page, which has up to this point remained untouched! A window is provided giving you 3 options selectable with the menu bar: RE-JUSTIFY, FINISH (to put the text onto the page - give it time) and ABANDON which will pretend nothing has happened and return you to the main menu.

Since the 16 x 36 fonts are proportionately spaced there is no wholly accurate way for the computer to know the number of characters on a line. The width defined for a space is taken to be the value for all the characters. If, therefore, you have the space width set to a silly value, a silly result may occur, with too many characters on a line - perhaps even overrunning the edge of the page.

SECTION 11. SAVING AND LOADING PAGES

SAVING : OPTION (2)

Since an entire page takes up 188 sectors, or almost an entire microdrive cartridge, you may only have room for a small section of a page. This option makes allowances for space problems. You will be asked:

i. **HOW MANY LINES DO YOU WANT TO SAVE?**
    Each line is a row, 8 pixels, or 1 square, deep. To save an entire page choose the maximum number offered. If, however, you want to save a part of the page, you must know the number of lines that it occupies. Find this by determining the Y coordinate of the top of the section and the Y coordinate of the bottom of the section. Then subtract the former from the latter and enter the resulting figure, plus one.

ii. **FROM WHICH LINE TO START SAVING?**
    This refers to the Y co-ordinate at the top of the section you want to save. If, in your reply to the last question, you have already chosen the maximum number of lines available, you will not be asked this question (the computer knows that saving will start from line 0). After you have answered this question the desired area will be highlighted in green on the CAMEO.

iii. **FILENAME:**
    Mdv1_page44 for example.

iv. Finally, you will be told the number of sectors that this file will occupy and asked to confirm your wish to continue. Press Y to save; press N to return. If an error occurs during saving, you will be returned to question iv).

LOADING: OPTION (3)

The loading option follows almost exactly the same procedure. You will be asked:

i. HOW MANY LINES TO BE LOADED?
This should be equal to the number of lines that were saved.

ii. FROM WHICH POSITION TO LOAD?
This equals the Y co-ordinate of the location to which you wish the top of the section to be loaded. The desired area will be highlighted.

iii. **FILENAME?** eg; mdvl page

iv. From which program was the page saved: Desktop V1.0 or V2.O . Select with the numbers 1 or 2, or with the menu bar.

v. And finally, as before, you will be asked to confirm your entries. Press Y to load; press N to return.

A useful application of these two routines is the copying of a section of a page. Save the section you want to copy and load it to a different position or even to a different page. This allows you to get around the limitation on the size of a CUT AND PASTE

SECTION 12. EDITING THE FONTS

The graphic fonts offer an enormous variety of ways in which large text can be placed on the screen. In addition, the fonts can he redesigned to allow for many more typeface styles than we have included in the package. The sky is the limit!

To recap: a graphic font consists of 75 characters each designed on a 16 x 16 grid. There are 12 of these fonts in all. Hence 900 characters are stored in RAM at any one time. To redesign these fonts, select the FONT EDIT option from the main menu. A window will appear which displays all the fonts. Press the letter associated with the font which you wish to edit.

You are now in the FONT DESIGNER proper. To the left of the screen is the 16 x 16 grid and to the right of the screen is a large box containing all the characters in the selected font. At present, the cursor is in this box.

To select a character to edit, use the arrow keys to move your cursor over the desired character and press the **SPACE BAR**. A magnified version of this character will pop up in the grid.

The cursor has now moved and become the red square in the top left corner of this grid: as always it can be moved with the arrow keys. This is the grid in which all editing to the character itself is carried out

Other controls available are
SPACE BAR - Set pixel in grid
ENTER KEY - Reset pixel in grid
ESC KEY - Options menu

When you edit the character you will notice that a real size image of the character, to the right of the grid, always keeps pace with you. This character is in the opposite colour to the grid to show the appearance of the character on the pag.

On pressing the **ESC KEY** a menu of more complex functions appears. These are selected by pressing the associated keys or with the provided menu bar.

A) **STORE CHARACTER** : Copies the contents of the grid into the font. The changes that you make to a character are only stored in the font when this option has been selected.

B) **EXIT EDITOR** : Returns you to the main menu. Any changes that have been made to the font will be remembered.

C) **CLEAR GRID** : Resets all of the pixels in the grid.

D) **LOAD FONT** : Asks you for device name (eg: mdv1_capitals) and loads this previously designed set over the font you are editing. Some extra fonts are supplied - all their filenames end with '_FONT' to identify them as font files.

E) **CHANGE CHAR NUMBER** : Changes the number of the character you are working on without changing the contents of the grid. The new character number is chosen as before with a cursor in the right-hand box. This function is particularly useful when designing two similar letters (eg. E and F). After designing one letter you store it, change the character number to the new letter, alter the grid, and store the character again.

F) **SAVE FONT** : Asks you for a device_name (eg; mdv1_lower case) and saves the current font onto that device, with that name.

G) **EDIT NEW CHARACTER** : This allows you to select and edit a new character. Selection is by number, as before. Any work on the grid that has not been stored will be lost.

H) **SCROLL GRID** : Does what it says. The routine will ask for the number of scrolls RIGHT, the number LEFT, the number DOWN and the number UP. The grid will then be scrolled.

I) **INVERSE GRID** : Resets all the set pixels, and sets all reset pixels (eg; white on black becomes black on white).

J) **MIRROR IMAGE** : Reverses the grid.

K) **UPSIDE DOWN** : Turns the grid upside down.

L) **ESC** : Exits the options menu with no function being performed (cf B).

When designing a new letter font it is best to do so 'over' an old one, so that you know which character number corresponds to which letter. Any character designed thinner than the others (like the capital I or lower case 1) should sit close to the left-hand side of the grid. The setting of proportional spacing is dealt with in the next section.

SECTION 13. CHANGING THE FONT WIDTHS

To allow for professional looking lettering, all characters in the graphic fonts have their own individual widths - this proportional spacing prevents ugly looking gaps between letters such as l's and J's.

To see this in action select the EDIT FONT WIDTHS option from the main menu and choose which font to edit, as you did in the previous section. A good demonstration font is font B.

The screen will now show the entire font. Beneath each character will be a small bar. Each bar represents the width of the character above it: the widths can vary from 0 to 16 pixels. The space is the final bar without an associated character: its width should always be about 1 pixel more than the widest character in the font. The cursor is the green box which is currently around the capital A, at the top left of the screen. It can be moved with the arrow keys the width indicator at the bottom of the screen will tell you the width of the current character (the one the cursor is on top of).

Other keys which are of use are:

W - This will make the current character wider.

T - This will make the current character slimmer.

S - Saves the width data for the font you are editing. This data is held separately from the graphic data: hence two saves (one for the font graphics and one for the associated widths) are needed for the font. You will be asked for device_name (eg; flp1_widths) and then the data will be saved. You will then be returned to the main menu. Having graphics and widths stored separately makes the system uniquely flexible - you can associate one font with another's widths, for example.

L - Loads in font width data and uses the same procedure as the Save command. When loading in the other fonts supplied on the DESKTOP disk you should also load in the widths as well. The names of all of the supplied width files end with ' wdt'. If you need to remember you can use the FILES option from the main menu to obtain a directory of the disk.

ESC - Returns you to the main menu.

D - This takes you to a simple sub-mode where the descent of the lower case g, j, p, q and y can be set. In this sub-mode the 5 letters in question will be displayed. Over them will be a green bar, which you can control with the up and down arrow keys. This bar represents the "base" of non-descending letters - the place where the line would be if you were writing on lined paper. When you have positioned the bar to your satisfaction press the ESC key to return to the main menu. When the Font widths are saved this descent data will be stored as well.

SECTION 14. EDITING THE QL SETS

On startup DESKTOP PUBLISHER provides you with 21 QL fonts. One is the standard and the rest more ambitious variations. Each font consists of 96 characters and each character is an 8 x 8 grid. The QL characters sets can be easily altered or completely changed by the built-in CHARACTER SET EDITOR. Access it by selecting option 8.

First of all you will be asked which of the 21 QL sets you wish to edit, barring set 0 (which cannot be selected) and 1, 3 and 13 (which cannot be altered) any of the sets can be redefined. Select a set it will appear in the window at the top right of the screen. The lowest window will now display 4 main options - to be selected by their number or with the menu bar.

> **Option 4** takes you out of the editor and returns you to the main menu.

> **Options 2 and 3** allow the saving and loading of prepared sets (a number of these extra sets are on the disk, all with filenames ending in '_ql'). A character set need not have been prepared with DESKTOP PUBLISHER: any character generator will produce suitable output (the character designers supplied with EYE-Q or TURBO TOOLKIT will do fine).

> If you select **option 1** you can get down to the business of designing.

Note: If you are looking at either of the sets 1,3,13 then the options 1 and 2 will be disabled. These sets are inviolate because the program uses them itself and we can't trust you not to experiment!

The bottom window will now ask you to identify the character you want to work on: this can be any of the characters shown. Type in the one you want to edit and press **ENTER**. This character will appear on the big grid at the left. The cursor is the green square at the top left. Movement is carried out in the same way as in the **FONT** designer, with the arrow keys moving the cursor, the **SPACE BAR** setting a square, and the **ENTER** key resetting it. Pressing the **ESC** key at any stage will get you to another menu. From this menu more complex functions can be accessed by selecting an appropriate letter.

These functions are .

> A) **STORE CHARACTER** - Enters the character you have been working on into the set. A character is only remembered after this option has been selected.

> B) **NEW CHARACTER** - If you have finished editing one character this option will allow you to select a new one. As before, type in the character you want to edit.

> C) **CLEAR GRID** - Resets all pixels in the grid.

> D) **INVERSE GRID** - Inverses the grid, turning all red squares white and all white ones red.

> E) **UPSIDE DOWN** - Turns the grid upside down.

> F) **MIRROR IMAGE** - Reverses the grid.

> G) **TO MENU** - Returns you to the menu from which the load and save options were available.

> H) **RANGES** - All of the sets supplied redefine the characters between 32 and 127. This can be changed so that foreign characters can be redefined. Select this option and answer questions related to the first valid character and the final valid character (the normal range for the foreign set is 128 to 191). The range cannot include more than 96 characters.

> I) **ESC** - Leaves the menu, no option being selected.

If you look at the top of the grid you will see a set of arrows with the words **ALL SIZES** next to it and a green line going through the grid. If you are designing a character set and want to maintain its integrity in all of the character sizes, then your character should not use the two final columns on the right-hand side. If you use these two rows your character will have more room to be designed in, but will only work properly with character sizes of 1, 0 and 1,1.

SECTION 15. LOADING PICTURES

As has already been said, any QL screen produced by any graphic package (EYE-Q is the best) can be included on your page. This is done by loading in the picture and cutting out an area for subsequent pasting while in **TEXT MODE**.

Firstly select the **LOAD IN PICTURE** option from the main menu. You will be asked if the screen is an ordinary QL screen (ie; as produced by a SBYTES device_name, 131072, 32768 command) or a screen from EYE-Q (for most accurate rendition, use monochrome save from within EYE-Q - but don't use monochrome + compression) . Press 1 for ordinary and 2 for an EYE-Q file – or use the menu bar.

Next enter the screen file name eg; MDV1_demo_screen

TWO EYE-Q SCREENS CONTAINING CLIP ART ARE PROVIDED. THEY ARE CALLED ART1 AND ART2 AND SHOULD BE LOADED USING LOAD OPTION 2.

Press **ENTER** and the picture will be loaded, ready to be **CUT**. The display will show both the desired picture and a small box. This box can be moved with the arrow keys and have its shape changed with the **SHIFT+arrow** keys. This box should contain the area that you wish to place onto the page.

The movement of this box is in 8 pixel steps (should you need finer movement use the **CTRL+arrow** keys to scroll and pan the screen in the specified direction). Move the picture into the box, or the box over the picture - it doesn't really matter which:

In this mode 4 other keys also have effect:

> **R** - Recolours the screen. A small window will appear: you are prompted for the parameters for the **RECOLOUR** command. What are they? Look up the Keywords section of the QL User Guide. Note that if a screen is multi-coloured, red is taken as black and green as white (no yellows or magentas allowed: the picture should be in mode 4).
>
> **U** - Will turn the screen upside down.
>
> **M** - Turns the screen into its mirror image.
>
> **ESC** - Stores the contents of the box and returns to the main menu.

With the help of these commands, **CUT** out the desired section of the picture and switch to **TEXT MODE**. Press **CTRL+SHIFT+X**. Provided that there is enough space, the picture will appear on the screen.

SECTION 16. FILE HANDLING

Select **option 4**. This option allows you to obtain a **DIRECTORY**, **FORMAT**, or **DELETE** a file from a device such as a cartridge or disk. It does this with the standard QL conventions.

You will be presented with 3 options:
1) **DIRECTORY**
2) **DELETE**
3) **FORMAT**

Press the number corresponding to the required option or use the menu bar. To illustrate:

DELETE mdv1_picture (Deletes the file 'picture' on mdv1.).

WDIR flp1_ (Obtains a directory of flp1_ and displays to the screen).

WDIR flp1_DESK (Obtains a directory of flp1_ and displays only the file names with the word DESK in them.)

FORMAT mdv1_jj2 (Formats the cartridge in mdv1_ and names it jj2).

FORMAT ram1_300 (Formats a ramdisk to a capacity of 300 sectors. You will need a ramdisk driver, of course).

The **WILD CARD DIRECTORY** routine is case dependent ('DESK' is different from 'desk') and will pause whenever the screen is full: alternatively, you can use **CTRL+F5** to pause the listing.

SECTION 17. CHANGING THE TASKS

This is option **8** on the main menu and will give you 2 options.

1) **SWITCH TASKS**
2) **QUIT DESKTOP**

Since **DESKTOP PUBLISHER** is a fully multitasking program, it can run concurrently with many other, programs. For instance, the **EDITOR** can be in memory at the same time allowing for easier transfer of files between the two systems.

To switch between tasks choose the first option on the menu: the **SWITCH TASKS** option. After selecting this option you can leave the program by pressing **CTRL+C** (hold **CTRL** down and tap **C**). If DESKTOP PUBLISHER is the only task running in the QL, you will be returned to SuperBASIC. Pressing **CTRL+C** again will toggle you back to DESKTOP PUBLISHER - from here any keypress produces the MAIN MENU.

Here is how to multitask **DESKTOP** with **EDITOR**. First of all load DESKTOP PUBLISHER. Exit to SuperBASIC and load EDITOR using EXEC MDV1_EDT_BIN (or EXEC FLP1_EDT_BIN). CTRL+C will cycle you through the available tasks (SuperBASIC, EDITOR and DESKTOP PUBLISHER). To return to DESKTOP PUBLISHER just find the right window (see where the cursor flashes) and press a key. When you toggle to EDITOR press **F4** to tidy up the visible screen.

Heady stuff! Text can hence be created with the EDITOR, saved to RAMDISK and loaded onto the page with the DESKTOP's text load option. For more on multitasking and concurrency refer to the EDITOR bible.

The ability to return to SuperBASIC at any time with no loss of data makes all of the QL's tile handling commands accessible to DESKTOP PUBLISHER users. In this way commands that are not available in the program (example: COPY) can be used. Also the **NETWORK** facilities are operable, making it possible for two or more QLs to share data about **PAGES** and **FONTS**.

To completely remove DESKTOP PUBLISHER from memory choose option **2**. You will be asked if you are sure about this. If you reply **YES** then the program will be erased. IT IS NOT RECOVERABLE: ANY UNSAVED DATA WILL BE LOST.

DESKTOP PUBLISHER SPECIAL EDITION MANUAL

SECTION I. READY REFERENCE TO KEYS

In this section, a + indicates that the two keys are pressed together.

* * * * TEXT MODE

ARROW KEYS	MOVE CURSOR
CTRL,+ARROW KEYS	MOVE CURSOR BY ONE PIXEL
SHIFT+ARROW KEYS	SCROLL SCREEN
ALT+ARROW KEYS	CHANGE CHARACTER SET NUMBER
ENTER+ARROW KEYS	SCROLLS CONTENTS OF WINDOW
SPACE BAR 1ST	DEFINES TOP LEFT OF WINDOW
SPACE BAR 2ND	DEFINES BOTTOM RIGHT OF WINDOW ENTERS TEXT INSERT MODE
ESC	CANCELS DEFINITION OF TOP LEFT OF WINDOW
SHIFT+N	INVERSES CONTENTS OF WINDOW
SHIFT+/	DRAWS BOX AROUND WINDOW
CTRL+SHIFT+V	CUTS CONTENTS OF WINDOW INTO MEMORY
CTRL+SHIFT+X	PASTES CONTENTS OF MEMORY TO SCREEN (U for UNDO)
BACKSLASH	CHANGES STIPPLE
SHIFT+ALT	ENTERS NEXT MODE 'FONT MODE'
CTRL+ESC	RETURNS TO SELECT SECTION MODE

**** MODE TEXT (INSERT)

UP ARROW	CURSOR MOVES UP ONE LINE KEEPING ITS COLUMN POSITION
DOWN ARROW	CURSOR MOVES DOWN A LINE KEEPING ITS COLUMN POSITION
RIGHT ARROW	CURSOR MOVES RIGHT ONE CHARACTER ON THE CURRENT LINE OR TO FIRST CHARACTER BELOW
LEFT ARROW	CURSOR MOVES LEFT ONE CHARACTER ON THE CURRENT LINE OR TO LAST CHARACTER ABOVE
SHIFT+RIGHT	CURSOR MOVES RIGHT ONE WORD
SHIFT+LEFT	CURSOR MOVES LEFT ONE WORD
CTRL+LEFT	ARROW CHARACTER TO THE LEFT OF THE CURSOR IS DELETED AND THE LEFT ARROW ACTION IS TAKEN
CTRL+RIGHT	ARROW CHARACTER UNDER THE CURSOR IS DELETED
CTRL+LEFT	ARROW WORD TO LEFT OF CURSOR IS DELETED
CTRL+RIGHT	ARROW WORD TO RIGHT OF CURSOR IS DELETED
CTRL+ALT+LEFT	CURRENT LINE IS DELETED
ENTER	SCROLL TEXT DOWN ONE LINE
CTRL+L.	ENTER TEXT LOAD PROCEDURE
F4	CCESS CHARACTER SET MENU
F5	ACCESS CHARACTER STYLE MENU
ESCAPE	FINISH ENTERING OF TEXT

DESKTOP PUBLISHER SPECIAL EDITION MANUAL

**** **FONT MODE**

ARROW KEYS	MOVE CURSOR
CTRL+ARROW KEYS	MOVE CURSOR BY ONE PIXEL
ALT+ARROW KEYS	CHANGE FONT SET
SHIFT+ARROW KEYS	SCROLL SCREEN
ENTER	GENERATE LINEFEED
ALT+X or ALT+Y	ENTER MAGNIFICATION WINDOW
ALT+I	ENTER ITALICS WINDOW
ALT+V	ENTER INVERSE WINDOW
ALT+M	ENTER MERGE WINDOW
ALT+S	ENTER STYLE WINDOW
ALT+U	ENTER UNDERLINING WINDOW
ALT+F	ENTER FONT CHANGE WINDOW
ALT+K	DISPLAY FONT WINDOW
ALT+P	TOGGLE UPSIDE DOWN ON/OFF
ALT+R	TOGGLE REVERSING
ALT+T	INCREMENT ROTATION BY 90 DEGREES
ALT+C	ZERO ALL PARAMETERS
ESC	RETURN TO 'MODE TEXT'
SHIFT+ALT	ADVANCE TO 'MODE DRAW'

**** **MODE DRAW**

ARROW KEYS	MOVE CURSOR
CTRL+ARROW KEYS	MOVE CURSOR BY ONE PIXEL
SHIFT+ARROW KEYS	MOVE BRUSH SELECT CURSOR
SPACE BAR	PAINT BRUSH TO SCREEN
ENTER	INVERSE BRUSH
BACKSLASH	CLEAR CURSOR SQUARE
ESCAPE	RETURN TO 'FONT MODE'
SHIFT+ALT	ADVANCE TO 'MODE CIRC'

**** **MODE LINE**

ARROW KEYS	MOVE CURSOR
CTRL+ARROW KEYS	MOVE CURSOR BY ONE PIXEL
ALT+LEFT/RIGHT	BEND LINE INTO ARC
SHIFT+ARROW KEYS	SCROLL SCREEN
SPACE BAR	DRAW ARC/LINE
ESCAPE	RETURN TO MODE DRAW
SHIFT+ALT	ADVANCE TO MODE CIRC
U	UNDO

DESKTOP PUBLISHER SPECIAL EDITION MANUAL

* * * * MODE CIRC

ARROW KEYS	MOVE CURSOR
CTRL+ARROW KEYS	MOVE CURSOR BY ONE PIXEL
SHIFT+ARROW KEYS	SCROLL SCREEN
ALT+UP/DOWN	ENLARGE/SHRINK CIRCLE
ALT+RIGHT/LEFT	BEND CIRCLE INTO ELLIPSE
ENTER+RIGHT/LEFT	ROTATE ELLIPSE ABOUT CENTRE
SPACE BAR	DRAW CIRCLE/ELLIPSE
ESCAPE	RETURN TO MODE LINE
SHIFT+ALT	ADVANCE TO MODE FILL
U	UNDO

**** MODE FILL

ARROW KEYS	MOVE CURSOR
CTRL+ARROW KEYS	MOVE CURSOR BY ONE PIXEL
SHIFT+ARROW KEYS	SCROLL SCREEN
ALT+UP/DOWN	ACCESS CHANGE TEXTURE MENU
SPACE BAR	FILL SHAPE
ESCAPE	RETURN TO MODE CIRC

* * * * CHANGE TEXTURE MENU

UP ARROW	INCREASE CHARACTER NUMBER
DOWN ARROW	DECREASE CHARACTER NUMBER
CTRL+UP ARROW	GO NEXT FONT
CTRL+DOWN ARROW	GO PREVIOUS FONT
I	TURN INVERSE ON/OFF
U	TURN UPSIDE DOWN ON/OFF
M	TURN MIRROR IMAGE ON/OFF
F	FILL CURRENT SHAPE
ESCAPE	RETURN TO MODE FILL

* * * * PICTURE LOAD OPTION

ARROW KEYS	MOVE BOX
SHIFT+ARROW KEYS	ENLARGE BOX
CTRL+ARROW KEYS	SCROLL AND PAN SCREEN
M	MIRROR IMAGE THE SCREEN
U	TURN SCREEN UPSIDE DOWN
R	RECOLOUR SCREEN
ESC	STORE BOX CONTENTS AND RETURN TO MAIN MENU

DESKTOP PUBLISHER SPECIAL EDITION MANUAL

**** EDIT QL SETS AND EDIT FONTS

ARROW KEYS	MOVE CURSOR
SPACE BAR	SET PIXEL
ENTER	RESET PIXEL
ESC	ACCESS OTHER OPTIONS

**** SET FONT WIDTHS OPTION

ARROW KEYS	MOVE CURSOR
W	INCREASE CHARACTER WIDTH
T	DECREASE CHARACTER WIDTH
D	ACCESS DESCENDERS
S	SAVE WIDTH
L	LOAD WIDTH
ESC	RETURN TO MAIN MENU

SECTION 19. TECHNICAL DETAILS

This section is for those who know some of the ropes!

THE PAGE ITSELF: As has been stated many times before, the default page consists of 960 by 800 pixels. It is stored in memory as a file of 96000 bytes. Each byte thereby represents 8 pixels. The layout for the two differing page orientations is as follows:

VERTICAL PAGE
LINE 1 BYTE1BYTE2 BYTE3 BYTE4 BYTE5
LINE 2 BYTE121 DYTE122 BYTE123 BYTE124 BYTE125....BYTE240
etc to
LINE 800 BYTE95871 BYTE95872 BYTE95873   BYTE95874 BYTE95875 … BYTE96000

SIDEWAYS PAGE
LINE 1 BYTE1 BYTE2 BYTE3 BYTE4 BYTES...
LINE 2 BYTE101 BYTE102 BYTE103 BYTE104 etc to
LINE 960 BYTE95901 BYTE95902 BYTE95903 BYTE95904 BYTE95905.._.BYTE96000

Thus on the page one bit holds one pixel. And a horizontal line takes up (no of pixels)/8 bytes.

The amount ofmemory taken up by the pages of other sizes are:

PIXELS	NO. OF BYTES
480x400	24000
480x8O0	48000
800x400	40000
800x800	80000
960x400	48000
960x800	96000
1280x400	64000
1280x800	128000

THE CHARACTER FONTS AND WIDTHS: A character font is a file of 2400 bytes in length. It contains data on 75 characters, each character taking up 32 bytes. Each horizontal line of pixels takes up one word of memory.

A font width is held separately and consists of 77 bytes. The first 75 bytes are the widths (from 0 to 16) of the characters and the 76th byte is the level of descent, the final byte stores the width of a space.

THE. PROGRAM ITSELF: Apart from a few machine code routines for screen handling and memory management. DESKTOP PUBLISHER was written entirely in SuperBASIC and compiled using TURBO (DIAGNOSTICS OFF, OPTIMISATION REMS). We can recommend TURBO to any programmer wishing to produce quality software: we could only sit and marvel as TURBO converted our ugly, slow and bulky program into sleek multitasking machine code! TURBO is probably the fastest and most powerful BASIC compiler available for any micro.

SECTION 20. HINTS AND TIPS

Firstly and perhaps most importantly: plan your pages - otherwise they will end up looking like the ones in this manual! A rough sketch is all that's needed. Nothing is more imagination draining and confidence sapping than staring at a blank white screen.

When designing a page continually refer to the CAMEO. It is an extremely useful tool for judging how the page is getting on. It can show up serious flaws in your ideas, or in their execution, before you have spent too much of your time.

Avoid the temptation of using too many fonts. DESKTOP PUBLISHER is exceptional in the range of fonts it affords. If you try to use all of them on one page you are almost certainly going to produce a horrible mess, almost as bad as a certain ad in QL WORLD (the one we split our sides laughing at - you know which one!). They may look pretty on one section of the screen: however the clashing of adjacent fonts is unlikely to be artistic (but that's what they said to Picasso...). Try to keep the page consistent in both design and layout.

If you are interested in designing an A5 booklet it is worthwhile to note that on a SIDEWAYS page the horizontal portion that is shown on screen is exactly the width of an A5 page. It is therefore easy to separate an A4 page into two A5 pages. In fact the most important consideration to be taken into account is the positioning of your paper in the printer!

Newsletters often have repeating headlines which bear only minor changes such as date or issue number. To save time, design this headline and save only the section of the page that it occupies. Whenever you redo the newsletter, load back the headline onto the top of the page.

To rapidly clear a large portion of the page, go into TEXT MODE, open a window over the portion you wish to clear, enter TEXT INSERT, put in no text and keep the results.

When editing a page that is arranged in columns you may have trouble getting the letters to marry up exactly with each other. To overcome this use the window scroll commands (CTRL and arrows in TEXT MODE) to gain perfect alignment.

If you have access to a commercial book of fonts, why not pinch your designs for character sets from them? Character design is not too easy.

When you want to include photographs or the like in a page, leave a boxed off gap for them in the page. After your print run, stick the photograph in and photocopy the results. If you are more ambitious, buy a video digitiser (phone Sandy for a quote - they are surprisingly cheap!) and use it to capture a picture from a video recorder or camera. Clean the digitised image (EYE-Q is worth its weight in gold here) and load the processed screen into DESKTOP PUBLISHER.

To fill a black shape with a white boundary, invert the page, invert your texture, then fill the shape, finally invert the page again. It's rather a long procedure so do all of the filling at once.

It is sometimes very fiddly to draw a single brush on the screen, to overcome this problem use the option 'DRAW BRUSH' accessed with SHIFT+F1.

For an example of what can he achieved, refer to the demonstration pages at the hack of the manual - or to DP's advertisement copy in the press!