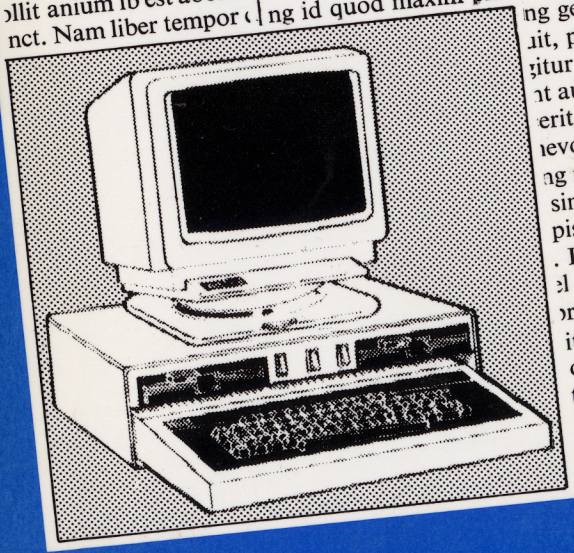
WAPPING EDITOR

"MIGHTIER THAN THE QUILL"

it, sed diam nonnumy r
quam erat volupat. Ut
ıcorper suscipit laboris
ɜum irure dolor in henc
lore eu feugiat nulla fac
ıdit praesent luptatum z
ccaecat cupiditat non s
ɔllit anium ib est aborui
nct. Nam liber tempor c

aepe eveniet ut er mole
delectus au aut prefer
teniam, quid est cur ve
paulo ante cum memc
'test fier ad augendas c
:t tamen in busdam ne
:pular religuard cupidi
nct. Nam liber tempor
ng id quod maxim pla

dit distinct. Nam liber ter
ɜt doming id quod maxi
ınis repellend. Temporib
sit atib saepe eveniet ut e
;apiente delectus au aut p
tene senteniam, quid est c
quos tu paulo ante cum
ccess potest fier ad auge
viuda. Et tamen in busd
ng gen epular religuard
ıit, potius inflammad ut
itur vera ratio bene san
ıt aut inuiste fact est cor
erit, et opes vel fortunag
ıevolent sib conciliant, e
ng null sit caus peccand
sine julla inura autend i
pis plusque in ipsinuria
. Itaque ne iustitial dem
ɜl plurify. Nam dilig et c
ɔrobiate putamuy sed m
it distinct. Natod ier tel
opes vel fortunag vel in
t sib conciliant, et aptis
sit caus peccand quaert
lla inura autend inanc s
sque in ipsinuria detrim



Operating Manual

Watford Electronics

THE WAPPING EDITOR FOR THE BBC MICRO AND MASTER 128

Published in the United Kingdom by
Watford Electronics
JessaHouse
250 Lower High Street Watford
WD12AN
England

Telephone 0923 37774
Telex 8956095
Fax 01 950 8989

This book was computer typeset by
Ideal Software Consultants, 11 Hathaway Close, Luton, Bedfordshire.

CONTENTS

1.0 INTRODUCTION

The Wapping Editor Desktop Publishing system represents the very latest in 'mouse technology' on the BBC Micro series of computers. The Wapping Editor is an advanced 64K package that offers an entire publishing system on a single chip. The system is divided into four modules, a wordprocessor module, a graphics and typesetting module, a font editing module and a front page which links them all together.

Capable of operating on all the BBC range, the Wapping Editor is able to take advantage of any shadow and sideways RAM fitted to give faster and more flexible operation (although shadow RAM on the B+ cannot be used). It can, of course, operate on a standard 32K BBC machine though some minor features are unavailable due to the lack of available memory.

Operating in mode 0, the Wapping Editor creates high resolution images in a variety of sizes from a single screen to a full A3 page. Using a combination of proportionally spaced fonts and microspacing it is possible to get around 100 characters across an A4 page. Printing can be done in any number of columns and text can be wrapped around pictures.

The emphasis throughout the system has been on a combination of sophistication and ease of use. By using the mouse to pick filenames off the screen keyboard entry has been kept to a minimum leading to smoother and quicker operation. Disc management has also been made very easy since the Wapping Editor allows any combination of fonts, pictures, pages, documents, cutouts etc. to be stored on a single disc. This means that everything relevant to one publication may be stored on one disc, no more 'page discs', 'font discs' etc.

The comprehensive font editor allows modification of the supplied fonts and the creation of your own. In addition fonts may be imported from other sources e.g. Quest Paint or Stop Press (formally Pagemaker) whereupon they may be modified to suit you own needs and proportional spacing information added if desired.

The in-built word processor means that it is not necessary to buy additional software to create your text documents. The Wapping Editor word processor is specifically tailored to suit the needs of the

DTP environment. Although text entry is necessarily from the keyboard, the main text manipulation facilities e.g. copy block, move block, save, load, etc. are mouse driven. Although ideally suited for the purpose, your documents do not have to be created in the Wapping Editor word processor, since they may be loaded in from other sources e.g. Wordwise, View etc. allowing anyone with a wordprocessor to submit articles for publication.

The whole system is linked together through the front page from where pages may be created, loaded, saved, previewed or printed. The front page also gives access to a 'Mode conversion' utility which will convert screens from any of the other graphics modes (1,2,4 and 5) into mode 0, using full grey-scale toning. This allows the Wapping Editor to use pictures developed on other packages such as Quest Paint, the Artist or Super Art.

For anyone already used to Quest Paint, the Wapping Editor will immediately feel very familiar and for others, mastery of the system will not take long. It is suggested that, in order to familiarise yourself with the package as quickly as possible, you work through the manual from the front to the back, rather than from the centre outwards as so often happens!

The Quest Mouse has three buttons on it; these are referred to as the left, middle and right hand buttons, symbolised as L, M and R throughout this manual. Their specific uses vary slightly in the different modules but essentially they are:

L is mainly used to execute a command.

M has different functions in each module, these will be explained in detail in the relevant section.

R is used mainly to cancel or abort some operations, also to select and deselect menus in the graphics module.

Although the Wapping Editor system is very easy to use once you are familiar with it, there are a large number of features to become conversant with. To help you start publishing as quickly as possible we give some easy to follow examples.

1.1 LEARNING AND THIS MANUAL

The best way to become familiar with the Wapping Editor is to experiment with it. However, we recommend that this is done in conjunction with this manual, following the examples given and trying each command as you come across it; otherwise you are likely to miss being able to realise the full potential of the system.

The system will be described module by module beginning with the Front Page, although not all of its facilities will be usable until you have created a full page.

2.0 GETTING STARTED

Important :-

If your machine is fitted with shadow RAM then the controlling software MUST be disabled before running the Wapping Editor. (See APPENDIX 1).

Before you begin experimenting we suggest that you make a copy of the utility disc supplied with the package and keep the original in a safe place.

The first stage in using the Wapping Editor is to install the ROM device and connect the mouse to the User Port (notch uppermost). Once you have attached the mouse switch the computer on and type:

*WEDIT

You will be presented with the system Front Page and the mouse icon (a pointer) will be displayed in the middle of the screen. By moving the mouse, the pointer can be moved around the screen.

2.1 Taking the Plunge!

The authors realise that many users prefer to read just the bear minimum of a manual before launching themselves headlong into the accompanying software. Bearing this in mind, the following section has been designed to talk you through the creation of your first page.

For those already familiar with the rudiments of mouse-driven packages, such as Quest Paint, the following few paragraphs will help to show you the ropes! Those who are less confident should return to this section after reading the rest of the manual. It is not the purpose of this section to explain how each individual feature operates but rather to give you a crash-course in getting a page into print.

The Wapping Editor will allow you to produce pages of text and graphics in a variety of sizes. In order to do so it has a Wordprocessor module, for the production of text; a Graphics module, for the production of pictures and diagrams; a Font editor,

for designing or customising your typefaces and a Typesetting section which allows the text and graphics to be 'pasted-up' into position. These various modules are linked together through the Front Page. It is of course possible to use any of the modules in a 'stand alone' fashion.

There are no 'system discs' as such, although there are some useful files on the utility disc provided with the package. For the purposes of this exercise copy the files 'EpsonPR', 'PrevMC' and 'ConvMC' onto a blank formatted disc; although these routines are copyright you may make multiple copies for your own use. For ease of use it is recommended that and all files are stored in the current directory. The software will differentiate between pictures, pages, documents, fonts etc. by examining the file length and NOT the name. If, for example, a document is saved with the same name as a font in the same directory, then the font will be overwritten.

Assuming that you have some View, Wordwise, or similar text files, copy one of these into the same directory. If you do not have a suitable file you will have to create one using the wordprocessor module, see Section 12. You may like to include a picture, in which case copy any mode 0,1,2,4 or 5 screen into the directory. If you do not have an existing screen one may be created using the graphics module, see Sections 4 - 9. If the picture you choose is not a mode 0 screen you. will have to use the 'Convert' routine from the Front Page, see Section 3.4. If the screen has been converted it will have to be saved back to disc. This is done by moving the mouse icon into the top portion of the screen and clicking the right hand mouse button (R), selecting '1/0', by clicking the left hand button (L) over the 'I/0' icon and finally selecting the 'Save' option from this menu. The filename may be picked off the screen using the mouse, or a new name entered from the keyboard. Ensure that this screen is copied into the same directory as your text file.

You now have a text file, a mode O picture and the three utilities mentioned above in the current directory and are ready to 'create' a page.

Select the 'Create' option from the Front Page (by clicking L over the 'Create' icon) and you will be prompted to select the size. For this experiment choose A4s, which is designed to fit neatly onto a single sheet of standard sized printer paper. After being prompted for a filename a blank page will be created on the disc.

It is now necessary to load this new page into the package. This is achieved by clicking on 'Load' and then clicking over the filename of your blank page. If your machine is fitted with sufficient sideways RAM (32K for an A4s page) the page will be loaded entirely into memory at this stage, in the absence of sideways RAM this will not happen. Selecting the 'Grafix' module will present you with a blank (white) screen and the mouse pointer will have been replaced by the pencil icon.

Move the mouse into the top portion of the screen and click R. Select the '1/0' icon to display the 1/0 menu. From this menu select 'Load' and pick the name of your mode O screen from the list displayed. After the screen has loaded you will want to place the text beneath it. To do this it is necessary to pan the screen up. In order to pan the screen click the middle mouse button (M) three times, which will display the 'hand' icon. Now position this icon at the bottom of the screen, press and hold the left hand button, move the mouse to the top of the screen and release the button. The screen will be moved up to reveal the blank area at the bottom of the page. If your page is stored in sideways RAM (ie. you have at least 32K) then the panning will be almost instantaneous, if the page is stored on disc then the process will take longer.

Typesetting your text file can be a fairly complex operation with many options and variations and full details may be found in Section 10. For the purposes of this exercise we will do it quickly and simply by using just the default parameters.

Call up the top menu (the COMMAND menu) by clicking R in the top portion of the screen and select 'Typeset' using the left hand button. From the typesetting menu select 'Compose' and pick off the name of your text document from the list displayed, you may of course enter the name directly from the keyboard if you prefer. Now press the right hand button to remove the menu and you will see a ruler displayed around the edges of the screen. The text may now be placed in columns on the page by rubber banding a rectangle onto the screen in the desired position. Do this by clicking L, moving the mouse and clicking L again. The text will then be read in from disc and printed in the area you have just defined. By default the text will be left and right justified and microspaced. If the column is too small to fit the whole text document further columns may be defined in the same way. Selecting 'Use Width' from the typesetting menu (called

up by clicking R in the top region of the screen) will ensure that all columns are the same width. If you fill the page before all the document has been printed you should select 'Abort' and 'Exit'.

To leave the typesetting section completely click R, and will find yourself back in the main graphics module, from which you should select 'Exit' from the top menu. You will now be back at the Front Page. Select 'Preview' by using the middle button (M) and you will see your page appear in reduced size in the window at the left of the screen. You may print out the page by clicking over the 'Print' option. The default printer driver is for Epson compatible printers.

Finally, clicking over the 'Save' icon will save the entire page to disc using the same name with which it was loaded.

3.0 THE FRONT PAGE

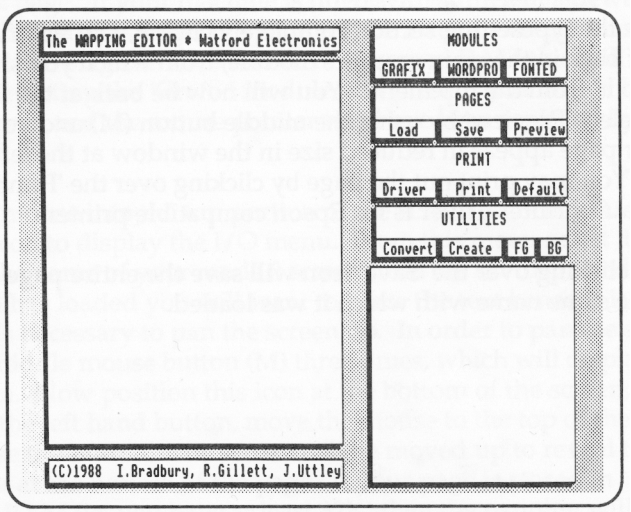


Figure 1

The front page is shown in Fig. l. The large area to the left is the area in which 'previewed' pages are displayed. The area at the bottom right is the window in which the computer displays catalogues, reports errors, displays options and in which you may enter O.S. commands. The sets of boxes above this window are the main option boxes.

3.1 Modules

The three options here take you into the other modules in the system, the Graphics module, the Word processor and the Font Editor. Selecting any of the modules requires positioning the mouse pointer in the desired box and clicking left hand button (L) twice.

3.2 Pages

Load

If you have a page stored on disc it may be loaded into memory by clicking L over the 'Load' icon. When the mouse button is clicked, a disc catalogue of pages will appear in the window at the bottom right followed by the prompt 'Enter filename:'. Moving the mouse over the desired name and pressing-and-holding L will highlight the name under the mouse pointer. While the mouse button is held down, moving the mouse will highlight each name as the pointer passes over it. To load the highlighted page into memory simply release the button. If your machine is fitted with sufficient sideways RAM the screen will be loaded directly into it. The advantage of having the screen held in RAM is the speed with which it may be panned around - described in detail in Section 8.3 The loaded page will not be displayed on the screen until you enter the Graphics module.

The catalogue will display pages in the current directory only. If you wish to load a file stored in a different directory its full pathname will have to be entered at the keyboard or the appropriate* command issued to change directories.

Save

Any page currently in memory may be saved to disc by clicking L over the 'Save' Icon. No disc catalogue will appear at this stage since the page will be saved with the same name with which it was loaded or created. Note that this will overwrite the original disc copy.

Preview

Any page stored on disc may be previewed in the large window at the left by clicking L over the 'Preview' icon. A disc catalogue of pages will appear, from which a name may be selected in the manner described under 'Load' above. Clicking Mover this icon will preview the current page.

3.3 Print

Driver

By default the printer driver used by the Wapping Editor is tailored for Epson compatible printers. Clicking L over this icon will give a disc catalogue of any printer-driver files in the current directory. The desired driver may be selected in the way described under 'Load' above.

Print

Clicking L over this icon will begin printing the current screen. The printer driver used will be the default Epson one unless a different driver has been specified by using 'Driver' as described above.

Default

Clicking Lover this will reset the printer driver to be the default Epson driver. All future page printing will be for Epson compatible printers.

3.4 Utilities

Convert

This utility allows graphics screens drawn in modes 1,2,4 or 5 to be converted into mode O for use in the Wapping Editor. The routine gives a full grey-scale conversion with a different shade allocated to each colour in the original picture.

Clicking L over the convert icon will display four option boxes in the catalogue window, along with the prompt "From which mode?" The boxes are numbered 1,2,4 and 5; simply select the mode of the original picture by clicking L over the appropriate box. A disc catalogue of screens will then be displayed and the conversion completed by clicking. over the desired filename.

After clicking over the filename the screen will clear to mode 0 and the selected file will be loaded in. If the original picture was in mode 4 or 5 it will look very different at this stage. As soon as the screen has been loaded it will be converted and you will be placed directly into the Graphics module, described in detail in the following chapter.

Create

This is the utility needed to begin a totally new page. What it does is to create a completely blank page on disc. Clicking L on 'Create' will display four option boxes in the catalogue window, along with the prompt "Select size:". The boxes are labelled 'A4s', 'A4', 'A3' and 'A5x2'.

The A4s size is a 'small A4', the same width as A4 but a little shorter. The advantage of this size is that it will fit neatly on a single sheet of standard-sized printer paper. An added advantage is that the entire page will reside in only 2 banks (32K) of sideways RAM.

The A4 and A3 sizes are just that. When these pages are printed out they will be either A4 or A3 portrait (vertical) format. If a page is created in A3 size and later photo-reduced to A4 size the resulting page will have four times the resolution of the standard A4 option.

Selecting size A5x2 will create an A4 landscape (horizontal) format page. This can be used to create two AS sized pages side by side, making the production of small booklets remarkably simple. Alternatively of course you could use it to create a single A4 landscape page.

After selecting the required size the page will be created. The next step is to load that page into RAM by clicking Lover the 'Load' option (see above).

FG and BG

Clicking L over either of these boxes will cycle through the foreground and background colours. It is not possible to set both to the same colour but any two colours from the available eight may be selected. These colours will be carried through into the other modules, although they may be changed again from within the Graphics module.

3.5 O.S. Commands

If you wish to enter an Operating System command simply type a '*' from the keyboard and the catalogue window will clear ready for the entry of the command. It should be noted that entering commands which have a direct effect on main memory may result in the loss of important data. It is perfectly safe to enter commands to change drives or directories, to catalogue discs or delete files etc.

4.0 THE GRAPHICS MODULE

The Graphics module of the Wapping Editor is a very sophisticated piece of software with many facilities including pencil drawing, user defined brushes and an advanced airbrush drawing command. Other features include cut and paste, digitise a picture (with the WE digitiser), protect, transparent, cycling displays, patterns applicable to line, solid, airbrush and fill operations, etc.

Two special menus are displayed when needed with the original screen image restored afterwards. Any mode 0 screen can be loaded into the Graphics module and screens saved do not have extra borders added un-necessarily. Normal screen saving time is just a couple of seconds.

This module can be used as a 'stand alone' graphics package for creating standard mode 0 screens. It is also the cornerstone of the entire Wapping Editor DTP system. Not only is it used to prepare graphics and manipulate images but also to 'typeset' the text documents and position the graphics on the page.

Before the detailed description of the features of the module there follows a brief description of some general terms used throughout this manual.

4.1 SOME GENERAL TERMS

Colour

The Wapping Editor is designed to produce printed pages and as such operates in only two colours. However, these colours may be any two selected from the palette of eight.

Shade

This word is generally used to describe one of the eight grey shades, displayed to the left of the patterns in the Palette menu, (see section 5.0).

Pattern

This refers to one of the eight patterns (bricks, tiles, stripes etc.) displayed at the top centre of the palette menu.

Ink

The Ink refers to the currently selected colour, shade or pattern, that is used for drawing. When started, the ink colour is black.

Paper

The Paper, or background, refers to the colour that is going to be drawn on. This is initially white but can be swapped to any other single colour. Note that the ink colour can be a pattern or shade, but the paper colour cannot.

Screen

This refers to the picture as viewed on the display, i.e. a single mode 0 screen.

Page

The concept of the page refers to the whole of the current document. What you see on the screen is just a window onto that document.

Rubber Banded

This is a fairly general term used in most computer graphics applications. When drawing a square, or the like, you are often given the option to fix the first point and then select the second point by moving the mouse around. While you are selecting the second point, the software will continually draw the outline of the box (or whatever shape) that would be drawn if you selected the next point immediately. If you imagine a fixed nail with one end of a rubber band hooked over it, and you stretch the other end, then you can probably see why this is referred to as rubber banding. The best way to view rubber banding is as temporary lines added by the computer to guide you when choosing a position.

4.2 ON ENTERING THE GRAPHICS MODULE

When first entering the graphics module the screen will be blank (white), unless of course you have loaded in a page, and the mouse pointer will have been replaced by the pencil icon.

If you move the pencil icon to the top of the screen and then press the R (right) button a menu will appear (see figure 2).

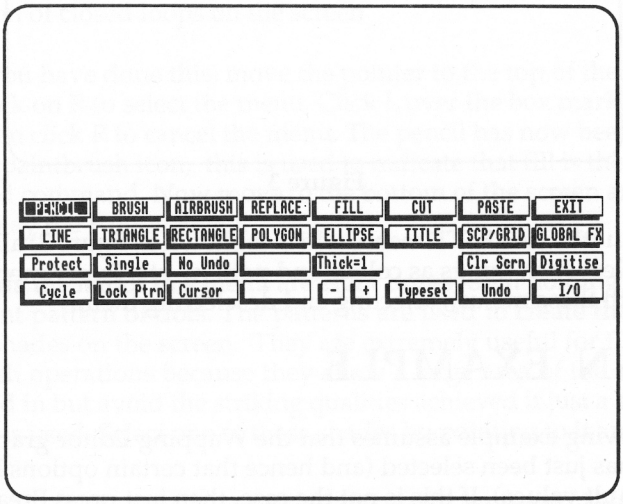


Figure 2

This menu (the COMMAND menu) is used to select what operation mode you wish to use. It allows you to say whether you wish to draw thin lines, solid triangles, or multiple ellipses of the same size, etc.

If you move the pointer up and down, you will notice that when it is over the menu at the top a simple pointer icon is used, whereas the icon used when the pointer is over the main drawing area is that of the currently selected drawing icon (eg pencil, airbrush etc). The menu can be cancelled, and the original picture redisplayed, by clicking with the R (right) button over the menu area. If you move the current pointer to the bottom of the screen and press the R (right) button, then another menu will be displayed.

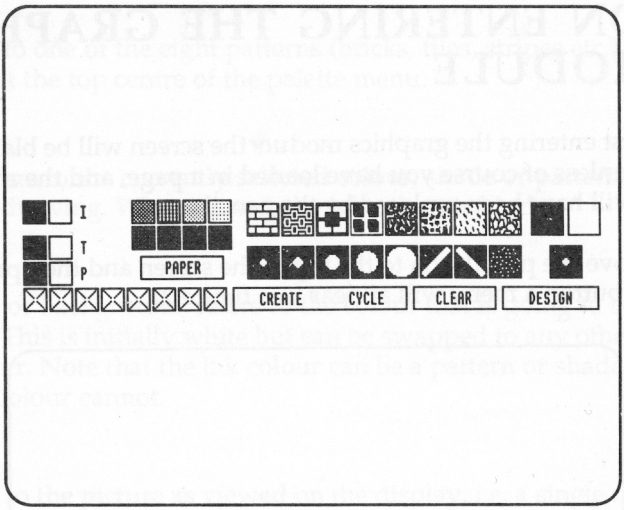


Figure 3

This menu (the PALETTE menu, which is shown in figure 3) allows you to select such things as colour and pattern etc. Experiment for a while with these menus, selecting and deselecting them.

4.3 AN EXAMPLE

The following example assumes that the Wapping Editor graphics module has just been selected (and hence that certain options have their default values). If this is not the case, then just press Break to initialise everything and re-select it from the Front Page by double-clicking L over the 'GRAFIX' icon.

Select the Command menu by clicking R in the top portion of the screen. The Command menu is divided into two sections. The top section, and some of the options on the right, are the main drawing command selectors and are displayed whenever the Command menu is selected. Only one of these features can be active at once. The currently active command box will be displayed in reverse, much as the pencil box at the top left is when the Command menu is first selected. The other portion of the Command menu, that towards the lower left, is used to display parameters specific to the currently selected command from the top half of the menu. These options are remembered, and recalled whenever a given command is selected during a session with the Wapping Editor. This permits the individual

functions to be configured more precisely to the effects you desire, and saves a lot of time in the long run.

Locate the + and - boxes, move the pointer over the + symbol and click twice on L. The box that previously said Thick=l should now read Thick=3. This is a measure of the thickness of the line that will be drawn when we use the pencil later. Click R to remove the Command menu.

When in pencil mode and when not on one of the two menus, pressing L and moving the mouse will draw a line. Use the pencil to draw a selection of closed loops on the screen

Once you have done this, move the pointer to the top of the screen and click on R to select the menu. Click L over the box marked 'fill' and then click R to cancel the menu. The pencil has now been replaced with a paintbrush icon, this is used to indicate that fill is the currently selected command. Now move to the bottom of the screen and click R to display the Palette menu.

Towards the left of this menu are eight boxes, each holding a different pattern of dots. The patterns are used to create the effects of other shades on the screen. They are extremely useful for fill and airbrush operations because they allow a large area of the screen to be filled in but avoid the striking qualities achieved if just a solid colour is used. Select one of these shades by pointing to it and clicking L once.

Having selected a shade move the fill icon to the centre of one of the enclosed areas and press L. The area will now be filled with the shade selected. Try selecting other shades or patterns and filling other areas.

Obviously there is more to using this module than just following every step in an example like the one above. However, while we are just starting to learn about the graphics module we shall deal with the more fundamental aspects. When you are drawing, whether it be with the pencil or filling with the fill icon, the Wapping Editor uses the currently selected colour. As we have seen above, a colour can actually refer to a specific shade or pattern; however, more on patterns later.

If you examine figure 3 again, you will notice down the left hand side of the screen are three rows, each of two differently coloured boxes. The top of these three rows is used to select the drawing colour. Point to one of these boxes and click L, and the foreground colour box will change to the colour you selected.

To produce a few bands of different shades select the top menu (with a single click on R) and click with L on the Brush box. If the top menu is now removed with a click on R, you should see that a large round shaped icon has replaced the normal pointer (this is one of the default brush shapes, but you can design your own shapes or load them in from disc, described in section 5.4). For now, we are interested in the fact that moving the mouse with L held down will produce a large band of foreground ink if this is the selected feature.

Having selected a foreground ink, paint a strip across the screen, select another shade and then do the same again. Repeat this process, using the different shades a few times and you will soon become familiar with the process of selecting an ink for drawing with.

Eventually, there comes a stage when you want to wipe the screen clean and start another picture. This action is accomplished with the Cir Scrn option from the top menu. To prevent accidental screen clearance, two clicks on L are required. When the screen is cleared, it is effectively filled with the currently selected PAPER colour. Normally, this amounts to colouring the entire screen white.

A new background colour is selected with a single L click over the PAPER box in the lower menu (which will then become reverse highlighted in the same manner as the selected options from the top menu do) and then another L click; this time over the colour which you want to become the background colour. It is not possible to select any of the patterns or shades as a background colour; in fact, the only valid options for the background colour is one of the two main colours. When selecting the colour, ensure that it is selected from the row of two boxes with an 'I' beside them, as the other boxes have different purposes. If a colour is required either as a foreground or background colour, then it should always be selected from this top row of boxes, and not from the others; the 'I' indicates 'Ink', the 'P' and 'T' are for Protect and Transparent - described later.

5.0 THE PALETTE MENU

When drawing, the Wapping Editor basically takes a new colour (or shade) and puts this over an old colour. An analogy that is readily understood is that of writing with ink on paper. In computing terminology, the ink is referred to as the foreground colour and the paper as the background colour. Of course this module permits more than just simple overwriting of paper with ink. The ink can be made up from a number of separate dots to form distinct pattern, shades and textures. Also the foreground or background colours can be protected to prevent them from being overwritten, or be made transparent so that the background will show through.

A shade is an ink made up from a collection of pixels (dots) arranged to produce different densities. A shade is very much the equivalent of the side of a pencil when it comes to shading in areas of your picture.

A pattern is, again, a collection of pixels but usually arranged to form some recognisable image such as a brick wall, roof tiles, wavy lines, netting etc. Shades and patterns can be used to give many different textures to your finished artwork.

A brush, in mouse terminology, is a mask used to apply ink (either a solid colour, a shade or a pattern) to a picture. When the ink is a pattern it is helpful to imagine your pattern repeated over a large piece of paper and designed to act as a transfer, then the brush is the shape that, when applied, transfers the pattern onto the page.

The patterns themselves are composed from a regular array of 16 by 16 pixels, each of which may be either the background or foreground colour. If you look at figure 3, you will see two rows of 8 designs. The top row are the patterns; the next 8 are the brushes, and are only silhouette. To the right of the patterns are a further two boxes, these are the currently selected ink and paper and to the right of the brushes is another box containing the currently selected brush.

Most of the pictures that you draw will probably want to use textures other than solid black or white. Although you can only actually have two different colours, the way in which these are displayed can be

changed (by performing the equivalent of VDU 19). To change a colour, point the mouse at the colour in the ink selection group on the bottom menu, and click on M. Each click will change the colour to another one, cycling through the available colours. Note that you will not be able to define two colours to appear as the same colour on the screen. When a picture is saved, the display colour information is also saved. When a picture is loaded, the colours will be set back to any display values from when the picture was last edited. Of course the display colours will have no effect upon the colour of the actual print-out, which will depend on the colour of your printer ribbon!

5.1 Colour Transparency

Transparency is only used in CUT and PASTE (see later). To select a colour as transparent, simply click L on one of the two boxes with the letter 'T' to the right and a cross will appear over the colour. To de-select simply click L over the colour again.

5.2 Colour Protection

With a colour protected, nothing will overwrite it. This can be useful for ensuring that detail added later to a picture does not automatically appear closer to the viewer when perspective is involved.

There are two stages in selecting a protected colour. The first one is very simple, and merely involves selecting the bottom menu (click R in the bottom section of the screen), pointing at the appropriately coloured box in the horizontal list with the P to the right of it, and clicking L to select it. A cross will appear through the colour (L again will remove this cross). This is the first stage in specifying the colour to be protected. The next stage is selecting which drawing commands are to use protected drawing and which are not.

Each option from the top menu for drawing has its own Protect box, and hence each applicable option from the top can be selected to take note of protection or not, totally independently of the other options. To make the rectangle command, say, take note of the protected colour, click Lon the protect box within the rectangle section (which will reverse the box).

5.3 Cycle options

The cycle is a special type of ink, and is used to add variety or texture to pictures and to liven them up. Basically, if you are drawing with a cycle, then the textures that you are using will change every so often. For example, if you were drawing with a circular BRUSH and had the cycle option active, then the colour would appear as a series of discs.

Each of the two main ink colours can have a cycle associated with it. These cycles are entered by selecting the colour itself and then clicking L on the CREATE CYCLE box in the lower menu. Whilst the CREATE CYCLE box is reversed, any colour or shade selected will be added to the cycle associated with the colour selected before CREATE CYCLE was selected. The sequence of colours (or shades) is displayed in the row of eight small boxes at the bottom left of the bottom menu. Although a cycle can consist of up to 8 elements, it may be entered with anywhere between 1 and 8 actual elements.

Once a colour has been entered into a cycle it cannot be deleted by itself; you will need to click L on the CLEAR box, which will clear the entire cycle. When you have finished entering a cycle, click L on the CREATE CYCLE box again. Whenever a colour is selected, any cycle associated with it will be displayed in the cycle boxes at the bottom of the screen.

Once a cycle has been entered, it is actually used by clicking L on the CYCLE box in the options from the top menu (such as pencil, ellipse, etc). Whether a cycle is used depends upon the individual drawing command; they are not just universally selected or ignored.

5.4 Brush and Pattern Design

Both brushes and patterns play a crucial part when creating complex drawings, and hence it is essential that you are familiar with their use, and the steps necessary to create a new brush or pattern. Brushes and patterns can be loaded and saved quite freely from the IO Menu, and edited with the built in editor. Brushes may also be defined using the Font Editor module described later in this manual, but for now let us learn about the built in editor.

To edit a brush or pattern, click Lon it to ensure that it is the currently selected brush or pattern, and then click Lon the DESIGN box. This will call the built in brush and pattern editor and allow you to design as you please. When this menu is called up, the currently selected brush is displayed on the right in normal and expanded form, and the currently selected pattern is displayed on the left in both normal and expanded form. When editing, which is described below, is finished, click L on the EXIT box to return to the bottom menu.

To edit the brush, hold down L and move the pointer over the expanded image on the right. If L was depressed when the pointer was over a white pixel, then any pixels it goes over will turn to black. Conversely, initially depressing the pointer over a black pixel causes all pixels the pointer is moved over to turn white. The brushes use white to signify where colour will be applied, and black to signify where the background will be left intact.

Pattern editing is slightly more complex. To the left of the expanded pattern image are three colour selectors. The small square underneath the normal size version of the pattern is the currently selected pattern edit colour, which may be altered by clicking L with the pointer over one of the colour selectors on the left. The lower two boxes select either black or white the top (chequered) box is the 'invert' box. Editing the pattern is very simple; if you have selected either black or white then just click L when the pointer is over the place where you wish a dot of that colour to appear. If you hold L down and move the mouse around, a trail of dots will be left.

If you select the 'invert' box then pattern editing becomes very much like brush editing. Clicking-Lover a white pixel will cause it to turn black. Any other pixels the pointer passes over while the button is still held down will also turn black. Conversely, clicking L over a black pixel will cause it to turn white.

The SIZE box is used to specify the size of the pattern; e.g. if you want to design a pattern which repeats every 5 pixels, (i.e.a. 5*5 box) then this could not be done on a standard size pattern (16*16 pixels). Having produced the required pattern, originating from the bottom left hand corner, click Lon the SIZE box; it will reverse. Now move to pointer to the top right hand point of the pattern that you have designed (which is not necessarily the whole pattern design area) and click L. If you are uncertain on the size, depress L and move the

pointer until the rubber banded box surrounds the required sections, and then release L.

Experimenting with Patterns and Brushes will soon show their power and flexibility, they are a very important part of the tools provided by the Wapping Editor graphics module.

6.0 THE COMMAND (UPPER) MENU

The upper menu is used to select drawing commands, clear the screen, call the WE digitiser, undo last operation and call up the I/O (input/ output) menu.

The top two rows of boxes are the drawing commands, the bottom left two rows of boxes (8 in all) are the options for the currently selected command and the bottom right boxes (4 in all) are used to perform the other functions. The Typeset command (on the bottom row) is more complex and described in full detail in section 10.

6.1 Clr Scrn (Clear Screen) command

Clicking twice on this command wipes the screen to the current paper colour.

6.2 Undo

Clicking on this command will undo the last change made to the screen (provided that compatible shadow RAM is fitted).

6.3 Digitise

One exciting expansion option contained within the Wapping Editor is the ability to interface to the Watford Beeb Video Digitiser and to accept digitised pictures and to then start editing them directly. To digitise the picture Click on R to select the upper menu, and then double click on the Digitise option with L.

Unfortunately, both the Digitiser and the Mouse plug into the User Port of the BBC Micro and hence only one can be connected at once. When you are using the Wapping Editor, the Mouse is obviously connected to the User Port, and must stay connected until the Digitise option has been selected. Once this has been selected, the Mouse is not needed until the Digitiser has performed its task. Watford Electronics now produce a 'User Port Splitter' to simplify the task of

swapping between the mouse and the digitiser. Simply plug both devices into the splitter box and switch between them as required.

When the Digitise option is chosen you are prompted to change the Mouse for the Digitiser and press a key on the keyboard. After this key is pressed, a *WIMAGE command is issued and a picture digitised into the screen memory. Note that the Digitiser should have the mode switch set to mode 0 for correct operation, although the mode conversion utility will allow mode 1 or 2 screens to be used. Once "the image has been digitised, you have two choices. Pressing any key will result in a further digitising scan, but if you are satisfied with the results then press the ESCAPE key and you are prompted to connect the mouse again in a similar manner, and to press another key. Once this is done, treat the digitised image as if it had just be drawn, and edit away.

7.0 THE I/O MENU

In order that the graphics module can save pictures to disc, permit you to issue * commands and perform various other options not present from the top menu, the I/O menu exists. Pressing Lon the I/O Menu option of the top menu will change the display the I/0 options. When pressed from within the I/O Menu, the R button returns you to the main display, Mis ignored (except when a direct "Press a button" prompt is printed, when any of the mouse buttons will suffice) and L selects the option that the cursor is currently over.

Apart from directly issuing* commands, all the I/O Menu options are selected with the mouse. The left hand two boxes are Save and Load and the boxes to their right are used to select what type of file is to be saved or loaded. When using this menu always select the type of file first, e.g. screen, font, pattern etc. and then select either save or load.

In order to see how this works click R at the bottom of the screen, to display the Palette menu. Observe the default set of patterns. Now click R again to remove the Palette menu and move back to the I/O menu at the top. If the I/O menu is not currently displayed follow the directions above. Now select Pattern and Load, by clicking L over their respective icons. A catalogue of pattern files held in the current directory will be displayed at the top of the screen. Click L over the required name and the patterns will load. Just to confirm that they have loaded, click R at the bottom of the screen again to bring up the Palette menu, and check out the display of current patterns.

When saving a picture, information regarding the current palette will also be saved, so that it can be automatically restored when the picture is next loaded. If a file by the same name already exists on disc, you will be prompted whether or not to overwrite this; clicking L will cause the new file to overwrite the old file, whilst either of the other two mouse buttons will abort the save operation. It is also possible to confirm by pressing Y or y, any other key will abort.

Note : Both cutout and font files are treated differently to those above.

Cutouts are not actually loaded or saved from the I/O Menu but the filename specified is remembered and used during CUTting or PASTEing operations. If LOAD CUTOUT is selected then the disc is examined to check that the named file exists and no further action is taken, the cutout only being read in during a buffered PASTE command. If SA VE CUTOUT is selected then the disc is checked again to see if a file exists and if it does then an opportunity is given to delete it. This filename is used when the next buffered CUT operation is selected. (This is unusual in that the SA VE command must be issued before the shape is CUT).

Fonts are loaded in a similar way to cutouts, i.e. the font is not actually read in until needed by the TITLE command. It is not possible to SA VE fonts and an error will be generated if this is attempted.

A catalogue of files saved on disc may be obtained by clicking L over the Catalogue option. A specific option for cataloguing discs has been included because this is the most common * command that is used. Any " command can be issued from the I/O Menu simply by entering it; a* detected from the keyboard tells the Wapping Editor to receive a line of text and issue this command when the Return key is pressed. Note that commands that are likely to overwrite memory (such as *COMP ACT) should be used with care. If in doubt, save your picture first.

Underneath the line of choice icons, is an indication of whether any shadow or sideways RAM has been found. Note that this line is for information only, and clicking the mouse on these items will have no effect.

8.0 THE TOOLBOX

The toolbox contains the most frequently used tools and allows instant access from any command. As each tool is selected a different Icon appears at the cursor position.

The top level of the toolbox is always the currently selected command (and relative Icon). By clicking the middle button (M) on the mouse you can step through the toolbox, the right hand button (R) will always return you to the top level.

Here are the tools and associated Icons:

COMMAND	(Arrow, Knife etc.)
ERASER	Square
ZOOM	Magnifying Glass
PAN	Hand

8.1 Eraser

The Eraser wipes the section of screen under the square to the current paper colour, normally white.

8.2 Zoom

Move the Magnifying Glass to the part of the screen you wish to enlarge and click L. A menu will appear on the lower part of the screen showing the zoomed section in the centre. To each side are arrows which can be used to scroll in any direction, and beside these are three selection boxes, White, Black and Invert. These function in exactly the same way as those in the Brush and Pattern editor described earlier (section 5.4). The box on its own on the left shows the currently selected colour (or invert) and the two boxes on the right allow the zoom level to be altered. To edit the image on the menu simply move over the required pixel and click L. If one of the two solid colours has been selected the pixel will be forced to that colour. If 'invert' was selected the pixel will change colour. To remove the menu simply click R.

8.3 Pan

If you are working on a Page rather than a Screen, i.e. the area being worked on is larger than a single mode 0 screen, the hand will allow you to move around the picture. By holding down L, moving the mouse and then releasing L, the page can be pushed in any direction so revealing a new part of the image. NOTE that due to the disk overheads this will take some time. However if sufficient sideways RAM is available, no disc access is required and the operation is almost instantaneous.

9.0 DICTIONARY OF COMMANDS

9.1 PENCIL

This drawing tool is a freehand system for drawing lines and single points. Whereas the brushes are used for quite a lot of freehand drawing, the pencil scores significantly in that it always ensures that a continuous line is drawn which the brushes cannot do unless used slowly. Typical uses of the pencil include sketching a picture, adding a signature in small letters and even just touching up a normal picture.

Having selected the pencil from the menu at the top, position the pencil icon where you wish your line to start, depress and hold down the L button and move the mouse around. A little experimentation is recommended with the pencil. Although the pencil initially appears a clumsy method of drawing lines, you will soon realise just how flexible it actually is. One point to note about pencil mode; if thick lines are selected and the mouse is moved very fast, then a series of short straight lines will be generated. It is for this reason that we recommend that the pencil be used for careful sketching only.

Options within PENCIL mode

Protect

When this option is selected, any colour selected in the P list of colours will not be overwritten by the pencil. The effect this achieves is to make a new line look as if it passes underneath another area of colour, instead of above it as it would otherwise do.

Cycle

When this option is selected, the lines drawn with the pencil will cycle through the colours (or shades) of the currently selected cycle at regular intervals. If the pencil is moved slowly, then this change in colour will create very small overlapping areas; if the movement of the mouse is rapid, then lines of different shades will tend to be created.

Single

When this option is selected, clicking L only produces a single dot. L will need clicking, releasing and clicking again to produce two dots.

Lock Pat

If the currently selected ink is a pattern, then it is normally locked to the lower left of the screen (ie the pattern is reproduced in neat regular units, with the first one starting from the bottom left of the screen). This option permits the pattern to be displayed relative to the starting point of the mouse.

No Undo

When shadow RAM is fitted to your machine, the Wapping Editor will use it to implement an undo buffer, permitting any hasty additions to be undone without too much anguish. One problem with this is that each time a major operation is about to start, the screen has to be saved to the shadow RAM. For operations such as fill, this is not noticeable. However, when drawing a pencil line, the time between depressing the L button and the line appearing (the delay is when the screen is being copied) can become quite significant. As pencil mode is the mode most drastically affected by this copying, there exists a specific flag to disable this copying in pencil mode only; this flag is controlled by the No Undo option from the pencil menu.

Cursor

When normally drawing in pencil mode, the pencil icon is removed and the required line drawn as you move the mouse. There are times, especially when moving the mouse slowly, when it is easy to lose track of precisely where the pointer actually is. For situations such as this, the Cursor option allows you to specify that the pencil icon is to continue to be displayed (with an added time delay) so that it is easy to follow precisely where you are drawing.

Thick=n

The thickness of the line drawn by the pencil is controlled by altering this control. Initially, a value of 1 will be displayed in this box, representing a single pixel line. A click from L on the + box will increase this value, and a click from L on the - box will decrease this value. The maximum thickness value is 4. If you attempt to increase or decrease this value too far, then it will wrap back round to the other end of its scale (4 becomes 1 and 1 becomes 4).

9.2 BRUSH

The Brush option is used to take the currently selected brush and use this as a mask through which the current ink is applied. With a brush and ink defined, depressing L whilst keeping the mouse steady will result in an image of the current ink (a solid block in the case of just a single colour, but part of the pattern in the case of a pattern ink) in the image of the current brush appearing.

Options within BRUSH mode.

Protect

With this option selected, any colour selected from the P list in the lower menu will not be overwritten when drawing takes place on the screen. This is the same as for other options.

Cycle

With the cycle option selected, the brushes and patterns really come into their own. Using a pattern with a number of areas of solid colour, with that colour having an associated cycle sequence of different shades, selecting the cycle option means that an incredible range of effective patterns and textures will be created from just a single pattern and brush.

Use S.C.P.

With this option selected, the centre of the pattern produced will be forced to the stored cursor position. Note that the centre is taken as the centre of the 16 by 16 grid, which is not necessarily the centre as viewed once it has been redesigned.

Lock Pattern

The Lock Pattern option is particularly applicable to the brush option. If a grid work pattern is being used, overlapping brush patterns will not acquire the appearance of being overlapped squares, but simply a filled area with a regular pattern. By selecting the Lock Pattern option, each brush stroke will produce the same pattern, but produced relative to the brush stroke itself and not one of the screen corners. As with so many of the features of this package the best way to understand how it functions is to experiment.

Single

Selecting this option causes only one brush pattern to be printed for each depression of L. To make two patterns appear, L will need to be released in the meantime. This option can be useful in combination with the Use SCP option when drawing precisely.

Brush + -

This option is mainly used to provide an indication of which brush is currently selected, although using L on the + and - boxes can be used to increase and decrease the brush number. (Which saves calling up the lower menu to select a brush)

9.3 AIRBRUSH

The Airbrush option is mainly used for the shading of pictures, and functions very much as a normal-airbrush. When applied a variable sized area is randomly sprayed with a series of pixels that will build up the current ink, shade or pattern. The spread of the pixels applied can be altered from centre weighted to evenly spread over a square area. Airbrush is applied by holding L down and moving the mouse.

Options within AIRBRUSH mode

Protect

The protect option is used, as with all the other protect options, to prevent colours marked in the lower P list from being overwritten by, in this case, the airbrush.

Cycle

With this option selected, each application of a colour with an associated cycle will cause the next texture in the cycle to be sprayed onto the screen. When creating mottled backgrounds, the cycle and pattern lock options within airbrush can create some very pleasing effects.

Use S.C.P.

This option will force the centre of the airbrush pattern to the current stored cursor position.

Lock Pattern

With this option selected, the patterns sprayed will be relative to the mouse position, whereas without this option selected they will be relative to one of the corners of the screen. To achieve the best effects from the airbrush you are recommended to select the pattern lock option as more random looking patterns are produced.

Single

Selecting the single option causes each depression of L to produce only one burst on the airbrush (as opposed to continuous firing). This can be useful when only a delicate amount of shading is required.

Even

The airbrush normally sprays with a centre weighting, rapidly building up a pattern in the centre of the spray area and only applying a small amount to the extremities. This option, when selected, causes the spreading to be even. The shape of the area sprayed within is a square.

Size + -

By default, the size of the sprayed area is a small square. Using this option you can increase the size of the area sprayed to quite a large area. There are four sizes, with the smallest (the initial one) corresponding to about half the area of a full size brush, with the largest corresponding to about four times the area of a full size brush.

9.4 REPLACE

The replace command is used to replace one colour for another. To provide an easy way to interface to the rest of the software, it changes paper colour to ink colour. The command is used very simply by selecting the appropriate area with a rubber banded box. Once both corners of the box have been defined, the replace is performed. Replace mode can be used for performing various operations on patterns, etc, which can not be performed by normal fills. Note that that ink colour being used can be a shade or pattern if required but the paper must be a solid colour.

Options within REPLACE mode

Protect

This option protects any colour selected in the P colour list in the lower menu from being overwritten.

Cycle

If the cycle option is selected then the standard colour cycling actions will apply to each whole replace operation.

Use S.C.P.

Selecting this option forces one corner of the replace rectangle to the currently stored cursor position.

Lock Pattern

If this option is selected, and the current ink is a pattern, then the pattern will be locked (displayed relative) to the lower left hand corner of the rectangle defining the area in which the replace operation is performed.

Exchange

This option is used to exchange the paper colour for the ink colour and the ink colour for the paper colour (provided both are solid colours).

9.5 FILL

The fill command is used to fill any area of a picture to a new colour, shade or pattern. When deciding what to fill and what to avoid, the fill routine takes the colour of the pixel that it is started on as the colour to fill, and takes any other colour as the boundary, or edge, and will not fill over this boundary. The fill routine will cater for irregular shapes and can fill virtually any pattern that you can display on the screen.

When called, a paintbrush icon is displayed. This should be moved around until the top left tip points to the pixel at which you wish the fill operation to start, with L starting the fill operation itself. Should you wish to abort a fill operation at any stage, a single click on R will perform this. Note that, under very strange circumstances, the fill algorithm can enter an endless loop; a special routine will trap this and exit after a short period of time.

You can fill with any valid ink (ie colour, pattern, etc). Under normal conditions, the fill routine will automatically reselect itself if Lis still depressed when it exits a fill operation. The idea behind this is to make it easy to fill fiddly areas; just hold L down and move the mouse in the approximate vicinity of the required target area.

Options with FILL mode

Protect

With this option selected, any colour marked in the P list of colours on the lower menu will not be overwritten.

Cycle

With the fill cycle option selected, each fill operation will select the next item from the colour sequence. This is only really useful when filling a lot of small totally self contained areas.

Use S.C.P.

If this option is selected then the fill operation will start at the stored cursor position.

Lock Pattern

When filling with a pattern, selecting this option causes the pattern to be locked to start from the initial fill start point and not the normal screen reference fill point.

Single

This option is normally used in conjunction with either the Horizontal or Vertical fill options. When selected, this option prevents the fill routine automatically reselecting itself on exit.

Boundary

A boundary fill is a very wide ranging fill and simply floods outwards with the current ink until the current paper is reached. Boundary fill is normally used in conjunction with the Protect option. The Boundary fill option is still applicable when either horizontal or vertical options (detailed below) are used.

Horizontal

When this option is selected, each click on L causes the graphics software to perform a single fill operation for just the currently selected horizontal line. If the Single option is not selected, holding L depressed and moving the mouse causes fills to take place for each line covered (or most of them if the mouse is moved fast). If the Single option is selected, then the L button needs to be released and depressed again before the next fill will take place. Note that, unlike the normal fill operation, this mode 0f filling does not cater for complex shapes; it simply fills up to the next change in colour or boundary change (depending upon what other options are selected in the fill menu).

Vertical

This option is very similar to the Horizontal option, except that the filling operation takes place vertically, not horizontally. If both the horizontal and vertical options are selected, then the vertical option is cancelled and only the horizontal one acted upon.

9.6 CUT

Cut mode is used to specify the rectangular area, known as a cutout, that is used for pasting operations. Options exist for using sideways RAM as a long term cutout buffer, cutting out only foreground colours, and moving an area (as opposed to copying it).

Options within CUT mode

Use Disc

What normally happens when you define a cutout is that a note is made of the rectangle coordinates on the screen where your cutout is, and then uses the screen image directly for pasting. The reason for using the screen image is that there is not sufficient memory in a normal BBC system to hold a copy of the cutout anywhere else. With the Use Disc option selected, the cutout will be saved to disc. The filename used is the one specified in advance in the I/0 menu. Note that the default filename is 'PASTE'.

Move Area

This option is a variant on the cut and paste theme, and is used to move a block from one area of the screen to the other. The original area is filled in with the paper colour. Once the area is marked, the paste option is selected, with a single pasting available (selecting the cut buffer option will permit multiple copies, with the original being deleted from the screen).

Use S.C.P.

This option forces one of the corners of the rubber banded area for the cutout onto the stored cursor position. This effectively enters the first click on L for you.

Lock Pattern

If the Use Ink option is used (see below) and the current ink is a pattern, then this will force the pattern to lock onto the bottom left of the rubber banded box, as opposed to one corner of the screen.

Transparent

If this option is set, then either of the colours marked in the T ink boxes on the lower menu will be left behind when the cut is made.

Use Ink

This option is provided to permit the currently selected ink to be left behind when the move option is used. The reason that this option is specifically provided is that there is not normally any way in which a pattern can be used as a background. When you are moving a section of a picture from one area to another, it is quite possible that the relevant detail would· have previously covered a patterned area.

Use RAM

The problem with using the screen image as the cutout store is that any drawing operations that affect this area will also affect any subsequent pasting operations. However, if you restrict the cutout size to the barest minimum necessary to hold the required data and avoid overwriting the cutout area if possible, then not too many problems will be encountered. To prevent this sort of problem becoming really inconvenient, a solution is offered (of course there is a penalty, though). Whenever there is a menu on screen, a SK buffer is used to hold the screen image underneath the menu. If required, you can opt for the menu to be removed and this SK area to be used as a· buffer for the cutout. The disadvantage with this, however, is that you must ensure that both cut and paste options have been correctly set up before the cut operation is performed, as the software goes straight into paste mode afterwards, and selecting any menu will remove the buffer contents.

On systems with sideways RAM, a 6K buffer is provided for within the bank of RAM, permitting both menus and a buffered cutout all at the same time. Attempts to create too large a cutout will cause a bleep will sound to inform you of this.

9.7 PASTE

Having marked a cutout, the next thing to do is to paste it down, which is where this option comes in. Without any options explicitly set, theWapping Editor assumes that you wish to paste down a cutout of the same size and so provides you with a rectangle showing the current cutout size. The source for the paste command depends upon the last CUT option i.e. screen, disc or RAM.

Options within PASTE mode

Protect

When this option is selected, any colours marked in the P list in the lower menu will not be overwritten when the cutout is pasted into the picture.

Cycle

When this option is selected each new paste operation selects the next cycle value for each colour being pasted down.

Use S.C.P.

With this option selected, the pasting operation will always take place at the stored cursor position.

Lock Pattern

If this option is selected, then the pattern lock is used if the current ink is a pattern and the silhouette option is selected.

Transparent

With this option active, any colours selected from the T list in the lower menu will not be pasted down, leaving the background untouched.

Silhouette

When this option is selected, the pattern that would have been pasted down is used, instead, as a mask with which to plot the current ink. This allows drop shadows and the like to be created. Transparent mode also needs to be selected for this option otherwise a solid rectangle of colour will result.

Reflect

When selected, this option causes the cutout to be reflected about the Y axis before it is pasted onto the picture.

Size

When a cutout is normally pasted down, a one to one relationship is maintained between the paste size and the cutout size. However, there can be occasions where you wish to alter the size of the cutout actually being pasted down. If this option is selected, then just a pointer is displayed when PASTE mode is entered. Position the mouse at one corner and click L to mark this location (R to cancel this marking). Now move the rubber banded box until the correct size is achieved, and click L again to perform the actual size changing and pasting. Note that when a pattern or shade involving single alternately coloured pixels is changed in size, some strange aliasing effects can be produced. This is because expanding, say, two pixels of different colours to occupy three pixels means that there will be twice the number of pixels of one colour as the other. Similarly, shrinking can totally eliminate small areas.

One problem with a totally flexible rubber banded box for specifying the size is that the horizontal to vertical proportions are likely to change. Sometimes this is the effect required, but on other occasions the proportions, or aspect ratio, is required to stay constant but the overall picture size must change.

The ASPECT option (in SCP/ GRID) tells the graphics software to maintain the original aspect ratio whilst permitting the size to be changed.

The LOCK HALF option (in SCP / GRID) forces the size option to gridlock to half the size of the source area. i.e. cutout sizes in x and y axis can be varied from 1/2, 1, 1 & 1/2, 2 etc. (most useful for doubling or halving cutout sizes)

Both of the above may be selected simultaneously.

Rot

This option is used to control rotation of the cutout, in steps of 90 degrees. Click Lon either the+ or - boxes to adjust the value shown in the normal manner.

It must be noted that in mode 0 each pixel is rectangular and not square. The pixels are twice as high as they are wide and so, if they are rotated through 90 or 270 degrees, the aspect ratio of the image will change dramatically.

9.8 LINE

The pencil mode permits freehand sketching, but lacks the precision that can be required for certain operations. In line mode, a starting point is fixed and then the end point moved around with the mouse until correctly positioned, when it is selected (L performs selection of both the start and end points) and a line drawn between the two points. Note that, when a line of a thickness of greater than one pixel is drawn, the specified points are taken to be central within that line. If you find that you have specified a starting point and cannot find a suitable end point, and hence wish to re-position the starting point, click R to cancel the start point. Line mode is typically used for such things as enclosing a section of a picture, generating a regular outline (as opposed to an irregular outline from pencil mode), providing temporary perspective lines for 30 drawings or for drawing a horizon between land and sky.

Options within LINE mode

Protect

When this option is selected, either of the colours selected in the P list will not be overwritten when crossed by any lines you are drawing.

Cycle

When this option is selected, any lines drawn will cycle through the colours of the currently selected cycle at regular intervals.

Lock Pat

If the currently selected ink is a pattern, then it is normally locked to the lower left of the screen (ie the pattern is reproduced in neat regular units, with the first one starting from the bottom left comer of the screen). This option permits the pattern to be displayed relative to the starting point of the line.

Repeat

The Repeat line mode is, effectively, a combination of pencil and line mode. When selected, start drawing by holding down L, and a pencil effect will be drawn (ie the ink drawn will precisely follow your movements). If the L button is then released and the mouse moved, a new point will be 'rubber banded' between the current position and the position at which L was released. This mode, effectively, offers a

superb combination of the facilities of both line and pencil mode. Note the comment earlier in this section on line mode about R cancelling a line starting point. For Repeat mode, the starting point is considered to be the point at which the L button is released (and not the point and which it is depressed).

If Repeat is used in combination with some of the other effects, then even more interesting options become available. For example, Repeat used with Use Last effectively gives you an effect very similar to the Brushes (described elsewhere) and allows you to take the last line drawn (more accurately, reproduce lines of the same length and orientation/ angle) and use this as a type of brush. This permits cylinder effects to be produced very easily (take a line at about 30 degrees, with Repeat and Use Last selected, hold down L and prescribe a circular motion with the mouse; this produces an effective result for the amount of effort required to produce it). It is suggested that you experiment with the various options available within line mode.

Use Last

This option simply allows you to take the last line, in terms of the same length and angle, and move this around to position it until you are happy, and then draw it.

Link

This option is used to start a line where the previous one finished (ie the first point of the current line is the second point of the last line). Note that there is no point combining this effect with Repeat, as Repeat effectively performs this operation anyway.

45 Lock

This option is used to ensure that the angle used for the line that you are about to draw is an exact multiple of 45 degrees (ie the line is either horizontal, vertical, or at 45 degrees to these). This can be useful when creating precise drawings where you wish to enforce regular angles on the lines.

Thick=n

The thickness of the line drawn in line mode is controlled by altering this control (much as for pencil mode, etc). Initially, a value of 1 will be displayed in this box, representing a single pixel line. A click from L on the + box will increase this value, and a click from L on the - box will decrease this value. The maximum thickness value is 4. If you attempt to increase or decrease this value too far, then it will wrap back round to the other end of its scale (4 becomes 1 and 1 becomes 4). The values for line and pencil thicknesses are stored separately so one can be altered without affecting the other.

9.9 TRIANGLE

When drawing a triangle three points need to be specified. These three points are specified in much the same manner as with lines. Move the pointer to the position for the first desired corner and click L. As you now move the pointer to the location of the second corner, a line will be continually drawn between the point originally fixed and the mouse pointer. Click L to mark the second point. The mouse will now move around the third corner of a triangle; click on L when you are happy with its position. You can cancel this operation at any stage (prior to the final click on L) by clicking on R.

Options within TRIANGLE mode

Protect

When this option is selected, any colour selected in the P list of colours will not be overwritten when crossed by any triangles you are drawing.

Cycle

When this option is selected, any triangles drawn will cycle through the shades and patterns of the currently selected cycle at regular intervals.

Lock Pat

If the currently selected ink is a pattern, then it is normally locked to the lower left of the screen (ie the pattern is reproduced in neat regular units, with the first one starting from the bottom left corner of the screen). This option permits the pattern to be displayed relative to the starting point of the triangle (ie the first of the three points marked).

Repeat

The Repeat triangle mode is, effectively, a combination of line and triangle mode. When selected, the first two points of the triangle are defined in the normal manner (which also defines a constant side of the triangle). If the L button is then held down and the mouse moved, triangle will be repeatedly drawn, taking as their third point the next position of the pointer. This facility offers the ability to create some interesting patterns, especially if solid is also selected; it is suggested that you experiment with this particular feature.

If Repeat is used in combination with some of the other effects, then even more interesting options become available. For example, Repeat used with Use Last effectively gives you an effect very similar to the Brushes (described elsewhere) and allows you to take the last triangle drawn (more accurately, reproduce triangles of the same size, etc) and use this as a type of brush. This permits some very interesting effects to be produced. Note that producing solid triangles in this manner takes a noticeable amount of time, and hence the mouse should be moved slowly for large triangles.

Use Last

This option simply allows you to take the last triangle, in terms of the same length and angle, and move this around to position it until you are happy, and then draw it. In effect, this allows all the options of specifying a triangle and then copying it at various different locations. By selecting the Cycle option, you can copy the same triangle all over the screen and display it in a whole variety of different patterns.

Use S.C.P.

This forces the starting point of your triangle to the stored cursor position. This is useful should you wish to ensure that a number of differently shaped triangles all have precisely the same starting. point.

45 Lock

This option ensures that the angles used for the first two lines of the triangle are locked to a multiple of 45 degrees (ie the line is either horizontal, vertical, or at 45 degrees to these). This can be useful when creating precise drawings where you wish to enforce regular angles on the triangles.

Solid

This option is used to specify whether a solid triangle should be drawn.

9.10 RECTANGLE

The drawing of a normal rectangle only requires two points to be specified; those of the opposing corners. To draw a standard rectangle select Rectangle mode from the top menu, and move the pointer to the screen area where you wish one of the comers to be, and click on L. If you now move the pointer, the Wapping Editor will rubber band the rectangle, taking the current mouse position as the opposite corner. When you are happy about the position of the second comer, click on L again and the rectangle will be drawn. If you position the first point incorrectly, then this can be moved, providing the second point has not been entered, by clicking on R.

Rectangle mode gives access to squares through the 45 degrees lock feature, while parallelograms are created by clicking Lover the + sign on the Points=2 box at the top. This points factor is used to determine how many points are used to specify the shape being drawn. With two points specified, a regular rectangle is produced; with three points specified, the angles in the comer of the rectangle do not have to be 90 degrees. When three point mode is selected, the first two clicks of L position a single line. Once this line has been positioned, you move around a line with the same length and angle of the first one, with the software providing the lines between the ends of the lines as appropriate. The third point is the comer diagonally opposite the first corner. Try the parallelogram drawing mode for yourself; it is a lot easier to understand if you have seen it in operation.

Options within RECTANGLE mode

Protect

When this option is selected, any colour selected in the P list of colours will not be overwritten when crossed by any rectangles you are drawing.

Cycle

When this option is selected, any rectangles drawn will cycle through the patterns of the currently selected cycle, a new colour for each new rectangle.

Lock Pat

If the currently selected ink is a pattern, then it is normally locked to the lower left of the screen (ie the pattern is reproduced in neat regular units, with the first one' starting from the bottom left corner of the screen). This option permits the pattern to be displayed relative to the starting point of the rectangle (ie the first of the two or three points marked).

Repeat

The Repeat rectangle mode is one that can be used to great effect with one corner of the rectangle fixed with the Use S.C.P. option detailed below. By selecting these two options, holding down L and describing a circular movement with the mouse, a very interesting pattern can be created. Used by itself, Repeat causes the first corner of the next rectangle to be the last corner of the current rectangle, and hence allows a string of rectangle to be created. Note that, when just Repeat is selected, holding L down continually will yield a pattern of very small rectangles; you are advised to release Land move the mouse when using this option alone. Setting Points=3 (ie to produce parallelograms) and then using Repeat mode produces another effect. The best way to learn about Repeat mode is to try it.

If Repeat is used in combination with some of the other effects, then even more interesting options become available. For example, Repeat used with Use Last gives you an effect very similar to the Brushes (described elsewhere) and allows you to take the last rectangle drawn (more accurately, reproduce rectangles of the same size, etc) and use this as a type of brush.

Use Last

This option simply allows you to take the last rectangle, in terms of the same size (and angles for parallelograms), and move this around to position it until you are happy, and then draw it. In effect, this allows all the options of specifying a rectangle and then copying it at various different locations. By selecting the Cycle option, you can copy the same rectangle all over the screen and display it in a whole variety of different patterns.

Use S.C.P.

This forces the starting point of your rectangle to the stored cursor position. This is useful should you wish to ensure that a number of differently shaped rectangles all have precisely the same starting point. This is most useful when used in conjunction with Repeat mode selected.

45 Lock

This option ensures that the angles used for the first two lines of the rectangle are locked to a multiple of 45 degrees (ie the line is either horizontal, vertical, or at 45 degrees to these). This can be useful when creating precise drawings where you wish to enforce regular angles on the rectangles. For rectangles with two specified points, a square is produced. When three points are specified, a rhombus is created.

Solid

This option is used to specify whether a solid rectangle should be drawn. If used in conjunction with Repeat, then you are advised to also select a cycle to generate more interest in the patterns produced.

Points=2 or 3

This selector is used to specify the number of points required to define the rectangle. Two points produce shapes with right angles for all the corners; three points permits other angles to be used for the corners (and hence allows a parallelogram to be generated). No other values, apart from 2 or 3, can be selected for the Points value; continually selecting either the + or - boxes will simply toggle between the two values.

9.11 POLYGON

Polygon mode is used for drawing polygons with between 3 and 16 sides.

When drawing a normal polygon, the centre and an outside point need specifying. To draw a five sided polygon, select polygon mode from the top menu and move the pointer over the + box; click L twice. This has now specified that a five sided shape is to be drawn. Now move the pointer to the screen area where you wish the centre of the polygon to be and click on L. Moving the pointer now causes the display of a rubber banded polygon, taking the current mouse position as an external point. The precise relation between the mouse pointer and the size of the polygon is rather complex and difficult to explain. A little experimentation will soon demonstrate how easy it is to use though. When you are happy about the position of the rubber banded polygon, click on L again and the polygon will be drawn. If you position the first point incorrectly, then this can be moved, providing L has not been clicked for the second time, by clicking on R. By using the 45 degrees lock feature, regular polygons are created.

Options within POLYGON mode

Protect

When this option is selected, any colour selected in the P list of colours will not be overwritten when crossed by any polygons you are drawing.

Cycle

When this option is selected, any polygons drawn will cycle through the colours of the currently selected cycle, a new colour for each new polygon.

Lock Pat

If the currently selected ink is a pattern, then it is normally locked to the lower left of the screen (ie the pattern is reproduced in neat regular units, with the first one starting from the bottom left corner of the screen). This option permits the pattern to be displayed relative to the starting point of the polygon (ie the first of the two or three points marked).

Repeat

Holding down L and moving the pointer produces a stream of linked polygons. If Repeat is used in combination with some of the other effects, however, then some more interesting options become available. For example, Repeat used with Use Last gives you an effect very similar to the Brushes (described elsewhere) and allows you to take the last polygon drawn (more accurately, reproduce polygons of the same size, etc) and use this as a type of brush.

Note the comment earlier in this section on pencil mode about R cancelling starting points. If R is pressed in polygon repeat mode, then the Wapping Editor the fixed line initially created and returns to the pointer awaiting the first corner.

Use Last

This option simply allows you to take the last polygon, in terms of the same size and angles, and move this around to position it until you are happy, and then draw it. In effect, this allows all the options of specifying a polygon and then copying it at various different locations. By selecting the Cycle option, you can copy the same polygon all over the screen and display it in a whole variety of different patterns.

Use S.C.P.

This forces the centre point of your polygon to the stored cursor position. This is useful should you wish to ensure that a number of differently shaped polygons all have precisely the same starting point. This is most useful when used in conjunction with Repeat mode selected.

45 Lock

This option ensures that the angles used for polygon produce a regular polygon (ie all the angles are the same).

Solid

This option is used to specify whether a single outline for the polygon should be drawn. If used in conjunction with Repeat, then you are advised to also select a cycle to generate more interest in the patterns produced.

Sides

This selection is used to alter the number of sides, which can be between 3 and 16, to give the polygon. Attempts to produce values outside the range permitted will simply result in the number of sides looping around, and starting from the other extreme.

9.12 ELLIPSE

Ellipse mode is used for drawing ellipses and circles.

When drawing ellipses normally, the centre point is first defined and then the size and proportions of the ellipse rubber banded to move along with the mouse pointer. R will cancel an ellipse centre, if entered accidentally. A little experimentation will soon demonstrate how easy the ellipse feature is to use.

Options within ELLIPSE mode

Protect

When this option is selected, any colour selected in the P list of colours will not be overwritten when crossed by any ellipses you are drawing.

Cycle

When this option is selected, any ellipses drawn will cycle through the colours of the currently selected cycle, a new shade or texture for each new ellipse.

Lock Pat

If the currently selected ink is a pattern, then it is normally locked to the lower left of the screen (ie the pattern is reproduced in neat regular units, with the first one starting from the bottom left corner of the screen). This option permits the pattern to be displayed relative to the starting point of the ellipse (ie the first of the two or three points marked).

Repeat

Holding down L and moving the pointer produces a stream of linked ellipses. If Repeat is used in combination with some of the other options, some more interesting effects become available. For example, Repeat used with Use Last gives you an effect very similar to the Brushes (described elsewhere) and allows you to take the last ellipse drawn (more accurately, reproduce ellipses of the same size, etc) and use this as a type of brush. This permits some very interesting effects to be produced. It is suggested that you experiment with the various options available within ellipse mode.

Use Last

This option simply allows you to take the last ellipse, in terms of the same size and proportions, an~ move it around to position it.

Use S.C.P.

This forces the centre point of your ellipse to the stored cursor position. This is useful should you wish to ensure that a number of differently shaped ellipses all have precisely the same starting point. This is most useful when used in conjunction with Repeat mode selected.

Solid

This option is used to specify whether a single outline for the ellipse should be drawn. If used in conjunction with Repeat, then you are advised to also select a cycle to generate more interest in the patterns produced.

Circle

When this option is selected, the ellipse if forced into a circle (a circle is only a special case of an ellipse). Although you can often approximate an ellipse to a circle, any slight deviations will soon show up if they are arranged concentrically. With the circle option selected, you are certain that a circle will be produced.

9.13 TITLE

The title option is used for placing titles and headlines on the screen with pre-defined fonts (you can also hand write with the pencil as well). A variety of different effects are available, including automatic italics, vertical text (suitable for labelling the vertical axis of a graph), etc. Solid inks, patterns and shades are all available for printing the text in, as you would expect.

Text is plotted by selecting title mode and then entering the text required. This is achieved by clicking on L when the pointer is not within the menu region. This causes the software to clear the Command menu and prompt you to enter the text required. Once this has entered, the display returns to your picture for you to position a box that delimits where the text will be printed. The first point to be marked is the top left one, and the second the bottom right one. The by now familiar rubber band system is used to determine the box size.

Options within TITLE mode

Protect

With this option selected, the text printed will not overwrite any colours marked within the P list in the lower menu.

Cycle

The cycle option permits text to be printed in a number if different shades. Each letter is assigned the next element from the cycle, and hence words appear multi-shaded, but individual letters are printed in the same shade.

Use S.C.P.

This option forces one corner of the box that delimits the text to the stored cursor position. Note that this does not necessarily have to be the top left position; you can rotate the rubber banded box quite freely about the stored cursor position.

Use Text

There can be occasions when entering text, when you wish to repeat the same word or phrase in a different place or just position a string in precisely the right position. To overcome the inconvenience of entering the same piece of text repeatedly, the Use Text option forces the TITLE command to use the last text string entered.

Use Size

With Use Size selected, the size that each character is printed in will be the same as the last piece of text. This does not mean that whatever string you enter will be adjusted to fit within a given size box, but that each character will be the same size as previous characters

When this option is selected and the text has been entered, or used from the previous print, the software will provide you with a fixed sized box to drag around the screen to position your text as required. Practical uses of this include maintaining the size of some printed text when more than one line is being entered.

Lock Size

The Lock Size option is used to ensure that the text entered is printed with a regular size. When the size is user specified, there is the possibility that the 8 or 16 grid of pixels will be required to fit into say, 6 pixels. This would obviously result in a loss of clarity. With Lock Size, each pixel within that character is forced to occupy a specific number of screen pixels (1, 2 or 3, etc). Once some text has been entered and the top left hand corner positioned, the bottom right hand corner is rubber banded as normal, except that the box will only form at certain sizes. Unless text is required to fit into very precise locations, you are recommended to use this option as the printing produce is far more attractive than irregularly sized text.

It will be noticed that if the Title command is using a font other than the default ROM-based one, there will be a short delay after the first point of the box has been specified. This is because, since the fonts are all proportionally spaced, the software needs to be able to calculate how much space a particular line of text will occupy before it can implement the Lock Size option. The delay is caused by the software reading in the proportional information from the font file. It follows therefore that the specified font must be in the current directory.

Vertical

The Vertical option is used to print text with consecutive characters placed underneath each other. This provides an easy to use means of labelling graphs and the like. Note that the text is simply printed in a column, not rotated through 90 degrees.

Font

There are two font options available within the title printing section of the Wapping Editor software. Font 1 uses the default ROM-based, or specified disc-based, character set and Font 2 is an italic version of the preceding character set. The italicisation is created by shearing the character set. The angle of this shear will depend upon the height and width of the character being printed.

To use a disc based font it would have to be specified in advance from the I/O Menu. The font is not loaded into memory, there is no room, but read when required. This means that the named font has to present on disk when the text is to be printed.

9.15 S.C.P I GRID

This is a collection of options which relate to the Stored Cursor Position and various forms of gridlocking. It also allows the line thickness used in the geometric commands to be varied. When the Set Grid option is not selected, the Stored Cursor Position can be adjusted simply by clicking on the drawing page. A cross-hair cursor shows the S.C.P.

Options within S.C.P / GRID

Gridlock
This enables the gridlock which affects all commands. The cursor is forced to snap to a rectangular grid which can be altered in size. (The default gridsize is 8 x 8).

Set Grid
After this option is selected, the gridsize can be set by stretching a rubber-banded box to the required size. (This option must be disabled to change the S.C.P.)

Lock Grid
This forces the grid to be adjusted in steps of 8 pixels.

45 Lock
Allows square grids to be defined.

Aspect
When using the SIZE option in PASTE, this forces the cutout to maintain the same aspect ratio. (see PASTE).

Lock Half
When using the SIZE option in PASTE, this forces the cutout to a grid defined as half the source size.

Thick =
By clicking over+ or - the thickness of the line used to draw the geometric figures can be altered. This affects Triangle, Rectangle, Polygon and Ellipse.

9.16 GLOBAL FX

This command contains various options which have a universal effect.

Options in GLOBAL FX

Cycle Dly
Turns on an adjustable delay which determines the number of times each colour in the cycle list is used. e.g. if the cycle delay is set to 8 and the brush command is used with cycling then 8 blobs of each colour will be drawn before changing to the next colour in the cycle list.

Slow Repeat
With this option selected the speed at which drawing functions are repeated is reduced. e.g. using the brush command and moving the mouse at high speed will result in more widely spaced brush blobs.

No Undo
Disables the undo facility, the result of which is to speed up the reaction of all the drawing functions. The Undo command now switches between two independent screen buffers but allowing you to use buffered cut and paste between the two screens.

Flicker
Normally, rubber-banded shapes only licker when the mouse is moved. This option forces them to licker all the time (useful if the background is complex).

Move Cur
If undo is active, the mouse is ignored during the time taken to save the screen. This option causes the mouse position to be updated constantly. The effect is subtle and a matter of taste - try it and see which you prefer. (It's most noticeable in Pencil)

Slow
Alters the ratio of mouse to cursor movement. If enabled this option will halve the cursor speed (and increase the surface area needed).

Cyc D1 =

By clicking over the + or - boxes the number of times an element is used from the cycle list can be set. ie If 2 is set each element will be used twice.

9.17 EXIT

A double click of L over this icon will return you to the Front Page, from where the pages may be saved, loaded, previewed etc. Since the software makes intelligent use of any Sideways or Shadow RAM in the machine, it is possible to enter the font editor or the wordprocessor without loosing the current page, since it is saved to RAM (if fitted) or disc when the graphics package is exited. It should be noted that if you are working on a single mode 0 screen, rather than a full page, it WILL be lost when exiting the graphics module.

When this module is re-entered the page will be re-loaded and all the previous options remembered.

10.0 TYPESET

This routine is fundamental to the Wapping Editor system and time should be spent familiarising yourself with its operation. It is this facility that allows text documents, prepared in the word processor module or from any other source, to be typeset onto the page.

Clicking L over the Typeset icon will clear the top menu and display the typesetting primary menu.

10.1 The TYPESET Primary menu

This menu is used principally to specify the document that you wish to typeset and the font in which you wish it to appear. There are only two ways out of this menu; clicking L on Compose (as described below) and clicking R. Clicking R will remove this menu and return to the main screen.

Options in TYPESET Primary menu

Compose

Clicking L over this icon allows selection of a text file for typesetting. This must be done before the actual typesetting can begin and is the only route into the Typesetting Secondary menu described in section 9.2.

Set Font

If no font is specified then typesetting will be in the default ROM-based font. Clicking over this icon will bring up a menu of font files stored in the current directory. Selecting a file achieved by moving the pointer over the filename and clicking L.

No Format

By setting this flag any text read in from disc will be printed without justification or microspacing. The main purpose of this is to allow tables and lists to be printed and to ensure that columns of text or numbers line up correctly. Note that this should be used in conjunction with a non-proportionally spaced font. Any of the supplied fonts may have their proportional spacing information removed by using the Font Editor, described in detail in Section 11.

No Justify

By default text documents are typeset in full justification with microspacing. If you wish to set your text with a 'ragged right', ie justified at the left only, then click Lover the No Justify icon.

Undo

Clicking this icon before any text has been typeset will have no effect. If, however, a document has already been typeset then it will be removed in its entirety.

Expand

Like the previous option this will have no effect unless a document has already been typeset. After typesetting a document, however, the value of this facility becomes very apparent, as described below.

Typesetting text consists of rubber-banding boxes onto the screen in to which the text will be placed. Full details of the method are given below. It is unlikely that the text file you are typesetting will fit exactly into the boxes you have defined; in practice the last box is not likely to be fully occupied. Selecting the Expand option will re-typeset the document, adjusting the microspacing as required, so that the bottom line of the final box will be occupied. Clicking on Expand again will remove the expanded text and reprint it in its non-expanded form. Clicking on Undo All will undo the text whether expanded or not.

This is an important option of the typesetting menu and you are recommended to experiment with it. Used properly it gives a far more professional look to your pages.

Unlock X

Text is positioned by using a cross-hair cursor. By default this cursor is locked to an imaginary grid, in a manner very similar to the Gridlock described earlier in this manual. Clicking L on this icon allows the cursor to be positioned anywhere on the X-axis.

Unlock Y

By default the typesetting cursor is locked to an imaginary grid. This allows the cursor to be positioned anywhere on the Y-axis.

Use Width
As with some of the other options from this menu, this is not intended to be used until after some text has been typeset. It is used to force future columns of text to be of the same width as the previous column.

Use Height
In a manner similar to the use width described above, this is used to force future columns of text to be the same height as the previous column.

10.2 The TYPESET Secondary menu

After selection of a document from the Compose option (above) you are automatically placed into this menu. The only way out of this menu is to click Lon Abort, which will return you to the Primary menu.

While at this stage ~f typesetting, clicking R will toggle between the Typesetting Secondary menu and actually doing the typesetting.

Options in TYPESET Secondary menu

Abort
This is the route out of the secondary menu. Under normal circumstances typesetting of a text document will continue until the whole document has been set. However, if you wish to finish typesetting before the end of the document is reached (for example if the end of the page has been reached) then click Lover Abort.

Set Font
If no font is specified then typesetting will be in the default ROM-based font. Clicking over this icon will bring up a menu of font files stored in the current directory. Selecting a file achieved by moving the pointer over the filename and clicking L.

Undo
Click L over this will undo (remove) the most recent column of text. Note that this is different to clicking Undo from the Primary menu described above.

No Justify
By default text documents are typeset in full justification with microspacing. If you wish to set your text with a 'ragged right', ie justified at the left only, then click Lover the No Justify icon.

Unlock X
Text is positioned by using a cross-hair cursor. By default this cursor is locked to an imaginary grid, in a manner very similar to the Gridlock described earlier in this manual. Clicking L on this icon allows the cursor to be positioned anywhere on the X-axis.

Unlock Y
By default the typesetting cursor is locked to an imaginary grid. This allows the cursor to be positioned anywhere on the Y-axis.

Use Width
As with some of the other options from this menu, this is not intended to be used until after some text has been typeset. It is used to force future columns of text to be of the same width as the previous column.

Use Height
In a manner similar to the use width described above, this is used to force future columns of text to be the same height as the previous column.

10.3 TYPESETTING - How to do it

Typesetting can only commence when the typesetting ruler is round the edge of the screen. Clicking R when the Typesetting Secondary menu is displayed will remove the menu and display the ruler around all four .sides of the screen. The mouse pointer will become a full-screen cross-hair cursor.

The ruler is marked in inches across the screen and in 'text lines' down the sides. By default the cursor is locked to this ruler but can be released by selecting Unlock X and/or Unlock Y from either of the typesetting menus, as explained earlier. Clicking R will toggle the ruler off the screen and re-draw the typesetting secondary menu. Clicking R again will bring back the ruler.

To set the type, move the cross-hair cursor to one corner of the proposed column of text and click L. Rubber-band out a box to specify the size and shape of the column of text that you want, and click L again. You will notice, as you do so, that the first cross-hair cursor remains on the screen to make the exact position of the box easier to see. As soon as the second corner of the column has been marked the Wapping Editor will begin reading in the text file from disc. It is for this reason that the filename must be specified before typesetting can begin.

Text will be typeset in full justification using the in-built ROM-based font, unless otherwise specified. Details of how to set the justification and the font are given above, in section 9.2. When the column is filled with text the cross-hair cursor will return and another column may be defined. If you are intending to produce several columns of the same width you should select Use Width as described above.

Although it is not possible to set a single column of text down the entire length of an A~ page, since that would be larger that the screen, there is a method of achieving the same result. Clicking Mat any time during typesetting will bring the 'hand' icon from the toolbox. The page may now be moved around as described in section 8.3. Slide the page up, select Use Width from the typesetting menu and define another column directly below the first. Clicking M again will remove the hand.

Typesetting will end when the end of the text file is reached, unless you click L on 'Abort' from the secondary menu. When typesetting ends the primary menu will be re-drawn, from which you can select another document, change font, or choose to 'Expand'. Now that you have done some typesetting re-read the description of the Expand command described in section 9 .1.

From the time the text is placed on the page it is treated as graphics. That is to say that it may be cut-and-pasted, filled, or manipulated in just the same way as any other graphic on the page. Clicking R when the Primary menu is on the screen will remove the menu and display the mouse pointer as the currently selected drawing icon (eg pencil, airbrush, etc.)

11.0 FONT EDITOR

This module allows you to define your own fonts, modify those provided on the utility disc, or even import fonts from Quest Paint or other DTP packages such as AMX Stop Press (formally Pagemaker). It should be noted that fonts designed in the Wapping Editor will not be suitable for use with Quest Paint or Stop Press since the Wapping Editor font files are larger.

This font editor will allow you to create fully proportionally spaced characters in a variety of sizes eg. 8x8, 12x12, 16x16. There are many useful and powerful commands which take the tedium and frustration out of creating a good-looking well balanced font.

11.1 GETTING STARTED

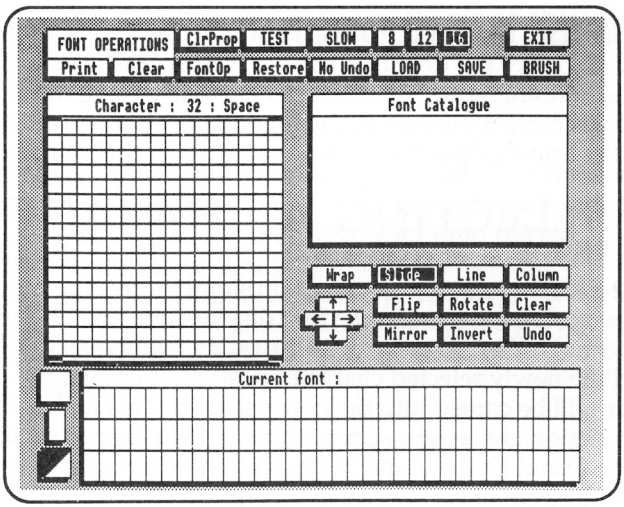


Figure 4

On entering this module you are presented with a Mode 0 screen, shown in figure 4, which is divided into five main sections. Across the bottom is the main font display section, the whole of the current font is shown here from character 32 (space) to character 126 (tilde). Centre left is a large grid, this is the area in which the character is defined. The boxes to the lower right of the grid select the main

character manipulation facilities. Above them is the font catalogue window and is also used for the entry of Operating System commands and for the reporting of errors and other messages. Finally, across the top are the main command boxes.

When the screen has finished being drawn up there will be no font currently in memory and therefore the font display box and character grid will be empty.

11.2 DEFINING A CHARACTER

When the mouse is moved into the defining grid and the left button pressed, the square under the mouse will invert from white to black. If the button is held down while moving the mouse, then each square it passes over will be turned black. The reverse applies if the original square was initially black and turned white when the mouse was clicked.

As the character is defined it appears in its correct place in the font display. On entry the default character is Space, as is shown at the top of the defining grid. The character currently being defined is shown in its correct position in the font display box as well as a larger copy in the upper of the three boxes to the left of the font display.

11.3 SELECTING A CHARACTER

To select the character to be worked on simply move the mouse pointer over the character in the font display area and click the left hand button. If there is a character currently being displayed in the grid and the newly selected character position is empty, the old character will be copied into the new position. This makes it far easier to design characters with roughly similar shapes such as the E and F ,the O and Q, the P and R etc. The character may of course be cleared if desired by clicking on the Clear box at the right of the screen - NOT the Font Operation Clear!

If you wish to examine one of the fonts supplied on the utility disc it will first have to be loaded into RAM. Refer to Load in section 11.7 for details of how to do this.

11.4 CHARACTER MANIPULATION

Slide and Wrap

These commands are associated with the four arrow boxes beside them. The Slide box is highlighted as default and clicking over any of the arrow boxes will slide the character in the grid in the direction of the arrow. As the character slides off the edge of the grid it is lost. By clicking over Wrap before sliding, the character wraps round inside the grid and is not lost. The Wrap only has an effect when used with the Slide command.

Flip

This is also associated with the four arrow boxes. Clicking Lover either of the horizontal arrows will flip the character left/right ie. about a vertical axis.

Selecting either of the vertical arrows will flip the character top/bottom ie. about a horizontal axis. When flipping a character it makes no difference which of the two horizontal or two vertical arrows is chosen:

Mirror

The Mirror command is slightly more sophisticated. The right arrow will mirror the left half of the character onto the right half, the left arrow will mirror the right half of the character onto the left half. The up and down arrows will similarly mirror the bottom onto the top, and the top onto the bottom, respectively. Although difficult to describe, its actions are easy to understand when you try it and this command can be very useful for creating symmetrical or almost symmetrical characters.

NOTE: It is only possible to select one of these three commands (Slide.Flip or Mirror), at any one time.

Undo

It is usually possible to undo the effects of the last command by clicking L on the Undo box. However it is not possible to undo any of the Font Operations - see below.

Clear
The current character may be cleared by clicking over the Clear box at the right of the screen. This requires only one click, and may be undone if required. The Clear box towards the top left of the screen is to clear out the entire font, see Font Operations below.

Invert
Clicking over this box will invert the current character, black for white and white for black.

Rotate
The rotate command turns the current character through 90 degrees clockwise.

Line
This command and the one that follows allows the current character to be stretched and squashed. With this flag highlighted, moving the mouse into the character grid and clicking R will add a blank line at the cursor position. The portion of the character below the cursor will be moved down a line. Clicking M will delete a line of the character at the cursor and the portion of the character below the cursor will be moved up.

Column
This behaves in much the same way as the previous command except that it affects columns of pixels rather than lines. Moving the mouse into the character grid and clicking R will add a column at the cursor position. The portion of the character to the right of the mouse cursor will be moved right. Clicking M will delete a column of pixels, moving the portion of the character to the right of the cursor, one column to the left.

11.5 PROPORTIONAL SPACING

One of the outstanding features of this font editor is that it allows truly proportionally spaced fonts to be designed. This means that the single letter 'i' need not occupy the same space as, say, a 'W'. By default all characters are the full 16 pixels wide (or 8, or 12 pixels, as described later). The proportional spacing facility allows you to set the spaces on either side of each individual character.

To set the proportional spacing for any particular character you must first select that character from the font display at the bottom of the screen. At the four corners of the large grid at the left of the screen are four black markers. These indicate the width of the character and may be changed by pressing and holding the left hand button over either of the markers at the bottom of the grid. While holding the button down, move the mouse left and right, and release the button when the marker has been positioned correctly. The markers at the top of the grid are for information only and it is not possible to reset the proportional spacing by clicking over them.

Each character may have its spacing set totally independently of the others, making the design of specialist typefaces (eg. music symbols, electronic components etc.) remarkably easy. The proportional spacing markers may be reset to the default width by clicking L over 'Clr Prop'. The proportional spacing for the entire font may be reset if this is done whilst the 'Font Op' flag is active.

11.6 FONT OPERATIONS Print

Clicking L over this icon will screen-dump the font display box to an Epson compatible printer. This facility is intended to be used as a reminder of what the font looks like and is not of the quality with which it would be printed when used as part of a document. In order to achieve the correct proportions the dump uses a 640 dot CRT graphics print mode (Epson code 27,42,4). If your printer does not support this graphics mode you may still dump your font by selecting Print with the middle button. This forces the printer into a 960 dot mode, supported by almost all printers, but the resulting dump will be slightly foreshortened.

Clear

Since clearing the font is not recoverable with Undo, doing so requires deliberate action. The font clearing box is far away from the character clearing box and it also requires a double-click of L. This is the only way of clearing the font.

11.7 PRINCIPLE COMMANDS

Cir Prop (Clear Proportional)

Clicking L on this will reset the proportional spacing of the currently selected character to be the full 16 pixels.

Font Op (Font Operation)

When this box is highlighted several of the other commands, normally just affecting individual characters, will affect the whole font. The commands affected by the Font Op flag are:-

Slide Wrap Flip Rotate Invert Clr Prop

This is a powerful command allowing each character of the font to be, say, reversed, inverted, rotated, slid, etc. in a single action. This makes designing 'reverse print' or impressive titles very simple. It also allows a font to be turned sideways which is very useful for labeling graphs and diagrams etc.

Although most of the commands affected by the Font Op option are reversible, the effects of Clr Prop are not. It is suggested that the Font Op is used with care and always turned off when finished with.

Test

Selecting Test allows you to type up to 3 lines of text in the current font. This is extremely useful if you are designing particular characters which need to look good together ie. for a title, name etc.

Clicking L on this icon will clear the font display box and remove the mouse cursor from the screen. Text entry from the keyboard will now be printed in the box. When the end of the line is reached, pressing Return will allow a second (and third) line to be entered. NOTE: It is not possible to display a text cursor whilst in Test mode.

Pressing Delete in Test mode will not delete an entire character at one go, but rather will delete the left-most column of pixels in the current line of text. It is necessary to delete in this way so that proportional characters may be deleted properly. Pressing Ctrl+Delete will clear the entire box and allow another three lines of text to be entered.

A print-out of the test text may be had by pressing Ctrl+Return. This uses the same 640 dot CRT graphics dump routine as the Print Font command described earlier.

Restore

Clicking L here will restore the character to be what it was when first selected - blank if the character is new. To see the use of this command, select a non-blank character from the current font and then modify it, adding lines, rotating, inverting or whatever. Notice the effect of clicking Undo repeatedly; it simply toggles the last change on and off. Now click Lon Restore and then click Undo repeatedly. It is now possible to compare the original character with the modified version regardless of how much 'surgery' it has undergone.

Slow

This flag is linked to the Slow flag of the Global FX command in the graphics module, see section 8.16. The effect of setting this flag is to alter the ratio of mouse to cursor movement. If set, this option will halve the cursor speed (and increase the surface area needed).

No Undo

Operating in a similar way to the no undo flag in the graphics module. It saves the current character definition into the undo buffer, as a result of which, clicking on Undo will return to the character as it was when No Undo was selected, regardless of how many changes have been made.

Load

Before a font can be loaded from disc a catalogue of available fonts must be printed in the font catalogue window. Clicking on Load will automatically print such a catalogue, although this can be done explicitly at any time by clicking L anywhere inside the box containing the words 'Font Catalogue'. Note that only fonts in the current directory will be listed, to change directory it will be necessary to issue the appropriate* command.

To load a font from disc click over the LOAD box and then move the mouse into the main catalogue area. As each filename is passed over it will highlight and a single click on L will load the highlighted font.

The catalogue window has sufficient space to display 31 font names, (no font may have a name longer than 7 characters, even under ADFS). If there are more than 31 fonts in the current directory the catalogue display will scroll, preventing the selection of the first few fonts. Clicking the right hand button while the catalogue is being printed will abort the printing of more names.

When the font has been loaded it will be displayed in the area at the bottom, with the currently selected character appearing in the defining grid.

NOTE: The font designer will read fonts in other formats, e.g. AMX Stop Press (formally Pagemaker), as well as the standard Quest Paint format but this is transparent to the user, see SA VE below.

Save

To save a font click over the SA VE box and then click anywhere inside the box containing the words 'Current font', above the font display. When the button is pressed a pip will sound and the fontname will be removed ready for the keyboard entry of a new filename. If, however, you wish to save the font with the same name simply click again. It is only necessary to use the keyboard if you wish to save the font with a different name.

NOTE: When a font is SAVED from the font designer it is saved in Wapping Editor format, so make sure you are not saving it over a font file with a different format.

Brush

The font designer may also be used to design brush shapes for the graphics module. By clicking on this box all subsequent load and save operations will assume that the file is a brush file. Brush files are recognised by their length, they are only 8 characters long (256 bytes).

The brush file is displayed in the first 8 character positions only, the remainder of any font already in memory will be retained. It must be remembered that future save operations will only save the first 8 characters. Beware of saving what you think is a font, with the BRUSH flag highlighted. This will result in the loss of all but the first 8 characters of the font. Do not give the same name to a font file as you have to a brush file; since they are all saved into the current directory this would result in the loss of one of the files.

When clicking over the Brush box the disc is automatically catalogued and only files of the correct type are listed. If for any reason the catalogue window is cleared (for the reporting of an error etc.) the disc may be re-catalogued by clicking in the area at the top of the catalogue box; this area will always catalogue the current directory and list either the available fonts or brushes, depending upon the state of the Brush flag.

8 12 16

These three boxes show the size of the current characters. Although all characters are defined in the 16x16 grid, you may wish to design characters that are smaller - the default ROM-based font is 8x8. Setting one of these flags merely indicates to the typesetting software how much space to allow for each line of text. It in no way changes the way in which the font editor works and it is still possible to use the whole 16x16 grid even if the size indicated is 8x8. Any fonts defined that are smaller than 16x16 should occupy the top leftmost 8x8 or 12x12 grid positions.

Exit

Clicking L in this box will return you to the Front Page. Since any unsaved font will be lost two clicks are required for this to have effect.

11.8 THE MASK

The concept of a mask is a character that can be superimposed onto another character. Its main purpose is to make creating a font where each character has, say, the same border, much easier.

Mask

At the bottom left of the screen is a column of three boxes. The top one of these is used to display the larger copy of the current character, as described above. The centre one of these boxes is for designing a mask character. A mask character is defined in exactly the same way as any other character and is selected by clicking in the centre one of the three boxes. The box below this (the one divided into two triangles) is for the implementation of the mask, described below, and has no effect while the mask character itself is being defined.

Implementing The Mask

If a mask has already been defined and the currently selected character is not the mask character itself, then clicking in the Black triangle will superimpose the mask character onto the currently selected character. This facility is indispensable when designing a font where each character requires a similar border etc. The border itself need only be designed once and may then be put onto each character in the font. The White triangle is used to remove the mask from the currently selected character. This has the effect of turning white any cell of the character covered by the mask.

11.9 THE FONT GRID

By default each character in the font display area is shown in a separate box. This grid of boxes may be toggled on and off by clicking anywhere in the area containing the words 'Current font'. This will work at any time EXCEPT when the Save flag is highlighted. Note that when the Print command is executed the font display box will be printed as it appears on the screen, the user therefore has the choice of printing with or without the font display grid.

11.10 * COMMANDS

If you wish to enter any 0.S. commands simply type the command in at the keyboard. As soon as a '*' is detected from the keyboard the font catalogue window is cleared and commands may be entered in the usual way. If commands that affect memory or change mode are evoked then vital data may be lost. It is perfectly safe to issue commands to change drives or directories, to catalogue discs, delete files, etc.

12.0 THE WORD PROCESSOR

The Wapping Editor word processor is specifically tailored to suit the DTP environment. Its primary use is for the creation of text documents for subsequent typesetting but since the document is simple ASCII, it may of course be saved to disc and then loaded into any other word processor.

This word processor includes all the usual text manipulation facilities of other packages, move, delete and copy block, search and replace etc. It is not, however, possible to include any text formatting commands, control codes or embedded commands within the text since these have no meaning to the typesetting software. All text formatting is done at the typesetting stage and is described in detail in section 9 .11 of this manual.

If a document prepared on another word processor is loaded into this module any control codes found will be stripped out. That is, the word processor will ignore any characters with ASCII values outside the range 32 to 126.

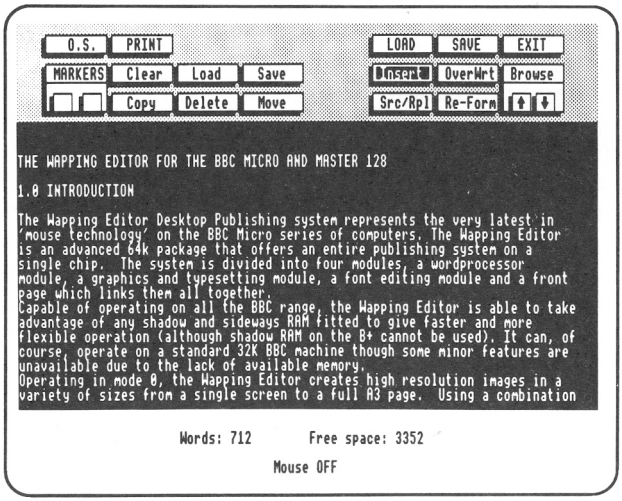


Figure 5

On entry to the word processor, the screen will be drawn as shown in figure 5. The word processor screen has three main areas; a selection of command boxes at the top, the main text area in the middle and an area at the bottom used for various purposes but by default showing the amount of free space, the number of words in the document, and whether the mouse is turned ON or OFF.

12.1 ENTERING TEXT

Although many of the word processor commands are selected by using the mouse, direct text entry must, not surprisingly, be from the keyboard.

Text entry is simplicity itself since there is no need to learn special codes for formatting, changing font, indenting etc. Since formatting is done at the typesetting stage, only the actual text need be considered here.

Text files may be loaded in from any of the popular word processors, eg. View, Wordwise etc. so that potential contributors to a publication need not have a copy of the Wapping Editor themselves. It is, however, far more convenient to use this word processor since it is designed specifically for the system.

One point should be made at this stage concerning beginning a new paragraph. Some word processors (eg. View) terminate each line in a carriage return, since the View printer drivers require this as part of the formatting information. These returns are unnecessary for the Wapping Editor typesetting software, which does its own formatting. When a file is read in from disc, therefore, any single, isolated, carriage returns are stripped off and replaced with spaces. The result of this is that if you intend to load documents that have been prepared on a word processor that does not terminate each line with a carriage return (eg. Wordwise), you will have to have two consecutive carriage returns to force a new line. If you are intending to prepare documents using Wordwise it is not necessary to include any embedded commands, since these will be ignored.

If this sounds a little confusing we would like to point out that if your documents are prepared on the Wapping Editor wordprocessor you can ignore all the preceding paragraph.

12.2 MOVING AROUND THE TEXT

As with most word processors, the cursor keys may be used to move around the text. The up and down cursor keys will move backwards and forwards through the text and the left and right cursors will move across the current line. Pressing the up or down cursors in conjunction with the Shift key will move through the document a page at a time. Using Shift with the left or right cursors will move to the ends of the current line.

The cursor may be positioned at any specific point in the text by moving the mouse pointer to the desired position and pressing L. This may be used as a means of scrolling through the document.

Browse

The two arrows displayed in this box are 'mouse operated cursor keys', they have exactly the same effect as pressing either the up or down cursor key. This will allow you to read through your document at leisure, without having to sit directly at the keyboard.

12.3 THE COMMAND BOXES

O.S.

Clicking this icon will clear the bottom window and print a '*' prompt. It is now possible to issue * commands in the usual way. You are advised to refrain from issuing commands which are likely to change mode 0r affect the main memory but it is perfectly safe to change drives, directories,.catalogue discs, delete files etc.

Pressing Escape will similarly allow the entry of* commands from the keyboard. In the interests of user-friendliness several of the command icons have a keyboard equivalent and this will be mentioned where appropriate.

Print

A print option has been included to allow the current document to be dumped to a printer. This is a simple ASCII dump in draft mode (or whatever your printer happens to be set up to produce).

Load

This allows documents to be read in from disc. Note that any characters of ASCII value outside the range 32 to 126 will be ignored. The data in memory is likely, therefore, to be different from that held on disc; for example a Wordwise document will be stripped of its green and white codes, although any text between the codes will be present. If you re-save such a document and then load it back into Wordwise, its embedded commands will no longer be embedded !

When the icon is selected the bottom window will clear and a catalogue of filenames will be displayed. A file may be selected by moving the pointer over one of the names and clicking L, the file will be loaded when the mouse button is released.

Save

Clicking this will save the current document to disc. The selection of the filename for saving is the same as that for loading, described above. If you wish to save the file with the same name as it was when loaded, simply click L twice on this icon.

Exit

Clicking L twice on this icon will return you to the Front Page. The current document will be lost when this happens so be sure to save it before you go.

12.4 MARKERS AND ASSOCIATED COMMANDS

The group of boxes at the lower left of the top section of the screen are all concerned with markers and marked text. The square box actually containing the word 'Markers' has two smaller boxes within it, these show the number of markers currently set (maximum two).

How to set a Marker

Before any of the commands listed below can be used, it is important to understand how to set a marker. This is done by moving the mouse pointer to the position in the text where you wish the marker to be placed, and clicking M. Alternatively pressing Ctrl+M from the keyboard will place a marker at the current text cursor. The character under the cursor will be printed in reverse text and one of the 'Marker' boxes will highlight. To remove the marker simply click Mover it. Repeat the process for a second marker elsewhere in the text, and all the text between the markers will be printed in reverse (black on white). If the second marker is placed in the wrong position just click on it again, to remove it, and replace it in the correct position.

Clear

Clicking this icon will clear any markers currently set. Note that if two markers are set then both of them will be cleared. This operation may also be done from the keyboard by pressing Ctrl-C.

Load

This routine loads a text file to the current marker. It will only operate if one marker is set, generating a 'Markers !' error if this is not the case. The routine will prompt for the entry of a filename and load the named file to the marker ie. insert the file into the current document.

Save

This routine will save to disc, the currently marked text. It will therefore only operate if both markers have been set, generating a 'Markers!' error if this is not the case. You will be prompted for the entry of a filename in the usual way.

Delete

This will delete the marked text. If only one marker is set then just one character will be deleted.

Move

This will not operate unless there is already some marked text. The routine will move that text to a new position within the document.

Having marked some text, position the mouse pointer over the Move icon and click L, the icon will highlight. Now position the mouse cursor at the point in the text where you wish to move to, and click L again. The marked text will then be moved and the document reprinted.

Copy

Operating in much the same way as the Move command above, this will only operate if some text has already been marked. When the new position has been selected and L clicked, the text will be copied. The original marked text will remain exactly as it was and the markers will NOT be cleared. This will allow multiple copies of the text to be made.

After copying a block of text, the markers may be cleared by clicking on the Clear icon. Alternatively they may be cleared by clicking M on the markers themselves, see 'How to set a marker' described above.

12.5 UTILITIES

The collection of command icons to the bottom right of the top window call up some helpful utilities, each of which is described below.

Insert and OverWrt (Overwrite)

By default the Wapping Editor word processor selects 'Insert', ie. as you type, any text after the cursor is moved along and your new text is inserted into the document. Overwrite mode may be selected by clicking Lon the OverWrt icon, or by pressing Ctrl+O from the keyboard. In overwrite mode, any text entered at the keyboard will overwrite the text in the document at that point. Insert may be selected by clicking L on the Insert icon or by pressing Ctrl + I from the keyboard.

If you happen to be at the end of the document there will be no apparent difference between Insert and Overwrite.

Src/Rpl (Search and Replace)

Clicking L on this icon will clear the bottom window and prompt for the entry of a search string. The required string should be entered and Return pressed. You will then be prompted for the entry of a replace string. When this had been entered you will be asked if you wish the utility to operate globally (G) or selectively (S). Pressing either G or Swill initiate the search.

If the search and replace is global then all occurrences of the search string will be replaced, otherwise the cursor will be moved to each occurrence and you will be prompted for a Y or N response. Alternatively the mouse buttons may be used, L being equivalent to Yes and either M or R being equivalent to No. A useful feature is that all marked text will be ignored during a search and replace.

Re Form

The amount of free space and the number of words in the document is displayed in the bottom window. Due to the time overheads involved in continuously updating these values it is only done occasionally, in fact when multiple word-wraps occur. This has been found to keep reasonable track of things but if the exact number of words must be known, or the exact amount of free space, then simply click L over the Re Form icon. The values will then be re calculated and displayed

and the document will be re-printed, with the cursor at the same point in the document.

12.6 Working From The Keyboard

Those of you wishing to work entirely at the keyboard may wish to turn off the mouse. The advantage of this is one of speed, the keyboard response being slowed slightly by the reading of the mouse. The mouse is turned ON or OFF by pressing the 'Copy' key. The status of the mouse is displayed in the bottom window. It is recommended that the mouse is turned off when entering the main body of text.

Keyboard Commands

Ctrl+A	Move to the begining of the document
Ctrl+C	Clears the markers, un-hilighting any marked text.
Ctrl+D	Delete marked text
Ctrl+I	Select Insert mode.
Ctrl+M	Sets a marker at the current cursor position (providing the cursor is currently under valid text).
Ctrl+O	Select Overwrite mode.
Ctrl+R	Reformat the document, updating the wordcount and free space.
Ctrl+S	Swap case
Ctrl+Z	Move to the end of the document.
Copy	Toggles the mouse ON/OFF.
Tab	Inserts four spaces.

NOTE: Using Ctrl+A or Ctrl+Z to move to either end of the document also re-formats the document, updating the wordcount and free space. Search and Replace can only be selected by using the mouse, as can copying, deleting and moving marked text.

13.0 APPENDIX 1

Shadow and sideways RAM usage

The Wapping Editor can utilise 20K of shadow memory and a single bank of sideways RAM to buffer various actions that it performs (although it is not possible to use shadow RAM on the B+). The shadow RAM is used to act as an Undo buffer, and permits the entire screen to be recovered when necessary. Due to the way in which the Wapping Editor uses the shadow RAM, any software present in your machine designed to perform control for printing characters should be disabled. For example, with the Watford 32K RAM Card, either a Control Break or *RAMOFF will be required before the mouse will work correctly. If the Wapping Editor is entered with the shadow software enabled then the error Shadow! will be produced and a * prompt is given to allow the user to type the command to disable the RAM.

The presence of sideways RAM permits the saving of a cutout to a fairly permanent buffer, and permits the swapping between different pictures of a cutout. The cutout for these purposes can be approximately a quarter the size of the screen (strictly speaking, 6K).

When a menu is normally placed on the screen, the image underneath is saved away to normal RAM and restored when the menu is deleted. Unfortunately, the BBC only has sufficient memory as standard to permit one menu to be displayed at once. With sideways RAM fitted, it is possible for both menus to be present on the screen at once, with the sideways RAM buffering both images. As a further advantage, because the menu is saved in an area of memory not used for other purposes, it can be re-displayed very much quicker than normal.

Compatible shadow rams are :-

Watford 32K Aries B20 Master 128

The Wapping Editor software can be used with the Silicon Filing System supplied with the Watford Electronics RAM/ROM Board. To use this you must reserve socket 0 for the buffers using the command *INIT -0 and then enter *WEDIT as normal.

14.0 APPENDIX 2

ERROR MESSAGES

Can't open for read/write

Produced when an error occurs at the start of loading or saving a page.

Read/write error

Produced if an error occurs during loading or saving of a page.

Shadow!

Shadow RAM software is enabled. Type * command to disable it.

Markers !

Generated by the word processor if the wrong number of markers exists when saving or loading marked text.

No room

An attempt has been made to move or copy a block of text when there is insufficient available memory.

Memory full: Load aborted

An attempt has been made to load a file larger than the available memory. When this error is generated, as much of the document as will fit in memory will have been loaded, the rest is ignored.

Jessa House, 250 High Street, Watford, WD1 2AN, England
Tel: Watford (0923) 37774, Telex: 8956095 WATFRD, FAX: 01 950 8989