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DTP Software for Education

There are two ways of looking at the use of DTP in schools. One is simply to regard it as a tool, as in any other environment, for which any of the packages described elsewhere in this book are suitable for producing all the newsletters, reports, magazines, etc., that you could wish; the other aspect is of course the educational side, where it is used within the classroom for teaching purposes. The end products may well be similar in either case but the intentions behind preparing them will differ in that the former is more likely to be an extracurricular activity.

The educational value of DTP has not escaped the notice of software houses. Two pieces of software for use specifically in schools have been developed for the Archimedes: *PenDown* by Longman Logotron and *Desktop Folio* by ESM. Both offer DTP-like facilities and are easy to learn for teachers and children alike, allowing exploration without frustration. The greatest benefit of such software in the educational environment is ease of use by a wide range of ages, either because it can be configured to simplify the choices available (a feature shared by *EasiWriter*, a word processor described in Chapter 3) or because it allows preset template documents to be used for controlled activities.

PenDown

Superficially this is 'just another word processor' with the added ability to manage outline fonts, with greater control over line spacing and printing, and the capacity to include graphics, even if only sprites. In fact, its careful design makes it ideal for use in junior and lower secondary schools, and the package contains other educationally useful items (such as word frequency counting and cloze file generation) that fall well beyond the scope of this book. Here I shall concentrate on *PenDown's* more DTP-like features that make it suitable for simple page layout work, both within and outside the school environment.

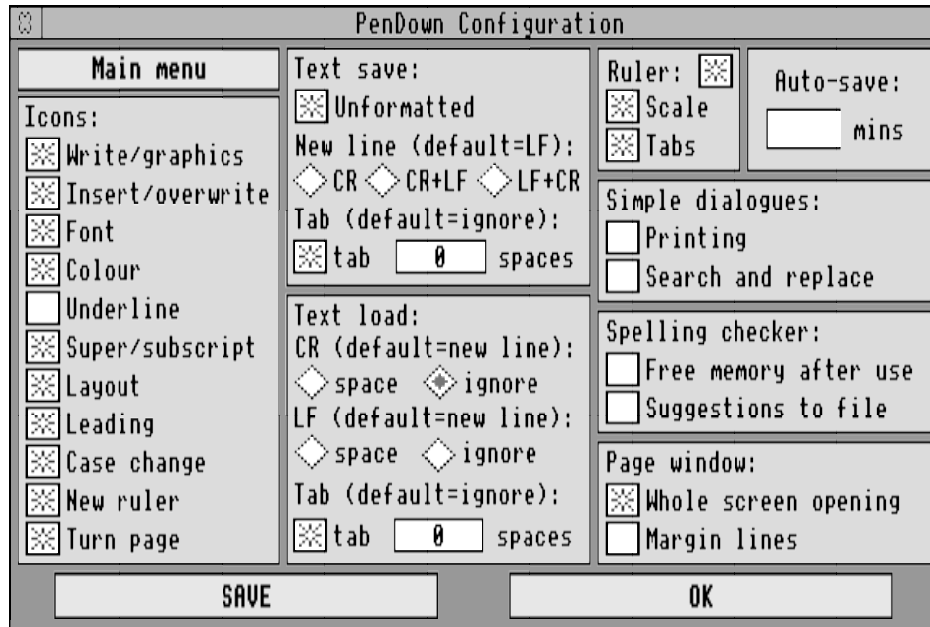


Figure 5.1 PenDown's configuration dialogue box

Configuration

Much of *PenDown*'s flexibility comes from the extensive range of configuration options presented in the Configuration dialogue box, which is reached from the icon bar menu. Figure 5.1 shows it with settings suitable for DTP-like work; a certain degree of simplification might be possible for use by younger children. Some of the settings are essential for the job, though, and I shall describe their importance here.

In the Icons section at the left, you will need a star against the following items at least: Write/graphics, Font, Layout, Leading, New ruler and Turn page. Depending on what you plan to do, you may want to select Colour and Super/subscript too; for convenience in word processing you might also select Insert/overwrite and Case change. As there is a choice to omit the use of underlining I would recommend that you leave that option unstarred, as underlining in DTP documents looks amateurish and is purely a hangover from the days of typewriters. You can (and should) use different fonts and sizes for emphasis, always keeping them within reason of course.

In the next area (Text save), you should put a star by Unformatted so that any text you save is sent to a file without any line feeds or carriage returns at the end of each

line. Leave all the next three buttons blank so that a line feed will be saved at the end of each paragraph. The button alongside 'tab' should be selected to save a tab character (ASCII 9, equivalent to Ctrl-I in *Edit*) wherever it occurs in the text, rather than a number of spaces. In the Text load panel the button labelled 'ignore' under the heading CR should be selected, as should the 'tab' button. Incidentally, to remove all settings from the diamond-shaped buttons (properly referred to as radio icons) in a group, just click Adjust on a selected one.

With the save and load settings shown, you will be able to save a file as text in a suitable format for loading back into *PenDown* (or even a different DTP package) with different margins, tab positions and font sizes. Although you can achieve the same effect by saving an intact *PenDown* document and reloading it, it is wise to take the broader view: you never know when you might need to send just the text of one of your documents to someone who doesn't have *PenDown*. You may put the person receiving it to an awful lot of work if the lines need manual adjustment.

All the buttons in the Ruler area should be selected, on the grounds that to do DTP you will need all the on-screen aids you can get, even at the expense of losing some of your work area to rulers. In Figure 5.1 the Auto-save option is left blank; this is only because the actual value is up to you, not because I think you shouldn't use auto-save. Quite the reverse: I strongly advise you to turn this feature on by typing in a convenient interval, such as 5 or 10 minutes.

The next two panels are more or less for you to choose, but to get the most out of the printing facilities you should leave the Printing button unstarred. The other three buttons are more concerned with non-DTP options.

The final area determines the appearance of the page on screen, and again your preferences may differ from mine. In my view, selecting the Margin lines option makes the screen look a bit crowded, with all those coloured lines from margins and tabs, but you may find them helpful.

The 'Main menu' box is the key to a clever customisation feature: you can prevent any item on the main *PenDown* menu from appearing by clicking on this box and then on any of the ticked items on the resulting replica of the menu. Any items that have no tick by them will not appear on the main menu. In this way you can shorten and simplify it: for instance, if you won't need to use the search and replace facilities or the spelling checker, the Search and Spell options can be omitted.

A last piece of configuration that you can do is to create a default style for all your other documents. First, set up a blank document containing your own preferences for things like margins, tabs, font, text size, leading and colour. Then open the !PenDown application directory by double-clicking on it while pressing Shift, and

save your document into that directory with the name *Style*. Finally, quit from *PenDown*. Thereafter, this style will always be used to create a new blank document when you click on the *PenDown* icon on the icon bar.

Page Layout

Rulers. *PenDown* uses rulers to position text horizontally, but in a more sophisticated way than *1st Word Plus* or *PipeDream*. Each page of a document can contain as many rulers as you wish, each with its own margin and tab settings. Figure 5.2 shows the horizontal and vertical rulers, with scales marked in centimetres; inches and picas are also available. With the help of the rulers you can arrange pieces of text all over the page if you want. At first sight it may seem that all the lines of text must move in a downward direction (in other words, you can't print multiple columns on a page), but in fact this isn't quite so, as we shall see later.

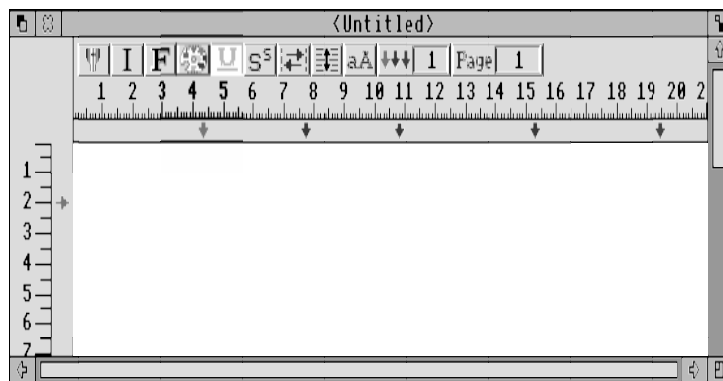


Figure 5.2 A *PenDown* document window, showing horizontal and vertical rulers

The horizontal ruler controls the left and right margins (marked by green and red arrows respectively) and the tab settings (denoted by blue arrows). You can slide each margin about by moving the pointer onto it, pressing Adjust and dragging it to a new position. New tabs are placed on the ruler (up to 16 on any one ruler, but between the margins only) by clicking Select below the scale; tabs are moved about in the same way as margins. You can remove a tab simply by clicking on it.

A new horizontal ruler, with its own independent margins and tabs, can be created by clicking on the icon containing three downward arrows. A dialogue box appears, so you can choose which of the existing rulers to copy by typing its number in the 'Ruler to copy' box. At the same time as you create it you should be sure that you have chosen the correct scope for it to be applied over: you can choose between 'From line down', to apply it to all the text after the caret, and 'Marked block',

which applies it to any text that you have highlighted. You can't apply an existing ruler to existing text, but you can alter the margins and tabs on any ruler at any time after it has been created, thereby altering the layout of the text it governs.

The vertical ruler, which you acquire via the menu obtained by clicking Menu on the horizontal ruler's scale, also has green and red arrows, for top and bottom margins on the page. You can also have up to four pairs of vertical tabs on a page to control (in conjunction with the vertical margins) where groups of text lines will start and end; if there are an odd number of vertical tabs the last one will force a page break.

Figure 5.3 shows both horizontal and vertical rulers in action, with four text blocks on a page. The horizontal positioning was achieved by using three different rulers (one for the first and third blocks and one each for the second and fourth; the ruler shown applies to the fourth block); the spaces between blocks were made with the vertical tabs shown. In this way you can leave spaces for pictures to be included.



Figure 5.3 Using PenDown's horizontal and vertical rulers to place text on a page

Layout. The icon with the leftward and rightward pointing arrows is there to let you change the layout of all or part of the text. In Chapter 7 the four common arrangements are described in some detail, but the names that *PenDown* gives them are slightly unusual: 'Left justify' means the text is lined up on the left margin, with a ragged right edge; 'Right justify' is the opposite, where the lines have a neat right edge but a ragged left one; 'Left + right justify' gives lines a straight edge both left

and right by stretching the spaces in each line; and 'Centre', fairly obviously, centres all the lines governed by the scope of the layout.

Unlike 'real' DTP programs (but like *Ist Word Plus* and *PipeDream*) you can't set up a style (or ruler) that will give your paragraphs an indented first line automatically. Although you can use spaces instead, this isn't a good idea for text that is justified left and right because the width of the spaces will vary according to the width of the spacing in the line. The best way to do this is to position a tab stop about 5mm from the left margin and press Tab at the start of every paragraph.

There are a couple of odd features of *PenDown* in text in narrow columns justified left and right, as shown in the two parts of Figure 5.4. They are, I think, self-explanatory.

Leading. By clicking on the ruler icon showing horizontal lines and a double-headed vertical arrow you can adjust the amount of space between the lines of text. The dialogue box that appears when you do so is shown in Figure 5.5. Before using this option you should select its scope of operation. The number alongside 'Step' is the amount of space (in points) that will be added to or subtracted from the line spacing every time you click on one of the next two boxes, respectively. So, if you increase

- (a) If you try to justify text on both sides in a very narrow column you will find that not every line ends level with the margin. This is just a curiosity of the way that justification is done in *PenDown* and is overcome by adding spaces within the line until it 'jumps' to the margin.
- (b) Another curiosity is that if the line at the end of a paragraph has been 'stretched' to the margin before Return is pressed, the line is still justified.
- The paragraph above shows this effect, which is cured by adding spaces after the last full stop of the paragraph.

Figure 5.4 Two strange effects with left and right justified text in *PenDown*

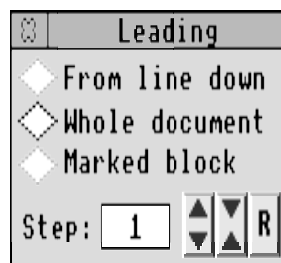


Figure 5.5 The dialogue box for altering line spacing

the number the effect of every click on the arrows will be increased, moving the lines apart or together faster. What *PenDown* never tells you directly is the actual space there is between lines: you can only work it out indirectly by keeping track of the changes you have made to it. In case you lose count there is a Reset button on the right, marked R, to return the line spacing to its original value. The maximum step size permissible is 16pt.

Multiple Columns. (This section is only for those with, or with access to, a laser printer.) You may have found by experimentation that by continually subtracting leading from between lines you can make them overlap each other, print on top of each other or even end up in reverse order. This last can be thought of as 'negative leading' and is a clue to how you can achieve multiple columns of text on a page without printing them out separately and pasting them down after printing (which is, after all, what we are trying to avoid by using DTP). Let us imagine that you have a document extending over several pages that you want to convert to a double-column format. It is worth mentioning that the text *must* be in its final form before conversion, because editing will be very difficult, if not impossible, afterwards. The method is easiest to use if the columns are all of the same width and length, but you may be able to work out more complicated designs, with more columns, for yourself.

The first step is to load the document and decide where you want to place the columns on the page, then use ruler 1 to set the left and right margins for the first column. Set the top and bottom margins to your chosen values on every page, but note that towards the end of the job you will need to check that the last few pages still have their top and bottom margins correctly set.

You may find some of the next stages easier if you go to the Page dialogue box and set the scale so that you can see a full page on screen at once (this is just about possible at 50% if the columns aren't too long). Highlight the whole of the text on the second page, either by dragging with the mouse from start to finish or by clicking Select at the start and Adjust at the end, and create a new ruler (this will be ruler 3) with left and right margins correct for the second column. The marked section will clear itself.

To recapitulate: on page 1 you have the first column set by ruler 1, on page 2 you have the second column controlled by ruler 3, and all the succeeding pages are so far governed by ruler 2, which is a copy of ruler 1. If your ruler numbers don't match this list, there is nothing to worry about as long as you have three of them with corresponding portions of text. Now move the cursor in front of the first character on the top line of the second page and press Return to make a new first line, then move the cursor onto that new line, press the space bar and highlight the resulting space character (you may want to go back to 100% page scale for this).

The final stage is to subtract leading from the marked line so the text following it gradually moves up the preceding page. The larger you set the step size, the faster you will complete the task, but for simplicity you should set it to the same value as the text size or, if this is more than 16pt, to a factor of the text size (say 10pt if the text size is 20pt). This will ensure that the tops of the columns line up. Then just click repeatedly on the 'reduce leading' arrows until the last line of the second column disappears from the top of page 2.

Turning back to page 1, you will probably be surprised to find that column 2 seems to be completely invisible except for the highlighted space above where the column ought to start. That is why the text must be in its finished form: you can't edit what you can't see! Even though it is not apparent on screen, the second column will print correctly on a laser printer.

By carrying on in a similar way you can apply double columns to the remaining pages. This is a bit fiddly, but perfectly feasible once you get the hang of it. If you want to leave spaces in single columns for illustrations you will have to put them in by inserting blank lines with Return, because the vertical tabs apply to all columns on the page.

Use of Fonts

Fonts and Sizes. Clicking on the 'F' icon on the ruler calls up a dialogue box with which you can change the font and also its height and width independently. Choosing a font involves clicking on the font name shown and selecting from the list that appears. Make sure you have set the required scope for the change before clicking on OK. A good feature of *PenDown's* font facility is that it remembers the last font you chose even if you didn't apply it anywhere. This lets you prepare your whole text in, say, Trinity Medium and plan ahead how you will emphasise words or phrases scattered throughout it, because you can't simply change font as you type. Choosing, say, Trinity Bold as your contrast type you can go back over the text once it is complete and select the words or phrases one by one, applying the different font quite speedily without having to go through the list of fonts every time.

Altering the height of a font also changes the width automatically; however, as you might expect, the reverse is not true. By giving a font a different width from its height you can stretch or squash the letters to change their appearance. This effect is best kept unobtrusive by using it only for headings or for large areas of text: indiscriminately scattering wide and narrow styles in text is bewildering to the eye. It grabs the reader's attention, but tends not to let it go again to allow easy reading.

Colour. Clicking on the palette icon calls up the Colour dialogue box, with which you can change the colour of your text. Clicking on the coloured oblong at the top of

the dialogue box displays the colours available (note that white is not one of them, presumably to prevent you from writing invisibly in white on white, thus 'losing' your text). The colours will naturally only be reproduced on a colour printer; on a non-colour printer any coloured text will print in a shade of grey.

Accented and Special Characters

For ease of use in schools, *PenDown* doesn't allow you to include characters outside the normal keyboard set by holding down the Alt key and typing the character numbers on the numeric keypad at the right of the keyboard. Instead, it provides special files called *keyscript files* that define the function keys either as shortcuts to commands or as accented letters for typing in words from other languages. If you look in the !PenDown application directory (hold down the Shift key as you double-click on it) and then in the directory KeyScripts you will find a set of text files that you can read by dragging them into a blank *PenDown* document window. They list the function key numbers F1 to F11 with the corresponding commands or characters alongside; shifted keys have a capital S after the key number, those combined with Ctrl are followed by C, and if Shift and Ctrl are to be used together the suffix is SC. This allows 44 options in one keyscript file, and so that you don't lose track of the definitions the program disk contains two *Draw* files, KeyStrips and KeyBlanks, that you can print out and use as reminders by placing them above the function keys.

Installing a different keyscript file involves double-clicking on the utility called PDKeys and typing the name of the file you wish to load. You can design your own keyscript file: the manual gives a comprehensive list of the commands you can include, and Figure 7.10 provides a list of the special characters, which should be placed between double quotes (") so that the program can recognise them as such. The range of these other characters is much greater than merely accented letters: various dashes (— —) and nicer quotation marks (' ' " ") are also available. See Chapter 7 for a description of their use. If you do make your own file, remember to update the list in PDKeys by using *Edit* to alter it.

Incidentally, if you are desperate to use the numeric keypad to call up a character that you haven't defined in a keyscript file, you *can* use the Alt key and the keypad, provided that you add 256 to the character number: *PenDown* only filters out those numbers between 128 and 255 that don't appear on the keyboard. But it is probably simpler in the school environment to set up an appropriate keyscript file.

Including Graphics

PenDown will accept sprites as illustrations in a document, and loading one is no more than a matter of dragging the file's icon over an open document. If you want to

do anything with it, though, you should click on the pen icon on the ruler: it will change to a pencil to indicate that you have now entered graphics mode. To move the graphic around the page you simply drag it about with the mouse's Select button. It can be removed in one of two ways: by dragging it completely off the page or by double-clicking on it and confirming the deletion as asked. If the graphic is on the wrong page you will have to delete it and reload it onto the correct page.

Changing the size of a graphic is done by dragging with Adjust. Note that you can alter the width and height independently, stretching and squashing its shape. If you don't want this to happen accidentally you should pay particular attention to dragging diagonally in line with the diagonal of the graphic itself: one trick is to lay a piece of paper on the screen along the graphic's diagonal to guide the pointer and help you maintain the picture's original shape. The graphic can be expanded to a scale that is much bigger than the page, in case you want to focus on a very small detail of the original.

To obliterate parts of the graphic that you don't want to show, create a blank sprite in *Draw* and load that over the top, resizing it as necessary. You can even use a sprite as a frame for part of a graphic by making a central section transparent with the mask colour (to activate the mask colour, click on 'Mask' in the Edit submenu while working in *Paint*). Overlaying sprites has its drawbacks, though: you may not be able to 'grab' a smaller sprite if it gets underneath a larger one, except by moving the larger sprite out of the way temporarily.

Graphics can be used both as an adjunct to text by placing them alongside or between text blocks, and as a backdrop to text. For the former, use rulers to format the text around the graphic elements; for the latter, use very pale colours in the graphic or choose a contrast colour for the text, as shown in Figure 5.6.

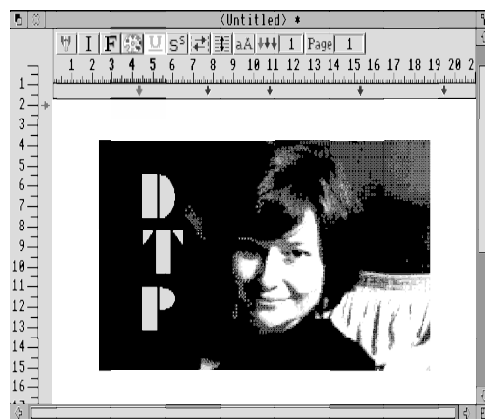


Figure 5.6 Overlaying graphics with text in a contrast colour

Printing

PenDown makes proper use of the RISC OS printer drivers rather than providing its own. It also provides a range of options of its own: depending on how you have configured your session, choosing Print from the *PenDown* menu will call up one of two dialogue boxes. I shall assume that you have opted for the more detailed one, shown in Figure 5.7, as it is more useful. If you have forgotten to load a printer driver, which I often do, the top box will read 'Not loaded' as a reminder.

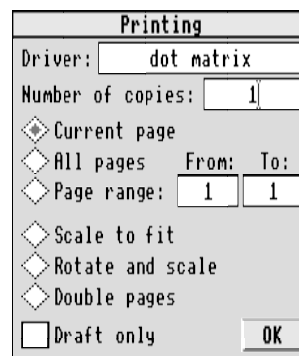


Figure 5.7 The 'complex' dialogue box for printing

By default, *PenDown* prints only the current page at full size, but you can choose from other options, in both the number of pages to print and their scale. The first group of three buttons controls the former: the other choices are between printing all the pages and printing only a specified range of them. The second group deals with different print sizes; although there is no direct control over scaling you can make *PenDown* adjust the image. The first button, 'Scale to fit', makes an allowance for the fact that your printer can't print on the whole area of the page and reduces the size of the image accordingly. The second, 'Rotate and scale', rotates the image through 90° before doing the same. Note that these first two buttons actually stretch the image over the printable area rather than retaining the height:width ratio of the page. This may not be quite what you wanted. The third button, 'Double pages', cleverly reduces the scale of the image so that two pages will fit side by side in the printable area and, with 'All pages' selected, arranges them so that they are in the correct order for printing as a folded booklet.

The final option, 'Draft', sends only the text in a simple form to the default printer for your computer (usually the one plugged into the printer socket) without the need to load a printer driver. To make proper use of this you must make sure that your computer and printer are set up correctly to deal with the line feeds at the end of each line, or else the text will come out in a solid lump.

If the options in the Print dialogue box have already been set correctly, you can print out without having to see it again: just press the Print key (or Ctrl-Print for a draft printout).

Desktop Folio

This word processing/DTP/interactive publishing software is a valuable introduction to 'real' DTP, and it offers an interesting alternative to more conventional DTP programs: it not only gives children the chance to produce their own posters, newspapers and so on, it can be used as an educational resource in its own right by virtue of the interactive aspects of its design. I shall concentrate here on its use for DTP work, though this is only a small part of the story.

Configuration

The default document that opens when you click on the application's icon on the icon bar depends on how you have configured the program to work: it can start up with the last document or the last stationery (template document) used, or it can start with a blank document as shown in Figure 5.8. Using the configuration procedure, you can also alter the directories that are defined as 'User' (this is where documents are looked for) and 'Public' (within which stationery and resources are kept) so that directory displays of your choice are opened when the relevant folder icons in the toolbox are clicked on; this configuration is changed whenever you double-click on

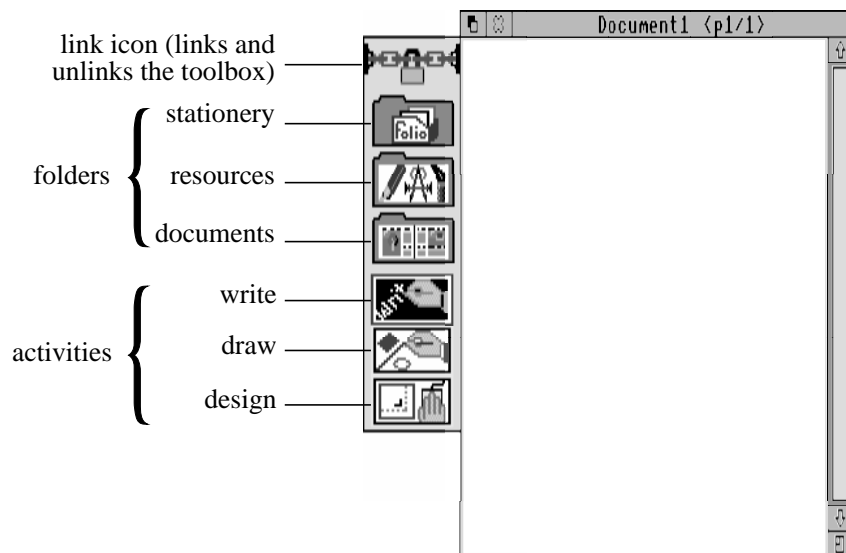


Figure 5.8 A blank Desktop Folio document window, showing the toolbox on the left

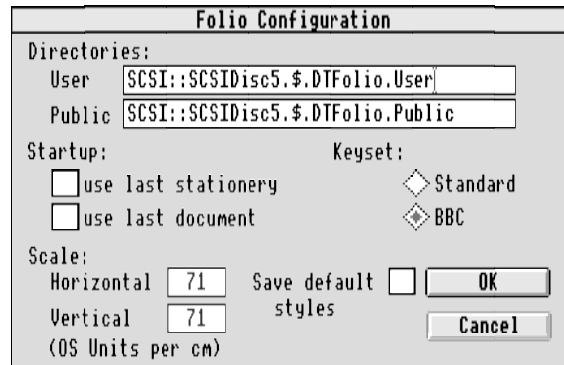


Figure 5.9 Desktop Folio's configuration dialogue box

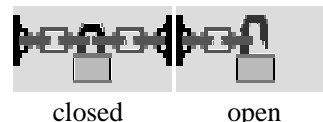
a new !FolioWork directory, letting you keep different children's work on separate disks. Figure 5.9 shows the Configuration dialogue box, which is reached via the icon bar menu. The 'Keyset' options tell the program how to interpret some keys which have different functions on BBC and standard IBM keyboards; leave it on BBC unless you are accustomed to using a PC.

The 'Scale' configuration option allows you to match the size of printout to the size of the image on the monitor for use with the 'Size on screen' printing option. 'Save default styles' lets you save any changes you may have made to the first three frame styles, which are the defaults.

Screen Layout

Window Resizing. Uniquely among similar applications for the Archimedes, *Desktop Folio* doesn't simply retain the scale of the page on screen when you resize the page viewer, it redraws the page at the largest size possible within the window, giving the ability to work at close quarters at one moment and then pull back for an overall view of the page. However, doing this too often can slow down operations by filling the font cache with many different sizes of the fonts used, as it is difficult to resize a window reproducibly.

Link Icon. This facility helps you organise your screen. If you click on the 'closed' Link icon it changes to the 'open' version as shown alongside and the toolbox detaches itself from the document window and acquires an orange title bar marked Tools and a close icon (☒) to let you remove it if the screen gets cluttered. When you need it back on the screen (as you are likely to) you can choose 'Show Tools' from the icon bar menu.



closed

open

Page Layout

Desktop Folio's document structure is simply a set of frames, each of which can contain text or a picture. This means that in contrast with word processor-type programs there is complete flexibility over where pieces of text and pictures appear on the page, rather than having to specify positioning with rulers and margin controls. Not all the DTP facilities described in Chapters 6 to 8 are implemented, but this is no bad thing as it keeps the software simple and encourages mastery of what is available.

Design. Before anything can be done on a page you need to create one or more frames: for this you should click on the Design icon at the bottom of the toolbox, whereupon the pointer changes to a + shape when it is in the page viewer. A frame is created by dragging with Select; during the drag operation the position and size of the frame are indicated by a broken blue outline which turns to a solid red one when Select is released.

Once created, a frame can be moved and resized by dragging with Adjust: if the pointer is towards the centre of the frame it will change to an open hand, signifying that the frame can be pushed about the page. If the pointer is near a frame border it will change to a right-angled shape indicating which corner can then be adjusted by dragging. The size and position of a frame can be changed more precisely with the 'Frame dimensions' dialogue box, which is reached via the Frame submenu (the title bar of the submenu conveniently tells you the frame number you are working on).

Frames come in essentially two types: locked and unlocked. An unlocked frame can have a graphic file imported into it when the Design icon is highlighted (i.e. in Design mode), or a graphic or text file can be imported, or text can be typed into it directly, when the Write icon is highlighted. A locked frame, by contrast, becomes part of the 'paper', like a printed letterhead below which you compose your own letter, and can only be manipulated in Design mode).

When a frame is first created it is unlocked, as indicated by the red border, and to lock the frame after you have added text or graphics and made all the changes you want, double-click on it. The border will turn grey to confirm its locked status; it can still be resized and moved in Design mode but you can't add anything to its contents. To unlock a locked frame, just double-click on it again.

When creating overlapping frames be careful about the order in which you make them, as more recently created frames are treated as being 'on top' of the older ones. You can tell how the layers are built up because the outlines of covered frames are broken instead of solid, as shown in Figure 5.10: notice that each frame is trans-

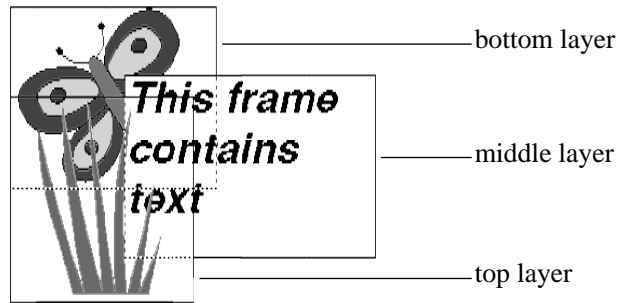
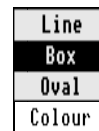


Figure 5.10 Overlapping frames with partly dotted outlines; note that the graphic frame on top is transparent and the text frame over the butterfly is opaque

parent when it contains pictures (except where the pictures themselves are; you can't see through the coloured part of *Draw* files or, normally, through sprites) but opaque when it contains text. If you find that you have built up the layers in the wrong order you can use the 'Push' option. Just click Menu over a part of the frame that is showing and move to the Frame submenu, then choose 'Push', which will move the frame down one layer. There is no 'Pull' option, but multiple pushes on other frames can achieve the same effect.

Two other items in the Frame submenu are relevant here: Empty and Delete. The action of each is self-explanatory. Note that the Delete option is only available in Design mode, but Empty can be used on an unlocked frame in Design and Write modes, and on both locked and unlocked frames in Design mode.

Draw. There is a simple shape-drawing facility in *Desktop Folio* which is accessed by clicking on the Draw icon. The pointer changes to a + and four dots when it is in the page viewer. By using the extra menu shown alongside, which dangles from the toolbox in Draw mode, you can choose between drawing a line, a box (rectangle) or an oval. Clicking Select on the Colour option switches between an outline or a filled shape; clicking Menu anywhere on the extra menu calls up a choice of 16 colours.



While in Draw mode you can manipulate shapes and lines in much the same way as frames in Design mode: they can be moved, resized, pushed and deleted. A filled shape can also be converted to an outline one and vice versa. In addition, if you click Menu on an unoccupied part of the page you will call up the Canvas menu, with which you can change (among other things) the background colour of the paper.

Grid. For more accurate positioning of frames, shapes and lines a grid is available in both Draw and Design modes. There is no way of making the grid visible, but its effects are felt in that as you drag an item it will jump by fixed amounts, rather than

sliding smoothly, when the Grid option is ticked (click Menu in the page viewer when the Draw or Design icon is highlighted). The grid size, shown in millimetres, can be changed if required by following the arrow by the Grid option; the default value is 10mm.

Text

Write icon. The third and most frequently used mode of operation is Write mode; this is also the mode in which *Desktop Folio* starts up, ready for use once a document has been loaded. The frames that in Design mode were bordered in red (unlocked) now have blue outlines to show that they will accept text or graphic contents, whereas the grey-edged frames (locked) are now invisible: you can see them only by any contents they may have.

Text Entry. Clicking on a blue-bordered frame turns the border yellow and opens a new window (the frame viewer), which is where you can enter text (graphics come later). The text in the viewer is a more convenient size for reading than can be obtained in the page viewer, and doesn't change size as the window is resized. Text can now be typed in as normal. Alternatively, you can drag a text file from its directory display and drop it into the required frame in the page viewer.

Text Selection and the Clipboard. Although they are not strictly relevant to DTP, selection and the clipboard are worth a mention because they work differently in *Desktop Folio* from other Archimedes software and involve the simple and effective use of graphics. The clipboard in particular is splendidly thought out and presented. To select a passage of text, click Select in the frame viewer to move the caret to one end of the passage, then click Adjust at the other end. The Selection dialogue box shown alongside will appear. Note the following features: the title bar shows the passage selected (or the start and end of it if it is too long); the camera, scissors and eraser icons are used to copy, cut and delete text respectively; the right-hand T icon is for underlining the selected passage (the left-hand one removes underlining); and the colour blocks let you change the colour of the selected passage. Clicking on the box labelled Selection brings up the usual 'Save text' dialogue box, allowing you to save the selected passage to disk or to another application in the usual way. A different way of selecting text is by letter, word, line, sentence or paragraph: put the caret in the item you want to select, click Menu and choose the appropriate option from the Text menu that appears.

If you use the Selection box to copy, cut or delete some text it will be stored on the clipboard, which is shown in Figure 5.11. The clipboard stores five cut or copied text pieces as well as the last selection to be deleted. The last item cut or copied is indicated by the radio icon on the left, showing you what will be inserted at the caret

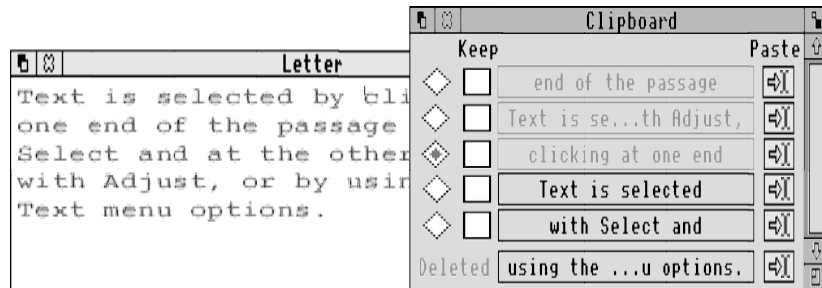


Figure 5.11 The clipboard in Desktop Folio

if you press Insert; clicking on one of the other radio icons chooses that passage for insertion instead. The Keep icons are for preventing items from being overwritten by a later cut or copy action, and the Paste icons are another way of inserting one of the cut or copied items or the deleted item. Watch out for stray Returns that may be inserted when you paste in text from more than one paragraph.

Text Format and Style. Each frame is associated with a text format (how the lines are aligned or justified [see Figure 7.8 for examples], how many columns the text is arranged in, and how much space there is between paragraphs) and a text style (the font, size and colour of the text and the frame background). Figure 5.12 shows the dialogue box used to alter an existing style or create a new one: it is called up by clicking on New or Edit in the 'Frame style' sub-submenu of the Style submenu. The example here shows that by setting the width figure to be different from the height (called Size in the dialogue box) you can stretch or squash the appearance of

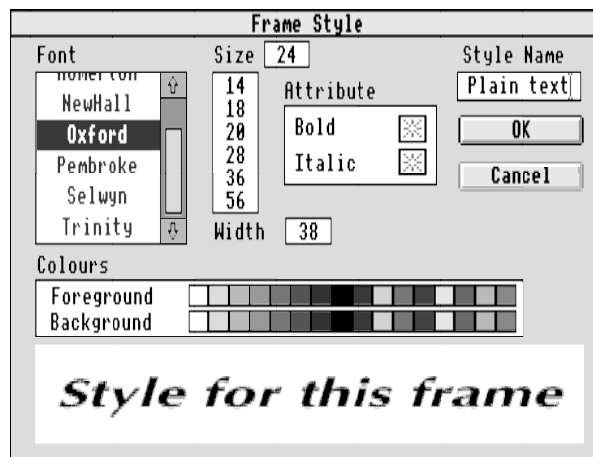


Figure 5.12 Using the Frame Style dialogue box to change the Plain text style

text. Three basic styles, Plain text, Title and Heading, are normally available in a newly created document; there are also three basic formats called Standard, Centered (*sic*) and 2 Columns.

Applying an existing style or format to a frame is simply a matter of choosing a name from the list in the Style or Format submenu. To create a new style or format choose the New option in the appropriate submenu and fill in the details; you will find it helpful to give it a name that indicates what it is to be used for (such as 'Justified' for a fully-justified format, or 'Wide' for an expanded style). If you use the Edit option to alter the details (which can include the name) of an existing style or format, all frames that use it will be changed, not just the one you clicked Menu on.

In the original release version, 1.01, each frame can have only one format and style; this and other details are subject to development in later releases.

Graphics

Resources. Before discussing what can be done with graphics (pictures) it is as well to consider where you should store them. *Desktop Folio* will always display the Resources directory, which is in the 'Public' directory as defined by the configuration option (see earlier), when you click on the Resources Folder icon, so for convenience and ease of use you can keep your text and picture files in that directory. You don't need to have Desktop Folio loaded to change which files are in the directory, of course: you can use the standard Filer method (dragging files) if you need to. Beware, though, that if a document makes use of a graphics file and you move it to a different directory or delete it, the next time you try to open the document *Desktop Folio* will complain. This is because a document doesn't contain a copy of the graphic, only a reference to the file it was imported from. The advantage of using the Resource directory to store your pictures and text for importation is that it avoids the need for multiple copies of files that are used in different documents: files (and this includes text files that haven't subsequently been altered) imported from the Resources directory are not saved into the document's directory but are referred back to the Resources, thus saving disk space.

Graphic Frames. Loading a graphic item (a *Draw* file or sprite) into an empty frame is merely a matter of dragging the file icon and dropping it into the frame, which mustn't be locked. Once a frame contains a picture a different one can be loaded by the same procedure to replace it, but you have to confirm your intention. If you want to put text into a frame that is holding a picture, you have to empty the frame first with the option in the Frame submenu; you can also save the picture to a file from the same submenu.

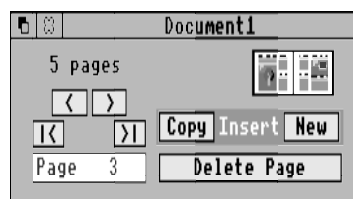
In Design mode, if you change the size of the frame the picture will be redrawn to be

as large as possible in the frame without distorting it. Trying to lock a frame won't succeed if it contains a picture that didn't come from the 'Public' directory: save the picture to the Resources directory or one of the subdirectories in it and load the file again.

Graphics in Text. You can also put a picture between paragraphs of text by opening the frame viewer for the text in question, placing the caret in the paragraph that you want the picture to follow and dragging the picture file from its directory display. Once inserted into text, the picture can be made larger or smaller by clicking on it in the frame viewer, then clicking Menu: one of the menu items will be the name of the picture, and two of the options in the submenu from the picture name are Larger and Smaller. Clicking Adjust on either of them lets you continue to change the size without the menu disappearing after each click. The picture is governed by the Format of the frame, so in centred text it is centred, in text aligned right it is placed at the right edge of the frame; in fully justified text it is centred (rather than stretched to fill the frame width!). A picture in text can be selected in the same way as described for text, either by itself or as part of a text passage, and copied, cut or deleted to the clipboard for pasting elsewhere. You can also delete a picture in text with Delete or Backspace just as though it were a single letter of text.

Documents

Pages. A document consists of one or more pages, each (in the original release version, anyway) separate from the others. Adding a new page is done via the Insert option in the Page submenu; the new page is inserted after the current one. You can either make a completely blank page or copy the one before. Turning to another page is also done via the Page submenu: there are five options (next page, previous page, last page, the page you were on previously, and any page at all by typing in its number). If you want to clear a page completely there is an option for that too, as there is for deleting a page (only if the document consists of more than one page, though).



Possibly a rather more convenient way of working with pages, because it doesn't mean going through a menu every time, is to call up the dialogue box shown alongside by clicking on the Page item rather than going to the submenu (this isn't an obvious thing to do). With the controls that this provides you can do almost everything described in the previous paragraph, and also go directly to the first page.

Emptying a Document. There are two ways of emptying everything from a document: the first is by choosing the 'Empty' option in the Document submenu

(which is only available in Write mode), which leaves you with a blank document consisting of only one page; the second is to drag a document directory from the documents directory (click on the Documents Folder icon to open it) or one of its subdirectories into the page viewer, which replaces your existing document with the new one. A third (cheating) way is to close the document altogether and open a new one by clicking on the *Desktop Folio* icon on the icon bar.

Loading and Saving Documents. Loading a document was described by implication in the previous paragraph: just drag the document directory to a page viewer. Saving is done via the Document submenu in the normal RISC OS manner, preferably to the disk that forms your work area. If you want to save the document to somewhere else you should publish it.

Publishing a Document. When you save a document, *Desktop Folio* checks which of the included files were imported from the 'Public' directory and saves into the document's folder only those files that weren't; 'Public' files are instead stored by reference to the file name. This is a clever means of sharing resources for use by a number of people, and is therefore especially suited to the classroom. However, you may wish to keep a copy of the document on a separate disk or in a different work area, or send it to someone else; their resources may be different from yours and so all the files used in the document will need to be included on the disk. By using the Publish option, instead of Save, in the Document submenu you can tell *Desktop Folio* to do this. The procedure is otherwise exactly the same as for saving.

Stationery. Last of all we come to the underlying concept for a *Desktop Folio* document: every document is best considered as a piece of stationery on which the text and pictures are placed in unlocked frames. The text and pictures in locked frames are like the printing on a piece of paper before you add your own material, and in the school environment the preparation of suitable stationery in advance encourages the children to participate and also it makes it easier for novices to get started. A piece of stationery needn't be only a single page: the Notepad stationery contains a cover and a first page of the notepad. New pages can be added after the first is filled, to give the appearance of successive pages after the cover.

Loading stationery can be done by double-clicking on a stationery file, by dragging the file to the *Desktop Folio* icon on the icon bar or by dragging the file to an open page viewer. If you design a new document from scratch, the newly designed stationery is automatically saved as part of the document, in the document's directory. However, if you loaded some stationery before starting work on your document a stationery file will be saved with the document only if you changed its design. Stationery can be saved as a separate item only while the Design icon is highlighted: the Stationery submenu has a Save option.

Printing

Printing from *Desktop Folio* is done via the standard RISC OS printer drivers; before trying to print remember that the driver has to be loaded before you write or load the document you want to print, so if you forget to do this save the document, close it, load the printer driver and then load the document again. The Print dialogue box, shown in Figure 5.13, is accessible from both the Page and the Document submenus. As it indicates, you can print all of the pages or just a selection of them, and you can choose what size page is printed. The fourth of these options, 'Size on screen' lets you print at the same size as the image on screen as long as the program has been correctly configured to work with the particular monitor and screen mode in use.

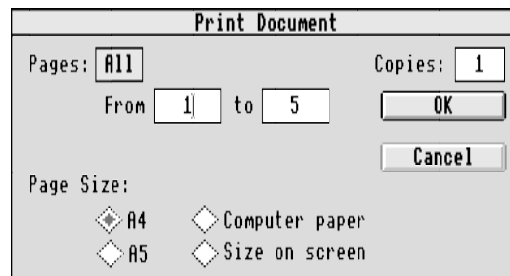


Figure 5.13 The Print Document dialogue box

Not everything visible on screen has to be printed: the 'Action' item in the Frame submenu (only available in Design mode) calls up a dialogue box containing, among other things outside the realms of DTP, an option marked 'Print'. If this doesn't have a star in it the frame will not be printed. This is useful for giving instructions or guidance or for placing 'action' buttons on the page that are relevant only during the writing process.

Hint

You can set up your own resources outside the page area by using Ctrl-drag to enlarge the window size (this stops *Desktop Folio* from resizing the page to fill the window) and placing pictures, text frames, click art or action buttons in the grey area. Anything in this area won't be printed but will be saved with the document. This might be useful if the page on screen would otherwise be unduly cluttered if you added non-printing frames to it.

