Gerald's Column
by Gerald Fitton

Write direct to me at Abacus training (see back cover) rather than via the Archive office – and please keep them coming.

Protechnic

Colton Software have merged with a company called Protechnic. I can only guess what the long term effects of this will be but, in the past, some of you have expressed your concern that Colton Software is a 'one product company'. Your concern is whether Colton Software will be there in the future to continue to service your package. Let me try to reassure you.

Protechnic and Colton Software have co-operated on many projects for over a decade. Indeed it was whilst Mark Colton was at Protechnic that he created the View family culminating in View Professional for the Acorn pre Archimedes BBC computer. This package was ported to the Z88 laptop computer as PipeDream 1.

Colton Software's first product as a company independent of Protechnic was PipeDream 2. It was written for both PC and Archimedes computers; it was completely compatible with the Z88 version and accepted View files. The multitasking RISC OS 2 versions for the Archimedes, PipeDream 3 and then PipeDream 4, quickly became market leaders.

The combined Colton Software/Protechnic organisation has a strength of 25 employees. Stuart Swales will continue as the leading programmer for the Colton Software range of products. He has been with Colton Software from PipeDream 2 days and knows the Colton Software range of packages with the intimacy which comes from having written large parts of the software.

Colton Software will still operate with the same staff as before but with the reassurance of being part of a larger group. I hope and expect that there will be a wider range of products coming from the enlarged group.

Disappearing Line Numbers

As yet nobody has come up with a work around for the loss of parts of line numbers in PipeDream 4 on the Risc PC. In case you missed it, the problem is that if you have a line number of, say, 12345 (a big sheet) then all but the 345 disappears. The only news I have is that Rex Palmer says that PipeDream 3 doesn't have the disappearing line number problem!

From PipeLine to Wordz

When I first volunteered to write this column (as PipeLine back in 1989) I rather expected to be writing mainly about spreadsheets. Since I understood Mathematical things (am I a member of a dying breed?) I knew that I'd always have plenty to write and that I'd find it easy! Little did I know how the column would expand.

Little did I expect to be writing about monitor resolutions, fontcache parameters, desk top publishers and region editors.

Over the last year or so I've received many letters about the use of Wordz. Most beginners praise it highly; some experienced users are critical. Of course Wordz does have its faults but many frustrations experienced by users who have changed from other packages arise because they want Wordz to work in the same way as the package they understand. On the BBC computer I was a committed WordWise user. When I changed to PipeDream 2 I found that I had no idea how to do some of the things I could do easily in WordWise. Later, when I understood PipeDream better, I found that I could do much more with PipeDream than was possible with WordWise.

Of the many letters I've received about Wordz let me choose a few points from just one letter written by Gavin Dobson to NCS which illustrate the exasperation felt by those who upgrade to an unfamiliar system. The full text of his letter and my reply are on the Archive monthly disc.

Readability on Screen

Gavin complains about the readability of text on screen. He sent in a disc file so I have been able to load his file to screen and see what he sees. I suspect that Gavin is used to a word processor which displays text in the system font on a low resolution screen with superb clarity. In his view the screen display of outline fonts leaves much to be desired. Referring to Wordz Gavin says:

"Scrolling. I am afraid the scrolling facility at 100% is dire (meaning slow) and, of course, to fit the whole document onto the screen requires an electron microscope to help differentiate between W's and H's."

It is difficult for me to reproduce on paper what Gavin and I see on screen but I'll try with a screenshot of part of his letter in its original form.

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dire and,
requires
and H's.

Now look at the screenshot below.

a. Scrol
dire and,
requires
and H's.

I hope that you'll agree that this second screenshot is much clearer. What's the difference? The first screenshot was taken with the Wordz document at Gavin's original scale of 75%. The second was taken at 150%; every linear dimension is doubled. I refer to this doubling as "displaying at twice the resolution". The System font was designed for clarity on a much lower resolution screen.

Gavin is using the Corpus typeface. I think that Corpus is about the worst choice of an outline font for a screen display at small point size. Homerton is much better – it is readable when printed at 8 point with a 300 dpi printer.

I have no doubt what Gavin's response to me will be because so many have written to me saying the same thing. It is that if he displays at 150% then he won't be able to see a full line on the screen.

If you are using a 14 inch standard monitor in mode 12 then 75% is close to the highest scale factor which gives a full line on screen. Now I use 150% and I don't read half a line at a time, nor do I do as Paul Beverley does in Archive which is to use two columns in order to shorten the line. What I have is a 17 inch multiscan monitor and this allows me to display at 150%. Those of you who are regular readers of my column will know why. It is because I have nearly twice as many pixels across my VIDC mode 102 17 inch screen as in mode 12.

Incidentally, the resolution you get on screen is not as good as that of a printout. A standard 14 inch monitor will give you an approximate resolution of 75 dpi; this is about a quarter of the resolution you will get from a typical 300 dpi printer.

Again, regular readers of my column will recognise that the slow scrolling to which Gavin refers is almost certainly due to having inappropriate sizes for the various font cache parameters, in particular that fontmax is too small. Yes! I know what he'll say about memory but my reply (as in my previous writings in this column) is that he needs at least 4 Mb and that he ought to be looking at 8 Mb.

Styles or Effects

You will know that one of my golden rules is: "Do not use an Effect when you can use a Style."

Again referring to Wordz Gavin asks:

"Menus. Why does everything have to be menu driven? There are 12 perfectly serviceable F-keys up top. Why not use them along with Shift, Ctrl and Alt? It can be much quicker than driving through menus."

Studying Gavin's disc file I discovered that he is using a mass of Effects. On the monthly disc (and on the disc I sent to Gavin) I have included Gavin's letter in its original form as the file [Original] and my version as the file [Stylish]. My version looks almost the same but I have removed all his Effects and defined a suitable set of Styles. These Styles can be applied quickly and easily with function key combinations such as <Ctrl F2> rather than having to plough through a set of Effects menus for every indent and underline.

Apart from speed of application, a further advantage of using a Style is that it is easy to change your mind. For example, you might want to reduce all your indents by a couple of mm. If you had set up your indents as Effects then you'd have to go through them, one by one, changing the Effect. It would take you such a long time that probably you wouldn't bother, you'd put up with something less than the best you could do.

With a Style you can change the attributes of the Style and all the indents change together.

The Region Editor

Gavin writes:

"Hidden control codes. I may have the wrong approach but I cannot seem to work out where half the control codes go to when typed in. How about some form of Reveal Codes?"

Some of you, brought up on the most recent word processors, will have no idea what Gavin is talking about. Older word processors, and particularly those on the PC machines, have a command which changes the display so that tabs, carriage returns and the like become visible as right and down arrows or other unusual characters. I remember some years ago one of our college lecturers who teaches word processing explaining to me how useful it was to use this facility to see whether the student had entered a <Tab> or used the <Space> bar to create a document containing a table.

Nowadays you need a completely new strategy. With Wordz this involves learning how to use the so called Region Editor. What you have to do is think about your document having regions (areas) to which a Style or Effect has been applied (in the same way as you would apply paint to a canvas). What you need to know is the extent of the region and what particular Effect or Style has been applied to that region.

Place the cursor in your document and execute <Ctrl R> to call up the region editor. You will find that the region becomes highlighted and the Effect or Style name will appear in the status line. You can work your way through the layers of Styles and Effects like layers of paint and, as each layer is displayed, you will be able to delete the Effect or Style (scrape away the paint) if you wish. The painting analogy breaks down; in Wordz you can scrape away a layer of paint which is underneath another without disturbing the upper layer.

You may complain that the Wordz region editor compares unfavourably with that of Impression; many have, but many others prefer the way Wordz region editor works. I'm not going into that argument right now; the point I'm making is that if you become familiar with the concept of a Region Editor then you will find it much better than trying to find a way of displaying control codes.

Medians

As a result of this section in last month's column I've had requests for a simple explanation of how to use custom functions written by others. Let me use the median function as an example. The median function appears in the file called [c_median].

In the [Demo] file, in slot C19 I have entered:

[c_median]median(C6C10)

This expression is in three parts. The first is the name of the file [c_median]. The second is the name of the function, in this case aptly called median. The third part, the argument of the function, (C6C10), is the range of slots containing the data for which the median must be found. Look at it this way, apart from the file name, [c_median] (which prefixes the rest), the expression mimics such functions as avg(C6C10), the average of a range and sum(C6C10), the sum of a range. All you do with a well written custom function is to prefix it with the file name and add the arguments.

Up to now I have had many letters explaining to me what a quartile is and how useful percentiles are but, as yet, no custom function which returns quartiles. For example I have been sent a copy of an article explaining why it is true that (a) average wages have risen and also true that (b) at least half the working population of the UK are poorer than they used to be. Wages is a 'lop-sided' distribution.

Many of you want to know who wrote the original median custom function back in 1992 suggesting that I get in touch with that author with a view to requesting a version which produces percentiles. OK, I give in, anyway, three of you guessed that it was that brilliant mathematician who used to work for Colton Software, Robert Macmillan. The last I heard was that Robert was working for Acorn so maybe he'll read this and take pity on us. If he doesn't then I suppose I'll have to write it myself!

Fireworkz – Impression Comparisons

Both for our ZLine or ILine user group discs and for my Archive column quite regularly I receive submissions for publication which compare features of these two packages. I always find these articles of interest, not because I can publish them (often what they contain is misinformation) but because they demonstrate to me common ways in which the packages are misused or misunderstood.

Let me give you a simple example, one correspondent described how difficult it is in Impression to move a block of text compared with moving a block in Fireworkz. I couldn't publish their method for Impression (nor their comparison) because, in Impression you just mark a block and drag it to the new position. In my view this is a much easier operation than the cut and paste technique necessary in Fireworkz but my correspondent didn't know of it.

One area where there is a great deal of misunderstanding of both packages is the creation, application and deletion of Styles and Effects. I believe that one of the most misunderstood features is the ruler, in particular knowing when dragging a Tab or Margin changes the current or base Style and when the change is only a local Effect!

Applying a Style

Before I start on rulers let's tackle something more basic. You will know that I recommend Styles and discourage the use of Effects.

It is hard enough to get that point across but, even when I do, some of those I have convinced still have their problems.

How do you apply a Style? This is what I do. I type my text in whatever Style I happen to be 'in' at the time. Then I check what Styles are applied to the region I am in by entering the region editor. To do this in Impression I mark the block and click on the Style button; in Fireworkz I use <Ctrl R>.

My next move is to delete any unwanted Styles from that region. Too many people don't do this and so they finish up 'painting over' an unwanted Style or Effect with a new style just to get rid of the old one. In one submission for publication which I received recently my correspondent recommends defining a new Base Style to paint over unwanted Effects! If you don't get rid of unwanted Effects then they'll crop up where you least expect them, often when you tap the <Return> key! I'll leave you to guess whether he was referring to Fireworkz or Impression. It could be either!

I mark the block to which I want to apply the Style and apply it. Judging from my correspondence many of you will be surprised to know that in both Impression and Fireworkz you can do this within a paragraph. Let me repeat that in Impression as well as Fireworkz you can mark a few words within a paragraph and apply, not an Effect but a Style! There is no need to revert to Effects.

This is what I don't do. I do not get to the point in my text where I want the new Style to start, apply the Style, type away, and then try to cancel the new Style in order to revert to the underlying Style. You can get in a real mess if you use that technique. You will finish up not knowing what is toggled on and what is off. You'll have spaces between words to which a Style or worse an Effect has been applied; you'll have to go to the region editor and clear up the mess – and good luck!

Of course, using my method I sometimes have a region where I need to know what is going on as I type in the text. What I do there is to type a couple of dummy letters, apply the Style to those two letters, split them with the cursor and then type away in the new Style. I delete the two dummy letters at the end of this operation.

Style Rulers in Fireworkz

Have a look at the screenshot below.

What does not show on this screenshot is that after placing the cursor between the aa (it shows as a thin vertical line) I moved the pointer over the Left tab which is just under the 2.7 cm mark on the ruler. Pointers don't show in screenshots. What you will see is that the Status line displays "Style ZL Indent01. . . .". This indicates that any changes I make to the ruler will be changes to the ZL Indent01 Style and not an Effect.

It is a common mistake to think that the ruler's zero is the paper edge. Please notice that it is at the left of the printable area. All other Fireworkz ruler measurements (eg the Paragraph margin and Tab positions) are made relative to the so called Left margin (the downward pointing triangle which, in my screenshot, is hidden by the tab stop).
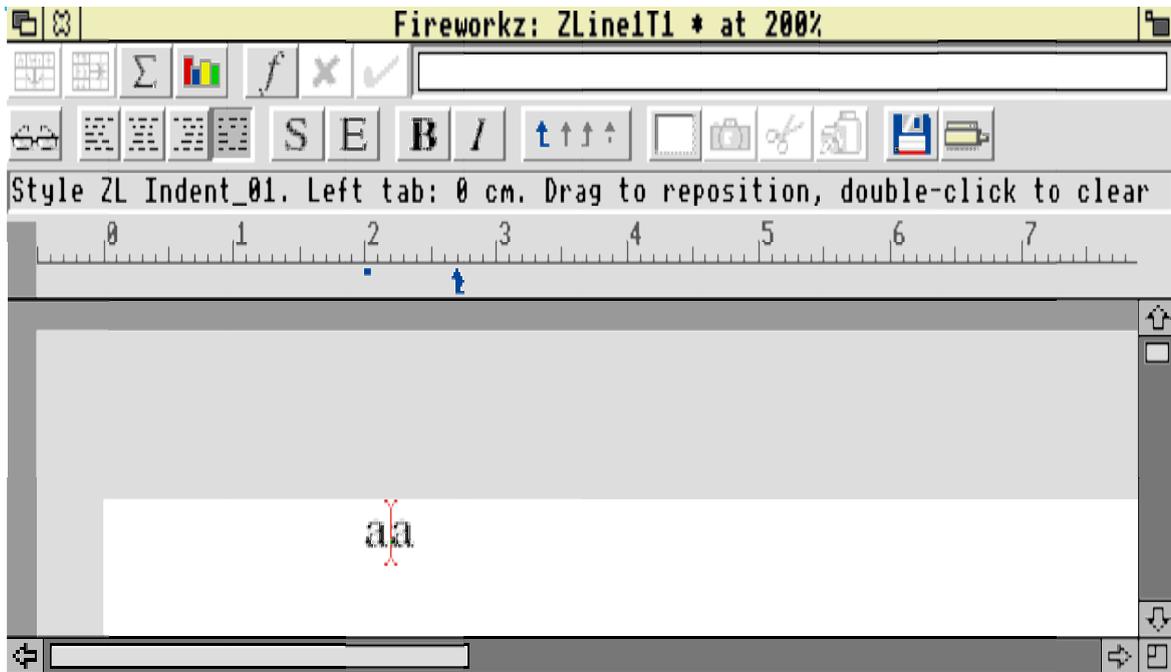
Now have a look at the screenshot below.
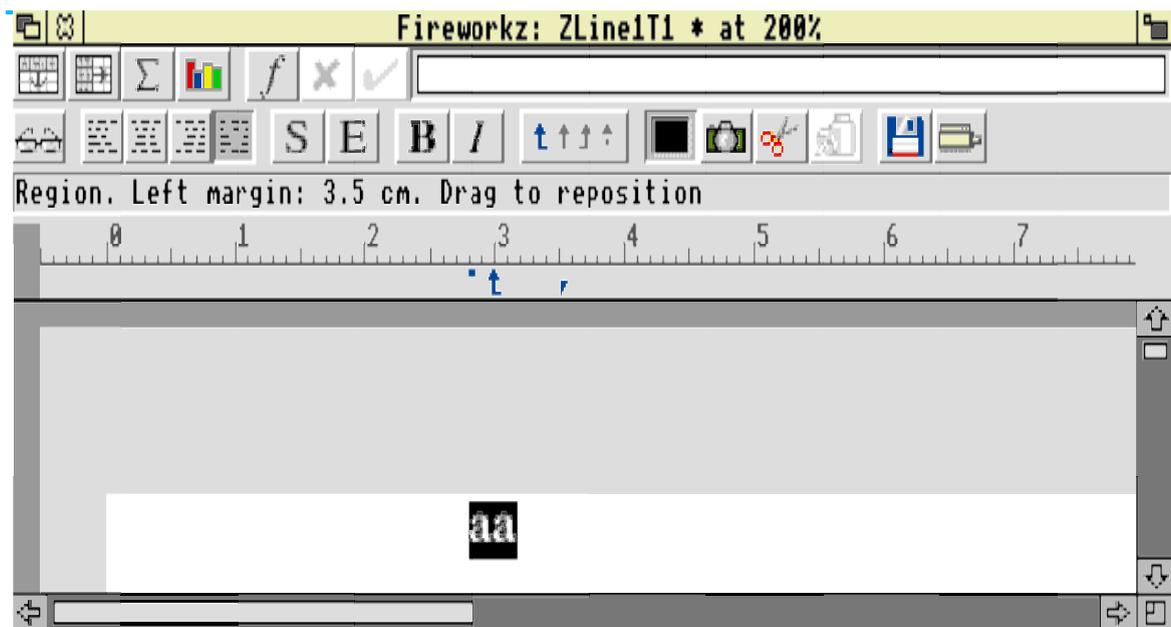
The principal difference is that the aa is now highlighted. The effect of this is that when I move the pointer (not displayed in the screenshot) to the left margin marker (just below the 3.5 cm position) the Status line reads "Region. . . ." The word "Region" indicates that whatever I do by dragging the markers will be executed as an Effect which will be applied to the marked block.

As another 'by the way', if you move the Left margin in Fireworkz then the Paragraph margin and all the Tab stops will move so that their position relative to the Left margin is fixed. To put it another way, they all move together. Some people find this disturbing; others praise this feature. The Right margin and Column width markers do not move with the Left margin.

Style Rulers in Impression

The screenshot below is the Edit style menu which pops up when you execute <Ctrl F6>.
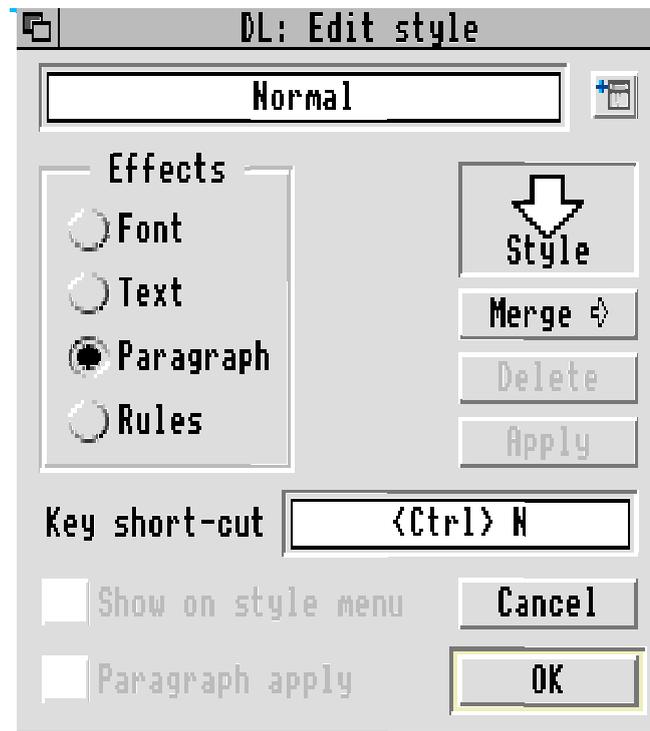
If you click on the Paragraph radio button in the Edit menu then the Paragraph sub menu will pop up. The following screenshot shows that menu.
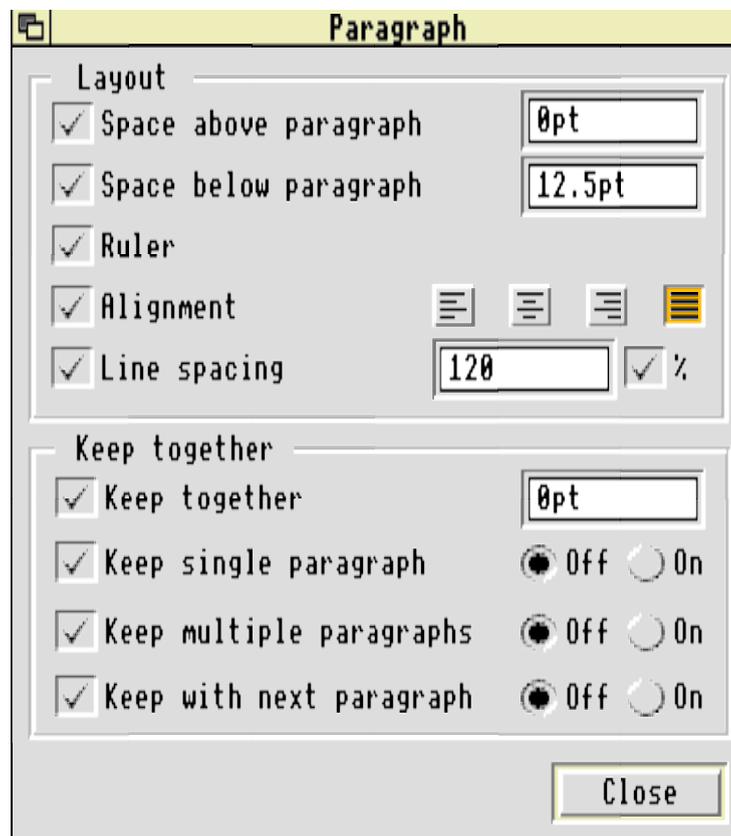
You will see that the Ruler box is ticked.

Provided that the Ruler box is ticked and that the Edit style menu is displayed then any changes you make to the ruler are potentially changes to the Style. Changes to the Style are only executed when you click on the OK box in the Edit style menu. If the Edit Style menu is not displayed then any changes you make to the ruler are Effects.

Some of you don't know how to get at the tabs. Look at the screenshot below, in particular, just to the right of the Style button are two radio buttons one above the other. Click on the bottom one to see the Margin and Tab stops.

Just to the right of these two radio buttons are a couple of horizontal arrows. If you click on them you will be able to use the dialogue box to the right to change the Margin and Tab stops numerically.

Summary

Understanding the differences between Styles and Effects is just the starting point. The next problem you'll have is learning how to create, amend, apply and delete them. Get to know how the Region editor works. Rulers are the most difficult feature of Styles.

So far as a comparison of ease or difficulty of use of Fireworkz and Impression is concerned many of the articles which are submitted to me on this topic can't be published without heavy editing because they include misinformation which is due to the correspondent not understanding or being unaware of features built into the packages.

My own comparison starts by pointing out that Fireworkz is Cellular (slot based) and Impression is based on Frames. So far as Styles, Rulers and Region editors are concerned I find them different in Fireworkz and Impression – but equally useable. I would like Fireworkz to include some kind of Styles list and I'd like Impression's Help facility to be more like the Status line in Fireworkz but these are minor niggles.

Generally, if you want multi column text or overlay graphics then Impression's frames are easier. If you want neat tables then Wordz is simpler. If you upgrade from Wordz to Fireworkz then you can use all the facilities built into the spreadsheet such as, Names, slot references and custom functions.

Mark Colton

One of Mark Colton's great passions was motor sport. Last year he was ranked second in the British RAC Hillclimb championships and was running in second place again this year. During a practice session at Craigantlet, Northern Ireland on Saturday 5th August 1995 one of the front wing sections of his powerful Pilbeam Judd MP72 racing car became detached on a bend; without his front wing (which provides the down force necessary for fast cornering) Mark lost control at over 130 mph and died in the tragically fatal crash which followed.

Mark was already a director of Protechnic when he created the View family of software for the Acorn's early BBC micro. Mark formed his own company Colton Software in 1988 to develop PipeDream independently of Protechnic. Over the years that I have known them, his staff have always spoken highly of him not only as a programmer but also as the person for whom they worked. Without exception they all have commented on the friendly atmosphere which Mark created and nurtured at Colton Software.

To the outsider Mark was always reserved and he tended to be the least known member of the Colton Software team. However, those who took the trouble to get to know him will remember him for his dry humour, his vivacity, his disarming honesty when faced with the difficult question and, not least, his dedication to the quality of his company's products.

We shall all miss him.