

# **Gerald's Column**

## **by Gerald Fitton**

In my article last month I wrote:

"Our problem, and it is our problem, is how do we send an 'electronic copy' (not a printed copy) of our RISC OS document to those with a Linux, Windows, Mac OS or other operating system in a form which they can read?"

So that's what I shall discuss this month - but first a digression ...

### **The Internet**

Technologies don't grow gradually but in quantum jumps.

Accessing the Internet used to be just one use amongst many for a home computer. Now many would regard it as the single most important use. On line shopping and communication by email has made the computer a prominent feature of nearly every home. For many pupils, students, authors and even you and me, it has replaced the encyclopaedia. Even at Primary School it has revolutionised the nature of my grandchildren's assignments.

An increasing number of Internet users have bought their own domains (see my earlier articles in Archive) where they post video clips, pictures they have taken and perhaps they are into something called 'blogs' (a weblog is a sort of personal diary) for the enjoyment of their family, friends and even strangers. Having a personal web space allows those with even the most controversial or bizarre views, a means of expression and a ready audience.

Back to my theme. If we are used to creating our masterpieces in, say, Impression or Fireworkz, then how are we going to make our documents readable by users of the Internet who have never heard of these applications?

### **HTML**

There was a time when I, like many others, regarded HTML as a method of porting documents created using a RISC OS application such as Impression or Fireworkz to users of a different operating system.

It isn't easy to convert an Impression document into HTML but it can and has been done. Indeed, back numbers of the Archive magazine appear on the Archive CD in HTML format so that those without Impression can read them.

So this is one possibility. We can convert our masterpieces from (for example) Impression to an HTML document and send it to our colleagues. They can load their browser, probably Internet Explorer, but there are many more browsers, and then they can read what we have to say about our trip to India or about the rare bird we saw seen in the garden.

If you have some pictures which illustrate your text then, for portability to other operating systems, you can convert them to JPEG format. If you are clever enough you will be able to add HTML code which will insert the pictures into your text at the right place.

If you have managed to record a rare bird song or your baby crying then this audio file can be converted to MP3 format and included with your HTML. You can arrange that the audio file opens automatically or requires the reader to click on a link.

All the snapshot cameras I have seen except the very cheapest allow you to record short video clips. One typical format is 640x480 pixels with sound. You can compress these from the memory hungry AVI format to something more suitable for use on the Internet and include within your HTML code links to these personal video clips.

HTML is great fun. It is worth learning how to transfer text, pictures, audio and video into code which can be uploaded to your personal website or sent as an email attachment.

## **Paul Vigay**

Many people regard Paul as a controversial character or at least a 'character'. People with character are always interesting whether you agree with their views or not. Paul is ardently Pro RISC OS and the RISC OS community owe him a lot. So, Paul, on behalf of all those of us who have benefitted from your contributions, a big "Thank you!"

## **Fireworkz to HTML**

So why have I introduced Paul's name at this point in my discussion of portable electronic copies of documents? Because Paul has come up with a new utility which has already proved useful to me and I'm sure many people with Fireworkz will find useful too.

I am hopelessly biased towards Fireworkz. In my opinion it is the best spreadsheet available for RISC OS - but it is more than a spreadsheet. Unlike PipeDream, Schema, Eureka, etc, it is page based. You can set up your sheet of paper to be A4 or anything else and then you can see where the edges of the paper are. Even better than that, using Fireworkz you can insert a live table within blocks of text. The screenshot below is a simple example of a Fireworkz table.

<b>Membership</b>	<b>Expiry</b>	<b>Dates</b>
<b>First Name</b>	<b>Last Name</b>	<b>Expiry</b>
Fred	Blogs	3rd May 2008
Bill	Johnson	1st February 2007

Using Paul's new utility I can easily convert this to HTML code. Although I am still learning how to use his 'Fireworkz to HTML' utility I got the result shown below at my first attempt. Now I can process even more complex Fireworkz documents.

Membership	Expiry	Dates
First Name	Last Name	Expiry
Fred	Blogs	3rd May 2008
Bill	Johnson	1st February 2007

You will find what Paul has called "Webworkz" on his website at: <http://www.vigay.com>. You can download a trail version for free. Its principle limitation is that it will handle Fireworkz documents up to 10x10 cells but no bigger. The full version costs £15.

You can enter HTML links directly into the Fireworkz document in a format such as:

[url=<http://archive.abacusline.co.uk>] linking text goes here [/url]

Using this example, in the HTML document you will find the words "linking text goes here" highlighted. If you click on the highlighted text you will open the URL shown in the link; with our example you will open <http://archive.abacusline.co.uk>

Webworkz is still undergoing rapid development so I shall say no more about what it will or will not do because, by the time you read this anything like that will be out of date.

## PDF

No! I'm not going to discuss Printer Definition Files for your favourite RISC OS machine. In this article I shall discuss Portable Document Format files.

If you look around the Internet to find a sample exam paper, a document by Ofcom or if your search takes you to any one of a growing number of websites then you will find that the document you want to read is not available in HTML but only in PDF format. Even instruction manuals for your latest software or for that latest TV set which you've bought seem to be in PDF rather than in HTML.

What's going on here?

The biggest single advantage of PDF is that there is a very good chance that the person who reads it will see exactly what you see. This is not the case if you convert your Impression or Fireworkz document to HTML.

## Words and Pictures

Rather like Impression and Ovation, Fireworkz documents can include a mixture of text and pictures. The Desk Top Publisher programs have the advantage over Fireworkz that they are frame based so that you can create a frame and then put whatever you like in it.

Fireworkz has the advantage over a DTP that it is a spreadsheet which can contain live tables and live charts together with a magnificent set of wordprocessor processor functions. The wordprocessor and spreadsheet are integrated so that there is no 'join'.

The screenshot below is taken from a simple Fireworkz document consisting of a few words and one picture. Of course it could contain more words on many more pages, tables and live charts but I've deliberately kept it simple.

# My Patio



I took this picture in the Summer of 2006

I converted this Fireworkz file to PDF format and I have provided Paul with a copy for the Archive monthly disc and the annual CD. There is no point in me including a screenshot of the PDF file because it is exactly the same as the shot above except that the red cursor just to the left of "My Patio" is absent from the PDF file!

## RiScript to PDF

There are many ways of creating a PDF file from an Impression, Ovation or Fireworkz document. One technique is that used by our editor, Paul Beverley. He prints his Impression document to a PostScript file and then uses RiScript to create the PDF.

Version 5 of RiScript is available from: <http://www.riscript.nl>. It costs about £27.

If you use a PostScript printer driver to print to a file and then load the PostScript file into RiScript then you will find that RiScript converts the Acorn fonts used in the original (Fireworkz or Impression etc) document to Type 1 fonts in the PDF file.

Other software, such as GhostScript, leaves the Acorn fonts as Type 3 fonts in the PDF document. Why is this a 'bad thing'? Read on.

## **Type 1 and Type 3**

When you come to view a PDF file on a RISC OS machine you will find that Type 3 fonts render very slowly compared with Type 1 fonts. I don't know exactly why this is so but the reason is in some way related to the fact that Type 1 fonts are outline fonts which are rendered by the outline font manager whilst Type 3 fonts are defined in a different way within the PDF file. I have seen Type 3 fonts described as 'bit mapped' but others have told me that the process is a bit more sophisticated than that.

Anyway, the fact is that, as a general rule Type 1 is better than Type 3 in terms of speed of rendering. PDFs containing Type 1 fonts are smaller in size than a Type 3 rendering of the same document so that the PDF containing Type 3 fonts will take longer to upload and download on the internet.

On my website at: <http://avline.abacusline.co.uk/pdfs/pdfs.htm> you will find PDFs of the same document (the original was created in Impression) produced in different ways. Some contain Type 1 and some contain Type 3 fonts. You can experiment with your different PDF readers and see what happens.

## **!PDF**

A few words about this free PDF reader.

It will display only a limited number of Type 1 fonts. These include Homerton, Trinity and Corpus. This means that even if the PDF contains, let's say, Type 1 versions of Gill and Plantin (these are the fonts used in Archive) the text written in these fonts will be treated as Type 3 and take a long time to render. Many users of !PDF overcome this limitation by choosing the option 'No Type 3 fonts' but this too has its associated problems in that the text is displayed in Homerton and Trinity, not in the original (Gill and Plantin) fonts. On the whole RiScript is better but you have to pay £27 for it.

## **Adobe Acrobat Reader**

It is most likely that the PDF file you make on your RISC OS machine, possibly with RiScript, will be read by someone using a Windows machine (or possibly a Mac). How will they use their Windows machine to read your PDF file?

Almost certainly the reader of your PDF document with a Windows machine will use Adobe Acrobat Reader. The current version is V7; it can be downloaded, free of charge, from the Adobe website.

If you send a PDF file as an email attachment they will open it either by clicking on the attachment and saving it or loading it directly into Acrobat Reader.

If you place a PDF file on your website then it is almost certain that their browser will call up the Acrobat Reader and use that to read the file.

## **Adobe Acrobat - the Writer**

Of course, if you are a Windows user, possibly the owner of a desktop or laptop which is running a RISC OS emulator, then you might want to consider buying Adobe Acrobat to create your PDF files. It isn't cheap. Version 7 is about £200 or more and I have seen Version 5 advertised for a little under £100.

If you have the writer version then you will find that you have a printer called PDF which writes to a file. If you print your Fireworkz for Windows or Ovation for Windows document (or even a Microsoft Word or Publisher document) using this PDF printer then this Adobe Acrobat software will create a PDF file.

Alternatively you can create a PostScript file either in Windows or on a RISC OS machine and use Acrobat Distiller (part of the Adobe Acrobat 'kit') to convert the PostScript file into a PDF in the same way that you can use RiScript to convert a PostScript file into a PDF file on a RISC OS machine.

## **Summary**

You can convert any printable document (words and pictures) to PDF format.

Your original document can be in Fireworkz (like my example), Impression (like the Archive magazine), Ovation or, indeed, any format which can be printed. The PDF file which you create will look exactly like the original when it is viewed with, say, Acrobat Reader on a Windows machine. HTML files can and will look different when viewed with different browsers.

Because the author can guarantee exactly what the reader will see on any platform, PDF format is becoming increasingly popular for both email attachments and for documents on websites. We RISC OS users need to take advantage of this trend towards the use of PDF format to show how we can produce smart looking documents (containing pictures and text) with, say Fireworkz, Ovation or Impression very easily and quickly.

If the PDFs are to be read easily on a RISC OS machine then you need to ensure that your PDFs contain fonts from your library which have Type 1 information built into them. Most of the RISC OS fonts do not contain Type 1 information. It is possible to buy RISC OS fonts which are Type 1; the alternative is to use RiScript to convert the Type 3 information contained within the PostScript file to Type 1 fonts in the PDF.

RiScript runs on a RISC OS machine and, at £27, is considerably cheaper than the £200 plus you will have to pay for Adobe Acrobat for Windows.

## **Communication**

Write to me about Archive things to [archive@abacusline.co.uk](mailto:archive@abacusline.co.uk).

You might like to try <http://archive.abacusline.co.uk> (with Username"archive" and Password"amusement" without the inverted commas) if you wish to download this and other articles I have written for Archive. There is a link from that site to our AVLine website which I am using to store media files such as the PDF files of this article.

I have completed the conversion of most of my recent Gerald's Column articles to PDF format. They contain Type 1 fonts such as Homerton and Trinity (or their Windows equivalent). You will be able to download them from our Archive website and, I hope, be able to read them on whatever platform you use.