

# Gerald's Column

## by Gerald Fitton

This month I am going to discuss a mapping problem which I have found in my postbox from correspondents with both a RISC OS and a Windows machine. Some of the points I make are relevant to all those programs such as Ovation Pro which are available on both platforms but, because I am more familiar with it, I shall use Fireworkz as my example.

### Fireworkz for Windows

Since we upgraded Fireworkz for Windows from a 16 bit to a 32 bit program the number of people who are using Fireworkz on both a RISC OS and a Windows machine has increased considerably. I can judge this only by the amount of correspondence I get about difficulties which have arisen when moving Fireworkz files from RISC OS to Windows and back again. I don't think that the process has become any more problematic.

### Filetypes

In RISC OS the filetype is contained in a hexadecimal code such as &BDF. You don't often see this hexadecimal code because, built into Fireworkz (and elsewhere such as MimeMap) is a mapping which ensures that RISC OS displays this filetype as "Firewrkz" and not &BDF. In Windows the filetype is determined by an extension such ".fwk". It is this extension which Windows uses to decide which program should be used to 'Open' a file. By default, files with the extension .fwk are opened with Fireworkz for Windows.

In Windows a typical Fireworkz file might be called something like [chat28.fwk]. If this file is saved on an MS-DOS floppy in Windows and then the floppy is looked at using RISC OS then you will see that it has been renamed [chat28/fwk]. The "." in Windows has been replaced by a "/" in RISC OS. Similarly, if you start with another file called [chat29/fwk] in RISC OS, then, when you look at that file in Windows it will appear as [chat29.fwk].

A Fireworkz file called [chat30] in RISC OS will appear with no extension in Windows and will be treated as a data file. Of course you can force it to load into Fireworkz for Windows with a <right click>, then selecting the menu option "Open with ..." and choosing Fireworkz. When you save this file the .fwk extension will be added so that the file becomes [chat30.fwk].

Provided that you include the extension "/fwk" as part of the RISC OS file name then, when you transfer the file from RISC OS to Windows and double click on the file, you will find that it opens in Fireworkz for Windows.

### Filenames

Let us suppose that you are working in RISC OS and you have a file called [iteration]. You may remember that last month I used a file by that name. One of the cells in [iteration] calls a custom function which solves iteration problems such as finding square roots. The custom function can be modified to find the roots of many different functions.

In cell b8 of [iteration] there is a reference to another Fireworkz file (but it could be a PipeDream custom function file) called [c\_iterate]. If you have the files from last month then look at the content of [iteration]b8 where you will find [c\_iterate]find\_p(b3,b4,b5,b6).

What happens when we copy both the [iteration] and [c\_iterate] files to an MS-DOS format floppy disc and look at the files in Windows? How can we ensure that Windows treats them both as Fireworkz format files?

Change the name of [iteration] to [iteration.fwk] and double click on it. If you do this then Fireworkz for Windows will run and load the file. Alternatively you can force [iteration] to load into Fireworkz for Windows using the "Open with ..." menu and selecting the Fireworkz for Windows program.

## **Linked Files**

Certainly, using either of these techniques you will find that the file [iteration.fwk] (or [iteration] if you use the "Open with ..." method) will load into Fireworkz for Windows. So far so good; but will it manage to call the Fireworkz custom function file [c\_iterate] which does not have the Windows .fwk extension?

The answer is "Yes!".

Fireworkz for Windows will recognise that [c\_iterate] is a Fireworkz format file and treat it as a dependent document. Furthermore, when you Save the group of two files, the .fwk extension will be added to the file [c\_iterate] so that it becomes [c\_iterate.fwk]. The file [c\_iterate.fwk] will be saved as a separate file from [c\_iterate] so you will have to delete [c\_iterate] yourself manually. Also, if you wish to do so and have not done so already, you will have to rename [iteration] as [iteration.fwk] yourself. Nevertheless the hard part of the job, linking the files, will have been done for you.

The processes of linking documents by making reference to a second, third or fourth, etc Fireworkz document in the first document you load and then adding the .fwk extension to all the subsidiary files will happen automatically regardless of the number of links.

Of course you can avoid all these problems by looking ahead and renaming your files in RISC OS. For example, if you rename [c\_iterate] as [c\_iterate/fwk] you will discover that both Fireworkz for RISC OS and Windows will still find the custom function!

## **Pictures**

Fireworkz for RISC OS will accept Drawfiles and JPEG format pictures. It will also accept Sprites and Sprites within Drawfiles. All these picture formats used by Fireworkz can be either embedded or referenced or you can use a mixture of both.

If a picture is referenced then it is not saved with, nor does it become part of, the Fireworkz file. The picture file can be edited completely separately and independently of the Fireworkz file using whatever you use to edit that type of picture. Then, when the Fireworkz file is next loaded, it will find and load the edited version of the picture.

If the picture is embedded in the Fireworkz file then it becomes an integral part of the file and is saved with it. The size of the Fireworkz file grows to accommodate the information contained within the picture.

To put this another way, if you embed the picture it is no longer an independent entity and it can not be edited whilst it is part of the Fireworkz file. Of course you can extract the picture, modify it and then load it back into Fireworkz or you can delete it from Fireworkz and reload a modified version back into Fireworkz.

Fireworkz for Windows will render Drawfiles and JPEG format files. It will not render Sprites nor Sprites within Drawfiles. Hence, if you wish to port a picture used by Fireworkz from the RISC OS environment to Windows then do not use Sprites nor include any Sprites within Drawfiles; use the JPEG format instead.

You can convert Sprites to JPEG format using the utility !ChangeFSI.

The Charts drawn by Fireworkz from numerical data are embedded within the Fireworkz file as Drawfiles so these embedded charts port from RISC OS to Windows automatically.

## **Fonts**

The mapping of fonts from RISC OS to Windows is a large subject so I shall cover in another article. However, a few words of advice to be going on with.

Fireworkz has built into it the mapping of fourteen font families, thirty-five fonts in all, from RISC OS to Windows and back again. The font families which are mapped automatically by Fireworkz include Trinity, Homerton, Corpus and Selwyn so you won't go wrong if you stick to these fonts. I shall explain how Fireworkz handles font mapping next month but, for now, I suggest that you use Trinity, Homerton, Corpus and Selwyn in preference to some of the more fancy fonts which have no direct equivalent in Windows.

## **Summary**

Fireworkz is available as Fireworkz for RISC OS and Fireworkz for Windows.

Documents created using either of these programs can be run using the other program on the other platform.

In RISC OS:

Create and use Fireworkz files with filenames ending in "/fwk".

Do not include any Sprites but only Drawfiles and JPEGs.

Use only the fonts Trinity, Homerton, Corpus and Selwyn.

Embed your pictures rather than reference them.

## **Communications**

You can email me at [archive@abacusline.co.uk](mailto:archive@abacusline.co.uk) with comments, criticism or to ask for advice about porting Fireworkz files from RISC OS to Windows.