

# The Road Not Taken

by Gerald Fitton



*“I shall be telling this with a sigh  
Somewhere ages and ages hence:  
Two roads diverged in a wood, and I -  
I took the one less travelled by,  
And that has made the difference.”*

*The Road Not Taken, Robert Frost (1874 - 1963)*

Every day we make decisions about which 'road' in life we shall commit to. Are these life changing choices we make brave, foolish, lucky or wise? What motivates us to take one 'road' rather than another? Do we take the 'road' which is more risky but which holds out the promise of greater rewards? Or do we choose the safer but less exciting path of conformity which appears, at least on the surface, to have less risk of failure?

## **26-Bit or 32-Bit**

In my previous articles about emulators I have concentrated on emulators running 26 bit versions of RISC OS, namely RISC OS 3.71 (RedSquirrel) and RISC OS 4.02 (RPCEmu). In this article I shall introduce you to the 32 bit version of RISC OS, RISC OS 5.22.

Can you try both of these 'roads' (26 and 32 bit)? The traveller of Robert Frost's poem didn't have the luxury of being able to do this; he had to choose one; he left the other road for another day and for this traveller, that day never came. However, unlike Frost's indecisive traveller, you, my dear reader, can try both the 26 and the 32 bit versions of RISC OS and decide for yourself if one 'road' is more suitable for you than the other.

## **A Short Cut**

In my previous articles I have described in detail how to create an emulator starting from nothing and then, only after that, have I provided you with a short cut to a 5 minute build. From the correspondence I have received, very few of you are 'doing it the hard way'; you are jumping directly to the 5 minute build versions which are on the Archive website.

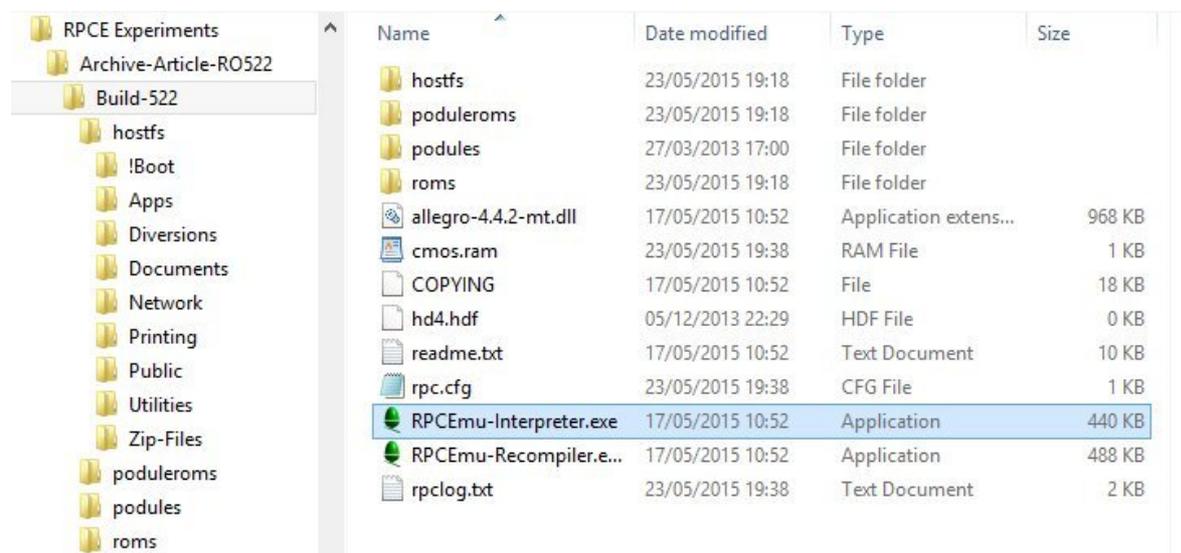
Consequently, in this article, I shall start by describing the way that, within 5 minutes, you can make a RPCEmu emulator running the 32 bit RISC OS 5.22. This method relies on a set of files I have made which are contained within a single Windows zip archive that you can unpack in Windows.

What I have done in order to make it very easy is that, within the appropriate environment, either RISC OS or Windows, I have extracted all the files required, then I have recompressed them from within Windows to make the Windows zip file, 'build-522.zip'. This zip can be opened in Windows and all the files and folders extracted. You will find it on the Archive website; it contains all the files needed for you to build this emulator.

## The Five Minute Build

From within your Windows environment, download from the Archive website the zip archive 'build-522.zip'. Open this zip in Windows; extract all the files and folders from 'build-522.zip'; copy the whole set of extracted files into a new folder which you might call 'Build-522' anywhere on your Windows machine.

The screenshot below shows the directory structure which I see in Windows when I have extracted all these files. I emphasise that every file needed to create an RPCEmu 0.8.12 emulator running RISC OS 5.22 are contained within my Windows folder 'Build-522'.

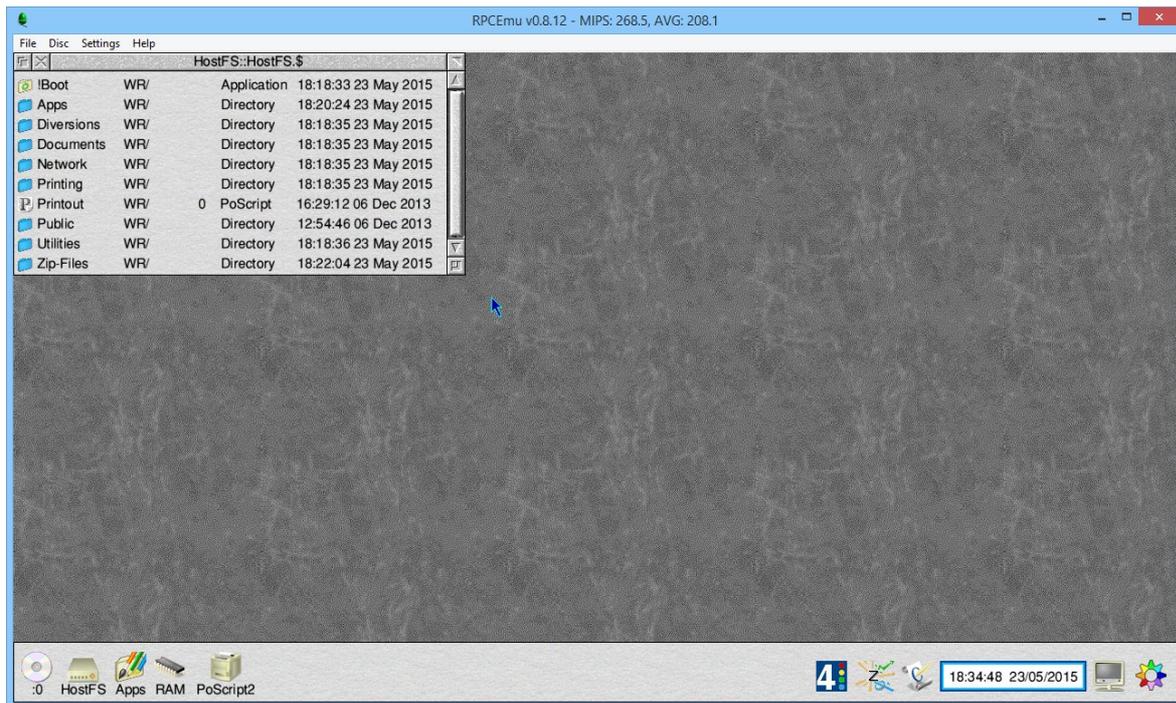


It may take 2 of your 5 minutes to download and extract these files but everything will happen without much intervention and with little thought from you. Also there is little chance that you will make a mistake!

You can run the emulator by double clicking on the reliable 'RPCEmu-Interpreter.exe' highlighted in the screenshot, or try the faster Recompiler. After another minute or so, what you will see is the emulator running RISC OS 5.22 as shown in the screenshot below.

I have included the free programs !PipeDream and !Fireworkz as well as the demonstration version of David Pilling's Ovation Pro - which accepts Impression files. Also included is my own Monitor Definition File set to a resolution of 1280x720. If you prefer a different resolution then you will find a wide choice ranging from 800x600 to 2048x1536; you can select any of these from the Monitor icon at the bottom right of your screen.

The RPCEmu emulator, 0.8.12, contains many options for the hardware; I have selected the RiscPC StrongArm with 256MB of RAM and Sound on. You can change from this Configuration by using the Settings dialogue (top left) within Windows. Also, from within RISC OS I have set the RAM disc to be 1.6 MB.



## Doing it the Hard Way

If you would like to experiment yourself at building your emulator from scratch then you need the set of resources listed below and some knowledge of which zip archives should be opened in which environment.

## Resources

Create a Resources folder within your 'Build-522' folder and then download and copy the following 3 zip archives to it.

Go to the website <http://www.marutan.net/rpcemu> where, in the section marked as 'Downloads', you will find the Binary Package (currently Version 0.8.12) for Windows 'Zip Archive'. Download the zip archive called 'rpcemu-win32-archive-0.8.12.zip' into your 'Resources' folder. This is the hardware emulation part of your emulator. It can be unzipped from within Windows.

You can download the single file ROM for RISC OS 5.22 from the RiscOS Open website at: <https://www.riscosopen.org/content/downloads/riscpc>. Select the IOMD 5.22 stable (softload) and download the zip called IOMD-Soft.5.22.zip. Open the zip (this can be done in Windows or RISC OS) and you will find at a deep level the RISC OS 5.22 ROM you want as soft.!Boot.Choices.Boot.PreDesk.!!SoftLoad.riscos. The single file ROM containing RISC OS 5.22 is this final file called riscos.

All the !System files necessary for the RISC OS 5.22 emulator can be downloaded as the HardDisc4 zip which you'll find at: <https://www.riscosopen.org/content/downloads/>. You should choose the HardDisc4 (not the self extracting version but the 11MB download for RISC OS 5.22). This must be opened in RISC OS and not in Windows. Choose the self extracting version if you do not have any means of opening a zip from within RISC OS.

## Putting it Together

Start by building the RPCEmu emulator using 'rpcemu-win32-archive-0.8.12.zip'. Copy the RISC OS 5.22 Operating System (the file 'riscos') into the 'roms' folder. Unpack 'HardDisc4' in RISC OS and copy all the files and folders into 'hostfs'.

If you have completed all this successfully then, when you double click on the file called 'RPCEmu-Interpreter.exe', your Emulator will run.

## The Hard Way - Summary

I have deliberately not filled in all the details nor provided screenshots of this 'build it from scratch' process because, if you go down this route you will have done this sort of thing before, perhaps by building at least one of the emulators from my previous articles.

If you fail for one reason or another (the usual reason is unpacking zips within the wrong environment) then you can always use the 'Five Minute Build' I have provided.

## Bio-Bit



After more than 15 years, Gerald has recovered from his bereavement. He enjoys holidays with his friend, Joan - with whom he went to school a lifetime ago. When one door closes - another opens.

## Box-Out - The Road Not Taken

Robert Frost won the Pulitzer Prize four times; this is more times than any other poet.



He refused to write in the academic, modernist style that was popular at the time. He took the 'less trodden road' of a more traditional but complex style. His poem, "The Road Not Taken" has the unusual metre 'abaab' so that the second and last lines rhyme as do the first fourth and fifth. This is called iambic tetrameter but with the hypermetric modification of an extra syllable (making 9 syllables instead of 8) in each line.

Some claim that this poem is one of his most misunderstood.

The title chosen by Frost could have been taken from his last verse as, "The Road Less Travelled By". The sigh could have been one of satisfaction for bravely choosing this unpopular road and reaping the rewards of non conformity. Many photos intended to illustrate the meaning of this poem show two very different roads with one well travelled and the other less so. I have seen interpretations which imply that the well travelled road is that of Materialism and the less travelled road is one of Spirituality. Whilst I agree that the Spiritual road is ultimately much more satisfying than the pursuit of Materialism and I agree that sticking to ones principles is the 'narrow' road (the one with the 'strait gate' of Matthew 7:14) which can be very hard going; nevertheless I do not agree that Frost intended this interpretation.

Frost choose the title, "The Road Not Taken" rather than, "The Road Less Travelled By".

I have chosen to quote the last stanza of his poem which uses the words, "The road less travelled by" but I have chosen as my illustration of this poem, a creation of the highly talented artist Marta Demarteau. I have chosen her picture for my illustration because she, rightly in my opinion, shows that at the time when the decision has to be made, the two roads appear completely identical. There is nothing to choose between them.

I am most grateful to Marta for making her picture available for publication in the Archive magazine. You may like to visit her nature and travel website; it contains many beautiful photographs. You'll find it at: [http:// www.orbica.nl](http://www.orbica.nl). From the name of the website you will see that Marta lives in The Netherlands. The original photo she used to create this picture is one she took near her home town, Best. Some of her photographs are for sale.

In the second verse Frost writes, "Then took the other, as just as fair" and that the, "Passing there, Had worn them really about the same". To me this implies that Frost's traveller perceived the two roads to have identical merit. It is only when the traveller looks into the thoughts of his future self that he congratulates himself on his brave and adventurous choice - with hindsight he will congratulate himself for choosing the road less travelled by.

The poem was intended by Frost as a gentle mocking of the pointless and unrewarding indecision of his friend, the 'war poet', Edward Thomas. Frost later expressed his regret that his friend Thomas, took it personally. Frost believed (rightly or wrongly) that his poem triggered the decision of his friend to enlist in World War I; this was a decision which cost Thomas his life two years later at the Battle of Arras.

## **26 or 32 bits?**

In, "Alice in Wonderland" Alice asks the Cheshire Cat which road to take.

"That depends a good deal on where you want to get to", said the Cat.

"I don't much care where—", said Alice.

"Then it doesn't matter which way you go," said the Cat.

So, in deciding whether you want to use the 26 bit or the 32 bit version of RISC OS this decision should not be guided by, "How difficult is it to create the 32 bit emulator?" but by the future use you might make of it.

If you have lots of 26 bit programs then you will not be able to run them in the 32 bit emulator because the Aemulor, which allows 26 bit programs to run in the 32 bit version of RISC OS, is hardware dependent; a version of Aemulor does not exist for the RPCEmu virtual emulation of RISC OS. Versions of the Aemulor do exist for many pieces of hardware from the Ionix to the BeagleBoard and Raspberry Pi.

If you are intending to experiment with these new mini computers then you will have to use the 32 bit version of RISC OS. The most recent version is RISC OS 5.22.

My intention in writing this and previous articles is to show you how easy it is to build both the 26 bit RISC OS 4.02 and the 32 bit RISC OS 5.22. Unlike Frost's traveller you will be able to build the 26 bit 4.02 and then return to choose the road which leads to the 32 bit 5.22 version of the RPCEmu emulator.

I use an i5, quad core, Windows machine running Windows 8.1. I have found that, using the compiler rather than the interpreter, RISC OS 5.22 runs at over 250 MIPS using all 4 cores; my RISC OS 4.02 runs noticeably more slowly, typically about half the speed. I haven't done a scientific speed test to compare but the difference is noticeable enough for me not to require a sensitive test!

## **Impression or Ovation Pro?**

For well over 20 years I have used Impression II and then Impression Publisher to write my articles for the Archive magazine. The 26 bit version of Impression will not run in RISC OS 5.22 when using the RPCEmu emulator (because there is no Aemulor available for the RPCEmu emulation).

Consequently I decided to transfer the 32 bit compliant Version 2.77 of Ovation Pro from my aging StrongArm RiscPC and see if I could run that. This 9 year old program did run flawlessly in RISC OS 5.22. However, I found that my 2.77 version was dated 2006 and that a free upgrade to version 2.77u (dated 2012) was available from David Pilling's website. I downloaded the zip and ran !Freshen to upgrade from 2.77 to 2.77u; this upgrade happened in seconds.

Instead of using Impression, I have used Ovation Pro to write this article. Many of the things I used to do in Ovation Pro on my StrongArm hardware came back to me quickly but I had forgotten some of the more detailed menus. All my Impression articles, Templates, Styles and even Effects from within my articles for Archive were ported to Ovation Pro format using David Pilling's freely available !TransIMP utility.

I have already discovered two big advantages (for me) of using Ovation Pro over my use of Impression. The first is that JPEG files are accepted by Ovation Pro so that I don't have to convert JPEGs to Sprites; the second is that there is an Undo and Redo button instantly available on the top button bar. The existence of an Undo reduces my reliance on Auto Save (with prompt) that was an essential part of my use of Impression.

I am 'won over' to Ovation Pro. I know that there is a 32 bit version of Impression called Impression X in development and, in due course, I shall look at it when it is fully 32 bit. At the moment it is partly dependent on the Aemulor and an Aemulor doesn't exist for the RPCEmu virtual machine.

David Pilling is one of the Heroes of RISC OS and does deserve support not only for all the work on Ovation Pro which he continued to carry out when he was having a very difficult time but also for the many utilities such as the ubiquitous !SparkFS he has developed without which RISC OS would be much harder to use - and without which I would have been very hard put to create the emulators of this set of articles.

David has relentlessly supported users of RISC OS and has never flinched from helping people in trouble, often without any financial reward. David has developed a Windows version of Ovation Pro which accepts all RISC OS Ovation documents and any Impression format files. It is preferred by many to the Desk Top Publisher offerings of Microsoft and Open Office. It is available at a discount to owners of the RISC OS version of Ovation Pro.

<http://www.davidpilling.net/ovationpro.html>