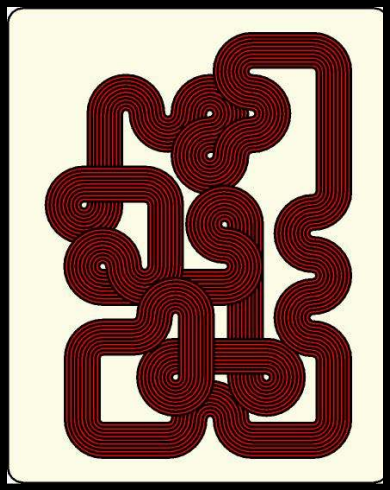
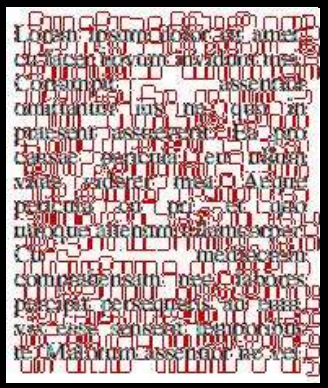
Drag 'n Drop

Winter January 2012 Volume 3 Issue 02 £3.00





Rotating Areas in Draw

All Sorted: Tips and Tricks

RISC OS Programming In BASIC

http://www.dragdrop.co.uk

At a glance

Contributors

This issue of Drag ‘n Drop has been blessed with contributions from several people: -

Paul Stewart (general articles)
Christopher Dewhurst (Rotated Areas)
David Stratford (All Sorted)
Jon Robinson (RISC OS Programming in BASIC)
Richard Ashbery (Parallel Lines Pattern)

Drag ‘n Drop thanks them all for their hard work and looks forward to publishing more of their articles in future issues.

Production

This publication is produced on an A9home/Virtual RPC. The primary applications used are Ovation(1.49S), Draw(2.44), Paint(2.70), Photodesk(3.09x) and PrintPDF(0.87).

Disclaimer

The views expressed in this magazine are not necessarily those of the editor. Alternative views are always welcome and can be expressed by either writing an article or writing a short editorial.

All articles and advertisements are published in good faith. No materials in this publication are meant to be offensive or misleading. If you come across something that you believe is either of the above, please contact the editor using the details below.

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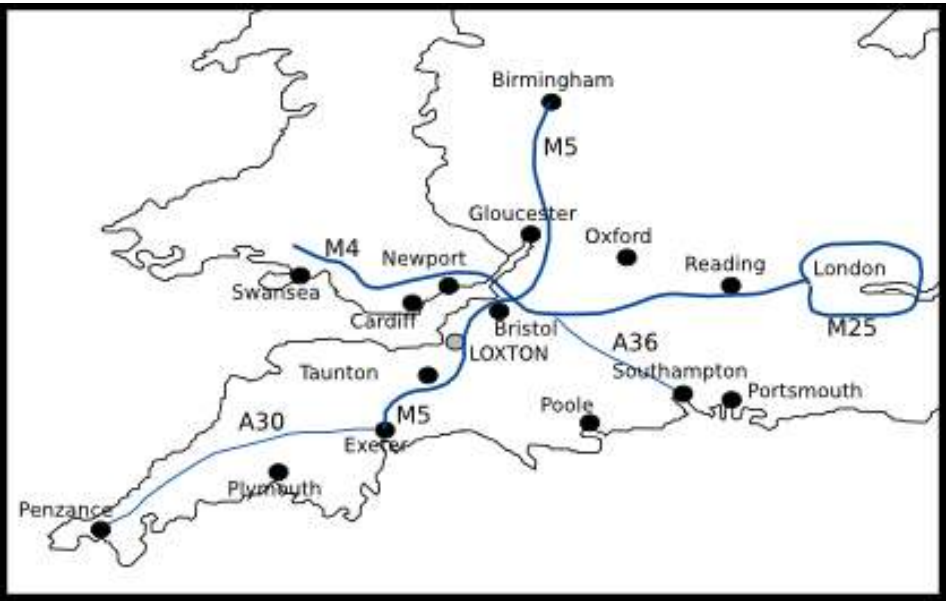
ORPHEUS INTERNET

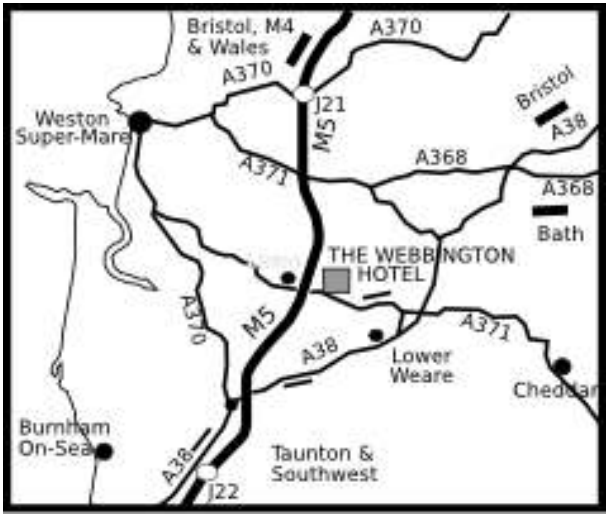
RComp

RISC OS SouthWest Show 2012

Webbington Hotel, BS26 2HU

10.45 – 3.30 Saturday 25th February





The Webbington Hotel
Loxton, nr Axbridge
North Somerset
Doors open at 10:45am until 3:30pm
Admission £3 for Adults. Under 18s free

Exhibitors so far include: -

R-Comp/RCI
Orpheus Internet
Archive
CJE
Martin Wurthner
David Snell (ProCad)
Bell Ringing
Fortran Friends
Charity Stand
User groups - Bristol, ROUGOL, etc
Drag 'n Drop
Possible ROOL

For more updates and how to get yourself a stand, check the website:
http://www.riscos-swshow.co.uk

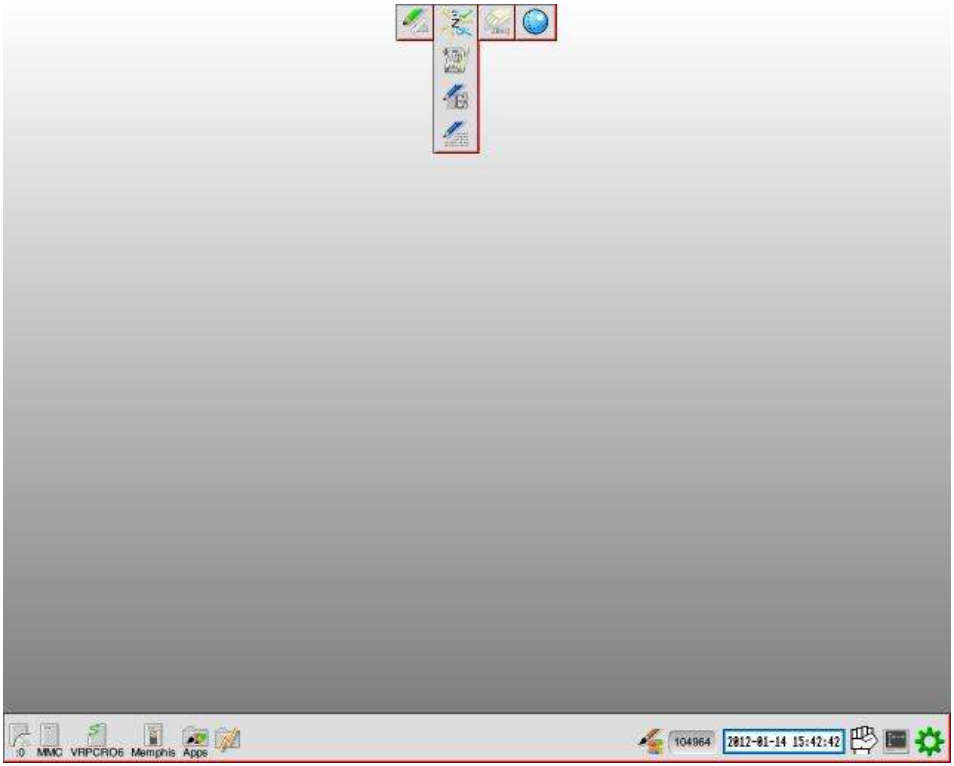
Docktor

The no nonsense toolbar

You know if there is one thing I have always liked about Microsoft Office, it is the Office Toolbar. It's just so easy to use and flexible in that it can be positioned anywhere around the screen edge, you can have large or small icons, it can be set to auto-hide or stay on the screen. It's just a simple launch bar.

RISC OS has had various launch bars and menu type launchers over the years, I can't say I really got on that well with most of them. Minidisc was a mainstay on my desktop for a number of years, but I got bored of that eventually. However these days I use something else. It goes by the name of Docktor.

Docktor is nothing more than an application launcher bar. I'm writing about it because, you know, I like it. It's fairly flexible and reminds me of why I used to like the Microsoft Office Toolbar. It's also refreshing to see a well thought out utility that is available freely for all to download.



Web Log

You know, there is something about an image that can do something to a person that not many other forms of media can. An image can be: -

- Thought provoking
- Provide inspiration
- Trigger deep emotions
- Help us remember not to make the same mistakes of the past
- Entertaining
- Make us laugh

Enough of what images can do to us. For this edition's web log I'm going to introduce you to a website of a big uk company a company that has gone through many incarnations and has an online image archive dating back to the 1860's and has been known under names such as: -

- Electric Telegraph Co.
- Post Office Telecommunications
- British Telecom
- BT Group plc

The page you need to point your favourite web browser to is: http://imagelibrary.btplc.com/assetbank-btplc/action/browseItems?categoryId=151&categoryTypeId=1

From you look at both image and videos taken by over the years by the world's oldest telecommunications company. The site is split into two main categories: Image Gallery and Video Gallery.

Image Gallery
Containing 1117 images, the image gallery section contains the most material and is sub divided by category. Each category indicates how many images are contained within and may contain black and white, colour or a selection of both. Where appropriate each the category is further divided. For

Hacks & Tricks

All Sorted
Part 10

In this part, I'm not going to look at a specific sort. Instead, I'm going to look at a couple of tricks that might be used to speed up a sort or to make it more efficient. The first of these is fairly generic - it can be used for more than one sort, but the second will be specific to a particular sorting technique.

First lets look at the slightly more generic trick we might employ.

Reversing

A number of sorting techniques don't do well when they need to reverse a list from descending to ascending, yet reversing a list is actually very easy

This process simply swaps from Start% to Start% + Num% (So technically Num%+1 items being swapped) in the list and reverses them in place. It does this by repeatedly swapping the data in the start and end positions, then moving those two positions up one and down one respectively and swapping, until the start and end positions meet. I'm going to look at how we might use this process when we are sorting, but of course this is by no means it's only use.

```
DEF PROC_Reverse(Start%,Num%)
LOCAL S%,E%,I%
S%=Start%
E%=S%+Num%

IF E%-S% = 1 THEN
  SWAP Data%(S%),Data%(E%)
ELSE
  REPEAT
    SWAP Data%(S%),Data%(E%)
    S%+=1
    E%-=1
  UNTIL S%>=E%
ENDIF

ENDPROC
```

This is all very well if we know are data is reversed, but how can it help us otherwise? Well, what we could do is simply work our way up the list of data looking for sequences that need to be reversed, and reversing them. In principle, this sounds like a good idea, but in practice if that's all we did, it wouldn't help in most cases as we would still only have a partially sorted list.

Before we work out how to identify a descending list, we first need to actually define what is meant by a descending list. For a simple set of data: 7 6 5 4 3 2 1 it's quite obvious. But what about 7 6 6 4 3 2 1? Is that a descending list or not? Well, to a certain extent that depends. Does the fact that there are two '6''s make a difference? If it doesn't, then this is a fully descending list, and the routine above will reverse it completely without a problem. If it does make a difference, then we have two independent descending lists, 7&6, followed by '6 4 3 2 1'. If we were to reverse these two lists separately, we'd end up with a set of data like this: 6 7 1 2 3 4 6. This certainly looks more sorted than it was

Parallel Lines Pattern

Introduction

It's not easy trying to find something a bit different in graphic design but an Illustrator tutorial featuring simple geometric lines captured my imagination. It's not a new concept but I believe quite unique in that the reader can determine how the final pattern turns out. You are free to copy any of my designs if you wish but it's much more fun to create you own patterns. Please feel free to submit any unusual patterns to the editor for publication.

If you observe fine red lines and line thickness variations in the illustrations you can ignore them - they are not present in the original shapes. Software ArtWorks is my preferred choice - I have been using this excellent software for a number of years and although it doesn't possess all the wonderful effects present in the very powerful software packages like Illustrator or Xara it still has a lot to offer. Some of the more esoteric effects seen in high-end packages can still be rendered by applying a little lateral thinking.

Analysis of the Pattern

A pattern only needs four basic shapes (figure 1) and can be used to build any of the designs shown in the examples accompanying this article. Each circular shape consists of two objects - a group of partial concentric circles and a filled background. The ¾, ½, and ¼ sections are all produced from a full circle containing a group of concentric circles. ArtWorks has a cutting tool facility in the Curve and Line tools section which enables circles to be split and segments created. The parallel lines shape simply consists of a 'grouped set' of blended parallel lines overlaying a filled rectangle.

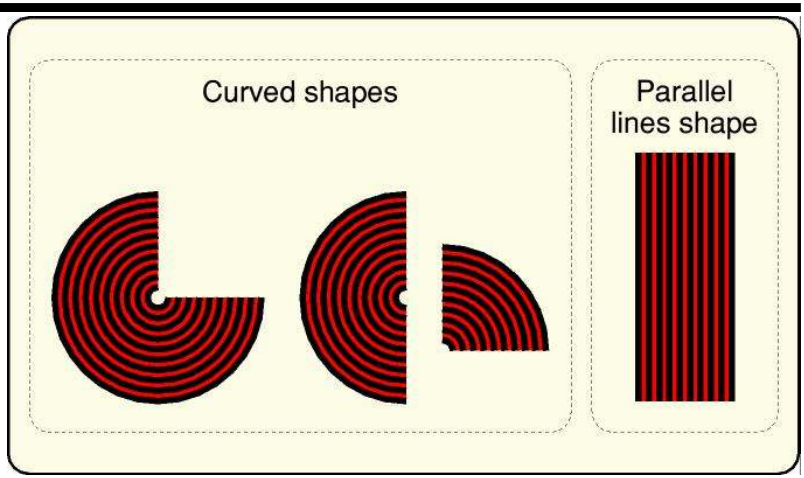


Fig 1 Basic Shapes

Creating these shapes is relatively straight forward but requires quite a bit of time. If you would rather try your hand at creating a pattern without creating the four shapes then go to the Drag and Drop website and download them (http://www.dragdrop.co.uk/downloads.asp). Users without ArtWorks can create the patterns in Draw - these can also be downloaded from this site. Remember that circles may appear

Rotated Areas

One problem with text areas in Draw is that you cannot rotate them. You would have to type the text line by line, group them and rotate them, which is fiddly and prone to error.

Here we look at a better method. The idea is to:

1. Create your Drawfile containing as many text areas and columns as you need
2. Print to a PDF file
3. Load the PDF into !PDF and save it back as a Drawfile
4. Optionally tidy it all up, then
5. Finally group and rotate as required

We are assuming you have Ghostscript and a PDF printer set up on your machine. If you haven't you should refer to:

http://www.mw-software.com/software/ghostscript/ghostscript.html

and

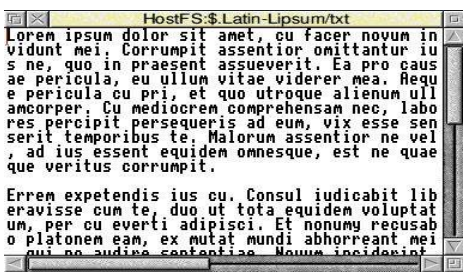
http://www.stevefryatt.org.uk/software/printpdf/

Also if you want to follow step 5 (recommended to make smaller files) you will need TidyDraw from:

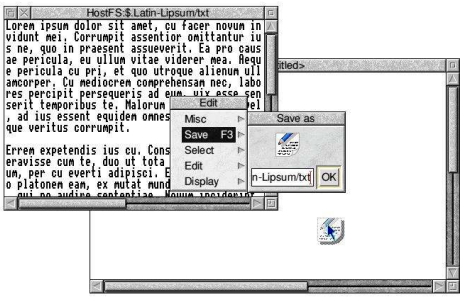
http://miskin.orpheusweb.co.uk/draw/td0_10.arc

Step 1
Open a blank draw window. Create some text in your favourite editor such !Edit - about 50 words should do but make sure you end with a newline (return) character. The screen shot [area0] shows some nonsense typographical filler which I got from http://www.lipsum.com/.

Now Press F3 to open the save window. Drag and drop your text file onto a draw window [area1]. By default Draw will display it as a text area in Trinity, double justfied in one column. You can drag the handle at the bottom right corner to resize.



If you want to change the font or the justification, select the text area and press Shift+Ctrl+F3 (or Menu > Save > Text Area), and drop the text file back



into your editor. Refer to the user guide for the meaning of the control codes. For example, alter \AD to \AL to get left instead of doubly justified text. When you are done drag-drop the edited file back onto the same drawing.

Step 2
Now print the Draw file to your PDF printer so you end up with a file called for example PDFfile/PDF [area4]

Step 3
Open it up in !PDF. Use the save-as-Drawfile option. [area 5]. Save it somewhere on your hard disc or Ram disc.

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