Files of the World
New series

Reviews
DeskEdit
Books

Spreadsheets
Universal Guide

Hardware
Sony MCS1
Picano

Programming
PDFtoText
Draw text utils

Wakefield
Acorn & RISC OS Computer Show

Saturday 25th April 2015

The North's premier RISC OS show
In its 20th Anniversary year

The Cedar Court Hotel
Denby Dale Road, Calder Grove, Wakefield
West Yorkshire WF4 3QZ
(Adjacent to J39 of the M1)

Getting there by car
- Easy access from **M1**, **M62** and major routes
- Free on-site parking

Getting there by train
- Free minibus serving **Wakefield Westgate** station, with connections across the UK

- Big Names and Small Developers
- Raspberry Pi
- Show Theatre
- On-site catering
- Charity Stall
  raising funds for Wakefield Hospice

- *Date* — **Saturday, 25th April 2015**
- *Opening time* — **10.30am to 4.30pm**
- *Ticket price* — **£5** on the door
  Entry for children aged 12 or under (accompanied by an adult) is **FREE**
- *Access* — Disabled access to the show venue is via a lift

- *Enquiries* — Wakefield Show 2015, c/o 3 Riverdale Avenue, Stanley, Wakefield, WF3 4LF
- *Email* — show2015@wakefieldshow.org.uk

Show organised by
Wakefield RISC-OS Computer Club
Formed 1983

www.wakefieldshow.org.uk

20 Years

The Book of Draw Stuff

**Brand new book on using and programming Draw, based on the series in *Drag 'N Drop*.**

Section 1 is on advanced uses (grid creation, designing fonts, format painting etc.)

Section 2 is on writing Basic programs to generate:

● Text effects
● Formatted Draw table from CSV data
● Curved boxes
● Polygons, stars and cogs
● More dash patterns (Draw only offers 5 by default)
● Circular patterns
● and Basic utilities to
● convert Microsoft WMF files to Draw
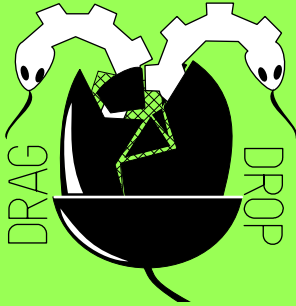● Merge paths within Draw

Appendices list the EasyCSD app, a multitasking path merging app, and an updated version of the Draw reference section from the *User Guide*.

● Printed and bound here at the *Drag 'N Drop* office in Great Britain
● 146 pages, wire bound.
● ISBN 978-1-78280-501-4

for RISC OS computers

Chris Dewhurst
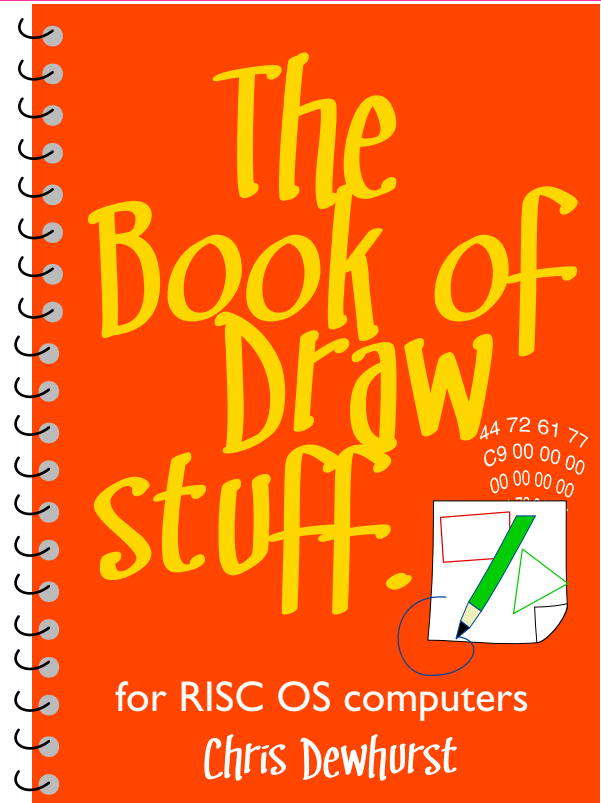
£15* including postage to the world

*When purchased at www.dragdrop.co.uk, free samples available. Also available from Amazon.

EDITORIAL

Hello everybody and welcome to another edition of *Drag 'N Drop.* Hope you had a good time at Wakefield if you went to the computer show.

The focus in this issue is on working with our colleagues who use American operating systems and their file formats. The 'Files of the World' series kicks off with a look at Rich Text Format, and there is a handy reference guide for common operations on Excel, Fireworkz and Pipedream.

Drag 'N Drop is formatted for easy on screen reading but don't forget you can print it off, a page will fill the top part of an A4 sheet.

Chris.
Christopher Dewhurst

At a glance...
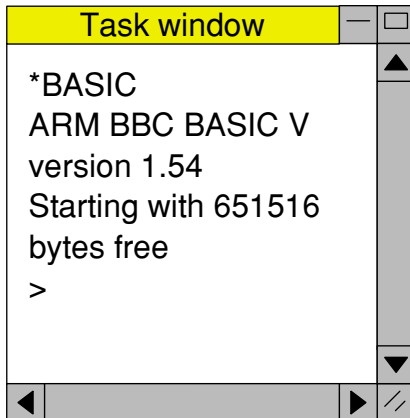
Beginner's Bit

Programs listed in *Drag 'N Drop* are assumed to work on all machines with RISC OS 5 e.g. Raspberry Pi, unless otherwise stated

To get the BBC Basic prompt press F12 and type *BASIC and press Return. Type AUTO for automatic line numbering.

To return to the desktop type *QUIT.

You can also type programs in a task window, hold down Ctrl and press F12. You can't use the cursor editing facility or change MODE, however.

```
Task window                    □ ▢
*BASIC
ARM BBC BASIC V
version 1.54
Starting with 651516
bytes free
>
◄                              ► ◢
```

Type SAVE "prog" when you are ready to save your program where "prog" is the program's name.

You can also program and run Basic programs from the desktop. Double-clicking on the filer icon runs it, holding down Shift and double clicking loads it into your text editor.

```
Filer
Display                    ►
File "
Select all
Clear selection
Options                    ►
New directory              ►
Set directory
Open parent
Refresh
```
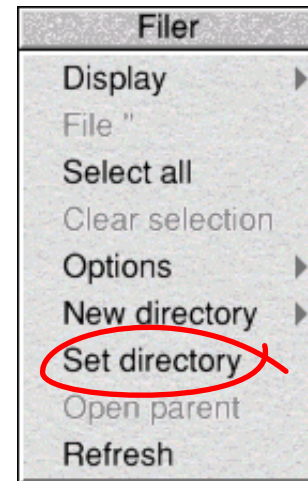
To set the current directory, click the filer menu and select "Set directory".

Or use the EasyCSD application listed in the Autum 2014 issue.

News and apps

Wakefield 2015 show

The 20th show takes place on Saturday 25th April - see the advert in this magazine and visit www.wakefieldshow.org.uk. See you there!

RC14 released

RC14 of the RISC OS 5 rom was released on 28th February for all generations of Pis (Model A, B, B+ and Model 2). Available from www.riscosopen.org.uk as an SD card image, ROM images, or physical SD card, it has lots of improvements including ChangeFSI being able to handle obscure image formats, extended MIME map file, and a crash fix for !T1ToFont.

Draw book released

We're pleased that the book announced last time is to be released at the Wakefield Show. *The Book of Draw Stuff for RISC OS computers* will also be available from the *Drag 'N Drop*

website, see the advert in this issue for details of pricing.

Director update

Version 0.39 of the desktop utility has been released. Director allows you to customise the desktop by creating menus of useful commands and icons to attach menus to. Download from director.sourceforge.net

DeskEdit Suite

R-Comp have been busy reburbishing applicatons for modern hardware. DeskEdit is a text editor advertised as "Edit on Steroids" and it is bundled with lots of other utilities, costing just £7.99 from the !Store. See the full review in this issue of *Drag 'N Drop*.

Chartwell Suite

Another refurbished appilcation is Chartwell, a suite of software for creating graphs and charts from R-Comp costing £9.99, which we

will review in the next issue. Available from !Store.

RiscOSM

Another update to the splendid mapping software for RISC OS using OpenStreetMap data comes from Sine Nomine www.sinenomine.co.uk/software. This is free to existing users, if you haven't yet bought RiscOSM there are several purchase options from a download at £18 to an SD card at £25.

Name that computer

CJE Micros at www.cjemicros.co.uk are developing what will be their fastest RISC OS machine yet but are looking for a catchy name. The computer has an Arm A15 CPU, don't you know. There is a tradition of naming computers after nuts, fruits or even animals so how about emailing your Pistachios, Blueberries or Zebras to CJE Micros and win £200 off the machine!

Reviews

Product: Basic V for the Acorn Archimedes
Format: Printed book
Price: £5.00 inc shipping
Supplier: Amazon

It's always a pleasure to see re-releases of old products but their appearance begs the question: have they been updated? If not are they still relevant today?

Basic V for the Acorn Archimedes is a reference guide for people familiar with BBC Basic perhaps from the BBC Micro.

Originally published in 1989 when the name 'Archimedes' was going out of fashion in favour of the new fangled RISC OS machines it's a bit puzzling why the title of this book hadn't been updated even 25 years later.

Still, I really liked the re-design of the front cover, reminiscent of the popular "for Dummies" series of books.

There are no updates to the text itself – a little disappointing but small fry compared to the severity of typographical errors none of which appeared in the original edition.

In the 'type in' listings the percentage sign used for Basic variables has come out as 's (apostrophe S), which has all the hallmarks of someone having scanned and OCRed without bothering to correct the output. Experienced Basic programmers will know that LOCAL exit's, switch's should be LOCAL exit%, switch% but it will confuse the beginner!

Inside the front cover the publisher (David Bradforth) says he has produced the book on Adobe InDesign. Obviously non-RISC applications on non-RISC platforms don't help!

At £5.00 including postage this book is very cheap but spoilt by the typo's; track down the original edition if you can or wait for a corrected edition to be published.

Product: First Steps with RISC OS 6
Format: Printed book
Price: £5.00 inc shipping
Supplier: Amazon

Despite its title, this book isn't actually about the next version of the operating system.

Some years ago there were two versions of RISC OS, one was open sourced to become the RISC OS 5 we all know and love on our Raspberry Pi, the other lingered on to become RISC OS 6, installed mainly on older

Files of the World

There are many hundreds of different types of file in the computing world – documents, videos, sound files, photos, vector drawings to name a few.

They have filename *extensions* and in RISC OS we have file *types*. In this series we explore some of the common ones beginning with RTF.

RTF stands for Rich Text Format and was developed by Microsoft in the 1980s to be a universal file format for word processors. *Universal* because it can be transported between applications on one computer, or even ported across to a different computers.

Easiwriter on RISC OS offers the best RTF support, Fireworkz is free but support isn't so good.

RTF is an ASCII file which means you can read and write it in a text editor like Edit. Choose Create from Edit's iconbar menu and type RTF (or dfe which is the RTF filetype).

Here is a very simple RTF file:

```
{
\rtf1
\ansi
{\pard
\fs32
{\b Jackdaws} {\i love} my {\ul big} sphinx of quartz
}
}
```

which in a word processor capable of understanding RTF files will display as:

Jackdaws *love* my big sphinx of quartz

Braces (or curly brackets) group things and backstrokes start commands.

{ } Braces or curly brackets

\ Backstroke or backslash

The first character of an RTF file is a brace so in fact the whole file is a group.

Commands are lowercase letters (a-z) with optional parameters (digits 0-9) sometimes with a trailing space.

The two commands **\rtf1\ansi** is a header telling the computer it's RTF using the ANSI standard for the Ascii characters.

\pard starts the first paragraph. **\fs32** tells the computer to switch to font size 32. Sizes are measured in halfpoints so size 32 is 12 points.

\b turns on bold. It's turned off automatically at the end of a group, which is why the word *Jackdaws* is enclosed in curly brackets. Similarly, **\i** turns on italics and **\ul** activates underline.

Carriage returns and line feeds in the RTF file are ignored so it is necessary to have a command to tell the word processor where to start a new line.

This is only a simple RTF. There are dozens of other commands such as setting the fonts, the text colour, rows and columns for a table and even giving the data for an image (bitmap).

See the *Word 2007: Rich Text Format (RTF) Specification, version 1.9.1*.

Pipeworkx

If you use spreadsheets you may find the operation of Fireworkz and Pipedream on RISC OS, and Excel on Windows, a bit awkward at first due to the slightly different way in which each works.

So here is a reference guide for common operations across all three (EX=Excel, FW=Fireworkz and PD=Pipedream).

Note that menus are highly inconsistent between different versions of Excel but keyboard shortcuts have remained the same so only these are quoted.

We find that Fireworkz is the easier of the two RISC OS application to use but Fireworkz and Pipedream are free so you try both then decide which one best suits your needs.

Starting a new sheet
EX: Ctrl+N or load up Excel
FW: Select-click iconbar icon > Sheet > OK
PD: Select-click iconbar icon > Load template > Numbers > OK

Navigating cells with keyboard
EX: $\uparrow \downarrow \leftarrow \rightarrow$ move from cell to cell. Tab move right once cell. Shift+Tab move left one cell.
FW: $\uparrow \downarrow$ move to cell. $\leftarrow \rightarrow$ move through text and on to next cell. Tab move to cell to right. Shift+Tab move left.
PD: $\uparrow \downarrow$ move to cell. $\rightarrow$ move through text and on to next cell, unless cell empty in which case right cusor inserts space. Tab move to cell to right. Shift+Tab move left once cell.

Entering data:
EX: Press Enter $\downarrow$ or $\uparrow \downarrow \leftarrow \rightarrow$ to enter data then move to next cell.
FW: Press Return $\downarrow$ once enters data, caret stays in same cell. Cursor keys then move to next cell.
PD: $\rightarrow$ inserts space in data. Press Return $\downarrow$ once, caret stays in same cell, then cursor keys to move to next cell

Editing cell contents
EX: Double click on cell, or move to cell with $\uparrow \downarrow \leftarrow \rightarrow$ and click in formula box.
FW: Select click once on cell,

RISC OS Programming

BASIC Programming Tutorial 6 – Dragging the File Icon

In the last instalment of this tutorial, we developed a messaging routine, and extended PROC MouseClick, to detect a click on the program's OK button.

In this instalment, we are going to use this messaging routine, to help us get file icon dragging to work properly.

For convenience the whole program, additions in this instalment is given at the end of this article. Save it as !PDF.Stage6 and update the !PDF.!Run file so that the last line reads:

```
Run <Obey$Dir>.Stage6
```

The window templates remain the same, refer back to previous instalments if you have either mislaid them or not created them yet with WinEd.

Detecting a Drag

Icon 0 in the program window is the File icon and a drag operation, with Select held down, will put the value 64 into the variable *ButtonClicked%*, via the Block.

Consequently, we need to expand MouseClick:

```
310DEF PROCMouseClick(WindowHandle%, Icon%, ButtonClicked%)
320IF Icon%=0 AND ButtonClicked%=64 THEN VDU7
```

If you run this, and click on the file icon, nothing happens, but dragging with Select (or holding Select down for a second) makes the program beep.

We can now replace VDU7 in line 320 with PROCFileIconDragged, and start to define it.

```
320IF Icon%=0 AND ButtonClicked%=64 THEN PROCFileIconDragged

390DEF PROCFileIconDragged
400LOCAL TopLeftX%, TopLeftY%
```

Starting the Drag

In order to be able to pick the file icon up, and drag it around on the screen, we are going to have to make use of three new SWIs.

The first of these is Wimp_GetWindowState, which we use to get the coordinates of the top, left-hand corner of the Save window. These are measured from the bottom, left-hand corner of the screen. As usual, these values are returned via the Block.

```
410Block%!0=WindowHandle%
420SYS "Wimp_GetWindowState",,Block%
430TopLeftX%=Block%!4
440TopLeftY%=Block%!16
```

The next one up is Wimp_GetIconState, which we use to get the coordinates of icon 0, the File icon, relative to the top, left-hand corner of the program window.

```
450Block%!4=0:REM>Icon handle=File icon
460SYS "Wimp_GetIconState",,Block%
```

Writing for Drag 'N Drop

Drag 'N Drop would not exist were it not for you, the readers, and we always need more writers to help fill the columns with interesting articles.

Of course it's common nowadays for people to publish themselves directly on the internet, which is fast becoming a rubbish tip. You might find the exact thing you are looking for but not before wading through mountains of adverts, dead links, dreadful English and ramblings of people who go off at tangents.

What you had for breakfast or when you took the car for its MOT are generally not related to your RISC OS machine and will not be useful to people referring back in 10 or 20 years time.

So, there is still a place for magazines, and with that out of the way here are a few guidelines to help you along.

Drag 'N Drop is about using and programming your Raspberry Pi and other RISC OS machines. Articles should be written in an accessible and engaging way. After all we want to encourage more people to use RISC OS and become interested in computing.

Get Paid to Write: £15 per article

Whilst we have featured some quite technical articles, people don't want to be turned off by dry theses only capable of being understood by professors with about eighteen degrees.

BBC Basic comes free with every Raspberry Pi so if you have written a Basic program and can explain how it works then you can write for *Drag 'N Drop*.

Other computing languages like Lua or Perl might be your forte. If it can be run on RISC OS and you can guide people through the code then your submission is equally welcome!

Perhaps you know something about the sound system; again if you can get it across in an accessible style then write in, plus demonstration programs if you have them.

If you hardware sort of person then we would like lots of photos please. Digital cameras can take very good close-up pictures these days so use the macro function to assist readers in getting their eye into all those wires and things connected to your Pi.

We like cartoons in *Drag 'N Drop* too as they help to lighten up serious topics but we understand not all computer programmers are artists so we can do that bit for you.

● Well I hope that's given you some food for thought. Remember, it's £15 paid for articles published!
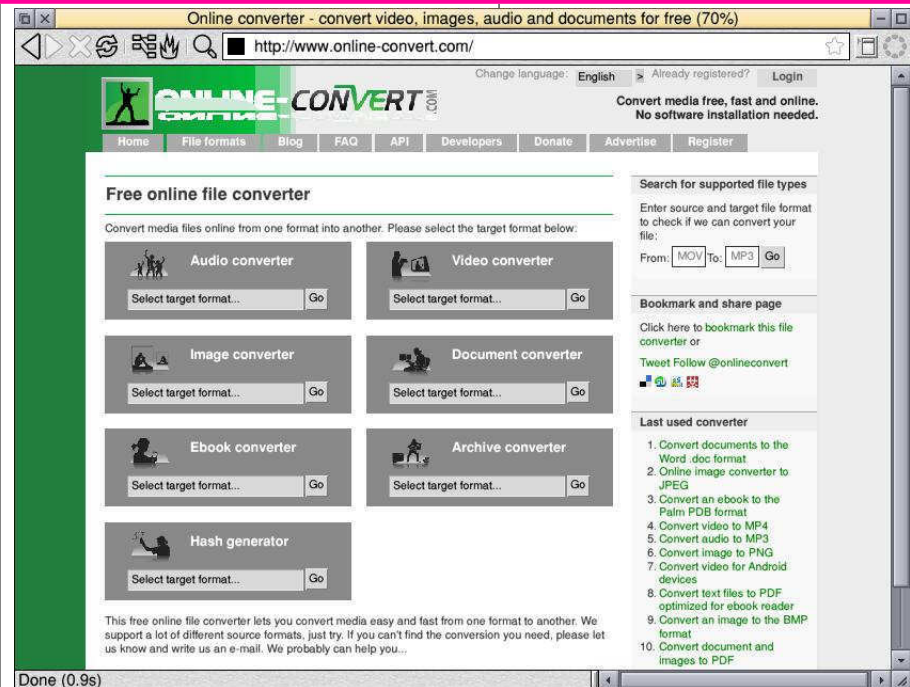
Weblog: file converters

There are a plethora of websites offering free conversion of documents of one format to another, e.g. HTML to PDF. Some produce results so poor that they're a waste of time on any computing platform and others sadly don't even work with Netsurf but Online-Convert at http://www.online-convert.com/ *does* work and it's quite good.

I was looking for some example Windows Metafiles to test with the WMF-to-Draw converter I wrote for the *Book of Draw Stuff.*

A lot of these appear to be in RAR format, a type of archive which the regular RISC OS archiver (SparkFS) does not appear to be able to handle.

Online-Convert came to the rescue, converting the RAR file to a ZIP one which I could subsequently open with SparkFS,

My RAR file came from www.free-logotypes.com, I drag-dropped it onto the box, clicked Convert file, the on the next page then clicked **direct download link**. Netsurf downloads it as a ZIP file which I opened with SparkFS.

Your file has been successfully converted.

If the download does not start in a couple of seconds, you can click on this **direct download link**.

There are other utilities including OCR (I haven't actually tried this) but I found the most useful to be the DOC-to-PDF converter.

If somebody has emailed you a Microsoft Word file just convert it to PDF with Online-Converter and open with !PDF on RISC OS.

Text Area Utilities

Draw Text Areas (DTAs) are a useful way of getting large amounts of text into a Drawing but one shortcoming in the text area "Escape" commands is the lack of a tab facility for aligning tables of information.

Another deficiency is that when you drag a DTA text file onto Draw it always lays out the column(s) in one particular way leaving you fiddle around with the mouse to enlarge and adjust the size of the column widths.

The two utilities presented here make life easier. The first converts a CSV file a text file of DTA commands which can be dragged onto a Draw window. The second formats a Draw file already containing a text area into regular columns given page size, desired column width etc.

The second utility can be used as an extension of the first or by itself. Each utility is a Basic program which asks for a source file and saves the result in the currently selected directory.

The programs are single tasking because Wimp code would take up a lot of room in the magazine, but they could easily be made multitasking.

CSV2DTA

This takes a comma-separated value (CSV) file, works out how many columns there are, then converts the data into linear format and packages it up into a text file (with the same filename prefixed with an underscore) ready to drop onto a Draw window.

CSV files are exported by most spreadsheet applications. Or you can easily create your own in Edit. Just remember to separate each columns by commas and lines by the usual RISC OS line feed (press Return to generate Ascii code 10) for instance:

```
Country,Population,Capital
England,53.5 million,London
Wales,3.1 million,Swansea
Scotland,5.1 million,Edinburgh
Northern Ireland,1.8
million,Belfast
Ireland,4.6 million,Dublin
France,64.3 million,Paris
Germany,81.3 million,Berlin
Spain,46.3 million,Madrid
```

is converted to the following. \D3 denotes three columns, backstroke followed by a newline forces a line break and \; is a comment .

```
\! 1
\F 0 Trinity.Medium 12
\D3
\AL\L12
\0\;Column 1
Country\
England\
Wales\
Scotland\
Northern Ireland\
Ireland\
France\
Germany\
Spain\

\;Column 2
Population
53.5 million\
3.1 million\
5.1 million\
1.8 million\
4.6 million\
64.3 million\
```

Sony Mini CDR Station

One downside of moving on from my Iyonix to a Raspberry Pi is that I have never been able to reliably burn CD-Roms. Anecdota evidence suggests some people can but I have tried lots of USB drives to no avail.

The only CD Burning software for RISC OS seems to be !CDVDBurn but the author of Steffan Huber is not actively maintaining the app (or perhaps has disappeared from the RISC OS scene altogether).

So the Sony MCS1 Mini CDR Station caught my attention. It's about the same size as a Raspberry Pi and allows the burning of CD-Roms without a computer.

The type of CD supported is the "mini" variety, 8cm in diam and holding about 200 MB compared to the regular ones which hold abo

You plug in a U stick, insert a MCS1 will to the C

The Sony MCS1
of a

The dis more fi dat

pictures which are burn

Files are placed in whose name is re of the latest fil

Picano Special Order

Hello to all *Drag 'N Drop* readers, I am Steve Royd-Marker a technical designer based in Belgium.

You may have heard of me in association with a colleague Giancario, we are hoping to bring TopModel back to RISC OS.
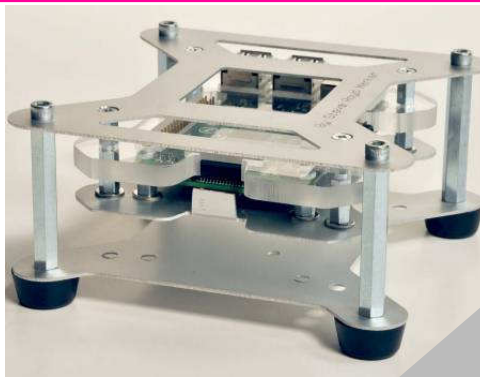
Recently I received a request from an American company which installs media players in 'protected' environments such as prisons.

The Raspberry Pi 2 is a good solution but the average Pi case is not because they are not strong enough and often still need a bracket to connect to the 'Vesa' mount.

The Picano can connect through and hold the full weight the screen so it is a suitable solution for the job.

One of the requirem that there needed to a USB hard driv about 80 hou

There v requirer

● The photos show layer Piano cas protection. M be reache www.m

circumstances, it could possible to remove th by inmates!

This was so part of the the Micr block

Hello to you all, my name is Richard Brown and I run Orpheus Internet based in Southend-on-Sea in Essex (same county as where your favourite mag is published, but on the other coast).

OI delivers internet services, network and advice and email help to home and businesses. Since founding OI in 2005 with 20 years of internet experience I have relied largely on Apple Macs for our hosting because of their stability.

Stability has been our watchword all along at OI. Our servers run 24/7 and must not suffer any problems.

What I was really wait... was an ultra-stable, n... machine if we are ... businesses are ... seriously. St... develope... unveil...

show. Retailing at about £600 the key features include SATA for fast disc I/O, gigabit ethernet, modern clock speed, video 1920x1080 60hz (minimum) and a projected 10 year lifespan.

RISC OS has been historically reliable, but not reliable enough on the generations of Raspberry Pis, Arminis and the like.

It was discovered only r... that RISC OS was not ... following ARMv7 gui... therefore was no...

RISC OS is... would perc... itself. B... well ...

with minimal energy ... heat and therefore ... it practical to ru... one place wi...

Compa... syste... bec...