Benefits of membership

The national club for all users of 32 bit Acorn computers and Pocket Books

- The Club's magazine, 'Eureka', written by members, is published and sent free of charge four times a year.
- Free software to accompany articles in Eureka is available on the Club's FTP site or can be sent to members on disc.
- Free Technical Help Service. We will do our best to solve any problems which you may have, by email, letter, telephone or fax.
- Special discounts for Club members from well–known companies.
- Regional open days and shows are regularly organised by the Club. Other events can be arranged on request.
- Special offers at shows and open days.
- Regional contact lists of other members, available on request.
- Opportunities to get involved in the running of the Club itself.
- School and Affiliate Membership available on request.
- Joining pack includes an extra copy of a recent issue of the magazine and software.

Annual membership £15
Europe £19 and rest of the world £22

The ARM Club, Merton Court, 38 Knoll Road, Sidcup, Kent DA14 4QU
Email: info@armclub.org.uk Tel: 07010 709849 (Flextel)

EUREKA

The magazine for members of

The ARM Club

Ron's full house

Druck's picture tips

RISC OS memories

Issue 63 - 2008 No. 1

Editorial

The Editor's comments on the world of RISC OS

A short history of the concert flute

The flute is the oldest known musical instrument, with prehistoric bone flutes having been found. The flute basically is a hollow tube. The air column in the tube is excited by blowing air across the open end of the tube or across a blow hole cut in the side of the tube. In order to get different notes a series of holes has to be cut down the length of the tube the position of which determines the note produced. The basic flute form in renaissance times consisted of a hollow cylinder of wood with a blow hole at one end and six fingerholes down the length of the tube. The note produced depends on which fingers are covering the holes and which are not. This is known as a fingering system (FS). The renaissance flute though very basic with only six finger holes is capable (just) of playing a chromatic two and a half octaves (about 30 notes).

Around the end of the 17th century a family of musical instrument makers called Hotteterre improved on the old renaissance instruments by altering the bore of the flute (going from cylindrical to slightly conical) and the FS by adding a single key at the foot of the instrument. This was the one keyed baroque flute. This Baroque FS was in use for the next 120 or so years when more keys were added culminating in the eight keyed flute using the Simple System (SSFS). However music was becoming more and more complex and new flutes were needed to cope. Around 1820 a flute maker called Theobald Boehm invented a totally new flute design using his new FS now called the Boehm Closed G# FS. Many other FS's started to emerge as well. The Carte FS, the Rockstro FS, and many others. Buying a flute in the late 19th century one had a choice of over a dozen types of instrument.

However by the beginning of the 20th century the Boehm FS had come to dominate. More manufacturers started to use it and by the 1960s with Japanese firms producing flutes by the millions it achieved world domination. Other FSs have survived but only used by few players. For the beginner flute player its the Boehm FS or nothing. The FS is not perfect, improvements could be made but this would mean millions of players buying new instruments and learning a new FS. So unless you are very rich and can get a flute maker to hand produce a flute for you, you have to use the Boehm FS.

Contents

RISC Bytes

RISC OS news over the last couple of months

WAKEFIELD 2008

The Wakefield RISCOS Computer Club are pleased to be able to announce there will be another Wakefield Show in 2008.

The 2007 show was held at the Mill House and Frobisher Suite, Stanley Ferry Marina, sadly that venue is no longer available, the owners have turned it into a "Wacky Warehouse".

Thus we had to find a new home again for the show. After much searching we managed to find somewhere. The show is returning to where it all began back in 1996, the Cedar Court Hotel, Jct 39 M1, Wakefield.

Partly as a result of this the show will be a little earlier this time, in April, and is scheduled for Saturday, 26th April. It will be open to the public between 10 am and 5pm and will have a small show theatre since you all missed it this time.

We are hoping to run the popular Mini-Bus service again for those coming by public transport.

More details on costs etc will be announced as soon as they are finalised.

The show will also be part of the Wakefield Club's 25th anniversary celebrations in April.

Anyone interested in exhibiting (large or small) should contact th show organisers at:
show2008@wrocc.org.uk

VIRTUALACORN FOR INTEL MACS

VirtualAcorn are pleased to announce that a version of VirtualRPC-AdjustSA suitable for Intel based Macs is now available. All existing VRPC for Mac beta testers have already been sent an update CD.

This new version is being released as part of our beta testers program and incorporates a Universal Binary for both PowerPC and Intel based Macs.

Feedback from testers has been very positive and their comments have been incorporated into this new release. Some of the improvements include:

Support for RISC OS 6.
Updated display code allowing RISC OS to display full screen modes larger than the resolution of the display.
Changes to the mouse handler to improve integration between the RISC OS and Mac OS pointers.
Improved User Guide with extra information on setting up VRPC and the Mac.
Pre-configured to automatically print out in PDF format.
Scale the RISC OS desktop whilst running inside a window on the Mac OS desktop.
Numerous other bug fixes based on feedback from users of Beta1.

VirtualRPC-AdjustSA for Mac can be ordered from the VirtualAcorn on-line store or by phoning VirtualAcorn on 01283 522969 (10am till 5pm weekdays).

Copies will also be available at the forthcoming RISC OS South East Show on the 20th of October at Guildford College.

More details can be found on the product page:

http://www.virtualacorn.co.uk/products/vrpcadsamac.htm

DATAPOWER 3

DataPower 3 – the long-awaited return of DataPower has finally arrived. This new version includes major new features such as a full spell-checking system (which can work on individual fields, whole records, or as-you-type), new scripting features to give greater flexibility to users, better handling of missing data files, ability to edit scripts in your favourite editor (eg. Zap or StrongEd), new "warning" system to allow Datapower and its scripts to generate non-fatal messages. Also new are features for JPEG handling, improved keyboard controls for moving through the database, the ability to set and read system variables (extremely useful for interacting with programs outside of DataPower) and user-interaction functions. For example, a script can now open a question window, allowing the user to pick what action to take. The software is fully 26/32bit neutral, and generates databases that will work on RISC OS and Windows. This means that you can create databases on RISC OS, and provide them for use on Windows (where data can be entered, updated and searched). Full client-server network operation is also included as standard in DataPower 3, as many users now have more than one computer on their home networks.

It has taken several years for R-Comp to become familiar enough with the hugely complex DataPower codebase to be able to make a release, but it is only the tip of the iceberg – DataPower 3 will be an ongoing product with more new features being added all the time. The big hurdle has been getting to grips with it all!

The DataPower 3 full price will be 119ukp inclusive.
(Site licences will cost extra).

http://www.rcomp.co.uk/

RELEASE OF NETFETCH 3.1

Now includes new features such as support for Google's Gmail service (both fetching and sending) from RISC OS, easy access

to the full Active list of newsgroups that your ISP offers, better username/password handling for SMTP and News and more. Existing users of NetFetch 3 will receive this via email before the show.

A printed NetFetch Manual will be available to users at the show and afterwards, covering NetFetch itself, as well as Hermes, R-Comp's advanced mail and RSS fetching/sending software. The manual covers all the advanced features such as whitelists, anti-spam, security and more, allowing users to get the best out of the software.

http://www.rcomp.co.uk/

TWO FREE APPLICATIONS TO DOWNLOAD FROM 7TH SOFTWARE

7th software are pleased to have made available two small RISC OS desktop applications which some people might find useful.

* MouseInfo. This is a very simple program which displays useful information about the stuff under the mouse pointer (yes, another one!), including colours, window and icon information. The display updates in real time.

This application is actually meant to be a demo of how to write a multitasking program using !Routines but because it's vaguely useful, it's been decided to also release it separately. It still requires !Routines in order to function!

* asmfind. If you have an ARM binary (e.g. a module or application) and a pile of source code with which you are unfamiliar, asmfind can help you to locate where in the source code certain bits of the binary came from.

For example, if you're interested in a particular block of code, you can select a handful of instructions (say in Zap), save the selected block to a small binary file and tell asmfind to search

a source tree for that instruction sequence.

Asmfind will try to find the code even if there are comments and labels and other things breaking up the appearance of those instructions in the source code. There are still all kinds of reasons why the search can fail but it's still far better than the alternatives!

You can download these programs and a selection of others from:

http://www.7thsoftware.com/software.htm

On a completely unrelated note(!), you can download pre-built RISC OS applications and modules from the RISC OS Open site, as well as the source code, from:

http://www.riscosopen.org/content/downloads

ARMALYSER VERSION 0.62

ARMalyser version 0.62 is now available from

http://www.armclub.org.uk/free

Enhancements and fixes since last release

* Compressed AIF's can now be decoded on non RISC OS platforms using the supplied uncompressAIF utility, kindly provided by Theunis de Jong (xpand and unmodsq still used on RISC OS).

* CFront style C++ name demangling code rewritten and support for templates added.

* G++ style name demangling now supported, note not yet 100% correct when dealing with substitutions.

* -ls List all symbol names option added.

Background information

ARMalyser is an ARM code analyser that understands RISC OS and ELF executable, module, utility, object and library formats. It can output disassembler or ObjAsm compatible assembler styles, in plain text, fully hyperlinked and syntax coloured HTML, XML, or custom formats for import into Impression, TechWriter and Ovation Pro.

It has extensive analysis features to detect problems that may be encountered when converting code to 32 bits, and to highlight performance issues on different ARM variants. The assembler output may be used as a basis to produce 32 bit versions of code where the sources are not available.

It is available for RISC OS with a desktop front end, and command line versions for Win32, x86/32 and x86/64 Linux. Also included is a RISC OS version built with GCC and UnixLib which does not require the 32bit SCL.

BEEBIT 0.60 AND BEEBITJ 1.00 RELEASED

BeebIt and BeebItJ are freeware BBC Micro computer emulators for RISC OS versions 3.00 and above. They emulate the Acorn BBC Model B, BBC Model B+ and BBC Master 128 computers.

BeebIt has now been divided into 2 versions, BeebIt written by Michael Foot and BeebItJ which as based on BeebIt but has been enhanced by James Lampard. BeebItJ has a completely new 6502 CPU engine as well as many other changes and is faster than the original BeebIt. Each version my behave slightly differently to the other so please read the notes about them to decide which one suits you the best.
John Kortink has also made some great improvements to his sound module, ZeriBeep, to allow Speech to sound correct for the first time.

New features in Beebit version 0.60:

– New version of ZeriBeep, which works with Speech! and now has just 1 version for 26bit/32bit platforms.
– Clicking select on the Icon to enter BeebIt, no longer shows up as a joystick button press.

New features in BeebitJ version 1.00:

– New version of ZeriBeep, which works with Speech! and now has just 1 version for 26bit/32bit platforms.
– Some error messages strings are now translated through the Messages file.
– Now checks which modes are available and will use modes bigger than 640x256, if required.
– Sprite save now works, even if BeebIt uses bigger than 640x256 mode.
– If on entering emulation boot fails (ie corrupt MOS rom image) then BeebIt will return to the desktop with an error.

You can get the latest versions from

http://homepages.paradise.net.nz/mjfoot/

under the BBC link.

COMPLETE BIBLE DATA NOW AVAILABLE TO DOWNLOAD

As CD Roms of "The Illustrated Holy Bible", originally published by Cumana, are now longer available to purchase, I've uploaded a complete set of data so that you can use my !Bible multi-media application without requiring the CD ROM.

Contained within a 5MB ZIP file is the complete text of the King James Edition, along with all the original illustrations. Simply, create a directory called "data" and copy the entire contents of the ZIP file into it.

You then need to manually edit the 'datapath' line in the !Bible.Config file (near the bottom) to point to the full path of wherever you've installed the 'data' directory to.

Bible will then run from hard drive without requiring the original CD Rom.

Bible is available to download from

http://www.vigay.com/software/bible.html

and is a complete multi-media version of the King James Edition of the Holy Bible. The full text of both the old and new testaments cam be searched, quoted, read or exported.

CALIBRE - VERSION 1.20

Calibre – Version 1.20 (28th August 2007) now on

http://www.rayfavre.me.uk/dwapps.html

The main enhancement is the addition of an extra calendar format:
Format 9, a month-per-page 'family calendar' with a single column of dates & days for the whole month down the (usually) left-hand side and corresponding blank columns for up to 6 family members.

The opportunity has been taken to include a few other minor changes.

** If you have your own (Default or other) calendar designs, RLD lists, pictures etc. used in Version 1.10 then please save them elsewhere so they can subsequently be included with the new version – where they can be used without modification. Any saved Choices and/or Window positions files will also still work. **

The previous version of the Manual is still functionally

!Calibre - authored with Dr Wimp - is an application to design and print calendars of various formats in all shapes and sizes. (And the launch is just at the right time to get you designing those 2008 calendars for family, friends and business advertising.....)
!Calibre offers:

- 5 different month-per-page formats;

- a week-per-page 'family' format;

- a year planner;

- 4 year-per-page formats.

Extensive user customisation - simply done - can take place around these formats. (Default designs for the different formats are supplied and can be changed by the user.)

The user determines:

- the calendar size;

- the position of the different elements;

- the background and text colours, fonts and text sizes for year/month/week-number/dates/days - all independently. (Colours includes 'no colour' (i.e. transparent) for backgrounds and outlines.);

- the size/position of up to three picture areas, to show 'on top' or 'underneath' other elements. Either JPEGs or Drawfiles can be used. Picture scaling to the user-defined picture areas is automatic;

- up to 32 (or more) 'Red Letter Days' per calendar year (including, if required, additional text) and the appearance of these is part of the user-determined design of a calendar. Multiple Red Letter day files can be stored for different years and are picked up automatically.

The printing options allow a user-defined range of calendar pages and copies to be printed e.g. the 12 months of a year - with different pictures on each page if required.

As supplied, !Calibre uses English for the Month & Days names (which can be shown as Full, 3-letter or 1-letter e.g. January/Jan/J) but itis simple to use other languages.
A Manual is available for separate download in Impression

Publisher,Ovation Pro & HTML formats - and a plain text version is integrated with the application.

CASHBOOK 1.00 RELEASED

After a year of beta-testing, the first 'stable' version of CashBook (version 1.00) is now available for download from the website. Thank you to everyone who has taken part in the testing and provided feedback and suggestions for improvements.

CashBook is a home accounts application, capable of tracking money through an unlimited number of bank, building society, credit card or other types of account. Income and expenditure can be allocated to analysis headings, which can be used for budgeting or reporting.

All transactions can be reconciled against statements, and real-time statement views are available to make the process easier to manage. Repeating transactions, such as standing orders, direct debits or salary payments, are fully supported with a look-ahead facility to help avoid nasty surprises.

An integral reporting system is included, which allows printouts of the various summaries to be printed out as well providing the raw data for use in a spreadsheet, graphing package or WP software.

Version 1.00 contains a few bug fixes over version 0.99, and also has improved documentation. As well as updates to the existing text and StrongHelp manuals, a PDF copy is available in A5 format as a separate (large) download, complete with screenshots and illustrations.

CashBook is freeware; more details, and a download, can be found at:

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

CRONTOOL V0.08 RELEASED

CronTool v0.08 is available to download from the website at

http://www.vigay.com/software/

CronTool is a powerful utility for 'controlling' your machine when you're not there.

Based on a series of files, which can run at regular times, such as daily, weekly, monthly and yearly, as well as a custom file, you can use a flexible script language to execute commands, create zip archives and even send emails – all performed automatically at various times of day.

CronTool also implements a Linux style crontab file so that you can tailor the exact time each script is run. CronTool is ideal for monitoring your system or for running automated tasks in the background or when you're away from your machine.

By using the remote ping commands you can even monitor the status of remote servers, and alert yourself if any fail to respond.

Unregistered versions are fully functional except for only running for 15 minutes in one session.

New in version 0.08 are:-

* Bug fix: Amended quit code so that applications quit cleanly without leaving files open.

* Added "prequitapp" command, to send a wimp 'pre-quit' message to specific applications.

* Added new misc timer function – run bath, with a 9 minute delay.

* Bug fix: Corrected format of auto-email generation for the Ant Suite.

The manual is available online at http://www.vigay.com/software/manuals/crontool/ if anyone wants to see a comprehensive list of what it can do.

As always, feedback is welcome.

GNUPGWIMP

Peter Gaunt's PGPwimp application has been updated to provide a WIMP front-end to GnuPG – which uses somewhat different syntax for what are basically the same commands.

http://www.starfighter.acornarcade.com/mysite/utilities.htm#gnupgwimp

The GNU Privacy Guard is a public-key-based encryption tool. It is a full replacement for PGP (Pretty Good Privacy), although the two are not by default directly compatible.

GPG for RISC OS can be downloaded from Stefan Bellon's pages:

http://www.sbellon.de/gnupg.html

HAMSTER RELEASED

Another pointless RISC OS application has been released : !Hamster. This will allow you to connect up a USB Hamster Wheel to your RISC OS computer[1] and, when you type, the hamster will run in his (or her) wheel. The faster you type, the faster he or she runs.

CJE should have them in stock by the time you read this.
There are versions for the Castle and Simtec USB stacks. Either way, the app is free and is released under the GPL. For some reason that is not understood, it won't work with an A9Home.

You will find the app at the web site:

http://www.apts04.dsl.pipex.com

NEW VERSION OF ICNCLIPBRD

After a long delay, a new version of the IcnClipBrd module is available to download from the website.

The module enables the use of the global clipboard from all writable icons on the desktop, using the conventional Ctrl-C, Ctrl-X and Ctrl-V keys for copy, cut and paste. It also includes features for deleting sections of an icon's text, and manipulating DOS-format filenames.

Version 0.11 contains a number of bug-fixes, covering various aspects of the data transfer protocol and 32-bit compatibility. Iyonix users, in particular, are encouraged to upgrade, as a potentially nasty problem concerning large wimpslots has now been fixed.

The new version also includes a *command to allow each of the module's keypresss to be disabled. This allows unwanted features to be turned off if their keypresses clash with applications, removing the need to maintain a separate version without Ctrl-D and Ctrl-E for Prophet users.

IcnClipBrd was originally written by Thomas Leonard, and the 32-bit conversions since 0.07 have been maintained by Steve Fryatt. More information and downloads can be found at

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

JAN VIBE'S BACK CATALOGUE RETURNS ONLINE

As part of an interview with Drobe, BASIC graphics master Jan Vibe has pulled together all of his Star Info contributions plus a few other interesting bits and pieces to form a new archive – now available as freeware for download from drobe.co.uk.

Jan is best known for his regular and colourful contributions

to Acorn User magazine's Star Info section, which would appear on the cover disc and as program listings in the magazine's Yellow Pages. Nearly 25 years after he sent in his first contribution, Jan reveals what inspired him to create so many graphical effects and what he's up to these days.

To read the interview or download the programs, visit:

http://www.drobe.co.uk/riscos/artifact2022.html

For people with slower connections or browsers, see:

http://www.drobe.co.uk/avantgo/content/artifact2022.html

* Other popular articles this year include our show reports, an interview with the programmer leading an effort to bring the best bits of RISC OS to Linux, and features on RISC OS being used in the housing industry and solving prime numbers.

* Drobe is the news and resources website for RISC OS users. All our content is published for free, and registering an account is completely free too – join today, and take part in discussions with other like-minded readers from across the world.

http://www.drobe.co.uk/

!LABELLA VERSION 6.30

Version 6.30 (18th August 2007) adds a new option suggested by a user.

The new option 'shrinks' text on any label line to avoid it printing beyond a label edge. (This option is an alternative to the 'Clip' option and cannot be used at the same time as the 'Clip' option or the 'Wrap' option.)

It works by allowing the user to specify an alternative (smaller) point-size – on all lines, independently – when setting the fonts in the Fonts window. This alternative size needs to be small enough to ensure the longest text on a line will fit into the label. Ticking the 'Shrink' option then brings

this alternative size into play automatically if (and only if) the text on any line would otherwise go over the edge of the current label.

(Label files from the previous version will load OK – and the alternative point-size for these will be set by default to the same as the normal size.)

Those updating are recommended to re-save their label files and start-up choices as soon as convenient.

As usual, updated Impression and Ovation Manuals are available for download and an updated text-only version is integrated with the application.
http://www.rayfavre.me.uk/dwapps.html

!LaBella is a very popular and comprehensive *freeware* label-printing application for computers running RISC OS.

NEW VERSION OF PHOTODESK WITH VARIOUS IMPROVEMENTS AND BUGFIXES

4D are pleased to announce that after over a years work by the new maintainer, Niklaus Weiss, we are able to release an update to PhotoDesk. Version 3.08 includes various improvements and bugfixes, especially supporting scanning via TWAIN, and a huge speed increase in the redraw of selected areas on the Iyonix (known as the 'crawling ants' problem by some).

Upgrades from version 3.06 will cost just £20.

http://www.cjemicros.co.uk/4d/

NEW VERSION OF ROTUNES AVAILABLE

Version 0.15 of ROTunes application is now available.

This version fixes a couple of minor bugs so is not a major update, but the wimp polling routine has been tweaked to make the whole thing a bit more efficient. Some code has been added to restore the system beep when you quit ROTunes.

ROTunes is a comprehensive MP3 player and management application gratuitously copied from Apple's iTunes and as such has a very similar 'look and feel' (and Apple iTune themes are also available from my website).

It also includes some additional features not in iTunes, such as the ability to lower the volume if the telephone rings (if you have Octopus's CallerID installed) and a handy alarm function.

ROTunes version 0.15 is available to download from

www.vigay.com/software/rotunes.html

and is FREEWARE.

ROVER BETA TESTERS REQUIRED

Rover is a brand new application to help you to keep track of versions of programs which you use, i.e.

- which programs and versions are installed on your computer.
- the latest available versions of those programs.

The RISC OS Links Database (http://www.riscos.org/links), maintained by Paul Vigay, aims to hold details of all RISC OS programs. This database was initially designed to enable users to find programs using a web browser, showing information about the latest versions and where to get them. However, with a lot of programs installed it can be a rather time-

consuming process to do this search manually.

Programs can be easily registered with Rover, and it can then use an interface to the RISC OS Links Database which allows remote applications to run searches. Rover can then show which programs have been updated, and help you to download them if you wish.

Rover is mainly intended to be used for Application programs, but may also be used for Modules and Absolute programs. It is NOT intended for the myriad of components of RISC OS.

Rover is nearing the Beta test stage of development, when it will be useful to try it out with a variety of machines, applications, … and users.

If you are interested in helping to Beta test Rover, and are prepared to make suggestions and report any bugs, then please let me know by email to rover at avisoft dot f9 dot co dot uk. Note that there will be no response until after the SE show, as I will be away.

Some sample displays can be seen on

http://www.avisoft.f9.co.uk/Rover.htm

SEARCHY 1.60 NOW AVAILABLE TO DOWNLOAD

Searchy is a small application that provides a quick way to use search engines from the RISC OS desktop via a small window.

Changes for version 1.60 are as follows:

• Searchy will no longer default to being positioned at the very bottom edge of the screen, over the iconbar. It now defaults to just above the iconbar as per previous versions.

• The “Window Size and Positioning” window has been

redesigned and rewritten as "Window Size and Startup Options" and now features a simpler interface that's slightly more intuitive.

• Interactive Help messages have been updates to reflect recent changes.

• Various other minor tweaks.

Searchy is available to download from the website at:

http://www.andrewpoole.org.uk/searchy/

or by clicking "Check for updates" in Searchy's info window.

As usual, please direct any feedback (positive or negative!) and questions to the email address or prod Andrew C. Poole on MSN messenger. Both addresses are below.

Email: andrew@andrewpoole.org.uk Web: http://www.andrewpoole.org.uk MSN: msn@andrewpoole.org.uk

NEW MULTIMEDIA – COMPLETE SHAKESPEARE

"The Illustrated Works of Shakespeare"has been converted to 32-bit and Iyonix compatibility.
The Illustrated Works of Shakespeare was originally released for Acorn machines way back in 1992 as part of Cumana's multi-media software bundle for A5000 machines.

Originally popular in schools, it features the entire text of all books of William Shakespeare, together with over 400 reproductions of original woodcuts on CD Rom. For those who don't have the original CD Rom, the full data is available as a 16MB download.

The application is FREEWARE and can be downloaded from

http://www.vigay.com/software/shakes.html

SOMASCAPE (PREVIOUSLY MIDIWAYS) SOFTWARE UPDATED

The primary initiative has been to provide 26/32-bit neutrality whilst linking with StubsG so as to avoid dependancy on Castle's 32-bit Shared C Library.
AIUI this aids A9 compatibility.

All titles are available from :

http://www.somascape.org/riscos/soft/index.html

!Verma 0.26 (23 Jan 2007)

Reports info on modules located on disc or in ROM/RMA.

Changes since 0.25 :

* 26/32-bit neutral – now linked with StubsG.
* RMA record refreshed whenever scanning a directory (to ensure RMA comparisons are current).
* Added a Refresh item to the Viewer window (to rescan a directory). Takes account of current options which may be different to the previous scan.
* Filer-like action : ADJUST closing a Viewer window opens a filer window for the path shown (the Viewer window is closed unless the SHIFT key is held).

!Historian 0.19 (25 Jan 2007)

Allows maintainance of Fresco's history list.

Changes since 0.18 :

* 26/32-bit neutral – now linked with StubsG.
* Now use the Choices scheme for user preferences.

!Midiphile 0.25 (29 Jan 2007)

Interprets/repairs MIDI files.

Changes since 0.24 :

* 26/32-bit neutral – now linked with StubsG.
* Added a few more manufacturer ID codes (SysEx message identification).
* Added a few more controllers to the Controllers menus, and extended range of 'All controllers' setting from 0-101 to 0-119 (120-127 have special meaning).

!Mixer 0.21 (09 Jul 2007)

An audio mixer for the internal sound system, CD audio, Speak and SharedSound.

Changes since 0.20 :
* 26/32-bit neutral – now linked with StubsG.
* Added limited support for Jonathan Duddington's Speak.
* Bugfix affecting CDs played via Simtec IDEFS.
* A few configuration and start-up related bug fixes.

!Swish 0.14 (12 Jul 2007)

A SWI listing utility producing plain text or C/Ada header output.

Changes since 0.13 :

* 26/32-bit neutral – now linked with StubsG.

!MidiMole 0.08 (21 Jul 2007)

A MIDI data monitor (requires MIDISupport).

Changes since 0.07 :

* 26/32-bit neutral – now linked with StubsG.
* Added a few more manufacturer ID codes (SysEx message identification).
* Rectified some oversights in interactive help support.

!SysExy 0.37 (21 Jul 2007)

A MIDI System Exclusive data recorder (requires MIDISupport).

Changes since 0.36 :

* 26/32-bit neutral – now linked with StubsG.
* Improved data reception efficiency (prioritised over display update).
* Increased the number of sys ex messages that can be retained from 500 to 1000.
* Now use cross-platform file format, identical to .syx files (can still load files saved with older versions).
* Rectified some oversights in interactive help support.

Debbie 0.17 (14 Aug 2007)

A Yamaha XG-type synthesiser controller (requires MIDISupport).

Changes since 0.16 :

* 26/32-bit neutral – linked with StubsG.
* Added support for Mico and RiscStation hardware MIDISupport drivers.
* Snapshot files now saved as RawSysEx (equivalent to .syx) in accordance with !SysExy 0.37. Can still load previous format files.

!JunoEd 0.28

A Roland Alpha Juno synthesiser voice editor (requires MIDISupport).

Changes since 0.27 :

* 26/32-bit neutral – linked with StubsG.
* Exported SysEx files now use RawSysEx format (equivalent to .syx) in accordance with !SysExy 0.37.

!Syncopath 0.19 (22 Oct 2007)

A drive duplication type of disc backup program, acting as a front end to David Pilling's !SyncDiscs.

Changes since 0.17 :

* 26/32-bit neutral – now linked with StubsG.
* Now works with VirtualRPC (ie can backup HostFS).
* Bugfix concerning false report of bad Count Tally.

Date: Thu, 16 Aug 2007 21:35:53 GMT From: blacky <blackystardust68@yahoo.comSubject: [ANNOUNCE] VICE 1.22 for RiscOS

VERSION 1.22 OF VICE

VICE emulates the Commodore C64, C128, VIC20, PET 8-bit computers, PLUS4 and the CBM-II (aka C610) and is completely written in C/C++; it runs on Unix, Win32, MS-DOS, RiscOS, OS/2, BeOS, QNX, AmigaOS and GP2X systems.

VICE is *free* software released under the GNU General Public License, and as such it comes with full source code.

Most important changes since the last version include:

*Changes in VICE 1.22

C128 changes

• Added 2 MHz mode support (experimental).

• The cursor keys are mapped differently in C64-mode now.

• Fixed C64-mode autostart support.

VIC20 changes

• Improved the sound emulation where the 'volume change click' is concerned, and normalized the audio output level.

VIC-II

• The VIC-II border mode can be selected now (normal, full, debug).

• Some sprite fixes needed for Krestage 3 demo.

Drive changes

• Improved drive LED emulation.

Unix changes

• Fixed the "black screen" bug caused by some X11 library security update.

• Fixed the usb support for bsd based platforms.

• Changed the preferred libdir and docdir for netbsd and freebsd.

• Xaw/XRandR fullscreen mode is supposed to work.

MS-Windows changes

• Positional keyboard mapping is used as default again.

• New volume slider control.

• The win32 port can now be compiled with openwatcom.

OS/2 changes

• The os/2 port can now be compiled with openwatcom.

RiscOS changes

• Added a build script for the RiscOS port and all needed binary files are now part of the source distribution.

AmigaOS changes

• Added netplay support for AmigaOS3 port.

• Added netplay support for AROS port.

• New VICE Volume control for all ports.

C1541 changes
• Fixed some unlynx bugs.

The VICE 1.22 source archive is available at:

http://www.zimmers.net/anonftp/pub/cbm/crossplatform/emulators/VICE/vice–1.22.tar.gz

The VICE 1.22 RiscOS binary archive is available at:

http://www.zimmers.net/anonftp/pub/cbm/crossplatform/emulators/VICE/vice–riscos1_22.zip

Marco van den Heuvel has taken over the RiscOS port from Andreas Dehmel after he announced he was going to retire from the team/project.

Marco is planning to get this port up2date with all the other ports, but since this is the first release it will take some time to learn and start the upgrade process.

For more information check out the VICE home page at:

NEW VERSION OF WEBGALLERY

Version 1.07 WebGallery has finally been released.

There are quite a few changes in this one. Most changes are 'under the surface'.

WebGallery is a comprehensive and powerful application for automatically generating web galleries from directories of photos. It has lots of powerful facilities including a full template system for individual customisation of HTML pages output, to seemlessly integrate into existing website styles and 'drag and drop' image positioning on the page.

Continued on page 31

Virtual Acorn for Macs

Mark Stevens

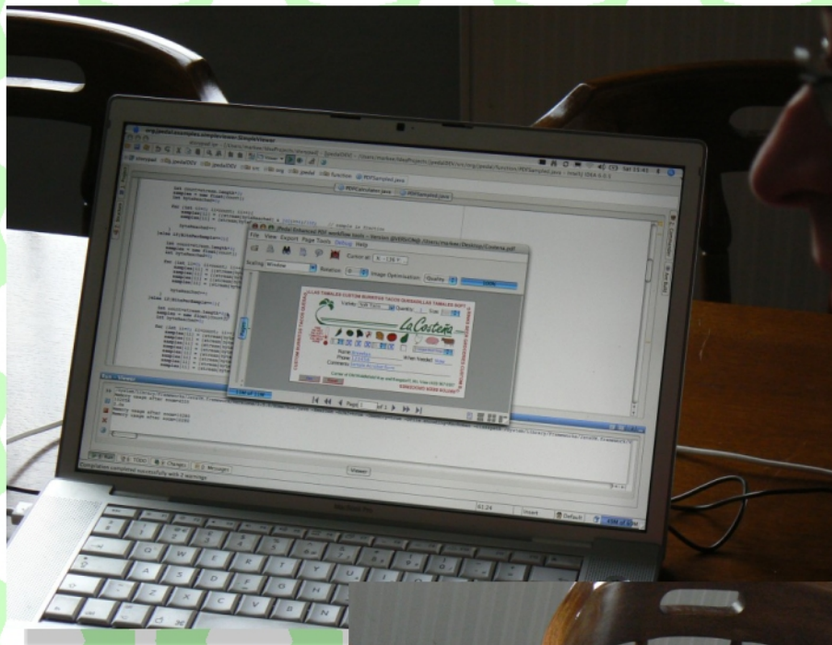
Mark Stevens is a Java programmer using IntellijIDEA for java programming.

He brought a 2gig Apple Mac Powerbook OSX 10.4 to a meeting of IRUG (Invicta RISC OS User Group) onto which he had loaded the latest version of Virtual Acorn (VA) for Macs. To run this version of Virtual Acorn you will need an Apple Mac computer with over a I gHz processor and a lot of memory, 1 gig preferred. This version of Virtual Acorn is a universal binary and will run on both Power PC and Intel processors.

It looks good

He was running VA Adjust 4.34 which can emulate several ARM chips but does not work on the Strong Arm one at the moment.

The Powerbook also runs **Parallels** - a piece of software similar to Virtual Acorn which lets Apple



The Mac OS

Windows

RISC OS

Apple on Apple

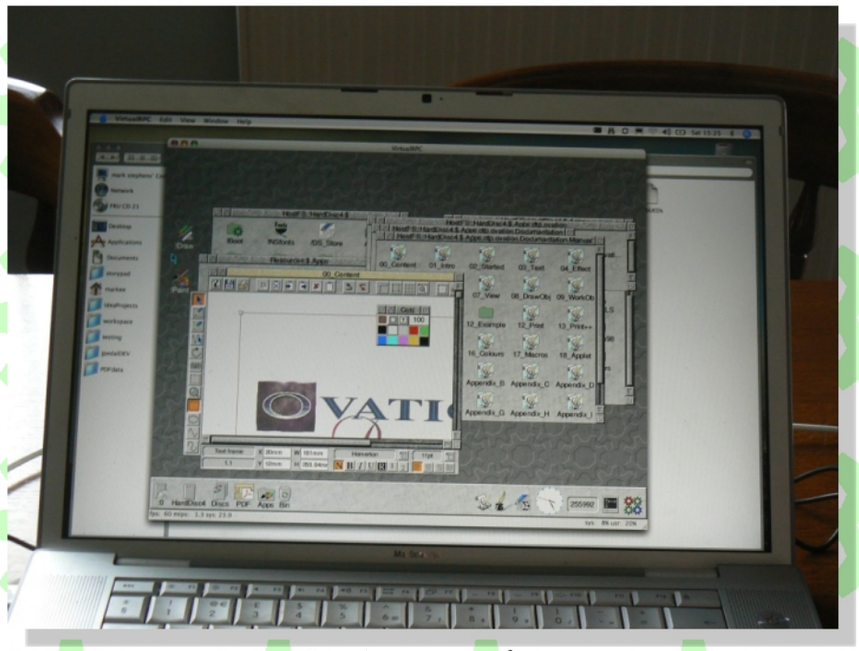
computers run other operating systems such as Windows in a window on the desktop. So one can have 3 (or more) operating systems on the desk top at once.

This allows Mark to hold a central database of files accessible from all three operating systems.

VA runs both in a window and full screen. We ran it at 1440*940 in 16 million colours full screen without problems and at the same time heard an MP3 file on the Mac played through VA.

VA was demonstrated running old games ie magnetic scrolls with sound, with out any problems.

By default VA runs with a memory allocation of 72 MB but by experimenting with the memory values in the model file we found we could increase the allocated memory to run VA from 72MB to 256 MB which seemed to be the max. Higher values stopped VA from running.



Ovation on Apple

VA was also tested running various applications eg Ovation Pro, Impression Publisher, Easy Writer. Artworks, Variations with no problems.

There were also no problems using the Powerbook's CD

Filer view 1

drive, it all worked perfectly, transferring applications, even the eject worked from VA in the CD menu.

The session ended by comparing various mail program applications available for all three platforms.

Pictures and text by the editor.

Filer view 2

Many different options and choices allow virtually 1000s of different permutations of ways your website can be created, and fully W3C compliant code is created, to ensure that your web gallery is compatible with all web browsers.

What's new in this version?

There are a couple of changes to the operation of web templates, namely the change of a couple of tags, so please read the documentation. The -GGG- tag has been replaced, so you may need to amend any existing templates if you've used this facility. This has been changed to make it more consistent with the other tags, and to enable me to add some new ones.

The other changes are some minor bug fixes and some changes to the quality of the HTML it outputs, which is now tidier and more intelligent. ie. it won't bother adding any ….</divtags around empty text if you don't add any captions etc.

It also doesn't bother specifically writing HTML font size tags if you've not specifically changed the font size.

A full printed manual will be available to registered users so they can get full use from this complex application.

WebGallery is available to download from **http://www.vigay.com/software/webgallery,html** and is Shareware. The unregistered version is fully functional apart from lacking the 'templating' system, and being restricted to 3 columns of thumbnail images.

KEVIN WELLS - NEW SOFTWARE AND 2 UPDATES

I have just released VKeyboard, which is a virtual keyboard, and updated MPdata to version 1.03 and IPwhois to version 1.02.

VKeyboard is a virtual keyboard that puts the character you hit with the mouse to where the cursor is. It has the standard

UK keyboard layout, which can be changed by editing the message files, but I am planning a new version that will enable multiple keyboards as well as being able to edit the keyboards in future releases.

The change to MPdata is that the button to Report a Problem goes to **http://fixmystreet.com** instead of

http://neighbourhoodfixit.com as the fixmystreet URL is the new location of the other one. MPdata is a tool to keep an eye on your MP, contact them, hear from them or contact your other elected representatives and report problems in your or other streets, e.g street lights not working etc. All using links to various http://www.mysociety.org/ sites

The change to IPwhois is that the reset button does not put a non needed space in the text field. IPwhois is a tool to check IP addresses, URL address etc. using the

http://www.dnsstuff.com/ site.

Both MPdata and IPwhois require an internet connection and a web browser to work.

All these programs can be downloaded from:

http://kevsoft.topcities.com/

They should work with all version of RISC OS but have only been tested with 4.39 and 4.42.

Games Section

Quicksand – a new adventure game for RISC OS computers

Soft Rock Software and Vince M Hudd, in association with a glass of lemonade and a ham roll, have announced the release of Quicksand* for RISC OS computers.

Quicksand* is a new adventure game, written using Soft Rock's own adventure writing system, Trellis. Very loosely based on a broadly similar idea to the notion that it in some way might remind you of the excellent TV series News at Ten… oh no, sorry, that's wrong…
I meant Life on Mars, the game stars you in the role of Stan Tyler.

You were in the park with your son, Timmy, flying a kite which got stuck in a tree. Being the intrepid, heroic dad, you climbed the tree to retrieve the kite, but fell…

…and woke up looking like a 1970s throwback, and in an adventure game! Are you mad? In a coma? Or have you really been transformed into binary data?

Whatever's happened, maybe if you can play the game, you can find your way home!

Having been written from scratch in the space of about two months, the first working version of Quicksand* was demonstrated at the Wakefield show. Since then another few months have passed and lots of effort has been put into finding new and ingenious ways to say "I haven't had the time", "I've been too busy" and "Ooh, is that a chocolate sponge pudding?" (closely followed by "yummy!")

Now, however, the time has come to make the game available, so the past 20 minutes has been spent feverishly changing images here, modifying text there and generally making sure it all works. This was followed by a last minute change to the way it determines if it's running as a text only game, so now probably doesn't any more – but given that the game is so stunningly simple to play, half the fun must be in playing it to find out if it no longer works! Yay!

Quicksand* can be downloaded from:

http://www.softrock.co.uk/products/quicksand.html

There are two files, as follows:

qsand.zip contains the game, which runs in old style MODE 15, is text only, and should work on all machines running RISC OS 3.1 or higher.

qsandg.zip contains the graphics. Copy the contents of that zip over your installed copy of the game, and as if by magic the game knows that it needs to run in an 800 x 600 x 16 million colour screen mode (1MB of VRAM and SpriteExtend 0.99 or higher required).

You will also need the latest version of SRSLibrary (v0.17) which can be found at **http://www.softrock.co.uk/resources/srslib.html**

* The small print: There is no quicksand to be found in this game.

SuperDoku version 1.14 released

Sine Nomine software has announced that version 1.14 of the popular Sudoku program SuperDoku is now available from

http://sinenomine.co.uk/software/

Version 1.14 fixes a bug in 1.13, which was generating difficult Killer puzzles with the answer already filled in for you…

SuperDoku is an advanced Sudoku generating and solving program. You can type in your own puzzles, or have puzzles created for you at three levels of difficulty. SuperDoku will give you hints on how to solve puzzles, or solve them for you. Incomplete puzzles can be saved for another time. You can also export puzzles as Draw files in order to print them out for use away from your computer. A separate notepad window is available for your own "pencil marks".

A wide variety of different shapes, sizes and styles of puzzle are available:

8 sizes 4x4, 5x5, 6x6, 7x7, 8x8, 9x9, 16x16 and 25x25

3 shapes Square – the classic design; Twin – two square grids where one or more blocks overlap; Samurai – five overlapping grids

5 block styles Normal – square or rectangular blocks; Jigsaw – irregular blocks; Xudoku – normal puzzle with two extra blocks on the diagonals; Plus 4 – normal puzzle with four extra square blocks; Jigsaw/X twin – twin puzzle with one half jigsaw and one half Xudoku puzzle

4 puzzle types Normal – enter the values so that each row, column and block contains one of each value with no repetition; Killer – a blank Sudoku grid with extra areas drawn out in which no value may be repeated and where the values in each area must add up to the total shown; Comparison – a Sudoku grid with arrows showing which of two neighbouring squares in a block has the smaller value; Hidden word – just like normal puzzles except that letters are used instead of numbers, and when the puzzle is complete you will find a word reading across one of the rows or down one of the columns.

The demo version gives you over 1000 different puzzles: to upgrade to the full version costs just 5 pounds and can be done by PayPal or post.

The Ron Briscoe Column

Ron gets a full house.

Hi readers, I know there are at least two because I've spoken to them, so there. Yes as the title says I have at last managed to attend all of the show venues with my visit to the SE Show in Guildford. How did I manage that? Read on my hearties.

Regular readers will be aware that, because of my habit of spending money like a reformed Scrooge at RISC OS shows, Christine has hitherto refused point blank to allow me more than three a year. Well after seeing cunning plan after plan dashed against the rocks of my financial adviser's obduracy, an opportunity presented itself.

Awaiting my supper and felling sorry for myself because Christine has decided that I need to lose weight, so no more stodge. (It is not my fault that all of my clothes have shrunk.) I am surprised to be presented with a slice of pork pie. Not any old pork pie either, but one from Chris Kirk's of Wolverhampton, twice UK pork pie champion. Now to fetch a pie from his shop would have taken Christine at least two hours. My brain sees a chance to barter.

"Very nice pie but why?" sayeth I innocently. "Ah, I want to ask you for a favour." says my beloved. I wait, saying nowt, as favours usually reduce my bank balance. "Carol (her sister) has asked me to go to a concert with her. Can I go?" "Can I go to the Guildford Show?" I retort.

After thinking it over and wanting to go to the concert,

Christine capitulates. I immediately email Doug to see if he will take me down there with him. The answer is yes, the die is cast and we arrange where and at what time he will pick me up.

On the day of the show I travel early to Longbridge Station where Doug is going to pick me up. I am surprised when getting on the train at New Street to see several young people get on the same train. All is explained when one of them starts to play music on his mobile and all the rest start jerking about in time to the music. That coupled with the fact that they are also consuming copious amounts of water leads me to think that they have been to some all night do or other. A thought confirmed by several of them arranging to meet up and do the same on the evening. What it is to have the stamina of the young eh?

I travel down with Doug to the show and having been relieved of our admission fees go our separate ways around the hall. Doug likes to go to selected presentations whilst I prefer to look at things to buy and to harangue the ARM Club regarding their singular lack of anything new to purchase.

Icon Technology are doing very brisk business selling the upgrades to version 8.72 of **Easy/TechWriter** and so I decide to leave mine till a quieter moment presents itself. No chance, I never saw less than four people waiting until the ROOL presentation. Seizing my chance I give Mike the required amount, scribble my details on a form and take a new copy of **TechWriter** from a pile. Well I thought it was **TechWriter** but it was a copy of **EasyWriter** and I didn't notice until I ran the CD at home. Drat and double drat!

I exchange a few pleasantries with Alan at RComp and am severely tempted by **Database3** but decide that it and **PhotoDesk** can wait until the Midlands Christmas Show when hopefully my daughter will purchase one of them for her impecunious father as a Christmas prezzie.

One of the pleasures of going to RISC OS shows is the

chance of putting faces to familiar names and the SE Show is no exception as I meet and talk to several people of good standing in our community. All taking time off from writing stuff for our delectation to help out at the show. Gavin Wraith gave me and Martin Hanson of Mathmagical Software a very entertaining explanation of how the Romans built straight roads. He also wants to know if the Egyptians or Greeks used scale models for building purposes. If anyone knows, please tell.

I occasionally spot Doug spending money or watching presentations and am pleased to see at least one other MUG member has made it to the show. Stephen Read, who has travelled down on his motorbike and had to stop at a service station to warm his hands up under a hot air drier in their toilets. Such dedication.

Ah! Just the fellow to practise my karate on!

Over the course of the day in between spending money I spot a young lad busy buying up the charity stall, bit by bit and his final purchase is four large floppy disk containers full of floppy disks for a tenner. I swear that his dads car was groaning under the weight as they left. Nice to see a youngster keen on RISC OS these days.

Also saw something unusual in that our very own Druck was talking very amicably to Aaron of VRPC/ROL fame. I took a quick picture of them (*previous page*) but decided against a money in brown envelopes job as Druck has probably denuded his bank balance paying for flying lessons and Aaron rolls his own pleading poverty.

I and Doug leave the show at the last possible minute and after an uneventful journey home to Brum I settle up with Doug and he drops me off outside Longbridge Station just in time to catch a train into the city centre, well I could have if it hadn't been cancelled.

By the time you read this the Midlands Show will have come and gone and I hope that those of you who managed to get there had an enjoyable time there, me not withstanding. The MUG members and Ralph are toiling away as I type this, to have made your day a good one.

Meanwhile at work we have a new management team, leading to the newish shop floor sayin, “New team, same brewery, still no booze up!” So far the twelve month plan for the better managing of our company has been extended to fifteen months, then two years and now five years.

I am sitting in the den one fine morning when I am surprised to see the head of the IT department sidle in clutching a laptop. “Ah! Come to have your laptop sorted?” I ask innocently. He does not answer but I am soon confirmed in my suspicions as our resident Windross expert appears and they converse in Windows jargonese such as, “Takes for ever to start up!” “Can’t access my files!” “It was alright until my daughter borrowed it.”

Our expert says that he will be able to fix it as he has seen several like this recently. Exit IT man leaving his latest laptop on my bench. After several minutes awaiting for any signs of life on the desktop our expert tells us that the reason that the Windows desktop is even slower (by a factor of ten) than our own PC is that there are several different programs all operating in the background at the same time and he will have to leave it running until some icons appear so that he knows what to switch off.

Two hours later our boy has sorted the problems out and in the process deleted, after first copying them to DVDs, several thousand internet based files. The IT bod comes and collects his laptop saying "I could have done it myself but just haven't got the time." Thus proving that he definitely has senior management potential. He leaves clutching laptop, DVDs and a strong desire to change his passwords.

The reward for our efforts comes within the hour, yet another fruitless attempt to lock down our den computer to minimal use. The record for re-enabling all of the things we want currently stands at thirtyfive minutes and to encourage the IT bod to see reason it is hinted that we had a look at some of the troublesome internet files whilst sorting out the problems with his laptop. We didn't look actually, but who is without guilty secrets?

As I type this the lovely Christine is writing lists of organic necessities for my daughter's pre Christmas visit.

Soon as I have finished this article I am going to write a list of RO software said daughter can buy me for Christmas. I have also arranged, with my next door neighbour, the safe custody of my festive beer.

I leave you with wishes that you have the enjoyable time at Christmas that I intend having.

Ron. (Pork pie-less again.)

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Not Particularly Winning Games with Logic Part 1

Barry Aulton

I admit it; this time when it got near the deadline I forgot to finish it so this was written in something of a hurry. If the flow is somewhat turgid it's mainly coz I've lost the plot. Last time (I have just spotted), I started writing a potted history of robotics, but what of the future and does anyone care?

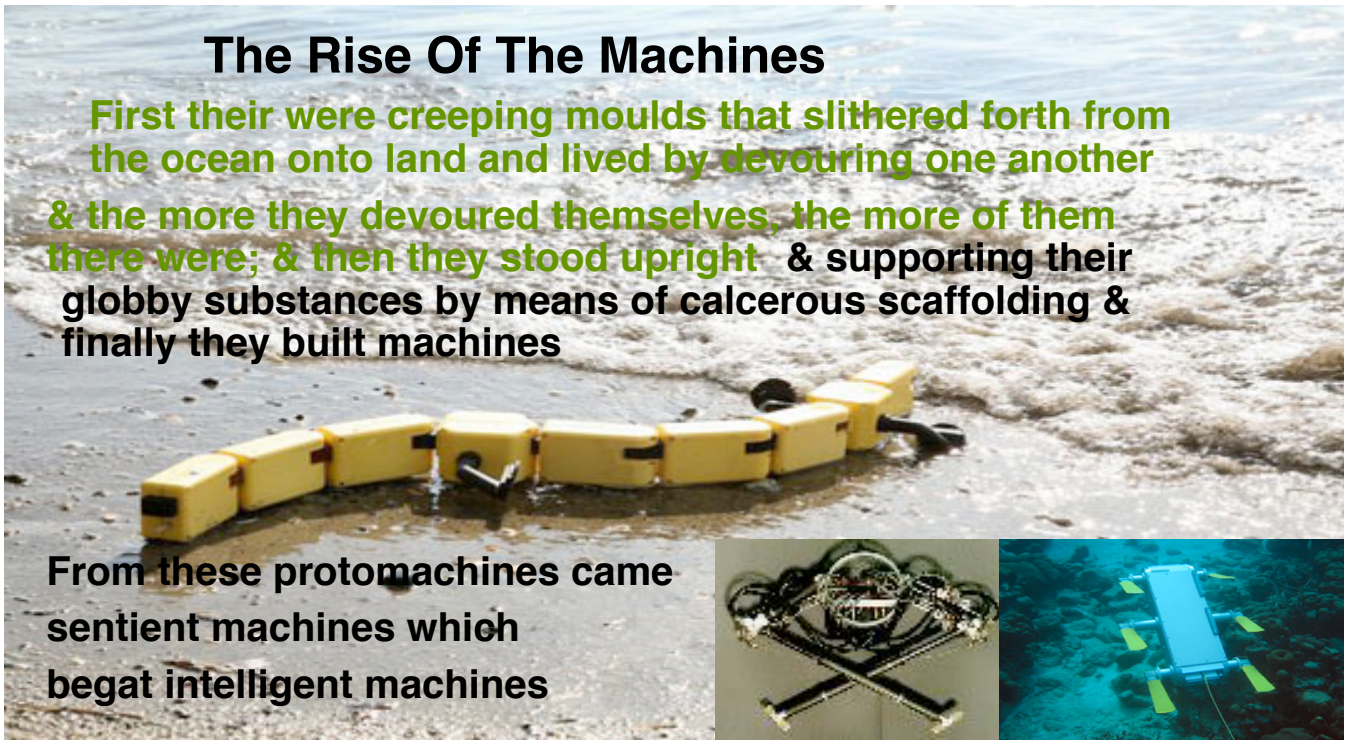
Scenario 1 is man becomes redundant and the machines take over as in fig 1 (some say they already have!).

How does this come about?

On the science fiction side we have Stanislaw Lem and Isaac Asimov courageously predicting the future as in fig 2, but it couldn't actually happen could it? Well yes it could! ; the pieces of the jigsaw are there.

First of all you might ask what are we? over to Steve Mizrach

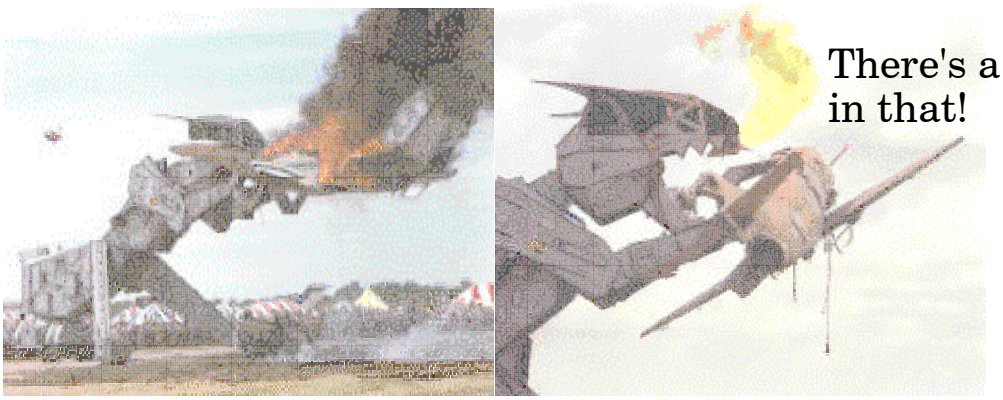
"The physicist, Erwin Schrödinger first suggested that life might be based on quantum-mechanical properties that are non-deterministic and non-mechanistic - based on the same subatomic processes which make possible the transistor and much of existing electronic technology. Descartes thought that animals were basically automata, but men were not because they had souls; LaMettrie went further, suggesting that even humans were machines - driven by the same mechanical processes that governed the simple engines of his day. Today, we are starting to find out that humans might well be machines - but they are not steam engines; instead they are digital-electronic machines, possessed of the same strange emergent



which in turn conceived perfect machines, for it is written that all is machine, from atom to galaxy & the machine is one & eternal & thou shalt have no other things before thee! - Stainslaw Lem - The Cyberiad

FIG 2

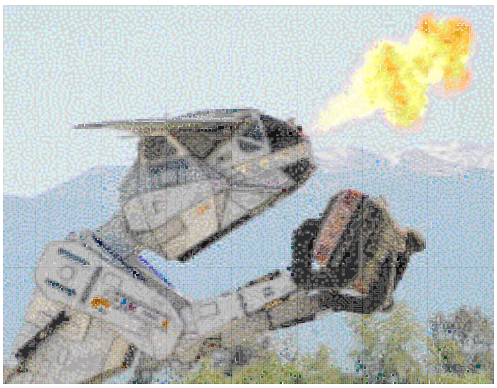
"How old are you?" she wanted to know "thirty two" I said "Then you don't remember a world without robots. To you a robot is a robot, gears & metal, electricity & positrons; mind & iron! but you haven't worked with them so you can't know them They are a cleaner better breed than we are". from I Robot - Isaac Asimov



Man walks into a bar & chats up the barmaid

" What Do you do ? " she finally asks
"I'm a treacle bender he says " ---- " Oh yeah , whats that?"
" I bend treacle " ---- " Ok what do you really do?"
" Well you see, there is this 40ft tall , 5800lb fire breathing robot '
" right" ---- " 10ft of flame comes out of it's nostrils" --- "OH YEAH"
" It can grip, lift, crush, burn & throw real cars & airplanes
arround with ease"

FIG 1 - ROBOSAURUS



properties as Alife... including a capacity for unexpected and unpredictable behaviour and novel strategies for reproducing their kind".

Research into quantum computers has implied that matter itself processes information. This has led some in the pure research world to the controversial claim that the universe itself is governed by the laws of computation and is, in fact, a computer. Meanwhile, research is pushing forward in a branch of machine learning called genetic programming (GP), in which software evolves in a Darwinian fashion. Multiple versions of a program -- often thousands of them generated at random -- set to work on a problem. Most of them do poorly, but evolutionary processes pick two of the best and combine them to produce a better generation of programs. The process continues for hundreds of generations with no human intervention, and the results improve each time.

GP pioneer John Koza, a consulting professor in electrical engineering at Stanford, has used the method to design circuits, controllers, optical systems and antennas that perform as well as or better than those with patented designs. He was awarded a patent for a controller design created entirely by GP. GP is, like biological evolution, a slow process. The controller design took a month on a 1,000-node cluster of Pentium processors. GP was started in the late 1980s, and now > 1 million times more computer power is available. Koza says. "We think sometime [within] 10 years we ought to be able to play in the domain of real engineers."

Techniques like GP, which I will discuss later, are likely to play an increasingly important role in may fields. Sebastian Thrun, a computer science professor at Stanford University writes "In the past, someone would look at a problem, write some code, test it, improve it by hand, test it again and so on. The problem is software is becoming larger and larger and less and less manageable. So there's a trend to make software that can adapt itself. There is of course a snag." This is Pamela Mcorducks (author of Machines Who Think) reply to the question Shouldn't we just say no to intelligent machines? Aren't

the risks too scary?

One of the best things humans have ever done for themselves was to collect, organize, and distribute information in the form of libraries and encyclopaedias. We understand that no human can carry everything worth knowing inside a single head. For example the Semantic Web, which is the next generation Web, will have intelligence built in. It will be as if everybody with access to a computer can have the world's smartest reference librarian at their fingertips, ready to help find exactly what they need, no matter how ill-formed their question is. And it will be able to offer some assurance that the information they get is reliable; the present World Wide Web cannot do that. In other words, intelligent machines seem to be part of a long human impulse to educate ourselves better and better, to make life better for each of us.

Of course machines are not quite ready to take over yet!

For instance the best candidate for passing the Turing test is the Natachata program that conducts smutty conversations via text messages. ... Some users work out it is a machine, [Simon Luttrell] said, and never come back. But, worryingly, some like the fact that it is a machine. Well so much for the future!

You may have spotted that again there is not much about AI techniques themselves let alone computer games! Well bad luck! all that is to come while I have a butchers at the new **Popcorn**

Memoirs of a RISC OS User

Cyril Johnson

In response to the Editor's appeals for contributions, I thought that the readership might find a few reminiscences interesting.

I started my computing career in 1975-76, when I spent a year at the University of East Anglia (UEA). The course included a component on computer programming and although (or perhaps because) I had never before had anything to do with computers, I found it very interesting. All the work was done in FORTRAN and you had to submit your work to the UEA mainframe computer, an ICL machine, on punch cards. This had the advantage that editing was easy; if you found an error you just threw the card away and punched out another. For a sizeable program you ended up with a big deck of cards and the thing that you had to avoid was dropping it. If you did that the order of the cards was lost - we did not use line numbers like in BASIC. Towards the end of my time at UEA the first Visual Display Units (VDUs - what we now call monitors) were appearing, but I never actually used one. I do remember sitting at a punch machine in the middle of the supersummer of 1976 with sweat dripping off my nose on to the cards; parts of UEA faced the sun and acted like giant heat storers.

About 1978 I remember seeing my first "microcomputer" as they were known then. It was a Commodore "PET" - it stood for Personal Electronic something or other. Around 1986 I got my first computer - a second hand BBC-B. It was fitted with a "Shadow Ram" card which effectively increased the text memory to 64K which was very useful. I seem to remember that the previous owner of the machine had been a Professor of Mathematics at the University of Warwick. I also had a separate disc drive for the old 5 inch floppy discs and a dot-matrix printer. It all seemed to go quite well and I was able to teach myself to write programs in BASIC, which was noticeably

similar to FORTRAN. But when you come to think of it, all programming language are very similar - they have loops and decision makers and facilities for vectors and arrays and all the rest.

In 1989 came an A3000 with its 3.5 inch discs and a whole megabyte of RAM; it was like a new world compared to the BBC-B. Eventually I boosted the RAM to 8 megabytes, got some useful software like **Impression**, **Datapower** and **Schema-2** and installed an internal disc drive (a whole 80MB!) which came from a firm called Watford Electronics which was prominent in RISC OS gear at that time. All this overloaded the PSU, which in 1999 failed eventually, and I invested in a SCSI interface (from Castle Technology). This let me replace the internal IDE hard disc with an external SCSI which came second hand from a firm in Plymouth called IFEL. I fixed it up with a power supply that I happened to have, in a fan-cooled box which I built myself. I also ran a SCSI scanner from the interface.

This was all adequate for what I wanted to do, but 8MB was a bit restrictive for scanning, so in 2004 I bought a second hand Risc PC. With this came a lot more memory, a big (by my standards) internal hard disc and a CDROM drive (read only). Fortunately the SCSI interface fitted into the Risc PC, so I could still use all my SCSI peripherals, and I carried on much as before, but with enhanced facilities.

But by now the Iyonix had appeared and in 2006 an offer from CJE Micros persuaded me to buy one. It had a staggering (to me) 250MB of RAM and an 80GB internal hard disc. It was startling to recall that the ICL mainframe machine that I used at UEA thirty years before had only 150KB of RAM or thereabouts! But the SCSI interface would not work with the Iyonix, so I kept the Risc PC as a backup machine and linked it to the Iyonix with Access, the simple system that came with the Iyonix. I abandoned the external hard disc and now use the Risc PC's hard disc as backup storage for the Iyonix. The Risc PC also controls the scanner, the files being transferred to the Iyonix via the Access link for processing .

The latest addition is an Internet connection via Rcomp's Netfetch and Messenger Pro, connecting to the outside world via Rcomp's multiplexer boxes which send the signals over the

house's mains wiring.

Recently I took up programming again after more than twenty years and wrote some (to me) interesting programs in BASIC for one or two specific jobs I wanted to do. The Risc OS machines are well set up for for writing and running programs in BASIC and it proved to be a very enjoyable and stimulating activity, especially the de-bugging; I bet it beats crossword puzzles for keeping the brain active. That is just about the end of the story. Has anyone else got a loft stuffed with old computer equipment?

NEW EUREKA EDITOR REQUIRED

A knowledge of desktop publishing would be useful and the ability to source articles from the ever shrinking RISC OS world an asset.

Please apply to The ARM Club Chairman David Ruck.

Photodesk Scaling Tip

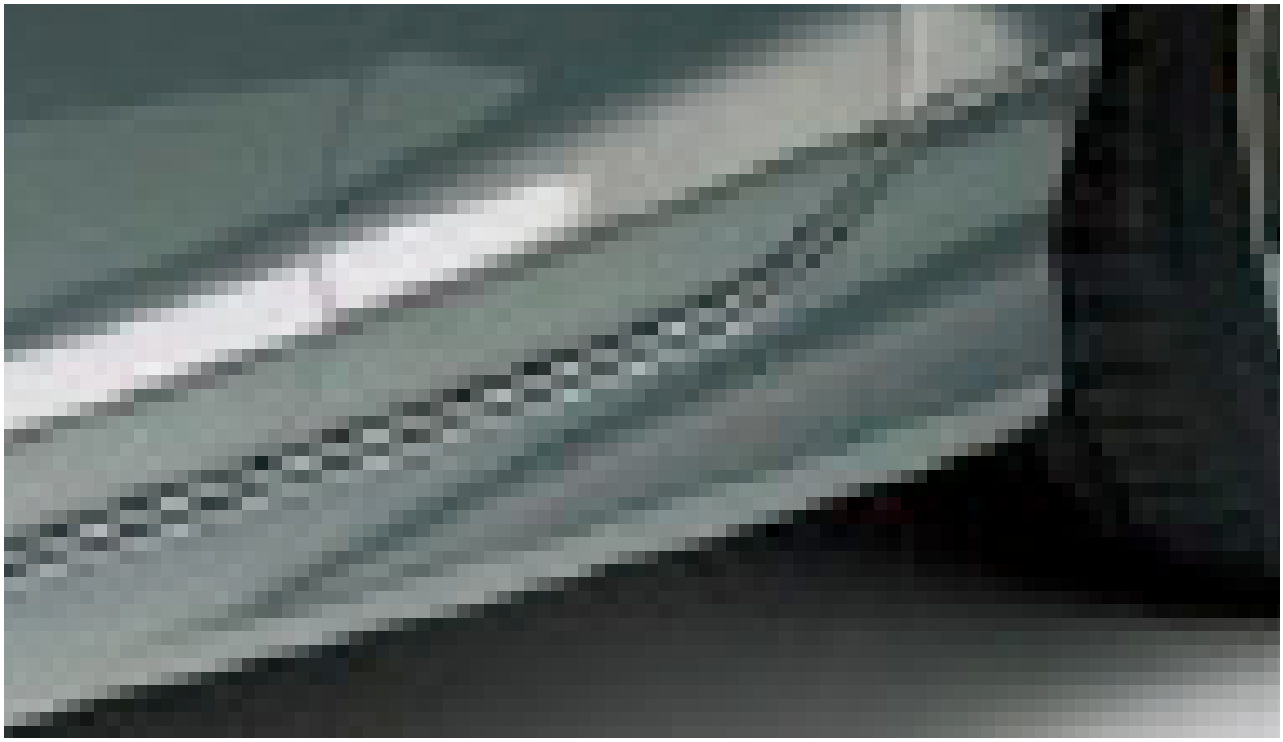
David J. Ruck

When I'm not wearing all my ARM Club committee hats these days, I'm serving on the RX-8 owners club committee, spending my time answering

The original 1280 pixel wide image

technical questions and administering the web forum. People like posting pictures of their cars, especially when they've had shiny new bits added, and web forums are clunky enough at the best of times, and if allowed people would fill up pages with massive images that would cause it to take forever to download. Therefore we restrict attached images to 100K which corresponds to 800x600 at around 75% JPEG compression, so is a sensible size both in terms of downloading data, and for fitting on various sized laptop and desktop screens when page layout and browser furniture is taken in to account.

However some people still manage to post up larger images within the 100K limit, and very wide images cause a

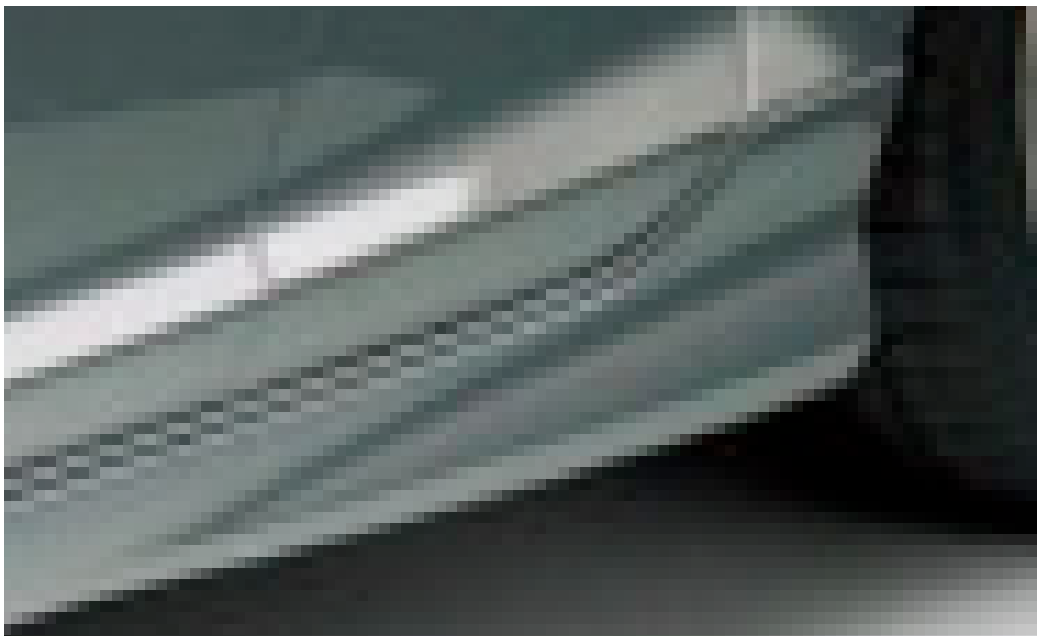


A bi-cubic scaling of 800/1280 showing jagged edges

problem as the text in all the posts on the page are reformatted to the same width. If you don't have the luxuary of very big monitor, this means a horizontal scrollbar is added to the page, and you have to scroll forwards and backwards across every line to read it, which is very annoying. Therefore I often have to moderate the posts, downloading the picture, rescalling it to 800 pixels wide, and then uploading it again.

Using a combination of the NetSurf browser and the excellent Photodesk, I can have this done far quicker than it takes to explain to PC users what package to use. how to scale and what a JPEG quality setting is! Photodesk's rescaling, often called resampling on PC packages, gives very good results, I can add sharpen with a mild unsharp mask (1 pixel wide, 50% strength) if necessary, and use the JPEG setting in the Save box to ensure the file size remains in limits.

Therefore I was surprised the other day when I recalled a picture of a grey RX-8 and to my horror the nice smooth shutlines along the bonnet and sills had became horribly jagged. I checked to make sure that Photodesk was still set to use bi-cubic scaling rather than nearest neighbour, as that can result in jagged edges. But in was on, and the problem in this case was the uneven scaling 1280:800 factor on a greyscale image with sharp 30 degree lines.



Scalings of 1.25 and 1/2 giving much smoother results

Even photodesk couldn't turn 1.6 source pixels in to one output pixel evenly.

It would work a lot better if Photodesk should scale down by a factor such that a whole number of source pixels is used to make one destination pixel, without any nasty fractional pixel calculations which cause the jaggies. i.e. 1/something. But the nearest factor was 1/2, and that would make the image only 640 pixels wide losing a lot of visual impact on the page. So I thought what if you scaled it up first, and then back down. When scaling up Photodesk can use interpolation to stretch the source pixels, resulting in a smooth but rather fuzzier scaled up image. Then when scaling down you can take a whole number of smooth fuzzy pixels and turn them in to a smaller and still smooth image.

A scaling of 800/1280 comes out at a nice 5/8, so the obvious thing to try is to scale up by 5x and scale down by 8x. I tried this and it took several minutes even on an Iyonix to scale up to a massive 6400x4080 then back down again. But the results were very good, I decided to see if a compromise of scaling up by 2.5 and down by 1/4 was any good, and in a fraction of the time I found the results almost identical. I then uploaded the new image back up to the forum. Just out of interest I decided to see what scaling up by just 1.25x and down by 1/2 and would look like, and surprisingly this was also nice and smooth, almost indistinguishable from the other attempts.

Therefore if you have to do any scaling of high contrast images with angular lines, its worth scaling up first by the smallest factor that will allow you to scale back down by a whole number, to avoid those jagged edges.

CLUB RENEWALS

Due to restraints on time of committee members who give their time voluntarily club renewal processing is now taking up to 8 weeks. If you would like this to become quicker please step forward and apply to become the membership secretary. All renewals should go to Chris Price at the club address of The ARM Club, Merton Court, 38 Knoll Road, Sidcup, Kent DA14 4QU

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