

FREE

The magazine for members of

The **ARM** *Club*

The SE Show

Ron's Column

Arm Arena



Issue 55 - 2005 No. 4

One RISC OS

At the moment due to events that have happened in the recent past our beloved operating system has split into two versions - RISC OS Ltd's Select (RISC OS 4.34) now running on 26/32 bit machines and Castle's RISC OS 5.1. Select can now run on both the Risc PC and Advantage 6's new A9. It also is included in the Virtual Acorn products. RISC OS 5 runs on Castle's Iyonix computers.

This situation is highly undesirable. A small market like ours can't afford to be fragmented. You may say there are many flavours of Linux or Windows, but these are far greater markets.

It was therefore heartening to see a version of Select running on an Iyonix at the SE Show in October. Only some aspects of Select had been implemented but it is a step in the right direction and shows us that at least relations between

RISC OS LTD and Castle are now much improved.

However although this limited set of features worked straight out of the box with very little tweaking, many more features of Select need a lot of reprogramming for them to work on RISC OS 5. This cannot be done without some sort financial guarantees for RISC OS Ltd. They said that to start work on more Select features to work with RISC OS 5 they need at least 100 Iyonix owners to register an interest in having Select run on an Iyonix. At the moment there are only 80. So come on all you Iyonix owners, get in touch with RISC OS Ltd.

What of course would also be nice would be a bit of financial support from Castle. Cooperation is needed in RISC OS Land not fragmentation!

All opinions expressed in Eureka are those of the authors and not necessarily those of the Club or its committee members and officers.

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You can see mine if I can see yours!

RISC Bytes

GEMINUS (screen acceleration)

The hot news on the stand this year is a new version of Geminus which adds many acceleration and desktop speed enhancements to RISC OS 5.

Geminus now accelerates various aspects of the RISC OS 5 desktop.

Sprite plotting This has been accelerated in two areas: 1) speeded-up the OS sprite plotting routines and 2) caching sprites on spare memory on the NVidia graphics card. The first time a sprite gets plotted by the OS, it takes less time to plot. Subsequent plots are even faster as they are plotted directly from a cache on the PCI card memory and the data doesn't have to travel over the relatively slow PCI bus. This achieves large speed increases in plotting all desktop sprites (e.g. filer windows, window furniture, toolsprites, pinboard backdrop sprites)

Line drawing. Hardware Acceleration of horizontal and vertical line drawing speeds up all lines plotted by the OS (including the DRAW and PLOT commands from BASIC, and drawfile rendering; although drawfiles plot so fast on the IYONIX its hard to discern the difference!)

Rectangle inversions. These are now hardware accelerated, which initial timing suggest are many hundreds of times quicker than their software equivalents. One common use of rectangle inversions is when you select rows or columns of pixes when editing a sprite in Paint and the area selected is inverted.

Caching of screen redraws. This is probably the biggest area of improvement. Areas of the screen which have been invalidated by moving other window furniture over them are now cached on spare memory on the NVidia card, and then re-plotted using fast algorithms directly from the cards memory which is much faster than asking the

application to re-draw its screen contents over the PCI bus. This is most noticeable on applications such as Artworks where screen redraws of complex drawings can take many seconds.

Many of the above Geminus features are hoped to be released shortly after the SE Show as an additional “feature” to the Geminus suite. Users may purchase just the feature they require, and may mix and match several features depending on their needs. Existing Geminus features are: Screen rotation and Multi-screen support.

Bazound

‘Bazound’ is a small configuration and diagnostic utility for the RISC OS sound system. As well as the current value of configurable parameters (such as the sample rate) it shows the names and addresses of entities registered with the SoundDMA module (such as the current 16 bit linear handler). It may be useful to programmers writing sound software, and in situations where programs have left the sound system in an indeterminate state.

Recent improvements: - Added a window that displays the current sound system status in real time. - Separated the old ‘Sound configuration’ dialogue box into three; one for each of the standard components of the sound system. - Dialogue boxes now open centred on the desktop (whereas informational windows open at

last screen position). - You can now view or set the stereo positions for the 8 bit sound channels. - You can now view or set the scheduler’s beat counter and bar length. - Improved documentation explaining the role of the various components of the RISC OS sound system.

‘Bazound’ was written using Joe Taylor’s ‘AppBasic’, which simplifies the task of creating applications using only BASIC and the Toolbox. Full source code is included in one of the archives, which may be of interest to anyone considering ‘AppBasic’ for their own use.

The latest version of ‘Bazound’ is 0.21 (21 Oct 2005). It can be downloaded at

<http://starfighter.acornarcade.com/mysite/utilities.htm#bazound>

A9Home continued

Advantage Six are pleased to announce that, due to positive feedback about the current state of the A9home from developers with beta machines, they are extending the beta programme to also include experienced users.

Qualifying users will take part in the phased release in advance of the A9Home being made generally available.

As is the case for existing beta programme members, you will not lose out over retail customers by choosing to get a machine early. Advantage Six will upgrade your machine to retail standard when that becomes available. For more details, and to sign up, see **<URL:<http://www.advantage6.com/a9beta/experienced.html>>**

Matt Edgar of Advantage Six commented, "We want the A9Home to be ready when it is made generally available, but we empathize with the feelings of impatience that we are hearing from the wider user base."

Chris Evans, eponymous proprietor of CJEMicro's, the A9home retail partner, had this to say, "We are pleased to see that Advantage Six are taking the next step towards ensuring that the A9 comes to market ready for all end users. Anyone who doesn't feel that they qualify can still contact CJE with their details and we will keep them updated regarding the retail release of the A9Home."

About the A9Home:

The A9Home is one of the exciting A9 range of machines, running RISC OS Adjust-32.

Advantage Six are targeting A9 computers, through their partners, at niche markets. CJEMicro's will be retailing the A9Home to home users when it is complete.

Further details of the A9Home may be found at **URL:<http://www.advantage6.com/products/A9home.html>**

For up to the minute RISC OS news visit

DROBE

www.drobe.co.uk

Impact 3.27 released

Further enhancements and bug-fixes to the popular relational database package.

Highlights of version 3.27 are:

- * Compatible with Virtual RPC
- * New edition of the manual in PDF and HTML formats
- * StrongHelp manual for action script commands and functions
- * Improved card editing with default tools on toolbar for new cards
- * Preview option for label output
- * Enhancements to many action scripts and functions
- * Redesigned backup tool dialogue
- * Improvements to merge commands
- * Syntax checking of calculation fields and filters during editing
- * Many other improvements and bug-fixes.

Impact 3.27 is accompanied by a new version of LabPrint, the versatile label printing tool, with the following enhancements:

- * Long text can be shrunk to fit on the label if necessary
- * Font sizes no longer have to be whole numbers
- * Label graphics may be exported and edited in Draw
- * When designing labels, the sample text may be altered
- * Various bug fixes.

Impact is now supplied on CD (floppy disc version to special order 10 GBP surcharge).

ID3TagEd

ID3TagEd has now been fully released after being at the beta test stage for some months.

ID3TagEd is an application to allow the creation and/or editing of the ID3 tags attached to audio mp3 files. The ID3 tags contain a wide range of information about the audio file (e.g. Artist, title, album, year, content, and much more). Both version 1 and version 2 ID3 tags can be viewed and edited. Full HTML help is included in the application.

ID3TagEd is 26/32 bit neutral and has been tested on RiscPC (RISC OS 4.37), and Iyonix (RISC OS 5.10). It requires the presence of the 32-bit SharedCLibrary.

ID3TagEd can be downloaded from

<http://www.chris-johnson.org/software/index.html>

Rename

Version 3.15 of !Rename is now available for download from

URL:<http://tigger.orpheusweb.co.uk/programs/progs.html>

>

!Rename is a smart file bulk file renamer using !Edit-like wildcard features to control file renaming.

This version includes support for a default rename pattern.

New USB HID drivers for IYONIX

As a result of the ongoing development of our USB HID driver, and in close co-operation with Castle, a new version of !HID (0.36) and the related support modules is now available from:

<URL:<http://www.xat.nl/en/riscos/sw/usb/hid/>>

This release fixes an important bug that that will surface as soon as you start using RISC OS 5.10. The bug prevents the machine from shutting down properly. It is important that you install this release before updating to RISC OS 5.10.

This release is recommended to all !HID users.

!HID is an application, containing several low-level modules, with advanced support for USB devices in the HID class (Human Interface Devices), such as multimedia keyboards, internet keyboards, wheel mice, joysticks, etc. !HID is released as Shareware and registration contributes to the development of RISC OS software. More information and download from:

<URL:<http://www.xat.nl/en/riscos/sw/usb/hid/>>

!Crypt

A new application !Crypt is now available for download from my website at

<http://www.queen.clara.net/pgp/acorn.html>

!Crypt is a simple utility to make it easy to carry out all the essential operations with GnuPG without the need to remember any commands. These operations include encryption, signing, decryption and checking signatures.

Comments or suggestions from users will be welcome.

Sudoku

Mijas Sudoku has been upgraded to make it easier to run on RISC OS Adjust/Select with the new 32bit CLIB.

Solve even the hardest Sudoku Classic puzzles in a few seconds!

Free Download from
<http://mijas.orpheusweb.co.uk>

If anyone is interested in a Sudoku puzzle generator please contact Mijas Software for details. This Sudoku Pro software will also check for possible multiple solutions.

COCOGNUT

peer-to-peer filesharing for RISC OS

Available to all, for free!

CocoGnut is better than ever and is now available to all for free! Lots of hard work has gone into the production of this version and donations are most welcome. All donations will go towards other RISC OS products or to charities, particularly pro-p2p ones. Priority technical support, along with some good karma, will be provided to those who donate.

CocoGnut is a program which enables you to find and download files such as audio, video, documents and programs which are shared by other users on the Gnutella network. CocoGnut is one of many clients designed to run on the Gnutella network, and there are clients available for most popular operating systems. CocoGnut is the only modern peer-to-peer filesharing client available for RISC OS. The Gnutella network is based on the peer-to-peer organisation. In a nutshell, this means that there are

no central machines on the network and anyone who joins the network becomes part of it. No-one owns the Gnutella network, which means that it cannot be shut down by hackers or other organisations, unlike networks such as the original Audiogalaxy system, where clients such as the Satellite client for RISC OS are no longer usable.

Version 1.21 is now available. This features a couple of bug fixes from 1.20. Version 1.20 was the previous major upgrade, bringing new features such as Ultrapeer support, firewall detection and hashing.

CocoGnut can be downloaded from and donations can be given at:
<URL:<http://www.alpha-programming.co.uk/software/cocognut/>>

Please remember that it is because of previous purchases that CocoGnut has been continually developed. Further donations will benefit both the RISC OS industry and a number of charities.

Colour for TAU

!Tau (the only package on almost any platform which gives you publication - or presentation - standard graphs first pass) now includes full 24-bit colour on all drawing options. The application, either solo or with html, Tech/Easiwriter and pdf manuals, is available from
URL:<http://www.noc.soton.ac.uk/JRD/PROC/people/pki/soft.html>

UniPrint 2

The new version enhances almost all aspects of printing (of course) and also expands UniPrint's ability to link together your two computer platforms.

The UniPrint software allows RISC OS users with a network or VirtualAcorn to print to virtually any printer, in full photo (or plain!) quality, and utilise features of their printer such as duplex (double sided) printing etc. UniPrint 2 also adds new functionality making it easy to open files and documents allowing RISC OS and Windows to interact more extensively.

Highlights of UniPrint 2

- * Text mode printing. This major new addition allows ASCII text based RISC OS applications to print to any printer (previously UniPrint only worked with graphical applications). Examples of programs which use text printing include Edit, Zap, StrongEd, Messenger Pro, Pipedream, Prophet and various others. This is a major addition to the software, and completes the picture in terms of RISC OS printing.

- * File launching. Imagine if you have a file on your RISC OS machine that you can't open, eg. a Powerpoint document, or a complex word or excel file. With UniPrint version 2, you can just double click that file, and have it open via the appropriate program on your Windows machine. This is especially useful if you receive email on your RISC OS computer, as it means that a double-click is all it takes to open Windows related files sent by friends/colleagues.

- * Web URL launching. This was previously a feature of UP Deluxe. With this feature you can click on a web link on your RISC OS computer (eg. in your email program, or elsewhere) and UniPrint will open it in your Windows web browser (eg. Internet Explorer or Firefox). This is very useful if a site doesn't work in RISC OS browsers, or if you need to test your own site(s).

- * Multiple copy and duplex printing. The way UniPrint handles the printing of multiple copies of documents has been completely redesigned, resulting in much faster, and more efficient printing. The size (in terms of megabytes) of print jobs for multiple copies has been massively reduced, and the end results are far better. Similarly for duplex printing (printing on both sides of the paper), UniPrint should now behave more intelligently and efficiently.

- * Lower system resources. The Windows end of UniPrint has been made more efficient, speeding things up, and also reducing memory overheads. This should be noticeable when doing complex prints such as photographs.

- * Faster, better printing. UniPrint 2 should print your documents more

smoothly than ever before. The RISC OS end now also incorporates a notification system, so that you will know what's going on.

- * Automatic detection of Virtual Acorn. It is no longer necessary to tell UniPrint that you have installed Virtual RiscPC (or VA5000!) – the software will automatically detect it, (and VRPC Adjust) and enable printing.

- * Job queuing. If you print several jobs, either from the same machine, or from different machines (eg. school or office) UniPrint now queues up the various jobs, ensuring that print jobs don't conflict with each other, or print out of sequence.

- * Enhanced network printing. If you have a Windows–shared printer, you will find UniPrint now works better with it.

- * RiscPC, Iyonic, VirtualAcorn compatible. All versions are now happy running on all the different platforms. To reduce confusion, UniPrint 2 is now offered in just 2 versions – a VirtualAcorn version (designed for use on computers where Windows and RISC OS are on the same machine) and the Deluxe version (does everything).

- * Full support for both !Printers and !Printers+

Contact **<http://www.rcomp.co.uk/>**

!Searchy replaces !Google

!Searchy is a small program that will place a small window above your iconbar to let you search the World Wide Web using the search engine of your choice.

Improvements over the last version of !Google include:

- Ability to configure your own search engine instead of being confined to one
- Completely rewritten preferences windows
- Neater look and feel
- Significantly less bugs than !Google

!Searchy version 1.00 is available to download from: **<http://www.andrewpoole.org.uk/searchy/>** along with a copy of the !Help file, screenshots of the application in action and version history containing a complete list of changes to this version over !Google.

Also available is a small utility called !Goog2Srch, which will take your !Google configuration and use it to pre-configure !Searchy with the same settings (iconbar icon setting, window size and google.com or co.uk).

Variations 0.41

This is a patch archive - you'll need Variations 0.40 (available on the same website) to apply it.

Main enhancements to the free imageprocessing/thumbnailing/ image collection management program since version 0.40 are:

- * **Sorting.** Thumbnails may now be sorted by name, size, date or category and within categories by name, date or size.

- * **Searching.** Variations can search your hard disc for jpegs containing user specified caption text. For example:

"Location...contains...London [and] Categories...contains...Statues' Results are returned as a collection of thumbnails which you can then save/view/slideshow etc.

- * **ITPC** dialogue enhancements. Pop-up menus and default text files for the various sections in this dialogue to make entering information faster and easier.

- * **ITPC** data for all object types. You can caption, categorise and add keywords to files, directories and even applications (with a couple of limitations).

Enhanced slideshow (new display effects, can display caption or location information for each picture).

!Thumpinfo file import.

Minor enhancements/requests.

Bugfixes.

Compo 1.23c

A patch archive for the commercial image composition/editing package. For users who bought the program from Clares or (more recently) from APDL.

The only changes since 1.23b are several /very/ minor bugfixes, a large area image blur effect, an option to add 'bleed' to a canvas and several more image rendering modes.

!ViewXLS

Version 0.10 of !ViewXLS is available from the website at:

URL:<http://home.allgaeu.org/areiser/riscos/software/viewxls/>

New in this latest version:

- *Search strings* - Shows formulas - Shows notes

!ViewXLS is a viewer for native MS-Excel-Files with RISC-OS. It should work with all file formats from Excel 3.0 to Excel XP. !ViewXLS don't calculate any formulas, it shows only the saved results of cell-contents, no objects (graphs etc.), no outlines, no macros, no pivot-tables.

Select Pricing?

RISCOS Ltd have announced that they have a goal to get every existing Risc PC, A7000, RiscStation, Mico and Omega user to upgrade to either the RISC OS 4.39 “Adjust” ROM or to the Adjust 3i4 softload version.

Recent discussion from several software developers has centred on the fact that they haven’t bothered to support the abundance of new features available in Select / Adjust because it is not universally available.

Managing Director Paul Middleton stated that, “Our philosophy has always been that new features have been introduced via Select for the benefit of all end- users and developers. I would suggest that application developers could easily assume that new features are available on a computer that may be running Select / Adjust, and gracefully inform the user of the lack of the required functionality rather than not using the features in the first place. That way everyone would be encouraged to get the latest version of the OS instead of still running RISC OS 3.X on their Risc PC, because they still rely on an 11 year old PD application. If everyone continues to work to the lowest common denominator then the market will totally stagnate.”

Paul went on to say that, “To help achieve this we are going to be making unmissable offers to users who have either not upgraded to RISC OS Adjust ROM or to the Select 3i4 softload version.

To avoid the confusion that occurred in the past with discounts on items such as the Foundation RISC User DVD we are not going to be publishing a scale of charges for the special offer Adjust ROMs or Select 3i4 softload but between now and December 31st users wanting to upgrade can email or phone the RISCOS Ltd sales office to get a personalised special offer. The price will depend on a number of factors such as the number of upgrades purchased, membership of the Foundation scheme, membership of the Select scheme, how many RISC OS computers you have, how long you have been a RISC OS user and most importantly how nicely you ask! So give us a call, you won’t regret it.”

Users have the choice of upgrading to either the Adjust ROM or the

Select3i4 Softload dependent on whether they have a need to still use RISC OS 4.02. Though the aim of the initiative is to get everyone to use the 4.39 ROM so we hope that most people will opt for that option.

N.B There will be a very special one day offer at the forthcoming Guildford Show to reward those who support the show.

Orders may be placed by email, phone or letter with payment by Cheque or Credit Card.

If sending an order by post then make sure to include a daytime telephone number and details of your RISC OS history and machines used so that we can contact you.

For further details contact:-

— Paul Middleton Managing Director RISCOS Ltd

FILE NUKE

Version 1.01 of the file nuking utility has been released, fixing a couple of trivial bugs and adding the ability to have three levels of security; casual, good and military grade - two lesser levels to gain a bit of speed for those who don't require maximum security.

FileNuke is a secure file deletion utility which will overwrite files with up to 35 random bit patterns, to provide a military level deletion so that the data contained within the file cannot be recovered, even by forensic scientists.

It's available to download from
URL:<http://www.vigay.com/software/>

IscaFS

Release 0.17 of IscaFS can now be downloaded at
URL:http://home.pages.de/~mac_bacon/smorbrod/IscaFS/

IscaFS is a read-only image filing system for accessing ext2/ext3 image files and hard disc partitions.

New in version 0.17:

- * Fixed a bug concerning top-bit-set addresses, mainly surfacing on RISC OS 5. This resulted in empty filer windows. Thanks to Chris Terran for finding the cause of this bug.
- * Adjusted module version number used in the !Run file (had been wrong the last few releases).
- * Fixed a bug concerning comma-separated file type information.

Thumbcat V5.3

This version has the following changes since 5.1

- * The status window is now fully optional.

- * The iconbar icon now shows any Thumbcat multi-tasking activity

- * The windows now correctly display even if larger than the screen mode.

- * The windows redraw after a screen mode change to ensure they are still visible

- * Image size totals now correct after a delete.

- * Image size totals auto fixed if less than zero (self repair of outstanding previous problems)

- * Warning for an EXIF file when dragged to an external application now only displays for a linked export (alt-drag).

- * Rename of a linked riscos directory now possible from thumbcat

- * Display a photo (ongoing, I need more CD's)

- * Album rename in tree view reflected in the open album title.

- * Menu procedure changed so all known submenu irritants have been fixed.

- * Directories viewed in immediate mode can now be

exported as HTML.

- * Large thumbnails are now always created on the fly when needed this significantly speeds up album creation and immediate viewing.

- * Detail view now correctly centred horizontally

- * Printing now accommodates multiple copies of a page.

- * Printing now accommodates multiple copies of one image on the same page.

- * Adjusting the user size in the print window changes the available images per page selections. *

- Tag data can now be exported to a text file.

- * First time users don't get a read-only message for the missing options file

- * Old versions of spriteextend sometimes assess images > 10k pixels wide These no longer cause an error and instead use ChangeFSI

- * Sprites22 copied to !sprites due to some issues (!!?)

- * Read-only Thumbcat files (which shouldn't be) are now handled without crashing

- * Removed the "test" gadget from the create album window.

* Intro page of the manual fixed (missing image reference)

Thumbcat is an image catalogue application. It will handle a variety of formats without additional applications. "Native" formats currently handled are : Sprites, Drawfiles, JPEG's, EXIF's and Digital Camera AVI's (if they have an embedded thumbnail). In addition it recognises ImageFS and ChangeFSI (if running/booted) and all formats handled by those applications.

It will handle files and directories dragged to the iconbar for immediate views. These can be printed or converted to other filetypes i.e. batch processing.

It also includes an editable image details database based on the EXIF tag standard.

Catalogues can be pre-built from a directory(ies) full of images or appended to, by dragging from a filer window. Images can also be dragged from a Digiflash window :-)) and image related applications.

It will create an HTML version of a catalogue.

Read-Only sources can be catalogued.

URL:<http://web.ukonline.co.uk/mripley>

The Webalizer

A RISC OS port of The Webalizer, a web server log analysis tool, is now available for download from my website.

URL:<http://www.flypig.co.uk/ports.htm>

According to Bradford L. Barrett, the original author of the program:

"The Webalizer is a fast, free web server log file analysis program. It produces highly detailed, easily configurable usage reports in HTML format, for viewing with a standard web browser."

The program is licensed under the GPL. For more information, take a look at the program's website.

URL:<http://www.mrunix.net/webalizer/>

Compose

Compose, a new "Visual Programming Environment", is now available for download from

<URL:<http://www.flypig.co.uk/compose.htm>**>**

In fact, Compose is more of a visual scripting language that allows utilities or components to be strung together graphically using pipes on a 2-dimensional canvas. Although hopefully it should work, it's at a relatively early stage of development and is made available for fun more than anything else.

RiscCAD Professional Release 10

This was launched at the Southeast Show 2005.

Release 10 offers substantial new features, with all five of the top five user requests implemented.

Outline fonts Release 10 drawings can utilise up to 255 different outline fonts in any drawing. Fonts can be chosen from the standard RISC OS font menu, with an example shown in the dialogue. Fonts currently used on a drawing can be quickly re-selected from the dialogue box. Dimensions may also be placed in any of the outline fonts.

Bezier curves Release 10 allows Bezier curves of up to 60 sections to be placed. Curves may be edited, and control points and nodes added and removed. Curves are treated as ordinary objects, and may be stretched, copied, rotated, filled etc. Revision clouds may also be placed around areas of the drawing to highlight changes.

Draw file export. Full draw file export including line weights, styles, outline fonts, curves etc. The draw file is suitable for insertion directly into DTP with no further editing required. additional options allow all objects to be output as black, and only the current view to be output.

Improved DXF transfer Release 10 includes an improved version of RiscDXF. New features include the correct scaling, rotation and insertion point of nested blocks, importing of more DXF objects, including POLYLINE and LWPOLYLINE objects. Paper space and model space are correctly aligned, removing a common problem whereby the drawing border is extremely small and the drawing model is extremely large, and neither align correctly. RiscDXF is also able to transpose Windows and AutoCAD fonts for RISC OS fonts. For example, all references to the STandard text style can be replaced with Homerton.Medium. This transposition works both ways, meaning that files saved from RiscCAD will have Homerton.Medium replaced by STandard in the DXF file.

Correct colour rendering All objects are now drawn/edited in their correct colour regardless of screen mode.

In addition, Release 10 features enhanced pattern filling with the ability to automatically detect the fill boundary and internal islands, and fill the resulting shape accordingly. The user has wide control over the pattern filling options.

Other additions include:- Cached dimensions to improve redraw speed. Select toolbox. Area enquiry tool. Ability to select previous values in writeable icons. Moveable print origin. Able to select multiple snaps. Faster object grouping and screen redraw.

RIScript 5.0

RiScript is the PostScript and PDF imaging package for the RISC OS platform. With RiScript you can view PostScript and PDF documents with great ease and accuracy. You can print your PostScript files on any type of printer, turning your printer effectively into a PostScript printer. You can export to the RISC OS Draw format or to PDF, the industry de facto standard for document exchange. Using RiScript is as simple as dropping a PDF or PostScript file into the RiScript window.

What's new in this version?

The major changes with respect to version 4 are:

- * Clipping support - RiScript supports the clipping of paths, texts and images. This is on screen, but also in exported Draw and PDF.
- * 32-bit compatibility - RiScript has been adapted such that it can now natively run on the Iyonix. This will mean a considerable speed-up compared to version 4!
- * Anti-aliasing of paths - The quality of display is improved considerably due to the addition of anti-aliasing. Now even ultra-thin lines are visible!
- * Extensive configuration - The configuration of RiScript has completely been restructured. The new structure makes the configuration of RiScript much more logical!
- * New user manual - The user manual has been rewritten completely. It is targeted towards functions the user want to perform, hence helping the user in doing his work!

Where can you buy it?

RiScript 5.0 can only be bought though the internet. Please visit

URL:<http://www.riscript.nl>> and follow the instructions.

What will be next?

High on the list of priorities are Taborca functionally (direct PDF printing from applications), speeding up PDF interpretation, showing printer margins on screen, and the possibility to add annotations to PDF files.

For more information **URL:**<http://www.riscript.nl>

ROTunes

RO Tunes is an iTunes look-alike MP3 player/management system for RISC OS. Changes since v0.06:-

- a) Added 'Web site' button to info window.
 - b) Moved sprite memory initialisation routine from skin manager to main init routine.
 - c) Bug fix: When caller ID detects you hanging the phone up, !ROTunes switches back to the previous volume level and not volume level 1 - so it doesn't suddenly go loud if you've already lowered the volume.
 - d) Bug fix: Adjust click on the speaker icon in the mini controller window acts consistently with the action in the large controller window.
 - e) Moved Messages and Templates files into a resources directory.
 - f) Added saving of shuffled order of data, so that the next time you load ROTunes it keeps the previous order of the shuffled data. Also speeds up loading as it no longer has to shuffle the data each time you load it.
 - g) Extended main database from 10,000 tracks to 20,000
 - h) Added preliminary support for RComp's !MyMusic folder.
 - i) Added some extra 'Utility' functions, mainly for de-bugging purposes, but decided to leave them in.
 - j) Added visual indication of volume %age level.
 - k) Added 'auto save' option.
 - l) Added filtering to convert odd characters in display names (ie. display / as .)
 - m) Added facility to change the 'library' window colour in the skin manager (to go with iTunes5 skin) :-)
 - n) Amended colour conversion routine to not use the EVAL function.
- Available to download from **<http://www.vigay.co>**

MUSIC MAN

The release of version 1.50 of its MusicMan CD audio/MP3 software. Version 1.50 now allows users to save modified track-listings back to harddisc (usually they would be downloaded from the internet) which can be useful when using home-made audio CDs. The new version also features a "mini" mode, which reduces the size of the main window, whilst still allowing access to all the key features. Additional CD playback features have been added, alongside all the usual MP3 creation facilities.**<http://www.rcomp.co.uk/>**

New Dr Wimp Available

A new release of the Dr Wimp package is now available. There are several new wimp-functions, but possibly the two most interesting new features added are 'Font blending' and a new 'Elixir' for saving window positions.

'Font blending' has been added as an option to the four main text plotting functions.

The new 'Elixir_06' makes it easy to save window position/size/scrolls into a file and to retrieve and use these settings from the file subsequently. The Elixir is specifically designed for those cases where you want to give the user of your application the facility to save a current window position, visible size and scrolls so that the window can be re-opened in this saved state on next start-up. It can also be used for tailoring window sizes to user screen mode on start-up and/or mode change.

Apart from the above, there are new wimp-functions to: – allow system variables to be set/unset. – format integer numbers in decimal/hex/binary. – provide the current day/date/time. – set/get a file-type. – create a directory. – rename a Filer object. – 'double-click' on a Filer object. – replace and extend the current functions for deleting/copying Filer objects.

Also, a bug which only appears on the very latest ROs/machines when using windows as menus/sub-menus has (hopefully) been fixed.

Finally, the utilities !CodeTemps (now at Version 1.41), !Linker (now at Version 2.51) and !Fabricate (now at Version 2.61) have all been upgraded to Dr Wimp Version 4.30.

Dr Wimp is a very popular freeware package enabling anyone with some familiarity with Basic to write wimp-programs very easily – without worrying about SWI calls, parameter blocks etc. All the clever stuff is done for you behind the scenes.

Dr Wimp is also 'non-limiting' in the sense that if you do have a need for something that Dr Wimp doesn't already cover then you can usually simply add your own code (and hopefully send it to me so that I can enhance Dr Wimp for others!)

Apart from the core programming items, the Dr Wimp package comes with a 200+ page on-screen Manual, several utilities and many well-commented example applications.

My web-site also contains links to many third party applications authored using Dr Wimp.

<http://www.rayfavre.me.uk/>

!Webgen2

Version 2.19 of !Webgen2 has finally gone up onto the website.

Due to the change of website - from argo to orpheus - the web button on the info window of 2.18 or earlier will no longer work.

Updates from the last publically announced version (2.16):

2.17 Fix to the 'Copy original image unchanged'

Added 'Help' option to the main menu

2.18 Move all the png files, and the optional css file into a subdirectory 'resources'. Requested by Tony Still.

2.19 Fix silly bug affecting non table based layouts. Remove 'border = "0"' from the thumbnail images for thumbnail only sites. Change scaling routine so that if the input file is a jpeg and already the correct size it is just copied, and does not go through ChangeFSI. Amended the menu->Info->web link to point to Orpheus

Version 2.20 which will extend the use of CSS to hopefully remove the need for tables and CSS in the same document.

For those that don't know, !Webgen2 is a simple application that will take a directory of images, GIF, JPEG, TIFF, PNG, SPRITE and PNG at last count, and turn them into a complete web site/image gallery.

All the code generated is as close as possible to the W3C's html standards, and should validate to 4.01 transitional.

URL:<http://daves.orpheusweb.co.uk/software/>

STAR FIGHTER

Star Fighter 3000 is a futuristic aerial combat game for RISC OS machines that was originally published in 1994 by Fednet Software. More recently it has been sold by iSV Products (and subsequently APDL) on a games compilation CD-ROM entitled 'Other Worlds'.

With the agreement of the game's publishers that for the first time a free upgrade to the latest version is available for ALL users. This should allow anyone that has a copy of the game (even an early version supplied on 3.5 inch disc) to play a RISC OS 4/StrongARM/32-bit compatible version that is at home in the desktop environment.

A significant number of long-standing bugs have been fixed. Note that you still need to obtain the rest of the game data separately – hopefully by having legitimately purchased a copy at some time.

As usual the upgrade is available for download from
URL:<http://starfighter.acornarcade.com/> with comprehensive instructions.

The RISC OS File Repository opens

Finding those hard to reach applications

Drobe webmaster Ian Hawkins has unveiled The RISC OS File Repository, an online software database for RISC OS software hosted on the drobe.co.uk server. The new website employs a custom web spider that crawls the 'net for new and old RISC OS applications, building up our database as it roams the web. Client software can connect to the File Repository to search for particular software and receive results in a simple to parse XML format.

This could allow users to automatically receive notifications of new and updated software, with a suitable client.

An RSS feed of recently found software is available. For software developers, documentation on how to connect to and use the File Repository is available. Application Authors can also upload their software to be included in the database, and anyone can log in to help categorize database entries. You can use your Drobe login details to access these features of the File Repository, although you do not need to log in to search the database.

Before overseeing the hosting and development of drobe.co.uk, Ian also administrated the popular AcornSearch website, which was later merged into the Drobe group. The RISC OS File Repository is based upon the AcornSearch system, which is billed as the most comprehensive search engine dedicated to the RISC OS platform.

Firefox Integration Released

Firefox Integration is a front-end for the RISC OS port of the Firefox browser, designed as a friendly helper application to help integrate Firefox into the RISC OS desktop.

Features:

Icon bar icon, click to launch Firefox

Double-click on HTML to load into Firefox

Acorn URI / Ant URI / ArcWeb URI Support

Drag-and-drop support (from the Filer and Application)

Save files to Firefox

Installation is simple and only requires a small change to be made to the !Firefox !Run file. Once this is done all the extra functionality becomes available.

Firefox Integration can be downloaded from:

URL:<http://jonripley.com/riscos/Software/Firefox/>

The Firefox browser can be downloaded from Peter Naulls' pages on Drobe:

URL:<http://www.drobe.co.uk/~peter/firefox/>

The primary goal of the Integration project is to make current releases of Firefox more RISC OS friendly and easier to use. There is further

functionality planned for future releases. Other RISC OS users and developers are welcome to help out with actual code and ideas.

Firefox Integration is a 26/32-bit neutral application and is suitable for use on all versions of RISC OS which can run Firefox. Firefox Integration is not connected in any way to Peter Naulls or the Unix Porting Project. All requests for support for Firefox Integration, bug reports, ideas for future functionality and extra code should be sent to me: Jon Ripley <<mailto:jon@jonripley.com>>.

Avalanche

a RISC OS VNC client.

Version 0.07 of Avalanche, a RISC OS VNC client. VNC allows you to use a remote machine running a VNC server over a local network or the internet. VNC servers are available for many platforms.

Avalanche supports a range of colour depths and the Raw, CopyRect, RRE, CoRRE, HexTile and ZLib encodings. Textual clipboard contents can be copied over the connection – even between two different remote machines.

Recent improvements include: * Assorted speedups and improved responsiveness.

* Improved support for non-UK keyboards.

* Scaled screens. * Assorted fixes.

Avalanche is 32 bit compatible and can be downloaded from:

<[URL:http://homepage.ntlworld.com/j-peacock/](http://homepage.ntlworld.com/j-peacock/)>

GCCSDK

GCCSDK is a portable build environment for creating ARM executables to be run natively on RISC OS. The build environment is designed to be hosted on a Unix-like system, such as GNU/Linux, FreeBSD or Windows (under Cygwin).

See

<[URL:http://gccsdk.riscos.info/](http://gccsdk.riscos.info/)>
for download information.

This is release 3 of GCC 3.4.4 for RISC OS, and includes substantial improvements over previous versions both in the compiler and bundled UnixLib.

Notable changes include:

- * Update to full GCC 3.4.4 release.
- * UnixLib: Unterminated buffer fixes (__unixify and vnsprintf)
- * libscl: Much improved compatibility with Castle C/C++ headers and TCPIPLibs.
- * GCC 'gcov' profiling support is now possible. See the GCC manual for more details.
- * Now with full RISC OS module support. See [!gcc.docs.Intro](http://gcc.docs.Intro) for details.
- * Included CMunge written by Justin Fletcher and Robin Watts.
- * Autobuilder: Minor fixes and

many improvements. Many packages added.

- * drlink: Explicitly marked as GPL (permission granted for this in 2001)
- * 'as', drlink and decaof have improved support for previously unhandled AOF attributes.
- * Improved support for GCCSDK under Cygwin, OpenBSD and big-endian platforms like Mac OS X.
- * Additions for soft-float support.
- * argv[0] is now a Unix-format filename under UnixLib.
- * !Clib is no longer distributed with GCC. It is not used by anything, and the compilers which can target the SharedCLibrary using its sources (GCC and LCC) contain their own copies.
- * Runaway optimisation fixed (bug #131)
- * Objective-C is now supported.

For the complete list of changes to GCC and Unixlib, please see the enclosed ChangeLogs.

For full download instructions, mailing list information and bug reporting instructions, please visit **URL:**<http://gccsdk.riscos.info/>
- The main distribution for GCC.

VICE 1.17 Released

VICE (Versatile Commodore Emulator) is a portable emulator suite for the 8bit CBM machines C128, C64, CBM2, PET, Plus4 and VIC20. For more information visit the official VICE homepage at **<http://www.viceteam.org/>**

The RISC OS release of version 1.17 is 32bit compatible and will therefore run on RiscPCs as well as Iyonix computers, but requires the 32bit Shared C Library. This release no longer contains the DigitalRenderer module, since other applications started using it a while ago, so an application-specific installation is no longer sensible. You can download the latest module from my homepage at **<http://www.zarquon.homepage.t-online.de/Software.html#drender>** and install the module in System:Modules. For more information and the download link to the current release archive see either the VICE homepage listed above or the VICE section at

<http://www.zarquon.homepage.t-online.de/Software.html#vice>

If you want to download the archive directly, here's the link to the RISC OS binary release:

ftp://ftp.zimmers.net/pub/cbm/crossplatform/emulators/VICE/vice-riscos1_17.zip

The Ron Briscoe Column

In which Ron loses his Iyonix.

Well here I am again, having received notice that you idle lot have not sent enough articles to fill this edition of Eureka, from a desperate editor. So put something in your mouth so as to stop your teeth grinding and read on. Of course you could always use a marker pen to ink over the drivel instead.

It all started on Tuesday the sixteenth of August, my daughter was on her first day of a visit to her unworthy parents and having had to listen to the normal lecture about the inadvisability of eating meat I decided to fire up my Iyonix, whilst enjoying a sausage and bacon sandwich.

I switch on my monitor, speakers, modem and then the Iyonix catching, from the corner of my eye, an anti-techno glare from my daughter. Result? Zilch, nothing, not a peep. I shut everything down and check that all of the relevant cables are correctly installed and try again, several times, all with the same result.

I unplug the monitor from the Iyonix and try it with my Risc PC. Nope the monitor is OK, so I move the rest of the cables over to the Risc PC and switch on. By Timothy! I had forgotten just how slow the Risc PC fired up compared with my Iyonix. It took so long I was able to finish off my, by now, stone cold sandwich.

I decided to go on the Internet and post off to the Iyonix mailing list for any pointers to possible faults and rectification of same. Alas I am cursed! I can connect to my ISP, (Telewest Blueyonder), receive Newsgroups messages but no email. In or out. I decide to send a message from my web mail box thoughtfully provided by Telewest. Having failed to log in via Oregano1 and WebsterXL I fire up my PC card and try Internet Explorer.

The website refuses to accept my password and so I retire defeated and dejected to the brown pop shop to imbibe consoling amounts of liquid.

Returning to the Briscoe domicile I find that Christine has decided that whilst the Iyonix is down I can spend more time talking to her and

my daughter. A bad day all round I think to myself. Not that I don't like talking to my daughter, it is just that I feel I have not yet reached the age where parent/child roles are reversed.

Over the next few days I grit my teeth and play the part of jovial parent, even to the extent of eating a meat free meal full of disgustingly healthy ingredients. Why submit myself to this trauma? Because my friends, if the Iyonix needs costly repairs, I will need the good offices of my financial advisor. (Christine.)

At last my daughter returns to Edinburgh and I am allowed to phone up Castle Developments for advice. Having got through to John Ballance, he and Will ask me to try various things within the depths of my Iyonix prior to having to send the machine back to base. People of a sensitive nature look away now.

Step 1 (My own, not suggested by Castle.) Check my house contents insurance policy in case I have to accidentally drop my Iyonix down the stairs.

Step 2 Clear a large space on the dining table. Christine did this as she swears that every time I clear anything away it disappears into a black hole never to be seen again. (I think that was cunning plan number 1760.)

Step 3 Find the necessary equipment, antistatic mats, plastic tweezers, screwdrivers, antistatic wristband with a suitable earth to ground and a swear box.

Step 4 Place Iyonix on table, remove retaining screws at rear and remove cover. Forget that you are wearing the wrist band and getting tangled in the 10mm earthing cable drop the cover on foot. Put plaster on cut toe and 20p in the swear box.

Step 5 With Christine wiping the sweat from my brow carefully remove the graphics card and check that all of the internal cables are properly connected. Replace graphics card and refit cover.

Step 6 Remove antistatic wristband and return the Iyonix back to its home and re-connect all of the external cables.

Having done all this it was time for switch on. I switch on monitor, speakers and Iyonix and we have lift off. I phone up Castle with the good news and my thanks for their advice and thanks. Shortly after putting all of the tools away I notice that I have not switched my modem on, so I go through my normal closedown procedure, switch on my modem and restart the Iyonix. Argh! I am back to nothing.

The next day I am back on the phone to Castle, I explain what had happened and they decide that my Iyonix needs to go back to base as the problem sounds serious as my Iyonix is failing to boot up. I am also asked to send my modem as that may be faulty and causing the fault, so no Internet for me. John Ballance passes me over to Castle's very nice and efficient Jenny who arranges the carriage to base for me and sobbing quietly I pack my Iyonix up and await the worst.

My financial adviser transfers a couple of hundred pounds into the current account and seeing how upset I am promises more if needed. I put the onion to one side and say thank you nicely and retire to the brown pop shop to worry.

After a few days, although it seems a lifetime, John Ballance is back in touch and the problem seems to be a faulty memory chip. I remember that I had purchased one from Castle when they had made a very nice show offer. John said that in that case the memory chip could possibly be still under warranty and he would check.

When a few more days had passed Castle announced that the memory chip had been replaced and my Iyonix had been given a thorough

testing. Also they had removed one or two items that might have caused problems in the future. "Did I want it back?" My trembling fingers reach for ye old bendy plastic. "How much?" I croak. "£55." is the prompt reply. "Plus carriage fees?" I ask. "Including carriage." A few numbers later and the deed is done and Will tells me that they will arrange carriage back to me.

Now the carriage fee was £20 each way, so Castle had done all of that work and put up, with patience and good humour, my almost daily phone calls, for £15. Now that is what I call a bargain and I owe John, along with Will, a brown pop or two. Payable at the Birmingham Show.

My Iyonix returns and is quickly put to work. I collect my email and news downloads. Only 2,700 personal and mailing list emails plus 3,200 newsgroup postings to read. What fun! Well the mailing lists were, csa newsgroups were, I noticed, still running at their normal 90% noise to 10% signal ratio.

Shortly after getting through the backlog I reluctantly said a temporary goodbye to the Iyonix and accompanied Christine down to Bristol for a few days and came back to another but thankfully smaller one.

SE Show 2005

In which the editor describes his day out at the show.

The venue was the same as last year's show but this time the journey was in good sunny weather and not rain. When I arrived the exhibitors were just finishing setting up. I wandered over to the Arm Club stand and greeted the committee members who were looking after the stand. The massed crowds who were waiting outside were promptly let in at 10 o'clock and the show had started.

The hall was set that so that the exhibitors were around the periphery and on a large central display. One of the long sides of of this centre stand was occupied by RISCOS Ltd. who had half a dozen or so different types of computer (*see centre pages*) from an IMac to an A9 with a couple of PCs in between all running a variant of RISCOS. Paul Middleton was demonstrating the various flavours of RISC OS Select to the punters but unfortunately the one I was interested in, an iMac G5 with Virtual Acorn on, was not working. Around the

corner occupying one of the shorter sides of the central island was Castle (*see centre pages*) showing off the different variants of the Iyonix computer that were available and the web browser **Oregano 3** not yet available to the public.



Paul Vigay and customer

Walking around to the other side of the central island I came across Paul Vigay of Orpheus Internet Services who seemed to be very busy all day explaining his ISP business set up to be RISCOS friendly.

Next door was John Cartmell, of Qercus magazine fame with a colourful stand showing past covers of the magazine (*see centre pages*). The last stand on the

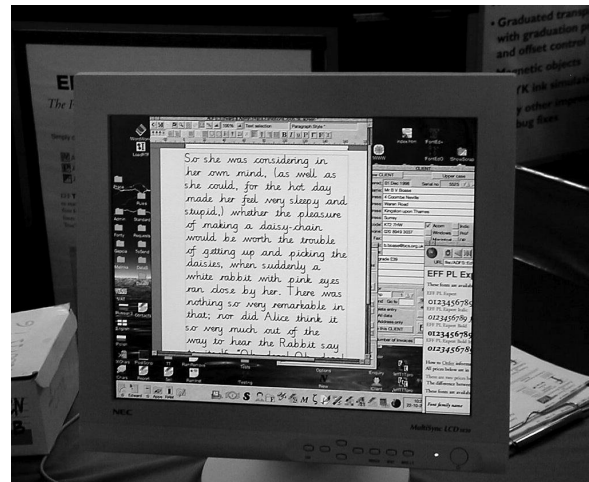
central island was taken up by Spellings Computer Services and as well as showing off his usual products - **Aemulor** and **Geminus** multiscreen/screen rotation - was demonstrating **Geminus Acceleration** a new graphics accelerator for the Iyonix. This enables Window furniture (toolsprites and textures) and drawfiles to be plotted faster. Complex windows redraw in a fraction of the time. Neil demonstrated this with the Artworks file of an apple. Without acceleration after dragging another window over it, the apple window redrew in about half a second, with acceleration it was instantaneous. This gives a much smoother and faster desktop. The main features of **Geminus Acceleration** are :- Accelerated OS sprite plotting Sprite caching (plots sprites directly from fast PCI memory); Caches window contents resulting in a much smoother desktop redraw; Accelerated horizontal and vertical line drawing; Accelerated rectangle inversions (eg selecting areas in **!Paint**).

There is a free demo on line at **<http://tryit.spellings.net>**

Wandering around the outside of the hall Martin Wuerthner was

there as usual demonstrating the latest version of Artworks. This allows creation of PDF (Portable Document Format) files directly from Artworks by-passing the old Acorn postscript printer driver. This now allows you to send to the printers top quality PDF files able to reproduce all the correct colours, blends and transparency effects Artworks is capable of.

Next door to Martin the Electronic Font Foundry was demonstrating its font CD and further on CJE



He can manage joined up writing now!

Micro's ("We have it in stock") were doing good business and selling the latest upgrade to the Impact database. I'm glad that they have taken this product on and are maintaining it and upgrading it as I use it on a daily basis. I find that it is one of the few relational databases that I can just about understand how to use!



Rcomp busy as ever.

At the head of the hall were APDL with David Holden manning the stand and Virtual Acorn advertising their new low price (see centre pages). I wait with eagerness for a version of Virtual Acorn that runs on Macs but alas it wasn't ready yet.

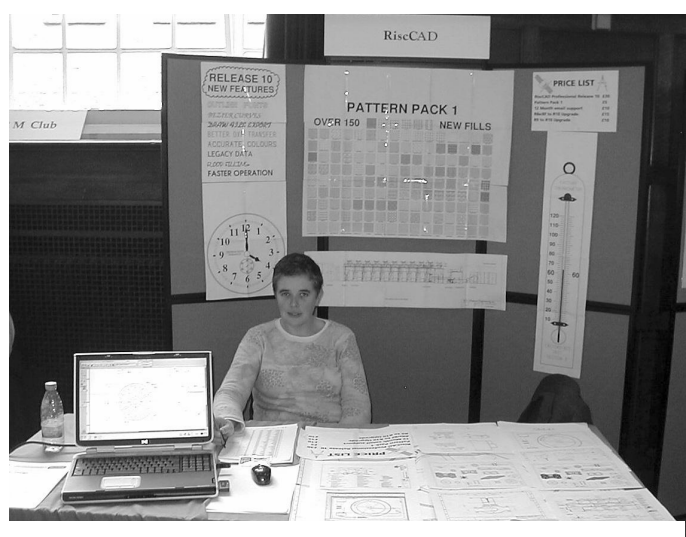
Round the corner Rcomp was showing off its various Risc Cube computers running Virtual Acorn and the latest versions of its software titles. Next door RiscCad was selling the latest version of its software.

The ARM Club stand was where I left it earlier though just in case it had moved Toby and Tom were using a hand held GPS receiver to determine its exact location. Just further on Mike

Glover of Icon Technology was demonstrating macro support on **Easywriter** and was also showing what was coming up in the next version 8.0, the main feature being the addition of structure bars. These will enable you to see at a glance the start, end and nesting of structures. (see page 35)

Other new Features to come are:-

Moving - You can move structures up and down with a single keystroke. For instance, when you are editing a list, pressing Ctrl-Shift-U moves the current item up and pressing Ctrl-Shift-D moves it down. You can select several entries to move them in one go. The best thing is that this feature is not limited to list entries: you can just as easily move (continued on page 35)



The Risc Cad stand

The Qercus stand



The three faces of John Cartmell



The enraptured audience



The RISC OS Ltd stand



Virtual Acorn

The Castle stand



A9s on CJE Micro's stand



The gentlemen of the press



Paragraphs, Sections and Chapters. Sorting - You can reverse the order of a selection of items and, finally,

you can sort sequences, e.g., Lists or Paragraphs (or even Sections or Chapters if that is desired).

New features in EasiWriter/TechWriter 8.50

Structure bars

Finally, there is an easy way to see the structure of an EasiWriter document. The structure bars show exactly where structures start and end and you can see the nesting of structures easily.

Switching structure bars on

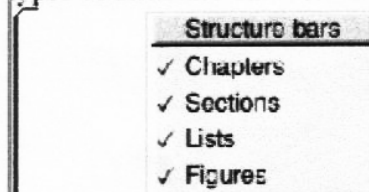
Simply choose the menu entry View ▾ Structure bars to enable/disable all types of structure bars.

Choosing structure bar types

You can control the bars for the following structures individually:

- chapters
- sections
- lists
- figures

Follow the submenu arrow of View ▾ Structure bars to switch individual types of structure bars on and off:



The structure bar submenu

You can configure the colours used for the different types of structure bars to suit your taste.

Improved guides

Additional guidelines are displayed for the following objects:

- table cells: this makes it easy to see where the table cells are even if you do not give them a visible border
- pictures
- page breaks, column breaks, page fillers and whitespace
- figure captions

As with structure bars, the various types of guidelines can be enabled/disabled individually from the submenu of View ▾ Guides.

Improved colour handling

Background colours

Finally, you are no longer limited to the 16 standard Wimp colours for paragraph and table backgrounds. You can now choose arbitrary background colours using the standard RISC OS colour picker.

Border colours

Up to now, borders drawn around structures, paragraphs and tables cells could only be black. Now, you can choose any colour you want using the colour picker.

An Easywriter document showing the structure bars. We are unable to show them in glorious technicolor here, you will have to buy or upgrade the program if you want to see the structure bars in all their colourful glory.

MathMagical Software was showing the latest versions of **Artgraph** and new **Soduko** game software, and Fortran Friends were there as usual with their Bell Ringing Software.

The next stand was being run for Netscape, Drobe and the Unix Porting Project and last of all Paul Beverley of Archive magazine was taking new subscriptions and selling CDs containing all the past editions of Archive.

The Show looked to be quite busy all day which was encouraging and I even managed to get round to buying a few things myself.

Show talks

The Show talks were given in the entrance to the main hall and once again had competition from the refreshments area. I was quite impressed with amount of technical hardware that was used, a projector, a large LCD television screen, and two professional video cameras. This enabled excellent coverage of the speaker and gave good close up shots when required.

Castle

Jack Lillingston of Castle gave the first talk of the day. The talk

centred around the various versions of the Iyonix computer that were available from Castle.

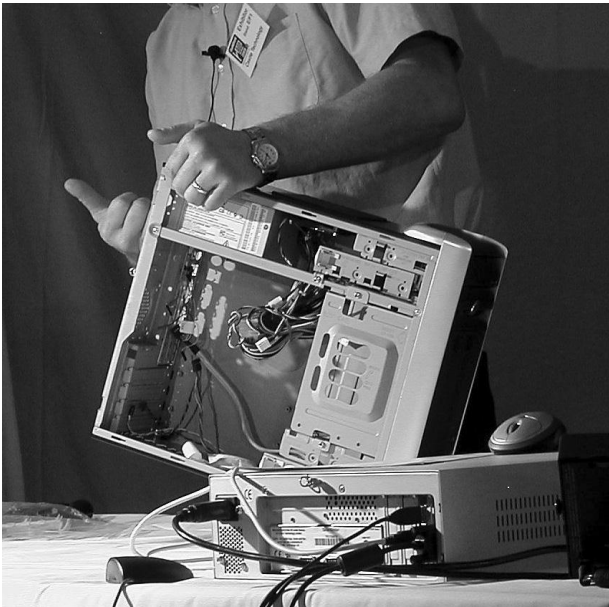
The first was the basic Iyonix and Jack described the basic components and layout of the computer.

He then showed us a new model the X300 introduced to replace the panther. It's quite a bit smaller than the panther. The height is the same as the Iyonix but thinner. About the same expansion capabilities. Front floppy drive, two 5¼" devices, two USB ports,



The X300 outside

headphone, microphone sockets, 2½" bay. Easy access to get inside, the power supply is at the top of

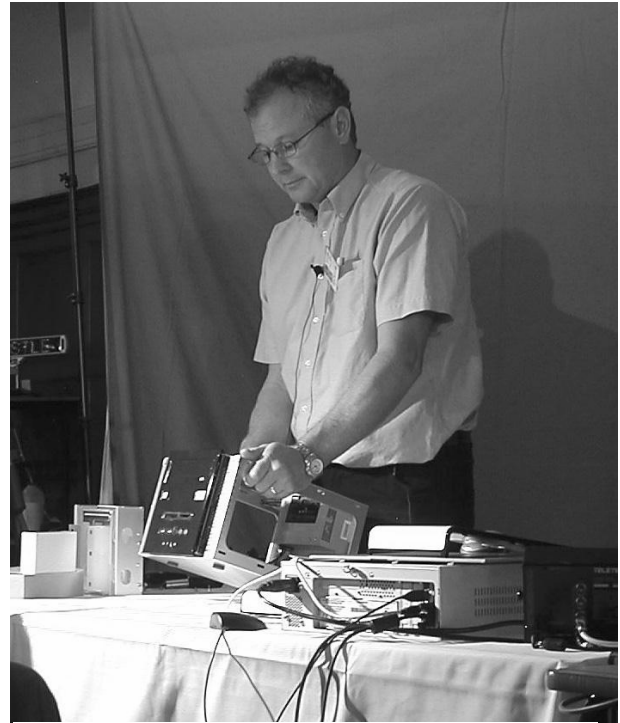


The X300 inside

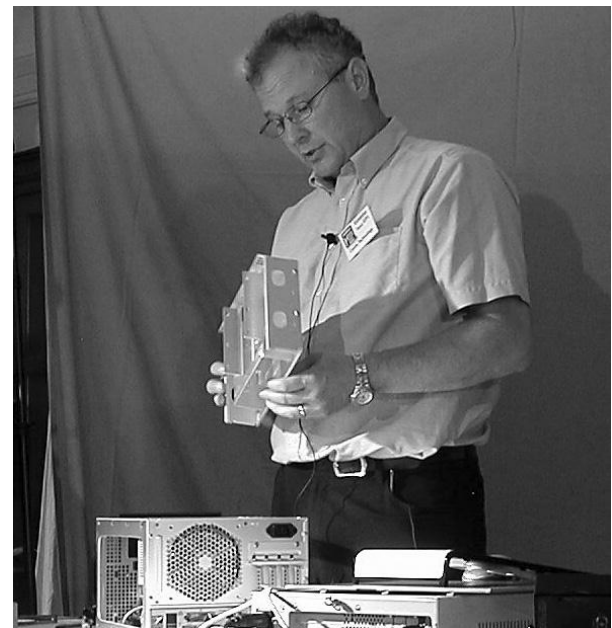
the machine making the machine run nice and cool. Inside can fit four 3½" devices and two 5¼". The X300 can take PCI cards but not traditional Acorn podules. At back of the machine are four PCI expansion slots. The X300 can be used upright or laid down. It uses quiet and cool Maxtor harddrives.

The Aria has a small aluminium case very easy to get into with similar expansion capabilities. It is well designed with a removable cradle allowing drives to be fitted easily. On the cradle you can get one 5¼" drive and 3 hard drives.

There are two USB ports front and back but no floppy drive. Sound ports are at the front.



Aria outside (the see through model!)



Aria's cradle

The X100 model is not as good heat wise as others. It's footprint is the same as the RISC PC. There is



The X100 in bits

no room for expansion. This model is the noisiest of the lot but still much quieter than the standard PC. It takes half size PCI cards. The X100 has a floppy drive, a 5¼" drive, hard drive and runs at 8°C above ambient temperature, rest of Castle's models run at 4°C above.

With USB 2 software upgrade Jack showed the simplicity of attaching pendrives and MP3 music players to the computers. All the machines come with a card reader

Jack said that Castle were always moving RISCOS forward, especially with graphics modifications so that more powerful graphics cards can be used in future.

John Cartmel of Qercus

John started by giving everyone in the audience a free copy of the latest edition of Qercus, the only A4 size glossy magazine for the RISC OS community that he produces. He then went on to describe the magazine and the present contents and the gave us something of the history of how it has evolved.

Qercus has recently moved to new premises and problems with magazine production at the printers are now largely resolved.

The price has been kept at the same level as that of Acorn Publisher at the time when John took it over and merged it with Acorn User to form Qercus.

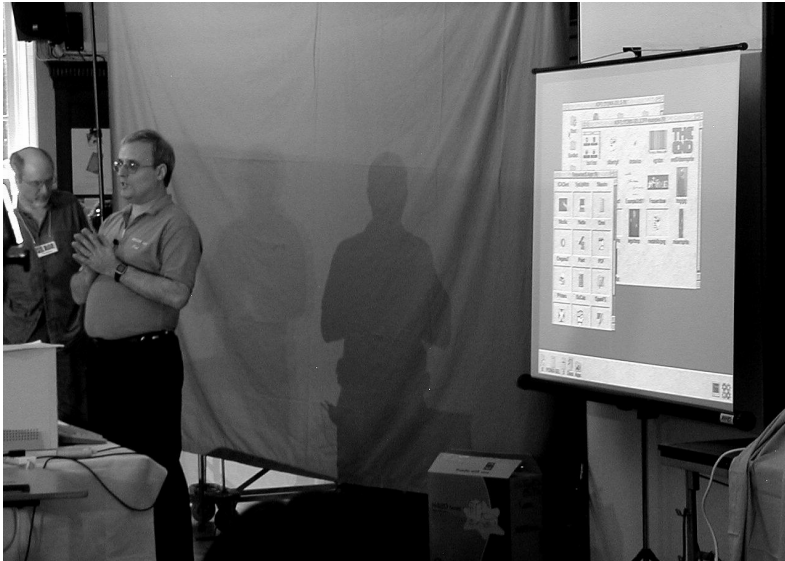
He then went on describe some Finnybank games that he produces all using RISC OS applications.

RISCOS Ltd

Paul Middleton opened by saying that RISC OS Ltd had been looking after RISCOS for 7 years - about half its life. According to him we now have the most stable version of RISCOS that has ever been done. Moving forward to 32

bit versions of RISCOS he stated that the decision was taken last year to make the 4.39 version the

files and the filer highlights it. Also using the arrow keys to move around.



RISC OS 5.32?

final version of 26 bit RISCOS to be produced. An Iyonix was shown running a 32 bit version of Select, but only running certain parts. He demonstrated for instance thumbnail views for bitmaps. However many things are not working. The main development will be 32 bit on the A9Home.

The A9 will be the 32bit complete with a subset of Select features. The Select scheme will also be made available for owners of the A9Home. New features like keyboard short-cuts were demonstrated such as holding down the alt key and clicking in a filer window gives it the focus for keyboard short-cuts; type the first letter of one of the

Over the last year large amounts of RISCOS has been rewritten.

The Iyonix Select version needs at least 100 people to say they want it to get development started. That target has not been reached yet. Select for the Iyonix has to be commercially viable.

Paul went on to say that 6400+ copies of RISCOS 4 have been sold and Select subscriptions have reached 950.

He thought that the main areas for RISCOS in the future were in graphics, media use, cheap hardware and low power low energy use.

A9Home

Chris Evans and Matt started by showing how portable the A9Home could be with a small portable display (7" screen), laptop mouse and rubber keyboard all fitting nicely into the A9's travelling box). Matt showed how to plug these into the A9 plus how



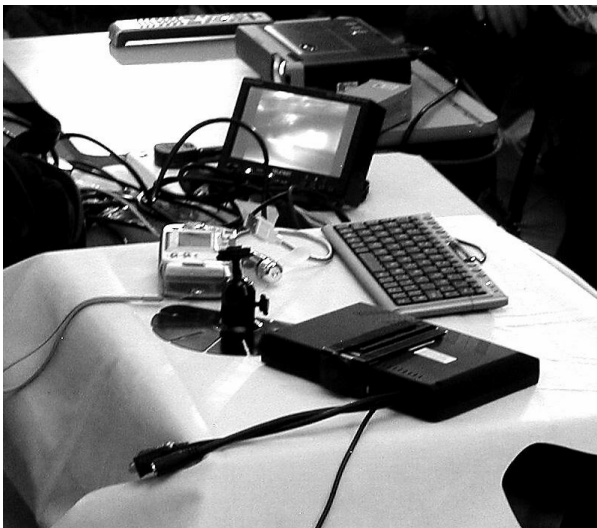
What you can't see is the hammer.

to use a memory stick and also linking a digital camera and downloading the pictures directly from the camera onto the A9. However an attempt to make a small USB fan work was a total failure. (Fan probably broken). No indication was given as to when

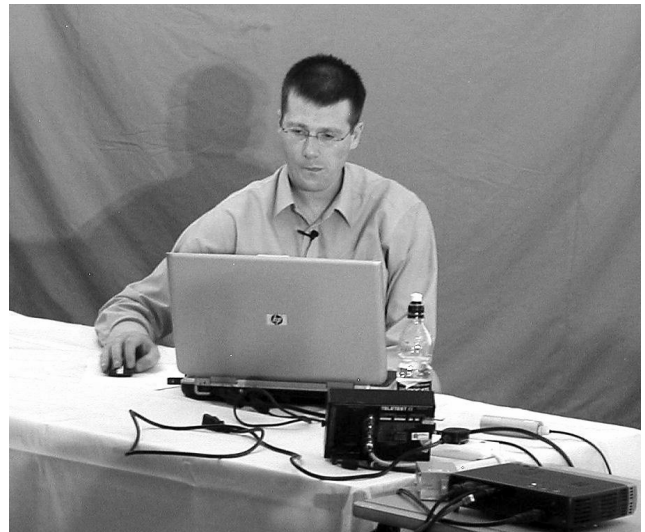
A9 will be available to the general public.

Risc Cad

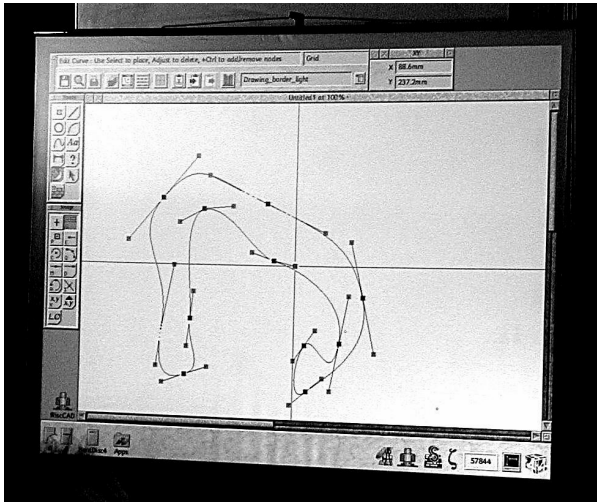
David Buck ran through the latest developments in Risc Cad, the 2D technical drawing program. These



The bits

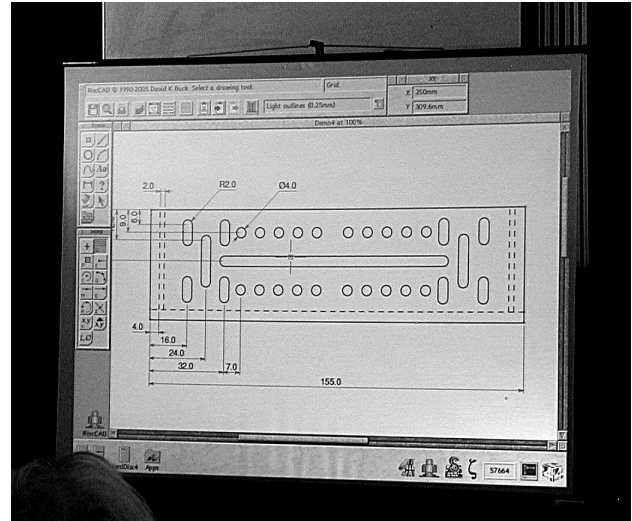


David Buck

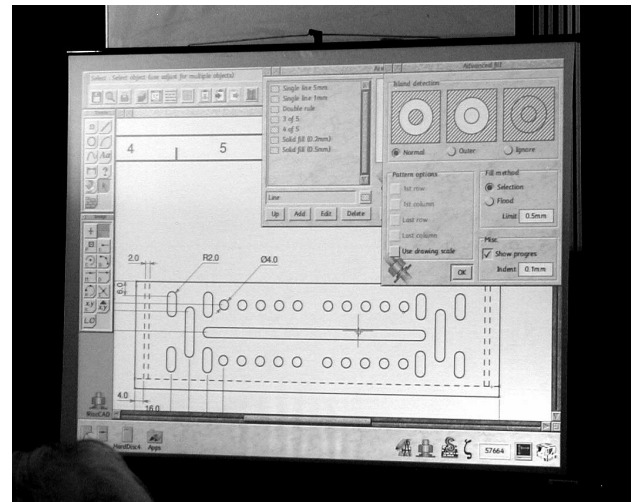


Bezier curves in Risc Cad

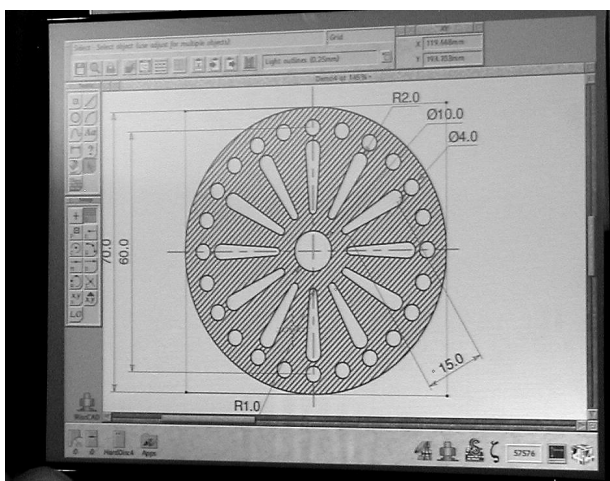
included the use of outline fonts. Any font can now be used and can be rotated. Bezier curves of up to 60 sections can be placed. Draw files can be exported and DXF transfer has been improved (see Risc Bytes). David then demonstrated Risc Cad's ability to do pattern filling with the ability to automatically detect the fill boundary and internal islands, and fill the resulting shape accordingly.



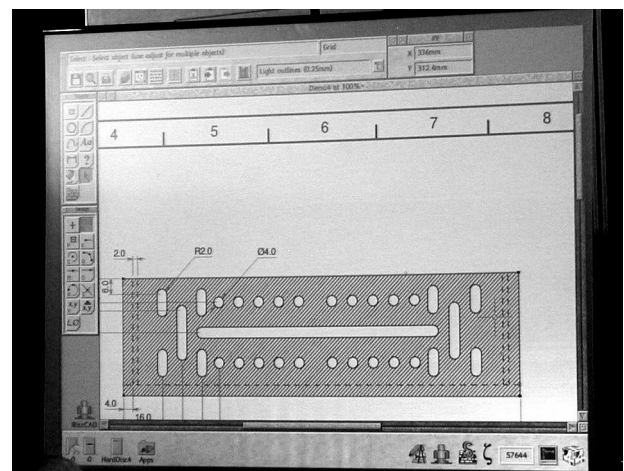
Before



Inbetween



Filled wheel



After

Winning Games With Logic

Part 11

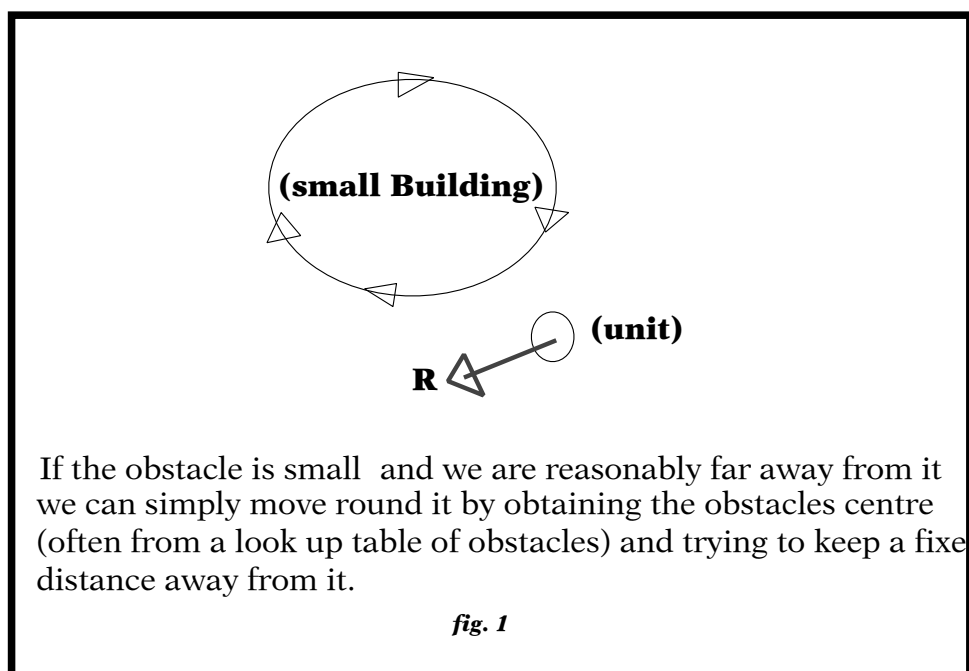
In which Barry Aulton carries on the saga for the perfect game.

I should say at this stage that despite writing about movement techniques, the game I am adapting is turn based and could be played on a board. Consequently I was all set to write something about it, but, I did not get far enough, so back to navigation which is often the dominant problem the AI has to cope with (i.e. anything else can be slung by an impatient distributor.

I am still going to concentrate on the hear and now part of navigation for now. Due to speed restrictions a static (ie. top down) planning technique is only able to make long term strategic decisions. I would like to draw the analogy of a master of ceremonies organising a fireworks festival, who can only decide to reschedule the event due to a thunderstorm or ask the kids to move further away from the bonfire. He cannot redirect a rocket away from a

neighbours washing. If you keep having to simplify the problem a planning or search technique has to deal with, simply hard coding everything becomes more viable and there are techniques to help for that case. We can use a search algorithm to find the best way between static objects; however the technique can be also used to search for a solution to an action selection problem, thus search techniques and in particular the A* pathfinding algorithm has become almost ubiquitous in game programming. (I will discuss these techniques later).

There are also 'Dynamic Planning Algorithms' that rely on only local information. Such techniques can be useful when you have a group of agents who must collectively build a plan rather than rely on a pre-existing one. On one such method, each agent (agents here meaning anything the computer controls,) has a goal; reaching that goal may depend on the activities of other agents. It can be blocked by someone/something (considered here to be another

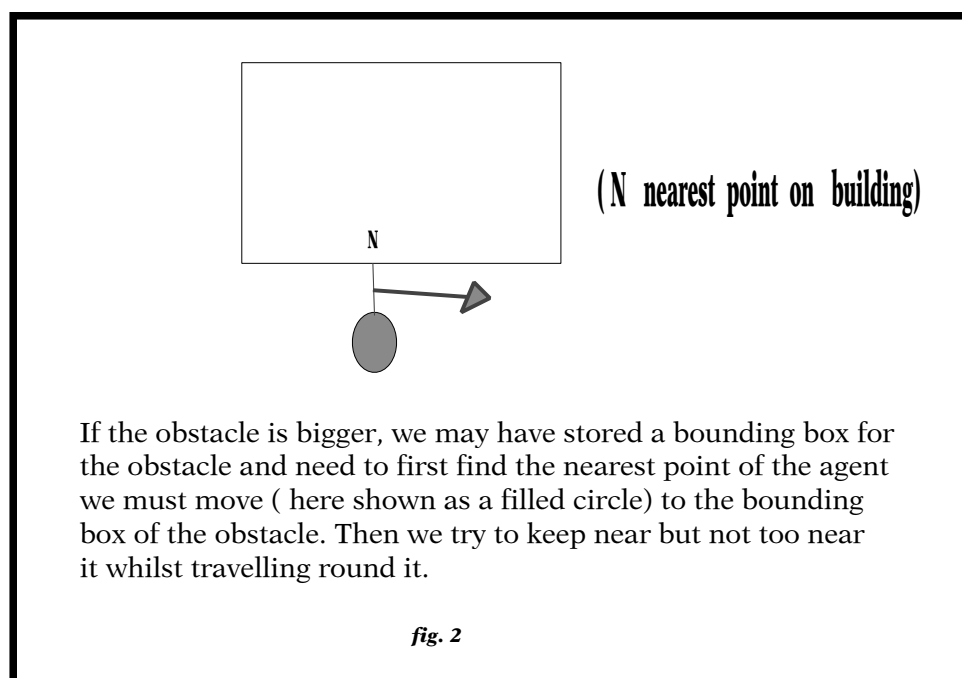


later. Here we will deal with the dynamic part of avoiding obstacles.

As a first stab at this, if the obstacle is 'very near' we may try moving away from it, if it is only 'fairly near' we could try moving round

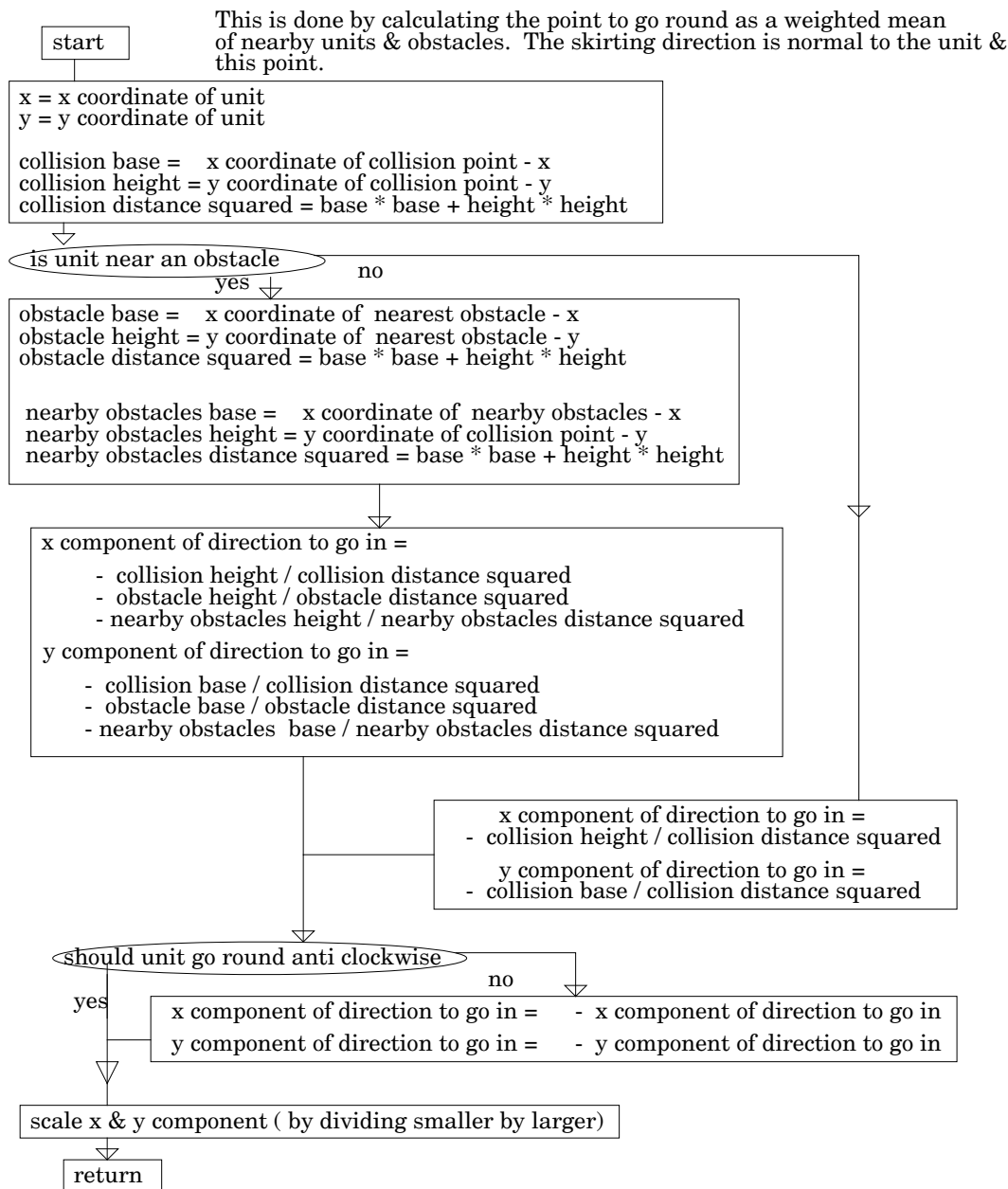
agent) in its endeavour. Omitting the details for now, each agent is given an activation energy. It then increases the energy of other agents that will help it reach its' goal and decrease the energy of those that would prevent it. The agent with the highest energy is chosen to try to reach its' goal. A dynamic planning technique is viable even if it only has partial information, such as being given 1 or 2 integers every 50-500 m secs or so. Again more on this

it. The general idea is illustrated in **figs. 1** and **2**. When there is more than one obstacle nearby we can take a weighted mean of the points from nearby obstacles the nearer the obstacle the larger the weight. We can then move round



UNIT GET SKIRTING DIRECTION

(get best direction to go in to skirt (go round) the nearest obstacles & units)



get skirting direction is there to calculate a direction to go in given 3 points that the unit must go round. 1 of these points is the nearest point on the nearest obstacle. The second point is a weighted mean of nearest points on several nearby fixed obstacles. The 3rd point takes very near units & the nearest point on the nearest obstacle into account & is a sort of best estimate of the point to avoid. You don't have to use bounding rectangles for obstacles but the x & y components is Veerlaerts' method i.e.

x direction is	$\text{sum height}(i) * W(i) / \text{distance squared}(i)$	$W(i) = + \text{ or } - 1$
y direction is	$\text{sum - base}(i) * W(i) / \text{distance squared}(i)$	like signs go round
		unlike signs go between

Fig. 3

that mean point see **fig. 3**. As ever, the devil is in the detail. In **fig. 3** the agent we are trying to move is at position (x,y). The collision point is the point to move away from when considering other moving agents. This could be simply the nearest point to the nearest agent. If the agent (in figures called a unit) is very near a particular obstacle then we include this in the point to go round. We also have a component which is a weighted mean of nearby fixed obstacles.

You may ask why all the complication? Generally speaking having several fudge factors to play with gives you a better chance of getting something that works. You can get situations e.g. when a weighted mean of nearby obstacles is in fact nearer than the nearest obstacle. You can go clockwise or anticlockwise. If your agent does not get round the obstacle(s) in say 10 seconds you could try reversing the direction. Finally you will see a reference to Veerlaerts method. This is what we will outline next. However I should say again that it is really trial and error that makes any such method work. You have to try it using the actual buildings and trees etc. The method needs the closest point on each obstacle

to the unit. (Think of the path as choosing an ellipse round or between the two nearest obstacles as focii.)

Veelaert's Navigation Model

This model has the following advantages:-

- 1) The paths generated look natural.
- 2) The paths can be described using minimal and inexact information (e.g. to enable approximations and look up tables to be used).
- 3) Following a path can be accomplished by a simple control law requiring minimal fast code.
- 4) The paths can be made to pass between a number of obstacles, so that any maze can be traversed.
- 5) the paths can be smoothly adapted to changing circumstances, e.g. the addition or removal of obstacles.

The basic idea is one of keeping a sort of distance constant. If we have just one obstacle, P1 and our unit moves around it, keeping distance[P1] constant (where distance[P1] is the distance between the unit and P1) we know its path is circular. But what happens if we have two obstacles, P1 and P2 and keep the distance:-

$\text{weight}[1] * \text{distance}[p1] + \text{weight}[2] * \text{distance}[P2] = \text{constant} ??$
 where $\text{weight}[1]$ & $\text{weight}[2]$ are just 1 or -1

Peremans and Veelaert found the sign of the weights were more important than their values. They found that if the obstacles have opposite weights, i.e. 1 and -1, once the unit is in the intersection region of both these circles, it will always pass between the two obstacles. Likewise, for two obstacles with the same sign, if the unit is outside the region bounded by the two circles it will always circle round both obstacles. But what happens when there are > 2 obstacles? For > 2 obstacles the unit tends to pass between obstacles of opposite signs and circle round ones with the same sign.

$$\frac{Xdot}{Ydot} = - \frac{\sum(\text{weight}[i] * \sin(\text{Beta}[i]) / (\text{distance}[i])}{\sum(\text{weight}[i] * \cos(\text{Beta}[i]) / (\text{distance}[i])}$$

The Logarithmic Maze Rule.

Here the units behaviour is limited to entering or passing by pairs of obstacles. Consider a flexible framework, where the distance between points satisfy relationships of the form :-
 $\sum(\text{weight}[i] * \log(\text{distance}[i])) = \text{constant}$
 where sum is a summation over i

obstacles, $\text{weight}[i]$ is either 1 or -1, and $\text{distance}[i]$ is the distance between the unit and the ith obstacle. The logarithm is used here to make the unit sensitive to small distances e.g. to avoid collision with obstacles, (since the log. of a small number is a large -ve number) We now take derivatives to get:-

$$\frac{\sum(\text{weight}[i] * \text{velocity}[i] / \text{distance}[i])}{\text{distance}[i]} = 0$$

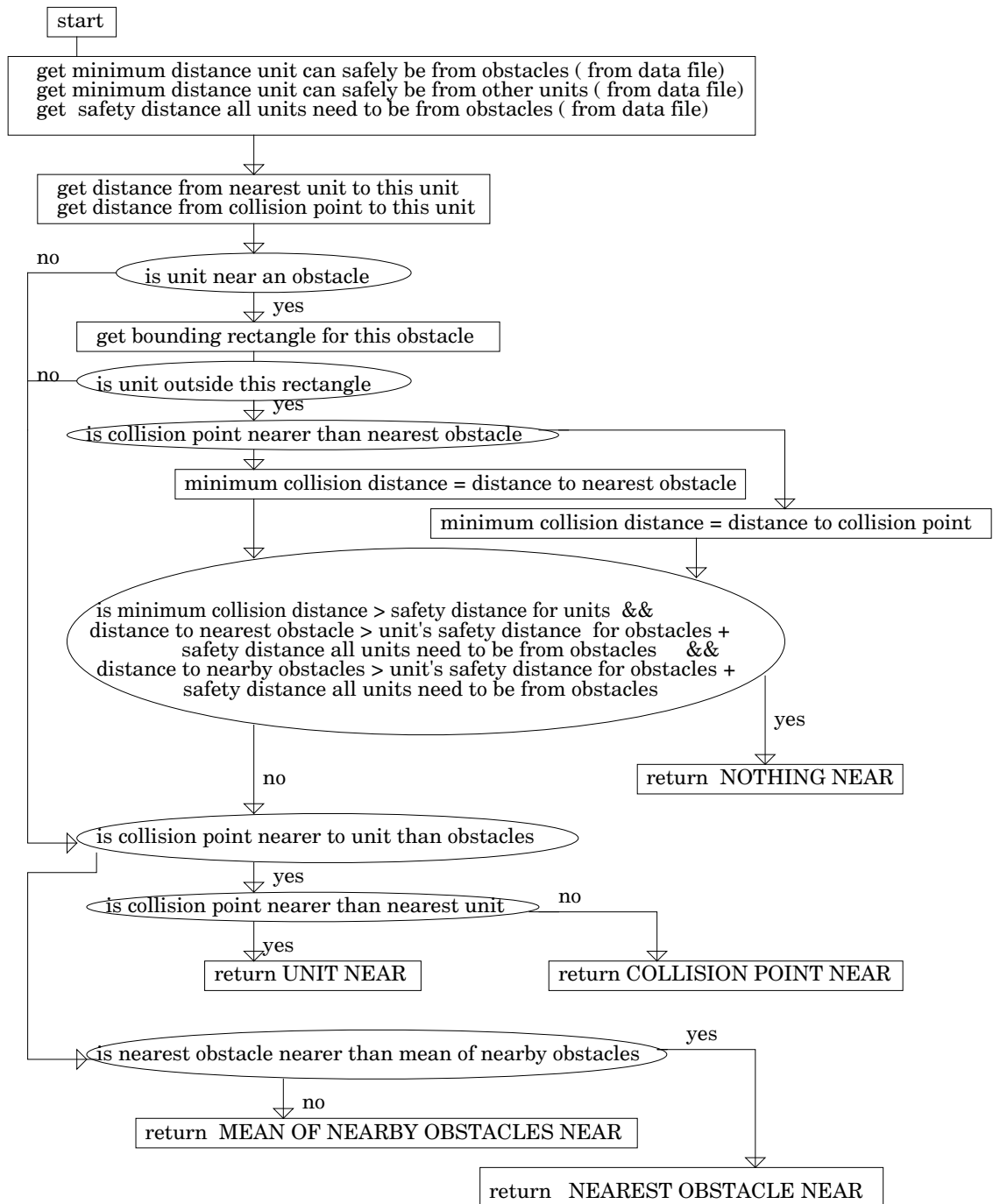
where $\text{velocity}[i] = \frac{d}{d(t)} \text{distance}[i]$, the units velocity.

In this case the velocity of the unit must satisfy :-

where $Xdot$ is the speed of the agent in the X direction $Ydot$ is the speed of the agent in the Y direction $Beta[i]$ is the sight line angle from the agent reference direction to the ith obstacle, and the summation is over the i obstacles, however, distant obstacles now contribute less.

but this equals :-

UNIT GET DISTANCES



Here we test to see if the unit should move away from units or obstacles
The point to move away from is the nearest of the 4 points, collision point ,
nearest unit , nearest obstacle & mean of nearby obstacles.

Fig. 4

$$\text{Xdot/Ydot} = - \frac{\sum(\text{weight}[i] * \text{height}[i] / (\text{distance}[i]**2))}{\sum(\text{weight}[i] * \text{base}[i] / (\text{distance}[i]**2))}$$

and is hence very quick in execution. The agents try to pass in between obstacles with opposite signs whilst travelling around obstacles with the same sign. The distance between the agent and the obstacle is taken as the distance between the agent and the point on the obstacle which is closest to it. Weight[i] is either 1 or -1.

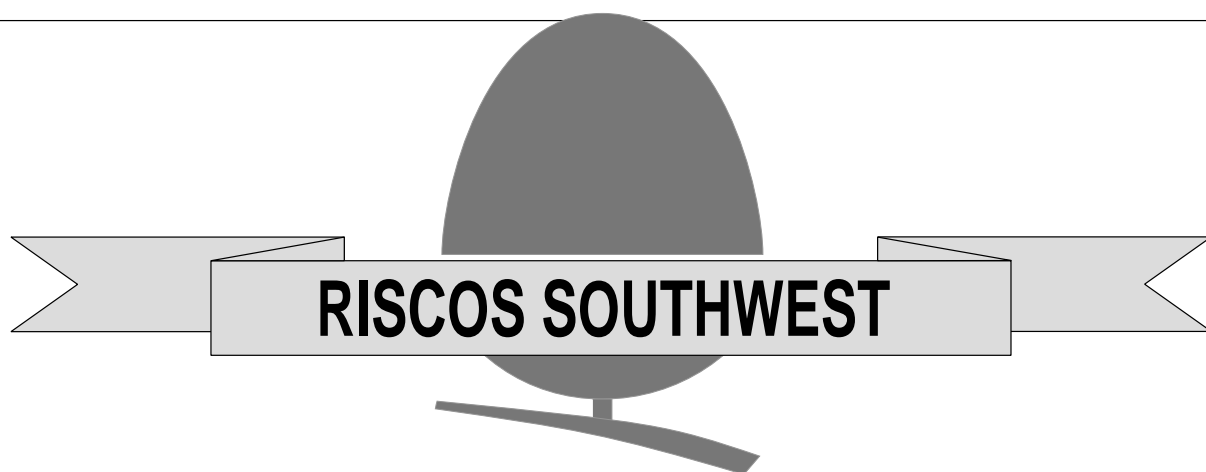
If we want the agent to go between two obstacles travel along a corridor we give the obstacles opposite weights. The agent tries to pass in between obstacles with opposite signs whilst travelling around those of the same sign. Xdot and Ydot give the X and Y velocities (i.e. direction) to go in to best skirt round the obstacles.

The agent (unit) however may be too near an obstacle or another agent. If so then the only alternative is to move away from the obstacle or too near agent etc. We must first decide if something is too near the figure entitled unit get distances does this. (**fig. 4**)

Now for another fudge. The nearer the agent is to this too near thing the more likely it is to have to move away from it.

We thus can simply take a weighted average of two directions to go in. The first to move away from the nearest 'thing' (obstacle, agent or some mean of these) and the direction at right angles to this to move round the 'thing'. When the thing is 'very near' the agent the move away component will dominate and when not too near the move round one will, again select on test is required.

We now have a means of navigating other agents and obstacles that will deal with the here and now. However it is not particularly suitable for planning a path between static objects (buildings) when they are very close together, that usually requires a search technique.



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Free for all

Andy Burgess delves more into Javascript, !Organizer and gives a run down on the PD titles available from Kang Software.

A little tip

First, a little tip I've discovered on RISC OS (4.02), that others may or may not know:

If you want to open a directory filer window from an application opening or editing a file, there's a keyboard/mouse shortcut. Simply press and hold down the "Ctrl" and "Shift" keys together and "Adjust" (right) click the close icon of the edit window with the mouse. Hey presto a Filer window for the directory. This works with **!Edit** and with **!Fresco**, and probably lots of others.

Developing Javascript on RISCOS.

I've been a bit busy, but I have had time to learn a little Javascript on the Acorn. If you've used the internet before you must have heard of Java. Java is a full-blown internet language, similar in syntax to the C programming language. It is

available for the RISC OS platform via the good old Unix Porting Project (I really must buy their CD), but I haven't installed it. It needs a 'server' set up.

Javascript on the other hand is different to Java, it is a simple language more akin to a BASIC extension of HTML and adding some facilities missing from the HTML language. I have managed to create web pages adding the Javascript to conventional HTML code to, say add a check to see whether an email address has been entered on an HTML feedback form and whether the email address is of the correct format. All of this information I received from a *free* tutorial on the internet from a superb site at **www.w3schools.com**. They also offer free tutorials on HTML, TCP/IP and other things related to the Internet. Their pages worked fine on my **!Fresco** v 2.13 on RISC OS 4, so they should work fine on !Oregano too!

I edited my pages in **!Edit**, and tested them in **!Fresco**, which has one annoying feature in that if you get a Javascript error, it turns off

Javascript, and it has to be turned back on by clicking the tea-cup-on-paper icon, before it will run your Javascript again! Needless to say programs created here work on the PC too! The only two things I had problems with was with cookies (ignored by RISC OS), and 'animated' graphics, one shortcoming with older Acorn web browsers, though this may work on later versions of **!Oregano**. One shortcoming of Javascript is that it cannot write to files (without additional software), and it's not easy to encode a web counter facility, but simple web page enhancements do work. Have a look at the w3schools website if you want to learn Javascript!

On to more stuff about....

!Organizer

Anniversaries

If you need to remember important dates like your Wedding Anniversary, it's simplicity itself in **!Organizer**. Click the blue "Anniversary" tab. Click in the relevant month to add an entry - it uses Acorn-style date formatting from a specified start date:

Enter a relevant "Date of birth/marriage" in dd/mm/yyyy format.

To add a year to someone's birthday (obviously not to a lady's):

"It's my %n%t birthday" - will give something like "It's my 30th birthday" (I'm older than that, by the way) in the relevant diary entry for the relevant day. Obviously, you can change the text to anything you want, like for a "lady", you could just have "It's my wife's birthday", with no age displayed!

If you're interested in the "elements" for marriage years, **Organizer** can display that too! I've now been married 6 years, and entering the following in the anniversary line

It's our %c Wedding Anniversary

gives

It's our (wood/copper) Wedding Anniversary in the diary and the Anniversary pages for the relevant date.

You can also have entries like a quote from a rather popular film of recent times - TITANIC:

Enter a date of 14/4/1912, and a line like:

"It's been %n %y and I can smell paint" - you can't get the full quote of "It's been 85 years and I can still smell the fresh paint!"

Choices settings for Anniversary:

Use the Choices menu option from the icon bar to set your personal defaults:

Choices-Anniversary tab:

One month per page - displays as January on left, February on right, say.

Two months per page - displays Jan/Feb on left, Mar/Apr on right.

Three months per page - displays Jan/Feb/Mar on left etc (I think default).

Six months - displays as Jan-June on left.

“Default anniversary colour” on version 1.31 seems to be ignored - it always appears as black in the diary page.

Choices settings for Colours

How nice to see “Colours” rather than “Colors”! This is a really nice area, where you can specify your colour settings for pretty much everything on Organizer. All colours are selected from a standard Acorn colour drop-down menu.

Analogue clock: (again nice to see British spelling “Analogue” rather than US “Analog”) The clock face picture changes in the Choices window as you select colour.

Face - the clock face colour

Rim - the colour of the border surrounding the clock face

Rim (loading) - the colour of the border surrounding the clock face when **Organizer** is loading data

Markings - the colour of the hour positions of the clock face

Hour hand/Minute hand/Second Hand - the colour of the various hands of the clock face

Digital Clock - the colours for your digital clock display (note ‘classic’ digital letters don’t seem available)

Border

- Simple - a black border around the digital clock

- Slab up - clock appears raised

- Slab down - clock appears recessed (incidentally, if you turn your head upside down - it appears the opposite)

- Wall - a raised double border around the clock

- Channel - a recessed channel around the clock

Background and Text

- select colours for these on your digital clock. I have a “work” Organizer file and a “personal” Organizer file (which I use for names and addresses). They can both be open at the same time, and each has different colours on the digital clock display, so I can differentiate them.

Folder - the layout of your 'filofax'
Named Colour (top and left a lighter version)

- Red leather - 'cover' is dark red - similar colour to leather
- Gold - yellow 'cover'
- Turquoise - light green 'cover'
- Dark Blue - dark blue 'cover'
- Light Blue 'cover'
- British Racing Green, instead of some unheard-of American things, as on PCs!
- Tan Leather - light brown
- Orange - a 'loud cover'
- Grey - a 'businesslike cover'
- Ab's favourite - a nice blue 'cover', Don't ask me who "Ab" is!
- Copper - a coppery yellow 'cover'

Lighter colour - a colour for the strips at the top and left (will in some cases override "darker colour")

Darker colour - a colour for the overall 'cover'

Tabs

for Calendar, Diary, Anniversary and addresses

- Foreground - changes the text colour for the relevant tab
- Background - changes the tab background colour for the relevant tab

Kang software

<http://www.locationworks.com/kang>

!Stencil

I heard about **!Stencil** in an old Acorn User article. I didn't do anything with it at the time, but stored it in my (human) memory. It's a tiny (14k) enhancement to **!Draw**, and effectively allows one to turn a **!Draw** path object "inside out". This means that text could be done to allow colour to appear behind the letters (like on a real stencil). It is written by Kell Gatherer, who with Nigel Gatherer (not sure of their relationship) have contributed some fabulous graphics and software to the RISCOS platform, under the name of "Kang software".

Anyway, using **!Stencil**. Unspark the archive, and save the application somewhere you can find it. Start the app to install the S logo on the icon bar. Now in **!Draw** create your "path object" (to create a text "path" select the text and menu-click the "Select-Convert to path" option. The text is now effectively a 'drawing' now. Ensure the relevant object to become a stencil is selected and menu-click Save-Selection (or shift-F3). Drag and drop this down to the S icon on the icon bar and drag and drop the resulting "Stencil" file back to **!Draw**. If you haven't converted the text to a path, you'll get "No paths in

this file". Once all is well you'll get transparent text on a black background, unless your text was another colour - say blue, when you'll get transparent text on a blue background.

You can then get some nice 'shadow' effects by moving the stencil over the original (you may have to bring original to the front) - see fig 1, or you can have a picture 'bleeding' through the text (see *fig 2*).

!PhoneDial



Fig. 1



Fig. 2

Grabs numbers from writable icon or from selected, dragged and dropped text and puts them through speaker for you to put your phone next to, to dial acoustically.

!PeggyTurn

I tried one of the suite of !Peggy programs. I have a lot of digital photographs, and have been using Windoze XP to rotate them quickly as I haven't found a successful program to do this on RISC OS. !PeggyTurn's a bit unusual in that it will process all the JPEGs in a directory, not just the one you drag in! Trying it on a small logo JPG from a website, it translated it beautifully, and overwrote the original straightaway.

I used **!PeggyTurn** to try to rotate an unusual sized cropping of 900 x 1279 pixels. Luckily I did it on a copy photo as the software crashed with an inadequate memory message in a task window - "Insufficient memory (case 4)". On my A7000 I have only 24MB, and this obviously isn't enough. It destroyed my picture, but lucky it was only a copy of it! The program showed much potential as it seemed quite quick, even on a slow old Acorn. It would be nice to have guidance on the amount of memory required, though Kell Gatherer does add a 'caveat' in the help of "this software **OVERWRITES** the original JPEGs, so you should retain a copy of the originals to be safe". Perhaps I should have read this first? It should work admirably

on an Iyonix, though, I believe.

!PeggyLoad

Having said the above in regards to **!PeggyTurn**, my digital camera images have been troublesome in lots of Acorn programs that simply refuse to do anything with them, as **!PeggyTurn** initially did with my images. I tried using **!PeggyLoad**. This worked better on my elderly machine. I dropped a directory of pictures into it - 11 pictures (1600 x 1200 pixels), it took about 30 seconds to process them all from “progressive EXIF JPEGs (common on any camera I buy, it seems) to RISC OS-readable ones that programs like **!PeggyTurn** could read (but I didn’t try to rotate them with my small memory!). While **!PeggyLoad** was converting them, I appreciated the feature of the “hourglass” counting to 100% for all the photos, not going to 100% per photo as I’ve seen with other programs. In all, this program redeemed Kang Software in my eyes!

!DrawBox

I’d come across **!Drawbox** before. It allows you to create precise rectangles and rounded rectangles in Draw file format. You enter the height and width (in scales of

Centimetres, Millimetres, Inches, Inches x 4, Inches x 16, Inches x 5, Inches x 10, Points or Pica Ems!) of the box you want to create and the line width (in Points, millimetres, Inches x 16 and Inches x 10). Kell advises (in the help file) that the Draw file can be dragged into Impression - it will create a graphic frame, and if the scale is set to 100% then the box will be at the size specified when it was created. Nice!

As far as the Draw file is concerned it is simply a path object (four straight lines and 4 arcs for the corners), and like any Draw object can easily be amended - add a fill colour or change corners to straights or whatever. The file can only be dragged and dropped out, you can’t specify a full path name, but that’s only a minor niggle for another superb piece of software.

!FormDraw

This program has now completely restored my faith in the capabilities of Kang Software’s stuff, after my problems with **!PeggyTurn**! This is an absolutely wonderful program that allows you to create Draw templates (as I’d call them), and specify separate text to add into it from a separate Edit file. In other words you can add multiple texts

into a single draw picture. It could even be used to create a corporate image text style for a website, with the images then converted to a GIF through **!InterGIF** (which I'm sure I've reviewed before earlier).

That provided in the Example 1 folder in the archive is a very good illustration of its capabilities. Start **!FormDraw**, drag and drop in the Draw file "template" **fig. 3**, and the !Edit text file **fig. 4**, and you should get a screen shot like **fig. 5**. if you save the resulting file (I've renamed

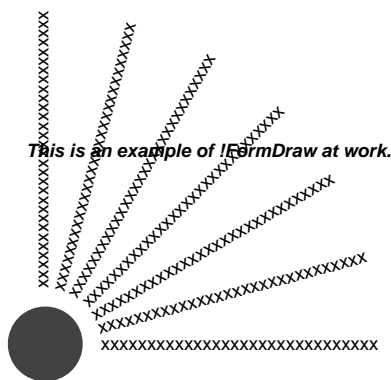


Fig. 3

it from FD_file to Fig6), you should get something like **fig. 6**.

Under the Example 4 folder, there is even a simple pretty cash sales receipt program. Again this uses **!FormDraw's** application and you could use it for a simple pretty business receipt.

This is an example of the kind of text file you could drag into **!FormDraw**.

Fig. 4

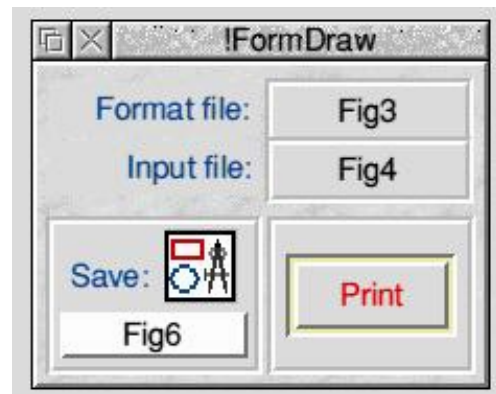


Fig. 5

This is an example of !FormDraw at work.

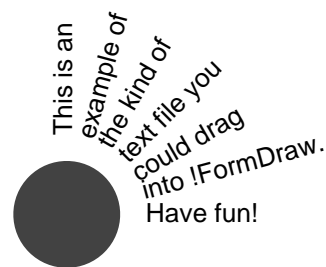


Fig. 6

I have always liked **!Draw**, but these utilities make it even more powerful.

I'll try to review some of Kang's

other software later.....

Kang's other software is listed below. Their website at **www.locationworks.com/kang/index.html**. Most stuff is PD, except "**!Barcodes**", which is commercial.

PD stuff:

!Imp>HTML - translate Impression document to HTML

!JPEExtract - to extract JPEGs from MS Word files, !WebMan assistance in website maintenance (comparison between live and local environments))

!Ligature - useful in DTP

!LogoSave - a logo screen saver (don't use on RISC OS 4.02 (like I won't))

!Mavica - corrects (early) Sony Mavica JPEGs so can be read in RISC OS

!Numbers - font of numbers in a circle - from 1 to 100

!Peggy - load and resize and manipulation of JPEGs (PD)

!PeggyLoad - transform JPEGs to more standard !JPEGs (like !Jack)

!PeggySize - resize JPEGs to fixed percentage or set number of pixels

!PeggyTurn - Landscape to Portrait (multiple JPEGs)

!PegNumber - renumbers all or some JPEGs in a directory

!PegMerge - Drag JPEGs from many sources into one directory

(won't overwrite same named ones) and in development:

!PegSplit - split JPEGs into different directories

!PeggyMix - Shuffle contents of a directory

and planned:

!PegThumb - a thumbnail viewer

!PegHTML - webpages to view the image

!PeggyLink - to link pages together

!ReSizer - uses !ChangeFSI to resize JPEGs to a percentage size - up to 100 JPEGs!

!Shuffle - renumber JPEGs, by adding them in one by one in the correct order

!StreetMap - a street-map from a !Draw file

!TelMusic - play and replay tracks from a CD. Could be used for telephone "hold" music

!Tempus - Clock using Roman numerals

!Wake_up! - wake up ArcFax when voyager is run

!XSolve - uses Impression Spell check module to solve Crossword puzzles (need Impression or Impression Junior)

Commercial

!Barcodes - print impressive barcodes (better than the "Barcode" font) - £65

Arm Arena

Andrew Weston returns to keep us informed on the latest games.

This being my first article in quite a few months for Eureka there are several major developments to report. Significantly this time there is also a hardware upgrade (effectively) for the Iyonix. The advent of this machine raised the bar slightly for games possibilities (and indeed the machine has made possible certain conversions such as Battle of Wesnoth) but the lack of 3D graphics acceleration has been a frustrating obstacle to porting (let alone developing) open source games that have strikingly better graphics than the best that RISC OS has seen up until now (e.g. Descent or Quake). Hopefully now this will begin to change.

Hardware upgrades

The upgrade in question is in fact the release by Simon Wilson (http://www.simonrules.com/iyonix_mesa/) of software drivers for the graphics card present in the Iyonix. The software provides an interface for programmers and is compatible with the popular OpenGL system (a

standard for many 3D games). It is also great to see that Simon plans to extend this interface to BASIC programs which given the ready access, power and often dependence of RISC OS on this unique asset should make it an even better attribute to RISC OS machines from now on.

One initial possibility to show off Simon's work and the potential of the Iyonix might be Quake 3 whose source was recently released. Texturing, lighting and certain 2D routines (e.g. sprite plotting) are supported but for a game like Quake 3, a fixed point driver (which is planned) might be necessary to remove the burden of calculations on the processor.

Flight simulation

A conversion of Simis' (now Kuju) Flight Sim Toolkit flight simulator has been in the works for several months by Dave Daniels. Dave has now put this up on a website (<http://jaguar.orpheusweb.co.uk>) to download. The flight sim. is an updated version of that which was released commercially over a decade ago on RISC OS machines!

The source code was released in 2002 and there are numerous simulations which can now be downloaded. A good starting point is:

<http://www.flightsimtoolkit.co.uk/>

Various aspects of the simulation have had to be optimised for RISC OS (e.g. sound) and much work has gone into the conversion. Control using a USB joystick is recommended as it is difficult using keyboard or mouse. **!Fly** is currently at version 3.21 and is a significant advancement technically in several ways over previous flight-sims on RISC OS.

Emulation

Beebit, the free Acorn 8 bit emulator for RISC OS has received an interesting update although this hasn't yet been incorporated into the download version.

One of the prime targets for collectors of 8-bit Acorn games is the set of text adventures released by Level 9. However, up until now the location graphics that were included in the later Level 9 games have not been displayed correctly by either **Beebit** or the commercial emulator **6502em**. Author of Beebit, Michael Foot, however has

made a slight adjustment to the program which now appears to allow the whole range of Level 9 games to run with graphics displayed correctly. Although the change required to make this work was small, the difficulty has been in identifying why the emulator was not until now mimicking the original machines in the way that the games expected. As Michael states: "After all this time, it came down to just 2 lines of code! It's been the most frustrating problem I've had with **Beebit** in all the time I've been writing it."

At last this unique part of software gaming history can now be enjoyed to the full on modern RISC OS machines and for that there will undoubtedly be some very grateful people! **Beebit** can be obtained along with support software and important links from: **<http://homepages.paradise.net.nz/mjfoot/bbc.htm>**

Starfighter

The well-loved Starfighter 3000 "futuristic 3D aerial combat" game released originally in 1994 continues to receive support courtesy of Chris Bazley **<http://starfighter.acornarcade.com>**. Chris has made numerous

updates (which can be downloaded from his site) to the original Fednet release, the iSV Products release and in the game's most recent incarnation — the APDL (<http://www.apdl.co.uk>) Other Words compilation CD.

The current patch (which upgrades version 3 of the game - Iyonix compatible APDL release - to v.3.05) addresses a number of minor bugs .

Help with Quake and Doom

If anybody is struggling with the first episode of Quake from RCI (www.rcomp.co.uk) Jeffrey Lee has uploaded MPEG movies (<http://www.phlamethrower.co.uk/quake/marines.php>)

co.uk/quake/marines.php)

recording his successful completion on nightmare skill level! The version of Quake that can be seen in the movies is an enhanced PC form of the game engine. One look at the smoother graphics, translucencies and better lighting makes you wonder if this is possible with Quake 1 what might Quake 3 or similar look like if the Iyonix continues to exploited?

For anybody who never bought Quake's predecessor an open source implementation of the game engine for Doom on RISC OS is available from

<http://jeffd.drobe.co.uk/c>

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or write to the club's Merton Court address

(which you can find on the last page)

or fax 07020 954018.

If it's urgent you can phone

07010 708098.

(Phone and fax are at higher rates.)

Druck's Hardware Tips

Advice from Druck about hard drives.

Every year as soon as we get the first hot days of summer, (*now the long cool days of winter Ed.*) I get a large number of reports of drive failures. You should be aware that if your disc is nearing the end of its design life (approximately 5 years although many last longer), the higher temperatures can finish it off. This is a particular problem in multi-slice Risc PCs which have quite poor cooling.

If your drive is over 5 years old (any under 10GB), you should consider

replacing it before it fails rather than after, as its far less grief that way. DiscKnight cannot recover any data from drives which have failed completely.

But the most important thing is to have a comprehensive and easy to use backup strategy in place, and to use it regularly. Hard drives can fail at any time, even if new. I've just lost one in the DVR which was only 6 months old, and typically it happened just after I got back from holidays with a lot of unwatched stuff on it, but at least I had backed up several films on to DVD before I went away.

New committee members

New committee members are always welcome. Please get in touch with our chairman Toby Smith at toby@armclub.org.uk if you would like to contribute more to the club.

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Articles required for Eureka

Remember that everyone who contributes an article to the magazine will have their membership extended, free of charge, for every issue in which their work appears.

If you feel like writing an article or even a series then get in touch with the editor at:

eureka@wyvers.co.uk
Or eureka@armclub.org.uk

Copy date for next issue of Eureka is the 10th of December.

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