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Developers' Newsletter

No 37 - March/April 1995

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Acorn 

General News

The Acorn Directory

Issue 7 of the Product Directory was published for the BETT show in January. A copy of the Directory is enclosed with this Newsletter.

We would be grateful if you would check any entry you may have in the Directory. If the entry needs amendment, please make a copy of the relevant pages, mark the amendments in coloured ink and send them to Developer Support as soon as possible. If you have new products to add, please complete the product directory form which was provided on Developers' Disc 36. It would help also if you would complete the form you will find on the enclosed Developers' Disc 37 to give us an overview of the changes to be made.

New order form

Sales have asked us to trial a new order form. You will find it in Draw file format on Disc 37. Please use this form for any orders you may wish to make through Developer Support. If you have comments on the form and its use, please put these in writing and send them to us by email, fax or letter. Thank you.

New - March 1995 - Developers' Discount Price List

Enclosed with this newsletter is a new Developer price list. Note that there are some additions and some price changes. The March 1995 price list supersedes all previous Developer price lists. Please use it from the date of receipt.

Acorn C/C++

This product, which has been available for some months to Registered Developers as Aquarius in beta and pre-release form, is now in the warehouse. Purchasers of Aquarius will be updated in the next few weeks. Please let us know if you purchased the Aquarius beta but have not received your C/C++ pack by the end of April.

Pricing details for C/C++ are as follows:

Product code SKB78 RRP excluding VAT £212.72

Developer price exc VAT £127.63

Upgrade price (from Desktop C or Assembler) exc VAT £170.17. The upgrade offer expires on 1st September 1995.

Risc PC Technical Reference Manual

The TRM is now in the warehouse. Developers' outstanding orders should be fulfilled by the time you receive this newsletter.

The Expansion Card specification will be sent to Hardware Developers very shortly. There is no need to order this

item unless you have not previously received copies nor have indicated on your Registration Questionnaire that you develop hardware.

Programmer's Reference Manual, volume 5

This volume of the PRM (ACJ05) deals with Risc PC programming issues and is in stock. We will refer to pages within it where relevant in answering your technical queries. We make the assumption that all Registered Developers will have a copy of the RISC OS 3 PRM volumes 1-4 and volume 5.

Ethernet Design and Installation Guide

For those of you in the networking arena, the Ethernet Design and Installation Guide has been in stock for several weeks. The product code is AED24, RRP £19.95 (no VAT).

Acorn Ethernet cards

Please would Developers note that the current Acorn Ethernet card (AEH61) is 10Base2 NOT 10BaseT. We are considering the addition of a combination card to our range.

Risc PC Sound Upgrade Card

This card which provides 16-bit sound capabilities for Risc PC is now available - product code ACD05, RRP £60.00 plus VAT.

Freelance 'database'

Many of you will know that we keep a file of Developers who are willing to undertake contract work so that when an outside agency asks us for suggestions we are able to supply some suitable names. It's time we updated the list so, if you are a programmer or hardware designer willing to undertake contract work, please send brief details of your skills and experience as well as contact information for us to pass on. We would be grateful if you would do this EVEN if you've provided the information before so that we can be assured that it is up-to-date.

Upgrade schemes in operation

The following products and upgrades are available through Acorn Direct. There are no Developer Discounts on such items. Please order them direct from the address given:

1. Acorn A-Link Upgrade Version 2. (Pocket FS2 Upgrade) Ongoing

- Send payment to Acorn Direct (UK only).
- Not essential to return disc.
- £9.95 inc VAT & P&P.

2. FPA datasheet Ongoing

- £10 (no VAT) for FPA booklet. Send payment to Acorn Direct.

3. Level 4 Release 3 Fileserver Upgrade Ongoing

- Send back original disc to Acorn Direct with payment: AES51 (£116.33 inc VAT).
- Credit card payment only for overseas.

4. OPL Manual for Pocket Book AHJ10 Ongoing

- Programming Manual for Pocket Book. Customer sends payment to Acorn Direct (£12.95 inc VAT & P&P)

5. Programmers Reference Manuals OS3 Ongoing

- Customer sends previous index cover and payment of £59 + £4 P&P (no VAT).

6. TCP/IP Release 2/Network version Ongoing

- Send back disc to Acorn Direct with payment (£59.95 inc VAT & P&P).
- Credit card payment only for overseas (Europe: £72).

7. TCP/IP Release 2/Single User version Ongoing

- Send back disc to Acorn Direct with payment (£39.99 inc VAT & P&P).
- Credit card payment only for overseas (Europe: £52).

The Acorn Direct contact details are as follows:

Acorn Direct, 13 Denington Road,
Wellingborough, Northants, NN8 2RL
Tel: 01933 279300
Fax: 01933 278225

Technical News

Making assumptions

We have noticed that some applications assume that certain items are present in the RISC OS ROMs. We advise you that this is unwise. Acorn does NOT undertake to retain in the ROMs all things currently placed there. We reserve the right to change the content of the ROMs - in particular to move items to the hard drive. You should not rely on things remaining there.

Developer Queries

Please try to send full information with your technical queries. Increasingly, our technical team is having to go back to Developers for more information before being able to tackle the queries you send in. This results inevitably in delay which must be frustrating for you so we would urge you to give as much detail as you can in the first instance - even to providing example code if appropriate.

Contacting Developer Support

Please would Developers not contact individuals in Acorn directly. Callers often seem to assume that the person they call will know everything whereas probably no individual knows all there is to know about the wide variety of subjects relevant to Developers. Please direct your queries to Developer Support in the first instance (letter FAO Developer Support, Acorn House; tel: 01223 254248; fax: 01223 254264 or email isvquery@acorn.co.uk). Often the response comes from a variety of different people within Acorn.

RISC OS Style Guide compliance

Concern has been raised that some Developers' applications seem to be moving away from the Style Guide. We would remind Developers of the need to comply with the Style Guide. If you would like to receive general comments on an application's Style Guide adherence, please send it to Developer Support with your request and we will treat it as a normal technical query and

respond to you. We would normally give such checking work a lower priority than queries relating to programming problems, faults etc. so please allow us more time in responding to you on compliance.

Aquarius

In response to your feedback, the Aquarius team have been continuing to work on the project even after releasing it to be made into a product. As a result they are working on a small number of bugs which seem to be affecting particular Developers and which, for the most part, were submitted too late to be included in the product. We hope to be able to provide these fixes to Developers at about Easter time.

Beyond Aquarius

There are areas that the Aquarius project (and thus the C/C++ product) does not address, memory management and text editing, for example. Developers have commented on these omissions and we are looking at ways in which we can assist Developers in these areas. It is not possible, in general, to mix and match Aquarius Toolblox code with RISC_OSLib. In the case of memory management, however, you should be able to extract, from the RISC_OSLib sources on Developers' Disc 37, the flex code for you to use in your applications. In addition, we are already looking ahead towards the next step in the Development Environment. We won't be able to address everything Developers have put forward but all suggestions you have sent in will be considered. Please keep sending in any suggestions you may have for the future.

Speech SWIs

Acorn has been participating in the European ESPRIT programme. Another participant is Lernaut and Hauspie who are based in Belgium. Lernaut and Hauspie are one of the world's leading speech software companies and their contribution to the project revolves around Text-to-speech (TTS) processing. To date we have decided on the format of a number of SWIs for TTS. You may wish to use these in your software so that, when text-to-speech is available, your software will be able to make use of the interface.

If you require details of the SWIs please contact Developer Support in writing. The information is quite bulky so please bear with us if it takes a little while to respond to your request.

Error in DevNews 36

OS_SpriteOp 52 Put Sprite Grey Scaled

The above number and name do not correspond. It should be:

OS_SpriteOp 53 Put Sprite Grey Scaled

RISC_OSLib

Many Developers have recently been asking to have a copy of RISC_OSLib. Please find a copy of RISC_OSLib on Developers' Disc 37. It has been compressed with Spark. A copy of SparkPlug is also on Disc 37 so that you can decompress the 'Archive' file.

Changes to the sound system

We are developing new standards for sound playback, sound sampling, and MIDI. The resulting changes will be implemented over the next few months. There is a possibility that these may cause compatibility problems with existing sound/MIDI hardware and software. If you are a developer of audio products, please drop a line to Developer Support to tell us what you are doing. (Do not assume we already know; it's easy to miss even the most obvious!) We will add the information to the database so that when draft specifications are available we can make them available to you.

Self modifying code

Code is considered to be 'self modifying' when part of the image is operated upon before execution. This could simply be copying a function to somewhere else in memory or generating code 'on the fly' before branching to it. Future ARM processors will not necessarily support this behaviour and developers who wish to future-proof their applications should avoid self modifying code.

CD-ROM choices files

Recently there has been discussion concerning the use of choices files with CD-ROM applications. The 'Save choices' options in applications cannot be used with 100% CD-ROM based applications because they are read-only.

At present there are no fixed guidelines on where choices files should be stored from CD-ROM applications. It is something that we need to make a decision on and we would like to know what Developers' comments are on the subject.

There are a number of factors involved with this and finding the ideal solution may be difficult. We need to take into consideration the schools that may have a CD-ROM machine but no hard disc for example.

Below there are a few suggestions that have been mentioned in the past. No one suggestion is ideal and there are certainly other possibilities so if you have any comments or other suggestions please send them to Developer Support.

Possible solutions

- 1 A separate floppy disc is distributed with any CD-ROM application that wants to save choices files and this disc has the main application on it. The user then 'runs' the CD-ROM from the floppy or hard disc and this allows the CD-ROM to see a place to which to save a choices file. This method is similar to the way in which CD-ROM applications are used on the PC.
- 2 A new directory could be created in the !System directory that has the name of the application and files can be saved in it. The drawback is that !System may be on the CD-ROM and therefore the last 'seen' version cannot be written to. This can also make !System rather large if many of CD-ROM applications are used and the directories left inside !System.
- 3 A new !System or !Scrap type application directory could be distributed in the same way as !Scrap, called !Choices which *all* applications use to save choices files. The same directories can be created inside !Choices and then used. !Choices (non-bootable) can be distributed on the CD-ROM and users told that they can copy it to a suitable medium. A system variable for the !Choices application would be set up when booted or run.
- 4 The CD-ROM application creates a directory on the current hard disc or floppy disc if found and then the choices file saved within. This could make the hard/floppy disc untidy and it would not be certain that the medium is present when the CD-ROM is run.

Kodak PhotoCD Toolkit

Some Developers have asked about a PhotoCD Toolkit. Although, in general, the PhotoCD SWI list will supply all the information required by Developers, the Acorn version of the Kodak Toolkit is now available for purchase by Registered Developers who require it. The price is £100 plus VAT and should be ordered directly from Developer Support. Do not forget to include payment with your order. Please allow 14 days for delivery.

Application notes

We are currently updating Application Notes 240 and 241. Please would any Developer who is making use of the selection model or drag and drop contact us as soon as possible with their comments?

Example code

As a result of Developers' queries, we have built up, over a period of time, some code examples which demonstrate how certain effects may be obtained. The current list includes:

<i>CModTask</i>	Example of how to write a wimp task as a module
<i>ColourSel</i>	Example of using the Colour Picker
<i>DragEg</i>	Shows how to implement dragging icons
<i>IHelpEg</i>	How to implement interactive help from an application
<i>FontWin</i>	Displays outline fonts in a window
<i>PaneEg</i>	Example of using window panes
<i>PlotIcon</i>	Plotting icons at run-time rather than using

<i>!FormEd</i>	
<i>PopUp</i>	How to implement pop-up menus from C
<i>PrintSpr2</i>	Displays/prints a sprite file
<i>SpriteWin</i>	Displays sprite files and implements a grid
<i>Sp_Change</i>	Shows how to change a sprite in an icon

Developers' disc 37

The disc includes the following directories:

ROSLib	- RISC_OSLib sources compressed and Sparkplug for decompressing them
ProdDir	- Product Directory change leaflet (Style format)
Orders	- Registered Developer Order Form (Drawfile)

News from other sources

From Oak Solutions

Certain developers appear to be using the datestamps of <Wimp\$ScrapDir>. 'MiscApp' for their copy protection and are thereby causing problems for legitimate users. !Scrap is by definition a temporary storage area, and applications should not rely on any data remaining permanently inside it. Certain protected hard disc systems create a fresh copy of !Scrap as the machine boots - thereby destroying the timestamped directory and making the application think that the software is running on an unauthorised machine. As a user, I feel that I should be at liberty to clear out any rogue files inside Wimp\$ScrapDir by opening a filer on that directory and going 'Select All->Delete', knowing that any applications that need their own directory will create one as required.

dongles!) seem to look at information in the !Systemdirectory to ascertain whether they are running on the machine they were originally installed on. I know from bitter experience that if I simply '*copy' a replacement module into !System.modules the protection scheme is upset, and an unnecessary technical support call is generated.

Can all developers please take a close look at their protection schemes and make sure that they do not impinge on the perfectly legitimate actions of other users or applications.

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Some applications (even those already protected by

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A year in the life of Acorn leaflet
Risc PC 486 card leaflet
Risc PC CD system leaflet
Retail Price List - January 1995
Arc Magazine, issue 7

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