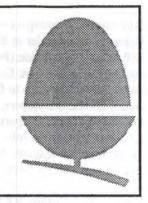# Developer Newsletter Number 23

September 1991

General News

○ An important announcement

At about the time this Newsletter is mailed to currently registered Developers, Acorn will be making an important and exciting announcement to the press and to some of our mutual customers. Please look out for this announcement. We will mail details with the next Developers' Newsletter.

○ Developers' Forums

All Registered Developers were circulated with an invitation to Forums held on the 30th July and 1st August. The two Forums were very well attended; in fact we could hardly have squeezed another developer in through the doors. Sam Wauchope, Acorn's Managing Director, welcomed everyone and stressed the importance he places on Acorn's continuing relationships with third parties. All parties found it useful to be able to share information under non-disclsure agreements.

It is hoped that further, similar Forums will be held in the future with equal success. It is always useful for Acorn's development staff to meet with the third party developers and to discuss matters of mutual interest.

○ Registered Developer System Offer

At the Forums a very special offer for Developers was announced. During August, all Registered Developers in the UK were mailed with details of the offer. Owing to heavy shipping costs and to support implications, it is regretted that this offer cannot be extended to Developers outside the UK.

Acorn wishes to ensure that all developers have access to hardware systems that will allow for the efficient development of new applications and the utilisation of emerging delivery media. This caused us to announce the Registered Developers' System Offer. Through this scheme all registered developers can purchase one Acorn system bundle at a significant discount. The system comprises:

Archimedes 540	AKB50
4MByte RAM Upgrade	AKA80
Acorn Desktop C	SKB75
Acorn Desktop Assembler	SKB76
Archimedes 500 Series and R200 Series Technical Reference Manual	AKJ76
RISC OS Programers Reference Manual	AKJ02
Cumana CD-ROM Drive	

The system is offered to Registered Developers at £1995 excluding VAT.

On-site service support for the computer is also available as an option.

This offer is open to all currently-registered Developers until 31st October 1991. Developers registering after 1st August 1991 will have 3 months, following their registration, in which to take advantage of the offer. Outside these times, the standard Developer discount scheme price list will apply.

Each Developer may place one order under the scheme for one Developer System Offer which must be sent in on the special order form which has been sent to all registered developers. The order must be accompanied by a cheque in payment, inclusive of VAT, and a signed Developer System Agreement as provided with the order form.

The CD-ROM drive will be supplied direct from Cumana. Next Technology Corporation of Cambridge, who are recognised as experts in Multimedia, are keen to work with developers in the field of mastering and publishing CD-ROMs and they have some special discounts to offer to Developers taking up this system. Details were provided with the order form but please call if you need another copy.

○ New Products from Acorn

PC Emulator

A new version of the PC Emulator has recently been published. Upgrades are available from Acorn Direct. There will be no special Developer discount for the PC Emulator upgrades, but should Developers require upgrades they can contact the Developer Support Department for the necessary details.

Desktop Development Environment

The Desktop Development Environment, as described in various of the magazines, came into the warehouse in

mid-August. Developers who already have copies of C Release 3, Assembler or Software Developers Tool Box will be able to upgrade (from C to Desktop C and from Assembler or Software Developer's Tool Box to Desktop Assembler). Upgrades to DDE are again available from Acorn Direct. Developers, however, should contact the Developer Support Department for upgrade details and for a special voucher allowing them an additional discount on the upgrade. Full Developer discount pricing will be included on Developer Discount Price List.

Code	Description	RRP inc inc VAT	Developer Discount Price inc VAT
SKB75	Desktop C	£269	£161.45
SKB76	Desktop Assembler	£175	£105.05

Broadcast Loader

Broadcast Loader which allows network users to load applications more quickly is also available to developers who have networks. The product code is AES 34. The RRP for a site licence is £69.00. The Developers' Discount Price is £41.40. Broadcast Loader is available as a site licence only.

RISC OS Style Guide

RISC OS Style Guide has now been added to Acorn's price list. It is also included on the Developer Discount Price List. The price to Registered Developers of RISC OS Style Guides ordered, in excess of the copy provided free of charge to all Registered Developers, is £7.56.

○ Education Product Directory

Issue 2 of the Education Product Directory has been circulated to all Developers and Suppliers whose products appear in the Directory. A copy of the Directory is included with this Newsletter for those who have not yet received one.

If you have products which you feel should be included in the Directory (whether they be for education, for consumer use, complete systems for value added selling or any software, hardware or complete systems including Acorn equipment) that you think could be included in future directories of any kind, please keep us informed.

There are special forms to complete so that we have all the information that we need. You need not supply the textual description on paper; we are more than happy to receive that on disc, but we do ask you to fill in a form for each product you wish to be entered so that we have that ready for data entry to our database.

Product Directories are being produced for various different market requirements and small subsets of products are sometimes selected for description for various events and special market requirements. It is therefore important that you keep us up-to-date with your latest information.

We do ask you to supply a library copy of any software which you wish us to include in the directory. This software is kept in smart display cabinets with glass fronts and these cabinets are kept locked. Acorn staff may borrow software for a short period for evaluation and sometimes software is borrowed for demonstration to various influential customers. It is also often used to check against future developments. Again, it is important that you keep us up-to-date with the latest versions of your software. In the case of hardware, we realise that it is not necessarily commercially viable for you to provide us with boards and other hardware devices. In this case we are quite happy if you inform us, in writing, of reference sites where your products are in use, should we need to call on them for verification purposes.

The next Directory to be published will be aimed at the consumer market but will cover products from all areas, with the exception of UNIX products. The Directory is to be available at the Acorn User Show and is being published under the auspices of Redwood BBC Acorn User Magazine.

A Directory aimed at the Value-Added market is currently being produced after which, work will commence on the next issue of the Education Directory. Products for users with special needs are also being added to the database.

○ Queries From Developers

Please remember to quote your Developer number. It adds delay if we have to look it up.

We still have a number of telephone queries coming into us where we have to ask people to communicate their complex queries in written form, by fax, by EMail, on disc or in a letter. It would speed up our response if you could possibly try to remember to present your query in written form without first trying to dictate it over the telephone. There is always a great danger that we will misinterpret a telephone conversation. It is very easy to mishear a letter or number over the telephone and there is much less margin for error in written communication. Additionally, it is much more efficient to pass such written queries on to our technical staff for resolution.

Once answers are forthcoming our technical staff may contact you direct, or you may receive a letter or fax or from one of them. If you do need to call, please remember the Developers' direct line is 0223 215474. Our fax number is 0223 210685.

○ Education Business Unit News

Acorn increases its share of the Education Market

Acorn published a press release in June this year giving details of market research information taken from an independent market survey organisation, Taylor Nelson. During quarters 2 to 4 in 1990, 74% of schools buying computers bought Acorn products and Acorn computers

can now be found in 9 out of every 10 primary and secondary schools. The survey shows that just under 70% of computers presently installed in UK schools for curriculum use are Acorn machines. A copy of the press release is enclosed with this newsletter. The information it provides is good news, both for developers and for Acorn, as we are sure you will agree.

○ International Business Unit News

USSR

Acorn influence has even spread to the (former) USSR - we are represented there by Olivetti, who have long had a presence in the Soviet Union. Acorn installed a small network in Moscow University last year, and has made proposals to the Ministry of Education. During September, a representative from the sales department attended a series of Acorn courses in Cambridge, and spent some time telling us about the opportunities for the future in his country. Of course, it will take time for things to settle down, but nevertheless considerable effort is being expended in preparing for the business which will undoubtedly come at some stage.

We were asked if we would pass on the request for as much information as possible about your products to be sent to Moscow. Please do this: there is no guarantee of any result, (let alone a fast one!), but the groundwork will at least have been laid.

Contact Dmitri R Shidaryov, Sales Support, Ing. C. Olivetti SpA, International Trade Centre, Krasnopresnenskaia nab. 12, 9th Floor Office No. 905, Moscow, USSR.

Tel: 253 8347, 253 2993.

Telex 413076 OLIMO SU

Technical Information

○ Shared Resources

Please remember that !System is reserved for Acorn's shared resource modules. Third party modules should be placed in a special resources directory which should be registered with Acorn.

○ New Version of C Lib

A new version of CLib, version 3.75, is provided with Desktop C. Developers who currently distribute CLib 3.66 under licence from Acorn will need to change to 3.75. Developers who took advantage of the availability of early versions of the Desktop Development Environment have been asked to test their products against C Lib 3.75, but we would ask you to ensure that your products run successfully with 3.75 before you distribute it. If there are any problems please do let us know immediately. If you require a licence or an update to your current one, please drop a line to Developer

Support and we will arrange it as soon as we can.

You should not distribute CLib (or any Acorn code) without a licence.

○ DevClaim Document

The DevClaim Document, which has been provided to some developers on request, has been recently updated. Those developers to whom it has previously been sent should have received the update already. Should they not have done so, or should anyone else require this document, please contact us and we will provide a copy. DevClaim provides technical information for devices under RISC OS.

○ Viruses

A number of viruses have become known within the Acorn world and staff at Acorn have been investigating how we may best help developers in this area. The following information may be used as a guideline.

The Known Viruses

1) Extend

This lives in applications, using one of eight possible names. It modifies/creates a !Boot file to load itself. Apart from claiming more and more memory (eventually causing the system to run out of memory) it is harmless, but very contagious.

Quick Check : Press <F12> and type 'help extend' - a message of the form 'Module is...' indicates that it's loaded.

2) Icon (also known as Filer)

There are a number of variants of this around - two have been encountered already. Both use !Boot files to propagate. One variant does nothing apart from spread itself. The other generates a nonsensical error message when it is first loaded.

Quick Check : a file called Icon inside an application which is filetyped as a sprite, but is actually BASIC.

3) FF8 (also known as ArchieVirus)

This is by far the oldest virus, but various bugs in its coding make the chances of it successfully infecting other programs quite small.

Unlike the other viruses discussed here, it works by merging itself with files typed FF8 (Absolute).

On the 13th of the month, any infected application will fail to run, giving the message 'Archievirus strikes again'.

Quick Check : Load a file into !Edit, and look for '1210' at the end of the file (though 'Hypo1210' indicates an innoculation instead).

4) RISCOSext (also known as Thanatos)

This is by far the worst of the viruses discussed here. It

has various nasty things on particular dates, with a random chance of something happening at any time. Any outbreaks of this virus should be treated rapidly to avoid any chance of data loss.

Quick Check : Look in the Task Manager display for 'Thanatos'.

5) DataDQM (also known as VigayVirus)

This one causes the screen to judder an increasing amount during each Thursday.

Quick Check : An application called 'TaskManager' - not to be confused with the real 'Task Manager' which will appear in the list of module tasks.

6) CeBit

Aside from infecting applications (via the !Boot file as usual) it will stop proceedings on every 16th infection to display a message from 'Devil, The Lord of Darkness'. This virus was discovered in Germany, and is not thought to have spread to the UK yet.

Quick Check : press <F12>, then 'help tlodmod'. A message of the form 'Module is...' shows that it is loaded.

7) MyMod

This is a harmless virus, which will display a message on each Friday 13th. It can exist in two forms, the first being the trojan used initially to release it, and the second being the form in which it infects applications.

Quick Check : press <F12> then 'help mymod'. A message of the form 'Module is...' shows that it is loaded.

○ Safety Testing and Certification

Under Part 1 of the Consumer Protection Act 1989, which is an important and relatively new bill concerning civil aspects for product liability, manufacturers will be directly liable if damage is caused by a defect in their products. There is no sure defence. However, if you can prove that your product meets the safety level of a British Standard you can show the court that you have tried to ensure that the safety of the product was "such as persons are generally entitled to expect". BSI Product Certification under the Kite Mark or Safety Mark Systems assures that products consistently meet the requirements of a British Standard and will be good evidence of producing to the safety level expected by the Law. Products manufactured under these disciplines are less likely to cause damage in the first place. We would remind you that part 2 of the Consumer Protection Bill makes it a criminal offence to supply unsafe consumer goods.

○ Electricity at Work Act

On 1 April 1990, the UK Electricity at Work Act 89 came into force which requires that employers ensure that all portable electrical appliances are safe. The method of ensuring that an item is 'safe' is usually taken to mean that it will be tested periodically, usually annually. The testing normally consists of two tests:

a) a psu insulation check with a high voltage

b) a test of the earthing arrangement, this only being necessary on earthed equipment.

As this testing is a national requirement, a variety of people having zero to competent technical knowledge are carrying out the testing. Because of this new development we suggest that you consider the inclusion of some information on this in your documentation. The inclusion of one of your expansion cards in a base machine will make it liable to testing.

The most worrying testing is the earthing test which is normally carried out with a low voltage current of between 4 and 25 Amps and you should indicate clearly where they may and may not test. In regard to the high voltage test we are recommending the use of the standard 500 Volt DC test which can reliably inspect switch mode power supplies with their input X and Y interference capacitors. We are not recommending the 1500VAC test, normally called a flash test.

○ ERA Conference on understanding the principles of safety

Developers who attended the Developers Forums had a very entertaining presentation by a member of Acorn staff, who described various standards, including those of safety. He has pointed out that there was a conference available in September that may have been of interest to people working in the hardware area in particular.

We had hoped to get information to you in time for you to apply to attend but pressure of work prevented this. We apologise.

We will, however, give you the conference details in case you should wish to enquire whether there are to be further similar conferences. We understand that it is likely that, dependent on the response to the September conference, there may be another organised for later this year or early next. The details are as follows:

The conference was organised, with the active support of the DTI, by ERA Technology, an independent organisation offering research, development, design, publication, testing and consultancy in electronic, optical and electromagnetic engineering, radio frequency technology, metallurgy aand materials sciences. The conference organiser was Miss Linda Jelly, ERA Technology Limited, Cleeve Road, Leatherhead, Surrey, KT22 7SA. Fax 0372 374496. The conference was designed to provide an understanding of the principles of design and to put these in the context of the changes which are occurring in European legislation, regulation, testing and certification.

The Conference may not be directly relevant in that it does not set out to answer practical questions. ERA Technology Limited do, however, organise other, similar conferences, but with a more practical theme, from time-to-time.

You may also be interested in EURO-EMC '91 to be held at the Sandown Exhibition Centre from 8-10 October. Call 0799 26699 for tickets and conference details.

○ Filing System allocation specifications

To avoid clashes and to provide a standard interface to certain filing systems developed externally for RISC OS, specifications for some interfaces have been constructed. These specifications outline the generic and vendor unique allocations that are needed by certain filing systems. The specifications that are available at present include the following:

IDEFS - access to IDE filing systems

SCSIFS - access to SCSI filing systems

These documents do not necessarily outline the interfaces to any products currently available. Some products were developed and released before the specifications were available but it is hoped to provide some convergence for the future.

The documents decsribed above are available from Developer Support.

○ Obsolete modules under RISC OS

Developer Support is still receiving distribution licence requests for certain modules for use with RISC OS 2.00 that Acorn now classes as obsolete (i.e. they are either no longer required as better facilities are available or they are detrimental to the user). The two modules that are often requested for distribution licensing that will not be licensed are as follows:

MemAlloc

MemAlloc is no longer available for distribution with any RISC OS product. The reason for this is that it can be detrimental to the user and can leave the machine in an unusable state. The module itself provides the facility for changing environmental memory areas in the machine without the consent or even knowledge of the user. These memory areas include the following:

System Sprite area

This memory area can be shrunk to zero KBytes with the option of executing a command if the call fails. Hence, this call can cause the system sprite area to be cleared of any sprites currently loaded and reduces the area to zero. This can lead to the user losing the sprites already loaded, without even realising it.

Font Cache

This memory area can also be reduced to zero KBytes. Imagine if the user had set the FontCache to 192 Kbytes in order to do some serious Desktop Publishing or Word Processing work. Doing this sort of task with a very low font cache leads to very slow redrawing of the fonts. If a novice user has had this area shrunk without his or her knowledge, then such a user really has no means of knowing what has gone wrong with the software in the machine.

There are other memory areas apart from the ones described above that must also be handled with care. The features of the MemAlloc module may seem very useful to application writers, especially for games and applications that do not run in the desktop, for optimising the machine's memory. However, it is up to the user to control the environment and it is definitely not the prerogative of the application to make assumptions and optimise memory without the user's consent or knowledge.

HardCopy

This module, which originated with Arthur 1.2, before the RISC OS printer driver mechanism had been completed, is also no longer available for distribution. The module provides the ability to dump a whole screen either to an Epson FX or to similar Epson-compatible printers. The features of this are now available via the RISC OS printer driver route and any printing should be done via the printer drivers.

If developers need information on how to implement a facility similar to HardCopy, using the the RISC OS printer drivers, then example programs in BASIC or C can be sent if requested from Developer Support.

News from non-Acorn Sources

The following services are made known to you at the request of the companies and individuals concerned. Acorn can take no responsibility for the quality of the service offered. The list is in alphabetical order. No priority is implied or intended.

○ From Phoenix Software

Well-designed and colourful adverts, inlay cards, hand-outs and manuals are among the best ways of promoting your products. Until recently though production was strictly the preserve of repro houses but the increasing number of alternatives can be a deterrent in itself. One way of avoiding problems is to take your jobs to Phoenix Software. Phoenix can handle everything from separating Impression documents to 24 bit colour scanning, full page layouts and even editorial services. Phoenix prices are a fraction of the traditional repro houses and compare very well with those of Macintosh-based typesetters. Our main advantage though is that we are fully Archimedes aware, having been involved with the computer since 1987. That means that we talk your language and we see things from your perspective.

Detailed information packs, complete with prices, are available from Phoenix Software at 6C, Belgic Square, Padholme Road, Peterborough, PE1 5XF, Telephone 0733 53355. Fax 0733 315424.

For those people experiencing problems on projects already underway, we also operate an Emergency Aid Service. For more details just call the above number and ask either for Matthew Fifield or Andrew Brown.

○ From Smith Owen Associates

Smith Owen Associates is an independent consultancy set up recently to provide services for the computer industry. The partnership brings together a wide range of complementary skills and experience covering areas such as documentation, project management and software development. Help can be given with all stages in the development of the project, from the initial design of user interfaces through to the preparation and delivery of training courses once the product is released. The documentation services provided include editing, formatting and indexing existing text as well as writing reference materials and tutorials from scratch. The documentation can be delivered in any form from raw text on disc through camera ready artwork to finish product ready for distribution. The partners previous experience makes them particularly sensitive to the needs of small and medium sized companies. Such companies often have varying demands for documentation and are either too small to employ specialist staff or find that there are times when they are over extended. Using the services provided by Smith Owen Associates ensures that they can deliver professionally written and produced documentation at an economic cost. For further details contact Smith Owen Associates, 33 Cooper's Close, Stetchworth, Newmarket, CB8 9TT or call Andrew Smith on 0638 507780.

○ From Mark Webb and Anne Bastasius

This recently set up publishing consultancy can provide a useful service to Acorn's developers. The consultancy can provide the following services: Translation of German documentation into English to the client's deadline, providing both linguistic and technical accuracy and guaranteeing full confidentiality. The finished translation is provided in the client's word processor and disc format and a laser printed hard copy. The cost is £45.00 or 120 Deutschmarks per 1,000 words. To provide a complete documentation production service to developers, Mark Webb has teamed up with Phoenix Software, described above, and would be happy to quote for documentation commissioned through him from translation to production. Mark has been editing Acorn-related magazines since 1983 and is still very much involved

with the Archimedes World magazine. He has considerable expert technical knowledge of Acorn-related products. Anne Bastasius is a qualified and experienced translator of German into English. She does not undertake translation into German since she believes that documentation should only be produced in the writer's own native language.

○ From Wild Vision

Wild Vision Hardware Design and Manufacturing Facilities

Wild Vision is well known in the Acorn world for the design and manufacture of Archimedes hardware expansions. A lesser-known fact is that they also produce hardware for several other companies in the Acorn market - such as Lingenuity and Clares.

During the last year, Wild Vision has moved into a new factory unit with purpose-built design and manufacturing facilities. These expanded facilities mean that both design and manufacturing services can now be offered to other companies on a sub-contract basis. As specialists in the Acorn field with a current range of more than twenty hardware products, Wild Vision has considerable experience of the problems involved in the development of such hardware. This expertise could be of special benefit to companies who are new to the hardware market.

Services which can be provided include the following:

Electronic design
Printed Circuit Board design on Vutrax
Metalwork design and procurement (e.g. back panels)
Component procurement
Manufacture and test

For further information contact Peter Wild, at Wild Vision

Unit 15 Witney Way
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Enclosures
Market research press release
Education Directory Issue 2 - if appropriate
Letter and form about possible portable applications