Acorn s World

Mark Sealey looks at Acorn s plans for education in the coming months

1994 has been an important and successful year for Acorn. The launch of the Risc PC and the announcement of Online Media have grabbed the headlines, but the company s bread-and-butter business continues, supplying systems in quantity to education - desktop machines, CD-ROM and high-end publishing systems, palmtops (this September marked the launch of Pocket Book II) and a variety of network solutions. These have all contributed to what must be counted one of Acorn s happier years.

Unlike some of the large American corporations, who have no commitment whatsoever to schools and kids in this country yet claim the right to a major presence, Acorn has always been an organisation which contributes to education as well as deriving much of its revenue from it. Acorn is right to describe itself in current publicity material as In Education FOR Education .

Reorganisation

Over the summer, the Education Business Unit at Acorn House, managed by Peter Talbot, underwent a major shake-up in order to reflect more accurately shifts in priorities for the immediate, if not the long term, future. There are now three divisions reflecting the company s sales into the primary, secondary and home and personal markets. Common ground between these is recognised, as is provision to cater for special educational needs.

Acorn Advantage

Yes, that s right, the home and personal market is seen as part of the EBU s remit. Acorn is launching a new initiative which recognises, as good teachers have long felt, that the child does not stop learning outside the school gates. Parents and carers (at whom Advantage is aimed) have a key role to play in their kids education.

Research carried out for Acorn suggests, for example, that nearly 60% of parents or carers believe that children under five years of age should have access to IT. It is usually accepted that software for the early years running on the Acorn platform has always had the edge over that from other educational providers.

Acorn s scheme aims to help not just with families with pre-school and infant children but others, too. The campaign is designed to be a four-way partnership between kids, their parents/carers, schools and Acorn.

The Advantage scheme was launched in September and will run indefinitely, like Access. It is run on a membership basis and aims to build heavily on the loyalty that Acorn users (including schools) have always felt for their kit.

The idea is to develop a long term relationship of all those involved through purchase schemes such as Tesco. The difference is that - unlike Tesco, where groceries were supposed to buy computers - Advantage participants log up purchase points on computer equipment. These can be set against items in a directory, listing many more kinds of educational resource, not just IT ones. Significantly, Advantage purchase points will also count against both Acorn peripherals and training. There will be a close relationship with Acorn Educational Dealers (AEDs) here, too.

On the information front, a series of documents will be made available to Advantage members providing useful background information on the use of IT, abstracts of research material, and details of developments within the world of Acorn educational IT.

Pocket Book II

The launch of Pocket Book II adds facilities for those schools seeking, for example, to schedule data collection, processing and presentation away from the classroom itself. For the first time there is to be a physical link to the Apple platform as well as Acorn desktops and PCs.

The new computer s screen is larger and there is increased memory. In fact, this is the only (not to say the best) tool of its kind designed specifically for education. For a full review of the Pocket Book II see last month s RISC User.

Early Years

Recognising its lead in the provision of material for key stages 1 and 2, the Early Years Learning Curve is another initiative that bundles a 2Mb A3010 with a talking word processor, art package, talking stories and an adventure program - for £499 inclusive of VAT. There is a comparable pack for the A4000 and Risc PC.

New Literacy

Every one of these enterprises is shot through with the programme launched late last winter and picked up in a series of Round Table discussions over the summer to promote the idea of the New Literacy.

This concept recognises the need for children to communicate on a much broader front than has been envisaged by educationalists, some teachers and parents or carers (but not many kids?) hitherto.

Think of what is now available (and in some contexts commonplace) in our IT-rich environment: graphical user interfaces (GUIs) like the RISC OS desktop; interactive multimedia; and instant access to all manner of online data. Think of the convergence between fax, TV, audio and other media, modems and the desktop computer into what will be - by the time our kids leave school - a highly personalised, portable and powerful tool. Children need to be encouraged and enabled to make the best use of all of this in order to communicate effectively from now on.

Acorn rightly sees the philosophy behind the equipment which it supplies as having a central role to play in developing this New Literacy. Each of its educational priorities reinforces this - from the Pocket Book, which can radically alter work routines in schools, to sophisticated multimedia redefining many of our ideas of resource.

We shall see much more of this in months to come.

Windfall

This is the scheme announced in September and which you might just be quick enough to catch (it ends 31 October), whereby schools can get real money (£50) as opposed to vouchers on every A3020 purchased this autumn (contact BEEBUG for further details).

On Line Media

As significant as anything else in this survey of what Acorn is up to for education must be Online Media. Much has been written in RISC User about the launch in July of Acorn s bid to become the UK s first and chief superhighway provider.

The position regarding education is still unclear; so much will depend on which providers of software buy (sell?) into the scheme. It is enough to know at this stage, though, that once publishers do start to make their software available, schools will be encouraged to make full and interactive use of the material available. The appeal will surely be instant, with easy access to a huge (eventually) array of data, resources and learning materials, hopefully quite cheaply and all directed from one source.

Then there is the interactive element; again, it is too early to say how schools may be able to participate in the project, but it is not impossible to imagine kids work and schools notices being made available to the local community (the system has a clearly delineated geographical structure).

There will eventually be scope for teleconferencing between schools and other inter-school (multimedia) links. Similarly, schools will in theory have access to any video or other resource on the system exactly when they want it.

Acorn is clearly excited about the prospects and all we can say at this stage is that something significant for education is going to happen. In the longer term the distinction between home and school will become blurred (and remember that

Chris Drage looks at the educational potential of digitisers

A video digitiser is a combination of hardware and software with which it is possible to capture video images from a TV tuner, video camcorder or player and convert them into a form that a computer can use in other applications. Images can be captured in real-time by monitoring a PAL video source visible on the computer VDU and grabbing the required image with a click of the mouse. To be over-simplistic, the digitiser converts the analogue signals from the source into digital form. Once this is done, all manner of image manipulation can take place.

So why do it? Anyone not blessed with artistic talent or who doesn t have a wealth of time to spare at the computer will find a digitiser a welcome source of ready made images from which to work. For example, video digitising provides schools possessing a camcorder with an inexhaustible supply of pictures ideal for inclusion in the school magazine or newspaper, or in individual multimedia presentations and projects.

Similarly, it provides a cost effective means of illustrating project

The components of the Scanlight Video System

schools would probably purchase the mono version.

Image Animator software has been designed to be easy to use by children. Animations can be created very simply using the software without the scanner once children understand the menu options and how to cut and paste frames. The process of creating the illusion of movement only really becomes clear when using the scanned images of children s own work. Card is an easy material to cut out and manipulate. Arms and legs can be cut out, positioned and repositioned, with the image being scanned at each step. The resulting frames are processed by Image Animator and children see the object begin to move properly . There are so many classroom applications that the Iota Scanner and Image Animator may just convince you that animation is worth a try in your class, opening up as it does a whole realm of creative expression worthy of exploration.

The Canon Ion camera is an excellent choice for capturing images for digitising, as it is a point-and-shoot automatic which takes still video colour pictures (see RISC User 4:9 for a review). It produces reasonable quality colour output (approx. 768x480 pixels) and is able to store 50 pictures on a small floppy disc. Once full, the contents of the disc can be transferred via a digitiser to the computer for storage or further processing (the data can t be transferred directly from disc to disc). Then the disc can be erased and re-recorded, or replaced by another disc.

This handy little device has several features which really make it useful for schools. For example, it can shoot in rapid sequence (three frames per second) which makes it excellent for freezing movement in,

work, visually recording technology projects, class visits and field trips. Travel or community brochures, personalised Christmas cards, illustrated wall displays - the list of applications in the school environment is endless. Coupled with a laser printer and an Ion camera, the digitiser can even begin to pay for itself at school fêtes as high quality prints of digitised portraits provide a popular alternative to instant photos! There s even animation to be explored.

Animation is an exciting and entertaining medium, and one which children are fully familiar with in

terms of end product but generally know little about in terms of the processes involved. An Iota Imagescan Scanner running *Image Animator* software neatly mimics the traditional method of film animation using a rostrum camera. Children can understand this as it follows logically from their own experiences of movement. A 2Mb system just suffices and a hard disc is essential as the size of files become quite large. However, none of these points necessarily restricts the success of an animation project if you are prepared to compromise on image size and perhaps colour. Most

say, gymnastics. As the Ion can provide instant feedback it gives pupils an opportunity to see their mistakes and to help in analysing movement. Similarly, phenomena like explosions or droplets splashing can be frozen in sequence. Each frame is rock steady - unlike a camcorder. As the timing can also be set for long periods, time lapse studies can be undertaken, such as visitors to a bird table or to a flower, or cultures growing in petri dishes.

schools. Although the stills may be output directly to a television, monitor or VCR, the conversion to digital format requires that a computer is equipped with a digitiser - but which one?

For acceptable results, video digitising requires large amounts of RAM and fast processing speed - the faster the processor and the more memory you have the better. Schools should aim to use a 4Mb ARM3 system (e.g. an A5000) as a

colours/greys or more) up to and including 24-bit (16 million) colours. It is simple to fit and the software processes colour images very well indeed, producing some lovely results from the Canon Ion. If you simply want to digitise video images (VCR, camcorder, Ion camera) the Vision 24 is hard to beat.

If, however, you want to be able to use a hand scanner as well then the choice has to be Scanlight Video, a two-in-one card which can produce

A picture taken with the Canon Ion

There are many opportunities for time lapse photography, and animation software can produce movies from such sequences.

Providing there s a TV with video input or a monitor handy, the Ion offers instant feedback, just like the Polaroid Land Camera before it but without the cost of the film. As such the Ion offers opportunities to study lighting and composition of still life before expending a roll of film - an ideal tool in teaching photography. The Ion camera has steadily fallen in price bringing it within reach of many

minimum, while an 8Mb Risc PC displays stunning images and is the best choice. However, whichever machine you plan to use, the choice of digitiser will depend on several factors not least of which being price. The three digitisers recommended here are Vision 24, Scanlight Video and Eagle M2.

The Vision 24 digitiser can be purchased in either 254 or 508 line versions to suit the A-series and Risc PC machines respectively, or a MicroPodule version to fit the A3000. It can digitise in any mode (256

256-greyscale images from either a video source or a hand scanner. Video images are processed from their raw state using the excellent Scanlight Plus software (see Risc User 7:2). This device can only display 256-greyscale images, but unless you are using a colour printer then colour offers little advantage when finally printed. The combination offers a fine degree of control over the finished result, and clearly represents value for money.

If you need to have full multimedia capability (sound, movie, video stills)

with MIDI thrown in for good measure, then the only choice is the very capable Eagle M2 (see Risc User 7:5 and also 7:10). In fact, providing you have at least 4Mb of memory, an ARM3 and a sizable hard disc this card provides what must be one of the best methods of creating Replay movies. Eagle M2 comes comprehensively bundled with software: AudioWorks (see Risc User 7:4), Scanlight Plus, Take Two, ARMovie/ARPlayer and Eidos ESCaPE. The accompanying Eidos compression system ensures that the stored results don t eat up valuable hard disc space. Altogether the Eagle M2 is a jack of all trades, but is nevertheless extremely capable, fulfilling as it does a multiplicity of roles.

Not every school or home has the funds available to spend on all this excellent hardware. Don t despair if you can t create images yourself - there are many companies selling digitised images, and schools would do well to consider the products of The Professional Image

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Iota Software Ltd.
St. John s Innovation Centre
Cowley Road
Cambridge CB4 4WS
Tel. 01223 566789
Image Scanner + Display s/w  £399.00
Fast parallel card              £99.00
Colour Upgrade + s/w           £149.00
Lighting Unit                   £92.00
Image Animator                  £69.00


Cambridgeshire Software
The Computer Centre
8 Bramley Road
St. Ives PE17 4WS
Tel. 01480 467945
Canon Ion                      £235.00
with digitiser
(2Mb A3000/4000/5000)          £475.00
with Eagle M2 (4Mb A5000)      £560.00
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HCCS Associates Ltd
575-583 Durham Road
Gateshead NE9 5JJ
Tel. 0191 487 0760
Vision 24 (254 line)            £99.00
Vision 24 (508 line)           £139.00


The Professional Image Centre
The Babbage Centre
Dartington Hall
Totnes
Devon
Discs                  £6.95 inc p&p


Computer Concepts
Gaddesden Place
Hemel Hempstead HP2 6EX
Tel. 01442 63933
Scanlight Video                £220.00
Eagle M2                       £329.00
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Centre whose high definition images are based on a wide variety of National Curriculum related subjects, each disc