Education

In this month s education section, Chris Drage looks at a number of small but very useful utilities, while Mark Sealey assesses the impact of the Risc PC in

HANDY LITTLE PROGRAMS FOR THE CLASSROOM

FONT UTILITIES

Font List and KeyCaps are multitasking applications from Design Concept. Neither will cost you more than a crisp fiver yet each performs its respective tasks well. The first fulfils a common need: a chart of available fonts for children to be able to identify a suitable font quickly. Font List lists all your fonts in a Draw file. Each font is printed with a message giving the font name and style. The results can be assembled into a logical order in Draw and printed out to produce an ideal aide-memoir.

Font List

KeyCaps provides older pupils with an on-screen aide-memoir for pre-viewing font samples before use in a document. Select a font and click on it, and the classic The quick brown fox... is displayed in a chosen size. Click on another font and this is immediately displayed. Both Font List and KeyCaps are simple but jolly effective.

As the number of fonts on the hard disc grows so does the need for increased accessibility. FontWay from XOB offers a font filing system to allow easy access to many fonts. As the RISC OS Filer only permits 77 objects in a directory, if you have more fonts than this you must keep them in separate directories. By adopting a sensible and easily remembered system of filing (e.g. alphabetical or according to popular usage), FontWay will permit new font directories to be added at any time.

VIRUS PROTECTION

The Acorn platform is by far the most resilient to virus infection as the operating system is held in ROM. Nevertheless, there are 52 known virus families on the Archimedes (some, like the Icon virus, with up to 16 strains), so there is no reason to be complacent. The only protection system endorsed by Acorn is Pineapple Software s Killer, which has a yearly subscription with three or four updated discs a year. Killer is easy to install and use and will issue a warning if a dormant virus is found when you access a disc of any kind (floppy, cartridge or hard disc). It is no coincidence that 75% of Killer subscribers are schools! Ignore it at your peril, Killer is a must.

COMPRESSION

Compressing files is of most interest to schools who for financial reasons need every byte of space on their hard-earned hard discs. Although there is generally a small loss of performance and speed of access it is a small price to pay for the advantage of increasing the capacity of your hard disc or packing data onto floppy discs. Computer Concepts Compression is widely used, yet at less than half the price and likely to be of more use to schools is KleinFS which, like Compression, emulates the Filer but also makes use of the Acorn Squash module provided with RISC OS 3. This means that compressed files can be unpacked by anyone whether they have KleinFS or not. KleinFS is easier to use though not quite as fast as Compression, but at the price it can t be beaten!

LOCKING UP

For whatever reason, from time to time one of my school s A3020 computers seems to forget the contents of its CMOS RAM, or its boot file

becomes mysteriously lost or altered. It's not due to malicious intent, just ignorance and little fingers! But what can you do to prevent accidental interference with each computer's set-up? ARMlock is the answer. ARMlock keeps your hard disc from prying eyes (useful for network users), and prevents interference with the computer's CMOS RAM so that no one is able to configure the computer or unplug modules without knowing the password. All access is controlled, making it easy to set up and maintain. Even formatting can be prevented. There is no special partitioning of the hard disc into writable or read-only areas, just a module which enforces access restrictions and a manager application which controls settings and taking of back-ups. ARMlock prevents unauthorised access to any document or application - foolproof and jolly useful!

KEYSTROKE

Keystroke

If there is a program which is worth its weight in gold when it comes to creating shortcuts or simplifying/improving operations, it has to be Keystroke (reviewed in RISC User 6:10). It has such a variety of uses that it is difficult to suggest a main application. For example, if you want to add control key shortcuts to a program like Paint which lacks them, you could add, say, Ctrl-Up to zoom into an image, or similarly, if you want to add an autosave function to a program, there's no problem. You can even make up your own button bar or icons that perform operations when clicked. Furthermore all keypresses can be configured to beep or offer confirmation boxes before performing a function, and multiple commands can be chained together on a single keypress. Keystroke has a huge number of predefined sequences of operations for desktop programs, and if there's none to match your requirements it is really easy to add new ones. Keystroke provides an unlimited choice of keyboard shortcuts which, used intelligently, can substantially increase efficiency.

LABELLING

As a teacher I find there are a dozen or more occasions when I need to use labels: items in the classroom, displays, children's names, addresses and assessments notes etc. There are plenty of database management programs which include label printing, but that is really a case of using a sledgehammer to crack a nut. More appropriate for the myriad of labelling tasks is LabelBase which offers a comprehensive range of label formats combined with a simple database. The database has a maximum of ten

Products	Font List & KeyCaps
Supplier	Design Concept
	30 South Oswald Road
	Edinburgh EH9 2HG
Price	£3.00 inc. VAT (Font List)
	£4.00 inc. VAT (KeyCaps)
Product	FontWay Supplier
	X O B
	Balkeerie, Eassie
	Angus DD8 1SR
Price	£16.00 ex. VAT
Product	KleinFS Supplier
	PTW Software
	72 Frosthole Crescent
	Fareham
	Hampshire PO15 6BG
Price	£17.95 inc. VAT
Product	Killer
Supplier	Pineapple Software
	39 Brownlea Gardens
	Seven Kings
	Ilford IG3 9NL
Price	£24.00 ex. VAT (joining + subscription)
	£20.00 ex. VAT (annual rejoining fee)
Product	ARMlock
Supplier	Digital Services
	9 Wayte Street
	Cosham
	Portsmouth PO6 3BS
Price	£35.00 ex. VAT
Product	Keystroke
Supplier	Quantum Software
	35 Pinewood Park
	Deans Livingston
	EH54 8NN
Price	£29.95 no VAT (site licence available)
Product	Label Base
Supplier	Digital Phenomena

fields, search and sorting routines and file exchange with other applications. It can also import and convert data from SIMS management software. LabelBase can output data in virtually any label format you care to create - any number of labels across the page on any size of page. Any selected fields can be printed, as well as multiple copies of all or selected records. Although it s not the cheapest of the software here, for minimum fuss and maximum simplicity LabelBase gets my vote for label printing.

In a variety of ways the above programs improve productivity without costing an arm and a leg. The list is not exhaustive but reflects a nucleus of programs that I certainly couldn t do without.

THE Risc PC IN EDUCATION

Much has been written in RISC User and elsewhere about Acorn s strategy in launching its new series of machines, and about its technical features and the advances which they represent over previous Acorn products. This article looks specifically at how schools and colleges contemplating buying new hardware might assess what became available with such a flourish of publicity in April.

Since that time, I have used a Risc PC with two groups of Year 10 pupils to explore some quite sophisticated and ambitious multimedia applications, and seen their reaction to the power and speed of the 9Mb machine. Indeed the use they have made of it has begun already to match some of Acorn s promises in the run-up to the launch.

MONEY
Schools never have enough money, so any system which enables them to make it go further has got to be a winner. For as little as £99 on top of the base prices any school buying a Risc PC can also have access to the world of PC software (DOS and Windows) as well as 99% of all RISC OS and a good deal of the older 8-bit resources as well: two computers for the price of one, in fact.

With the exception of those products designed to take specific advantage of the new screen modes and increased speed of the Risc PC, there is no need to spend time or money buying new software or retraining staff to use the operating system.

Significantly, the Risc PC has a clearly defined upgrade path. This applies to almost everything from the case through the addition of RAM to expansion cards and the higher performance CPUs. These are the famed ARM 7 and 8 families, which should become available for very reasonable prices in the near future.

To be able to add to and modify your machine effectively insures purchasers against the future and against kit becoming redundant as a result of changes to the basic hardware building blocks. This is not the case for anyone wishing to upgrade a 486 computer to a Pentium or later P6, for example, so schools buying a Risc PC now are effectively making an investment that will last (the comparison is particularly relevant when you consider that a Pentium second processor has been mooted for the future). It is also important to note that many of the extras which schools will want are so-called industry standard items (the SIMM chips used to expand RAM, for example).

SECURITY
Schools are all too often the target of both crime and unintentional damage by users. The Risc PC is both robust (its casing is made to riot shield specification) and lockable (padlocks at the back, a curved flap at the front). This means that machines (which can also be bolted to a desk) will at the same time deter those who mean ill and encourage those who have legitimate business inside the case.

EASE OF USE
First time users in particular, and young users generally will find the operating environment (RISC OS 3.5 and the desktop) easy to use. This is particularly important for reluctant colleagues who can be shown the advantages of the GUI (graphical user interface). There are a number of small enhancements to the operating system which make it even easier to conceptualise what is going on: a directory open icon, the parcel that symbolises a group of files being copied or moved

and the much improved mode and colour pickers, for instance.

Some have regretted that Acorn did not take a bolder step and redesign the desktop and the interface in general; again, the modular design of the Risc PC means that when RISC OS 4 does come along, it will probably be easy to install and - like the OS supplied with the current machine - build on what teachers are already familiar with. Busy and at times demoralised teachers do not usually have the time or inclination to explore new systems. For them, the working environment of the Risc PC has much to recommend it.

POWERFUL PERFORMANCE

Pupils are already exposed to sophisticated graphics available on games machines, televisions and other computers. It has become increasingly important that they should have access to these themselves. Cruder machines lag far behind what they are used to from these other sources, but here is a really fast, slick and reliable Wimp system, that sponsors purposeful work, rather than slows it down. The Risc PC performs as well, for example in multimedia, as any other machine available for a comparable price in terms of speed and memory usage.

Perhaps for the first time, pupils will be able to embark on real multimedia authoring without having to wait an unacceptably long time for an image grab to be processed; Genesis pages can be presented with sophisticated graphics, culled almost seamlessly from an integrated high-speed CD-ROM drive (making full use of Photo CD). Watch out, too, for hardware MPEG developments soon; these should allow longer and faster video clips, improving on what are still only token movies.

Furthermore, those expansion cards necessary to extend pupils use of graphics, sound and animation (all essential in a multi-sensory approach to learning) will soon be readily available, easy to fit and will probably conform, in software terms, to existing ways of working. This expandability will also be significant where peripherals support special needs.

NEW LITERACY

Acorn embarked earlier this year on the promotion of a radical new concept in suggesting competencies which pupils should possess to make the most of inevitable developments in technology now and in the future. The New Literacy proposes a much wider definition of managing and exploiting, in particular, the screen and its iconic and highly visual vocabulary. In many ways the Risc PC is ideally suited to demonstrating these new forms of communication.

PRIMARY

In addition, of course, to the wealth of high quality software suitable for key stages 1 and 2, it is now possible for younger children to integrate very realistic graphics into their work thanks to 24-bit sprites and the impressive high definition screen modes.

Software such as that inspired by speech technology (the talking word processors and stories, such as Sherston s) can now operate more fluently and realistically than ever. Animations - created perhaps by children looking at some aspects of science (the water cycle, say, or the functioning of simple machinery) - can operate up to twice as fast, more smoothly and more realistically.

These factors will all add to the experience that younger children need in exploring the world and modelling it.

SECONDARY

For students at key stages 3 and 4, there are two main features of the Risc PC over and above many of those that apply to primary: compatibility with other hardware platforms and high-end networking.

In the first place, those departments (most legitimately, perhaps, business studies) who believe that adherence to an industry standard way of working (DOS and Windows) is important, now have access to Windows applications that will run at speeds comparable with, if not superior to, applications on their native platforms. The PC compatible keyboard is also valuable in this context.

File interchangeability is already very