

# Archimede

Issue 11

**CC and the Risc PC  
486 card**

**New ArtWorks  
tools**

**Network  
TurboDrivers**

**Eidos Eidoscope**

**New Canon  
printers**

**New Tel N° – 01442 351000  
New Fax N° – 01442 351010**

See us on stand 168-170  
at Acorn World  
**'95**



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### Production

This issue of The Archimedean was created entirely in Impression Publisher, using an Acorn Risc PC600 with 10Mb RAM and a 200Mb hard disc. All proofing and layout checks were output on a BJC-600. Final negative film was created from PostScript output files through a Linotronic 300 imagesetter.

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## Charles Moir explains why we're not abandoning the Acorn marketplace

It's been a long time since we produced the last Archimedean and a lot has happened. As a company we continue to expand and employ more people. Indeed we have run out of room at Gaddesden Place and will soon be putting Portacabins in the car park to house the extra programming staff. Part of the reason for the special autumn prices is to reduce stock levels on some of our range so we can turn some of the current stock rooms into offices. (The Autumn Offer is covered in the News section.)

As many of you will know, we've spent some considerable time developing a new graphics program called Xara Studio (Xara is the new company name for our PC developments - we can't use Computer Concepts internationally). Studio is our first mainstream Windows application and it is not available for Acorn machines. Unfortunately the resources and development effort required to develop the very best new programs has grown to such an extent that the Archimedes market cannot give a return - over 40 man-years of development work has gone into Studio. The PC industry is able to justify this sort of development effort.

The program has been developed in object orientated C++ using industry standard compilers and C class libraries. Unfortunately the Acorn development environment does not offer the necessary compilers or class libraries and until it does it's unlikely that a version of this program can be developed for Acorn machines. (We and other key developers have been asking Acorn to do something about this for several years now, to no avail).

However the news is not all bad as the Risc PC can, of course, now run Windows software. The entry level PC card is just about suitable for running Xara Studio, although it really needs 16Mbytes RAM. It's not as responsive to use as ArtWorks on a Risc PC, but the measured redraw times and benchmarks are very acceptable. Hopefully later versions of the Windows software drivers from Acorn or Aleph One will improve the PC card's performance, or you could upgrade to one of the newer faster 486 cards that are now available.

Xara Studio is really like an ArtWorks Version 2. It can do pretty much everything ArtWorks can but with many new features. It also offers outstanding value for money since it includes masses of clipart items, fill textures, and fonts. Call us for more details.

### Corel what !

Many people will be surprised to hear that we have signed a marketing agreement with Corel - a company that some people will have regarded as our arch-competitor in the PC market. However the plain fact is that Corel have a worldwide marketing presence that will get Xara Studio around the world, distributed in dozens of countries in a very short timescale.

Corel publish many products developed by smaller third party development companies such as ours and have a very efficient international marketing and distribution set-up. The future design and development remain our responsibility, whilst Corel will sell Studio alongside CorelDRAW. Reviews of Studio have been exceedingly positive and many have pointed out that Studio can be seen as an ideal complement to CorelDRAW, for users who require higher performance and some of our unique features. We both agree.

To accompany the fact that we will soon have a mainstream Windows application available around the world we now have a high bandwidth Internet connection. You can access our Web pages at [www.Xara.com](http://www.Xara.com). We also have a new company, Xara Networks that can provide high bandwidth (e.g. 64K and up) connections to the Internet for commercial suppliers.

In other words, there are lots of other interesting things happening. Since the last Archimedean there has been quite a few new Acorn product developments, described in this issue, such as new printer drivers, and some amazing new inkjet printers. There's also a new version of Impression. Once again we have a large stand at The Acorn World Show where you can see the new developments - and we'll be demonstrating Xara Studio.



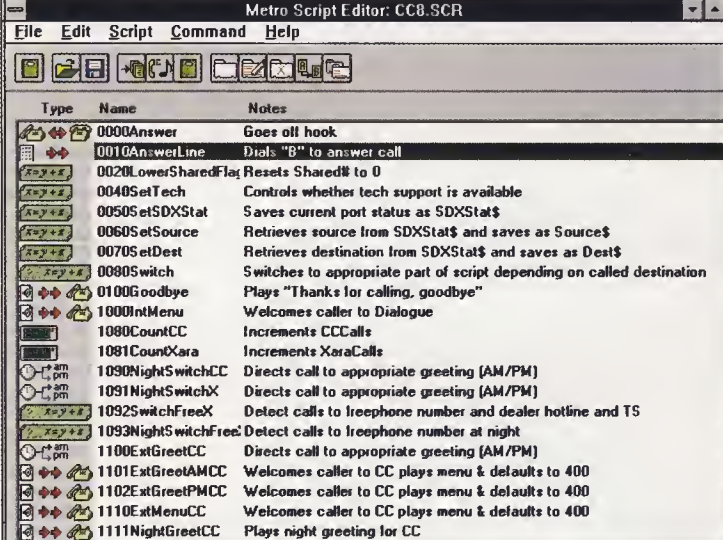
## Ringing the changes

If you've called us recently then you'll know that we've changed more than just our numbers. If not, be prepared for a surprise. On calling the new main number (01442 351000), you'll be greeted by a friendly voice asking if you have a touch-tone phone - this is our voicemail machine, a computer-controlled routing and messaging system.

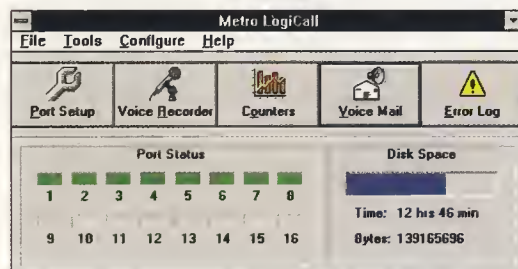
As our customer base grew, it became obvious that a few dozen BT phone lines could no longer cope with calls during peak periods. As soon as one department became busy, subsequent calls for other departments would either be met with the engaged signal, or unanswered while our receptionists explained that the lines were busy.

Although running a business from a stately home in the depths of the countryside has its advantages, easy installation of traditional copper phone lines isn't one of them. Consequently (and much to the annoyance of local traffic) a week of roadworks brought a dozen fibre-optic cables directly to our door.

Now having greater bandwidth than many European countries, we enjoy not only sufficient telephonic capacity to cope with hundreds of simultaneous conversations, but also a direct high speed link to the Internet. What's more, we can also provide direct dial numbers, so technical support can be reached by dialling (01442 351135).



Type	Name	Notes
	0000Answer	Goes off hook
	0010AnswerLine	Dials "B" to answer call
	0020LowerSharedFlg	Resets Shared# to 0
	0040SetTech	Controls whether tech support is available
	0050SetSDXStat	Saves current port status as SDXStat\$
	0060SetSource	Retrieves source from SDXStat\$ and saves as Source\$
	0070SetDest	Retrieves destination from SDXStat\$ and saves as Dest\$
	0080Switch	Switches to appropriate part of script depending on called destination
	0100Goodbye	Plays "Thanks for calling, goodbye"
	1000IntMenu	Welcomes caller to Dialogue
	1080CountCC	Increments CCCalls
	1081CountXra	Increments XraCalls
	1090NightSwitchCC	Directs call to appropriate greeting (AM/PM)
	1091NightSwitchX	Directs call to appropriate greeting (AM/PM)
	1092SwitchFreeX	Detect calls to freephone number and dealer hotline and TS
	1093NightSwitchFree	Detect calls to freephone number at night
	1100ExtGreetCC	Directs call to appropriate greeting (AM/PM)
	1101ExtGreetAMCC	Welcomes caller to CC plays menu & defaults to 400
	1102ExtGreetPMCC	Welcomes caller to CC plays menu & defaults to 400
	1110ExtMenuCC	Welcomes caller to CC plays menu & defaults to 400
	1111NightGreetCC	Plays night greeting for CC



With this sort of potential for calls we needed a super-human operator, and the LogiCall voicemail system gave us exactly that. Developed by Metro Connect Ltd, it's a voice processing system that uses a graphic scripting language to answer and route calls. It's also completely impartial, guaranteeing that if the department you're calling is busy, no-one will queue-jump while you're waiting. And no, it doesn't make the music on hold - that's a CD player.

We first went on-line with a beta version over the Christmas holidays, informing callers when we would re-open, and providing us with statistics on times of calls - were you one of the 7 callers to wish us a happy New Year?

Obviously, with any new system there were bound to be teething troubles, and if you were unlucky enough to catch us during the dying moments of the old exchange and the birth of the new one, we hope you weren't put off from calling again! The system has now been running bug-free for half a year, coping admirably with an average of 300 calls per day and allowing callers to reach their destination one third quicker on average than before.

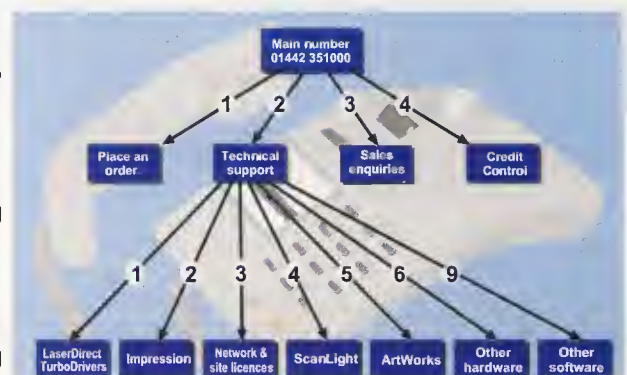
The old numbers will stop working shortly (including the fax line - now 01442 351010) so please remember to use the new ones! For further information on the LogiCall system, contact Metro Connect Ltd on (01635) 299333.

### Making the most of the system

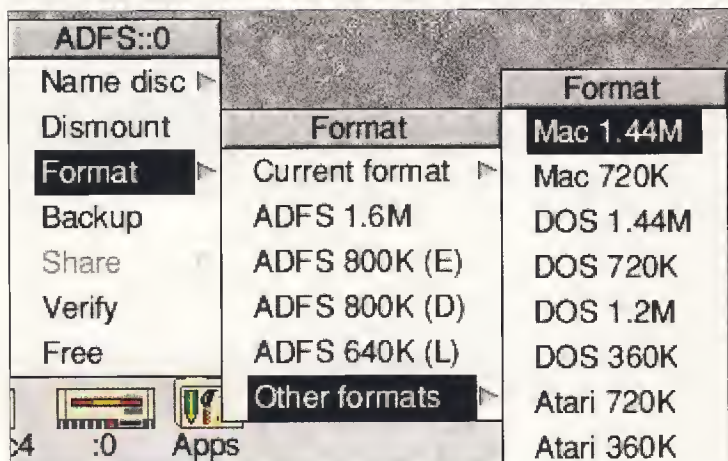
Unless you have an old-fashioned rotary phone, chances are you can tone-dial. If you don't hear the distinctive tones while pressing buttons, your phone may be set to pulse dial. If there's a switch under the phone, check that it's set to 'DTMF', 'TD' or 'Tone'.

At the initial "Thank you for calling Computer Concepts" message, you can jump immediately to the department you want by pressing the appropriate key. You don't have to wait for the system to finish speaking because pressing a key will interrupt the message and transfer you to your destination.

You can leave a queue by pressing \* to take you to the menu, or 0 for the operator. Once you leave the queue, you lose your place, so leaving to ask the operator why you've had to wait is counter-productive!



## MacFS Light



MacFS Light is a cut down version of our popular MacFS utility, specifically designed for those who only wish to access Apple Mac floppy discs. It allows the user to read and write Mac discs formatted to 720KB (and 1.44MB with a high density floppy drive).

It is an ideal accompaniment to products such as our RTF loader/saver when you are transferring documents from an Apple Mac. MacFS Light costs £49 (£57.57 inc. VAT) and is available now.

MacFS has also been upgraded to include the ability to handle 720K floppies. Current owners can upgrade for £11.75 (inc. VAT) by quoting their serial number.

## Wild Vision services

As well as designing hardware for both themselves and Computer Concepts, Wild Vision offer a complete design and manufacturing service including everything from concept design prototyping to final production of a project.

Although Wild Vision started as a video hardware specialist, it can now provide advice and skills on many disciplines such as analogue to digital conversion, digital I/O, audio and video capture and manipulation and MPEG 1&2.

To find out more about what Wild Vision can offer, you should contact them at Wild Vision Limited, 15 Witney Way, Boldon Business Park, Boldon Colliery, Tyne and Wear, NE35 9PE. Tel. 0191 519 1455 Fax. 0191 519 1929. email wvsales@cconcepts.co.uk



## Autumn sale

During the month of September, most Computer Concepts software is being reduced in price by 25%.

Titles include Impression Style, Impression Publisher, Impression Publisher Plus, ArtWorks, Eidoscope, AudioWorks, Graphics Loaders, Text Loaders/Savers, Compression, RISC OS3 TurboDrivers, MacFS and Formulix. In addition, both ClipArt CDs can now be bought together for just £30+VAT (£35.25 inc).

This offer normally ends on 29th September 1995 but is being extended to 10th October 1995 for all readers of the Archimedean. We expect quite a rush around this time so please make sure that you get your orders in before then to qualify for your discount.





## New Impression

Due to overwhelming demand, there is soon going to be a new release of Impression Publisher containing many of the new features that were included in our flagship product Impression Publisher Plus.

Word count and conditional case swapping are two features that have never been in Impression but will now feature as standard in all future releases. Smart quotes will make their debut making narrative work quicker and simpler than before.

For the more technically minded, the use of dynamic areas has been improved which translates into the Risc PC now being able to handle very large documents without slowing down.

The new version of Impression Publisher is expected to be available for the forthcoming Acorn World Show at Wembley (see page 5 for details). The price to registered owners is £15 inc VAT.



## Printer reductions

No sooner do Canon bring out a range of new printers, than they reduce their prices as well. Coupled with the fact that all printers are supplied with TurboDriver software, this makes them by far the best choice for cost effective, high quality printing on Acorn RISC computers.

The new prices are as follows.

- BJC-70 - £249 + £10 p&p + VAT (£304.32 inc.).
- BJ200ex - £179 + £10 p&p + VAT (£222.07 inc.).
- BJC-4000 - £249 + £10 p&p + VAT (£304.32 inc.).
- BJC-600e - £359 + £10 p&p + VAT (£433.57 inc.).

## Scanner offer

One of the most common problems with scanners is what to do when you want to use it on another computer. Having to transfer the scanner podule as well as the scanner can be fiddly and time consuming.

One obvious answer is to buy a second scanner podule for the other machine so, for a limited period only, we're offering any second scanner podule for £39 + VAT (£45.83 inc.) or a second ScanLight Video podule for £69 + VAT (£81.06 inc.).

This offer is open to anyone who is buying a scanner for the first time (ie. you buy one scanner podule at full price and one at the reduced price), or to registered owners of Scanlight products.



## That's Rich!

A set of loaders and savers are now available for Impression Style and Publisher that allow you to transfer text between Impression and "foreign" applications on other machines that support the RTF (or Rich Text Format) and Word Perfect standard formats.

The RTF loaders and savers are compatible with Impression Style (v. 3.06 or later), Publisher (v.4.04 or later) and Publisher Plus (v. 5.04 or later). If you have an earlier version, you need a free upgrade. Return discs 1, 2 & 5 to Computer Concepts and quote your Impression Publisher or Style serial number.

RTF is a general purpose format that allows data transfer between different applications and types of computer. A specification for RTF exists but few applications implement the full specification. The most common variant is for Microsoft Word. The RTF loader/saver uses the Word specification. The RTF loader/saver has been tested using Microsoft Word 6.0, the Acorn Pocket Book 2/Psion 3a word processor and other sources of RTF files.

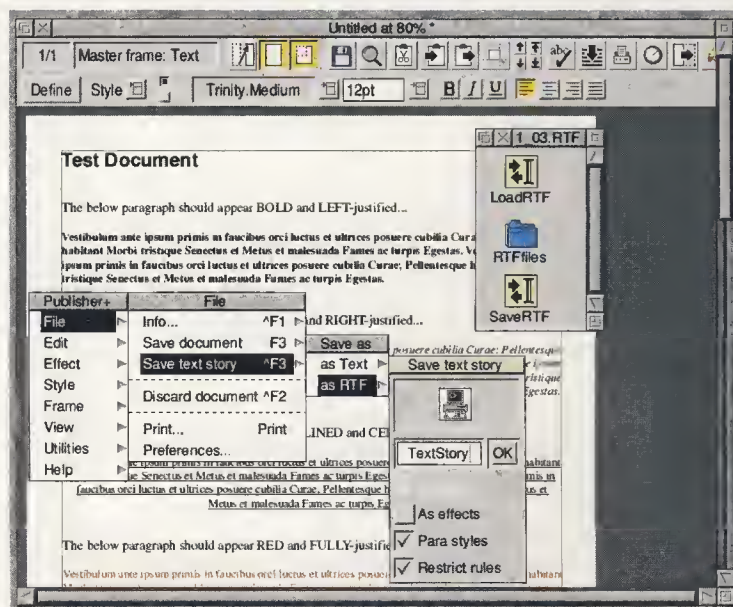
A special application to map fonts and characters is supplied with the package. This allows you to set up a list of fonts and characters to ensure that text is converted across from one machine to the other without any changes in style or layout. All Acorn Risc Computers after and including the A5000 are capable of reading PC discs directly. Apple Mac discs can be read by means of a special utility called MacFS; also available from Computer Concepts. See page 3 for more details.

## Diary dates

Computer Concepts will be attending the following events so, as they say, book now to avoid disappointment.

- |                   |  |
|-------------------|--|
| 17th October      | Acorn 'Computing in Education' Show - a preview of Acorn world. EdIT Centre, West Park Curriculum Development Centre, Spen Lane, Leeds, LS16 5BE. 1pm to 7pm. Further information on 01132 782762. |
| 27th-29th October | Acorn World Show, Exhibition Hall 1, Wembley. Further information on 01933 441448.   |
| 12th November     | Open Day, Kegworth Hotel, Kegworth, Derbyshire. 1/4 mile east of junction 24 on the M1. 10am to 5pm. Further information from Selective Computer Services on 01332 690691.                         |
| 18th November     | Open Day, Alsystems, The Windmill, Four Marks, Nr Alton, Hampshire. 10am to 4pm. Further information on 01420 561111   |
| 3rd December      | Open Day, Beebug, 117 Hatfield Road, St Albans, Herts., AL1 4JS. 10am to 4pm. Further information on 01727 840303.   |

Details are correct on 1st September 1995 but may be subject to change. Please check with organisers.





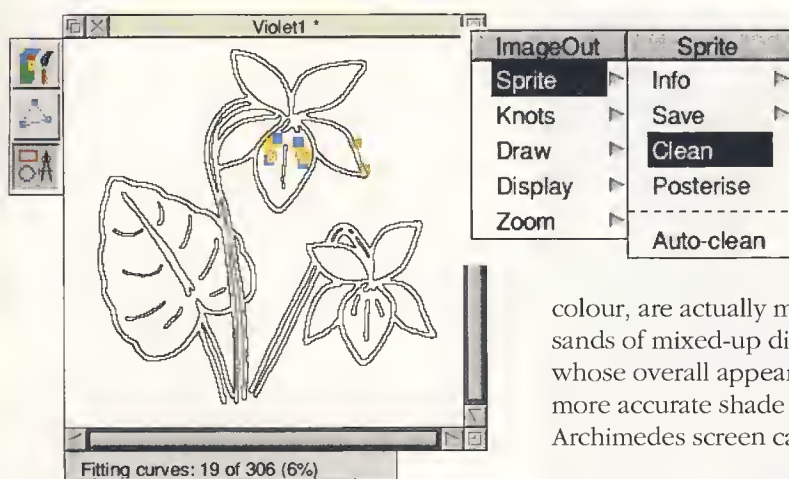
Converting sprites (such as scanned images) into drawfiles has always been difficult and time consuming. Now there is a simple and effective piece of software available from Iota Software, that produces high quality drawfiles from virtually any sprite.

Previously, if you converted a sprite to a drawfile, the drawfiles often contained far too many points, which meant that they often took up more memory than the original sprite.

Secondly, the joins between curves were often not smooth, resulting in a jagged effect similar to the 'staircase' appearance of scaled-up sprites.

Now with Image Outliner, this is no longer a problem. The software gives you results which are so good that professional clip-art manufacturers have successfully used it to produce commercial drawfiles.

The first thing the program does is to identify the edges of the areas of colour in the sprite. Once this is done, an initial set of 'potential' joining-points, or knots, is displayed as a set of hollow circles and squares.



As soon as all the potential knots have been found, the program sets to work fitting curves between the knots, trying to eliminate as many as possible while still retaining the appropriate amount of detail from the original image.

# Image Outliner

## Iota's brand new bitmap tracer

As the paths are processed, the hollow potential knots are replaced by a much smaller number of solid 'fixed' knots, which will be used in the final drawfile.

### Dithering

The main problem is that drawfiles are only really good at representing areas of solid colour, so the mixed-up pixels of a colour image produce a drawfile of near impossible complexity.

Certain images are best left as a sprite files, unless you want to deliberately create a contoured appearance, as they are simply too complex to be adequately represented as a drawfile.

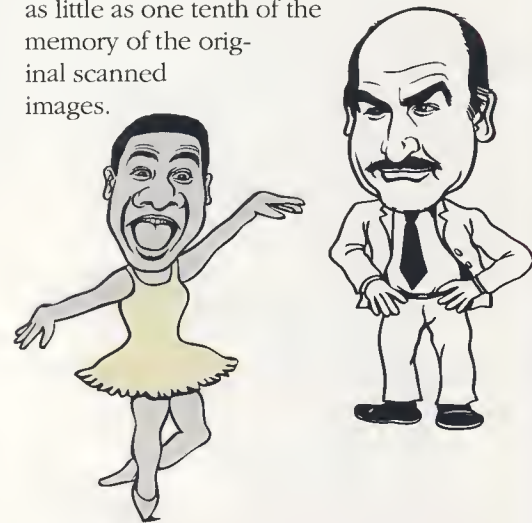
However, there are many images which, although they look as though they are formed of areas of solid colour, are actually made up of thousands of mixed-up dithered pixels, whose overall appearance gives a more accurate shade than the (8-bit) Archimedes screen can represent.

Image Outliner deals with such images by allowing the user to 'posterise' the image before converting it. If the colours are chosen carefully, the dithered pixels in each area are all converted to the same colour, so the image can then be converted successfully.

### Results

Unlike other tracing packages, Image Outliner recognises which curves form the inside and outside of objects, so 'holes' are represented correctly, while separate areas are converted into distinct objects, allowing the final drawfile to be far more easily edited.

Image Outliner produces such efficient drawfiles, using as few curves as possible to achieve the final result. This means the files on the disc use as little as one tenth of the memory of the original scanned images.



### Conclusion

Here at last is a program which actually does convert sprites into drawfiles which are worth using, and are ideal for use in Artworks or Impression. The results achieved by the automatic curve fitting are excellent, and the knot editing facility provides the final polishing which meets the needs of the most professional user.

Image Outliner costs £60.52 inc VAT and p&p but as a Computer Concepts customer, it is available direct from Iota for a limited period at a **Special Offer price of £49.95** inc VAT and P&P (Please quote ref: CC27)

Please order direct from;  
**Iota Software Ltd, Iota House,  
Wellington Court, Cambridge.  
CB1 1HZ . Tel: 01223 566789  
or Fax: 01223 566788.**

**L**ike most things in the computer world, printers are getting cheaper and smaller whilst still providing better features, such as greater resolution and colour.

Canon have introduced a number of new printers to their range this year, some of which replace existing models while others are completely new.

## BJC-4000 (right)

First off is the BJC-4000. This is a low-cost colour printer that can also utilise a separate black ink reservoir for enhanced definition on the page. Newly developed inks have been formulated to dry extremely quickly, preventing blurring or smudging. They are also water resistant and won't fade in sunlight, making them ideal for transparency work such as commercial window displays.

The BJC-4000 uses separate colour and black ink reservoirs and a user-replaceable print head to keep running costs low. An optional black-only cartridge has five times the ink capacity for longer operation.



## Canonical Colour Canon's new printers

The separate black ink cartridge has double the number of nozzles which means that you can print at an even higher 720 x 360 dpi when working in black and white.

The printer is a vertical design, not unlike the current BJ-200 series. This means that it has a small 'footprint'

(365 x 206 x 185mm) and is therefore ideal for use on a desktop, alongside a computer. An in-built sheet-feeder is capable of taking all sorts of material including plain and coated paper, as well as film, overhead projection transparencies, envelopes and back printing film.

The BJC-4000 is available now from Computer Concepts and comes complete with all cables and the latest TurboDriver software for optimum performance. It costs £249 + £10 p&p + VAT (£304.32 inc).

## BJC-70

The BJC-70 is a brand new printer from Canon and is perhaps one of the smallest printers available today. It measures only 57 x 300 x 157.6mm and weighs only 1.4kg, making it an ideal machine for portable use.

Even though it's small, it's packed with features that you'd expect to find in a "standard" sized machine. Full-colour pages can be produced at a resolution of 360 x 360 dpi, whilst mono pages are possible at an increased resolution of 720x360 dpi.

The BJC-70 is available now from Computer Concepts and comes complete with all cables and the latest TurboDriver software for optimum performance. It costs £249 + £10 p&p + VAT (£304.32 inc).

Finally, there are new versions of the BJC-600 and BJ-200 printers. The BJC600e and BJ-200ex both allow superior resolution to their previous incarnations, and thanks to a new "smoothing" function, can print at 720x360 dpi in black and white.

The BJC-600e costs £433.57 inc. whilst the BJ-200ex costs £222.07 inc. Both printers come complete with all necessary cables, instruction manuals and the latest versions of TurboDriver software.



Canon's new BJC-70 colour bubble jet printer



The Network Spooler for TurboDrivers and LaserDirect is an AUN compatible print spooler program which replaces the Acorn !Spooler program for printing over AUN. It supports the simultaneous use of a parallel port printer (such as one of Canon bubble jets) and a LaserDirect printer.



## NETWORK SPOOLER

FOR TURBODRIVERS & LASERDIRECT

The parallel port printer must be connected using a TurboDriver cable as the software uses the TurboDriver print queueing system. Printer drivers other than Turbo Drivers can be used to print to the spooler (assuming the driver is compatible with the printer connected).

The Network Spooler for Turbo Drivers and LaserDirect costs £149 + VAT (£175.07 inc.) and comes complete with an unlimited network site licence.

### Access Printing

The RISC OS 3 versions of the TurboDrivers and LaserDirect drivers are compatible with the Acorn Access printing protocol.

Access printing requires that both machines (**client** and **server**) have the relevant printer driver software installed in the version of !Printers that they are running.

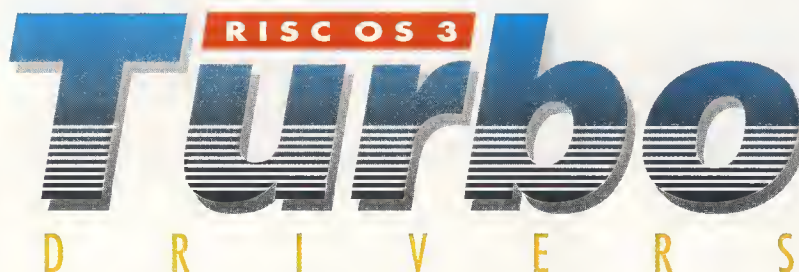
You will require !Printers version 1.28 or later (this has had various bugs fixed and everybody should use it in preference to earlier versions) and the latest version of the printer driver software that you can obtain.

## Get yourself connected... Network TurboDrivers are here

The **server** machine will require a hard disc (preferably 10MB+) for queueing the print jobs. Run the printer driver installation program and select the driver for the printer that you have connected and drivers for any other printers you may wish to print to over the network.

If the **client** machine has a hard disc then you should use a local copy of !Printers. If the **client** does not have a hard disc then you can set up a copy of !Printers and a !System directory on a remote machine and use it via Access. You should also make sure that you avoid using the same !System directory on the **server** and **client**.

To ensure that the driver is correctly set up, you should run the installer on the **client** machine (making sure that the machine has write access to the remote disc). !Printers is able to save configuration details for multiple remote users. In order for this to work correctly, the shared disc containing !Printers may need to be set to "full access".



Ensure the printer driver is correctly installed on the **server** machine by loading !Draw and printing a test file (a small rectangle in the corner of the page should do).

On the **client** machine (i.e. a machine with no TurboDriver or LaserDirect printers directly attached) the first thing you should do is to delete the !PrintQFS application from the !System:!CCShared directory. The software will function correctly as a network client without this and it will also free up some valuable memory. If you have installed a TurboDriver and you do not do this then you will need to use a TurboDriver printer cable if you connect a printer to the parallel port.



Due to the way Access works, the **server** machine will not start sending a job to the printer until the **client** machine has finished rendering it.

All necessary functionality for Access printing is included in the standard TurboDriver and LaserDirect software. The Network Spooler software is not required at all to print to an Access printer.

The current version number of the TurboDriver and LaserDirect software is 4.03.

Although the Acorn Risc PC 486 card is intended for use with PC software, there are still a few Computer Concepts products that are affected by its use. There is also the new Windows drawing package Xara Studio developed by Computer Concepts but sold under the Xara Ltd. name.



The Acorn Risc PC 486 card

### Running Xara Studio on the Acorn 486PC card

Xara Studio will run on the Risc PC 486 Card at a comparable speed to ArtWorks. Studio requires a minimum of 8MB RAM and a 20MB permanent swap file for Windows. (Refer to your Windows documentation for more information.)

As such, customers should ideally have a 12-16MB minimum Risc PC (allowing adequate memory for both Windows and RISC OS), and a 512MB hard disc drive. Windows is a very hungry operating system in comparison to RISC OS.

Xara Studio can be seen as ArtWorks version 2. There's extra features such as transparency, fractal & bitmap fills, and some new and improved tools. Please ask for our full brochure.

### Risc PC 486 card & TurboDriver/LaserDirect

Firstly, the Laser Direct and Acorn 486PC card will not work together. We have no firm plans to address

## Computer Concepts and the Acorn Risc PC 486 Card

this. If you own an LBP4 then you can drive the printer from Windows via the parallel port.

Please note that if you have the Lite model (which 99% of the Laser Direct LBP4s are) then you will have to increase the memory in the printer first. The Lite is only fitted with 512k of memory which may be upgraded to 2MB (and should be for printing from Windows). Memory upgrades are available through hardware vendors who advertise in most computer magazines.

The 486PC card can print via the TurboDriver cable to all parallel printers. The user must be running !Printers (with the TurboDriver installed of course), and the TurboDriver cable must also be fitted. The 486PC card should be configured as follows:

```
Direct Parallel Support =
OFF
Use RISC OS Printer Stream
= LPT1
```

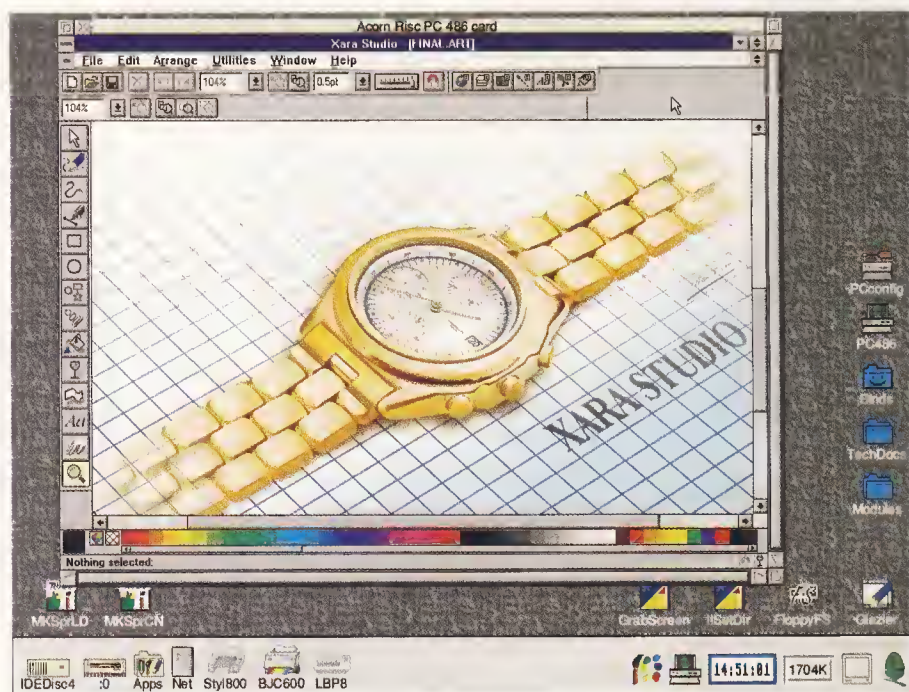
Due to the way that Windows printer drivers function, you may find that after printing from Windows/DOS, you will be unable to print from RISC OS. This is due to the fact that the Windows printer drivers open up a print file, but do not close it.

The TurboDriver queueing cannot remove files from the print queue which are still open. The easiest way to close the windows print file is to press Ctrl-C at the command line (press F12 on the keyboard).

### Pioneer DRM-604X CD-ROM drive

Although the Pioneer DRM-604X CD-ROM drive is sold for use with Acorn Risc computers, it can be hooked up directly to a PC, or a Risc PC fitted with a 486PC card.

Software drivers are included in the package to allow the drive to work with DOS or Windows, thus giving the Risc PC user access to the vast number of multimedia titles produced for the PC.



Xara Studio running on the Acorn Risc PC 486 card



## Under pressure

### ArtWorks Pressure Tool

One of the main criticisms of any vector drawing package such as ArtWorks, is that pictures tend to look too clinical. Whilst the tools provided are

ideal for creating pictures made up of even lines and shapes, it is difficult to achieve a more "hand-made" look.

In real life, an artist would be able to create different effects with the same tool by altering the amount he/she pressed on the paper. A paintbrush for example, can be used to create wide brush strokes or the finest of lines, depending on the way it is used.

By using a pressure sensitive graphics tablet such as Wacom's ArtPad, similar effects can be achieved in ArtWorks. The ArtPad is a small A6 tablet and stylus that replaces the mouse for any drawing operations.



A stylus is used, much like an ordinary pen, to indicate the position of the cursor on the page. Electronics inside the tablet can determine the exact distance that the stylus head is from the surface of the tablet, and thus calculate the pressure being applied by the pen.

The aptly-named Pressure Tool, allows you to draw freehand lines, making them thick or thin depending on how hard one presses on the tablet. Realistic brush strokes are very simple to create giving your sketches and drawings a far more realistic appearance.

The cartoon shown here demonstrates well the sort of pictures you can create. The thick and thin strokes would be almost impossible to create by any other means.

On its own, the Pressure Tool costs £39+VAT (£45.82 inc). It is also included for an extra £10 + VAT with the Wacom ArtPad which costs £169+VAT (£198.57 inc).

## Strange attractor

### ArtWorks Arranger Tool

Have you ever wanted to draw accurate lines in ArtWorks but couldn't quite get the grid setting right to fit what you were drawing? Imagine draw-

ing two circles and then trying to connect them with a line between each of the circles' circumferences.

Both tasks can be done more or less "by eye" but without zooming in and tweaking the line ends, it is virtually impossible to get it completely accurate.

Now imagine being able to draw a line starting with one point and then moving the second point until it snaps to an existing object; just as if it were a

grid. The new Arranger tool for ArtWorks does exactly that.

Not only can you use it to snap the occasional line or shape together, but you can also set up template layers (much in the same way as Impression) and use these as the basis for your diagram.

Perspective lines are a good example. Many artists start a drawing or painting by marking in faint lines to set out the layout of their picture. Using the Arranger Tool, a special layer could be drawn with vanishing points and perspective guidelines to assist the artist in his/her work

The Arranger Tool comes on disc and is compatible with all versions of ArtWorks 1.5 or later. The Arranger Tool costs £29+VAT (£34.07 inc.) and is supplied complete with installation and operating instructions.





**D**igital video seems to be as important today as sound was when the first Archimedes appeared. Acorn's Replay system now comes as standard on the Risc PC - together with dozens of megabytes worth of pre-recorded movies.

The great thing is that you don't need any special hardware to watch them - even an A3010 can be used to play back. With an Eagle card, of course, you can record your own full-motion video clips.

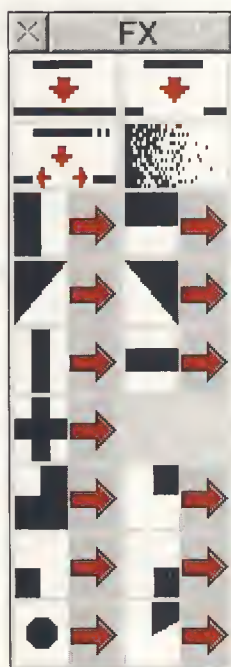
However, despite the obvious processing power of the ARM, full-screen full-motion video is still something of a holy grail. Capturing video quality of the same quality as your home VCR would require movies four times the resolution of a standard ARMovie, plus some very specialised recording equipment. Although it's available, the expansion card required has on-board processing, and costs more than a Risc PC!

## Pearls on film?



a Risc PC and several thousand pounds' worth of specialist video digitizer, it forms an off-line editing suite costing a fraction of traditional video editing systems.

for editing on different machines across a network. Although Eidoscope only runs on a Risc PC, there doesn't have to be an Eagle fitted inside to work.



A plethora of special effects to choose from

Fortunately, not everyone needs that sort of quality. Just because a flight simulator running on a RISC OS machine isn't as realistic as sitting in the cockpit of a 747, that doesn't mean it's not entertaining or educational!

What's more, being able to easily edit and join together movie clips is essential for desktop multimedia production. With this in

mind, Eidos produced Eidoscope, a cut-down version of their Optima video editing system. It has received rather a lot of media coverage - using

### Clock-wiping from a static ArtWorks apple into a video sequence

Whereas Eidoscope can't handle movies bigger than 160x128, and doesn't support time-codes, it only costs as much as Impression or ArtWorks, and can edit Eidos movies recorded by an Eagle card.

At the recent Insight '95 conference, we demonstrated how a classroom could use a single Eagle card to capture movies and soundtracks from a variety of sources, and copy the clips

Video editing with Eidoscope is extremely easy - clips are dragged-and-dropped from blue source windows to the red destination window, and the resulting edit is represented in the time line window as a video and two audio tracks.

By dropping one clip over the last few seconds of the previous sequence, merging effects can be applied by selecting from the menu



that automatically pops up. This could be a simple fade, or any one of a selection of wipes.

Any part of a soundtrack can be replaced or overlaid in much the same way, and audio levels can also be altered.

Sprites and draw files can be converted to movies of a specified length for titling, or a still could be extracted from a movie and used as a freeze-frame, or even dropped into Impression Style or Publisher to produce a storyboard.



A Replay film playing on the desktop

By dragging the audio tracks in the time line, sound from the next scene can easily be made to precede the video, and Eidoscope automatically ensures that the sequences always stay in sync.

**An Eagle Card £329 + VAT + p&p (£393.62 inc.) is required to capture Eidos format movies. Special price for Eagle+Eidoscope £449+VAT (£527.58 inc.).**



▲ Eagle in action

The results can be viewed at any time simply by double-clicking on the destination window, or even played full-screen. With the addition of a Genlock card, the results can be recorded onto videotape for more professional results.

**Eidoscope costs £169 + VAT (£198.57 inc.). Requires a Risc PC with at least 5MB.**



The Eagle M2 multimedia card

The Eagle M2 is an expansion card for all Acorn Risc computers apart from the A30x0, A40x0 and A4. It is intended as a multimedia device and is ideal for use in any area where combined sound and video is being utilized.

Although it is only a single-width card, it is capable of many tasks including sound and video capture. It is also capable of playing back sound at a higher quality than normally possible on a standard machine.

Finally, it contains a full Acorn-specification Midi interface giving Midi-in, Midi-out and Midi-through ports. Having all these features on one board means that you won't lose any valuable expansion slots; essential in machines such as the new A7000.

At only £329 +£6 p&p +VAT (£393.62 inc.), it represents exceedingly good value for money considering how much you would have to spend if you were to purchase all these features separately. More details can be found in our current product guide.

Every Impression user must have seen the arrow appear in the bottom right of a frame, indicating that text is spilling outside the frame.

Occasionally though, it may seem that Impression has got it wrong, as increasing the frame size or linking in another frame removes the arrow, but shows no more text story.

The explanation is that the "text" trying to flow out consists of return characters or spaces, which is why they can't be seen!

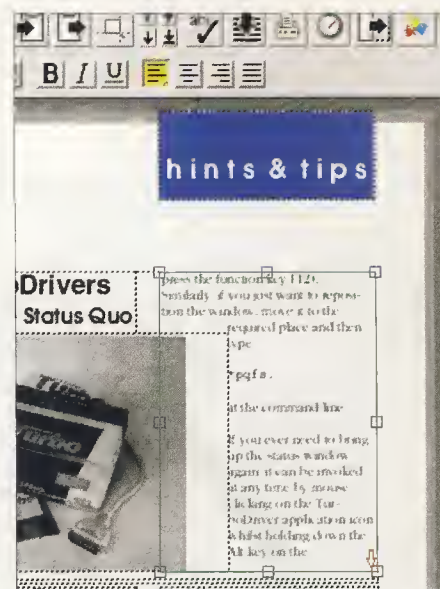
The quickest way to remove them is

## Red arrows Stopping surplus chapter flow-on

to select the whole text story (CTRL-A in Publisher & Style, CTRL-SHIFT-A in Impression), and click Adjust just after the last word in the frame.

The only thing selected now is the mischievous white space, so pressing delete will lose the pesky arrow.

This trick is also handy for removing a surplus 'blank' page at the end of a chapter.



If you've ever spent any time trying to guess what point size will make a headline look just right in Style or Publisher, you'll really appreciate this pair of short key cuts.

With the required text selected, press

CTRL-SHIFT-T

to increase the font size, or

CTRL-SHIFT-Y

to reduce it. The amount by which the point size is increased is proportional to the size of the font itself, so text up to 8pt changes by 0.25pt,

## Zzzoom ... Changing font size with ease

while between 8 and 16pt the increment is 0.5pt, and so on.

Allowing the keyboard to auto-repeat (holding down a key until the character is displayed again) produces a dynamic zooming effect - particularly on a fast machine like a Risc PC.

The rate at which the keyboard Auto repeats can be set via the Configure dialogue in RISC OS. This varies from

machine to machine so check in your manual on how to do this.

Another quick way of changing font sizes quickly is to set up a number of styles with your favourite point sizes and then use these every time you wish to alter the size of some text.

You can of course change the size of text via the Effects menu but this will only have an effect (sic.) on the area of text highlighted at that time.

Using styles will ensure that when you change the size of a piece of text, every other occurrence of text in a similar style will also be affected.

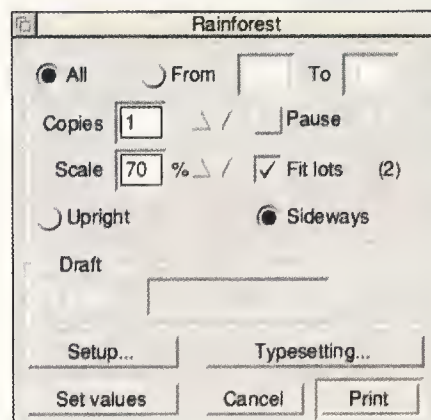
One way to save trees is not to light bonfires in the woods near stately homes after a long dry summer. (We should know!)

Another is to print multiple pages on to a single sheet of paper, and Impression's flexible printing options means there's no need to reformat the document at all.

From the print dialogue, just choose a reduced scale (69% will fit two A4 pages onto a single sheet, 50% fits four) and select 'fit lots'.

If you're doubling up, remember to select 'sideways'. Printing smaller

## Save Trees Double up



scales is great for proofing - with a whole copy of the Archimedeian on a single A3 sheet, we get a 'feel' for the layout.

The "Fit Lots" option is also useful if you're producing double page spreads where you have created one page after another in a document.

Rather than messing around with double page master pages (which can be done), it can often be quicker and simpler just to produce the pages as single sheets and then use the "Fit Lots" option when printing them out. Do not forget to select the "Sideways option" first.



When the TurboDrivers (version 4.03 only) are installed, the first time you fire the drivers up the Status window will automatically open on screen.

This is a very important window which many users have missed in the past. However, if you do not want the window to appear automatically simply close the window and then type

\*pqfs.

at the command line (first

## TurboDrivers Keep the Status Quo



press the function key F12). Also, if you just want to reposition the window, move it to the required place on the desktop and then type

\*pqfs.

at the command line.

If you ever need to bring up the status window again, it can be invoked at any time by mouse clicking on the Turbo-Driver application icon whilst holding down the Alt key on the keyboard.

If your Laser Direct reports the error "handle is illegal or has been closed" when you try to print, firstly make sure you have followed the installation instructions to the letter.

If you are sure you have, it may be that an important directory has not been installed into the !Scrap application.

Firstly, type

show wimp

at the command line (press the function key F12).

## Laser Direct Setting !Scrap

Take a note of the Wimp\$ScrapDir directory path, eg:

For Risc PC's  
Wimp\$ScrapDir :  
ADFS::IDEDisc4.\$.!BOOT.Resources.!Scrap.ScrapDirs.-  
IDcd5f6211

For A5000's etc  
Wimp\$ScrapDir :  
ADFS::IDEDisc4.\$.!Scrap.ScrapDirs.IDcd5f6211

Hard Disc names may differ as may the filing system (SCSI instead of ADFS etc). The last directory in the above path may not be present on your system.

Back in the desktop, go down through the directory structure listed for your Wimp\$ScrapDir. Within the last directory (ScrapDirs or IDcd etc) you will find a directory called PrintQFS.

Within the directory called PrintQFS there should be a directory called LaserQueue. If not, you should create one and the problem should be addressed.

Lots of Impression users ask us how to unlink a linked frame, or turn a text or graphics frame into a null one. Although there has never been an option in any version of Impression, it isn't hard to duplicate the effect with this quick and easy trick.

First, turn on lock-to-frame. Now, create a new frame so it covers the existing frame exactly.

Next, use the 'move frame down' option on the tool bar to move the new frame so that it moves immediately underneath (below as in 'layers', not physically on the page)

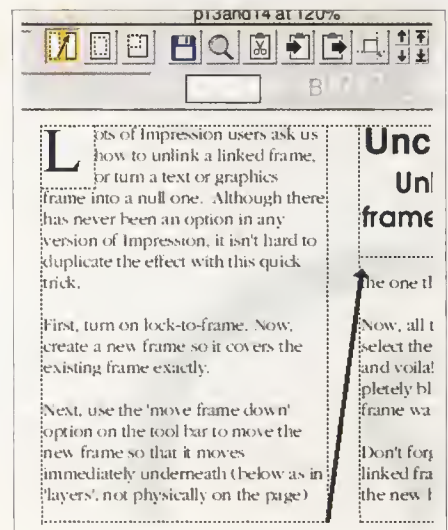
## Unchained story Unlinking linked frames the easy way

the one that it will replace.

Now, all that needs to be done is to select the old frame, delete it (Ctrl-K), and voila! You now have a completely blank frame where the old frame was.

Don't forget. If you are deleting a linked frame, you can check to see the new links by clicking on the show flow button on the left-hand

side of the button bar, or by selecting from the menu.





**Autumn Sale – closes 10th October:**  
**Starred products – deduct 25% from these prices.**  
 (Other products – price as shown.)

## Impression Style - 3.07 ★

The ultimate word processor. Includes: spell-checking checker, thesaurus, dictionary, mail-merge, auto-paragraph numbering, style sheets, graphics. Full on-line help. Fast, easy to use. 2Mb RAM rec.

**£99.00 + VAT (£116.32 inc)**

## Impression Publisher - 4.05 ★

Everything in Style, plus irregular shaped graphics frames, crop marks, page bleed, auto tracking and kerning, full colour support including Postscript separation of 24 bpp and 32bit CMYK images. 2Mb RAM min. required.

**£169 + VAT (£198.57 inc)**

## Impression Publisher Plus - 5.05 ★

A version of Impression Publisher for professional users, includes for OPI and EPS support, spot colour and named colours.

**£130.00 + VAT (£152.75 inc) as an upgrade for Publisher owners**

**£299.00 + VAT (£351.32 inc) for a full copy of Impression Publisher Plus**

## WordWorks - 1.06 ★

The ultimate combined English thesaurus and dictionary, with definitions. Hard disc rec.

**£39 + VAT (£45.82 inc)**

## ArtWorks - 1.56 ★

The most powerful and flexible graphics illustration program for the Archimedes. Package includes 220 outline fonts. 2Mb RAM minimum rec.

**£169 + VAT (£198.57 inc)**

## Clip-Art CD No 1

CD with over 700 ArtWorks drawings, over 100 24-bit full colour photographs, and a demo version of AudioWorks and sounds.

**£19 + VAT (£22.32 inc)**

## Clip-Art CD 2

Contains 1994 ArtWorks competition entries and a collection of quality photo images.

**£19.00 + VAT (£22.32 inc)**

**Buy both CDs for £30 + VAT (£35.25 inc.)**

## Graphics Loaders ★

Allows you to load JPEG compressed files and PhotoCD images into Impression Style, Publisher and ArtWorks 1.5. Inc sample images.

**£39.00 + VAT (£45.82 inc)**

## ArtWorks Pressure Tool

Ideal for use with the Wacom pressure sensitive tablets, can be used to create realistic 'hand-drawn' thick and thin lines.

**£39 + VAT (£45.82 inc)**

## Artworks Arranger Tool

Create magnetic guide lines in ArtWorks

**£29 + VAT (£34.07 inc)**

## AudioWorks - 1.53 ★

A general purpose audio sample editing application. Works with a variety of file formats.

**£49 + VAT (£57.57 inc)**

## TurboDrivers ★ - 2.10 (RISC OS 2) - 4.03 (RISC OS 3)

The fastest printer driver available for the Archimedes. Suitable for all current mono and colour Canon and Hewlett Packard inkjet printers (and laser printers) and Epson Stylus. Includes printer cable. 4Mb rec. for colour.

**£49 + VAT (£57.57 inc)**

## MacFS - 1.04 ★

A utility to read and write to Apple Mac SuperDrive & 720K floppies, hard discs, SyQuests/optical drives.

**£99 + VAT (£116.32 inc)**

## MacFS Light - 1.04 ★

A utility to read and write to Apple Mac SuperDrive & 720K floppies.

**£49 + VAT (£57.57 inc)**

## RTF & WordPerfect Loaders & Savers ★

For use with Impression Style and Publisher

**£29 + VAT (£34.07 inc)**

## Eidoscope ★

A powerful package for editing the Eidos movies created on an Eagle card

**£169 + VAT (£198.57 inc)**

## Compression - 1.17 ★

Very fast automatic general purpose file compressing and decompressing utility.

**£29 + VAT (£34.07 inc)**

## Formulix - 2.02 ★

A new and advanced mathematical formula and equation editor.

**£69.00 + VAT (£81.07 inc) £49.00 + VAT (£57.58 inc) for Equasor owners**

## TurboDriver & LaserDirect spoolers - 1.00

A network spooler for the TurboDrivers and LaserDirect.

**£149.00 + VAT (£175.07 inc) including a TurboDriver and LaserDirect site licence**

## Photodesk - 1.22

Professional 24 bit colour photo-retouching package from Spacetechn.

**£169.00 + VAT (£198.58 inc)**

## ColourCard Gold - 1.31 (series 1) - 2.31 (series 2)

Graphics accelerator expansion card. Provides much higher resolution, more colours, less flicker (higher refresh rates) and faster graphics drawing. 32,000 colour screen modes and video pass-through for Acorn modes.

**£199 + £6 p&p + VAT (£240.87 inc)**

## Movie Magic - 1.94

Plays full screen, full motion MPEG video from sources such as VideoCD. Drives an external RGB monitor or TV.

**£249 + £6 p&p + VAT (£299.62 inc)**

## Eagle M2 - 1.02 (TakeTwo)

Single width expansion card digitises still images and Replay movies, audio sampling and playback and midi capability. Includes the Eidos real-time video compression software (and AudioWorks & ScanLight).

**£329.00 + £6 p&p + VAT (£393.62 inc)**

## Midi Max

An Acorn compatible midi expansion card with support software. Provides Midi-In, Midi-Out and Midi-Thru ports. On board buffering.

**£69.00 + £6 p&p + VAT (£88.12 inc)**

## Lark Card

A 16-bit audio sampling and play back expansion card. Also includes full implementation of Midi interface Includes AudioWorks software.

**£199 + £6 p&p + VAT (£240.87 inc)**

## TV Tuner

A TV tuner and teletext input card. Teletext can be viewed directly and when used with a suitable digitiser, such as the Eagle card, TV can be viewed on screen in a window.

**£159 with Teletext software + £6 p&p + VAT (£193.87 inc)**

**£89 without Teletext software + £6 p&p + VAT (£111.62)**

## Wacom Graphics Tablets

Pressure sensitive graphics tablets with Acorn drivers: A6 ArtPad, A5 & A4 available.

**A6 ArtPad £169 + VAT (£198.57 inc):**

**A5 £339 + VAT (£468.82):**

**A4 £549 + VAT (£664.07)**

## Canon BJC-600e colour printer

Low cost A4 colour printer designed specifically to get the best possible results on plain paper. 360dpi (720dpi in mono), separate CMYK inks. Includes RISC OS 3 TurboDrivers.

**£359 + £10 p&p + VAT (£433.57 inc)**

## Canon BJ-200ex mono printer

Fast, 720 dpi, inkjet printer. Printer has built-in sheet feeder and power-supply. Includes printer cable and TurboDriver software.

**£179 + £10 p&p + VAT (£222.07 inc)**

## Canon BJ-230 mono printer

Same as above except takes A3 paper.

**£289.00 + £10 p&p + VAT (£351.32 inc)**

## Canon BJC-4000 colour & mono printer

Offers both colour and black and white printing. 360dpi (720dpi in mono), with high speed mono option. Includes RISC OS 3 TurboDrivers.

**£249 + £10 p&p + VAT (£304.32 inc)**

## Canon BJC-70 colour & mono printer

Portable version of the BJC-4000, 360dpi (720dpi in mono). Small enough for a briefcase. Includes RISC OS 3 TurboDrivers.

**£249 + £10 p&p + VAT (£304.32 inc)**

## ScanLight 256 - 2.06

Hand-held scanner capable of scanning 256 grey-levels for photographic quality image capture. Includes internal expansion card.

Versions available for all Acorn computers - specify model of computer when ordering.

**A300/400/5000: £129 + VAT (£151.57 inc)**

**A30X0/4000**

**CC mini podule £139 + VAT (£163.32 inc)**

**HCCS Ultimate MicroPodule £229.00 + VAT (£269.07 inc)**

## ScanLight Video - 2.06

A combination of 256 greyscale scanner and 256 greyscale video digitising capability.

**£189 + VAT (£222.07 inc)**

## ScanLight Professional Mono - 2.06

Flatbed A4 256 grey-level scanner. Requires SCSI interface card (available separately).

**£499 + £10 p&p + VAT (£598.07 inc)**

## ScanLight Professional Colour & Photodesk

An A4 flatbed, 800dpi, 24 bit colour scanner from Canon. Compact and fast. The package includes Spacetechn's Photodesk, and drivers.

**£749.00 + £10 p&p + VAT (£891.82 inc)**

**ScanLight package including Photodesk**