Authors, directors and **fast** movers

Choosing an authoring package can be confusing; for instance, should you use Authorware, or Director, or both? Panicos Georghiades and Gabriel Jacobs help you make the right decision.

Andy Tinton (<andy@dcomms.demon.co.uk) writes: *"I read with interest your article about Authorware and Fast products (*Hands On*, August issue). I have been toying with the idea of buying both of these products, and have managed to get a quote from a Scottish supplier for Authorware for £3,280 — about £500 cheaper than all the other dealers. But I don't know whether I can really justify the cost of Authorware, and instead just go for Director."*

He goes on to raise a couple of queries which we think will be likely to interest a number of other readers too: *"I have commercial programming skills (C, Basic, Assembler language when I was a youth writing Commodore 64 games commercially), but I may feel more at home with Director rather than stick to the stringent programming of Authorware. And by the way, Authorware is not for non-programmers. For basic multimedia applications, yes; but I have seen some quite complex code in Authorware programming too.*

"Is there anything that can be done in Authorware that cannot be achieved in Director? It is clear that for large-scale projects (e.g. an interactive encyclopedia or visual glossary) it's much better to plan a project and maintain the code and elements in Authorware. Largish projects will tend to get lost in marker headings and hidden scripts with Director. I have also been trying to get out of Macromedia the cost of calling Director Movies from Authorware in terms of memory, and start-up time for movies.

"And I have another query: I hope to buy a Fast board quite soon, but I cannot get a straight answer from the Fast UK office about which is the best (MMII + MJPEG board, or FPS60) at capturing AVIs. MJPEG AVIs can be captured, but what about normal AVIs that I can give to other people on CD-ROM? To make normal AVIs, I will have to first transfer the MJPEG AVIs in Premiere, which I suppose will be a time-consuming process."*

Macromedia's views on the two products are (and we agree) that you can do just about everything you want with both of them. It's really a matter of how easy it is to do particular things with one as opposed to the other. So, what you have to decide is what type of applications you'll be developing. That's true with almost every type of multimedia development

Director movies imported into Authorware have a serious memory overhead

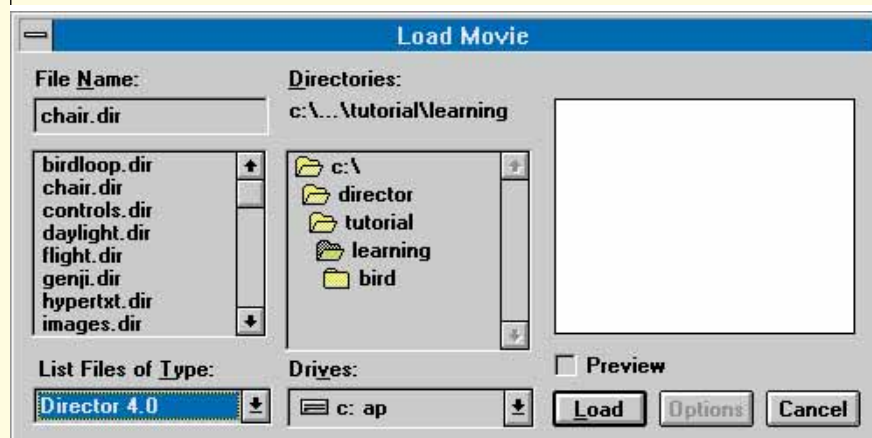scenario, but in this case even more so.

Director is certainly better for creating visual impact and is one of the best products on the market for this purpose. It's also very strong on animation, so we would suggest using it when power of presentation is an important requirement.

With its enhanced hypertext facilities Authorware is very good for reference applications, especially those that require interactivity such as education and training. You can design carefully structured courses with more sophisticated logic and branching than in Director, and there are built-in facilities for measuring student performance. This is probably part of the reason why some universities, colleges and training agencies have standardised around it, although Toolbook still seems to be holding its first place in the world of home-grown computer-assisted learning.

As for importing Director movies into Authorware, the cost in memory is more dependent on the size of the movies than anything else. The cost in time depends on the performance of the computer as well as the size of the Director movie you're importing.

If the Director movies you want to import [into Authorware] don't have any interaction, you can first export them to a series of bitmaps, then import them directly into Authorware. But we should mention that there are some specific things which Authorware will do and Director won't, such as accessing database information via ODBC. If such things

are important for the work you intend to do, then the other considerations become secondary.

Regarding your second question on the Fast video capture cards, both models use the same Zoran compression chip (the FPS60 has it built-in, while for the Movie Machine II it comes as an add-on extra), so really there's no difference in the quality of the captured video.

There are differences in the facilities offered by the two boards: notably, the Movie Machine includes a TV tuner and a video mixer. However, both include an overlay facility and an add-on to play MPEG-1 video files.

Finally, to the point you make about grabbing "normal" AVI files (for distribution) in one go. Firstly, there's no such thing as a normal AVI file: even the Motion JPEG files captured by the Fast boards you mention — as well as by many other boards using this type of compression — have an AVI extension. AVI is a generic file extension for Video for Windows files.

There are many types of compression methods used with Video for Windows. Some are based on hardware methods, some on software, others on both. They're listed in the Drivers icon in the Control Panel (Win 3.x), and in the Multimedia icon of the Control Panel (Win95).

What you're clearly referring to are AVI files using software-only decompression methods distributed freely with the runtime version of Video for Windows (for instance, MS Video 1, Cinepak, and Indeo).

None of these provide such good qual-ity as M-JPEG at low compression ratios (up to about 20:1). Additionally, M-JPEG is an editable video format (it's what's used in professional hard disk-based video stu-dios) and you may well need to do some editing work before getting your video clips to the finished state, even if you don't mean commercial distribution when you talk of giving CD-ROMs to other people. The idea is to carry out any editing work at the best available quality, which means keeping as much as possible of the origi-nal information content (i.e. less so-called lossy compression, where some of the information is inevitably lost), and com-pressing down to the levels required for distribution only at the very end.

If your material has already been edited using analogue methods (and no further editing will be done after capturing) you could consider boards offering Indeo 3.2, such as the Creative Labs Video Blaster RT300. These compress in real time using hardware during capture, and the results can be played using software-only drivers freely distributed with Video for Windows. The quality is pretty good.

The compression method you choose for your final results once again depends a great deal on your application. Here we're thinking about such things as transfer rate, frame size, frame rate, whether your material is fast moving (action) or slow moving (talking-head type), whether you want the best picture quality for the small-est file size or the fastest turnaround.

However, your choice to go for a board

Aimtech/IconAuthor news

One of the main advantages applicable to both Authorware and Director is their platform compatibility — you can develop applications that will work on different platforms using the same code (typically, Mac and PC).

Another program that does this well is Authorware's main competitor, IconAuthor (made by Aimtech), which works on Windows, Windows NT, Mac, OS/2 and Unix. In the past few years we've heard comparatively little about Unix in the world of the personal computer. But recently, with all the fuss about the Internet where Unix servers are the kings, a number of companies are beginning to add Unix machines to their existing range of platforms.

Not long ago we talked to Leo Lucas, Aimtech's chief technology officer. He told us that as part of a new initiative funded by the US government — the National Information Infra-structure Education and Training project — IconAuthor will be available on the Internet to deliver multimedia training and authoring on demand.

A new version of IconAuthor (with Internet access) will be available next year which will include HTML (HyperText Mark-up Language — the programming language used for creat-ing pages on the World Wide Web). The new IconAuthor will, we're told, enable training-course developers to access Internet resources, and it's aimed at providing training facilities at remote sites all over the world. And the good news for developers is that there will be transferability of applications from other existing IconAuthor platforms to the Internet, so that programming effort can be saved.

that uses M-JPEG compression (such as the Fast boards) is a good one. It's flexible, and will provide you with good-quality video. We haven't come across better for the money. And last month in *Hands On Multimedia,* we looked at Spea's Crunch It, which uses the same Zoran chip as the FPS60 and the Movie Machine II.

ULead Media Studio Pro 2

The "multi" in the word multimedia is what makes applications interesting, but it's also the cause of the developer's nightmare. Handling more media requires faster and bigger machines, more development time and effort, and thus higher costs. It also requires more computer hardware and programs for editing and preparing the different media — you need at least a word processor, a sound capture and editor program, a bitmap scanning and retouching/painting program, a video capture and editing program, and an animation program. And then there's the multimedia authoring program you need in order to put the stuff together. Some programs may offer a few of the facilities found in dedicated utilities, but there are always limitations. In any event, we're talking thousands of pounds.

Recently we've had the opportunity to evaluate one of the very few (and probably the most affordable) bundles of programs you need for capturing and editing all the different types of media you're likely to use in a multimedia application. This is ULead Systems Media Studio Pro. It includes screen capture, batch-file conversion, image cataloguing, audio editing, image

ULead: one of the few bundles of utilities for capturing and editing multi-media file formats

and video capture and editing, and a module to carry out morphing effects.

The video editor is on the lines of Adobe Premiere and supports 101 video and audio tracks, 2D and 3D moving paths which allow images and text to be mapped to spheres and cylinders, anti-aliasing of fonts, and titling. There are 50 video filters and over 100 transitions (more than what you get in either Premiere or Asymetrix' Digital Video Producer). An Album module enables you to visually catalogue video, animation and image files, and even audio files (by using thumbnails).

The batch-file conversion program works on video, audio and animation files as well as image files, and can handle attribute changes such as compression formats, colour depth, size, and data and frame rates.

Media Studio costs £279. And although it's marketed as a video editing package, it does provide a complete solution.