

iDVD and DVD put Apple far ahead of the pack

**BY BOB CONNOLLY AND
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I am quite familiar with producing DVDs using expensive authoring systems such as those made by Scenarist and Sonic Solutions. These systems, which can cost over US\$30,000, are, for the most part, the workhorses of the Hollywood movie industry. But they are also very difficult to use and require a high level of skill to produce quality results. Configuring the hardware and software is another challenge.

Now Apple, through acquisitions and the enhancement of its *QuickTime* soft-

ware for MPEG2 playback/encoding, has packaged a one-stop solution for everyone. Apple's *iDVD* software, which comes with the new 733 G4 SuperDrive, is so simple my neighbor's kids are using it.

As a test, I sat down our website developer, Jason Lee, at a new G4 with DVD-R capabilities that had just arrived from Apple and asked him to make a company DVD. No manuals were given to him—just the tutorial supplied. His mission was to create a DVD from scratch within one hour.

He not only accomplished the task in a few minutes, he decided to incorporate the

home page from our BC Pictures website into the interface because he felt it was too easy to use the graphics that were supplied.

Here are his comments:

"Using the *iDVD* tutorial was easy and makes learning how to author a DVD very simple, using short *QuickTime* movies to illustrate what to do each step of the way. With the simplicity of drag-and-drop procedures, I was able to follow the tutorial without any difficulty.

"The Theme button at the bottom of the interface brings up a panel at the bottom of the screen that contains a row of themes to choose from. These themes include a variety of different backgrounds, such as sand, chalkboard, photo album, etc. Or you can even create your own by dropping a picture onto the background. The image is automatically resized to provide the correct aspect ratio for DVD, so don't worry about the image size—it's safe to stick with 640 x 480 pixels. If you add text to your background you need to remember that you will lose 40 pixels around the outside because television displays differently than a computer monitor.

"I then placed a DV movie in the project by dragging a movie into the *iDVD* window. It was instantly placed in the center of the screen with the title beneath it. No importing of files was needed—it's all drag-and-drop.

"The next step was to change the title of the DVD by clicking on the title once and typing in the text area. If you don't



(above) Using *iDVD*, first choose a **THEME** for your DVD.

(above right) Your theme could reflect anything from travel to holidays to a photo album.

(right) Then just **DRAG-AND-DROP** your DV movie.



Studio Pro

want a title, just delete the default title.

“To select an icon to be used as a button, you can use a frame from the movie by clicking on the icon that references the movie and then moving the pop-up slider to the desired frame that you are going to use as a poster frame. This is really neat because I didn’t have to go through the hassle of opening the movie, exporting a

frame, recompressing the movie and then importing the movie back into *iDVD*.

“Another feature is the slide show. Just click the Slideshow button at the bottom of the window and an icon appears in the window.

“To add pictures, I just double-clicked on the Slideshow icon and dropped in pictures. Once the pictures are in, they ap-

pear in order from top to bottom, and their order can be rearranged from within the Slideshow window.

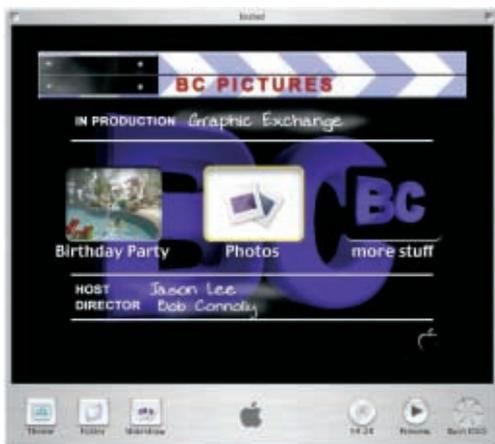
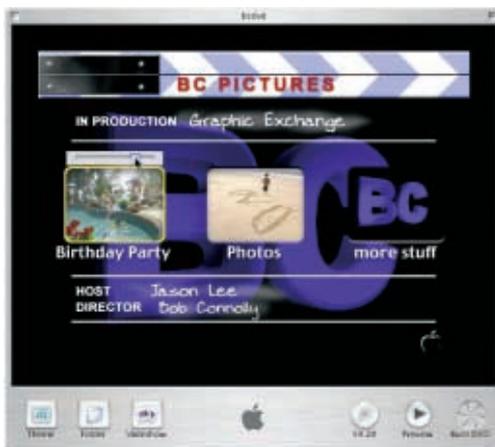
“At the bottom right corner of the Slideshow screen, there is a checkbox labeled “Display <> on image” for navigation. If the slide show is to be automated, the “Duration” dropdown menu contains times of how long each picture will hold, from one second to ten seconds.

“Once the slide show is ready, the poster frame needs to be set. This process is the same as setting the movie poster frame—click on the Slideshow icon and move the slider to the desired image.

“Folders allow you to organize large numbers of files, such as scene selections from most of today’s DVD movies. To create a folder, simply click the Folder button at the bottom of the window and a folder icon will appear in the window. By default, the folder will name itself the same as the theme selected. You can drop an image onto the folder and it will immedi-

(counter-clockwise from top left)

- Use the **POP-UP SLIDER** to choose one of the movie frames to be the icon for your button.
- Or you can simply hit the **SLIDESHOW BUTTON** at the bottom to create your icon.
- The **SLIDESHOW WINDOW** lets you rearrange the order of pictures.
- The **“CUSTOM” SETTING** on the Theme panel lets you select different shapes and colors for your icon.



DVD

ately size itself to provide an icon. The shape of the icon can also be customized in the dropdown menu of the Theme panel by selecting “Custom.” You will now be able to choose different shapes that include hearts, ovals, squares, etc.

“I noticed a small apple watermark in the bottom right corner of the window, which appears in all of the menus, but disappears when a movie is played. I guess this is Apple’s way of branding this software. I really can’t blame them for adding this since the software is free.

“At any time you can preview your work in progress by clicking the Preview button. A small DVD type controller pops up that allows you to navigate the project.

“If everything looks good, you click the Burn DVD button and pop in Apple’s general media blank DVD disc to create a DVD. The process of converting the DV video to MPEG2 usually takes two to three times the running time of the videos in the project, so two five-minute videos take about a half hour. You have an hour of space on the disc because the compression rate is fixed at ten megabits per second, which equals 4.6 GB (the capacity of a single sided DVD). If you want to write more than an hour of content, you have to move up to *DVD Studio Pro* and compress using a variable bit rate.

“To check the disc, you open up the DVD in Apple’s *DVD Player*. Everything should work correctly, provided your computer has the latest DVD player drivers.

“Now that I know how to author my own DVDs, I’m spoiled. I don’t want to go back to VHS.”

BUT WHAT ABOUT MULTI-ANGLES AND DOLBY DIGITAL?

Jason found that producing a DVD using *iDVD* was simple. But once he started to study the format as most people do, he found that *iDVD* has its limitations. All the negative comments which I’ve heard about the *iDVD* solution may be valid (hey guys, it’s free software). But if you venture into *DVD Studio Pro*, Apple’s professional solution, this is where the industry falls silent. For an extra US\$1,000 you have the equivalent of a \$30,000 system all in one box. The DVD industry is shaking in its boots.

We have authored several discs using *DVD Studio Pro* and the SuperDrive really is super! We’ve created both CD-R and DVD-R, and have found few incompatibilities. (First generation DVD players do not like to play one-off DVD-R discs of any kind.) I got a new Panasonic DVD player that also plays CD-R MP3s for \$320. My portable Panasonic player is three years

old, and it plays Apple’s “general DVD media” just fine—the picture quality is flawless.

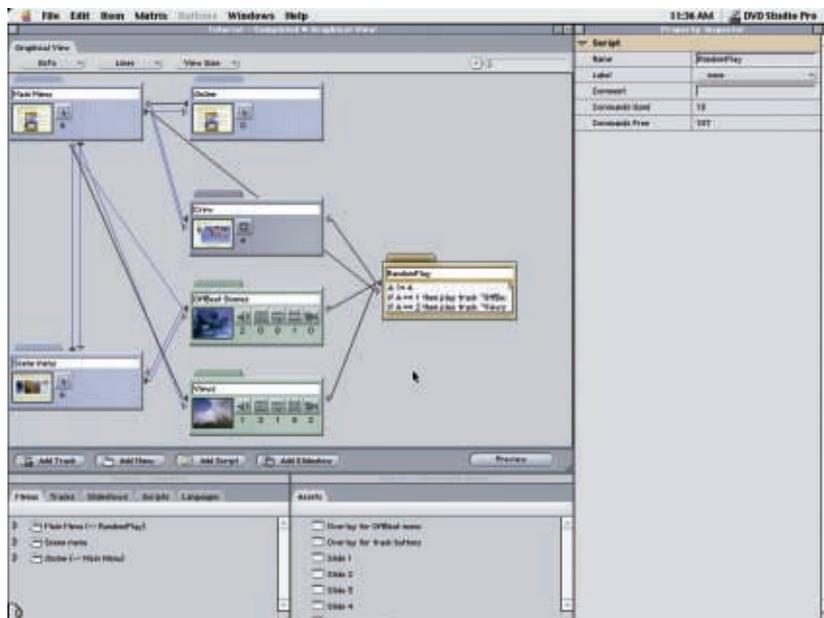
There is some confusion on the type of discs that Apple uses for its SuperDrive. I can’t figure out what the difference is between professional DVD authoring media and Apple’s general DVD media (they look the same to me). It seems that if you want to duplicate a DVD, you have to output the data to a DLT (digital linear tape) because the pressing plants will not accept anything else, but I’m sure they will soon start to accept other formats other than those outdated DLT drives.

I have to admit that I am a little disappointed that I no longer have the upper hand with DVD production. My investment of time and energy in high end systems has left me feeling like I should have waited. I have always tried to be on the bleeding edge and I thought that it would pay off in the long run. Now that Apple has brought an inexpensive professional authoring solution to market, I’m sure there will be so much competition that I will have to re-think my DVD future. I’m even considering setting up a service bureau to transfer DVD images to my DLT tape drive, just like desktop service bureaus output film for printing. Instead of *QuarkXPress* I’ll use *DVD Studio Pro* or transfer the image via a Firewire drive. Maybe this way I can meet and network with others that are in a similar situation.

But on the other side of the coin, I think Apple is giving birth to a new industry, one that is not entirely concerned with merely transferring Hollywood movie titles to DVD. This new industry might just allow me to produce DVD entertainment titles that are targeted to DVD, if distributors only wake up to the possibilities.

When the CD-ROM industry was born, everyone seemed to be focused on creating games or reference material on CD. Titles like *Myst* became big sellers. Macromedia’s CD-ROM authoring software *Director* flew off the shelves. Multimedia was *Macromedia Director*. A few hardworking kids could produce incredi-

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DVD

ble CD-ROM adventure games in their basements using one Macintosh computer, *Photoshop*, a 3D program and *Director*.

I believe this is going to happen all over again, this time using DVD as the medium, and a DV Firewire camera.

In *Myst*, the creators had to create thousands of small *QuickTime* animations that were linked to a user interface to allow the user to explore virtual worlds. Using Apple's *DVD Studio Pro*, the exact thing can take place, only this time, instead of rendering thousands of scenes and

virtual interactive situations, you can videotape them and let the user navigate in the "real world" to interact with real actors.

When DVD specifications were being finalized, the capabilities of "scripting" were implemented into the DVD operating system that comes with every DVD player. The capabilities of DVD set top gaming are built into every set top player. Hollywood and the DVD industry have never taken advantage of this capability—until now. *DVD Studio Pro* has a version

of *Director*-like Lingo scripting built into the software. This allows you to have random play so that the DVD title can interact with you too! Full screen, full motion crystal clear video with hot button overlay to allow you to interact with real actors that learn your moves. And as a bonus Apple has provided the capability of launching web pages via the DVD interface using an application that gets embedded into every DVD title called *DVD@ccess*. Incredible!

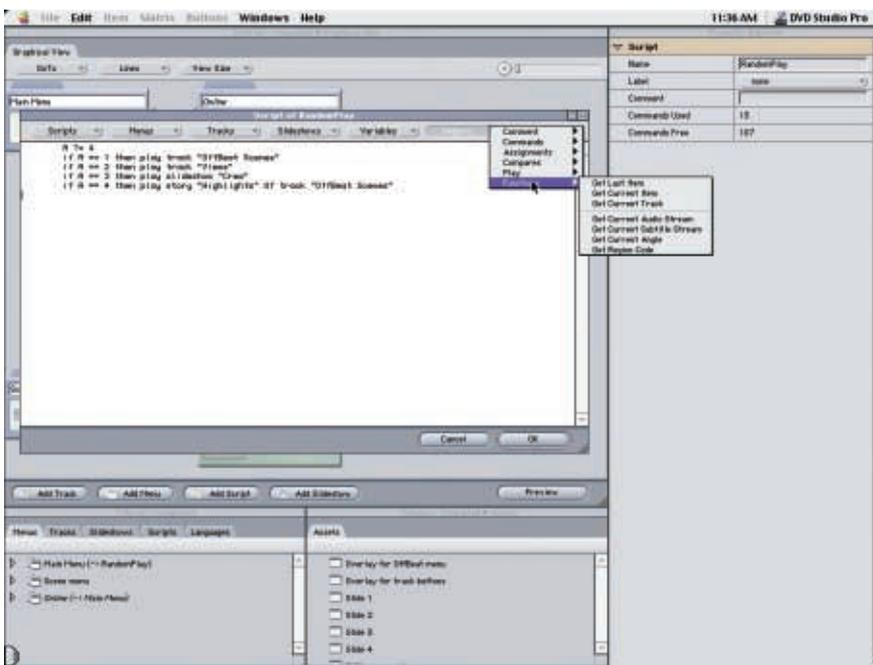
APPLE INTRODUCES FREE DOLBY DIGITAL ENCODING VIA SOFTWARE

Not only did Apple give us *QuickTime* to MPEG2 encoding, *Photoshop* still and motion menus, multiple camera angles, dual-layered discs, and simple-to-use authoring drag-and-drop interfaces, they also threw in Dolby Digital encoding to boot! The process of producing 5.1 Surround sound for your DVD is also drag-and-drop.

In professional DVD studios, the soundtrack is mixed to a Tascam DA88 8 track digital tape machine. The six tracks (v5.1) that make up surround sound must then be encoded to a single compressed digital file that will run in sync with the MPEG2 video track. This is very expensive to do because of recording studio mixing charges and the final Dolby Digital encoding. But there is another way.

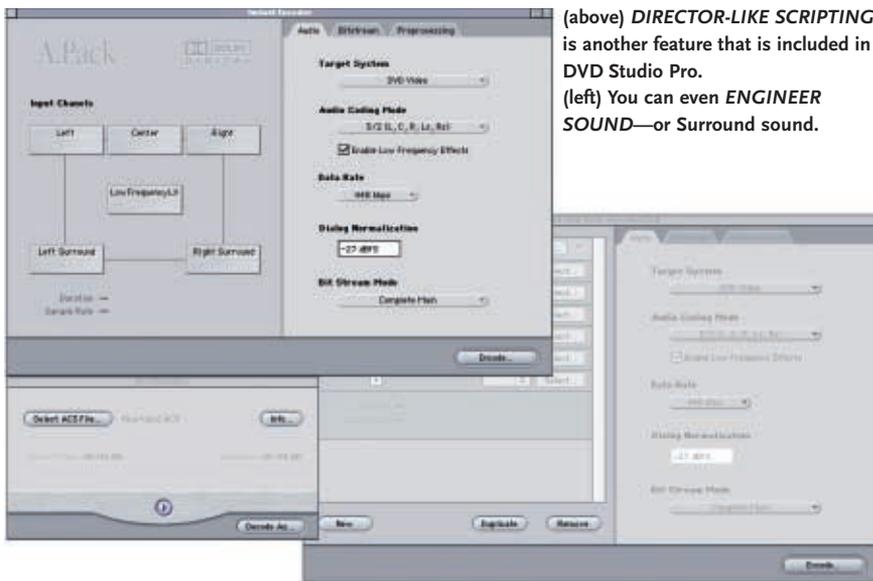
Most music is now recorded on digital hard drives or on tape. The mainstay of the music industry is software called *ProTools* developed by Digidesign. There is a free version of *ProTools* that works on the Macintosh and you can use it to produce Dolby Digital audio. Just export the digital files to AIFF and drop the files on Apple's APAC software that comes free with *DVD Studio Pro*. Instantly you have Dolby Digital—free!

Basement bands can now produce their music in Dolby Digital 5.1 Surround Sound. They can shoot their own video, edit it using Apple's *Final Cut 2*, and export the video to MPEG2 using *QuickTime*. And if they can create separate AIFF



(above) **DIRECTOR-LIKE SCRIPTING** is another feature that is included in **DVD Studio Pro**.

(left) You can even **ENGINEER SOUND**—or Surround sound.





DVD Studio Pro MPEG SETTINGS

files of their music, they can encode the music for Dolby Digital and produce a DVD-video disk. Instead of just CD, they can now sell DVD. The Napster issue will be meaningless when the music industry wakes up and starts to issue its music promo videos on DVD, using remixed surround Dolby Digital sound. Get the latest *Tea Party* DVD to see what can and should be done.

DVD-equipped TV sets make the ultimate sales tool for demonstrating the use of products in stores—ideal for makeup counters, Home Depot tool displays, how to build a deck, etc. The endless looping of VHS tapes causes the tape and the machine to wear out quickly. DVD does not suffer those drawbacks. You can loop hundreds of products on one DVD.

I'm excited about this new medium of desktop DVD. It takes me back to the days when desktop publishing created thousands of magazines targeted to niche markets. DVD's introduction to the market place is outpacing the introduction of music CDs and might surpass CD sales if the use of MP3s downloaded over the Internet continues.

DVD is happening—big time—while the Internet is starting to lose the interest of venture capitalists.

The important thing to understand here is that Apple has taken a very big step to make DVD easy, powerful, fast and affordable. They make the computer, the operating system, *QuickTime* and its fast MPEG2 compression, the Dolby Digital encoder, and two flavours of DVD software. *iDVD* is free. Apple pre-installs the

DVD-R drive and the extensions to run it, making CD-R and DVD-R simple. Controlling the operating system, computer and authoring software allows Apple to produce products that work together. You don't have to add any boards—it's all in the software. MPEG playback of your work in progress is always there. You don't have to "build" your work in progress to see it play. It plays Dolby Digital and MPEG2 in real time. You don't have to build VOB (video object) files to test your work. You can play your final DVD image (called a title set) using the free Apple *DVD Player* application before you burn the disc. Trust me, Windows solutions are hell compared to this. Configuring all the necessary software to work with the operating system and compression hardware is a nightmare.

iDVD is so simple that it's truly a running joke among my colleagues. *DVD Studio Pro* is so powerful and affordable, I think other software competitors may soon sell out to hardware companies to market bundling deals with MPEG capture cards. Compaq computer is making a go of this with Pioneer's SuperDrive. But who do you call when you have a problem. Pioneer? Microsoft? Sonic Solutions? Compaq? The capture card vendor?

And, oh yes, before I forget to mention it, what about editing software? Apple's *Final Cut 2* is out—faster than before and with many new features. Using *QuickTime 5*, the video display is very clear—the tearing, fuzzy pictures are gone. Combine it with *DVD Studio Pro*, Dolby Digital APAC, and *QuickTime* MPEG2 compression, and download the free version of Digidesign's *ProTools*—now you have everything you need in one box to make next-generation interactive DVD entertainment. ☺

Bob Connolly and Jason Lee work for BC Pictures, an award-winning new media production company that creates content for TV, CD-ROM, DVD and Internet websites. They can be reached by telephone at 416-521-7462 or by e-mail to b.connolly@sympatico.ca.

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