

Special Report

Affordable DVD-R at long last!

by Bob Connolly

"I'm stunned! How did they do that?"

"Looks like it's time to buy a new G4—but my old G4 isn't even a year old!"

"What will Hollywood do to stop people from copying movies?"

These are just some of the comments I've been hearing regarding the new Mac G4s that include built-in DVD-R drives.

For me, this is the single most revolutionary package of bundled products that the people at Apple have ever presented to the video industry. I suspect that it will be many years before the Windows PC market catches up.

WHY DID IT TAKE THIS LONG?

To understand my enthusiasm, I need to explain the growing pains that the DVD industry has gone through since its inception. First of all, there is much confusion about the format wars in digital video.

DVD-RAM died. DVD-R has been held back. The DVD video discs that you play in your set top box or on your computer are very difficult to author and produce. The only way to check your DVD video work-in-progress on a set top box is to burn a DVD-R, and only one company produces a DVD recorder. For some reason Pioneer was given the keys by the DVD consortium to manufacture a DVD-R recorder—and they have literally held the DVD industry hostage!

At introduction, the Pioneer unit was \$20,000. Only very large movie post-production companies could afford them, so everyone just "waited" until the price came down.

We all waited for three years until Pio-

neer released a \$5,000 version, and then the smaller post-production companies bought in for corporate video projects. At \$5,000, DVD started to make in-roads and this has now led to the brisk DVD industry that we have today.

Now Apple feels that everyone should have access to DVD production and it has made a very serious commitment to Pioneer to bundle its DVD-R recorder with the latest G4 computers. The baffling part in all this is that Apple is delivering this hardware/software bundle for the cost of a new Pioneer DVD-R drive! Buy a drive, get a computer free!

THE MAKING OF DVD STUDIO PRO

I had a feeling something big in DVD was coming last year when Apple bought up a German company called Astarte. (Astarte also invented *Toast*, the de facto standard in CD recording software that is bundled with many Mac CD-R drives.) At that time, Astarte made a DVD authoring application called *DVDirector* which was very simple to use and very inexpensive compared to the professional software used by Hollywood to create feature film DVD video discs.

DVDirector just disappeared off the face of the earth, and as a registered user I was very upset. But the people at Astarte (who now head up the QuickTime/DVD division at Apple) promised that big things were in the works, but that the project

Apple's new G4 with CD-RW/DVD-R SuperDrive bundled with iDVD and DVD Studio Pro authoring software now makes DVD production very affordable—although this may make Hollywood movie producers squirm just a little. The most amazing aspect is the manner in which Apple succeeded in quietly scooping up Pioneer's production of DVD drives while also snaring Astarte's dynamite *DVDirector* software.



was so top secret that they couldn't tell me anything! They just asked me to be patient—I'd soon find out what was in store.

Well, a year later, I'm floored—in fact, stunned. Never did I dream that Apple



would partner with Pioneer and Astarte to move DVD to the desktop of the average consumer. *DVDirector* has been overhauled, re-named *DVD Studio Pro*, and added to the Apple software product line.

Users of *DVDirector* can get a discount when purchasing *DVD Studio Pro*. This robust DVD software allows you to author DVD-Video discs that include features such as:

- motion or still menus (moving video in the background)
- interactive buttons and links
- up to 99 tracks, each with up to 8 different angles, chapter markers, and multiple stories
- multi-language support allowing up to 32 subtitle streams per track
- slide shows
- up to 8 audio streams per track
- Dolby Digital AC-3 format audio
- Web links (when used in a computer)
- 16:9 format support

With *DVD Studio Pro* you can create both DVD-5 and DVD-9 projects (single-sided and dual-layered). And you can record finished projects to DVD-R, DVD-RAM, or DLT tape.

The software also performs MPEG encoding by including MPEG Encoder software plug-ins for all *QuickTime*-savvy video applications. It encodes high-quality MPEG-2 video that supports both PAL and NTSC formats in 4:3 and 16:9 aspect ratios and also accepts MPEG streams from other encoders.

For audio it supports Dolby Digital encoding (Dolby Digital AC-3 format) by compressing *QuickTime* (single- or multi-channel), AIFF, Sound Designer and WAVE format sound files for encoding sound tracks from mono to 5.1 surround sound (astounding!).



Apple's new *DVD Studio Pro* (above) is a revamped version of Astarte's *DVDirector* software. It lets users create sophisticated digital videos in various formats, either single-sided or dual-layered, with interactivity, multi-language support, and up to eight audio streams per track.

JUMPING OFF THE FENCE

Playing its cards wisely and carefully, Apple has stepped across the line again to manufacture and distribute professional software. Just as they did with *Final Cut Pro* for video editing, they have moved into the DVD software business and have completed the authoring process by bundling DVD-R drives in the computer.

This product is not only targeting professional video producers; Apple is also thinking of the video hobbyist. For those of you who are familiar with *iMovie*, Apple has included *iDVD* with all new DVD-R equipped G4s. It's the "Toast" for DVD creation. Drop a *QuickTime* movie into *iDVD* and out comes a DVD that you can play on your set top DVD player.

So here's Apple's vision of desktop video. Get your DV camera out and shoot that birthday party. Transfer it to your G4 via FireWire. Edit the video using *iMovie* or *Final Cut Pro*. Export the video to *QuickTime* for the Internet or burn a DVD-R and send it to grandma.

Here's another. A TV commercial production company has just finished producing a special effects masterpiece. The ad agency now wants to see the new TV commercial for approval. Instead of saying

"send me a VHS via FedEx" they now ask for a DVD-R. The quality of VHS just doesn't cut it any more.

And what about that corporate presentation that needs to impress the investors? Slip a DVD-R of the new corporate video into the DVD laptop and your large screen presentation suddenly plays back in high definition digital video. Your audience is stunned by the quality. From camera to projector—totally digital—flawless quality. You impress the big shots.

Why has it taken so long to get to this point? Hasn't DVD been around for some time now?

Well, the answer is simple: *copyright infringement*. The real reason why DVD has not been affordable is that Hollywood wanted it that way. Once you can copy movies to DVD, how will they stop piracy?

CD-R has altered the music industry forever. Apple saw a long time ago that CD-R would damage the music CD business and companies like Napster became part of its death. Apple never made computers with CD-R drives and opted for playback only. The Windows PC market took advantage of consumers' thirst for pirated music by installing CD-R and CD-

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G4
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RW drives in all new PC computers.

Now, Apple has decided to leapfrog over the PC industry and has gone right to recordable DVD. But that was only the beginning. Why not produce an entirely new drive? A superdrive! A drive that can do everything! A drive that can read and write CD and DVD! Who cares about the computer—give me the drive!

Apple has done just that. Its new CD/DVD SuperDrive will record and play almost every format and I think that the real market for this machine will be kids who want to copy DVDs. The awesome new DVD-R/CD-RW SuperDrive reads DVD titles at 6x (7.8 MB per second), and writes to 4.7 GB DVD-R discs at 2x (2.6 MB per second). The SuperDrive also reads CDs at 24x, writes to CD-R at 8x, and writes to CD-RW at 4x. It supports DVD-Video, DVD-ROM and DVD-R, as well as CD-ROM, CD-Audio, CD-R, CD-RW, CDI, CD Bridge, CD Extended, CD Mixed Mode and Photo CD media. That's why it's called the SuperDrive.

COPY A DVD? IS THAT POSSIBLE?

There is copy protection built into DVD video discs but it's easy to disable.

All you need to do is to take the output of a DVD player and pass it through a DV camera into a FireWire port. Record the video to DV, transcode it to MPEG2 and output it to DVD. It may drop in quality a bit but will still look a thousand times better than a first generation VHS that you rent from the video store.

Give some hackers a few months and you'll soon be able to download software to copy DVD-Video bit for bit to produce a flawless duplicate. If Apple wins some customers due to piracy issues, well, I hope the folks at Pixar (another company run by Steve Jobs) can convince the DVD consortium that in the long run the DVD industry will benefit from the "new producers" who will hopefully start producing movies that are made for DVD. The capabilities of DVD are perfect for interactivity and at this point, it seems that Hollywood is satisfied with transferring feature films to disc

and adding some movie trailers.

How about movies with multiple camera angles? Alternate endings? How about compilation DVD music video discs with added artist interviews?

Listening to the Supernatural DVD by Carlos Santana is better than their live performance, due to the superb Dolby Digital 5.1 mix. It sounds like you're on stage, sitting in the drummer's seat, listening to a perfect monitor mix.

Apple has stepped out and made a bold statement with this introduction into DVD by steering the ship full speed into the video production software business. Sonic Solutions makes one of the best DVD authoring systems in the industry and it is only available on the Mac. I suspect the investors at Sonic are a tiny bit nervous. Another case in point: Apple's *Final Cut Pro* has been making significant inroads into Avid's stronghold of video editing.

Just the other day I received an e-mail from my local Avid users group. It is considering changing the focus of its dwindling membership to include users of other non-linear editing systems.

If Apple can hammer home the point that DVD video production or "copying a video to disc" is a point-and-click procedure like copying a music CD, expect a flood of corporate DVD video productions to replace *PowerPoint* presentations. Don't be surprised to hear requests for DVD instead of VHS. DVD players will start to become commonplace in corporate boardrooms. All portable computers will soon have DVD drives.

Remember, Sony Playstation 2 plays DVD video and they can't keep them in stock. Microsoft's X Box will play DVD video.

Have you got your DVD player yet? What are you waiting for? A Macintosh with a DVD-R drive? 🍎

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