

Sapphire Plug-Ins Illuminate "I Believe in You"

For Australian singer Kylie Minogue's new video, "I Believe in You," The Mill in London utilized GenArts Sapphire plug-ins for Discreet flame to manipulate lighting and glow effects. The video features Minogue singing and dancing inside a spherical neon cage. With each verse, a new light cage appears and rotates around the singer.

"I made extensive use of the Sapphire Glow and Glint effects to enhance the light of each bar on the cages and create this sexy, neon, fluorescent look," explains flame Artist Adam Grint. "We also



used the Glow effect to add radiance to the skin tones. While Glow was used very much to enhance the look of a shot, Glint was more of a design tool. On the cage, for instance, I used the Glint effect vertically to give more sheen, which helped fill the frame and give it more structure."

Advanced Compression Tools

Oliver Peters

Many an editor has uttered the words, "I'm an editor, not a compressionist!" The fact of the matter is that

today's video productions are delivered in a wide range of media formats, from tapes to DVDs to Web files. Any editor who doesn't know how to run the most basic compression and encoding tools is risking obsolescence in the rapidly evolving postproduction marketplace. If nothing else, standard procedure for many clients is to receive "review and approval" copies of commercials and corporate videos as multimedia files, downloaded from the post facility's FTP site. For this reason alone, the basic mechanics of creating a small QuickTime or Windows Media file should be in the repertoire of most editors.

Modern nonlinear edit systems or compositing applications let you export a version of your sequence or com-

position in a variety of media formats, sizes, bit rates and frame rates; however, these internal tools frequently don't give you the best quality or the most efficient workflow. You typically work with limited presets that don't provide the ability to tweak your settings with more advanced parameters. That's when it's time to move over to more specialized tools. For many years those tools have consisted of Apple QuickTime Pro, Discreet cleaner and format-specific encoders such as those from Microsoft and Real. But now there's a strong new player on the block: Sorenson Media.

Sorenson Squeeze 4 Compression Suite

Sorenson Media started out as a company that made a great video codec for QuickTime. In fact, most of the QuickTime-based movie trailers on the Web have been encoded with one of the Sorenson



codecs. The version of the codec that is included with QuickTime Pro offers basic encoding presets, plus the ability to control and adjust

more of the codec's parameters if you purchase an advanced upgrade from Sorenson. In recent years, Sorenson has branched out to develop other codecs, such as for Flash, as well as to develop a comprehensive encoding suite for the whole range of media formats. The current version of Sorenson's suite is Squeeze 4, available for both Mac OS X and Windows 2000/XP. The two versions are slightly different based on the different ways Microsoft and Apple support certain formats.

A standard version of Squeeze has been bundled with some NLEs, such as Avid's Xpress Pro. I've used this basic version on a PC to compress video from Adobe Premiere Pro and Avid Xpress Pro, but this time around I used the

Sorenson Squeeze 4 Compression Suite and Telestream Flip4Mac

Squeeze 4 suite on a Mac. The first thing you'll notice with an upgrade to Squeeze 4 is the more professional user interface. Previous versions of Squeeze sported a somewhat cartoonish interface that didn't do the software justice.

Sorenson Squeeze 4 is designed to let you work with individual media files or several at once in an efficient and streamlined batch process. Video can be imported (drag-and-drop is supported) or captured from a DV camera or VCR. The application also supports watch folders. This means that if you have a "job" set up, Squeeze will immediately start processing any file that is exported to the designated watch folder. A job document allows you to specify any number of target formats—complete with applied filters—to be created from the files that have been directly imported or sent to the

watch folder from another application. For instance, your document could specify that any incoming file be turned into a QuickTime, RealMedia and MPEG-4 file. Simply export the final sequence from your favorite application to the specified watch folder and Squeeze begins compressing and encoding these three files.

Squeeze 4, which began shipping in late August, incorporates high-definition encoding for a variety of video formats, including MPEG-1, MPEG-2, MPEG-4, QuickTime and RealMedia, as well as the Sorenson AVC Pro codec (also known as H.264). The Windows version of the suite includes HD encoding options for Windows Media 9—WM9 support becomes part of the Mac package, too, if you purchase Telestream's Flip4Mac WMV Export Component, which is available now. Encoding and compression options in Squeeze 4 are highly configurable, allowing a user to create custom settings for nearly any multimedia, NTSC, PAL, DVD and HD stan-



dard—the presets that come standard with Squeeze 4 are also quite comprehensive.

Hands-On Encoding

I was curious to see how Sorenson Squeeze 4 would work as an MPEG-2 encoder for creating DVD files. I wanted to compare it to such solid applications as Apple's Compressor or Innobits' BitVice, since Squeeze uses the highly regarded Main Concept compression engine to create MPEG-2 files. My first attempt seemed to be pretty dismal until I figured out some non-standard software design issues with Squeeze. The cause of my problems turned out to be the fact that the

default option in Squeeze is to "Auto Deinterlace" all input video—which makes sense for Web files but not DVDs. Sorenson Media is working on a free point-release update with special DVD filter settings in which the deinterlacing default is set to OFF; for now, though, you have to apply a filter and disable Auto Deinterlacing. Another thing I've started to do is to apply a manual crop

(two on the top and four on the bottom) when going from uncompressed SD video (486 pixels) to MPEG-2 (480 pixels). Together, these settings—plus setting the proper field order—gives me a crisp DVD-compliant file without any interlacing issues.

Be careful with video levels. Sorenson Squeeze works in YUV video levels, not RGB values. With YUV (used in Avid systems), the video range from maximum black to maximum white is set at 16-235. Final Cut Pro uses RGB values, where the range is set to 0-255. But forget the numbers. What this distinction means is that a sequence exported



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Inside FOX's *House*

With a title like *House*, you might be expecting another home improvement show. In fact, it's FOX's new medical drama, and the title refers to the show's central character, Dr. Greg House, played by British actor Hugh Laurie. The show has a veteran staff of two assistants and editors Christopher Nelson, Bill Johnson and Sue Blainey.

Shot on 35mm, *House* is cut on an older version of Avid (7.2, to be precise) due to budgetary constraints. "It slows us down in some ways," says Blainey, "but we try to make up for it."

The show has an eight-day shooting schedule; the editor receives the final



dailies on the ninth day and then has two days to put together an assembly that contains every scene that was shot and scripted. The editor works with the director for another four days to whittle down the time and finesse the episode before it goes to the producers, the studio and, eventually, the network. Because of the three-editor rotation, Blainey is working on episodes 2, 5, 8 and 11.

Compared to some of the other shows she's worked on—such as *Boomtown*, with its fractured storylines, constantly shifting point of view and numerous jump cuts—*House* is a straightforward affair: a traditional, character-driven medical drama that calls for traditional editing.

from Avid Xpress Pro on a Mac looks right after Squeeze has applied MPEG-2 encoding. The same file exported from Final Cut Pro will have more contrast and might be clipped in the shadows or highlights of the image. I found that applying a filter and setting the contrast to -15 worked pretty well for Final Cut Pro sequences. Sorenson is aware of this discrepancy, of course, and has plans to address it. I didn't run into this issue with a PC, but, admittedly, my testing with Adobe Premiere Pro, Avid and Vegas software has been limited in conjunction with Squeeze.

After I figured this all out, I found Squeeze 4 to make some of the cleanest looking MPEG-2 files of the bunch. The encoding times are in the middle of the range. Even without applying extra noise reduction, MPEG-2 files are free of a lot of the macro block artifacts typical of many encoders. Motion holds up well, too. I also tried doing a Sorenson AVC Pro file. The render is fine but, for right now, the standard media players can't play it.

Another inviting format is RealMedia, with its new codecs. Real, once a staple of Web video, tends to be overlooked these days because the bad reputation earned by its older video codecs, which sometimes looked terrible. Real files encoded today, with the newest codecs, look quite favorable compared to other choices, such as MPEG-4. For some reason, though, Squeeze sometimes acts as if it is writing a Real file to the hard drive, but nothing's there. This seems to be an intermittent Mac-only bug, often related to the use of external drives. Generally, Squeeze 4 worked well and produced high quality, cross-platform multimedia movies that played easily in any of the free Real Player applications.

Telestream Flip4Mac WMV Export Component Support has been lacking if you need to encode Windows Media files on a Mac. Discreet cleaner supported versions up to Windows Media codec 7, but nothing as current as you get for the PC. Telestream—best known for its FlipFactory and ClipMail product lines and services—jumped into the business of adding Windows Media export and import capabilities to the Mac platform with a product called Flip4Mac. Released in early December 2004, the Flip4Mac WMV Export Component application comes in a standard and professional/HD version and adds Windows Media Video codec 9 export support to many QuickTime-based applications. (A Flip4Mac Import Component should be available in Q1 2005.) After installation, QuickTime Pro, Final Cut Pro, cleaner and other Mac applications will show Windows Media as one of the options in the export dialog box. Upon choosing Windows Media as the export selection, click on "options" to select rates, sizes, constant or variable bit rate encoding and so forth. The standard version



gives you Windows Media 9 support with one-pass constant or variable bit rate encoding. The professional version adds HD support, two-pass encoding, surround sound and higher audio sampling rates.

Working with Windows Media on a Mac is a bit of a mixed bag. Actual playback of higher bit rate WMV files still isn't as smooth as it is on PCs. WMV HD files will play nicely on a fairly fast PC, yet they'll grind to a halt on all but the fastest Macs. On the other hand, QuickTime DVCPRO HD files at a much higher bit rate will play well on a Mac. This differential is an issue of how Microsoft and Apple decide to optimize their players and shouldn't detract from users' perceptions of Flip4Mac's powerful capabilities.

I tried out these new export capabilities in number of applications and was really impressed. In comparing files using WM7 (via cleaner's built-in codec) and WM9 (via Flip4Mac WMV Export) at similar quality levels, the WM9 files were quite a bit smaller in size. Selecting the WM9 Standard settings gives you the best results. Encoding isn't too slow and the quality is right. When I selected the WM9 Advanced setting, the encoding was terribly slow and the resulting file wouldn't play on my Mac. I presume this is due to the fact that Microsoft has yet to release an updated player that supports this codec on the Mac.

The Sorenson Squeeze 4 Compression Suite gives any media specialist—regardless of his operating system—a new encoding toolset that is ready for the newest standards, ranging from the Web to HD. Adding Telestream Flip4Mac is the icing on the cake for the Mac professional who needs to include advanced Windows Media tools to the workshop. ▼



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