

Code blu for low def

Next-generation formats face off in the market

By Lori A. Nolin

Ed.'s note: In the last year, we have run 10 stories about Blu-ray technology in SEL Today, the daily email newsletter for employees. However, only about half of you have online access at work. With the December launch of Sony's Blu-ray player we wanted to make sure everyone had the chance to learn about the technology. The following includes some material from previously published SEL Today reports.

A race car roars around a track and you can feel the reverberations, see the texture of the track, individual blades of infield grass dance in the breeze and beads of sweat emerge from beneath the driver's helmet – all from your couch.

The promise of Blu-ray™ Disc technology is the highest high definition where minute details come to life in vivid colors accompanied with booming sound – transporting the viewer to the scene.

But Blu-ray has a competitor whose supporters make the same promises: HD DVD. Sony supports Blu-ray Disc, or BD, format. Toshiba is HD DVD's prime backer.

Both formats are next-generation optical disc formats developed for high-definition video and high-capacity software applications. However, Blu-ray offers a higher capacity while HD DVD uses a more traditional recording structure, similar to a DVD's structure. Blu-ray's capacity – about five-to-10 times more than that of DVD – can more easily accommodate full-length feature films and extra features while HD DVD may require an extra disc.

“One often overlooked fact is that Blu-ray is a new technology generation, unlike HD DVD's incremental improvements over DVD,” said researchers from Forrester Research, an independent technology and market research company. “For example, Blu-ray discs of the future may store as many as 200 gigabytes as opposed to the 60-gigabyte theoretical capacity of HD DVD.”

Today, a single-layer Blu-ray Disc will hold up to 25 gigabytes of data and a double-layer will store up to 50 gigabytes of data that can hold up to nine hours of high-definition movies or recorded content, or 23 hours of standard-definition TV. Two-layer DVDs now in homes hold less than nine gigabytes. HD DVD offers 15 gigabytes for a single-layer disc, or 30 gigabytes for a double-layer disc.

“The Blu-ray Disc Association is a who's who of the industry,” said Victor Matsuda, vice president of Blu-ray Disc group, Blu-ray Disc Information Office, Sony Corporation of America.

Blu-ray has most of the industry and buckets of content on its side.

More than 170 companies are members of the Blu-ray Disc Association, including Sony, Apple, Dell, Hewlett Packard, Hitachi, LG Electronics, Mitsubishi, Panasonic, Pioneer, Samsung and Sharp. HD DVD has just nine manufacturers in its corner.

Major motion picture studios, including Twentieth Century Fox, Paramount Pictures, Buena Vista Home Entertainment, Walt Disney Pictures and Television, Warner Brothers Entertainment and Sony Pictures are all releasing Blu-ray titles.

According to Forrester Research, only one major studio – Universal – “will support HD DVD but not Blu-ray. All the others will support either Blu-ray only or will support both formats. That means Blu-ray will get more hit titles.”

Meanwhile, more than 20 companies are making Blu-ray products, including players, recorders, high-definition computer drives, recordable media and PC applications.

In the battle between the formats, HD DVD proponents said they had an advantage because their player is less expensive and went to market first, coming out at the end of March 2006. Samsung introduced the first Blu-ray player last June, while Sony plans to debut its player by the end of 2006.

In the meantime, Sony has a Blu-ray notebook, desktop, peripheral drive and media in the market.

Sony's player is expected to cost about \$500 more than the Toshiba HD DVD player. “You can strategically price hardware product but the bottom line is, if there is nothing to play on it, what is the total value of that \$499 proposition to the consumer?” Matsuda said. “The proposition has to be the combination of what the consumer is getting in terms of hardware and software contents. If \$499 only gets you an HD DVD playback device and very limited content, that price point and overall product proposition certainly isn't as attractive as it may first seem.”

And HD DVD's earlier introduction has not made it a frontrunner, according to Forrester Research.

In October 2006, the company published a report titled: “Blu-ray Disc Will Still Beat HD DVD.”

“We haven't changed our mind since October 2005, when we predicted that Blu-ray would win a pyrrhic victory over HD DVD for the next generation of DVDs,” wrote the researchers. “HD DVD has had some early wins – first and cheapest player in the market, first titles in the market and better title reviews in the first round of direct comparisons ... Blu-ray will beat HD DVD because Blu-ray has much more manufacturing support, will offer more movie titles, and millions of Blu-ray Playstation 3s will soon be in the market.”

Playstation® 3 doubles as a Blu-ray player. Sony expects to sell 6 million units worldwide by the end of the fiscal year. President and chief executive officer of Sony Computer Entertainment of America Kaz Hirai said PlayStation 3 will play a major role in contributing to the consumers' choice of Blu-ray.

With Microsoft on the HD DVD side, the company plans to offer an HD DVD accessory for its Xbox 360 as an optional add-on for about \$200 extra.

Regardless of what analysts are predicting, right now the consumer is facing a format war. And they have to pick the winner.

In a panel discussion in Las Vegas last January, Roger Heuberger, chief executive officer of PRO Group, which

represents 235 retail outlets, said his group is "not pleased about the format war. We will support both formats and let the consumer decide. We wish we weren't in these waters at all."

"Both sides tried to work things out," Matsuda said. "I think there were very good intentions from representative companies to come together, and at a certain point in time we were very hopeful. Everybody realizes a format war is good for nobody – our consumers, retailers, manufacturers. So there were intense meetings to try to bring the formats together last year. Unfortunately, it just didn't happen and we reached the point of no return with various key milestones regarding format development."

While advocates for both camps wait to see what consumers will choose, they also wonder how long it will take the public to embrace the concept of next-generation HD.

"The HD transition is under way," said Jim Taylor, senior vice president and general manager of the Advanced Technology Group, Sonic Solutions in August at the DisplaySearch HDTV conference. "But it will not be an overnight transition."

However, if history gives any indication, then it should happen as fast, if not faster, than the move to DVD.

He said Americans took almost 25 years to fully embrace black and white television. With each new technology through the years, the adoption time has steadily decreased. Consumers made the quickest jump when DVD came to market, adopting the media within about five years.

Taylor said when people ask which format will win, he believes "content is king ... people go to buy the 'Matrix' or 'Nemo' on DVD now because they want the movie. Content is a driver of adoption."

According to Jupiter Research, HD sets will make up 70 percent of the TV market in 2010.

"One thing I think the Blu people are trying to do is to create an HD world," said Eisuke Tsuyuzaki, managing director, Panasonic Hollywood Lab during DisplaySearch.

Mark Knox, advisor to the Toshiba HD DVD Promotion Division, said he thinks the industry will create one combination player to support both formats instead of wiping one out entirely.

"We haven't seen two formats exist in a playback issue – and we have seen format issues many times in 15 years," said Jeff Goldstein, vice president, SEL home audio and video marketing, "Ultimately what will drive the selection of a format by consumers is the content, and I think we have that covered."

Tim Baxter, senior vice president of strategic marketing for Sony Corporation of America, said Sony will first target the 20 million consumers who own an HDTV.

"Blu-ray Disc is a vital component of the HD message," he said.

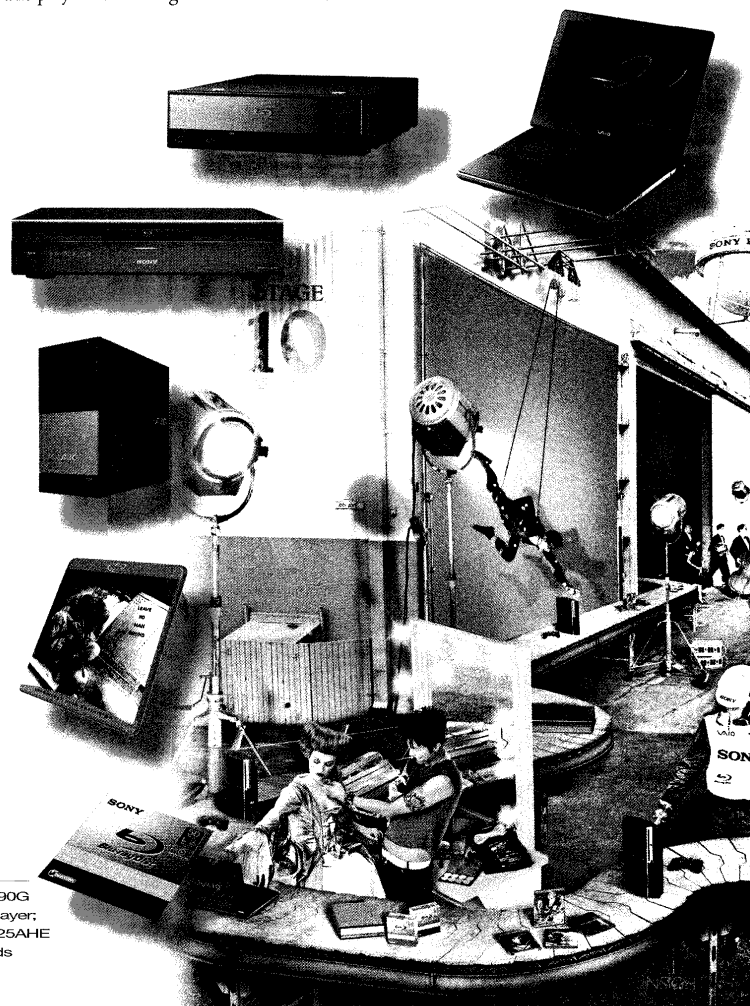
The players deliver signals at a

resolution of 1920 by 1080 progressive scan, the highest resolution now available. "1080p is the cornerstone of the player and it will upgrade DVDs to 1080p as well," said Phil Abram, senior vice president of SEL's Home Products Division for television marketing. "It's more than just the features with a Sony product. This thing is built like a tank."

Abram said SEL worked with Sony Pictures on a picture mode so the player delivers what the studios and directors intend.

"It produces the video high-definition experience," he said. "This ties into the success of BRAVIA and SXR.D. You will have the full ecosystem from Sony." ♦

For more information, visit www.learningcenter.sony.us and look for "Blu-ray Disc" under "TV & Home Entertainment."



Sony's Blu-ray Disc products (from top): VGN-AR190G VAIO PC notebook; BWU-100A burner; BDP-S1 player; VGC-RC320P VAIO PC desktop; movie and BNE-25AHE media. In the background: one of Sony's Blu-ray ads featuring the products at work together.