



Extron JMP 9600 Video Players Inspire World Expo Visitors with a Visually Stunning View of the USA

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Steve Calver
Project Manager
Electrosonic

At the World Expo 2010 in Shanghai, China, the USA Pavilion was one of the largest and most heavily attended national pavilions, entertaining over 3,000,000 visitors in the first three months. The 60,000 square foot pavilion featured a three-part, emotive and immersive cinematic experience, which included large-format digital projection, multi-channel audio, rain, wind, and lighting effects. The AV experience, entitled “Rising to the Challenge,” showcased American culture, values, innovation, and business, all while celebrating friendship and cooperation between the United States, China, and the rest of the world.

Prime contractor BRC Imagination Arts, a leading designer and producer of immersive educational, entertainment, and brand experiences, and subcontractor Electrosonic, an AV systems integrator, worked together on this demanding project. They chose Extron **JMP 9600** JPEG 2000 high definition video players to fulfill challenging creative goals. Steve Calver, Project Manager at Electrosonic, says, “JMP 9600 players proved essential to fulfilling the project’s technical and operational requirements, including extremely high image quality, reliability, and show synchronization.”

Challenges

The USA was the last of 200 nations to commit to a presence at Expo 2010, so BRC and Electrosonic had to work with a very compressed schedule of approximately eight months to design and install this important project. As an international venue, the USA Pavilion needed to serve visitors from all over the world with differing values, cultures, and languages. Finding a way to reach this vast audience with a singular message was a challenge. Pavilion organizers wanted to entertain,



educate, and inspire millions of visitors, making use of large-format projection displays and compelling, high definition content, the most effective presentation medium for so many visitors. In addition, BRC and Electrosonic had to design a system using equipment that could operate continuously and reliably over a six-month period, in spite of high temperatures and unstable power conditions.

AV System for “Rising to the Challenge”

The USA Pavilion was split into four distinct rooms, from the lobby to the sponsors' exhibit area. Sophisticated and stimulating AV systems were installed in each room:

Overture

The lobby area, or Overture section, displayed a four-minute montage of American landscape intercut with everyday people and celebrities welcoming visitors with Chinese words and phrases. This area included four elevated projection screens, four Panasonic PT-DW6300 HD projectors, playback from Extron MMP 9500 high definition players, and a 70 volt distributed overhead audio system.

Pre-Show

In the adjoining room, visitors were seated on benches in a theater outfitted with a 78 foot by 15 foot, large-format projection area divided into three screens. An eight-minute introductory presentation featured Secretary of State Hillary Clinton, President Barack Obama, and sports celebrity Kobe Bryant. They introduced the main show, communicating American core values of teamwork, vision, humanity, curiosity, and the desire to work together to realize a healthy, sustainable, and prosperous future. Extron JMP high definition players delivered synchronized HD video playback across three Panasonic PT-DW10000 projectors. A multi-track surround sound system completed the experience.

Main Show

The Main Show illustrated the concept of one individual making a big difference. “The Garden” is a story of perseverance and



USA Pavilion, World's Fair 2010



Overture



Pre-Show

teamwork told without a word of dialogue, reaching people of every language through moving images, music, and special effects. This show was displayed on five large screens, each with a unique trapezoid or hourglass shape over 30 feet tall. Five high-brightness, Panasonic PT-DW10000 2K digital, high definition projectors illuminated screens rimmed with LED lights choreographed with 833 lighting cues for an eight minute show. Synchronization, multi-channel audio, and SMPTE show control inputs on the JMP 9600 were essential to managing the video playback, audio, and lighting production. Four-dimensional effects such as wind, rain, and low-frequency vibration in the theater added a sensory dimension, immersing the audience in an experience that was both emotional and visually stunning.

Sponsors Area

After leaving the Main Show, visitors filtered into a room in which 22 American corporate pavilion sponsors had interactive exhibits that showcased their businesses and technology. Extron **MMP 9500** MPEG-2 HD Players delivered video to three ceiling-mounted Panasonic PT-DW6300 projectors onto three projection screens in this area.

The Solution: JMP 9600 High Resolution Video Players

The JMP 9600 was selected due to key features, including its exceptionally high image quality, which is essential to creating immersive, high-impact visual experiences using high brightness, high resolution projectors. It featured the ability to output high quality content encoded using JPEG 2000 compression at over 125 Mbps. The JMP 9600 also features multi-channel audio capable of supporting surround effects or multiple language tracks. Video synchronization capabilities and SMPTE time code support show control integration, which is useful for presenting uniform content playback across multiple projection displays or synchronization of video playback with sound and lighting effects. Each JMP 9600 unit features dual outputs – able to support two separate displays, making it a cost-effective solution. In addition, continuous use over a six-month period necessitates high reliability, which was demonstrated by the JMP 9600.



Main Show



Sponsor Area



JMP 9600 JPEG 2000 HD and 2K Player for large format and immersive projection displays



MMP 9500 MPEG-2 HD Player



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