

# PROJECT PROFILE



## The Crystal Cathedral

### Overcoming Technical Challenges at the Celebrated Cathedral

Electrosonic overcame many unique technical challenges installing the video and audio systems for “Creation: Once Upon All Time,” the show staged inside the Crystal Cathedral in Garden Grove, California. The cathedral is the home base for the international Crystal Cathedral Ministries with a congregation of over 10,000 members. The soaring, airy cathedral features more than 10,000 windows of silver-colored glass held in place by a lace-like framework of white steel trusses, a challenging environment for a house of worship in which audio and video play a regular role in services as well as in special shows.

“Creation: Once Upon All Time,” addresses the question ‘How did we get here?’ by telling the story of a boy and his grandfather who embark on an amazing journey where the physical and spiritual universe unfold around them. The show blends elements of live theater, CG, aerial acrobatics, puppetry, original music, and light, color and sound effects.

To display the CG content, Electrosonic installed a massive 252 x 28-foot screen, which is actually comprised of seven individual Harkness Hall screens. Electrosonic also installed seven Christie S+16 projectors, on floating platforms hanging from the ceiling of the Cathedral, all butt-spliced to create a single image across all of the screens. To meet quality requirements, Electrosonic chose an uncompressed high-resolution HD video playback system from IRIDAS. Electrosonic developed custom software, with the help of



IRIDAS, to lock together seven uncompressed streams of video from the IRIDAS Frame Cycler servers.

To handle the huge number of moving lights, smoke effects, confetti cannons and water misters that are seamlessly integrated in the show, Electrosonic employed a Medialon Manager show control system.

“Electrosonic accomplished technical feats never before achieved with a live theatrical presentation,” says Larry Ganson of Ganson Production in Dallas who acted as production manager and senior technical director for the show. “They overcame numerous challenges on this project from the size of the screen to dealing with the video and server system. But the biggest challenge of all was the audio system.”

The Cathedral is world famous for its all-glass design, but the acoustics of a glass room make it incredibly difficult to control the audio and deliver intelligible sound. Late in the video installation cycle it was decided to revamp the Crystal Cathedral’s large audio



system. Electrosonic worked with Acoustic Dimensions of Dallas, with the help of multiple acoustical software programs, and designed a sophisticated, multiple array audio layback system to meet the demands of the challenging space.

The new sound system consists of five JBL line array clusters for main left, center and right; the left and right arrays consist of 10 self-powered boxes and are approximately 15-feet tall. A surround sound line array of five QSC Wideline speakers moves the audio around the huge space. All 10 speakers are connected together, painted white to match the Cathedral architecture and suspended above the projection screens.

“The new audio system has been phenomenal,” notes Larry Ganson “Electrosonic, in conjunction with Acoustic Dimensions, has turned the Cathedral into an amazing acoustical dream. Everyone has been very, very satisfied with the way the audio sounds: the music sounds great, and the spoken word is very clear. Electrosonic did a fantastic job getting the system up and operational.” Genson concludes, “Electrosonic always rises to the challenge. They go above and beyond what’s needed from the client perspective.”