

projects



crystal cathedral

Client: Crystal Cathedral

Location: Garden Grove, CA

Project Type: Renovation

Completion: 2005

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AD Scope: Audio

Crystal Cathedral began plans for their new multi-media, interactive production, Creation. The show was designed to completely encompass the audience in the awesome splendor of the formation of the world. From the separation from darkness and light to the fall of Eden, the show is orchestrated to overwhelm the senses. The Crystal Cathedral has always had a notorious reputation as an acoustically difficult space, however, the glass walls were not as problematic as they appear because there are no parallel surfaces. The real challenge in the room was the balcony face which is a 6.5-foot flat concrete wall that surrounds the main seating on three sides of the space.

The solution wasn't simple. AD used line arrays, beam shaping, and a combination of EQ, band limiting and phase shifting to get the coverage and imaging right while avoiding the balcony face. For the center cluster, there are two arrays of five cabinets each that hang side by side to cover the floor. Amplitude tapering and some frequency shading allowed consistent coverage on the floor and limited overspray on the balcony face. Hanging between those two clusters is another array of boxes that cover the balcony. Beam shaping is used to hit just the balcony and miss the face below. The left and right clusters are a similar concept resulting in an 8 channel surround sound system.

ACOUSTIC DIMENSIONS