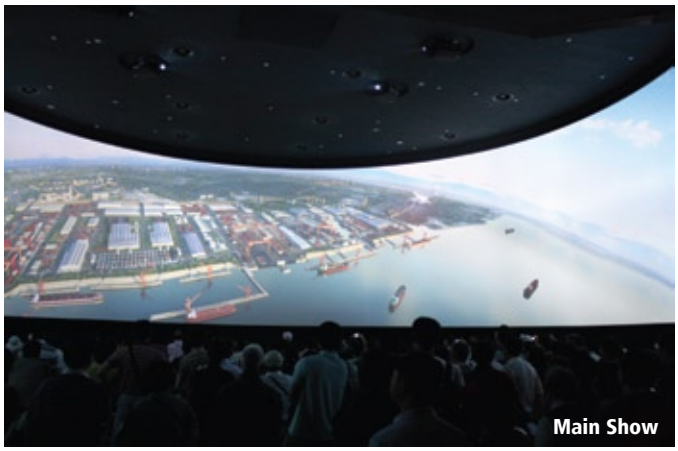
PROJECT PROFILE

EXPO 2010 Shanghai

China State Shipbuilding Pavilion


Main Show

Its arc structure resembling the keel of a ship, the China State Shipbuilding Corporation Pavilion at Expo 2010 Shanghai showcases the nation's time-honored history of shipbuilding and is one of the few pavilions that will remain as a museum after the Expo concludes. Electrosonic provided the extensive audio, video and show control systems for the pavilion that enable visitors to explore the role of shipping in China's past, investigate exciting concepts for future floating cities and farms, and simulate navigation. Electrosonic was challenged to deliver multi-image and edge-blended displays onto unusual surfaces; and furnish immersive interactive experiences for visitors.

Electrosonic project manager Marcelo Videla describes the challenges presented by the project. "A project the size and scope of the China State Shipbuilding Pavilion typically has a life cycle of 18 months, but we had just seven months to complete our work from beginning to end. For much of the time we were working out of sequence with various phases of the process overlapping. Adding to the challenge was the fact that this is one of the few pavilions that will remain after the Expo so much effort went into ensuring that installed elements were easily expandable in the future." It will continue to operate as a permanent museum and exhibit long after the Expo is over.

The huge, four-story lobby area, known as the Central Business District (CBD), features the mast, or conning tower, of a modern ship. Around it are three storefront style windows showcasing the current and future business of the shipyard. Two of the windows, displaying client meetings and futuristic ship design, are fed by rear-screen projectors. In another window, projectors show imagery of giant ship components. Fifteen 50-inch DLP video projection cubes comprise a fourth window, and 11 additional LED screens spotlight shipyard activities.

Four ramps lead visitors up through the pavilion and serve as transitions from one gallery to the next where exhibits highlight current and future ship-based technology and science concepts.

The floating ship models, placed on glass tables with projection surfaces

The first ramp leads to the Energy Park gallery where video projectors show edge-blended imagery of offshore oil rig operations across two walls. The second ramp leads to the Eco-Lab, designed to resemble the control center of a research ship. An aquarium gallery gives visitors a unique, interactive take on the underwater world. A projector combines with a Gesturetek system to display cartoon balloon dialogue as if the fish were addressing visitors.

The third ramp takes visitors to the Food Production gallery where an interactive wall and infrared lasers permit guests to explore food preparation onboard ship. Ten Floating Farm ship models, placed on glass tables with projection surfaces, feature Electrosonic lighting control that triggers gobos and descriptions of the ships. Water textures are projected under the ship models.

The fourth ramp leads to the Sailing City Forum that introduces visitors to the concept of permanent floating cities. Ten video projectors in five interactive stations combine with Gesturetek systems to enable visitors to investigate the idea of airports, shopping centers and theme parks at sea.

The pavilion's main show, which depicts the past, present and future of the shipyard in an all-animated presentation, is housed in the City Hall Theater-in-the-round. Seven HD video projectors display images on a 310° curved and slightly-tilted Oray screen.

VIP visitors to the pavilion have access to a balcony area with lounge and conference spaces overlooking the City Hall Theater. The balcony's glass window contain LCD elements that permit them to change from clear to opaque. When in its opaque mode, five projectors display a simulation of an actual ship's console with steering wheel, bearing indicator and throttle that allow guests to simulate ship steering.

Due to the pavilion's size and the long cable runs it would have required, Electrosonic employed a fibre distribution system to send all video and control signals to the equipment in the facility. The fibre distribution system is easily upgradeable when the pavilion moves into museum mode.

Electrosonic Design Consulting provided guidance to the exhibit designers on AV equipment selection, projection geometry, facility impact, and budgeting.

Electrosonic has a long history installing and designing AV systems at World Expos with over fifty pavilions to its credit. Electrosonic's first expo was Expo 67 in Montreal, Canada.