

Gaylord Texan Resort Grapevine, Texas

Lighting Solution

The Gaylord Texan Resort project is a groundbreaking installation in both system design and scope. Crestron successfully established a centralized, independent lighting network via Ethernet on a grand scale. A traditional serial controlled system was not possible due to the overwhelming amounts of data and extraordinary distances between lights and rooms. One ballroom alone, The Texan, was the size of almost two football fields.



In addition to The Texan, there were two other ballrooms, the exhibition center, more than 40 meeting rooms, the hotel common area and atrium, four restaurants, and retail stores. The only alternative to a networked solution was to establish a series of independent lighting systems with racks throughout the property. Each lighting system would need to function on a smaller scale with no communication between them. The hotel's specifications did not allow for the diminished control and functionality; they wanted a single networked solution. Crestron's **Pro2 e-Control Processor** centralized the lighting network and controlled the Pathport DMX lighting control modules and the Entertainment Technologies (ET) IGBT dimmers, greatly reducing network traffic. The result is a networked lighting system that is fast and stable, and that the Gaylord Texan Resort is happy with.

The convention center is about the size of four to five football fields with approximately 26 meeting rooms, two divisible ballrooms, and separate pre-function areas. The divisible ballrooms can separate into as many as 20 rooms; each of the 20 "rooms" has up to seven lighting zones. These zones are programmed to effect any combination of scenarios for any combination of rooms with coordinated lighting.

The lighting system in the hotel encompassed nearly 1,000 networked lighting zones. General and accent lighting in the atrium is supplied via theatrical fixtures placed in the cupola that are controlled by an astronomical clock. These fixtures are programmed to turn on at sunset and turn off at sunrise, and feature light sensors to trigger the controller to

turn lights on in the event of heavy cloud cover. Also on the network are the four restaurants, common areas and hallways, and the retail stores. Each restaurant manager has control of the interior lighting of his/her dining room. Each restaurant is scheduled to dim lights to a specified level at a prescribed rate. Typically, the restaurant managers do not want their guests to detect the lights dimming, so they may fade the chandeliers to 50% and the wall sconces to 75% over a 90-minute period.

All the programmed pre-set configurations are saved as files and stored to compact flash cards. The pre-set files are organized by room and then by lighting group within the room. In the event that a lighting processor malfunctions, the compact flash card can be inserted into a new processor and upload all the pre-set programs instantly.

The lighting system utilizes **Crestron's e-Control®**. Two Crestron PRO2 Processors reside in racks in the two lighting communications rooms:



one in the convention center and the other in the hotel. Lighting scenarios for any room in either facility can be controlled from these remote locations. Additionally, handheld PDAs provide wireless remote control of any room. Each processor has a redundant back-up processor monitoring the system at all times and would take over control in the event of a failure. Each of the 1,000 zones is locally controlled by Crestron's **TPS-2000** touchpanels. There are 21 other PRO2 processors throughout the facilities controlling all the AV equipment.