

THE HAN SHOW

Case Study

Lightware Visual Engineering



A Dragone Creation

Market	Country
Rental & Staging	China
Lightware Equipment Used in Project	
MX-FR65R 65x65	

Go Big Or Go Home In China

The city of Wuhan is called “Big Wuhan”, similar to the state of Texas in the United States, where everything is done in a big way. In late December of last year, the largest and most impressive permanent entertainment show in history made its debut. Called simply the Han Show, it’s anything but simple. The show is an absolute attack on the senses, intertwining vivid colours, music, mindblowing movements, AV technology, and culture into a story inspired from the spirit of Han nationality, Chu-Han Dynasty and the city of Wuhan.



Red Lantern

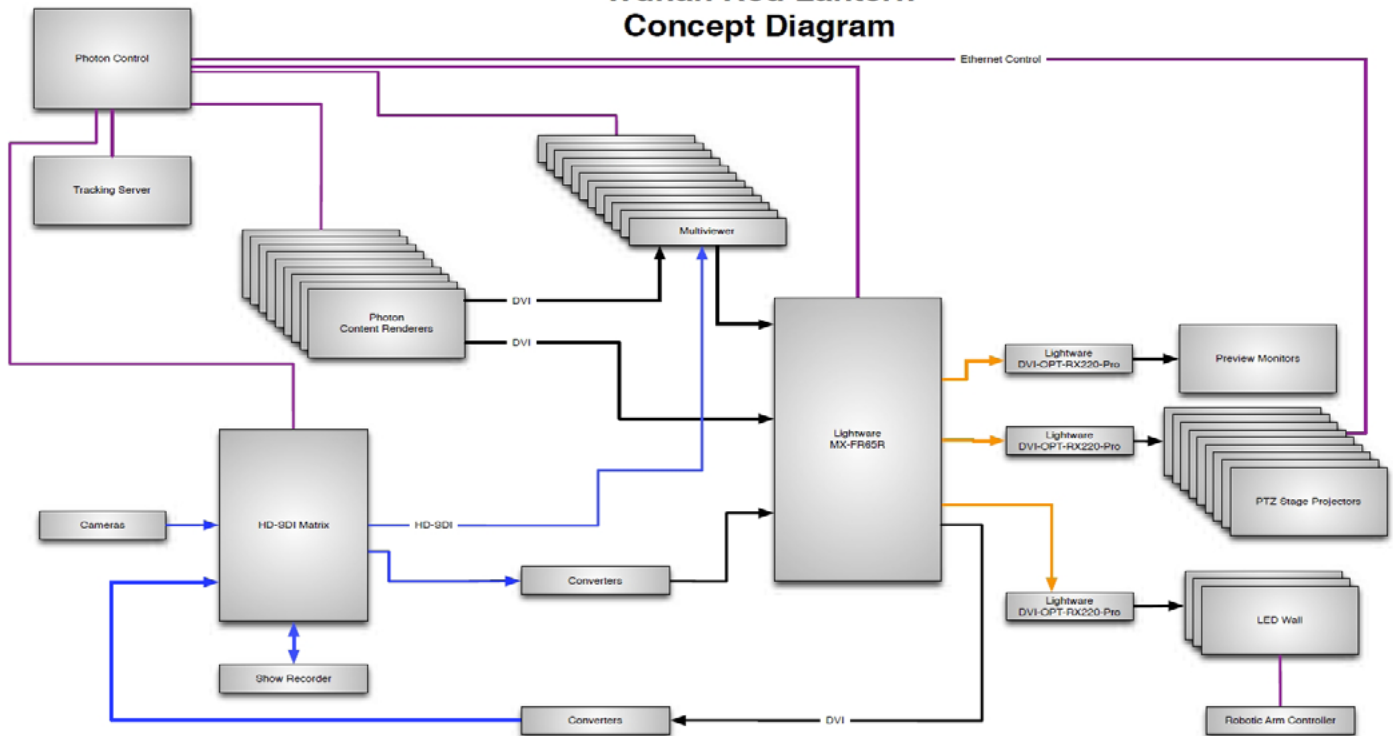
“Red Lantern”, as the locals call it, is a true marvel of technology and design. It is a purpose-built structure that was designed from the ground up, inside and out, by the company Dragone and the architect Mark Fisher, to encapsulate the Han Show. The outside consists of a lantern-shaped building with a red disc curtain wall incorporating LEDs that is 42m high and the lantern tassels are composed of white pillars reaching 20m high from the ground. Inside is where

the true wonders lie. 16 lifts, both in the water and on the stage, allow for rapid transformation of the theater landscape, keeping the audience enthralled and expectant, while three massive robotic arms latch on to and manoeuvre large LED wall backdrop sections in a way that defies belief. Even the seats themselves are mobile, with all 2000 of them shifting during the beginning of the show to reveal the pool of water where much of the action takes place. On the AV front, the Red Lantern holds a plethora of cutting edge equipment, from the LED Walls, to the impressive projection and the video content creation and distribution.

The Han Show's creator, Franco Dragone, who has created other wildly successful shows such as O and Le Rêve in Las Vegas and The House of Dancing Water in Macau, labels this latest work in Wuhan as his crowning achievement. For the Italian-born, Belgian-raised, North American-seasoned creative talent, the bar is now raised so high that it may seem insurmountable, but the creative juices are still flowing in Dragone, and more projects in China and Asia are in the pipeline that will cement his company as a true global pioneer in theater entertainment.

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Wuhan Red Lantern Concept Diagram



The Big AV Design From an AV perspective, the amount of Audio, Visual and Lighting that went into the Han Show is every bit as impressive as the story being theatrically told. Over 350 loudspeakers are located in the theater, pumping over 1200 channels of audio at twice the quality of CDs.

The lighting system has over 200km of cabling, producing more than 9m lumens across 50 different robot-like intelligent fixtures. 16 projectors propel video throughout the theater, even taking “orders” from the automatic projection tracking system to shoot on moving people and other structures.

At the heart, video is being pumped by 9 VV Photon live rendering servers (plus backup) through a large Lightware MXFR65R Matrix out over fiber runs to the strategically-located projectors. As the Photon Servers are rendering multiple layers of content on the fly, having absolutely zero delay in the switching and extension was one of the major reasons why Lightware was chosen to be the matrix of choice. This video design is similar to the House of Dancing Water in Macau, but on a larger scale, and the single fiber routing is now directly out of the Lightware matrix rather than through separate extenders.

Bertrand Jenner, Technical Director for Lightware Asia, commented that “The decision to exit the Lightware matrix directly on fiber has increased the overall stability of the installation, and reduced the overall infrastructure, which means



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few points of weakness.” In addition, “Having a large video setup like this implies multiple points of jitter, but thanks to Lightware’s Pixel Accurate Reclocking technology in the matrix as well as in the fiber receivers, we can prevent any flickering.” Alexis Rivest from VYV was insistent upon keeping the Lightware matrix in the Han Show installation, saying, “after 4 flawless years of performance in Macau House of Dancing Water, we definitely knew that Lightware should run the Han Show video routing and distribution”. As a result, VYV has chosen to completely integrate Lightware’s programming layer into their own software suite, making it totally transparent with regards to their solution, as the integration is seamless.



A New Era Of Entertainment Dragone has no doubt tapped into a global market that was heretofore virgin territory, and staked a big flag in Wuhan for the world to see. Never before have theater shows been able to cross global boundaries, stretching from Las Vegas, to Paris, to Dubai, to permanent venues such as Macau and Wuhan. And more are coming in the near future. It’s exciting times for entertainment theaters and provides opportunities for showcasing the latest in Audio Visual technologies across the board.

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