SIGHT & SOUND THEATRE EXPANDS TECHNICAL CAPABILITIES WITH LIGHTWARE FR65 MATRIX SWITCHER

Case Study

Lightware Visual Engineering
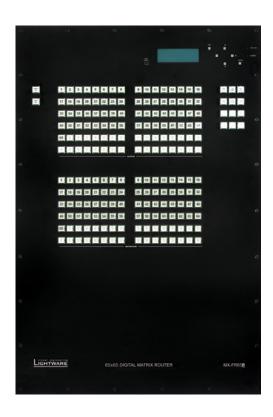
Market	Country
Rental and Staging	USA

Lightware Equipment Used in Project

MX-FR65R matrix switcher

In anticipation of "Jesus," an action-filled musical stage adventure that debuts next March, Sight & Sound Theatres in Lancaster, Pennsylvania has expanded its technical capabilities with a Lightware MX-FR65R matrix switcher. Lightware USA is the US sales and support office for products from Hungary-based Lightware Visual Engineering.

The upcoming production takes audiences on a miraculous journey to meet the everyday people whose lives Jesus changed forever. Sight & Sound Theatres (a second venue is in Branson, Missouri) welcome more than a million people annually to their productions, which bring the Bible to life on stage. The theater in Lancaster, PA features a 2,000-seat auditorium with a massive 300-foot panoramic stage that wraps around the audience. It can house sets four stories tall.

"The design of 'Jesus' features a new LED screen the size of the stage: about 113 feet wide and 30 feet tall. That's 20,348,928 pixels! We need to move a lot of data to feed it," explains Warren Keeney, Electronics/Animatronics Designer at Sight & Sound Theatres in Lancaster. "We also do a lot of projection and need to move those signals too."

The theater "didn't really have a switcher before," he notes. "We have two d3 4x4pro media servers, and their representative told us they typically like to use a Lightware matrix with them. We looked at some other switcher models, but we were convinced that Lightware would be a solid fit. And it's been one of the few products I've seen that we took out of the box, plugged in and everything worked simply and seamlessly with no problems."

The theater's Lightware FR65R matrix is currently populated with 40 DVI inputs and 24 Fiber optic outputs with room for future expansion. The DVI inputs are fed from main and backup d3 media server outputs; the d3 media servers have built-in capability to control the switching on the Lightware matrix.

The fiber outputs of the matrix allow extension of the DVI video signals right out of the matrix eliminating the need the external transmitters in the rack cleaning up the system design and minimizing points of failure. Fiber optic cabling connects the outputs of the matrix to 24 Lightware DVI-OPT-RX110 connector- size fiber receivers with DVI outputs. They feed the DVI signal into the projectors and LED processors.

Sight & Sound Theatre Expands Technical Capabilities with Lightware FR65 Matrix Switcher

In addition, Lightware's innovative 1RU power supply allows powering of up to 20 units eliminating the need for individual power supplies for all of the 24 fiber receivers and powering most of them from a single 1RU power supply.

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Keeney says the Lightware matrix solves the need for 12 DVI outputs, at 1920 x 1200, to fill the giant new LED screen. It also provides a handy all-fiber configuration. "Our place is really big, and the d3 media servers are in our control room so some video signals run hundreds of feet," he explains. "I hate to use signal extenders – they never work well. But Lightware's converters are 100 percent solid and enable us to get signals all over the building."

The new video wall flies in and out on a special rig, "like a curtain," Keeney says. "We still use a lot of sets but we always want something at the deepest part of the stage. In the past we usually had painted backdrops. But we wanted to make things more dynamic. We tried rear projection for our production of 'Moses,' which worked pretty well but it was hard to get it bright enough and punchy enough.

"After some tests we discovered that LED is the way to go. Even at 11 percent brightness our new wall has all the brightness we need."

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Keenery worked with Lightware's Drew Taylor and the team from d3 "to come up with the scenario for the new wall: the number of servers we needed, the number of outputs, how to ensure redundancy. Drew laid out the design for the least amount of connections and to cut down on points of failure. Our in-house media department creates the content."

With the major production of "Jesus" still to come, the Lightware switcher has initially been deployed on the current run of "Jonah" and the upcoming holiday show, "Miracle of Christmas."

"We probably wouldn't have switched to it as quickly as we have except that it works so perfectly," says Keeney. "From an operational standpoint, we forget it's there. It routes signals, we have no issues with it and the operators of the show don't even remember we have it."

Links to Lightware products used in the system:

https://lightware.com/mx-fr65r.html

https://lightware.com/psux20-400-12v.html

Source:
http://www.avnetwork.com/thewire.aspx?entryid=7088&manage=view