



First Baptist Dallas Spreading the Gospel with Grass Valley, a Belden Brand



CUSTOMER

First Baptist Dallas, Dallas, Texas, US
www.firstdallas.org

CHALLENGE

Broadcast church services in high-definition (HD) under low-light conditions for domestic television, radio, and international web audiences
Produce high-end program streams for image magnification, broadcast, and the Internet simultaneously

SOLUTION

A customized system based on Grass Valley camera and switcher technology to streamline the production of broadcast, web, and other types of content for domestic and international audiences

BENEFIT

Cameras that capture HD images natively and are format upgradable, allowing for greater flexibility and versatility for first-rate productions
A switcher with an efficient user design and modular approach that provides for a visually compelling program while offering exceptional immediate and long-term value with a minimal initial investment

Background

Opening its doors in 1869, in Dallas, Texas, First Baptist Church of Dallas has grown into a facility spanning six city blocks. In 2009 First Baptist Dallas decided to embark on the ambitious project of opening a new, high-tech campus adjacent to its existing sanctuary. The result of the multi-year construction is a state-of-the-art, \$130 million campus that opened March 2013. Today's campus includes a 3,000-seat worship center connected by a glass skyway to the Horner Family Center (home to youth classrooms), a gymnasium, playgrounds and a seven-story parking structure. In addition, three-quarters of an acre of public community space surround a cross tower and fountain, making the campus an easily identifiable local landmark.

The construction of the new campus required not only the demolition of several buildings, but also an overhaul of existing, archaic broadcast equipment. "Our broadcast infrastructure was 25 years old. We knew we needed to take our productions to the next level, and moving from SD to HD was imperative for us to maintain the level of positive impact we've had on the city of Dallas all these years," said John Grable, minister of communications at First Baptist Dallas.

Solution

As part of its new campus, the church rolled out a full HD production system featuring the latest Grass Valley production technologies, including nine LDK 8000 Elite series cameras and a Karrera Video Production Center switcher.

Several factors went into the church's decision to purchase Grass Valley equipment. "I've been in the broadcast industry for 37 years and have come to know Grass Valley as a longstanding innovator in technology. We chose to partner with the company because its solutions are reliable, intuitive, and cost-effective, and they give us the power and flexibility we need to deliver various kinds of coverage to our congregation, whether through television, the web or radio," said Grable.

The church's Grass Valley equipment is used for live and tape-delayed coverage of Sunday morning church services for its domestic television and radio audiences, along with its international, web-based viewers. These services typically include a 200-voice choir and a 50-piece orchestra. For the in-house congregation, the Karrera switcher feeds a massive video screen at the front of the sanctuary with live and taped images displayed simultaneously via a Coolux multiview system.

The viewing screen is 150 feet wide and stretches across two-thirds of the worship center. It consists of seven HD projectors that work together. "The screen is positioned behind the choir, and we consider it the true focal point of our sanctuary," said Bryan Bailey, director of media and production at First Baptist Dallas. Bailey works with senior producer Peter Shay on the A/V presentations each Sunday.

Benefits

One of the concerns Bailey and Shay had with using such a large screen was latency. "If there were any time delays from the camera lens to the screen, we knew the congregation would have difficulty following the service. So we tested for latency early on and the Grass Valley equipment passed with flying colors," said Bailey.

In choosing a switcher, Bailey and Shay needed a system that could deliver a large number of inputs and outputs without having to spend thousands of dollars on multiple M/Es. "Karrera supporting up to 192 inputs and 96 outputs is a huge plus for us. Also, its software-based configuration and modular construction meant we could upgrade it over time, which was also an important factor in our decision," said Bailey. In conjunction with the Karrera, the church purchased three different control panels for each of its three feeds, including a 3 M/E panel for feeding the images on the 150-foot screen in the worship center, a 2 M/E version for the broadcast feed, and a third 1 M/E soft panel to handle the live Internet stream.

"Delivering three different feeds every Sunday morning is challenging, but it helps us grow our congregation beyond the four walls of our sanctuary," commented Shay. He points to Karrera's large control panel as a huge advantage. "We use the entire panel all the time. The 2 M/E panel handles our live broadcast, which goes into post production for television and is then broadcast on the Daystar Network on a 60- and 120-day delay, as well as an audio feed to 720 radio stations across the United States daily. We also have an online audience of several thousand who are all watching at once, and the software panel enables us to easily stream to them live every Sunday morning."

For image magnification at the front of the sanctuary, the church often delivers up to five discreet images on the screen at the same time. "With a 200-voice choir and a 50-piece orchestra, there's a lot to capture. But the 3 M/E panel works beautifully in delivering crisp, clear images onto the screen," said Shay. Nine LDK 8000 Elite cameras are strategically placed throughout the worship center to capture a variety



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CASE STUDY FIRST BAPTIST DALLAS

of angles. Four of the cameras are manned, with two positioned side-by-side on a camera platform in the sanctuary's center, one stationed right for a 3/4 view, and one in the balcony. A fifth camera is housed on a jib near the pulpit to provide coverage of the worship leader. The remaining four cameras are robotically controlled. Two are placed in the orchestra pit, and are raised and lowered as needed. One is positioned in the first row of pews, and the final camera is situated on a MAT-TowerCam, which enables the camera to telescope up to 16 feet for a smooth on-air move.

"Our new worship center has 3,000 seats, but there's also a contemporary worship venue on campus that takes an HD feed. Having nine cameras in the new worship center enables us to capture the sermons from varied angles and deliver creative productions to our audience, whether they're on campus, watching on broadcast television or watching online," said Shay.

The LDK 8000 Elite series gives First Baptist Dallas a comprehensive, multiformat, and future-proof camera system. It can capture HD images natively and switch instantly between multiple formats and selectable frame rates of up to 1080p60. "That's another advantage of the cameras," Shay added. "Right now we're running our in-house productions at 720p60. In the future, we'd like to upgrade to 1080p. We know we can do it with the LDK 8000."

Another advanced feature of the LDK is its ability to deliver crisp, clear images in low-light conditions. "Our worship center is a brand-new facility, so we're still troubleshooting some lighting issues. The LDK cameras often go from stage lighting to audience lighting, so the cameras settings can be quite different. We also have a baptistery in our outdoor fountain, so one of our LDKs usually comes outside with us to capture baptisms. You can imagine the challenge of constantly moving from indoor to outdoor light, but with the LDK it's not an issue. It lets us save white balance settings so we're not constantly making adjustments. We can easily move from indoors to outdoors without having to recalibrate. At the end of the day, this saves us a lot of time and keeps our quality up," said Bailey.

The church delivered its first broadcast on Easter Sunday 2013, beginning a month of Sunday celebrations with special event speakers and multiple music events, including a performance in April by the famous Brooklyn Tabernacle Singers. "The Easter Sunday broadcast went off without a hitch. It was standing room only, and we couldn't have been more pleased with the performance of our Grass Valley cameras and switcher," said Grable. "The goal of our new HD system is to deliver first-rate productions and help spread our message to the people of Dallas and beyond. Grass Valley has been absolutely instrumental in making this happen."



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Peter Shay, Senior Producer
First Baptist Dallas



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