

Traditional Sanctuary Ascending to New Technical Heights

An outdated system is updated from analog to digital audio, along with video, modernizes this historic sanctuary with robust audio and visuals. **BY ANDRES CAAMANO**

HAVING JUST celebrated 150 years since its founding in May of 2019, Corinth Reformed Church - about an hour northwest of Charlotte, North Carolina - is on the verge of completing a comprehensive audio, video and lighting upgrade to both its sanctuary and contemporary worship spaces.

Beginning with the growing church's Thanksgiving Day service last year, Corinth has been rolling out notable improvements over the last nine months, starting with the sanctuary's audio system. The stunning traditional sanctuary needed updates that would visually meld into the sanctuary's interior.

Among the loudspeakers and amplifiers that were added as part of the recent install were a pair of d&b audiotechnik 10D four-channel, 700 watts per channel amplifiers, and four passive d&b audiotechnik 16C column loudspeakers, featuring four 4-inch drivers and a single 3/4 -inch dome tweeter.

In addition, the audio upgrades to the space included a pair of two-way d&b audiotechnik 24C column speakers, which include six 4-inch drivers and six 1.1-inch high frequency drivers, along with a pair of full-range two-way d&b

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audiotechnik 8S loudspeakers, each with an 8-inch/1-inch coaxial driver combination.

Prior to the installation of the sound system, Greg Davis, senior vice president at AE Global Media, based in Charlotte, shares, "What really led the way (to the upgrades) in the sanctuary was that the intelligibility was exceptionally

low, due to their older, outdated system combined with a sanctuary with a long decay time."

The previously installed speakers in the sanctuary, Davis notes, were about 20 years old, and the church was still running analog for front of house. In terms of the sound issues with the prior system, Reagan Lail, the church's technology coordinator says, "The biggest thing was how the sanctuary sounded, having to deal with a 3-1/2 second decay, and the system had no EQ'ing to account for it. There was a lot of noise in the room; nothing was easy to understand."

The move from analog to digital by Corinth also made things much easier for the church to transition between different types of services on Sunday. Lail explains, "During the early 8:30 a.m. contemporary/traditional service, they have some band and some hymns that are a little more intense than the standard traditional service. Previously, there was never any continuity to how the board was set up (between services)."

With the ability to program the Allen & Heath AH-SQ-6, 48 channel digital audio mixer, paired with an AH-AR-2412 24x12 Remote Audio Rack, the church can now “move between different scenes, instead of having to start from scratch,” between each service, adds Davis.

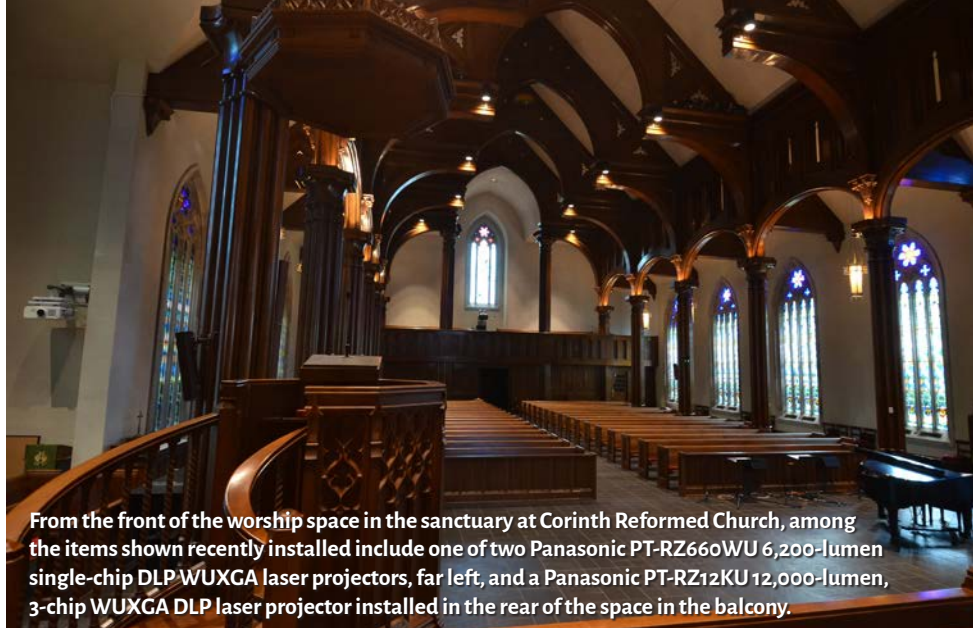
Following the audio upgrades to the sanctuary, among the other integral updates were the additions to its video gear, which included a Panasonic PT-RZ12KU 12,000-lumen, 3-chip WUXGA DLP laser projector, used with a Da-Lite Ascender Electrol 139-inch floor-recessed screen. In addition, the church included a pair of Panasonic PT-RZ660WU 6,200-lumen single-chip DLP WUXGA laser projectors that blend seamlessly into the transept area, for projection of lyrics on the wall.

While Corinth had previously used projection in the past, it had only done so in a limited fashion. With the install, the church enjoyed an added visual in the sanctuary that was introduced with the updated video system during its anniversary celebration in May.

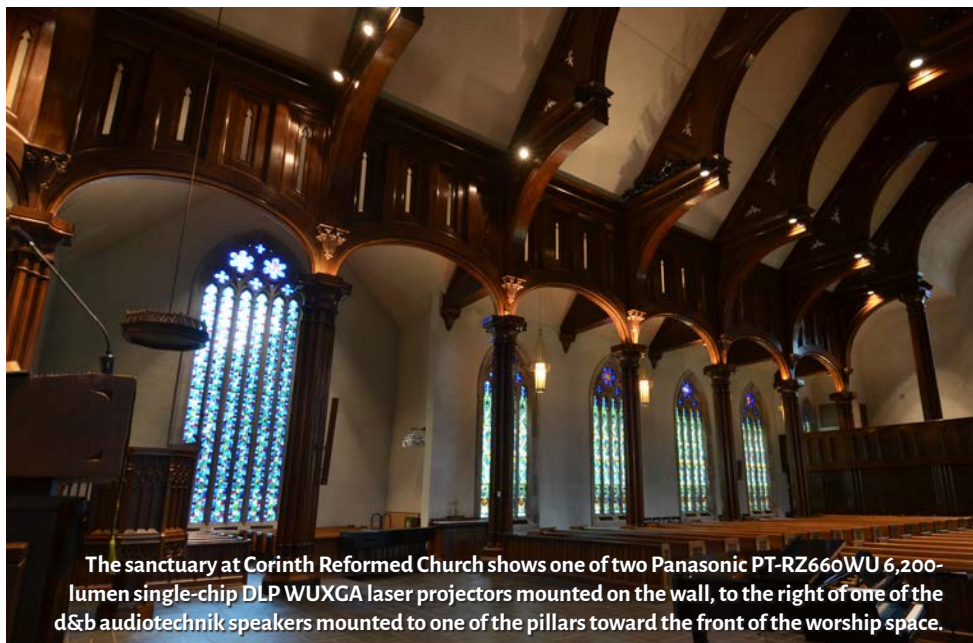
Lail further details, “The old video system was where someone had to drag it out,” compared to the new ascending screen, that automatically rises up from behind the altar, and is hidden completely from sight when not in use. “We also used to set up the old projector on an unsightly pop-up table, where today, discreetly out of sight from the pews, the main projector is permanently set up,” underneath a stained-glass window in the balcony.

In addition to the extensive sanctuary upgrades, Corinth also incorporated additional updates to Bost Memorial Hall, its contemporary worship space. The church had originally completed that space in January 2013, with AE Global then installing audio and lighting gear in that space. “In their contemporary space, they wanted to have a more dynamic worship experience than they had been able to achieve,” says Davis.

Though the contemporary space had been completed about six-and-a-half years earlier, Lail explains, “That was right around when the recession hit, and as a result, we had to scale back with what we wanted. Now, this time we were able to get what best suited the room.”



From the front of the worship space in the sanctuary at Corinth Reformed Church, among the items shown recently installed include one of two Panasonic PT-RZ660WU 6,200-lumen single-chip DLP WUXGA laser projectors, far left, and a Panasonic PT-RZ12KU 12,000-lumen, 3-chip WUXGA DLP laser projector installed in the rear of the space in the balcony.



The sanctuary at Corinth Reformed Church shows one of two Panasonic PT-RZ660WU 6,200-lumen single-chip DLP WUXGA laser projectors mounted on the wall, to the right of one of the d&b audiotechnik speakers mounted to one of the pillars toward the front of the worship space.

When asked what the driving force was behind such a comprehensive project, Lail notes, “We just had a 150-year celebration for the church, and we wanted to see how we could improve the worship experience.” In particular, Lail recalls how previous to the project, there were a few hard-of-hearing congregation members who had stopped attending “because of frustration over hearing. They are happy now, able to worship in a fuller way.”

By having the focus be on improving the worship experience, at a church that averages about 1,000 congregants across three services each Sunday, the project’s overall goal has been met, tells Lail. Davis also notes the value of improving the church’s worship experience, adding, “Their sanctuary is so beautiful, we wanted the system quality to

match their expectation of the music experience,” while still protecting the visual aesthetics of the space.

Lail says he’s gotten a significant amount of positive feedback in recent months. “I hear from members of the congregation that they don’t have to grab the hearing assisted gear anymore, or turn their hearing aid on anymore, or to a lower setting ... I hear a lot of thank yous.” Pertaining to the lighting upgrades, the feedback has similarly strong, as he adds, “We have specific lighting for the altar, and a lot of people really enjoy that, seeing the lit altar.” On the video updates, he notes, “With our streaming to Facebook, we are working toward streaming all three services. Already, we hear from people in Nicaragua and Moldova that tell us that they

are watching our services online on Sunday, along with those who cannot attend locally.”

In particular, though, Lail recalls a boy's funeral at the church, and how limitations that existed prior to the project became more prominent. “We couldn't fit everyone in the sanctuary. There had to be at least 600 people in the sanctuary, with 450 sitting and the rest standing ... we had to turn people away. We realized we wanted people to see that type of thing (by adding streaming and video capabilities), if it came up again.”

For the sanctuary's recent install work, Lail said, “We didn't previously have any additional lighting, as we had canned lighting that shined (heavy) vertical shadows.” As part of the lighting upgrade in the sanctuary, it included 12 ETC ColorSource SPOT Black Edition fixtures, which all invisibly nestle into the ornate woodwork above, along with an ETC CS20 lighting console with 20 faders and 40 control channels.

In the contemporary space, the lighting updates were limited to adding eight ETC ColorSource PAR Black Edison fixtures, and six ETC ColorSource SPOT Black Edison LED fixtures, replacing “several LED lights that hadn't worked for a while.”

In light of the various tweaks, there has been no need for any repairs to any of the new gear in either of the two spaces, explained Lail, with the only issue having been needing to replace a new Earthworks PM40 piano microphone after three months, but it was easily changed out by AE Global, as it was under warranty.



A view of Bost Memorial Hall, the contemporary worship space at Corinth Reformed Church in Hickory, North Carolina, one of two spaces that went recent technology upgrades.

The only additional time still needed on the project is tied to scheduling training, including some video training in the next week or two, which previously featured learning the basics around streaming.

As Davis elaborated through those opportunities to learn about the new gear at the church, “Better technology is easier to operate, even though it is intimidating at first.”

The install work at the church began last September, explains Lail, with it done in stages to work around concerts and services during the Christmas season. In all, Davis notes that the time on site amounted to four weeks between the two spaces, with the project dating back 18 months from the beginning of the process, when

“we started the conversation” with Corinth on an upgrade plan.

With the schedule stretched out to complete the project's different aspects, the work was successfully completed without any delays or cancellations of any services. In addition, as Davis says, “We phased it in a way that they were able to entirely use the new audio system; it was completely ready to go,” upon its rollout last November, similar to how the video and lighting upgrades were completed.

Among the different aspects of this multifaceted install, Lail deemed the audio portion in the sanctuary the most challenging, particularly for the short time window for completion. “We pushed the envelope by getting it operational by Thanksgiving,” but with the help of AE Global, avoided any issues during that first service using the new audio system.

Upon the completion of all install work, Davis says that the most significant difference was “the worship experience in the sanctuary – from an audio perspective – but in all three areas, they are all vastly different, even though the audio experience is almost unrecognizable from previously,” thanks in large part to the d&b audiotechnik speakers.

Beyond the sound improvement in the sanctuary, the church also blended the speakers visually into the space. “If I ask (a congregant) from the back of the space, to tell me where (the new speakers are), they can't tell me, as they are inconspicuous, and we cut the number of speakers by half or more.” **WF**



The Panasonic AV-HS410 multi-format live format video switcher, among the various recent video upgrades at Corinth Reformed Church in Hickory, North Carolina.