

FAST-TRACK WORSHIP INSTALL

With Bennett Liles



The Lutheran Church of the Good Shepherd's brand-new 500-seat sanctuary was recently outfitted with a sound and video system installed by JC Productions in Reno, Nev.

Owner Scott Schmidt and Lead Technician Todd Rold outline the project for SVC.

SVC: Tell us about JC Productions in Reno. What kind of outfit do you have there?

Scott Schmidt: We're an integration company in Reno, licensed in Nevada and California. [We] started in the house of worship (HOW) market about 11 years ago and we've done lots of other public works, corporate AV, live events, but a lot of our focus has been on the HOW for the past 10 years.

Describe the Lutheran Church of the Good Shepherd. What sort of a place is it? What kind of worship style do they have there?

Schmidt: The church has three services on Sundays. Their early morning service is what they call congregational singing, so they either have a pianist or an organist. The second service is [a more]

contemporary-style service. They have a band, which includes a drummer, a couple of guitar players, and a keyboard player—keyboard bass. They don't have a bass player quite yet.

You've got to make it sound right for the traditional service and be able to have the system accommodate the more contemporary live music service with a rock band, and make both of those work in the same acoustic environment.

Todd Rold: Yes, traditional and contemporary—both.

How are the acoustics in the church? Is there any sort of acoustic treatment in the sanctuary? What was it like working with the existing acoustics?

Schmidt: This was actually an add-on to their existing facility, and so it's a new building. We asked the architect in the beginning about doing acoustic modeling, which we normally do in our EASE modeling software. But he knew that the customer, which is the church, wanted a somewhat lively sounding room and they knew from the beginning they weren't going to do any acoustical treatment.

Well, at least there is some advantage in getting in at the

construction stage, and knowing for sure where everything is and that it's all been done right. Did you come in after the building was finished and start from there?

Schmidt: Actually, we were part of the original engineering team so we were involved with the architects, the structural engineers—everybody who was on the original design build team.

You knew where everything was and how it was wired so you didn't have to retrofit anything.

Schmidt: We specified our electrical needs in our blueprints and then we submitted them to the electrical engineer for approval.

You mentioned that they have live music. It's a rock band, so I assume that you had a fair number of sound sources to deal with on the mixing and monitoring.

Rold: It's a contemporary band, but we were actually pretty lucky in the fact that most everything is direct except for the vocals. It's acoustic guitars that are direct. They have an electronic drum set that runs direct, and they have keyboards and they also run key bass. So we didn't have any amplifiers onstage that we had to worry about, which made it a lot easier to control.

That's still a lot of sound sources if you're dealing with volunteer help on the technical team handling sound, lighting, video, and all. What did you do as far as a FOH mixer?

Rold: We went with the PreSonus mixer, the StudioLive 24.4.2.

Why did you go with the PreSonus in particular? Did it have some features that were especially good for this situation?

Rold: There were quite a few reasons, actually. Price was a factor, but there were features that they wanted. In the functionality, they wanted to be able to save scenes, which you can do with that console. They wanted to be able to record every service, as well. Plus, they wanted to be able to do remote mixing. In the price range of what they were looking to spend, this fit all the needs for what that they wanted.

How long are the cable runs? What did you have to do to get the sound signals from the

stage to the mixer?

Rold: We actually ran a standard analog snake out to the FOH mixing platform. Distance-wise, it was about 75ft.

Well, in a distance of 75ft., there's still plenty of room to run into lots of potential problems. So I would think that since this was a brand new building, you didn't have to deal with

any grounding problems on the equipment installation.

Schmidt: Yes, we actually specify what's called an isolation transformer in our jobs so we have a dedicated transformer that feeds our electrical panel, which also feeds all of our isolated ground circuits.

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dimmers that are halfway up or any of that hum-generating fun stuff.

Rold: Absolutely no problem with that at all; we're always separate from them.

How did you accommodate the live band? They must have some sort of stage-monitoring requirements.

Rold: Yes, we went with the myMix system so that they could actually mix monitors for themselves. So everybody's basically on in-ears. They used the myMix, which we split the direct outs from the console directly into the myMix. So they have 16 channels onstage that they can choose from and create their own mixes, which makes it easier for the person who's running sound to not have to worry about that. He can focus more on the room, and the band takes care of itself. They were really happy with that.

The only big adjustment for anybody running sound is ... once it fills up with people, you turn the system up a little more than you would when it [is] empty. But the room essentially sounds the same. It came out really nice. —Todd Rold

Yes, that always makes the musicians happy when they can have more control over their own monitoring. It really streamlines rehearsals and speeds things up, particularly when you may have someone different mixing at the front of the house from one week to the next. The music people always like to have it their own way through all of that.

Rold: Yes, and the challenge in a church installation is the volunteers and making it as easy as possible for them so the consistency is good.

Do they have wireless mics or wireless in-ear stage monitoring?

Rold: Their in-ears are direct from the myMix. They have a station at each of the mic stands, so their headphones come directly off of that. There are some wireless headsets that are used for the pastor in that situation, but the band isn't really going with any wireless.

The pastor wears a headset mic?

Schmidt: Yes.

Oh, that's great! Lots of times you can't talk them into doing that. But when they do it, it seems to work out great for gain before feedback and so forth, and really makes things easier on the FOH people. But a lot of pastors are still old school and like to wear lapel mics that are harder to deal with.

Rold: We were really lucky in this situation. They were open to making the changes that they needed to make to get the sound quality that they were looking for.

How did things go when you did the installation? Were there any surprises or unexpected situations that came up?

Schmidt: No, no surprises. It was definitely a fast-track project. We had to comply with the work schedule with the general contractor. We had to be out right before Easter but every-

thing just went smoothly.

It's fantastic when it all comes together that way. I guess you guys were there when the system had its first test run during an actual service. How did things go with that?

Rold: Yes, we arranged to be there for the first two to three weeks of services and everything was really smooth. We didn't have any issues and [received a] lot of feedback on how happy they were.

The church tech people wanted remote mixing capability. How did you set that up?

Rold: That was one of the features that they requested, and because we went with the PreSonus, it has the capability that you can mix with an iPad and ... comes with all of the software that you need to set that up. We added a Mac Mini through FireWire that the console talks to and loaded all of the software. [Now] they're capable of walking around with an iPad and making adjustments.

That would help when you don't have major

control over the acoustic environment. You can walk around the room and hear it from whatever spot you need to—a big advantage.

Rold: Yes, they were really happy with that capability. The FOH sound booth is raised up a couple of steps from where everybody else is, so it's nice for them to be able to go down and walk the room. They can be at the level with everybody else and listen to what's going on.

Depending on the design of the place, it can really sound different between when you have an empty room—like when you're just doing rehearsals—and when the place is full of people during the actual service. Is there a big difference between the sound of an empty and a full house in this church?

Rold: In this one, no. It's a really nice room considering that they didn't want to do anything about the acoustics—that they wanted to keep it as open as possible. The room has a nice light, natural reverb to it that really suits well for vocals, like a cappellas. So for the singing that they do, it works out really well and there isn't a huge adjustment. The only big adjustment for anybody running sound is ... once it fills up with people, you turn the system up a little more than you would when it [is] empty. But the room essentially sounds the same. It came out really nice.

A lot of human bodies in there soaking up the sound.

Rold: Yes.

Did they have any particular concerns over, say, the architecture or the appearance of the gear when you started talking to them about this?

Schmidt: I don't think there's a parallel wall, so that helped us. The architect actually pitched one of the walls at about five degrees and the ceiling is vaulted, as well. He did a really good job at taking away as many parallel walls as possible.

They record the services, so how does the recording system work and how do they use the recordings?

Rold: From the PreSonus; it comes with software. The PreSonus is tied with a Mac Mini so that we have the capture software in there. Through the FireWire, they can multi-

track everything that they're doing through every service, which is very easy. I've dealt with a lot of platforms, and the set up of this took almost no time and [it] was really easy to teach their people how to use it. I mean you essentially, in the software, hit record and it goes.

What do they do with the recordings? Do they put those on CD for members who can't make it to the service that week?

Schmidt: Yes, it's available. I'm not sure if they have it on the website, but it's available if people wanted to have a CD.

A lot of churches that have traditional and contemporary services may have older members who can't always get to the church and younger members who may just want to have a recording of the band to listen to.

Rold: Yes, the bonus of the way that this is set up is that it's really easy for their engineer to mix the tracks back through the console via the FireWire to two track. He can actually edit and grab anything out that he wants very quickly, and burn it to disc or do whatever he needs to do.

That's a great advantage.

Rold: It is really handy.

They have a projector and screen in the church. How do they use them? Do they project song lyrics or use it for IMAG?

Schmidt: They use it mostly for lyrics during worship, and they can put teaching slides up there, as well, for the pastor's sermon.

Are they using front projection?

Schmidt: Yes, we did a 16'x9' screen and we installed it in the darkest area of the sanctuary. We also made sure that the overhead lights were on a separate dimmer so that they didn't wash out the video screen.

How do they display the song lyrics? Do they use PowerPoint slides?

Schmidt: Yes, they just use PowerPoint right now.

What kind of video signal format do you send up to the projector?

Schmidt: We came out of the Mac Mini and

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we went through an Extron distribution system. Then we converted everything to a Cat-6 using Extron baluns.

That's a good, solid way to cover the distance. Who operates the source gear for the song lyrics? Does one person control that?

Schmidt: Yes, we've got it set up so that the same person doing sound can run video. Everything's really close by.

Well, that's a good way to go, especially with sometimes having to deal with changes in tech-team people on short notice.

Schmidt: Yes.

You're using NEC flatpanel displays on the back wall?

Schmidt: Yes, we built a videowall ... NEC makes a bundle solution; it's four 55in. LCD panels and we installed them on the back wall. The architect really didn't want a second projector hanging in the ceiling, so we used a flat-panel videowall.

They use those for song lyrics, as well?

Schmidt: Yes, we've got it so it basically mirrors the projector on the front wall.

You feed the video to those the same way as with the projection?

Schmidt: Yes, we did everything over Cat-6 and everything's full HD 1920x1080p.

Was there any other gear that you installed for the church?

Schmidt: The only other thing is probably the speakers, the Renkus-Heinz Iconyx live speakers. Those are digitally steerable, and so we were able to steer the acoustical energy in the beams onto the floor where the seats are and then we used another device where we can change the presets. If they have a small group of people in the round, we actually have a second preset on those Renkus speakers that puts all the energy on the smaller area of the seating area.

That really helps out in the acoustical situation then.

Rold: The first half of the stage is actually portable, and it's removable. So when they decide to make it smaller, they can remove that. But we can digitally steer the sounds up



closer so that they can have a more intimate setting and it worked out really well.

After you had everything installed and all of the technical ducks in a row, how did the training go with the church staff?

Rold: The training was the easiest I've ever done. We didn't have to spend a lot of time. I spent maybe 15 to 20 minutes with their house tech running through the basics of everything and then we went right into doing everything live, essentially. We've never had a return phone call. They've never had an issue. We've never had a drop out. It's been really consistent.

When the phone doesn't ring after the job, most of the time that's good news.

Rold: With the console and the software, he already knew the video end, so it was pretty much just showing him how the video was routed. But with the console, with the recording software, it was literally 20 to 25 minutes at most. [I] ran him through it a couple times

and he's been fine ever since.

That's a great opportunity for some of the younger folks to get in there and get some hands-on experience working with up-to-date, front-line equipment. That's one of the great things about being able to volunteer for a church crew. What's coming up for JC Productions? Do you have any projects in the works that you can tell us about?

Rold: We've been promoting our video podcasting services during the past several months, and we did wire up this church so that they could do video podcasting down the road with robotic cameras. We do other things here in town—corporate AV, public works projects, training rooms, city council chambers—a variety of things.

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