

They Just Keep Growing and Growing

Multimedia systems are larger than life at Central Wesleyan Church in Holland, Michigan

by Carolyn Heinze

Where at one time the utilization of high-end audio/visual systems was considered an added benefit for those delivering worship services, today they are a necessity.

“I really believe that the church needs to be very media savvy in order to be effective in our culture,” says Scott Anthony of Central Wesleyan Church in Holland, Michigan. “Our pool of seekers in the world is accustomed to seeing Hollywood productions, movies, concerts and excellent media productions. The church shouldn’t do any less than that.”

Anthony can be described as a man who practices what he preaches. As director of communications, he has been actively involved in the planning for and construction of a new 2,800-seat worship facility on Central Wesleyan’s existing 100-acre site,

which included the design and installation of extensive audio, video and lighting systems. Construction began in the spring of 1999, and was completed in March of this year. The

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church’s old 1,400-seat worship center is being converted into a 500-seat chapel intended for weddings,

funerals, and intimate, alternative-style worship services. Classrooms are being constructed around the chapel.

A portion of Anthony’s job requires him to oversee the facility’s technical systems. For this project, he relied on a number of consultants, designers and installers: Progressive Architects and Engineers out of Grand Rapids, Michigan designed the new space; Thrasher Design Group, based in Kennesaw, Georgia was responsible for acoustical and audio system design. Springfield, Missouri’s Morningstar Communications assisted in the design of the video systems while MAVRI out of Jenison, Michigan provided the projection systems, which were then implemented by the church’s own technical crew. Integrated Media Group from Byron Center, Michigan, installed the audio systems; and PLA Designs, Inc. from Aloha, Oregon, provided lighting design and assembly space consulting services.

— Continued on page 22.



They Just Keep Growing and Growing

“I had not done a project before where multiple consultants were used,” Anthony admitted. “There was a lot of value that we got out of having great consultants – just the way that they helped us as a church walk through the project and learn the process.”

Because the number of consultants involved was so high, Anthony quickly learned that maintaining a solid communication network was a key factor in the project’s success. “There is an enormous need to keep a communication network going during a project like this,” he says. “Going back five years knowing what I know now, I would have done a better job of documenting every decision that was made along the way, so that I would be able to follow up on changes properly. We made programming and systems design changes midstream, and there were a lot of details to keep track of. Keeping church going, and following up on this project as well, required a lot of organization.”

Working with a number of different consultants also presented Central Wesleyan with the challenge of finding the right people to hire. “Our biggest priority was to find consultants who were sympathetic and understood our ministry’s programming style,” Anthony explains. “We needed people who would be able to relate personally to the Christian perspective that we have in the church, and who were involved in churches that were similar in their programming style and the way they do ministry. Someone from a very liturgical background wouldn’t necessarily be able to understand the kinds of production needs that we have. We wanted to make sure that our consultants, philosophically, had a

good understanding of what we were trying to accomplish.”

That in itself is no small task. Every week, Central Wesleyan features 130 choir voices and 34 orchestral members. During evening services, the music takes on a more contemporary tone, with a band-driven praise team.

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Additionally, Central Wesleyan is in the habit of hosting large-scale theatrical productions and concerts. One of the requirements for the new system was that it accommodates well-renowned touring acts that are invited to perform at the facility. A 1,200-square foot stage lift allows instruments and stage gear to

The video production room at Central Wesleyan features video monitors from JVC, Panasonic and Sony, a Final CutPro non-linear video editing system, Extron VSC 150 scan converters and a Grass Valley 200-2N video switcher and more.



be easily stored in the basement below the platform and the orchestra to perform at different levels in different situations.

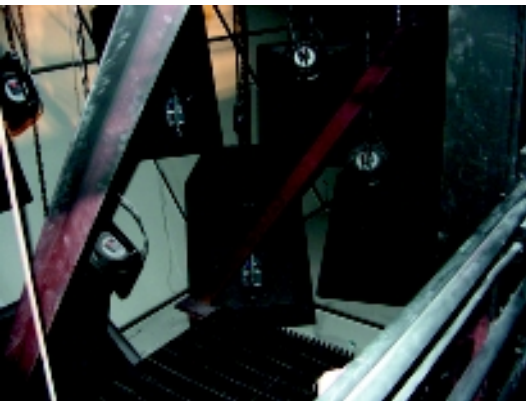
“The lift gives us much more in the way of changeover capabilities than we had in the past. We needed the flexibility of being able to go from an orchestral set up during morning services to a more band-oriented musical presentation at night, and the lighting configurations to go along with it,” Anthony says. “Our biggest challenge with the lift has been state regulation; the State of Michigan is very strict about elevators and the way they are used. We have been back and forth with the manufacturers of the lift – Gala out of Montreal – and our architect several times in order to make sure that we satisfied all of the state’s requirements to allow the lift to move while there are people on it.”

Central Wesleyan required flexibility in the room’s acoustical make-up as well. “We wanted the room acoustics to support the sound system, but we also wanted congregational singing to sound pleasant in there as well. We didn’t want to kill all of the room’s acoustical reflections so that the sound system would be cleaner but the congregational singing would sound poor. We needed to be able to make those compromises.”

With that in mind, Bill Thrasher, president and principal consultant at the Thrasher Design Group, set about modeling the acoustical make-up of the space, and then specifying the audio system. Working from blueprints and consulting extensively with the architect, Thrasher performed his work prior to construction.

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"It's rare that we don't work closely with an architect. Even if the project is a renovation, we typically require the services of an architect at some point or another on the job," Thrasher says. "For this project, we worked on the shaping of the room in order to get the acoustics right. At this point I was able, early on in the job, to get adjustments made if we needed them to be done. Essentially, I worked with the architect to get the things we wanted [relating to the acoustics and audio] in the building."



Thrasher's loudspeaker design includes JBL subwoofers and low-frequency cabinets, Electro-Voice high-frequency horns, and JBL high-frequency drivers.

Thrasher specified a left-center-right loudspeaker configuration for the house, consisting of JBL subwoofers and low-frequency cabinets, Electro-Voice high-frequency horns, and JBL high-frequency drivers. "We designed around fairly large devices that have good pattern controls. It's more of a traditional component cluster, where you have bass bins or low-frequency cabinets or enclosure systems, and then you have a separate high frequency horn," explains Thrasher. "I am bucking against the trend of using touring-type loudspeaker systems in

permanent installations. Those small trapezoid boxes are fine if I'm touring and I am worried about how heavy the truck is and how fast it takes me to unload the truck. Here, in a permanent installation like this, I'm more worried about how well it functions and sounds. I'm far more interested in performance, especially when it comes to pattern control. That is more important to me than the size or weight of the speakers."

Although the loudspeakers are configured in a left-center-right formation, Thrasher notes that the set-up is not a typical L-C-R. "I don't really think of it as being a traditional L-C-R, where you pan from left, to center, to right. All three clusters cover the entire room," he says. "Broken down, the center cluster covers 100% of the seats, while the left and right clusters cover somewhere between 80%-90% of the seats."

A combination of Crown MacroTech and ComTech Series amplifiers power the loudspeakers. The house audio is controlled by an Allen & Heath ML-5000 mixing console, which works in conjunction with Klark Teknik DN-410 and Symetrix 533e equalizers, Shure DFR11 feedback reducers, Lexicon MPX-1 and Yamaha REV 500 digital effects, and dbx compressors. Audio playback is achieved through a combination of Denon and Tascam

The lighting control for the house is achieved through an ETC Expression 3 console supplied by Paul Luntsford at PLA Designs.



cassette and CD Players, plus a Tascam MD-301 MiniDisc player and Tascam DA-40 DAT player. An AMX Access unit provides system control.

On stage, performers utilize EAW SM-200 speakers as floor monitors. The microphone system is comprised of 13 Neumann KM-184 choir mics, 16 Shure UHF wireless systems and a number of AKG, Shure, Neumann and Audio-Technica products.

Central Wesleyan is also equipped with an audio production control room featuring three Yamaha O2R digital recording consoles slaved together, a DigiDesign ProTools computer system, and five Alesis ADAT XT multitrack recorders. A number of dbx tube mic preamps, Drawmer and Behringer compressors, a Drawmer DA6 distribution amplifier, an Extron MCP1000 video router remote panel, and a Mackie 1402-VLZ 24-channel mic/line mixer complete this set-up.

The video system at Central Wesleyan is equally significant. Two Sanyo XF-20 5000-ANSI-lumen video projectors and two Stewart Filmscreen 12x16 rear projection screens are used for multimedia presentations. "We elected to go with a less expensive video projector than many facilities are using these days," Anthony notes. "I went to Infocomm [trade show] and looked at all of our options and decided that the technology is changing so fast that the lifespan of a projector is getting shorter and shorter. We don't want to throw away \$50,000 on a projector every four or five years. We decided to spend a little bit less and let the technology continue to grow and the quality go up while the price continues to go down, which it will."

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The video production control room is a well-equipped facility that boasts the following: a Yamaha O1V audio mixing console, a number of JVC video monitors, Extron MCP1000 remote panels, eight Panasonic WV-BM990 black and white video monitors, a Final CutPro non-linear video editing system, a Sony BVM-14N50 video monitor for editing, a Panasonic AGDV-1000 mini DV deck also used for editing, Extron VSC 150 scan converters, a Grass Valley 200-2N video switcher, a Camplex CP501 video camera multiplexing system, an Extron audio/video router, Sony DXC-M7 video cameras, and Panasonic DS-850 and DS-555 S-VHS VCR's.

In addition to providing assembly space consultation, PLA designed the lighting systems for the house, the choir rehearsal room, the work lighting for the catwalks, and the lighting for the foyer and lobby areas.

The lighting dimming and control for the house is achieved through an ETC Expression 3 console. "The lighting console was one of those things that kept changing," Paul Luntsford, LC at PLA Designs, recalls. "They did a lot of trial runs on a lot of different consoles. They settled on the ETC Expression 3, and the decision to go with ETC was based on the company's reputation."

The remainder of the lighting dimming and control system is made up of ETC Unison control and dimmer racks, ETC Sensor dimmer racks and ETC D-20AF dimmers. The fixtures are a combination of fixed ETC Source Fours and automated High End Studio Colors and Studio Spots.

Anthony noted that although Central Wesleyan's systems are suited for touring acts that come through the facility – Michael W. Smith is scheduled for September – road shows will also be able to easily fly their own equipment. "We built the systems to go either way," he says. "I was on the other side, where I traveled with touring groups that went into facilities like these, and I understand that there is a comfort factor in being able to come in with your own system."

Luntsford points out that Progressive – the architect on the job – was easy to work with because the firm understood the importance for versatility within this space. "Churches tend to hire architects that are 'church architects,'" he observes. "That paradigm – 'church architect' – does not necessarily reflect what is going on today in contemporary technical worship centers. If you hire a classic church architect that has been doing churches for 30 years, you are probably going to get someone that knows how to do traditional, or what I call cathedral-style, churches. They don't have anywhere near the lighting or issues related to audio/video. Right off the bat, you have to work with an architect that is in a whole different world when you start discussing lighting, sound, acoustics and video. In this case, Progressive was wonderful to work with because they listened."

This is extremely important, Luntsford continues, because the technical requirements for many churches are different than those of the average performance space. "We ran into the same challenge at Central

Wesleyan that we have come across on every one of these contemporary worship centers, and that is integrating a much higher level of requirements into a building that one would normally associate with a performing arts center, and still making it feel like a church," he says. "It's our conclusion that a place like Central Wesleyan is actually more complicated and sophisticated than most performing arts centers because of how it has to be used, and all of the different things it has to support in terms of acoustics, sound, image magnification and lighting. They want that building to be everything; they want it to support rock concerts, spoken word and orchestral performances. They want it to be an intimate space and at the same time a large all-welcoming space. It has got to be everything, but it's still got to feel like a church."

It appears as if Luntsford and the rest of the experts involved in the project have been successful in achieving that goal; Central Wesleyan's congregation has settled in to the new facility comfortably, according to Anthony. "It's big, and they had to get used to the size of it," he says. "The fact that we are doing full-time image magnification for the whole service – something we hadn't done before – was a big switch for us. Our congregation loves it."

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