

TECHNOLOGIES FOR WORSHIP

APRIL 2018 | TFWM.COM

TECHNOLOGY SPOTLIGHT

Central Church

Reviews:

LE MAITRE PRODUCTS
AT FIRST BAPTIST CHURCH
KANEXPRO 4K/60 HDBASET™
4X4 MATRIX SWITCHER

Out of the Box:

ULTRALITE FULL DUPLEX
WIRELESS INTERCOMS
YAMAHA
STAGEPAS 400BT / 600BT
BTAIR FROM CHAUVET DJ



Central Church

BY DOUG HOOD

Central Church began in Woodburn, IN, in 1969 because several enthusiastic families had a vision to plant a church that would intentionally reach out to the spiritually lost with the love of God through Jesus Christ. By the spring of 1970, through much prayer, discernment, and vision for the future, a location was chosen, and the new building was dedicated.

Since that early beginning, there has been several building expansions, including the new gym expansion into the main sanctuary. Central has touched lives beyond the property through missions and the attendance has grown from the early years of under 100, to a “non-denominational” church of 1,500 today. All three

Central Ministries, Fort Wayne, Indiana worships in a newly expanded and renovated worship center. Doug Hood served as Worship Leader and AVLA Consultant on the project. photos courtesy of CSD Group, Inc.

lead pastors in Central's history, Wayne Goldsmith, Don Delagrange and Jeremy Helmuth, the current pastor, still serve this church family, along with committed staff, plus hundreds of faithful volunteers.

Just out of college, I was asked to play keys at Central and agreed with the caveat that I not be asked to sing or speak publicly. Over time I was developed as a leader, and upon



the departure of our worship pastor was asked to fill the void. Over 25 years later, I now lead two-three worship services a weekend; enjoying orchestrating and arranging, singing and speaking on a weekly basis.

In 1994, I joined the staff of Custom Sound Designs (CSD). Like most companies, it began with one person working out of



his garage; working on car stereos, home theatre, and some commercial business. In the mid-nineties CSD's first House of Worship project literally walked through the door, and in 2011 I purchased CSD with a clear understanding of the company's calling; church AVL systems have been a focus ever since.

In December 2017, CSD completed it's fourth year of meteoric growth. We've partnered with clients across the United States; helping them define vision, design and build AVLA systems that



promote their message and expand ministry potential. In late 2016, Central was facilitating weekend worship at over 90% capacity, so we decided to expand our sanctuary space; a gym, with hardwood floors, basketball hoops, a temporary stage, and seating for 500. The finished project is a full-sized sanctuary with a permanent stage that seats 1,000. The expansion involved blowing out one of the walls, effectively doubling the size of our space. CSD's responsibilities included the design and integration of a

new audio system, cameras, a video wall, house lighting, and everything else needed to meet Central's goals. I served dual roles as Church worship leader and AVL consultant. We knew we wanted it to be done to a level of excellence, especially since this is also my church. I spent a lot of time working with both my teams to figure out what Central wanted, what equipment Central was most excited

GEAR LIST

AUDIO

- G&S Acoustics (22) 4'x6' 1" panels; (58) custom sized 3" panels; (46) custom sized 2" panels.
- 1 Yamaha CL5 72+8 Digital Mixing Console with Dante and built in meter bridge
- 2 Yamaha CL-series Dante rack (Stagebox)
- 3 Yamaha LA1L LED console light
- 5 Live Mix dual position mount for attaching CS-DUO to a mic stand
- 7 LiveMix CS-SOLO
- 1 Digital Audio Labs LiveMix MIX-16
- 1 Digital Audio Labs LiveMix Dante input card
- 12 d&b audiotechnik Yi8 mains
- 4 d&b audiotechnik Yi12 mains
- 4 d&b audiotechnik V-GSUB
- 2 d&b audiotechnik J-INFRA sub
- 6 d&b audiotechnik 8s
- 4 d&b audiotechnik 30D amp
- 2 d&b audiotechnik D80 amp

LIGHTING

- 2 Elation 4-way DMX distributor (19" rack mount)
- 1 Grand MA lighting command wing #120120
- 1 Grand MA 2 port node #130221
- 1 Chroma Q inspire external control box UL924 (max 96 units)
- 38 CHROMA-Q INSPIRE RGBW
- 6 Blizzard Lighting HotStik 5 COB LED wash fixture
- 4 Chauvet Rogue R2 Spot moving head LED Spot
- 6 Elation ACL 360 Bar
- 16 Elation SixPar200
- 6 Elation DTW Bar 1000 Variable-White LED Bar
- 2 ETC Source Four Ellipsoidal
- 2 ETC 26" Lens tube with lens installed for 426
- 1 HazeBase Base Haze Pro 19", 1500W, 110V/60Hz with Case
- 16 MEGA SYSTEMS Megalite Baby Color Q-70 ultra compact LED fixture with (7) 10 watt LEDs.
- 2 Global Truss 135 degree Corner
- 2 Global Truss 2-WAY 45 DEG. CORNER
- 15 The Light Source Mega Grid-Lock Black Finish
- 5 The Light Source 1-1/2 x 120 Sch 80 Pipe Black Anodized
- 6 The Light Source 1-1/2 x 240 Sch 80 Pipe Black Anodized
- 3 The Light Source Mega-Quick Pipe Splice 1-1/2 sch80 Black
- 15 The Light Source Mega-Batten Clamp, Black Finish
- 32 The Light Source Mega-Clamp
- 20 The Light Source Mega-Batten Clamp, Black Finish
- 20 The Light Source Threaded Rod Hanger for Mega-Batten Clamp
- 6 The Light Source Mega-Truss Pick 11-7/16 Truss 1 ton
- 12 The Light Source Mega-Batten Clamp, Black Finish
- 12 The Light Source Threaded Rod Hanger for Mega-Batten Clamp
- 4 The Light Source Threaded Rod Hanger for Mega-Batten Clamp

VIDEO

- 3 Marshall Electronics 2.5MP 3G-SDI/HDMI Compact Broadcast Camera with Interchangeable 3.7mm Lens
- 3 Ross RVS-TP-MOX-5150A
- 3 Ross 20 x Zoom PTZ Camera
- 1 Aeson 4mm wall LED screen
- 1 Ross Carbonite Black 2 2 M/E Panel
- 1 Ross Carbonite+ 18 Input 1 M/E Frame
- 1 Ross Kameleon M Series 40 Button & LCD Display Control Panel
- 1 Ross NK Network IP Configuration Device
- 1 Ross openGear 3.0 Frame with Cooling
- 1 Ross 450 Watt Universal Power Supply for OG3 Frame d, built-in Cooling Fan.
- 1 Ross Sync Pulse Generator w/Word Clock incl. R2-8260 Rear Module
- 1 Ross HD/SD-SDI Equalizing DA w/Rear Module
- 1 Ross Dual HD/SD-SDI Equalizing DA w/ Rear Module
- 2 Da-Lite Cinema Countour HD Progressive fixed screen
- 2 Epson Pro L1405U Bright Large-Venue Laser Projector
- 1 Epson Pro L1200U large-venue projector
- 2 Epson Pro L1405u 8000 lumen laser projectors (main L/R screens)
- 1 Epson Pro L1200n 7000 lumen laser projector (rear confidence monitor screen)

NETWORK.
AUDIO.
VIDEO.
CONTROL.



Sound from the Cloud.

— Exclusive at Granger Community Church —

STARRING

Lawo mc²56 Audio Production Console
Lawo mc²36 All-in-one Production Console
Lawo Nova37 Plug&Play IP Audio Router
Lawo mc² Compact I/O IP Stageboxes
Lawo DALLIS Modular I/O

to integrate, and determining what worked best. Central was also opening up a multi-site campus, so we needed to be mindful of what gear could be repurposed at the new campus in order to be the best stewards for both sites.

During the expansion, we needed to add two columns to the room to support the weight of the new roof, so the decision was made to add an LED wall from Vanguard as a center screen, to ensure all our members could see a screen regardless of where they were sitting. On either side of the LED wall, there are two Da-Lite projection screens (16' wide by 9' tall), used for IMAG and lyrics on screen projected from our Epson Laser projection system. The center LED

wall is used for graphics and lyrics.

When we designed this, we really wanted the space to feel immersive, so we used Chroma-Q Inspire house light fixtures over the floor space.

The LED wall is on a trolley, so we can move it forward. We needed to do this to maintain access to a stained-glass window behind the stage, plus being able to move it around allows us to add depth to the stage, and it becomes a staging element in and of itself. The stained glass has been iconic in the community, and had become a bit of a landmark, so as part of our project, we sent it out to be cleaned and refurbished and lit

internally, so that it continues to be a beacon within our community.

Everything was purpose built for worship. We've got a complete pipe grid over the stage, populated with lights from Chauvet, Elation, ETC and others. When we designed this, we really wanted the space to feel immersive, so we used Chroma-Q Inspire house light fixtures over the floor space. The fixtures are full-color LED, eliminating the hard edge between house and stage lighting you often experience, as we control color through the entire room.

For our live streaming, we run two main cameras, three PTZ cameras and two POV cameras. We have a dedicated broadcast room and ROSS Carbonite switcher to control shots we are feeding the IMAG and live streaming. Our goal is to provide a variety of visual perspectives. The manned cameras capture the main shot of the teaching pastor and onstage TV for graphics. This is the primary shot fed to our live stream. The PTZs highlight different areas of the stage (viz. baptismal, communion table, the cross). These PTZs are mounted on the columns and are invisible to the congregation. The POVs are intended to be hidden on stage for quick music shots during worship. All of these camera types and positions create variety and visual interest.

The worship experience is very important to Central Church, so making sure we had the sound we wanted was paramount. We needed a system capable of a wide dynamic range, and quality performance at all levels, not just a system that would get loud. We used loudspeaker aiming software to look closely at options from a few of the premiere loudspeaker companies. We then spoke with them via conference call. In the end d&b audiotechnik emerged as the clear winner. They took the time to learn our needs and we felt very comfortable with their recommendations. Our decision was confirmed by their top-notch service during the install and commissioning process.

People often ask me why CSD exists, aren't I busy

enough at the church? The answer is that CSD thrives when we are applying AVL technology that delivers a message with power and creativity. Each weekend I have the best seat in the house as I witness the Church's worship of God, and technology serves this endeavor. It is so fulfilling to know I had a roll in both the worship and the technology. ■

Doug Hood is the worship leader at Central Ministries in Fort Wayne, Indiana and owner of Custom Sound Designs. He has five adult children and a second grandchild on the way.



Q&A

with Doug Hood, Worship Leader and owner of Custom Sound Designs



TFWM: You were both worship leader and AVL Consultant on this project, what unique advantages did this present?

Doug: The combined roles of client and consultant make for an interesting mix. As the worship leader, I know exactly what my expectations are. I don't have to try and extract a vision out of any committee. I know exactly what the target is.

As a Consultant, I know how to make it happen and exactly what things cost. I know what is possible with our budget and what is not. That helps to make quick decisions and keep momentum moving.

The down side whenever you work with someone you know, or someone you are comfortable with, is the temptation to drop your guard and not follow the same policies and procedures you would with a regular client. That was probably the biggest challenge of this project. Differentiating "official conversation" from personal discussion was difficult at times and we found a few places where things were unspoken or unclear.

TFWM: Was there any single instance where your dual roles really helped a lot?

Doug: Probably in the determination of the speaker system. We talked to several manufacturers and spent quite a bit of time on the phone and in video conference calls. Having the dual knowledge of our church's vision and needs on the one hand, and product and manufacturers on the other was of major benefit!

For example: the subwoofer experience was something we had to get right. It wasn't enough just to be loud, it had to be clean, powerful, musical, dynamic. The AVL Consultant side immediately directed us to a few manufacturers; one of them was d&b Audiotechnik. Just on this one topic alone d&b spent nearly two hours on the phone with myself and our tech team going through the pros and cons of a few different approaches. We modeled each. We studied each. This spoke volumes to me as a worship leader. Some other companies

only looked at this at a high level, and in fact seemed like they were in a hurry to hang up. I felt that as the church leader. The AVL consultant side of me took note.

TFWM: What advice would you give worship leaders beginning the process of working with a designer?

Doug: Before you meet with anyone, define your vision. Sure, it's good to visit other places to learn how they do things, but you need to be secure knowing what your church needs. For some, heavy production lighting is a big part of their worship experience. Others use no production lighting at all, but immersive video is what resonates with your audience. The most important thing is to get comfortable with the AVL identity of your church and then help explain that to your designer.

TFWM: Was there a moment when you knew technology served worship well?

Doug: When the church was built in 1969 a beautiful stained glass window faced the highway. It was envisioned as a kind of "Welcome" to the community for travelers. Over time it became a dearly loved centerpiece of worship and church life. For the renovation the stained glass was disassembled and sent away for professional restoration and re-assembled in the new wall. We were able to light it from the inside with LED lighting so it again serves as a beacon to the community 24/7.

The renovation presented something of a problem inside; as with many modern spaces, there is no natural light in the building, and the stained glass is not visible in the room. We knew this was going to be a disappointment to many. So, we took a super high res photo of the stained glass, imported that image, and displayed it on our center LED wall. When folks walked in on the opening Sunday, they were astonished to see that they could see the stained glass in all its glory. It was a fantastic melding of old and new, history and future. We had used technology to its greatest purpose! ■