

Hillsong Reaches Higher

Bigger than your average parish council women's auxiliarily luncheon.

Text / Tim Stackpool

EVERY WEEKEND, HILLSONG Church undertakes significant staging and concert productions as a regular part of its Sunday worship. Supported by music, projection and lighting, these events are now world famous, recognised both in the ministry and production industries alike. But even grander is the annual Hillsong Women's Conference, held at the cavernous Acer Arena (formerly the SuperDome) within Sydney's Olympic Park. This weekend event, coupled with Hillsong's recording of a new album and DVD, is typical of the church's 'big event' vision.

Long-time Technical Director Ian Anderson from Mitech Design is regularly contracted by Hillsong to assist with staging its events and is a firm believer that good-looking events make for good-looking TV. "It's all about getting the balance of the lighting, the visuals and the staging right, to get the best mix to the eye. If it looks good to the eye it will look good on camera," he says. "Any event that has a lot of audience participation, like a praise and worship event, requires good lighting and feel, not just on the stage but in the room, whether there are cameras involved or not. Any pastor or preacher deserves to be lit well so that people are able to concentrate on his or her message. This means getting the angles right if cameras are involved or not."

Anderson also dispels a major myth when it comes to TV lighting of such events. "There does seem to be a huge misconception that as soon as the cameras roll, you need to rig another 20 5ks and lose the entire atmosphere in a production. This is not the case anymore with High Definition (HD), or even Standard Definition, cameras. A close working relationship between the

Technical Producer, Lighting Director and Creative Designers is imperative to delivering the final look and feel of the events."

Ian Anderson works alongside Production Manager Kevin Watts. Whereas Anderson concentrates on lighting, video broadcast, rigging and talkback, Watts oversees the audio and PA components, along with the overall production management. They have both been involved with Hillsong events for many years.

As with all major productions, many months are spent in preparation, planning and rehearsals. On Hillsong events, the lead time is generally four months from conception through to performance. According to Anderson, in the last month final decisions are made, and equipment requirements are locked down. "The Hillsong events work just like any other, with a creative team that brainstorms various concepts and then a technical team that delivers the crazy ideas! Every event has a particular theme or message that is being communicated. This particular event is really two events in one. The first being Hillsong's annual Women's Conference and, secondly, the church album recording. Technically, we try and merge the different requirements into the one set of systems," Anderson said.

JUST A LITTLE LIGHTING

And well might they try. As you would expect, the equipment inventory is extensive. With supplies from Chameleon Lighting and Lots Of Watts, the rig included 50 Varilite VL3000 spots, 10 VL3500 washes, six VL1000 profiles, 14 High End Showguns, 20 Martin TW1 washes, 20 Mac700 profiles and a host of conventional

fixtures. Control was achieved via the popular grandMA console. Special attention was also paid to the venue where 30 5kW fresnels along with 30 2kW fresnels were hung to give Acer arena good dimmable house lighting. A host of small LED fixtures were also used, including SGM Palcos, LED Honeycombs and Chromabanks. All of the fixtures were chosen for the type of effects they could deliver.

"Lighting a room like the Acer Arena requires a lot of punch and that's what all of those products have," said Anderson. "This was the first time we used the VL3500 washes and they are the brightest, most useful moving light I have seen. Ten of them pointing at you make you shut your eyes and turn away, and that's while sitting in the back row!"

With respect to the rigging, 18 riggers clocked-up 12 hours using 126 chain hoists to hang a total of 42,986kg from the roof. This required detailed planning of all the hanging points due to flying elements, load restrictions, projection and audio angles. All of the preparation work was done using AutoCAD and subsequently marked out with chalk on the floor before any cases were rolled into the room.

Along with Anderson, Paul Collison lent his lighting and system design experience to the gig, particularly noting the challenge presented by the client's emphasis on massive video presentation. "The centre of all things video for Hillsong is a huge 24m x 4.5m LED screen," he reports. "This can look amazing but is very tricky to work around. The majority of the content for this screen is IMAG (Image MAGnification) along with specialised packages produced locally in the church. Although it is a seamless



Photo: Paul Collison

screen, the LED wall is essentially broken down to three individual screens. At times the three screens are blended into one. A Dataton Watchout system controls these screens.”

Collison is particularly proud of the effects achieved during the show. “Personally, I was given a little more rein to push the barriers of what is deemed acceptable for this type of show,” he said. “We also really tried hard to create depth in the design — big looks that varied greatly from each other. Chameleon went out of their way to make sure we had a suitable quantity of LC panels which really helped with this goal. The LC panels are a great tool. When switched off, they can hardly be seen in the rig and other times they were the only source of light. They are phenomenal.”

He is also a great fan of the advancements being made in LED technology, saying, “I love this new wave of low-res LED that really lets you redefine spaces and can give great depth. The flexibility of these new products is really exciting and I’m looking forward to making use of them further in future designs.”

AND A FEW SCREENS

Regarding the visual display systems, Ian Anderson also comments that the visual technology can be quite intense at times. “Big Picture supplied the majority of the video components. In terms of projection though, the rig was comparatively simple with four Christie 20k ANSI lumens projectors used on two front screens and two other Barco 10k ANSI lumens units used on side screens. By comparison, last year’s event involved 16 projectors all across the set!”

In detail, the main LED screen used 144 Lighthouse R16 (16mm pitch) panels in three 16:9 ratio screens butted together. Ultimately, the screen rig weighed-in at around 10 tonnes. Above that were low resolution LED displays, being 36 Martin LC panels, 360 Chroma-Q ColorWeb panels and 126 ElementLABS VersaTUBEs. That array was driven by three Martin Maxedia servers controlled from the grandMA console. Significant amounts of DVI and fibre cable was used to get signals from the lighting and the outside broadcast (OB) trucks to the stage as well as through the rig itself.

The most upstage piece of scenery was a 360sqm ChromaQ ColorWeb curtain. This provided great depth to the staging when fired-up, but virtually disappeared when extinguished. An ArKaos media server pixel

mapped to this over the network.

Also, the 36 Martin LC panels provided an expansion of video and movement to the big LED screen. They were broken up and used more as individual light sources rather than a larger screen.

The high resolution screen and projectors were fed from an HD OB truck supplied by Global Television. Within the truck sat the hub for switching several camera outputs including a panoramic feed that allowed any camera to be fed across the entire LED screen. Video replay was achieved by various methods, ranging from the humble DVD player through to a five-head Watchout system and EVS hard disk units. All of the inputs and outputs were switched via a Sony mixer in the truck.

THE ODD CAMERA OR TWO

On the image capture side, the Global Television inventory included 14 Sony HDC 1500 cameras with lenses ranging from a 4.5mm wide angle through to a 75x zoom lens.

Anderson is enthusiastic about the image quality. “They are all fibre-based HD cameras and provide fantastic pictures, not only to the recording but also to the screens,” he said. “We stayed in the HD world all the way from the camera head through to the projectors and LED processors. Hillson also used other camcorder-style HD cameras during the album record, on a Steadicam and in and around the crowd. It was a challenge to turn what is normally a truck that covers sport into a full on-screen presentation system. Sixteen Folsom Image ProHD scan converters were used to get computer signals in and out of the facility. There are lots of outboard feeds for audio operators and producers. Evertz multiviewer systems were used for most monitoring positions externally and internally in the truck. Three channels of house MATV were also generated for the backstage and public foyer of the building.”

All of the camera outputs were fed into EVS hard disk units. The units then converted the recordings into QuickTime files and saved into a SANman storage system for editing. This kept the entire production and post-production processes completely tapeless. Also on-site, six Final Cut Pro edit suites were located in demountable buildings to edit content for the event. This content included daily ‘news’ programs aired on various satellite, cable and free-to-air channels around the globe.

VIDEO EQUIPMENT

BIG PICTURE AUSTRALIA

- 4 x Christie 20k projectors
- 2 x Barco SLM G10 Projectors
- 144 x Lighthouse R16 LED panels
- 12 x Various 42" LCD
- 16 x Barco/Folsom ImagePro HD
- 1 x Evertz 32i/p Multiviewer
- 1 x Evertz SPG
- 8 x Various Timecode readers
- 2 x DVI to fibre interfaces
- 4 x TX/RX HD fibre sets
- 6 x Final Cut Pro Edit Suites
- 1 x 32 x 32 Talia Router SD/Stereo
- 6 x DVD recorders
- 4 x DVD players
- 1 x Sony remote PTX camera
- 1 x Panasonic MX12
- 1 x PowerPoint computer
- 1 x Songwords computer
- 1 x 6 Computer Dataton Watchout system

GLOBAL TELEVISION

- Outside Broadcast Facility: HDV1
- 14 x Sony HDC 1500 cameras
- 3 x Vinten Pedestals
- 4 x Vinten HD tripods
- 3 x Vinten Standard Tripods
- 5 x Canon 75x lenses
- 3 x Canon 4.5mm wide angle lenses
- 4 x Canon 22x ENG lenses
- 1 x Sony MVS 8000 4ME vision mixer
- 1 x Sony 1.5ME Satellite panel
- 3 x EVS XT2 inc remotes
- 2 x EVS X-File
- 6 x Digi Betacam VTR's
- 4 x DVCPRO VTR's
- 1 x SD/HD 128x128 router
- 8 x HD/SD up/down converters
- 1 x Evertz 72 input multiviewer

1.\ The view from the main camera platform. 2.\ Lighting designer Paul Collison with his grandMA and a selection of preview monitors. 3.\ Video source central. 4.\ A few of the 126 chain hoists suspending screens, LED panels, PA cabinets and the odd piece or two of truss. 5.\ LC LED panels and moving lights flown overhead on truss. Photo credits: Images 1 through 4, Ian Anderson; Image 5 by Paul Collison.

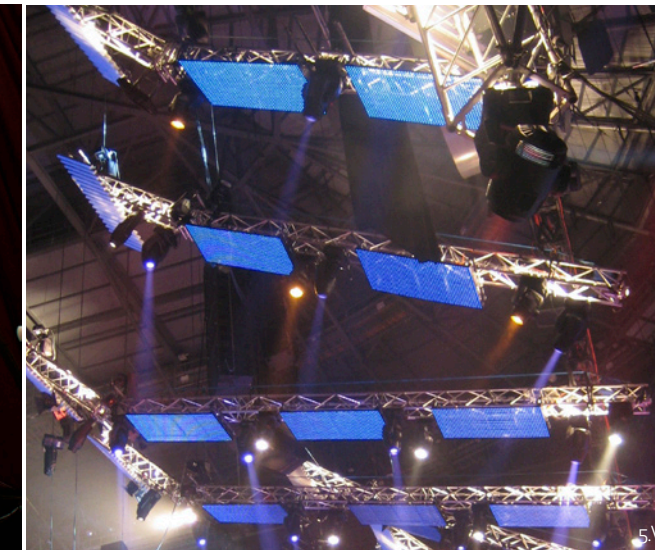




Photo: Paul Collison

A BASIC COMMS SYSTEM

Such productions require reliable and seamless methods to communicate to individuals and groups of crew in an instant. While some aspects of the event are rehearsed and driven precisely by timecode, the majority is played-out as the preachers and worship leaders see fit. From a technical perspective, this required a complex but ultimately simple-to-operate communications system. “I have worked with the Clear-Com system on many international events and it has always provided a good backbone for clear event communications,” says Anderson. “The Clear-Com system is perfect for large-scale events. In basic terms, we are able to connect anyone to anyone on the system if required.”

The Clear-Com Eclipse 208 was the hub of all production and event communications. This digital matrix system allows users, whether they be using key panels, radios or beltpacks, to communicate during the event. Over 20 Clear-Com panels, 25 duplex radio bases and more than 500 radios combined to deliver communications for all aspects of the event — from cleaners to event managers and production staff. Interfacing with the television OB system was also vital and transparent to the user. The hardwired talkback within the OB truck, which was an RTS matrix, handled all of the TV operators such as directors, cameras and tape areas. Four-wire circuits linked the two systems.

Of course, the ultimate goal of any such production is spiritual. Michael Cuthbertson, Hillsong’s own Production Manager sums it up. “We use media to be as creative as we can in presenting the Gospel,” he said. “But truly, we do very little to even come close to expressing how great our God really is. We will continue to grow in all that we do through the media with one goal, so that those who attend our conferences may catch a glimpse of God’s greatness.”

TECHNOLOGY IN THE SERVICE OF WORSHIP

On the technical side of this, Ian Anderson pays tribute to the Hillsong production personnel, saying: “The Hillsong team is one of the most professional technical teams out there. The majority of the crew are volunteers and their dedication to the cause is second to none. We have young men and women whose day job may be a teacher or mechanic, but at the event they operate cameras, control units and tape areas.”

While Hillsong staff make up some of the positions, professional crew take on the more technically specific roles, such as systems engineers and broadcast engineers. According to Anderson, most professionals that work at a Hillsong or any other large church event are amazed at the level of the crew’s competency.

For Ian Anderson, this emerging market is indicative of the various ways many single types of technology can be deployed. “Worship Technology I believe is just a fancy name for

a very large and clever group of people who have been catching up, and now overtaking in some areas, the rest of the audiovisual and broadcast industries,” he said. “Churches are using the same technology as everyone else, but they just happen to be using it in different and clever ways to portray messages that the world needs to see and hear.”

Irrespective of the technology available, Anderson is in no doubt as to the driving force behind the success of ‘worship technology’. “Hillsong has been one for always moving forward and using new technology, but this is only because the vision and ideas of the leadership encourage this to happen,” he said, adding, “Every organisation wants to portray their message in the strongest way possible. There is no doubt that Hillsong influences the local and overseas church market. You have no idea of how many calls we received after we used the giant LED screen for the first time. Everyone wanted one! This is great and shows that we inspire people to think about what they can do in their own church environments.”

There is no doubt the realm of worship technology will continue to evolve, and beyond that, technology modelled specifically for use in worship is now firmly established. And while it may be considered that the United States is the broadest market for such applications, it is certainly Australian producers who are recognised as the leaders and innovators in making this technology raise the roof to the heavens. 🗨️