

CX

INTEGRATION / AUDIO / LIGHTING / VIDEO / STAGING

INSTALL

Trinity Grammar Sets The Stage

An exceptional multipurpose venue that will provide significant benefits for years to come

LIVE

FOHP Australia is Under Control

FOHP are building their d&b base by upgrading to the SL-Series

INSTALL

A new Lygon Street Fave

Teller sets the bar high on every front, with audio no exception

FEATURE

Future-Proofing The World Harvest Centre

The World Harvest Centre project provides more than just a new Audio Visual solution for its growing congregation

THE 2024 SHOWGUIDE

INTEGRATE

AMBER TECHNOLOGY / AUDIO BRANDS AUSTRALIA
EVENT COMMUNICATIONS AUSTRALIA / JANDS
SENNHEISER / LIGHTWARE / PAVT / THE P.A. PEOPLE
TAG / ULA GROUP / NAS / MADISONAV

THE REGULARS

ANDY STEWART
JENNY BARRETT
JOHN O'BRIEN
BRIAN COLEMAN

News

- / VuePix LED for Aussie Olympic and Paralympic Trials
- / Keeping Astera in Sight
- / AT Professional standoff
- / New GM for professional products at Amber Technology
- / ENTECH Expands with Single City Events

RoadTest

- / ShowPro Raytheon FC IP65



Directivity managed.

From small theatres and clubs to large festivals and arenas, the SL-Series delivers a new dimension of performance-enriching sound.



VIC: (03) 8756 2600
NSW: (02) 9898 0670
sales@nas.solutions
www.nas.solutions



More art. Less noise.



VTX A-SERIES MAKING ITSELF HEARD AT AUSTRALIAN LIVE EVENTS



- Scalable solutions for mid to large productions
- Patented rigging and suspension system
- Leading software tools including 3D acoustic simulation
- Finance available

MadisonAV has recently deployed the cutting-edge JBL Professional VTX A-Series line array system at various Australian festivals and events, such as Tina Arena's "Love Saves" tour, Star Struck 2024, Hoodoo Gurus at Enlighten Festival, and St Kilda Festival.

Scan the QR code to read testimonials from Australian promoters, production companies, and audio operators regarding the system's performance, and get in touch if you would like to discuss a demo or rental for your upcoming event.



Sales Enquiries 1800 00 77 80 proaudio@madisonav.com.au

beyond connected

CONTENTS

News

Over Five Million Pixels for Swimming Australia's Olympic and Paralympic Trials	10
Keeping Astera in Sight	12
AT Professional standoff – 'Many' deposits frozen	16
Amber Technology announces new General Manager for pro products	20
ENTECH Expands with Singles – Different Exhibitor Mix Every City	20

New Gear

Features

Installation: World Harvest Centre, Fiji	4
Live: Sydney Sounds Better <i>by Jason Allen</i>	34
Installation: Mr B's, Sydney <i>by Jason Allen</i>	38
Live: FOHP Australia Is Under Control with d&b audiotechnik <i>by Jason Allen</i>	42
Installation: Trinity College's Marnkutyi Parirna Theatre	66
Installation: Teller Banks on Quest Engineering and NST Audio	68
Book Review: Lighting for Televised Live Events <i>by Kurtis Hammer</i>	72
People: Pat King - smooth operator and frenetic sound engineer <i>by Julius Grafton</i>	74

INTEGRATE 2024 Show Guide

Amber Technology / Audio Brands Australia / Event Communications Australia / Jands / Sennheiser / Lightware / PAVT / The P.A. People / TAG / ULA Group / NAS / MadisonAV	44
--	----

Regulars

Listen Here: The 10 Minute Mix <i>by Andy Stewart</i>	28
New Zealand: Inaugural drone display celebrates the stories of Matariki <i>by Jenny Barrett</i>	30
Backstage: Home Integration <i>by John O'Brien</i>	76
The Gaffa Tapes: All Over the Dial <i>by Brian Coleman</i>	80

Road Test

ShowPro Raytheon FC IP65 <i>by Kurtis Hammer</i>	78
---	----

Cover Photo – World Harvest Centre, Fiji.

Contents Photo – Astera AX1 tubes at the Netflix season launch of Stranger Things.

CX is published by VCS Creative Publishing Pty Ltd
PO Box 1045, Ascot Vale, VIC, 3032
Phone +61 (0)407 735 920 | Email jason@vcscreative.com

Editor and Publisher: Jason Allen
Layout: Hush Creative Productions – Mark Underwood and Alisha Hill

All contents COPYRIGHT CX Network Pty Ltd 2024.
Nothing herein to be reproduced in any format without express written consent.





World Harvest Centre, Fiji

Christian Mission Fellowship International (CMFI) is a rapidly growing church headquartered in Suva, Fiji. Established in 1990, its 30,000 members and missionaries serve in 120 countries across 5,000 churches worldwide.

CMFI is headquartered in Suva at the World Harvest Centre (WHC). WHC has an impressive, round church building with over 3,500 worshippers, a full band, production, and a 100-member choir.

Since its construction in 1990, the centre has installed numerous sound systems, however, none have been able to overcome the challenges of the large reverberant space and the sound quality requirements of the growing church.

Enter Head Pastor Suliasi Kurulo, who finally decided that the time had arrived to call in the professionals and deliver the dream to its members.

Deciding to award a significant project like this required more than just proving the system would achieve its goal. It also meant trusting that the selected company understood Fiji's culture and involved them in many aspects of the installation and its production techniques. Unlike most projects where a company installs the system, this project required a deeper level of engagement and collaboration.

After many proposals and CAD models, Head Pastor Suliasi, his production crew, and the committee awarded the project to Carey Leghorn from CVAV Australia, based on a Martin Audio solution.

Carey, together with Anthony Russo from Technical Audio Group – Martin Audio's representative – made several visits to WHC to evaluate the scale of the project, create a design that would meet the brief's

requirements, and assure the church that this would be a unique partnership.

From Carey's viewpoint, he stated: "This project was one of the most difficult I had ever worked on. We faced several challenges, from working at 15m heights for PA rigging to custom steel fabrication on site. Additionally, we had to install several kilometres of cables through a complex roof structure. Also, much of the fabrication had to be done in Australia with no room for error once the project was containerised and sea freighted."

Choosing the final speaker design of the system involved hundreds of hours of modelling, with the final decision to use a Martin Audio WPM line array system with processing and amplification from a Q-SYS system. The church preferred to retain and improve some of the existing Q-SYS backbones and converge them with the Martin Audio system.

Anthony takes up the project overview: "During my many visits to the church, I sat in on many services and envisioned the many aspects of the system design and how to conquer the space. Moreover, I was emotionally moved by how much effort and love this space intertwines with every congregation member's life."

The services are major concert events with 3,000-plus people singing, supported by a full band and choir. The system therefore had to achieve higher than normal SPLs and provide a unique experience generally associated with an international touring act.

"I believe every seat needs to be the best seat, all while trying to keep an eye on a budget. There is a fine line where you can't compromise," says Anthony.

Martin Audio's Display prediction software was used to design a 56-cabinet WPM system, which proved the optimal solution. The main hang consists of a 32-cabinet left and right system, along with a 10-a-side WPM operating in two-box and one-box resolution modes, respectively.

The extensive array system is supported by six Martin SX 218 dual 18-inch sub-bass speakers. Each driver is individually processed and amplified. Despite the challenges posed by the rigging and structural steelwork, the CVAV crew achieved the seemingly impossible feat of hanging a centre cluster and allowing beam steering of the sub-cluster, thereby implementing a textbook solution.

"Once I saw it hang together in place, it was a dream moment for me," commented Anthony. "It's extremely rare to get subs in that position in churches, where projectors, sight lines, and roof weight loadings often constrain you. This results in compromised split left and right subs, and the inevitable power alley and off-axis cancellations."

The choir stalls are covered with eight individually amplified and processed CDD 12 two-way cabinets from Martin's Coaxial CDD range, ensuring maximum coverage and performance. The main console provides a tailored mix send depending on the choir's requirements.

SHURE

ALL
IN
ONE

JOB
DONE



+ INTRODUCING MICROFLEX® WIRELESS

MXW neXt 2

WIRELESS MICROPHONE SYSTEM

Microflex Wireless neXt 2 is the only all-in-one two channel wireless microphone system with a **combined receiver, charger, and IntelliMix® DSP**. With transmitters available in handheld, bodypack or boundary form factors, it's the ideal solution for all your clients' meeting, higher-education, and training spaces.



SCAN To Find
Out More

proudly distributed by

 **JANDS**

jands.com.au

An eight-cabinet, 12-inch two-way delay system from the Martin BLX range was installed to complement the main system. While not essential, this system enhances the overall experience for the rear congregation and optimises the coverage of the main arrays to the main seating area.

Three Martin CDD 10-inch front stage apron speakers supplement the front rows to complete the main system. The stage is covered by a six-cabinet LE 100 12-inch CDD foldback system.

With such a remote location and mission-critical status, nothing was left to chance regarding the headend equipment.

The main system processing is controlled via a Q-SYS Core enterprise-class 610 unit driving

17 Q-SYS 8K and 4K series QLAN amplifiers, installed in two remote amplifier rack rooms.

The 610 was chosen for maximum reliability and the processing power required for the number of FIR system filters and processing blocks. Furthermore, the 610 future-proofed the church for its expansion plans on site.

Netgear AV 4250 switches handle all network traffic on Dante and QLAN protocols. Remote access is via a Lenovo NUC, which enables remote desktop access or Reflect management from Q-SYS servers.

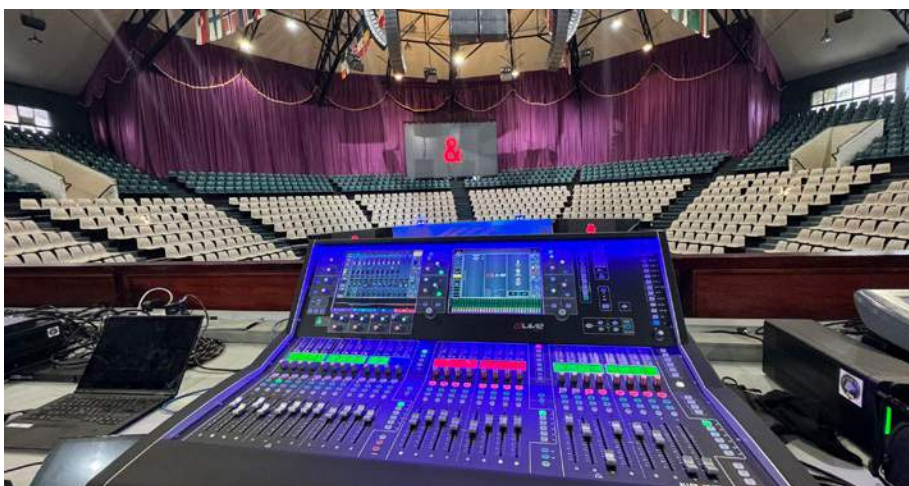
APC Systems' UPS provided uninterrupted power backup to Suva's unpredictable mains, enabling continuous operation during brownouts for the core, switches, and FOH console, resulting in a faster system restart.

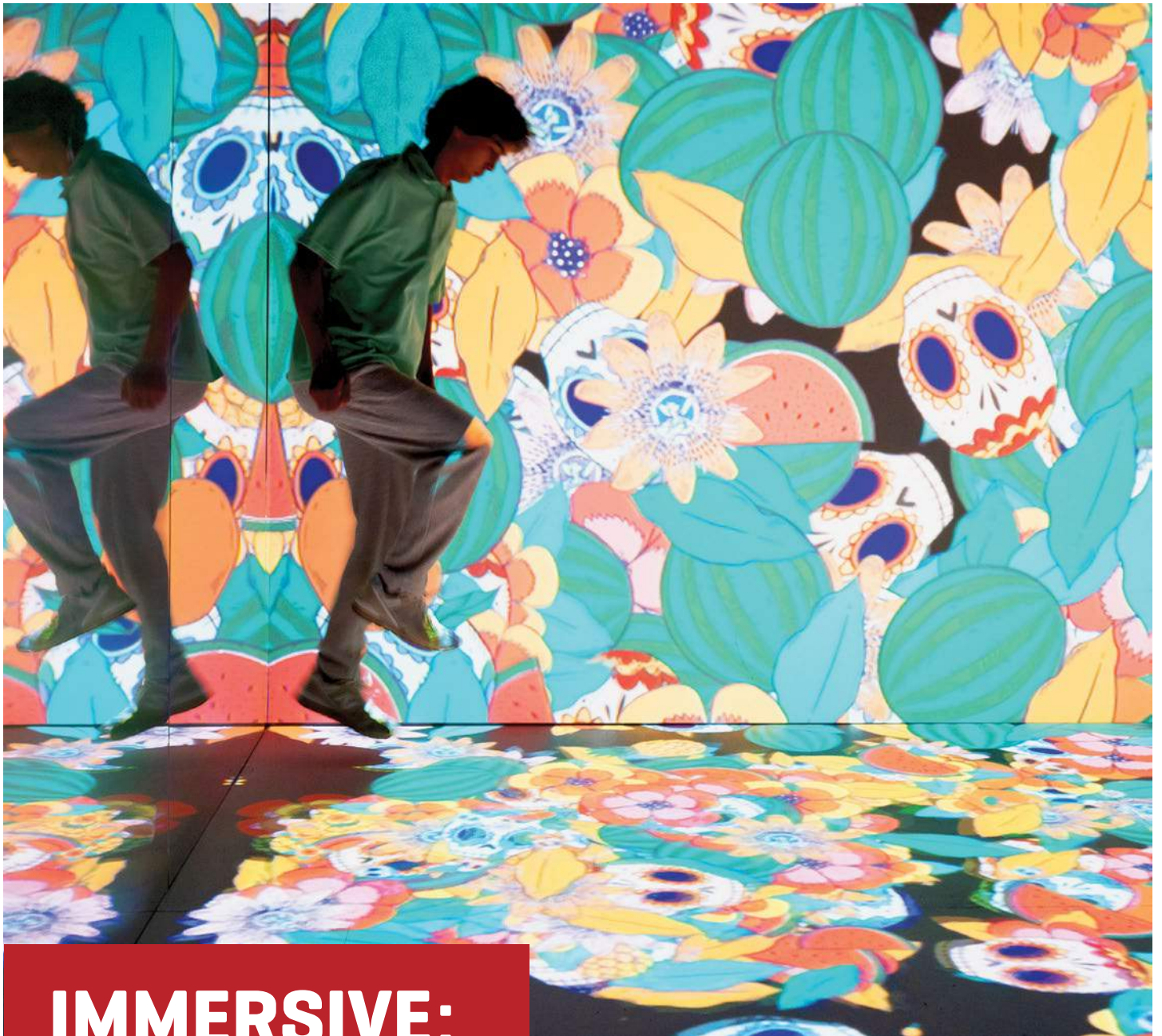
The cable system design utilises both digital and analogue network feeds running in parallel. Carey stressed the importance of reliability and that they had to plan for every possible scenario. Fortunately, with Q-SYS, two backup levels are in place. If a data cable is cut, spare A and B LAN lines are available. If a switch or core fault, Q-SYS allows all amplifiers to run in standalone mode. This means the analogue feed can take over, with enough onboard processing to ensure the service remains uninterrupted.

A patch bay system was installed at each rack location for the main desk, which allows any mixer or source to be substituted in an emergency.

"The complexity of the WHC system makes it challenging for users to identify faults, even with an engineering background," Anthony points out. "It's nearly impossible to detect issues like one sub driver of 12 not working or that the second box in a 16-way array is malfunctioning, particularly when the system is 12m in the air. However, detecting such faults can become significantly easier with the right software tools."

Carey and his team created peace of mind by developing an advanced, user-friendly graphical user interface (GUI). Using the power of Q-SYS, they designed a touchscreen interface with specific test pages which allow the WHC crew to conduct a stepped pink noise test on each speaker before services. Furthermore, the team loaded a music library on the core, providing staff with a reference track to refer to when needed. A simple on-screen button push starts the test sequence both visually and audibly. This enables operators to see a pictorial representation of the system and hear as each cabinet is checked, along with associated power meters and impedance readings.





**IMMERSIVE;
IT'S ALL
ABOUT THE
EXPERIENCE.**

Seamless video technology solutions for a new era.



Technical
Direction
Company

TECH TALKS SPONSOR

INTEGRATE

www.tdc.com.au





“This location has become a place of learning, inspired by a team, welcomed like family by its people and, in turn, willing to share their knowledge for future generations.”

All Q-SYS amplifiers and peripherals are constantly monitored for health status, and if needed, email alerts are sent to TAG support in Australia.

Principal sound engineers at WHC, Siasailosi Dokonivalu and Kit Mateyawa, had been using Allen & Heath iLive and SQ7 consoles for their live and broadcast operations for many years. Given the pending new sound system and the increasing complexity of productions, urgent discussions were had on whether to upgrade their existing consoles to an A&H S5000 dLive console with a 48-channel Danté rack.

After reviewing dLive's improved workflow and 96kHz capability, the team lobbied the church to invest in the console. Finally, Andrew Crawford from TAG, tasked with providing training in Fiji to all WHC churches, green-lighted the idea. Over 50 crew based throughout Fiji would be invited for an intensive four-day training course in Suva.

From CAVV and TAG's experience managing overseas projects, meticulous planning was required to ensure success. Nothing could be left to chance, from the smallest rigging nuts and bolts to cabling and tools.

Given the significant investment, WHC dispatched Joe Kurulo and their trusted production manager Vatu Weleilakeba to Australia to inspect every item before dispatch.

Joe and Vatu were very impressed with the professionalism of the team during their inspection. "I was able to review the frequency response of each speaker on paper before packing, and every electronic item underwent soak testing for over a month. Additionally, I could inspect the preassembled racks and

was thoroughly impressed by the attention to detail that the team was putting into the project," said Vatu.

The team loaded 'kitchen sink' style and shipped everything by sea with a tight three-week target to complete the project. The deadline for D-Day was for Pastor Suli and the choir's return from their USA tour. Carey, his leading technicians Lachlan Crawford and Simon Tanner, and Anthony supervised the assembly of the giant jigsaw puzzle. The church's willing volunteer team of over 30 crew members was on hand to assist and learn. At this point, the 'team' turned into a force with the WHC crew.

Anthony and Carey realised that their expertise in everything from rigging, safety, cabling, and soldering could benefit the community. Anthony coined the term 'University' to describe their opportunity to educate and mentor enthusiastic young people with a lifetime of valuable skills that could never be found in books or online.

The team faced one of their toughest installations due to sweltering heat and 90% humidity, which made it challenging to work at 15m heights in a full rigging harness with tools.

With only a week left until D-Day, the team grew when TAG's Andrew Crawford arrived to provide dLive training for the local technicians and renowned electro-acoustic expert David Gilfillan for system tuning and commissioning.

David spent four days meticulously analysing hundreds of computer measurements, double-checking each measurement and questioning everything, especially given the unusual space and system complexity.

After completing the objective measurements, the team gathered to conduct a subjective analysis. This analysis included reference playback material and live band performances. Only after this step was completed could the final sign-off be given.

Anthony points out that only experienced ears can make the final decision on system balance. Pure measurements alone will never suffice. "A half dB here or there, or a fine ratio adjustment on a compressor, can make all the difference. Well-engineered systems, if aligned correctly, respond to even the slightest changes. Even then you need to keep checking what you think you hear vs what the measurement mic shows you."

D-Day arrived and culminated in one of the biggest moments for not only the church but also for Fiji, with many island dignitaries in attendance and streaming to thousands online.

In a rare invitation, Anthony addressed thousands on stage and, in an emotional speech, praised the church's vision. Importantly, he stressed that this project was not about cutting-edge technology and outstanding quality, but that the congregation could now truly appreciate the sound of their musicians, choir, and preachers, and even importantly, know that their production team now had new education and skills that were invaluable for their future.

Anthony, in conclusion, said, "This location had become a place of learning inspired by a team, welcomed like family by its people and, in turn, willing to share their knowledge for future generations. Simply put, The World Harvest Centre 'University' had arrived."



RIVALE WASH

create to sublime

RIVALE WASH, the first wash luminaire in the ULTIMATE range is a strategic choice for your productions. It has been designed to emphasize volumes, play with depth and create dreamlike atmospheres that leave a lasting impression. A Wash spotlight of excellence that, like a chessboard, leaves nothing to chance.

Precision, mastery of nuance and a quest for perfection are the hallmarks of this essential playing partner.

Playing with light and shadow... highlighting a detail... mastering chiaroscuro... searching for the perfect nuance... chiseling space... this new-generation luminaire delivers incomparable satisfaction.

RIVALE WASH takes up the challenge of seduction with a unique ULTIMATE visual signature.

3 Series - Source
430 W - 6500 K

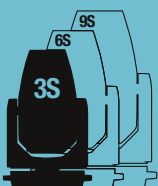
Lumens
28,000

Beam Aperture
4° to 57°

Front Lens
170 mm

IP Rating
IP65

Weight
29.7 kg



www.ayrton.eu



AYRTON



EXCLUSIVE DISTRIBUTOR FOR AUSTRALIA AND NEW ZEALAND

SHOW TECHNOLOGY - Phone: +61 2 97481122 - sales@showtech.com.au - www.showtech.com.au



Over Five Million Pixels for Swimming Australia's Olympic & Paralympic Trials



Months of preparation, six days of world-class racing, many new World Records set and special moments in and out of the pool – that sums up the Swimming Australia Olympic and Paralympic Trials.

Held at the Brisbane Aquatic Centre back in June, the high-profile sporting event was broadcast by Channel 9 and Fox Sports, captivating the nation and an international audience extending to the USA, UK, and India, reaching a total of over 5.7 million viewers.

Onesol Productions were appointed by Downtown Events to supply full audio-visual production for the event – a perfect opportunity to feature its brand new high-spec VuePix Infiled LED screen.

"Major sporting events like this with international exposure don't come around that often, so it was an amazing opportunity for us to showcase our capabilities and what our team can deliver," comments Elliot Laird, one of the directors at Onesol Productions.

The VuePix Infiled supersized LED screen

– 25m long x 3m high – spanned across the entire width of the Olympic-sized pool. With over five million pixels in total, the screen provided a perfect digital canvas for the live broadcast, delivered by NEP Australia.

Featuring the highest spec of Brompton receiving cards and paired with the award-winning Brompton Tessera SX40 LED processors and Tessera XD data distribution units, the complete digital display package was perfectly suited for this kind of live broadcast environment.

Additionally, Astera TitanTubes were used to illuminate the entrance for all swimmers, as well as the Eiffel Tower replica in the live interview hub.

"We are extremely proud that our technology was part of this high-profile sporting event,

witnessing the Australian Swimming Olympic and Paralympic teams on their journey to the Paris 2024 Olympics," says Cuono Biviano, Managing Director of ULA Group and Founder of VuePix Infiled. "The swim trials had major exposure through live broadcast and media, our technology looked great on camera, and the feedback from the industry and general public was overwhelming. Congratulations to the Onesol Productions team and everyone involved – it looked incredible."

The Australian Swimming Trials saw 26 women and 26 men selected for the Dolphins Paris 2024 Olympic team. That means that Australia will be sending a full quota of swimmers to Paris.

The success of the Trials reflects the popularity of Australia's highest participation sport.



Mini, the New Max

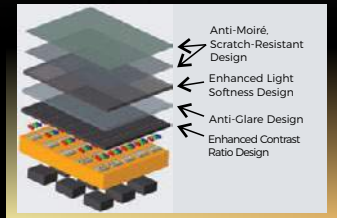
Exploring Immersive Scenarios in Australia



The Best in Display System



EBL+ Patented Certificate



UMinIII Pro Series

P0.4/0.6/0.7/0.9/1.2



Up To 30,000:1
Sharper Details & Vivid Color

EBL+ (Enhance black level+) is Unilumin's patented technology for multi-layer optical processing:



Super Black Level



Super Low Moire



Super Contrast Ratio



Super Low Reflectance



Super Comfort Display



Super Scratch-Resistant

UMini W Series

P0.9/1.2/1.5/1.8



10,000:1 Contrast Ratio
Sharper Details & Vivid Color



Different Cabinets
for Curve & Right-angle



50% Energy-saving
than Traditional SMD



Eyes Protection
TUV Low Blue Certificate



Tel: (03) 90068961
Unilumin Australia Pty Ltd
Address: Unit 2,7 Anzed Court, Mulgrave VIC 3170
Email: sales@unilumin.com



KEEPING ASTERA IN SIGHT

Adriano Candeloro is a founding director and technology guru at Sightline Productions – a busy and successful NSW-based AV and rental company specialising in delivering the highest technical production values to a range of corporate and B2B clients across Australia, New Zealand and further afield.

Joe Murray is also a founding director, and they and the team are all big fans of Astera, having first started hearing about the brand a few years back when the neon lighting look was very popular in Australia.

The first Astera products to arrive at Sightline were AX1 PixelTubes that joined the inventory in 2019, a figure that's now jumped to over 50 fixtures.

In addition to these, Sightline also has AX2 LED battens, AX3 LiteDrops, AX5 TriplePARs, AX9 PowerPARs, as well as the two-metre Hyperion Tubes and half-metre Helios Tubes, totalling over 200 Astera battery-powered LED products.

These have become invaluable for all types of event scenarios and the continuing commitment has recently seen two cases (16 in

total) of AX3 LightDrops added to stock – joining 80 domes for the AX3s, which can be used as set enhancements. Sightline Productions are now looking at Astera's Fresnel series.

Sightline's biggest project to date using Astera involved over 400 AX1 tubes that lined an interactive entrance tunnel to an event for software and graphics brand Canva, at The Hordern Pavilion in Sydney, which was Technically Directed by Sightline's Kim Louey-Gung.

AX1 tubes were also used for the Netflix season launch of the newest Stranger Things series, where they – together with other Astera fixtures – helped to create an actual 'Upside Down' world.



INTEGRATE

YES TECH INVITES YOU TO JOIN INTEGRATE EXPO 2024

CREATIVE RENTAL SOLUTION



Booth NO.: **D52**

Date: **August 21-23, 2024**

Location: **ICC, Sydney**

Hunan Yestech Optoelectronic Co.,LTD.

✉ yestech@yes-led.com

🌐 www.yes-led.com

☎ +86 731 8453 9619



YES TECH



It's almost become an in-joke at Sightline just how often AX1s are used, but apparently it can't be helped. Astera products are ideal in a wide variety of contexts and frequently requested on different jobs.

From the Sightline team's perspective, the tubes, in particular, are a brilliant 'gap filler' for streamed shows or presentations with cameras. Joe Murray is also impressed with the selection of rigging and mounting accessories that come with an Astera package, which make the lights "super quick and convenient" to deploy pretty much anywhere.

AX3s are super-handly, thanks in part to their diminutive size, and these were recently used on a corporate event fitted to the top of a set piece. They are also regularly dropped into stage, being so easily concealed and yet so visually impactful.

"Being able to use this many battery-powered fixtures on a show, event or stage set is amazing, and so practical... allowing for quick and cable-free looks," explained Joe.

Mostly the Sightline crew will use the Astera App on an iPad for controlling the fixtures.

The quality of the light output from all the different Astera luminaires "is excellent," notes Adriano, especially the AX5s and AX9s, which are frequently used for set and key lighting on stage and in studios. They appreciate the colours, especially the pastels and warm whites, and AX9s can produce an excellent stage wash.

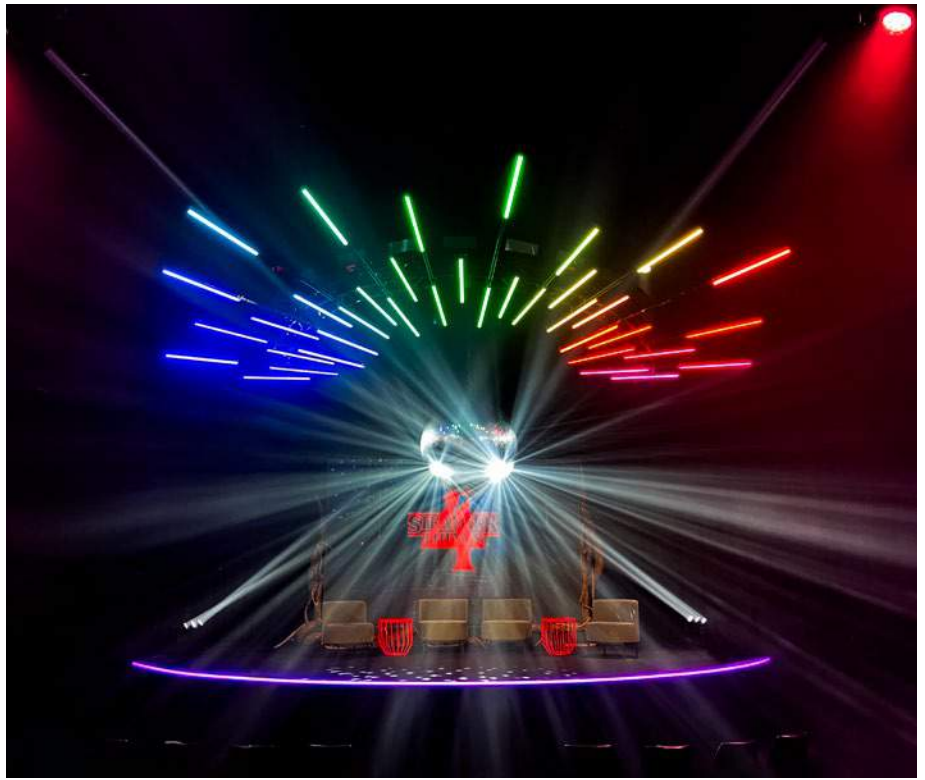
"The batteries will last all day, so combined with the very organic look that blends in so well, the accessibility and incredible versatility of the luminaires – they are good for anywhere and everywhere," says Adriano.

When lighting directors, operators or clients know that a company has Astera onboard, "everyone takes you seriously – the name has proper kudos and industry standard status," he enthused.

On average, Sightline will supply equipment to around 30 projects a month of different sizes, often including the lighting design, and Astera fixtures will invariably be somewhere on the event.

A vital element of investment in any kit is the service expected from the supplier, and Astera's Australia and New Zealand distributor, ULA Group, is "second to none!" Adriano concluded. "For any busy rental or production company, knowing you have great service, support and backup when needed is all important."

Sightline Productions is looking forward to continuing its symbiotic relationship with Astera long into the future.

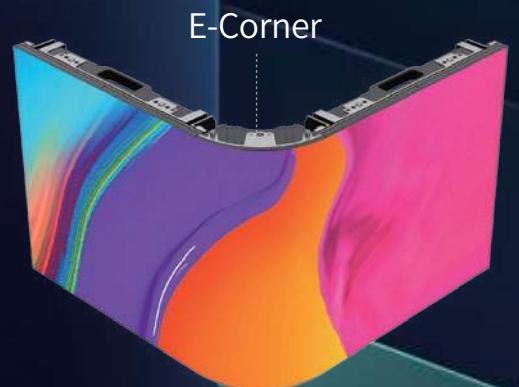
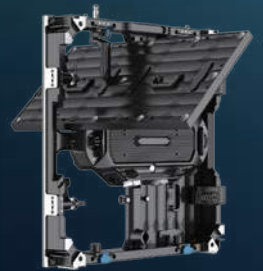


Dazzle IV Series

Perfect Choice for Upgrading Your Rental LED Display

P2.6 for Indoors / P3.9 for Outdoors

- **Universal Modules & Power Boxes**
Applicable for different-sized panels
- **1s Up-Down Lock**
Fast and easy installation ever
- **Strong Curved Capacity**
-10°/-5°/0°/5°/10° curvature
- **Round Corner Splicing**
Mixed splicing enabled with E-Corner Series
- **Versatile Installation**
Climbing ladder available with 10-meter splicing height



Contact us for more information

AT PROFESSIONAL STANDOFF

‘Many’ deposits frozen

Established in 1972, Harry Lloyd-Williams’ PA manufacturing firm, AT Professional, has spectacularly been locked out of its factory, leaving dozens of customers out of pocket for deposits, and repairs seized by a landlord who last month put everything to auction.

A Facebook group revealed many cases of non-delivery, duplicity and broken promises that escalated over time, transforming a credible local success story into a house of cards. The company had some impressive designs but when engineer Richard Feint retired, the design pipeline stopped.

Lloyd-Williams established Matra Audio in 1972, which quickly became a Queensland institution. Crossing the border last century, one immediately saw the indigenous brand installed in every second pub. Colloquial loyalty is strong in the north, and everyone knew ‘Harry Matra’. Eventually the brand became Acoustic Technologies, registered as Acoustic Technologies Electronics Pty Ltd and trading under the ‘AT Professional’ brand.

It was never run in an orderly fashion. Lloyd-Williams loved to wheel and deal and was very good at just that. While Feint was around, the production line was reasonably efficient, albeit with patchy quality. In later years, post Feint, component substitution started to mire the brand, with any shortage simply bypassed, leading to performance variations between apparently identical speaker boxes.

In an email trail seen by CX from 2016, the production manager admitted to Lloyd-Williams, after shipping a bass cabinet out of phase, that they did not test polarity. It was a ‘Groundhog Day’ occurrence, he said, and the manager pleaded for some software to alleviate the problem. Reverse polarity is when positive and negative speaker terminals are reversed due to inattention during assembly, which in this case caused the product to ‘cancel out’ the low end of any other cabinets nearby. This can be tested easily during production, using a polarity tester. But it wasn’t.



If there was an accounting system at AT Professional it was well hidden – customers had to audit their payments and have discussions about what was paid and when. It appears that, whilst the firm is not yet in administration, some tax payments were not made or may have been under reported.

A crossroads arrived when Lloyd-Williams sold the factory on Staple Street, Seventeen Mile Rocks, in Brisbane’s south-west, to a landlord who was prepared to lease it back. A series of rent arrears stockpiled through Covid and at some stage the landlord secured a caveat over Lloyd-Williams’ spacious semi-rural property at Mackenzie, a south-eastern suburb.

The pandemic didn’t help, but by then a pattern had emerged where customers would pre-pay sums of up to \$25,000 and production that should have commenced, didn’t. Audio company operators, all of whom are small businesses, often family owned, had earlier formed an online Facebook group to initially talk about the performance of their systems. The CLA composite line array was in use with dozens of firms, who were generally very happy with their systems.

Speaker system sales usually generate more sales as people scale up. One operator told CX he ordered a complete second system, paid \$22,000 in 2016 – and never saw it. Lloyd-

Directivity managed.

The sibling trio GSL, KSL and XSL share the same broadband directivity control, significant headroom and intuitive operation. From small theatres and clubs to large festivals and arenas, the SL-Series delivers a new dimension of performance-enriching sound.

Read more at sl-series.com



More art. Less noise.

 **d&b**
audiotechnik

NAS

VIC: (03) 8756 2600 | NSW: (02) 9898 0670 | sales@nas.solutions | www.nas.solutions



Williams told CX that the 2016 transaction was shipped. That is one of many disputes.

Amazingly, some operators claim Lloyd-Williams somehow sold the same system twice. Amongst all the chaos, the landlord took legal action, and on March 16, seized the premises after serving notice by mail and email previously. At that time there was no finished stock, just a lot of work in progress. Also present were a lot of repairs, owned by customers.

AT had faced a lot of supply chain problems, as have most other manufacturers. The Baltic ply supply was choked off when Putin invaded Ukraine. The specific Powersoft amplifiers used by AT were chronically delayed. In an email seen by CX, Massimo Minardi from Powersoft S. p. A. wrote: "We are not facilitating anybody to the detriment of you! We can't any longer manage the orders like you would love."

AT were cash strapped but somehow found a commercial financier to finance component imports, holding the stock until AT paid for each released batch. They are currently sitting on stock of P.Audio loudspeakers, and until AT goes into administration, will not sell to anyone else.

Then came the unseasonal rain bombs flooding the factory, which Lloyd-Williams says ruined stock, ply and equipment. The landlord refused or didn't fix the problem – power was disrupted.

Customers became alarmed in June this year by adverts for the auction of the entire factory contents – including their repairs. One wrote to Lloyd-Williams: "I need to know what the chances are of getting the gear I ordered and paid for, up front" to which he replied, "You know I won't depart this planet until I have sorted all my commitments."

When challenged, lawyers for the landlord advised anyone with product on the Personal Property Securities Register (PPSR) could reclaim their stock. In a letter to the landlord, the landlord's lawyer confirmed only two finance firms had registered interest over the assets of the company.

PPSR is best known as a security check when buying a used car, but in fact it is a monstrously huge Federal Government database of anything and everything owned by anyone, designed to ensure and protect an owner's rights. It is particularly useful where, for example, a nightclub goes broke and a hired system is then lawfully retrieved. Proof

of ownership, under PPSR law, doesn't exist unless a product or device is listed on the register. Owners approached the auctioneer who said just that.

Few, if any, small operators, know of, or list their inventory on this register, so as auction day approached some got busy. One operator who did not wish to be identified in this story, went to local police, who advised that technically selling his equipment in the auction was not lawful. Challenged politely as to what the police would do if he were to seize his equipment just prior to auction, Police said – informally – they would not take action. On



at auction day he arrived with others and seized two lots and had police on the way.

The auctioneer then cancelled the auction, facing a roomful of aggrieved people.

Much commentary on the AT Pro Facebook page has seen people caught trending between anger and sadness. One operator told me his marriage had been affected. All were embarrassed that they'd been caught out

like this. Another pondered a wish: whether AT would rise like a phoenix and re-establish works in Lloyd-Williams' large rural shed, using components stored with the financier. "Could a 74-year-old pull this off?" he pondered. "Maybe I'm delusional."

The saga has depreciated the value of AT product held and used by many operators, most from Queensland. "I don't understand the hypnotic, almost cult-like loyalty toward

the brand, especially in the QLD market," one observer posted.

CX approached Lloyd-Williams to verify or challenge facts within this story, and to ask why the company was not yet in administration. He replied: "Your publishing of false statements about me and my business is not warranted. Your accusations are unfounded and outrageous. I will forward correspondence to our solicitors."

NOVA STAR

✉ Email: david@novastar.tech

🌐 www.novastar.tech

NOVA STAR

NovaStar Flagship Control System

COEX SERIES

T

Thermal Compensation 3.0

Advanced pixel level image detection and thermal calibration algorithms are integrated into NovaStar's solutions, to enhance the calibration efficiency.

5G

5G Solution

NovaStar releases 5G bandwidth solutions to simplify the system structure and save the cost of devices and maintenance. Truly increase the device capacity, frame rate, and bit depth of the LED display system.

SMPTE

SMPTE ST 2110 Solution

Novastar's solutions not only have the high transmission quality, extensibility, system synchronization, and security advantages of SMPTE ST 2110 technology but also have the industry's unique modular design.

Amber Technology announces new General Manager for professional products



Garrick Simeon

Amber Technology, a leading provider of professional audio solutions, is pleased to announce the appointment of Garrick Simeon as the new General Manager of professional products and media systems, effective 1 July, 2024. This strategic appointment comes as a part of the company's ongoing commitment to excellence and innovation in the industry.

Garrick Simeon brings a wealth of experience to his new role at Amber Technology, having previously served with the company from 2000 to 2011 in various capacities, including Marketing Manager for Avid Australia and General Manager of the video and audio post division.

Since 2011, Garrick has served in roles such as Managing Director at General Dynamics Mediaware, Transformation Consultant for

Synergy Group, federal public sector Account Director at Amazon Web Services (AWS), and APAC Regional Sales and Partner Manager at archTIS Software. His extensive experience in people management, technical expertise, and strategic vision make him well-suited to lead the professional products team into the future.

Leon Hart, the outgoing General Manager, will be retiring from the business at the end of 2024 after 20 years of dedicated service. Under his leadership, the professional products team has achieved significant

milestones and established itself as a leader in the industry.

Peter Amos, Managing Director, Amber Technology, said, "On behalf of the Amber Technology Board, management, and staff we extend our sincere thanks to Leon Hart for his unwavering dedication over the past two decades, and wish him well in his retirement. We are confident that Garrick Simeon's leadership will continue to drive our professional products division to new heights, and we look forward to the exciting opportunities ahead."

ENTECH Expands with Singles

A Different Exhibitor Mix in Every City

Major national distributors and manufacturers of audio-visual tech equipment will be joined across Australia by a diverse variety of single-city exhibitors this October at ENTECH. The Roadshow, now in its 11th year, has always been limited by truck space but has now opened up, offering local firms access to trade visitors, with power and visitor badge scanning bundled up.

The 'localisation' of each show is strengthened with local presenters for sessions like the LD Round Table, the Rising Stars employment keynote, vital sessions on WHS, and one-off sessions such as 'Lighting KISS! Flash! Bang!' by Australian LD Motley in Brisbane.

"We expanded our touring team last year," says event manager Kate McKenzie, "and maybe it's our mature faces but my female colleagues Susan, Louise and Cat got a lot more feedback. It was wonderful – everywhere we went, people were making suggestions! And the localisation of each city made perfect sense!"

Exhibitors debuting at ENTECH include Swamp Industries, Red Globe Design, Think Project Design, Eventspec, and DMX King (Sydney); Studio Connections, and Advtaek Lighting (Melbourne). Sound Choice Pro Audio will park their demo trailer on the floor in Sydney, Melbourne, and Adelaide while Event Communications will drive to Adelaide, and show in Perth.

Single spaces range in all sizes up to 9m x 3m, with truck stages and OB truck displays available outside all venues nationally. Eventec will show a mobile stage at Brisbane, Sydney and Melbourne, while Innovative will return with their OB One truck in Sydney.

"We bundle everything; there are no nasty shocks at ENTECH," concludes McKenzie. "Included in our flat rates are a light exhibitor lunch, power, furniture, and our show floor has plenty of seating. We're built around visitor comfort and experience, which is why our attendance grows every year!"

Meanwhile ENTECH NZ rolls in August, with all exhibitor space sold out.

www.entech-roadshow.com

Martin

INTRODUCING
MAC VIPER XIP



THE LEGEND STRIKES AGAIN

From concert stages to TV studios and EDM festivals to opera houses, the new MAC Viper XIP covers any application.



**OPTIMIZED FOR
INDOOR AND
OUTDOOR USE**



**28,000 LM
CONSISTENT
HIGH OUTPUT**



**MOST
FEATURE RICH
MAC EVER**



**BEST IN CLASS
OUTPUT, WEIGHT
AND SIZE RATIO**



**LOW
NOISE
LEVEL**



**HIGH-QUALITY
OPTICAL
PERFORMANCE**

©2024 HARMAN. All rights reserved. The MAC Viper XIP is designed for temporary outdoor installation only. Do not use the fixture for permanent outdoor lighting.

For all enquiries and sales, contact your nearest Show Technology below or email sales@showtech.com.au

Australia | Sydney 02 9748 1122 | Melbourne 03 9681 7511 | Perth 08 9248 8119 | Brisbane 07 3267 3177

New Zealand | Auckland +64 9-8693293

SHOW
TECHNOLOGY

EAW LA Series

The New LA Series delivers EAW signature performance in a portable and lightweight package. This pro production standard series includes EAW Focusing, which provides unmatched musical clarity and tonal accuracy. Superior high frequency pattern control is further enhanced by a beamwidth matched crossover and unique constant directivity HF horn, developed for the outstanding MK Series point source production range. The composite construction LA series offers a choice between four models with 1" or 1.4" high frequency drivers. Power is 1,500W and includes EAW DynO processing which actively tracks input spectrum/dynamics and power delivery

Australia and New Zealand: PAVT

www.pavt.com.au or +61 (0) 3 9264 8000 / +64 (0) 21 410 050



NEW

ADJ Vizi Beam RX2

This dedicated moving head beam offers an extra rotating prism, motorised focus, 3-phase pan/tilt motors and Aria X2 wireless connectivity in addition to all the features and functionality of the original ADJ RXONE. Designed for both the installation and production markets, the Vizi Beam RX2 features an efficient OSRAM Sirius HRI 100-Watt discharge lamp, focused through a high-quality glass lens into a crisp 2-degree beam. This beam – capable of travelling a distance of up to 100 metres – can be used to generate impressive aerial effects and the fixture's low weight (7.5kg) and compact dimensions (230mm x 304mm x 416mm [L x W x H]) mean that it can be easily utilised in large quantities without overloading trusses.

Australia and New Zealand:

ULA Group www.ulagroup.com or

AU 1300 852 476 / NZ +64 9 218 6532



GEAR



Biema C1034 and C1035

Designed for small live shows, small parties, bands, musicians or anywhere foreground sound reinforcement is required, this active column pair is available with either 200W columns and 300W subwoofer (C1034) or 250W columns and 300W subwoofer (C1035). Each system is supplied with an active subwoofer unit, passive subwoofer unit and two column speakers which fit into recessed top hats. Offers amazing flexibility with no cables to run, just connect your sources and switch it on.

Australia: Altronics

altronics.com.au or (08) 9428 2188

Ayrton Rivale Wash

The IP65-rated Rivale Wash is the first ultra-equipped wash luminaire in Ayrton's brand new "ULTIMATE" range. The new Fresnel lens significantly improves colour mixing and delivers 10% more light compared with a conventional Fresnel lens. Rivale Wash's proprietary 12-lens optical system offers a zoom ratio of 14:1 and a range from 4° to 57°. Rivale Wash is equipped with a brand new 430W high efficiency sealed monoblock LED module calibrated at 6500K, offering a luminous flux of 28,000 lumens with optimum positioning on the black body to achieve perfect light neutrality.

Australia: Show Technology Australia

www.showtech.com.au or (02) 9748 1122

New Zealand: Show Technology New Zealand

www.showtech.nz or (09) 869 3293





Bluesound Ceiling Speakers

Bluesound Professional BCS250 and BCS300 are passive and active Power over Ethernet (PoE) ceiling speakers that can be installed as in-ceiling speakers or with an optional pendant speaker conversion package. The BCS250 is a passive ceiling speaker designed for both low impedance and constant voltage applications, while the BCS300 expands Bluesound Professional's PoE speaker line as the world's first network-streaming ceiling speaker with integrated streaming and amplification.

Australia: Amber Technology
www.ambertech.com.au
 or 1800 251 367

Elation SIX+ BAR Series

Equipped with 20W RGB+Lime+Amber+UV LEDs and boasting a CRI of 93, the SIX+ BAR's engine delivers high-fidelity whites and intense primaries with no colour fringing. Extra-large 50mm lenses make it ideal for direct view applications and individual cell control opens up a myriad of design possibilities. The SIX+ BAR serves as a highly versatile wash light, uplight, wall/cyc wash, accent light, direct view pixel strip and more. The metre-long SIX+ BAR L houses 12 RGBLA+UV LEDs and packs a punch at over 7000 lumens, while the half-metre-long SIX+ BAR S houses six RGBLA+UV LEDs and radiates over 4000 lumens.



Elation PULSE BAR

Available in one-metre and half-metre lengths (PULSE BAR L, PULSE BAR S), both strobe models incorporate zone-controllable 1.5W RGB LEDs along its perimeter, 5W cool-white LEDs at its centre, and 1.5W RGB LEDs at its core. The PULSE BAR features the same RGB and CW LEDs as the PULSE PANEL and PULSE PANEL FX for a perfect match, and feature the same effects engine and control capabilities as well. Designed for ultimate flexibility, an integrated accessory slot accommodates optional diffusion filters, ND filters and other optics.

Australia and New Zealand:
 ULA Group www.ulagroup.com
 or AU 1300 852 476 / NZ +64 9 218 6532

Bettgear SHOW

A Wi-Fi-based assistive listening solution designed to enable hard-of-hearing individuals to participate in live events, such as concerts and lectures, with ease. Bettgear SHOW connects directly to the audio source, such as a microphone or a sound console, sampling the sound in real-time while overcoming reverberant environments and background noise. It then distributes the audio over a designated WiFi network to personal smartphones with low latency. Through the Bettgear App, audio is streamed directly to the user's hearing-aids, cochlear implants, or any other earpiece/accessory.

Australia: MadisonAV www.madisonav.com.au or 1800 00 77 80



LEA

LEA Professional Connect Series Touch

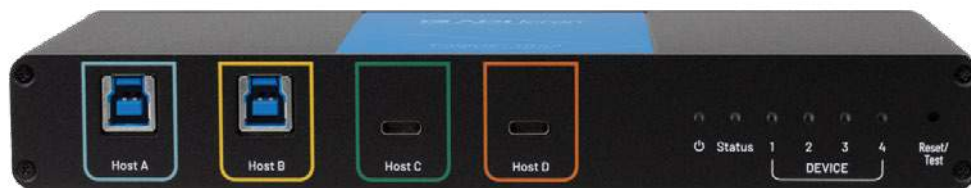
The Connect Series Touch is a wall-mounted touch-enabled control panel designed for simple and intuitive control of LEA Connect Series amplifiers. The controller is PoE-powered for easy installation and can be used for individual zone or group control. Primary features include source selection, volume adjustment, and the ability to mute - all by zone or group. The controller features a colour touchscreen with a rotary knob and is available in black and white versions. Additionally, the Connect Series Touch is fully configurable, for any group or zone configuration up to 100 amplifiers, providing ultimate control from one device.



LEA Professional Advanced DSP Amplifier Versions

The new advanced DSP versions of the Connect Series include 350-, 700-, and 1500-watt models with D-units providing Dante and AES67 connectivity. Available in 2 channel (CS352-ADSP, CS702-ADSP, CS352D-ADSP, CS702D-ADSP) and 4 channel (CS354-ADSP, CS704-ADSP, CS1504-ADSP, CS354D-ADSP, CS704D-ADSP, CS1504D-ADSP) offerings, each features 96kHz linear phase FIR crossover filters with 2048 taps per channel, four seconds of input delay, under 10-second power-on to audio when PoE is used, and FIR-based speaker tunings.

Australia: Amber Technology
www.ambertech.com.au or 1800 251 367



Icron Technologies Polaris 7044

The Icron Polaris 7044 is a 4x4 USB 3-2-1 matrix enabling any host to conveniently connect to, and switch between, one or more devices. Polaris supports USB 3 (5Gbps) 2.0 and 1.1 devices while powering up to 15W, offering up to 24 possible configurations, controlled via RS232, web GUI, or API providing extremely flexible USB connectivity. Polaris offers extreme USB flexibility and connectivity in UCC boardroom settings. Ideal for use cases requiring in-room control, BYOD control (for easy BYOD integration and switching desired peripherals as necessary), or BYOD control for user preferred device for different video and audio connections.

Australia: MadisonAV www.madisonav.com.au or 1800 00 77 80



Humanteknik earisMAX

earisMAX is a modular Bluetooth Auracast listening system consisting of three components that can be used individually or in combination: earisMAX, the Bluetooth Auracast headphones which act as a receiver for all corresponding audio data; the earisMAX Bluetooth Auracast transmitter that connects audio sources that do not have a Bluetooth transmission function to Bluetooth enabled receivers; and the earisMAX Bluetooth Auracast streaming microphone, designed for use in the context of presentations, conferences, education or guided tours.

Australia: MadisonAV www.madisonav.com.au or 1800 00 77 80

DIVA 12A

DIVA 15A

**A NEW STANDARD IN ACTIVE
LOUDSPEAKER TECHNOLOGY**



PROEL  **AVE**TM
Exclusivley distrubuted by



<https://www.avecorp.com.au/tag/diva/>



sales@avecorp.com.au



03 9706 5325

**PROLIGHTS
EclDisplay CRMX**

The EclDisplay CRMX series is the latest addition to the EclDisplay LED projector range for gallery applications, featuring integrated wired and wireless CRMX control. The CRMX technology allows lighting integrators to program and control the projectors both wirelessly and via cable through RDM, encompassing a wide range of integrated input control protocols such as Wireless CRMX, DMX, and local control via knob. The EclDisplay CRMX series is available in the Full Colour version with a 40W RGB+Warm White LED source, and in 35W Variable White versions (2700-5600K) or with 25W Fixed White at 2700K, 3000K, 4000K, or 5600K sources.



Australia: Show Technology Australia
www.showtech.com.au or (02) 9748 1122
New Zealand: Show Technology New Zealand
www.showtech.nz or (09) 869 3293

**NEW
GEAR**

**RF Venue
Spectrum Recorder**

The Spectrum Recorder is a compact and self-contained portable RF spectrum scanner that provides easy capture, storage and retrieval of RF spectrum data for simplified monitoring and optimisation of wireless microphone and in-ear monitor systems. Spectrum Recorder continuously captures RF activity in the 400-700 MHz band, saving the data in its internal storage as time-stamped CSV files which can be retrieved directly via USB drive or accessed remotely over a local network.



RF Venue COMBINE6 HDR

The COMBINE6 HDR is a half-rack unit that can combine up to six IEM transmitter signals into one to feed via a single external antenna. With a passive expansion circuit built-in, COMBINE6 HDR easily connects to a second unit for a total of 12 IEM channels in a single rack unit. The COMBINE6 HDR is also available in turnkey six channel IEM packs with either RF Venue's CP Beam Antenna, or its widely embraced low-profile visually unobtrusive CP Architectural Antenna, and all needed system cabling.

Australia: Jands www.jands.com.au or (02) 9582 0909



**Showtec
ACT Profile
50 RGBAL**

The Showtec ACT Profile 50 RGBAL is a 50-watt RGBAL COB LED ellipsoidal with high CRI, suitable for theatrical applications. It operates within a 14° - 32° manually adjustable zoom range and projects a hard-edge, precisely focused light. The ACT Profile 50 RGBAL features a manually and DMX controllable 0 - 100% dimmer function and comes with five design gobos and a four-blade shutter system, allowing you to add the proper intensity of light where it's needed.

Australia: Clearlight Shows
www.clearlight.com.au (03) 9553 1688
New Zealand: Kenderdine Electrical
kelps.co.nz or (09) 302 4100

FL SERIES

FORCE

& Lightness




AXIOM
Exclusivley distrubuted by **AVE**



<https://www.avecorp.com.au/>



sales@avecorp.com.au



03 9706 5325



The 10-Minute Mix

In a world of clientless mixing sessions and bedroom studio hourly rates, where time is measured by the accumulation of pizza boxes rather than in dollars and cents, some music producers and mix engineers spend days, sometimes even weeks, settling on a mix. But what would you do if you only had 10 minutes?

I'd like to preface this article by suggesting that most studio mix and tracking engineers, producers and recording musicians mix on-the-fly, at speed, all the time, whether they're aware of it or not. Live and broadcast engineers do it constantly, of course, but the gulf between them and everyone else is narrower than you might think.

When you consider the number of hours it takes to setup a typical live show, for example, including all the foldback mixes, console effects, tonal shaping and basic balances, when all that is compared to a recording or mix session, in many ways they're very similar. After all, a live mix isn't measured simply by the duration of a song's performance on stage – it's all about the prep: setting up gain structures, effects, tones etc.

So, if you're a studio mix engineer, don't be fooled or sell yourself short. Studio engineers and producers pull quick mixes together every

day while catering to a diverse array of needs, from headphone mixes and experimental arrangements, right through to rough 'take-home' mixes for clients. The only difference seems to be in the perceived value of these mixes. In the live realm, fast mixes are valued implicitly – obviously – given their critical importance. A mix happens in real-time, so there is no second playback in the live and broadcast realms – but in the studio, real-time mixes for headphone monitoring, quick mixes for clients or general playback in the control room are generally regarded as secondary... inferior in almost every way.

For whatever reason, in a studio environment, particularly when it comes time to printing 'The Big One' – that monster mix you hope everyone's ultimately going to hear – studio professionals seem unanimously convinced that time constraints should never apply to them, and that every good mix should inevitably take at least a day... sometimes a week, the general vibe here being: "Time constraints cramp my style, man..."

Not always, they don't. Sometimes they're downright liberating!

Now, don't get me wrong. I know full well that most studio mixes can go deep and often take at least fourteen pizza boxes to complete. Some involve many hours of screwdriver work and experimentation, involving everything from advanced editing (and in some instances wholesale song restructuring) to elaborate EQ, dynamics and effects manipulation, all of which is then invariably automated either a little, or a lot. Make no mistake, some of the great

studio mixes do indeed take days, and unlike most live mixes, they form a permanent record (hence the name): duplicated, disseminated and scrutinised from that moment onwards... sometimes for years. This, understandably, adds a layer of expectation that cannot be underestimated.

But what if, despite all that, you had to mix one of these more complex songs (excluding the editing, arranging and re-arranging) in 10 minutes? What would you prioritise then, and what would you forego? Obviously, devoting nine and a half minutes to the kick drum EQ is out of the question at that point...

Trust Your Instincts

The main purpose of a 10-minute mix in a studio environment is to force yourself to evaluate a song's key elements, balancing these instinctively in real-time, without concern for the minutia around things like EQ or compression setting on multiple instruments. If you're in the middle of a song production, chances are you've already applied some EQ and compression where necessary anyway, as you would have done live during soundcheck.

It's about working at pace, instinctively and reactively, with a single-minded devotion to the song coming out of the speakers and nothing else.

So, if the kick drum sounds fine, and the electric guitar does too, don't waste another second on them. Whereas in the studio, you might normally delve into fine-tuning these elements for hours on end – occasionally

achieving great things, at other times spinning your wheels – in this situation, it's a luxury you can't afford.

Balancing the mix is what it's all about, first and foremost. And this is not a static, one-time process either; it's a constant, real-time reappraisal of the sound coming out of the speakers. It's hands on... the whole time! Now is certainly NOT the time for checking your phone or talking to a punter. It's making sure that the key elements of the arrangement – which, under normal studio mixing conditions you might have highlighted last – are attended to immediately, often simultaneously. There is no 'later' in the 10-minute mix, only priorities from the top down.

For many engineers, this often means working in reverse order, from highest priority to lowest, rather than from left to right, or rhythm section, through guitars, keyboards and other instruments through to the cherry on top: vocals. In a 10-minute mix, if you think the vocal is the key to the song (which it nearly always is) focus on that first, not last. If you really need to spend several minutes on one key aspect of this vital component, particularly if it also involves solving a technical problem here, do that now. From there, work down the list, all the while striving for overall balance.

You may not get far down this list of priorities in 10 minutes, of course, but in some ways that's the point. Most punters are only listening to the key elements anyway, not whether the vocal reverb is 3.8 or 4.02 seconds long, or if the high-pass filter on the second electric guitar is set at 60Hz or 170. Moreover, they're only listening to that ghastly hi-hat if you have it grossly unbalanced in the mix in the first place!

Essentially the process is about considering two things: what are the most important elements, and if there's something creating a distraction – a noise, excessive dynamics or effects in a key element, or something missing entirely – how do I fix it, and fast?

To me, great live mixes prioritise these main elements with deftness and skill, all while producing an overall sound that's immersive, compelling and seemingly effortless. They're not rough, nor are they ill-conceived. On the contrary, some of the best sounding audio I have ever heard – and indeed some of the best mixes I've done myself – were live mixes.

Time's Up

But hang on a sec: what is the point of all this, you might ask, when there's no such time constraint in the studio?

Well... because there is! There are time constraints everywhere in the studio, even around 'The Big One', and it's crucial for recording and mix engineers to appreciate this fact and learn the art of mixing at pace, particularly if you're charging a client proper rates for your time and professionalism.

An Argument for Faders

If you've recorded things well and avoided disasters in the main, a decent 10-minute mix should be relatively straightforward if you put your mind to it, and more importantly, ascribe value to the process.

A decent rough mix to accommodate that new overdub session is a valid mix, a headphone mix is another vitally important one that can make or break a recording session, as are any rough mixes you send home with the lead singer. These might not be 'The One Mix' to rule them all, but if you're on your game, it should sound good enough to be largely indistinguishable from The One – at least to the ear of a punter.

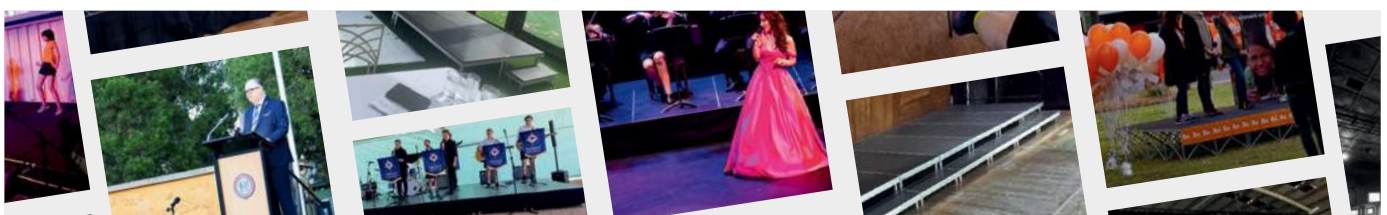
To some, this last point might sound like heresy, but often it's true. What we hear and appreciate as ear-trained audio engineers, is mostly lost out there in the big, wide, noisy world.

Where I think studios have generally missed the mark in relation to all this is in respect of the demise of the recording/mixing console, be it analogue or digital. One of the best ways to slow things down or get quickly lost in the details of a mix is by having no console in front of you when you work. Hands on faders might seem like a quaint notion to some, but faders remain the most effective way to perform multiple balancing tasks simultaneously. That's why live consoles still sport them, by and large, and live engineers can't be without them. Last time I checked I had 10 fingers, but my mouse has only one cursor. Balancing four, eight or 10 discrete channels of audio with a mouse is no replacement for faders when time is of the essence.

On Your Mark, Get Set...

So, consider the 10-minute mix an experiment, if you like, or a theoretical exercise. It will probably influence your general approach to mixing in at least two ways. Firstly, it will hopefully encourage you to get things done more efficiently, or at least question the value of a week-long mixing session. It will emphasise the value of fresh ears, particularly if you later A/B your 10-minute mixes against the final mix masters. And lastly, but by no means least, after you've done a few of these mixes on-the-fly, you'll come to realise that you already know a thing or three about this rapid-fire mixing caper, that actually you've been doing them for years without ever paying them much attention, and perhaps now appreciate how valuable this skill you possess truly is.

Andy Stewart owns and operates The Mill in the hills of Bass Coast Shire, in Victoria. He's happy to respond to any pleas for recording, mixing or mastering help... contact him at: andy@themill.net.au



PORTABLE STAGES FOR EVENT PROFESSIONALS

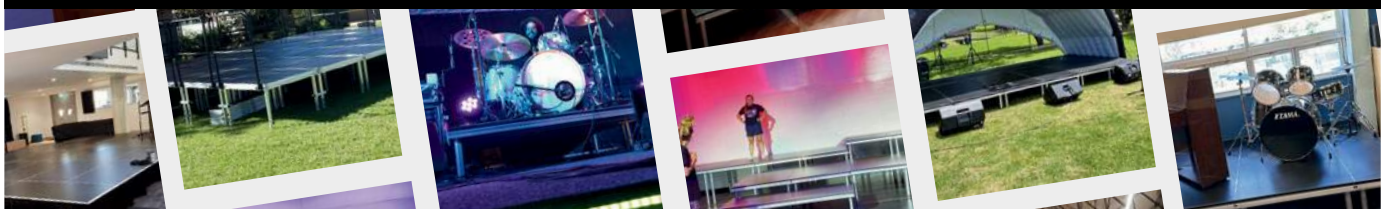
GET YOUR PRICING NOW

transtage

☎ 1300 712 066

✉ info@transtage.com.au

🌐 www.transtage.com.au





INAUGURAL DRONE DISPLAY CELEBRATES THE STORIES OF MATARIKI

A match made in the heavens – New Zealand's ARONUI
Indigenous Arts Festival & Australia's First Lights

ARONUI Indigenous Arts Festival with Australian company First Lights presented a community display using 160 choreographed drones, only the second of its kind in Aotearoa, to celebrate 'Matariki', the Māori New Year. Attracting an estimated thirty thousand people over two nights, the dramatic retelling of the traditional tales associated with Matariki has laid strong foundations for future Kiwi collaborations between First Lights and ARONUI.

First Lights

Rotorua-based ARONUI Indigenous Arts Festival planned to do a drone show after founding festival director Cian Elyse White attended a drone show at the Perth International Arts Festival in February last year. Cian, a Māori artist and the creative force behind the concept, approached Tom Müller from Arts & Culture organisation Fremantle Biennale, who worked closely with Rob Lednor and his company Stellar Lights to produce and support storytelling experiences led by First Nations knowledge holders from Australia. With a background in drone technology in the oil and gas industries and a desire to explore more creative applications, Rob was the perfect partner when it came to seeking out the expertise for complex drone operations. With time on their hands during the pandemic, they combined their passions, Tom with a

commitment in supporting First Nation-led stories augmented by future technologies, and Robert for the creative application of drones, to form joint venture First Lights.

Their first show 'Moombaki', designed by Noongar Artist Ilona McGuire, was a huge success and the team were invited to apply for other funding sources. Benefitting from a federal grant, newly developed and site responsive drone light shows took place across Australia in 2023, delivering multiple shows specific to each location, with the art direction led by Traditional Owners and Aboriginal artists, sharing ancient knowledge, living stories and history of place. This opened up further opportunities for Stellar Lights including a world first, a combined drone light and pyrotechnic show with pyro fired off the drones, at the Sydney Royal Easter Show in a stadium of 40,000 for 15 consecutive nights.

BRISBANE
Showground
Tues Oct 8

SYDNEY
Hordern Pavilion
Thur Oct 10

MELBOURNE
Showgrounds
Tues Oct 15

ADELAIDE
Showgrounds
Thur Oct 17

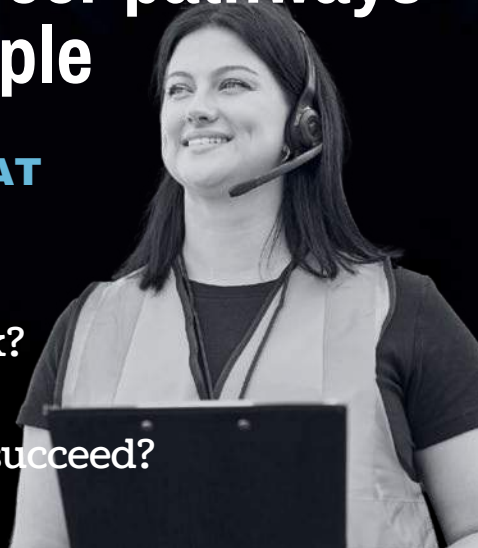
CLAREMONT
Showgrounds
Tues Oct 22

RISING STARS

Promoting career pathways for young people

KEYNOTE SESSION AT 1PM ALL CITIES

How do you find work?
What are the jobs?
What do you need to succeed?



entech community

WE WANT YOU

NATIONAL EXHIBITOR SESSIONS – ADDING NOW!

Got an EnTalks idea for your city?
Drop us a line now!

30

ENTECH. 30 years bringing everyone together

entalks

More to be announced!

See www.entech-roadshow.com for cities & times



LD Round table
Gavan Swift, Rob Cudden



LD / Programmer Relations
Gavan Swift, Rob Cudden



Strategies to Stream Your Event Successfully
Simon Byrne



Bonded Internet Connectivity using Pepwave and multiple 5G Connections
Simon Byrne



How to deal with a corporate client as an AV operator?
Mark Taylor



What is the Colour of Sound?
Cais Nitschke



Want to upgrade your venue - what next?
Presented by Arup



Lighting Kiss! Flash! Bang!
Sean 'Motley' Hackett



Why do I still do this?
Matthew Peckham



Physical and Mental Health and Fitness in Staging
Emma Sputnik AD



Theatre cost-saving AV
Greg Donhardt

ARONUI

ARONUI Indigenous Arts Festival was founded in 2019 by Cian Elyse White and a group of Māori arts leaders who whakapapa to Te Arawa Waka. ARONUI is committed to creating opportunities for people to experience indigenous art locally and to champion indigenous artists. The team regularly engage with indigenous artists from other regions and countries in order to expand their whāriki (woven mat) for future festivals and arts collaborations. It was to this end that ARONUI Founder, Director and artist Cian Elyse White (Ngāti Pīkiao), along with Te Reo Māori language expert and show co-creator Mataia Keepa (Ngāti Whakaue), travelled to Perth for a creative workshop with Fremantle Biennale and shared their show idea 'Matariki'.



ARONUI and First Lights Team. L to R; Cian Elyse White (ARONUI Founding Festival Director and Matariki show creator), Back Tom Muller (First lights), Damien Liste (Aertronics Ltd), Te Kooanga Awatere (ARONUI Trustee), Ilona McGuire (First Nations Associate Producer- First Lights). Front - left to right) Rob Lednor (Stellar Lights), Tim Smith (Drone Pilot First Lights), Kāhu Haimona (Volunteer). Photo by Andrew Warner

“The show utilised 160 Uvify IFO drones, with control software ‘Drone Show Software’ by SPH Engineering. Timecode was used to synchronise the audio and drone display.”

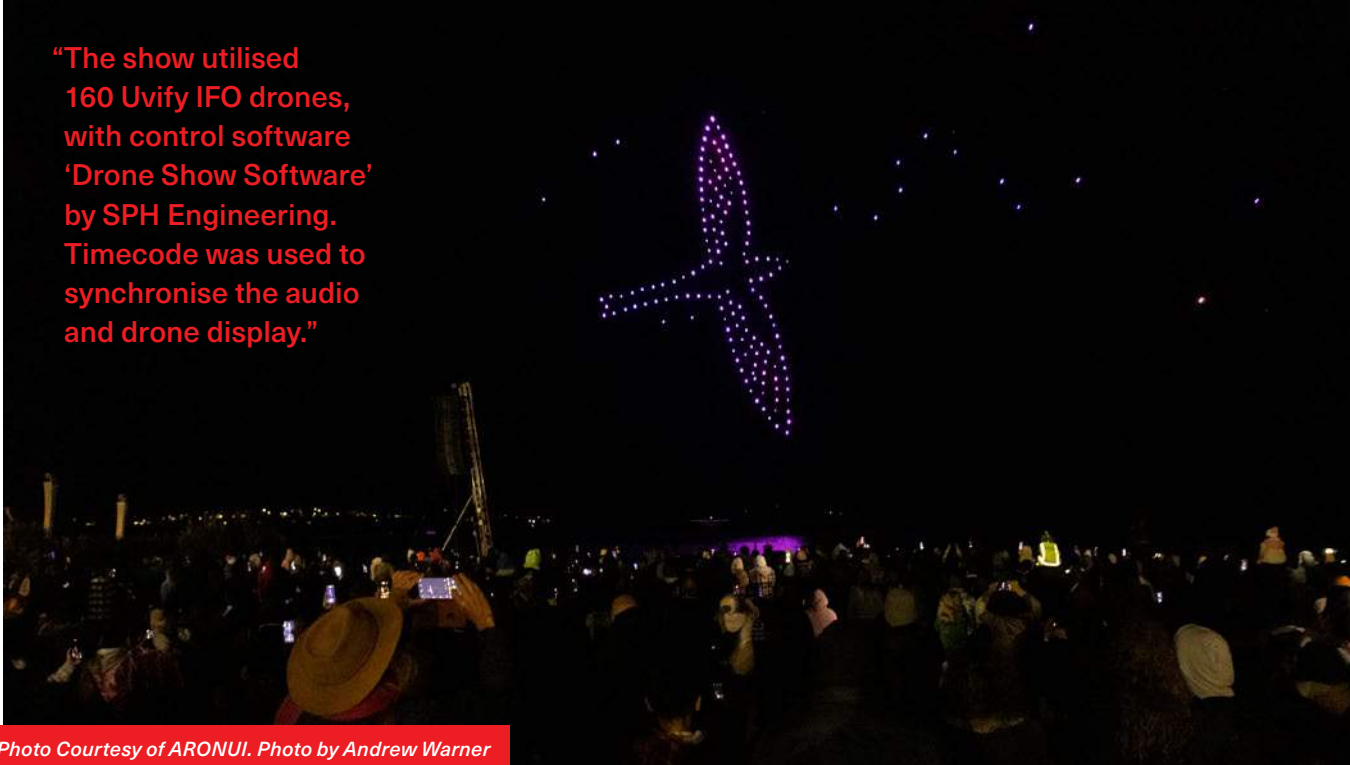


Photo Courtesy of ARONUI. Photo by Andrew Warner



Photo Courtesy of ARONUI. Photo by Andrew Warner



Tom recalls their first meeting, "They are a strong organisation with huge pride in their culture and a determination about how their stories should be told. As a result, the process was highly collaborative to encapsulate their compelling artistic direction."

Other artists included Māori composer James Webster with First Light's animator Jarrad Russel and sound designers Envelope Audio, comprising Ned Beckley and Josh Hogan. Rob explains, "We talked the creatives through how the process works and explained that it is not dissimilar to making a short movie. They formulate the plot, the script and the drama, and we advise if it is possible in terms of the technology, drone limitations and size, offering alternative solutions to achieve their vision. Essentially we are bringing together two universes."

First Light's Inaugural International Show

After a significant amount of groundwork in conjunction with the ARONUI team, Rob describes the actual delivery as being straightforward, aside from acquiring approvals from the Civil Aviation Authority, "Drone technology for community displays in New Zealand is very much in its infancy and regulatory approval takes about eighteen months which we didn't have. Initially we investigated buying a company with a licence, but that didn't come to fruition, so we partnered with a local outfit, Aerotronics Ltd, a drone company founded by pilots who were prepared to act as our New Zealand consultants and take on the operational risk." The show utilised 160 Uvify IFO drones, with control software 'Drone Show Software' by SPH Engineering. Timecode was used to synchronise the audio and drone display.

Audiences were invited to look to the night sky and witness the telling of the stories connected to the Matariki (Pleiades) star cluster. The choreographed drones accompanied by music and narration by Rangitīria Tibble, Cian Elyse White and Mataia Keepa, imparted the tale of Taramainuku, captain of Te Waka o Rangi, a canoe that traverses the sky with a large net, collecting the souls of loved ones who have passed away across the year. This can be found in the night sky; Orion's Belt being the 'pot', Te kokotā (Hyades) being the sails of the ship, and Matariki forming the ihu or the nose of the ship. In May, Te Waka o Rangi sails beneath the horizon, rising again in June/July to cast its net into the sky, releasing the collected souls to be immortalised forever as stars and signalling the start of a new year, 'Matariki'.

With the spectacular backdrop provided by Kouramāwhiwhiti (the Rotorua Lakefront), the display took on an added dimension with the reflection on the water visible to the audience along the shores of the lake, "We had planned for all eventualities, and everything went smoothly apart from thirty thousand people showing up! Even though it was a very similar delivery model to the one we had used in Australia, it was special because it was our first international event and had such meaning for ARONUI. We are on their journey empowering the Māori community to share their artwork using new technologies. We feel part of a significant paradigm shift."

Future Kiwi Ventures

The success of Matariki has built strong foundations for future collaborations between ARONUI Indigenous Arts Festival and First Lights. Rob expands, "We are hoping to share the experience across both islands in the coming year. We are always innovating around how technology can augment contemporary art and we have something pretty special in the pipeline."

Whilst both Tom and Rob enjoy the corporate and commercial arm of their business, storytelling is definitely their passion. Tom concludes, "I am very proud of our work in this area. It brings with it the most satisfaction because of the long lasting relationships developed with the artists and communities."

WE HAVE YOUR EVENT
BACKDROP
SOLUTIONS



2023 ANNUAL AWARDS

Today, tomorrow, together

Today, tomorrow, together

1800 737 037
www.backdrops.com.au

OUR BRANDS:

- Events Fantastic
- Modular Backdrops
- Light Up Letters
- Backdrops Fantastic

SYDNEY SOUNDS BETTER



On Thursday 25 August, Sydney CBD's hidden treasure, City Recital Hall, threw open its doors to business and the live industry as a whole to showcase the results of its \$8.9m upgrade, including a d&b audiotechnik Soundscape-equipped PA. Titled 'Sydney Sounds Better', my brain presumptively added 'than Melbourne', but I don't think that was what they were going for!

Running over two sessions, the venue showcase was intended to attract new hirers and corporate partners. Incredibly for such a centrally located and top-class venue, it's been dark up to 50% of the last year or so. This has largely been a branding issue; until the new PA and lighting went in, the venue has been synonymous with acoustic chamber music, and little else.

I strolled to the venue expecting a technical showcase attended by many black-clad production people, a presentation followed by some tech talk, and little else. How wrong I was. There were around 400 people in the foyer from across the spectrum of Sydney's elite. We were plied with free drinks and excellent catering from Merivale and Diageo.

Mayor Clover Moore herself spoke to the throng before we were ushered into the auditorium, which had its stalls seating removed for a more band/contemporary configuration. A string quartet made up of members of the Sydney Symphony Orchestra played us in, and this is where the magic started.

The quartet were mic'ed up, and only just subtly in the PA, barely enough for anyone to notice. As the room filled, the level of

reinforcement came up, with Soundscape's imaging ensuring that it still sounded acoustic, but more audible. The imaging was perfect. The City Recital Hall is already a beautiful room acoustically, but Soundscape now makes amplification sing. In the space. I doubt anyone who didn't have a technical background could even tell the quartet was amplified.

Then the goosebumps really started. The Sydney Philharmonia Choir performed an absolutely beautiful piece that used antiphony – a fancy way of saying the choir was on stage and a soloist was in the circle. The house sound engineers showed that they really know how to use Soundscape perfectly – again, most of the crowd wouldn't have known it was amplified, but the soloists were picked out and emphasised, and the room gained an extra two seconds or so of reverb time.

In a complete change of pace, Sydney goth-electro artist Vera Blue then performed as a duo, with electronic backing, live synth, and live vocals. Stems from playback were used cleverly in the Soundscape system, and the venue proved itself perfectly suitable for a thumping electro gig.

Soulful singer Kee'ahn then appeared with a guitar on the balcony in a halo of beams,

courtesy many of the new fixtures from Show Technology, demonstrating that more intimate singer/songwriter gigs are also at home in the Hall. To top it all off, the Hall went into full 'tech mode' for a video and audio playback piece with a banging instrumental electro track from Pat Carroll. Here, the house techs showed exactly what their lights, PA, and video could do, with all guns blazing in full EDM festival mode.

After the smoke cleared, Australian musical royalty Myf Warhust emerged to thank everyone for coming, and invited us tour the backstage and function rooms, enjoy the hospitality, and have a chat to her at the bar about presenting shows at the venue.

I have never seen a venue shown off to this standard before. The PA is incredible, the lighting rig extensive and flexible, the staff on top of their game, and the Hall itself a delight to work in. I would be more than happy to mix anything in there.

I caught up with NAS's Shane Bailey and Dave Jacques after the demo; NAS supplied and commissioned the d&b Soundscape PA.

"The brief was that they wanted to broaden the range of what they can present in the Hall," says Dave Jacques, "and they needed



Mayor Clover Moore & AUSLAN interpreter



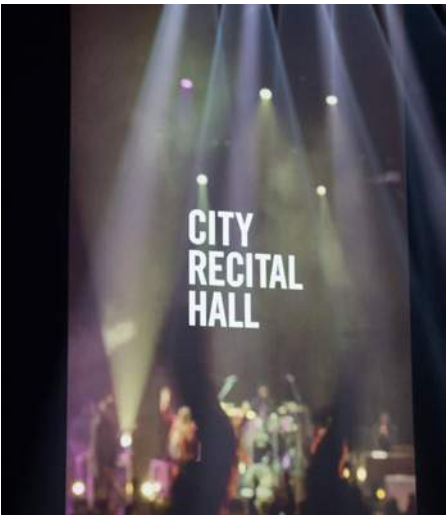
Vera Blue



Front of house

a sound system that would deliver that. It's a beautiful acoustic space, but amplified performances can often be a challenge. The d&b Soundscape system has come up very well, and the in-house techs operating it are doing a great job. And wasn't that a great showcase? There were a number of moments where the hair on my arms was standing on end and I thought, 'Yeah, this PA is really doing something'."

"We've all been to a lot of these kinds of demonstrations," adds Shane Bailey, "but there were moments in that one, especially during the choir, where I'll admit I had a bit of a tear in my eye. It was a great balance between the creative direction and vision, the delivery, and the emotion. It all came together, and every technical department did a fantastic job."



Myf Warhurst



Dave Jacques and Shane Bailey



Vera Blue

Trucks are FULL!

Locked & Loaded!



entech

SINGLE CITY AU EXHIBITS **on sale** until October

- * Exhibit in your city
- * Fly your flag
- * Shout your stripes
- * Present your brand
- * Be with your people
- * Join our commUNITY

NATIONAL TOUR STANDS

SOLD OUT

BRISBANE
Showground
Tues Oct 8

SYDNEY
Hordern Pavilion
Thur Oct 10

MELBOURNE
Showgrounds
Tues Oct 15

ADELAIDE
Showgrounds
Thur Oct 17

CLAREMONT
Showgrounds
Tues Oct 22

ENTECH Roadshow serves as a key networking event for professionals in the entertainment technology and AV industry. It provides a platform for attendees to connect with peers, suppliers, and industry leaders



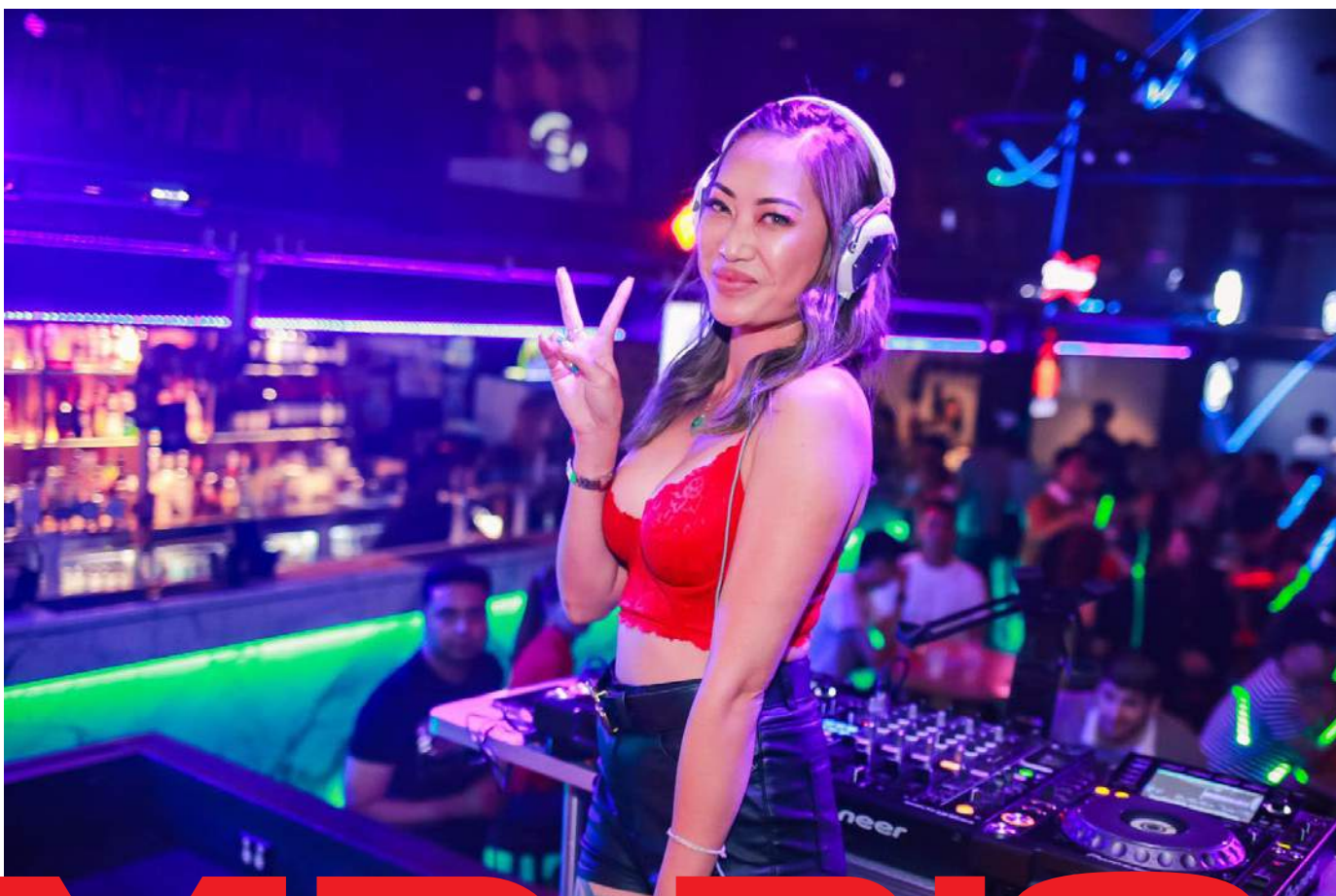
Chameleon is the all-day sponsor of the cafe and happy hour. If you eat it or drink it, it's from them!

30

ENTECH. 30 years bringing everyone together

www.entech-roadshow.com + Email exhibit@entech-roadshow.com

Call Kate 0418 359330 or Julius 0408 498180



MR B'S

SYDNEY

Running 'til 2 am Monday to Thursday, and til '3 am Friday and Saturday, Mr B's in Sydney's Haymarket is a go-to bar, restaurant and nightclub for the city's nightowls. With live music and DJs serving up tunes next to delicious Thai food for lunch and dinner at the ground and mezzanine levels, the venue also houses Bolt Nightclub downstairs, which parties late with a revolving roster of bands and DJs.

With the nighttime scene ever evolving, and a change of building ownership, Mr B's has found itself hosting more and more bands in its upstairs space, which the original sound system wasn't adequate for. Phil Rigger, whose company Monstereo has worked extensively designing and installing club systems in Sydney and surrounds, had been involved with the original PA installation, and was asked to inject new life into the venue.

"The original upstairs system was for Nightlife video playback and DJs," relates Phil. "It was not designed for the live bands that they now host most nights. We've got a great relationship with the guy that runs Mr B's, and when a wealthy investor bought the building and wanted to spend money to really make it work as an entertainment venue, we were really happy to get a builder in and really get to work."

And work they did. Ceilings were removed, cables cleaned up, new infrastructure installed, a new stage built, subs moved from flown to understage, and much more. Now Phil had to decide which new PA to install.

A New Axiom?

There are a lot of choices on the PA market, and Phil had become intrigued by Italian manufacturer Axiom Pro Audio and their AX800ANEO powered and processed line array elements. "I'd read a review of the AX800ANEO out of Europe," recalls Phil. "The reviewer really liked the way they sounded, and the fact they are a dual 8" that angle across each other. Instead of sitting parallel on a plane, the left woofer angles right, and the right angles to the left. Interestingly, you don't get a combing effect when you walk in between them. It's well thought out and well designed."

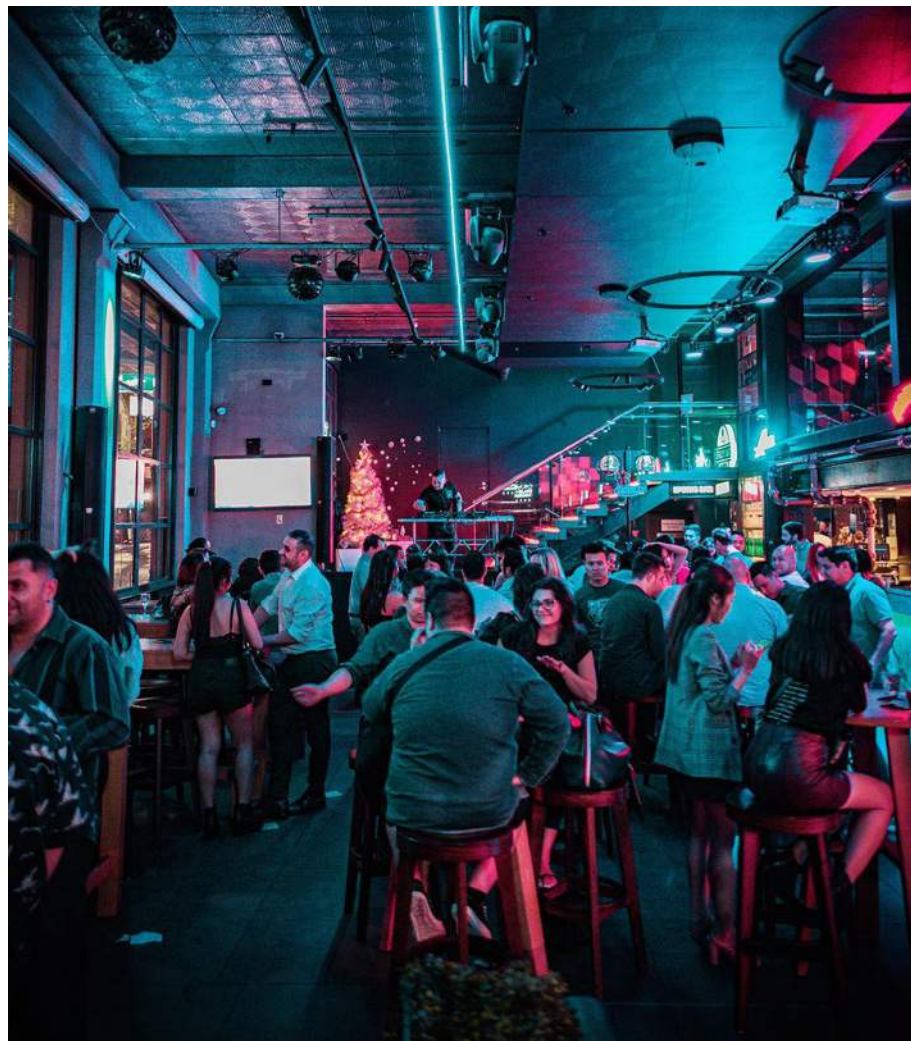
Intrigued, Phil wanted to hear them for himself, and asked Australian distributor AVECorp where he could hear some. "I rang AVECorp, and they flew me down to Melbourne to have a listen," says Phil. "The demo system I heard had four AX800ANEOs a side, with two of their matching SW1800AV2 subs on the floor. AVECorp's James Pavey and I had a chance to muck around for two or three hours on that,

and some competing brand's systems side-by-side. The thing I was really impressed with was the midrange. To me, it's warm"

Considering the performance of the AX800ANEO a point-of-difference for Mr B's, Phil decided to put them in the upstairs bar and bandroom first. He installed three per side, matched with two Axiom SW1800AV2 dual 18" subs built under the stage. "It's a long room with a mezzanine area, so it's double height," explains Phil. "The line source really helps throw the whole way at an even volume. Originally, I had a different system plan for the nightclub downstairs, but when I heard the performance of the AX800ANEOs upstairs, I know they would also work for the club. There's now two a side sitting above people's heads in the club with two LD Systems 18" subs, augmented by eight dual 12" subs built into the stage. There are 15" and 10" LD Systems delay speakers in the back of the room and it's sounding pretty punchy! It's 11,000 Watts downstairs and 11,500 Watts upstairs, and it's all sounding good!"

System Processing

Keeping all of Mr B's under control is Phil's processor of choice, an Allen & Heath AHM-64. "It's in the rack downstairs and runs all of the zones," outlines Phil. "The nightclub runs through the AHM-64 for protection and EQ, but I don't give them any control over it. I can control it with my laptop and dial in from anywhere. On the ground floor, I give them an app that controls all the levels for the ground floor bar, the kitchen, and the restaurant. Staff can choose different sources and adjust volumes, but they don't get any more control than that."



Lighting

It wouldn't be a bandroom and nightclub without lights, and Phil also got to design a solution for both rigs. "That turned out to be quite a bit of engineering," admits Phil. "Once we pulled the Gyprock out of the ceiling in the nightclub, we found aircon that actually ran the ground floor, and a whole lot of errant cabling and infrastructure. We had an electrician clean it all up. Because of the amount of moving head fixtures and such that I wanted, I had to build Unistrut supports across from the cable trays to the aircon. The rig ended up being about 45 lights and four lasers, run from a ChamSys QuickQ 20 console, which I've also installed on the ground floor."

The lighting fixtures are mostly from Chauvet DJ, and the lasers from Laserworld, both brands distributed by AVECorp. "The main issue with the nightclub was the height of the room; I couldn't put any big fixtures in," continues Phil. "I went with Chauvet DJ Intimidator Spot 206s. They're a compact moving head, but bigger than the Intimidator 110 or 160. We also installed Chauvet DJ Intimidator WAVE 360 IRCMulti moving head spots, which have four heads on a bar. Each head can move, as can the bar. There are four Laserworld 1000 milliwatt lasers; we didn't want anything too powerful down there because it could be a little too close for comfort! There are also a number of UV lights and LED bars as a strip effect down one side of the room. Everything is pixel controlled via Resolume software."



I Know That Name...

While Phil's company Monstereo is known for sound system design, lighting, and acoustic solutions for nightclubs, pubs, and schools, his recording studio Monstereo Music has operated for years, recording and producing major Australia acts. He might also be known to Sydney gig-goers of a certain vintage...

"I've been a lifelong muso," Phil muses. "I was a trumpet player for 38 years. I was in a band called Outline in the late 70s and early 80s as trumpet player and lead singer."

Drawing inspiration from punk, jazz, prog and musical iconoclasts like Frank Zappa, Outline's 1981 single 'The Cicada (That Ate Five Dock)' and its accompanying anarchic video, was a cult hit. It even appeared on Triple J's 'Hottest 100 of All Time' in 1989. "We used to pull big crowds," reminisces Phil. "We gigged for six years, playing with the likes of Midnight Oil, Cold Chisel, and INXS. We ended up breaking up in 1983. I've had my own studio for years. I co-wrote 'Communication' with John Farnham, and have collaborated with Ian Moss and Tina Arena, among others."

Not resting on his laurels, Phil is continuing to be creative alongside his more prosaic installation business. "I finished recording and producing an album for someone else a few months ago, but currently I've been working on my own solo album. I've had a whole bunch of different people play on it; David Jones, a drummer from Melbourne, Ralph Martin on bass, Craig Calhoun on bass, and Carl Orr, the jazz fusion guitar player. I've written a book as well, to leave as a legacy for my son to get to know his father through the stories that I leave behind. It's called 'I Climbed Mount Drutt', which if you grew up in Western Sydney like I did, you'll get the joke!"



NEXO

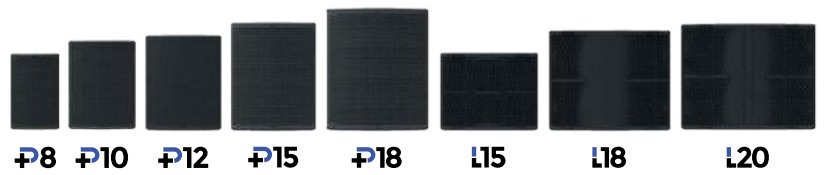
“The P15 is super powerful, with loads of low end.”



Bruce Johnston
(Oasis, Crowded House, Hoodoo Gurus, Divinyls, Midnight Oil)

+series

The P+ Series sets new performance standards for compact point source loudspeakers. A true synergy of performance and versatility, P+ delivers perfect phase alignment, exceptional clarity and a smooth response across the full frequency range.



Distributed by Group Technologies

T 03 9354 9133 E sales@grouptechnologies.com.au W grouptechnologies.com.au





FOHP Australia Is Under Control with d&b audiotechnik SL-Series

Melbourne's Front of House Productions (FOHP Australia) have literally built their house on d&b audiotechnik PA, with the founding of their company starting with the purchase of a V-Series line array after the series release in 2012. With their mission statement to deliver a "no-compromises, multidisciplinary AV solution", FOHP Australia are building on their d&b base by upgrading to d&b's SL-Series, adopting the KSL range into live production, and installing XSL into prominent venues including The Northcote Theatre.

"For live production, we now have 24 KSL line array elements, comprising 20 KSL8s and four KSL12s," says Jesse Mahoney, Head of Audio at FOHP Australia. "To go with them, we've got eight SL-SUBs, with another eight on the way. My game plan is to homogenise our whole inventory to SL-SUBs for big gigs and retain our existing inventory of V-SUBs for the smaller ones and stage-fills."

While clocking in as physically smaller than the 'flagship' GSL line array elements, KSL has hit a sweet spot of size to power ratio. "There's a lot of massive world tours at the moment that are running KSL," relates Jesse. "Taylor Swift's Eras is all KSL, and I've got quite a few friends that are touring at the moment with KSL systems that are only being upgraded to GSL when they hit stadiums. For arenas and the outdoor festival market, KSLs are right on the money."

In Control

In FOHP Australia's case, a lot of the time it's what the PA doesn't cover that is most important on the gig. "With the advent of the SL-Series and its native cardioid technology,

there's now no better directivity on the PA market," reports Jesse. "It's a great value proposition for our customers that we can put sound where it needs to be and keep it away from where it shouldn't be. A large part of our market is dance parties, and promoters are always trying to find a point of difference for their event, so they like to do gigs in interesting places that are not typical event spaces. We've got a long-standing relationship with a venue in St. Kilda called The Riviera Beach Club. It's a couple of hundred metres from residences, so there's some pretty serious noise abatement issues. Because of the pattern control of the d&b SL-Series ecosystem, we can put sound on their audience whilst predicting that we can keep it away from the residences with great confidence, which makes it a sustainable business proposition for the promoters."

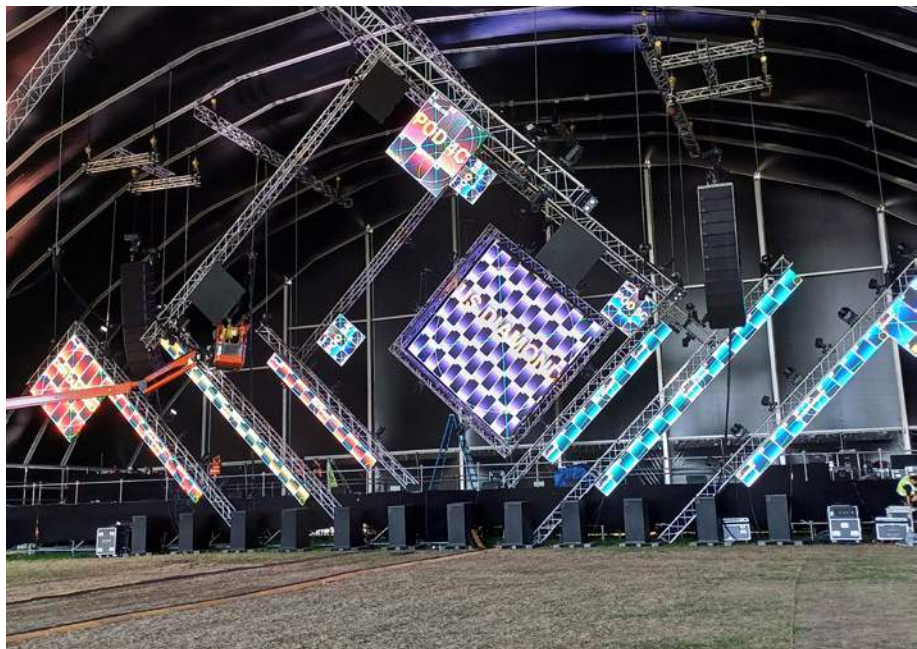
Sometimes it's not the neighbours, but more PA next door. "All of the multistage festivals held around Melbourne are concerned with bleed between stages," states Jesse. "d&b has been the go-to product for all of those events for years. And when we do festivals that are in acoustically challenging spaces like

tents, having cardioid top boxes really clears that up on stage too, making it easier for the performers to do their job."

The d&b System Tech Workflow

Jesse and the team utilise d&b's software and intelligent DSP ecosystem to make every day at work a lot easier. "We make a lot of use of the system check capabilities in the d&b amplifiers," offers Jesse. "You can run a self-check process after the load-in and then run it again at the end of your gig to see if there's been any drift or failures in your drivers. You can do tests via the software that will tell you if you've plugged in all the boxes correctly. If you're following the d&b process step by step, all of the guesswork is taken out of it."

d&b's supporting suite of software tools ensure the gig is under control, from conception to delivery. "You can predict performance beforehand with the ArrayCalc software, you can control it via the R1 software and verify your deployment, then you can use ArrayProcessing to make it sound the way that it is supposed to sound. As a system engineer,



Jesse Mahoney

it's amazing. You know in the first four bars of your soundcheck song if you've done it right or not."

d&b's unique ArrayProcessing capabilities have revolutionised voicing and coverage when using multiple sources. "ArrayProcessing gives each hang within a system a common voicing," explains Jesse. "You can have a main hang in an arena that is very flat with a little J curve at the bottom because it's throwing 120 metres. You might have side hangs next to that that are heavily curved because they need to point up to grandstand seating that is quite close. Before ArrayProcessing, those two very different physical deployments would require a bit of touching up to get them to blend in their overlapping coverage zones. ArrayProcessing applies an ideal voicing curve across every ArrayProcessed system, so you don't need to do any EQ and level optimisations between these different systems. It speeds up the workflow of our load-in and system optimisation process massively."

The Bottom Line

"There were three aspects to our decision to invest in SL-Series," says FOHP Australia's Director Paul Muller. "The first was the demand side; as a business owner, you're in the sales business, whether that's your job title or not. And it's invariably a lot more expensive, time consuming, and difficult to be trying to convince somebody to do something than for them to be calling you and saying, 'Hey, here's what I want'. My old boss once said; 'If you're explaining, you're losing', and we don't have to explain SL-Series to our customers at all."

"The second is workflow," continues Paul. "As an existing d&b house, the workflow being consistent from the smallest speaker all the way through to the largest line array means that that we only have to train people once. It also helps me have the confidence that I can find engineers in the market that have already done the d&b system training. At the moment, as we go through a period of patchy

technical skills availability, the last thing you want to hear is that you need a specific person doing a gig because only they can get the best sound out of a system. I don't want to have that 'Unicorn' person deploying PAs. I don't want to have to rely on them being in the country, not sick, able to travel, that their kids are okay, or whatever it might be. I want to know that whoever goes out there, they're going to be able to get the system to do what's required."

"The third would be that SL-Series has enabled us to confidently engage the 6,000 to 16,000 capacity space," concludes Paul. "I think it's recognized as a statement of intent and capability that we as a company continue to invest in the long term professional audio business. When people see KSL on our gear list, all the objections go away. It's at the nexus of our promise of world class people, processes, and infrastructure, which our customers seek. The SL-Series was the missing piece of that three-legged stool. The SL-Series was the last piece that says 'this is a no compromises audio outfit!'"

Jesse Mahoney agrees; "SL-Series has given us the tools to engage with on a level playing field, knowing that our sound quality is going to be as good as any company can deploy."

INTEGRATE

The 2024 Show Guide

Integrate 2024 runs 21 to 23 August at the ICC Sydney, Darling Harbour. If you're reading this show guide online or in print before the show, don't forget to register at integrate-expo.com and take advantage of the huge education programme and inspirational talks on offer.

If you're reading this physically at the show – hello! We're walking around distributing this magazine, and if you see us, say 'Hi!' Enjoy the show!

Amber Technology

Stands H26 and H24

Prepare to be amazed as Amber Technology showcases the future of unified communication at Integrate 2024. Visit Stand H26 to witness groundbreaking technologies that redefine collaboration and enhance communication experiences.

Step into our Unified Communication room to see a demonstration of the WolfVision CYNAP collaboration system seamlessly integrating with AVer multi-camera tracking technology and Yamaha ADECIA ceiling microphone and line array speaker solutions.

Also in our UC space is Newline Interactive screens, offering unparalleled interactive capabilities.

Experience the immersive soundscapes of HOLOPLOT, revolutionising audio experiences like never before. Prepare to learn about the special audio experience created by Amadeus Acoustics. Immerse yourself in crystal-clear soundscapes that elevate the atmosphere and engage the senses.

Delve into the realm of smart building solutions with ABB building automation and lighting control. Learn how these cutting-edge technologies optimise energy efficiency and create intelligent environments for enhanced comfort and productivity.

Experience the future of accessibility with Williams AURACAST hearing augmentation



technology. Discover how this innovative solution enhances auditory experiences for individuals with hearing impairments, ensuring inclusivity in every environment.

Join us at Stand H26 to explore these groundbreaking technologies and discover how they can transform your communication and collaboration experiences. Don't miss

this opportunity to witness the future of technology, exclusively at Integrate 2024.

For more information or to schedule a demonstration, contact us at info@ambertech.com.au. We look forward to welcoming you to Integrate 2024 and showcasing the endless possibilities of innovation with Amber Technology.

**STAND
H26**

INTEGRATE in association with **infocomm**
SEE US AT ICC SYDNEY 21-23 AUGUST 2024

**SEAMLESS VISION. PERFECT SOUND.
FUTURE TECHNOLOGY.**

Join us at **Stand H26** to explore groundbreaking technologies and discover how they can transform your communication and collaboration experiences. Witness the future of technology, exclusively at Integrate 2024.



Step into our **Unified Communication** rooms, to see demonstrations of

- **WolfVision CYNAP** collaboration system
- **AVer** multi-camera tracking technology
- **Yamaha ADECIA** ceiling microphone/line array speakers
- **Newline Interactive** screens
- **RTI** Intelligent meetings system
- **Xilica** Sonia and Solaro



ABB building automation and lighting control cutting-edge technologies optimise energy efficiency and create intelligent environments for enhanced comfort and productivity.

Experience the future of accessibility with **Williams AURACAST** hearing augmentation technology. Discover how this innovative solution enhances auditory experiences for individuals with hearing impairments, ensuring inclusivity in every environment.



Experience the immersive soundscapes of **HOLOPLOT**, revolutionising audio experiences like never before.

Immerse yourself in crystal-clear soundscapes that elevate the atmosphere and engage the senses.



OUR PARTICIPATING BRANDS

- | | | |
|---|-------------------------------|-----------------------------|
| ABB | AMADEUS ACMEACoustics | ASL |
| Australian Monitor | WyreStorm | BARIX |
| BLUESOUND PROFESSIONAL | CHIAYO | JTS |
| DIGITAL PROJECTION A Delta Associate Company | RCI | KASTA |
| Grandview | Roland Professional AV | LEA PROFESSIONAL |
| XILICA | YAMAHA | newline |
| RENKUS-HEINZ | zenitel | OCHNO |
| HOLOPLOT | AVer | SONANCE BEYOND SOUND |
| WILLIAMS AV | WOLFvision | IPORT |
| INTI AUDIO | NEUTRIK | sunco |

AUDIO BRANDS AUSTRALIA

Stand B22

Check out some of the many products and solutions from Audio Brands Australia on display this year.

Bosch DICENTIS Hybrid Meetings

Bosch Hybrid Meetings provides remote participants with the same experience as those in the conference room. Used in conjunction with a Bosch Dicentis Conference System, this complete end-to-end solution ticks all the boxes for highly efficient, legally compliant meetings with on-site and remote participants. It offers centrally controlled meetings over a straightforward, intuitive interface for the chairperson/meeting manager. Regardless of physical location, each participant is fully involved and enjoys the same speech priorities, voting rights and content sharing options.



Fohhn Audio PoE Speakers

We'll have a sneak-peek of the new Fohhn Audio PoE speaker range. On display will be the SL-20 and Scale 1, both of which support DANTE and AES67 direct to the speaker. PoE+ power provides 30W and both models include on-board DSP (EQ, delay and more). Like most Fohhn speakers, literally any colour (plus textures) is available.



Optimal Audio Pendant Speakers

Optimal Audio now offers a range of pendants based on their Up series of ceiling speakers. The sizes of the two pendants allow the Up 3", 4" and 6" models to be used as attractive and powerful pendant speakers. Available in black or white.

Also on display will be the new bezel-less grille option for the Up Series of ceiling speakers. Available in black or white.



Earthworks Drum Mic Kits

We'll be showcasing the all-new drum mic line from Earthworks. New is the Gen2 series of the popular DM20 and associated DK7 drum mic kit. Also on display will be the brand new DM17, a low-cost snare and tom mic along with the new DK6 drum mic kit.



Alfatron DANTE Adaptors

Alfatron DANTE adaptors are designed to easily and cost-effectively connect analogue audio (or USB) to or from a DANTE network. Supporting DANTE and AES67, the three models include:

ALF-DAI-2XLR

Two channel DANTE input device. Converts two line-level (XLR-F) analogue channels to DANTE.

ALF-DAO-2XLR

Two channel DANTE output device. Converts DANTE to two line-level (XLR-M) analogue outputs.

ALF-DAIO-USB

DANTE 2x2 channel USB device. Allows you to connect a computer to a DANTE network for playback or recording.



System Controller & Power Amplifiers

- Unique, precise, 96kHz digital signal processing
- Accepts 48kHz and 96kHz FIR files via System Engineer
- Analogue, AES3 and optional Dante/AES67
- Powerful grouping & multi-layer EQ
- Amplifier models from 400W to 5000W per channel
- Over-designed switch mode power supplies
- Manufactured in the UK

Advanced System Controller

4-IN 8-OUT WITH OPTIONAL DANTE



Touring Amplifiers

4 & 8 CHANNELS WITH DSP & OPTIONAL DANTE



Installation Amplifiers

4 & 8 CHANNELS WITH DSP & OPTIONAL DANTE



Discover the Linea Research range at Audio Brands Australia
02 9659 7711 | sales@audiobrand.com.au | www.audiobrand.com.au



Event Communications Australia

Stand H61

Event Communications Australia are a specialised technology importer and distributor, supporting our dealers and partners with products and solutions for entertainment, broadcast and production industries. Priding ourselves in supporting practical, effective tools and solutions, assisting users to achieve the best outcomes for their services.



Green-Go Digital Intercom Systems

Green-Go communications intercom systems are a scalable IP based communications system, with extensive interface capability and versatility.

Used worldwide in a multitude of different applications, users have found the clarity and reliability of the system to be outstanding.

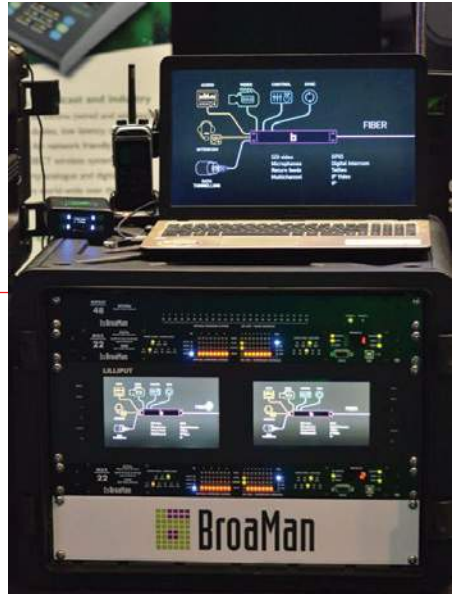
www.greengodigital.com

BroaMan

BroaMan Broadcast Manufacturer - fibre routing, media conversion and multiplexing

BroaMan is the company behind high quality products, made in Germany, that are designed for broadcasters as well as production companies, sport facilities, professional AV integrators and many more applications. The company offers customised solutions as well as standard "off the shelf" but configurable devices, for every application that requires SD/HD/3G video transport or routing - whether it's a large and complex system for broadcast studio or OB Van, or a simple point to point for a small church, conference hall, etc.

www.broadcastmanufacturer.com





Li.LAC UV-C disinfection

The Li.LAC MD-01 resembles a futuristic sandwich grill in a robust, road-ready 19" 3U rackmount unit. You simply place the microphones on the stainless steel grille, close the drawer, and press start. The Li.LAC can accommodate up to three handheld mics at a time and can also disinfect headsets and lapel mics. The Li.LAC is laboratory certified to kill 99.99% of viruses and bacteria.

www.lilac.works



EC Cases

Water resistant and impact resistant rack cases, trolley cases, and utility cases to protect your investment and make sure your kit arrives on the show, ready to go, without damage.

www.evcomaus.com.au



HOLLYVOX

Hollyvox

Introducing Hollyland's Hollyvox G51, full-duplex wireless intercom system with advanced dual-mic Environmental Noise Cancellation (ENC) technology. It's the ideal choice for small- and medium-scale events such as stage performances and sports events, enabling seamless team coordination.

www.hollyvox.com

MAKE THE
CONNECTION



HOLLYVOX



INTEGRATE

SEE US AT STAND H61



info@evcomaus.com.au
evcomaus.com.au



JANDS

Stands E7 and C16

Experience the Future of Audiovisual Technology at Integrate 2024 with Jands

Established in 1970, Jands has been a leading distributor of world-class audio, video, lighting, control, and broadcasting technologies in Australia and New Zealand, delivering premium products and innovative solutions tailored to individual customer needs and budgets.

At Integrate 2024, Jands will represent renowned brands such as Shure, L-Acoustics, Electro-Voice, Dynacord, Blustream, Ampetronic, Clear-Com, ETC, Robe/Anolis, Blaze Audio, Listen Technologies, Concierge, RF Venue, RGBlink, and Furman.

Visitors can explore their cutting-edge products, receive expert guidance, and attend exclusive sessions on various topics in the dedicated Shure room within booth E7.

Join Jands at booths E7 and C16 to discover the latest solutions.

Shure

- MXW neXt2: all-in-one wireless microphone system with combined receiver, charger, and audio DSP, ideal for meeting, higher education, and presentation spaces.
- Nexadyne Vocal Microphones: featuring Revonic technology for state-of-the-art polar pattern consistency, unparalleled noise reduction, and best-in-class touring performance.
- MXA920 Ceiling Array Microphone: multi-zone Automatic Coverage technology captures speakers in up to eight areas, enhancing talker localisation for accurate camera tracking.
- MXA902 Integrated Conferencing Ceiling Array: combines microphone, loudspeaker, and DSP for AV conferencing in small to medium-sized spaces with single-zone Automatic Coverage technology.
- MXA901 Conferencing Ceiling Array Microphone: provides superb AV conferencing audio in a discreet 13.5-inch round size with Single-zone Automatic Coverage™ technology.



L-Acoustics

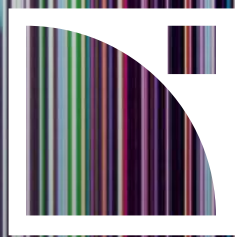
- Soka Colinear Source System: an elegantly designed solution for medium throw applications in high-end settings that allows concert-quality sound. It combines nine 3.5" neodymium LF speakers and three 1" neodymium HF compression drivers for ultra-wide coverage with exceptional sound quality.
- Xi Loudspeaker Series: including the X4i, X6i, and X8i, these loudspeakers offer powerful and discrete solutions for short throw installations. The Xi series features compact designs with broad bandwidth and shallow enclosures, making them ideal for venues like theatres, hospitality, and luxury settings. These models incorporate coaxial systems with transducers and compression drivers that deliver clear, studio-like sound. Adaptable presets allow for versatile performance, ensuring seamless integration with their elegant design and robust output.



Electro-Voice

- EVID Series: ideal for enhancing audio across cardio floors, weight training areas, and communal spaces, the EVID series delivers unmatched full-range sound coverage. With options for additional subwoofers and a variety of models, it ensures more consistent appearance across multi-model installations.
- Line Radiator Columns (LRC): passive column loudspeakers with three models – LRC-1060, LRC-1100, and LRC-2100. Featuring PaSS dispersion control technology, they provide carefully controlled vertical dispersion and smooth frequency response for environments requiring both audio quality and clean aesthetics.
- ZLX G2 Series: Electro-Voice's ZLX G2 Series of powered portable loudspeakers offers unmatched performance and versatility. Available in three sizes (8", 12", 15"), the series is perfect for any setting demanding superior sound with Bluetooth® wireless stereo streaming and QuickSmart Mobile app control.





L-ACOUSTICS

SOKA

INTEGRATE DISCREETLY

proudly distributed by



JANDS

jands.com.au

ETC

ColorSource Fixture Lighting Range: including the Fresnel V, Spot V, and Par Jr; these fixtures offer incredible output, stunning colours, and perfect dimming at an affordable price. The ColorSource Fresnel V and Spot V feature a five-colour array of red, green, blue, indigo, and lime, providing soft pastels and bold saturated colours. The ColorSource Par Jr uses a four-colour array of red, green, blue, and lime, delivering bright colour in a compact form factor.



Ampetronic and Listen Technologies

AURI: powered by Listen Technologies and Ampetronic, is the first installed assistive listening system utilising Auracast Bluetooth broadcast audio technology. Compatible with hearing aids, smartphones, and earbuds, AURI ensures accessibility for all users. It features high-quality multi-channel audio for open or secure transmission, multi-language support, and can be used with dedicated receivers or Auracast-compatible devices. AURI will be introduced to the Australian and New Zealand markets at Integrate 2024.



Visit Jands at Integrate 2024, booths E7 and C16, or explore their cutting-edge solutions at jands.com.au

SENNHEISER

Sennheiser will be showcasing the entire TeamConnect Family, an advanced conferencing portfolio suitable for spaces of all sizes, at this year's Integrate.

Stand B16

TeamConnect Bar Solutions

You'll be able to experience the newly launched TeamConnect (TC) Bar Solutions at Sennheiser's TC Solutions demo bar. With powerful built-in microphones, speakers, a 4K Ultra HD camera, and Dante integration, Sennheiser's TC Bar Solutions have options for small (TeamConnect Bar S) or mid-sized (TeamConnect Bar M) meeting and collaboration spaces. Both easily integrate with any meeting platform and can be further enhanced with other compatible products, including those from Sennheiser. The TeamConnect Bar Solutions are now available for order, providing the most feature-rich conferencing options in their class.



TeamConnect Ceiling Medium

The TeamConnect Ceiling Medium, known for its award-winning design and seamless sound, integrates effortlessly into any hybrid meeting or learning space. Its adaptive, intelligent beamforming technology ensures flawless audio, transforming any room into a hub of collaboration. Ideal for both corporate and educational settings, the TeamConnect Ceiling Medium offers versatile installation options and single-cable integration, enhancing any environment with top-tier sound quality.


Tech Talk

Daniel Rowe, Business Development Manager at Sennheiser ANZ, will join a Tech Talk panel session on Wednesday 21 August at 4 pm to discuss future trends in campus collaboration, and how to equip educators and administrators with tools to operate in and interact with changing AV environments more effectively.



Visitors will also be able to experience the newly updated MobileConnect WiFi streaming platform which enables higher education AV teams to better engage hybrid students with hearing loss to use their own mobile device to effectively listen and engage with a lecture, thanks to the addition of the Audience Mic functionality. Other solutions for corporate and education environments on display include the new EW-DX wireless system, SpeechLine Digital Wireless, Control Cockpit and the Sennheiser Room Planner.






Learn More

TEAMCONNECT CEILING MEDIUM

Award Winning Design. Seamless Sound. Infinite Possibilities.

TeamConnect Ceiling Medium's sleek and unobtrusive design blends seamlessly into any hybrid meeting or learning environment. Installed into some of the world's leading education and corporate spaces, TeamConnect Ceiling Medium can both blend in, or be a focal point.

sennheiser.com/TCCM



SENNHEISER

Stand H6

Lightware, the industry leader in Pro AV USB system management technology will be releasing even more class leading Lightware engineered solutions at Integrate 2024.



Lightware TPN 10 Gig AVoIP System

The TPN 10 Gig AVoIP range incorporates a range of high performance transmitters and receivers which includes UCX Taurus enhanced TPN models for broad systems integration and integrated UC systems management. Lightware TPN delivers ultra fast switching and no compromise HDMI, Control and USB signal transport and routing capability. The TPN model options include UCX Transmitters just like the UCX-TPX range plus TPN-SR Scaling Receiver models for source accurate signal delivery and seamless zero latency switching.

The multi award winning Lightware Taurus UCX range has expanded quickly over the past 12 months to deliver a more extensive range of stand-alone UC Room Management systems that can now be specified as two piece extended TPX system versions or as a fully networkable Pro AV UC system in TPN form.



Lightware GVN Gemini AVoIP System

Lightware's all new 1Gig 4K 4:4:4 AVoIP system provides ultra fast 4K zero frame latency switching and integrated USB transport support. At release Lightware will have three core GVN models with the GVN-HDMI-TX210AP PoE Encoder Transmitter, GVN-HDMI-RX110AP PoE Decoder Receiver and GVN-MMU-X100 GVN system controller. The GVN system Encoders and Decoders are highly efficient only requiring standard PoE PD (IEEE 802.3af) for operation.



Lightware UCX-4x3-HC40-BD - Bidirectional Dante Taurus

Lightware's Audio Powerhouse UCX-4x3-HC40-BD Taurus provides all the capabilities of the Taurus UCX range with the addition of 2X2 bidirectional Dante AES67 network audio and an integrated DSP. Finally you can provide a full featured mix of the session program plus near and far UC session audio to monitor, share and record with no compromise. With an onboard UCX DSP you can also easily integrate your BD UCX with Dante and AES67 enabled microphones and external DSPs.



Lightware UCX-3x3-TPX-RX20 Taurus UC Matrix Receiver

Lightware's new UCX 3x3 Matrix Switcher Receiver has a UCX TX TPX input for remote AV and USB connectivity up to 100 meter plus two local 4K HDMI inputs and USB 3.1 Gen1 host ports. The new 3x3 RX has the flexibility of three 4K HDMI outputs for multi screen, overflow, appliance ingest and monitoring applications. This new 3X3 RX is compatible with both UCX-TPX TX models being the UCX-2X1-TPX-TX20 and UCX-2X1-TPX-TX20 plus Lightware's HDMI-TPX TX and AU2K series products for broad system design and budget flexibility.



Lightware UCX-4x3-HCM40 - Extended Desktop Taurus

Lightware's new UCX-4x3-HCM40 Taurus provides all the capability of the UCX Taurus products you love with the addition of Extended Desktop multi screen capability from a single USB-C input. Taking your desktop experience from your office to your boardroom is now possible, plus 100W USB-C charging to keep you presenting all day. Shipping Q4 2024

The Lightware Team is looking forward to demonstrating the best of Lightware systems to you at Integrate 2024 on Stand H6, so please reach out to us today to schedule a Lightware booth tour via sales.anz@lightware.com



It's Time to Double Down on USB-C Connectivity

Lightware, the leading manufacturer of USB-C signal management solutions, will showcase its latest developments during this year's Integrate in Sydney



The Convergence of USB and AV-over-IP Introducing UC-over-IP

- USB Type-C and HDMI transmitter-receiver Configuration including Scaling option
- Same functionality as the UCX product range
- AV over IP ecosystem with SDVoE technology
- Single source to multiple destinations



UCX-2x1-TPN-TX20

HDMI-TPN
RX107AU2K-SR

COMING
SOON



The Ultimate USB-C Connectivity now with bidirectional Dante Audio

- UCX 2x1, 2x2, 4x2 & 4x3 models available
- Full Audio Crosspoint with audio de embedding with breakaway
- Host Switching to powered 4 Port USB 3.1 Hub
- Configurable Secure Networking including USB-C ethernet bridge
- DANTE/AES67 network Audio
- USB Audio Bridge with Mix/Minus DSP



UCX-4x3-HC40-BD

NEW
PRODUCT



Easy USB Extension up to 100 meters

- USB Type-C and HDMI transmitter-receiver Configuration with new 3x3 RX shipping soon
- Same functionality as the UCX product range
- SDVoE technology with Scaling Receiver Option
- Works in a point-to-point arrangement through 10G Ethernet networks up to 100m



TPX-4x3-TX20-RX107 Bundle

NEW
PRODUCT

Having problems with USB connectivity in your AV project?
We have a Taurus for that.

Come and see Lightware's UCX in action at Integrate 2024

INTEGRATE

Production Audio Video Technologies

For the connoisseurs of the amber hops bubbly, PAVT is back with its legendary craft beer. Networking is easier when you are holding a glass. The courteous PAVT staff can guide you through the maze of products to the G2 beerpoint hub, conveniently situated just inside Hall door 3. There are also products.



PAVT Craft Beer Gig

Televic

What does the United Nations and Dubbo City Council have in common? A Televic conferencing system. Any size, any scale, any level of AV technology, made simple. Cable or wireless, camera tracking, recording, translation, you name it Televic does it. The leader in conferencing technology and locally supported by PAVT technical support. Drop past G2 for a demo and speak to the Televic representative. Conference and meeting AV installations can be easier than you think.



EAW

New models, more helpful technology and extended range. This is the big comeback brand for 2024-5. Hear the Adaptive Technology AC6 demo and see why it is better than beam steering, especially for reverberant environments. Consonant intelligibility plus high output. Outstanding performance from a physically small system.

NTX210 Powered line array. Powered high tech line array system for medium to large venues. Fast to set up and easy to use.

MKC, a very compact installation or mobile co-axial system with unique design qualities. Best off axis response for a co-axial, making for a top of the market sounding low profile system.

QX Point Source stadium public address system. Big open outdoor spaces or put it inside for the world's loudest bar.





Symetrix in Control

Cross platform endpoints
that lift the standard

Symetrix xIO endpoints have a growing library of plug-ins enabling functionality across a wide range of control platforms and ancillary products. Upgrade any popular platform with Symetrix xIO - You will notice the difference.

The xIO Series sets a new standard for performance IO with Dante enabled high definition audio, industrial strength materials, cross platform AV control options and more.



xIO-XLR Dante studio quality pre-amps and sampling rates up to 96K

xIO USB Simplify USB Audio for Unified Communications and Large AVoIP Systems



xIO RCA and Bluetooth Stereo RCA and 3.5 analogue IO for the connection of user supplied devices

See you at
INTEGRATE
Stand G2

Contact PAVT and see how Symetrix Quality DSP can make your next installation a showpiece.



AU: sales@pavt.com.au or +61 3 9264 8000 | NZ: sales@pavt.co.nz or +64 21 410 050

www.pavt.com.au



Powersoft

Monitor and control your Powersoft amplifiers from anywhere with Verso Gateway. Verso is a compact half RU device that serves as the pivotal link between Powersoft amplifiers and the Powersoft MyUniverse Cloud platform. Manage with centralised remote firmware updates and the added convenience of easy amp Swap download to back up a replacement amplifier.



Introducing the all new Powersoft Unica Series, a compact, 1RU amplifier platform developed primarily for installed applications. The 4-channel version includes 9kW, 12kW, and 16kW and 8-channel version includes 2kW, 4kW, and 8kW total power models, making Unica one of the most power-dense solutions available.

Unica represents the next generation of cloud-based amplifier platforms featuring high power density, top-shelf sound quality, and class-leading efficiency.



Symetrix

Server D100: Big audio network control done better. The D100 is an enterprise-class rack component designed specifically for professional AVoIP installations with high node counts and for systems that require complex channel management. Too many features to list.

xIO Wall plates and endpoints with endless cross platform possibilities. The xIO XLR-Series sets a new standard for performance IO with pristine audio, industrial-strength materials, exceptional design, AV control options, and a complete line of models that reliably deliver sophisticated results.

AV Ops Center - Find out how the Symetrix AV-Ops Center remote monitoring and management services can work for you. Monitor and control your installations from anywhere. Find out how at Integrate Stand G2.



The P.A. People

Stand C30

The P.A. People will be showcasing a broad range of their recent venue engineering projects and technologies on Stand C30 at this year's Integrate show.

On display will be a new 250kg version of the Moveket ProStage+ D8+ range of chain hoists, complementing the existing 500kg and 1,000kg models. We will also be showing integrated load monitoring capabilities and other unique features of these hoists.

Also from MoveKet will be their I-Motion control system and our Maze Game, supported by four MoveKet variable speed C1 hoists, V-Motion powerpacks and an Expert control console – come and try your skill against the clock!

Taking centre stage will be an operational display featuring three models from the company's Theatrequip Reference Series wire rope hoists and battens, alongside

TheatreQuip lighting bars, drapery and track systems, and mechanical rigid chain actuators from Serapid.

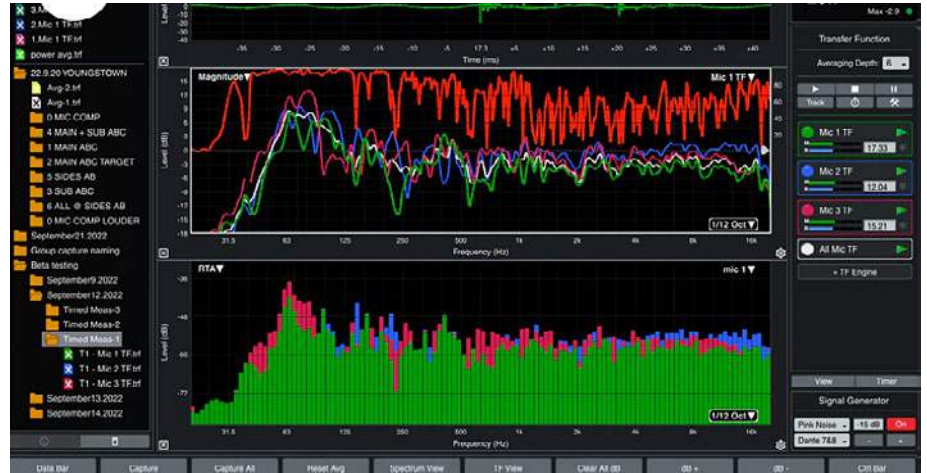
The stand will also feature images and videos of a number of our recent venue engineering projects. In addition to displaying a wide range of engineered solutions including an acoustic shell system, a tension wire grid floor, an orchestra lift, front loaded counterweight systems and a number of motorised hoists and rigging systems. The two track mounted moving LED screens will also provide a demonstration of media server integration with the Motion Control system using the Posi Stage Net protocol

www.papeople.com.au



Luminex Audio/ Video Network Intelligence

For the best in Audio/Video and Lighting digital network design and management. Luminex is a Belgium-based manufacturer of data distribution equipment for professional lighting, audio and video applications. Design and manage your network to any scale. Check out the Gigacore installation range of network management products. No show too big. All the protocols. Team it with Araneo software to map and manage an extensive network.



Rational Acoustics (SMART)

The last word on system measurement and tuning. SMART Data Modeler is a DSP modelling software tool designed to allow you to perform virtual audio system alignment and optimisation. This is done through the use of level, equalization, polarity, and timing adjustments and to view the effects of those adjustments on SMART measurement data.

SMART Data modeller is a cutting-edge software tool crafted to facilitate virtual alignment and enhancement of audio systems.

Demo the SMART Suite full-featured flagship program, including all three industry-standard measurement modes (Real Time, Impulse Response, and SPL), with no functional limitations. A good system diagnosis and optimisation relies on good data.

RDL Radio Design Labs

The ultimate installation toolbox. The RU-NMP44 is a network mixing processor containing six virtual audio mixers controlled by network commands. Based on the commands sent to the RU-NMP44, each mixer can be used as a mixer, a source selector, a priority paging inserter and/or as a volume control. The best small scale solution for small networks.



MOVEKET



PROstage+ Series Chain Hoists

Our lightest D8+ single-fall-hoist ever:

- 250kg, 500kg or 1000kg D8+ lifting capacity
- Weight ~16kg (250kg) / ~32kg (500kg) / ~62kg (1000kg) @ 18m
- Improved body with unique 'D-shaped' chain
- Low voltage 6 pin Weiland control
- 12m, 18m or 24m black chain and textile chain bag
- Stocked in Australia

ONE. STOP. SOLUTION.

venueengineering@papeople.com.au / papeople.com.au

TAG

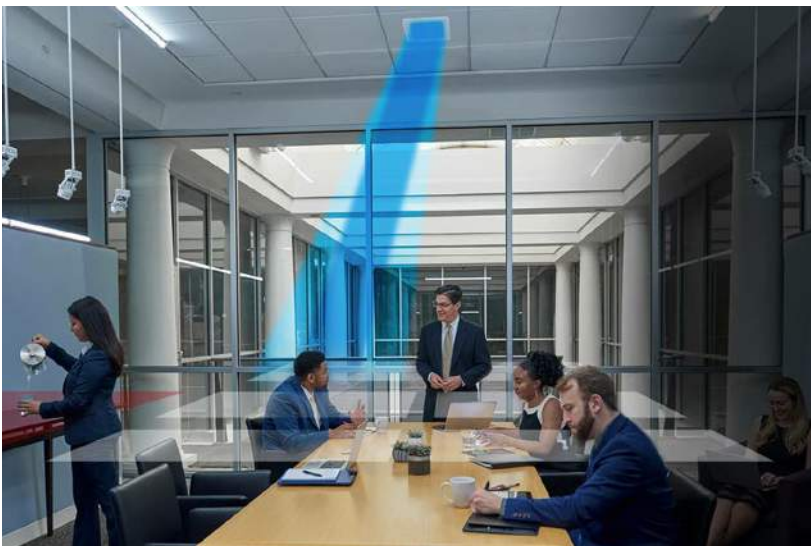
Stands B1, B4 and B9

We're only serving coffee at TAG. For all the excitement and leading-edge solutions check out Q-SYS, Allen & Heath, Audio-Technica, and Martin Audio. But for a best at show espresso, latte, piccolo or even a cup of tea, sit down with the TAG Team and put up your feet.



Allen & Heath

CQ range of mini digital mixers - **BOOM!**
 Avantis Solo - **BANG!!**
 dLive V2.0 UltraFX - **POW!!!**
 There's three hard hitting reasons to visit Allen & Heath. Oh, and if you need a fourth - how about a delicious coffee?



Audio-Technica

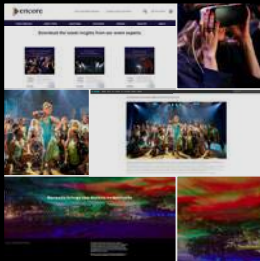
At Audio-Technica we are staying right out of the way! We're putting microphones in the ceiling and going seriously wireless. Nothing to see but plenty to hear – you'll be able to experience our entire range of networkable, wireless and array microphones in real time with live demonstrations taking place all day, every day. No matter the platform or plugin, there's a compatible and certified Audio-Technica solution available to meet all of your microphone needs.



Q-SYS

Q-SYS is a cloud-manageable audio, video and control platform built around a modern, standards-based IT architecture. We welcome you to presentations on Collaboration, Education and Intelligent Presenter Tracking applications. Come and experience everything new from Q-SYS.

Creative Services for the AV and Entertainment Technology Industries.



Specialist Content Creation



Integrated Print & Digital Media



Marketing & Business Development



Professional Event Services

VCS Creative understands your products and services because we've used them professionally. We are AV, sound, lighting, video, comms, and staging professionals working as content creators and AV and entertainment technology business specialists. You don't have to explain your products to us; we know how to sell them to your potential customers.

Martin Audio

Join us as we launch of our new touring models of FlexPoint Series for the first time in Australia, featuring patented coaxial driver technology with studio sound quality output.

FlexPoint features unique, flexible, and configurable models that allow deployment as FOH or monitor applications in both portrait and landscape orientations. Released in the standard 15, 12, 8 and 6-inch models - but the 4-inch is the star of the audio world and has been drawing crowds worldwide, with an output that must be heard to be believed.

Also on display is the TORUS, a game-changer in the industry. This is the definitive constant curvature array, designed for applications that typically require a throw between 15-30m (50-100ft); in situations where a full-blown line array is not always practical, optimal, or affordable, the TORUS shines.



tag | Technical Audio Group

Stands B1, B4 and B9

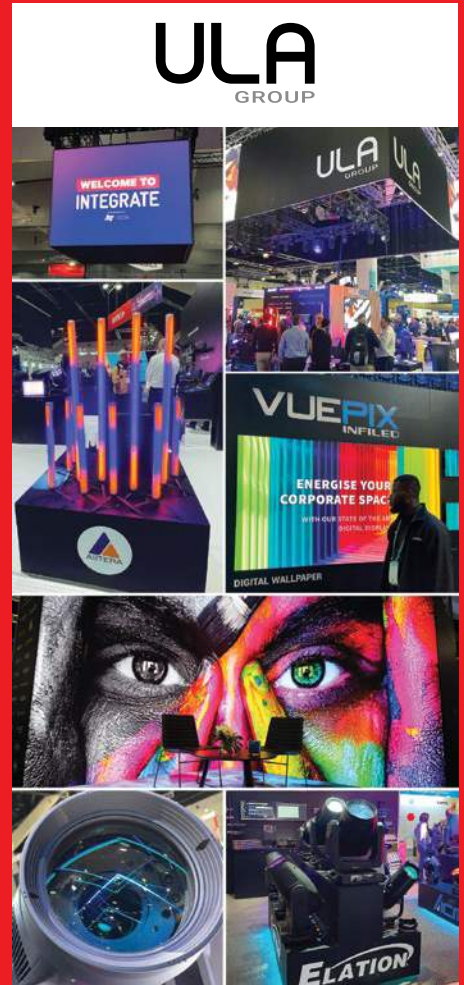
ULA GROUP

Stand F28

ULA Group will be bringing the most advanced visual technology from world-leading industry brands, showcasing the latest tech solutions available on the market and their seamless integration into several themed spaces across the stand.

New technology to explore on our stand:

- Immersive VuePix Infiled virtual studio environment, featuring curved screen
 - Latest commercial LED displays and signage technology from VuePix Infiled
 - Mission-critical video solutions by Haivision
 - Ultra-high-res Digital Wallpaper canvas
 - Award winning Brompton Tessera Gen 3 processing systems
 - The best-in-class intelligent lighting technology by Elation Lighting
 - Award-winning wireless technology for film and entertainment by Astera
 - Professional entertainment lighting control solutions by Obsidian
 - Professional entertainment lighting range by Acme Lighting
 - Leading edge lighting control solutions by ChamSys
 - Wireless lighting control solutions for professionals by LumenRadio
 - Latest trends in the field of architectural lighting by Given
- Plus live technology presentations and tech talks with our international guests. Come and explore our technology!



Proudly Representing World Leading Industry Brands



NAS

Stand B38



Founded in 1998, NAS (National Audio Systems) is a respected Australian distributor and wholesaler of world-class professional audio and visual brands across Australia and New Zealand.

Cloud

Renowned for ultimate reliability, Cloud offer multi-zone microphone paging systems, room source and control systems, distributed audio, multi-channel amplifiers and announcement systems.

d&b audiotechnik

NAS will be showcasing XSL and Soundscape and the latest electronics on offer from d&b, with NAS key technical team members available to chat and discuss with you!

PARAJEL AUDIO

Australia's most reliable and cost-effective portable PA and wireless microphone systems. For schools, churches, clubs, and all public address applications.

contacta

The UK-based company offers a range of technologies including 1-to-1 hearing loops, large area hearing loops, radio frequency (FM) systems, infrared systems (IR) and window intercoms.

inDESIGN

inDESIGN is a brand of Commercial Audio products designed by a team of dedicated industry professionals experienced in the design, installation and marketing of PA Solutions.

PLIANT TECHNOLOGIES

Professional wireless intercom systems for broadcast, live sound, theatre, theme parks, event management, maritime, industrial applications and more.

dBTechnologies

dBTechnologies' aim is to provide the audio professional, as well as musicians and sound designers, with products that combine high performance with world renowned Italian flair and design.

MediaMatrix

MediaMatrix gives audio system operators the tools to configure and reconfigure audio and control systems in the world's most demanding environments, whether from a computer, touch screen or a mobile device.

SOUNDTUBE

Whatever an application requires – open-ceiling, in-wall, surface-mount, in-ceiling or outdoor audio – SoundTube has a high-performance speaker to fit the bill.



HIGH PERFORMANCE LED SCREEN SYSTEMS

COMPREHENSIVE RANGE TO MEET YOUR SPECIFIC REQUIREMENTS

Live Production | Convention Centres | Film & Broadcast | xR Production | Corporate Events
 Sport & Stadiums | Event & Hospitality Venues | Theatre & Creative Arts | Worship

AUSTRALIAN OWNED - LOCAL TEAM OF EXPERTS - STRONG GLOBAL PRESENCE








AUS 1800 VUEPIX | NZ 09 218 6532 | info@vuepix.com | vuepix.com
INTEGRATE STAND #F28

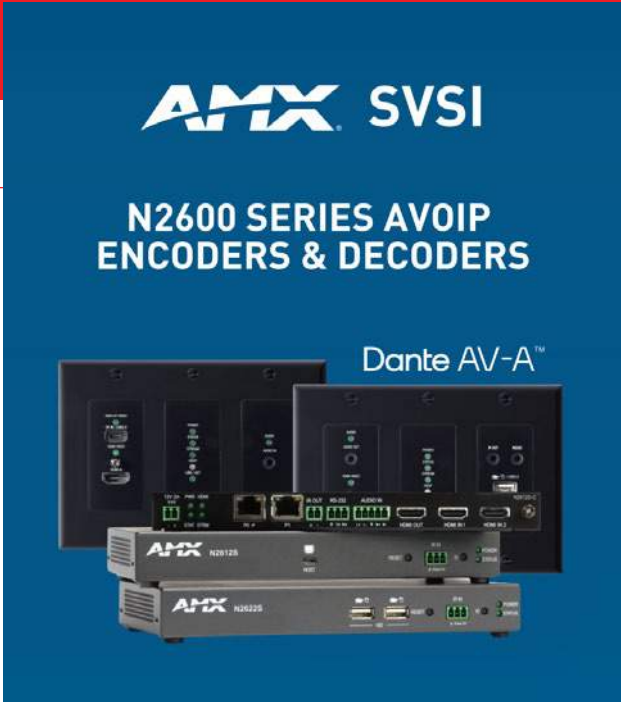
MadisonAV

Stand D18

What will you see on the MadisonAV Stand D18 at Integrate? Well, for starters there will be live hands-on demonstrations of many of their brands and technologies, and you can also book yourself to attend separate meeting room learning sessions.

AMX

Interactive demonstrations of the new AMX MUSE automation platform with its simultaneous multiple scripting languages and no-code, low-code capabilities. Plus, live demonstrations of N2600 Dante AV enabled AVOIP products and Varia persona-defined touch panels.



JBL Professional

Newly released Soundbar PSB2 as well as Slim Column Loudspeakers, expanded Garden Loudspeaker range, VTX A-Series line array and Venue Synthesis 3D Acoustic Modelling software program.



BSS

See the new generation in open architecture BSS Omni DSP, featuring the most powerful processor ever from BSS. The Soundweb OMNI family combines enterprise-grade processors, flexible I/O expanders, Dante/AES67 networked audio, an onboard scripting engine developed by AMX, and a vast library of processing objects.

Icron

The leading range of USB extension solutions now includes the Polaris 4x4 USB Matrix switcher.



AUDIOropa

Introducing the AUDIOropa Bettgear next generation Wi-Fi Assistive Listening Solution with Auracast.





Yealink

Discover the latest collaboration technology products including the Yealink SmartVision 40, CS10 and CM20.

Nureva

The Nureva range of audio-conferencing systems are certified for Microsoft Teams and Zoom. Experience their patented Microphone Mist technology.

Humly

Beautifully designed, intelligent suite of hardware and software products that book, manage and optimise meeting rooms, desks and other workspaces.

PTZOptics

See the latest PTZ cameras including the Move SE 1080p camera, Move 4K, and Link 4K (with Dante AV-H) Series, and the StudioPro content creation and livestreaming camera.

Philips

Philips Professional Display Solutions are being used throughout the stand, including high brightness, robust, e-Paper and interactive and video-wall digital signage panels.

The MadisonAV team will also be demonstrating the impressive suite of solutions from other leading brands including NETGEAR, Crown, SpinetiX, and Roadworx Soundmasking.

SET THE MOOD, SHAPE THE EMOTIONS.



LUNA BULB

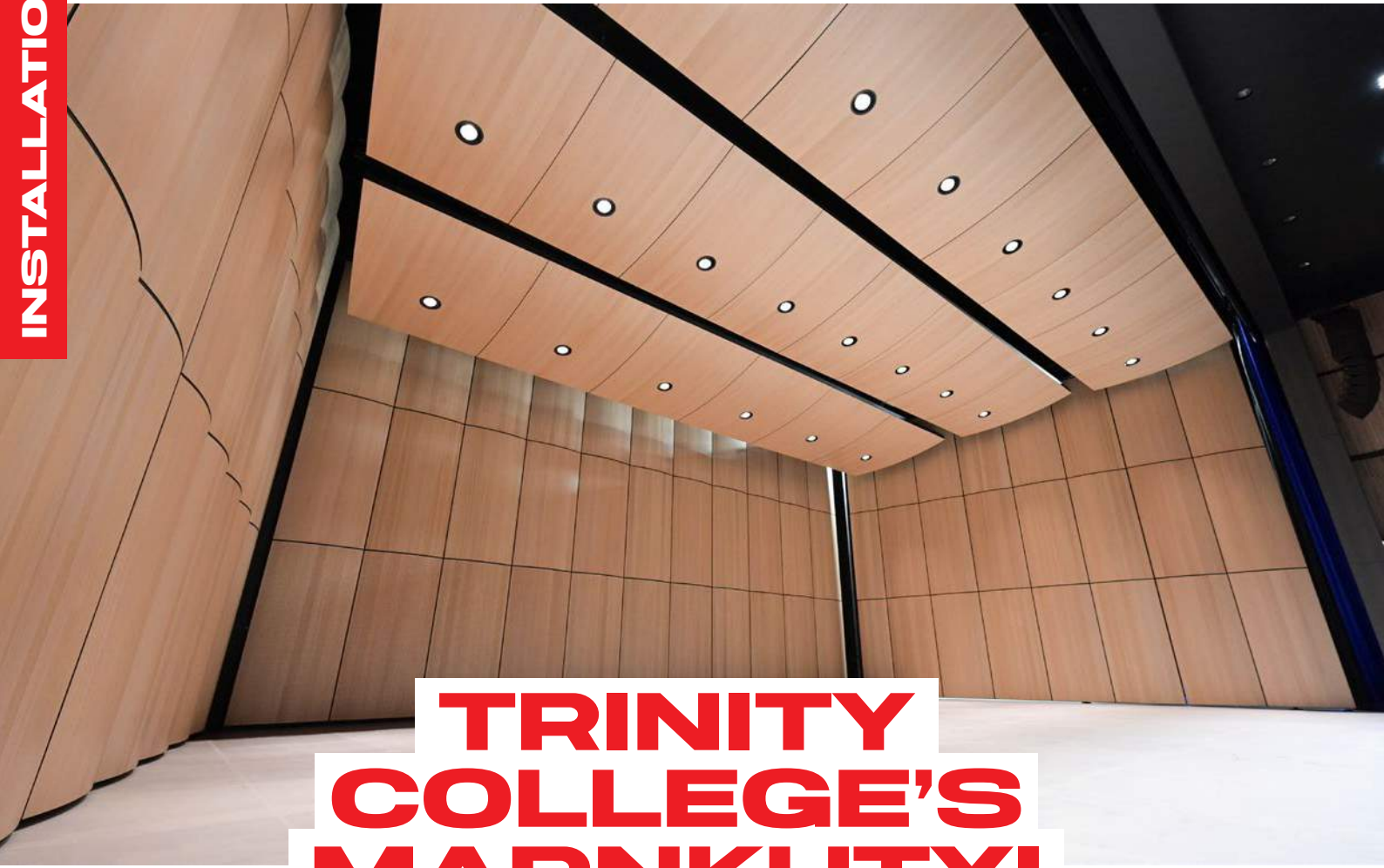


- Looks like a traditional bulb, works like a professional luminaire
- Designed to meet filmmaker's requirements for practicals on camera
- Equipped with the revolutionary Titan LED engine
- Wide colour temperature range, delivering perfect skin tones
- Built-in CRMX and Bluetooth, intuitive control via your smart device
- Smooth dimming, Flicker-free in-sync output regulation



ONE BULB - TWO SHAPES





TRINITY COLLEGE'S MARNKUTYI PARIRNA THEATRE



The new Marnkutyi Parirna theatre for South Australia's Trinity College in Gawler is an excellent example of how venue engineering can maximise the usage of facilities in the education sector.

Melbourne-based consultancy Schuler Shook were invited to design the new theatre with a view to providing the school with a dual-purpose performance space which could be quickly converted from a traditional drama theatre to a concert hall with adjustable acoustics.

The P.A. People were contracted to develop the detailed design, supply, and install all the staging equipment including the bespoke acoustic shell system, the motorised orchestra platform and the associated seating wagons, 18 line powered flying systems, lighting bars and battens, and a full set of theatrical drapery.

Acoustic Shell

A single performance space that can provide both a live acoustic environment for orchestral performances whilst also being a space suitable for theatre productions has been a design goal of Schuler Shook for many years. To provide a suitable acoustic environment for concerts, the Marnkutyi Parirna theatre

was equipped with a deployable acoustic shell system with four massive hinged doors, which when in position form the sides and the rear of an acoustic shell. These doors are complimented by three overhead acoustic reflectors which are lowered into position on 1,500kg Theatrequip drum hoists and then rotated to provide the ceiling of the acoustic shell. Each of the massive doors and flown panels are constructed with an integral steel frame and laminated with multiple sheets of high-grade plywood and veneer to match the acoustic density specified by the consultants.

The entire conversion process from music venue to theatre can be undertaken by two people in less than 15 minutes.

Orchestra Platform

Part of the Schuler Shook design requirements for this project was an orchestra pit equipped with a motorised platform. The platform provided by The P.A. People features six Serapid actuators and allows the operator to create a thrust stage level with the fixed raised stage, an auditorium level with roll-on and roll-off seating risers, an orchestra pit level below the auditorium floor to create an orchestra pit, and a lower level to that facilitates the storage of the seating wagons.

Flying System

The stage area is equipped with 18 motorised fly lines to support the overhead acoustic reflectors, lighting bars, borders and scenery elements. Comprising three models selected from the TheatreQuip Reference Series of hoists, the rigging system was optimised for each flown element, with each hoist selected based on the speed, drift and load for that element.

Drapery

The fit out is complimented with a set of wool masking drapes and a stunning blue front of house motorised bi-parting drape. In order to work with the acoustic shell, the legs and borders are all tracked or flown out of their normal theatre mode locations to allow for deployment.

Overall, thanks to the vision of the team at Schuler Shook and the attention to detail, design, and execution by The P.A. People's Venue Engineering team, Trinity Grammar can now boast an exceptional multipurpose venue that will provide significant educational benefits for many years to come.

papeople.com.au





Teller Banks on Quest Engineering & NST Audio

Originally home to the State Bank of Victoria, Teller in Melbourne's Brunswick East is a thriving contemporary pub and hospitality venue. A new Lygon Street favorite, Teller is a multifaceted collection of spaces designed to accommodate an extended range of functions and events. With its namesake a nod to the legacy of the venue's past, Teller sets the bar high on every front, with audio no exception.

As part of the venue's development process, owner Melanie Aldred engaged pro audio installation experts Factory Sound for integration of a system befitting of Teller's elevated standards. A spread of loudspeakers, subwoofers and amplifiers from Melbourne's own Quest Engineering were chosen for the setup, with zoned audio control provided by two VMX88 Audio Installation Processors from NST Audio.

"We placed a strong emphasis on sound quality and our requirements necessitated

speakers that could harmonise with Teller's look," explains Melanie. "The comprehensive knowledge from all parties involved, from the consultants at Group Technologies, to Jonathan and Phil from Factory Sound, really helped guide our decision-making process throughout the installation. The combination of expertise around the table has led us to a solution that is well-suited to our needs."

Specialising in compact loudspeakers built to deliver full-range audio, systems from Quest Engineering became the vital building blocks

of Teller's sonic capabilities. Solutions from Quest's install-centric MX Series, including both six- and eight-inch weatherproof loudspeakers, the MX601 and MX801 respectively, were selected, along with Quest's MX10S concealable 10-inch subwoofers. These systems were placed for maximum coverage throughout the venue, while Quest's MX6C, ceiling-mount variants of the MX601, were also used to extend coverage across the bathrooms and corridors.

With Quest's MX cabinets supplying background music and ambience, additional Quest systems from the manufacturer's HPI Series were used to fill the larger spaces with high-powered audio – ideal for increased volume during larger functions. Four HPI25 dual five-inch loudspeakers and two HPI12S compact sub-bass cabinets provided the additional energy needed.

Internationally recognised, Quest's Australian-made ecosystem is also a local favorite, as



Jonathan Sinclair, Factory Sound's Projects Department Manager, explains: "Factory Sound have been huge supporters of Quest Engineering since their inception over 20 years ago. The MX Series is often our first choice for budget-conscious installs, as these speakers are the best sounding solutions in their price range. Quest loudspeakers also have the additional advantage of multiple

mounting options, which is true across all their solutions. This is very useful, as sometimes an install will call for a U-bracket, a rigging point or sometimes a ceiling mount – each of those has their place across the installation landscape, and being able to know that our choice of speaker doesn't inhibit the way we can integrate them, and vice versa, helps our team meet any installation challenge."

Presented with Factory Sound's system design, Melanie found the suggestion to utilise solutions from Quest 'extremely appealing':

"I had previously used products from Quest at a prior venue, where the sound quality of the speakers made a lasting impression. That venue was also in the hospitality industry: a function space, for which the chosen system was well suited. However, for what we needed within Teller's multifaceted brief, I knew this system design would be on another level entirely. What we've achieved with Quest here is a whole different beast, there is so much more to it – but everything performs well and looks the part."

Offered in both black and white options for all models, solutions from Quest not only allow for highly flexible placement, but for seamless integration of aesthetics. True of all ranges across the brand, Jonathan notes that this gave Quest an edge during the installation process:

"Developed around the remains of an old bank, Teller includes a variety of architectural spaces, all with their own unique styles: they've used different décor in those spaces to further reinforce the different atmospheres. So, our team had to be very careful when choosing the right speakers – including the right colours – and placing them in the right way, as to not break the aesthetic. In the end, we found that the results added to the aesthetic; not every speaker brand and model can do that, but the Quest systems can. They're just really good-looking speakers."

Imbued with unique character through a variety of interior design choices, each area within Teller has been tailored to feel distinct. To align with these design choices, distinct zones of audio were a key component of the sound system requirements. Factory Sound installed two VMX88 Audio Installation Processors from NST Audio to create a multi-source zoned audio setup, as Jonathan explains:



"Teller is a multifaceted restaurant which includes both small and large function spaces, private dining spaces, formal dining, and more traditional open dining areas. To get these mixtures of spaces to work coherently from an audio coverage perspective, you need to have a multi-zoned setup, where you can adjust the volumes in each area separately and even potentially change the source that's been played in those zones from a variety of local sources. Being able to manage each zone independently, while maintaining excellent audio quality throughout, was a very important part of choosing the right processing unit for the project. The NST Audio VMX88 is well suited for this requirement, and makes life easy for the client, by offering easy-to-use remote-control panels like the VR1, which we also installed for Teller."

Featuring a fully routable mix matrix of eight-in and eight-out channels, the VMX88 is a Danté-enabled installation processor running on the latest generation of DSP technology. With powerful features available through NST Audio's D-Net control software, many audio processing tools and configurable actions are available. A set of VR1 wall panels were placed throughout Teller to provide essential remote control of the system, which Melanie praises as highly intuitive:

"It's as simple as coming in for the morning, switching on the system, and the music starts, as all the rooms are already routed on their own preset. When we have events, we're able to switch the source to a custom input,

allowing guests to have their own music selection. I would describe it as 'set and forget'. My team find it very easy, and the setup also possesses a lot of useful capabilities – for example, the limiters that allow us to remain in control of the levels and consider the neighbors."

Factory Sound chose solutions from Quest's new QX Series of amplifiers to power all loudspeakers throughout the venue. Three units of the compact QX4300 were used to feed the MX Series loudspeakers, while the heavier duty of powering the HPI Series went to a QX4750. While both models are equipped with an array of modern integration-oriented features, Jonathan says that ultimately it was the audio fidelity of the QX Series that drove their decision making:

"The QX range of four-channel amps were selected for the same reason we chose the NST Audio processors: their audio quality. When trying to maximise the overall sound

quality of a venue, you're only as good as your lowest point, and often it's the amplifiers that end up colouring the sound. We have an excellent 'start position' with the audio at Teller, so we wanted to make sure that nothing was going into the chain that would compromise the quality at any point."

With a high level of sonic definition achieved throughout the venue and all zones accessible through an intuitive remote-control platform, Teller stands out as a triumph of pro audio integration, with Melanie celebrating: "Overall, I'm extremely impressed. Since having the speakers installed, we've had a noticeable number of guests comment on the quality of sound that the system can deliver. Both the patrons and the staff agree that the system sounds fantastic. Group Technologies and Factory Sound went above and beyond when it came to the design and the roll out of this setup. Teller now has a fit-for-purpose solution that's easy to navigate and perfect for our needs."





ADVERTISE WITH US



CX Magazine

2,400 printed copies reach **6,000+ readers** every month.



CX News

Emailed to our database of **18,000+ recipients** every Wednesday.



CXnetwork.com.au

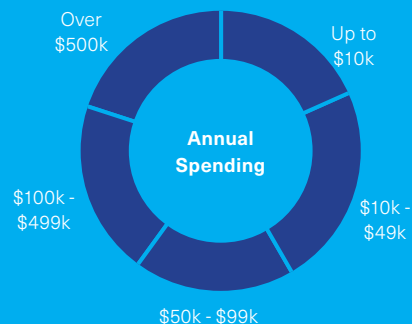
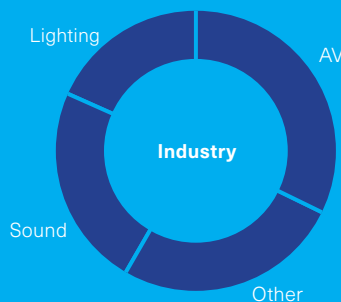
The website makes over **40,000 impressions** per month.



Social Media

Our social media generates **50,000+ impressions** monthly.

Your advertisement will have the best chance at succeeding with CX readers. Our audience are evenly spread across all areas of the industry and have varied annual spending habits.



Our audience are YOUR potential customers.

Talk to us today about a custom package to promote your business. Any budget, any platform - print, web, email and social.

Email jason@vcscreative.com or call 0407 735 920 for more information.

Lighting for Televised Live Events



by James L. Moody and Jeff Ravitz

Lighting for Televised Live Events – Making your live production look great for the eye and the camera, is a book on just that: lighting live events to a camera and to a live audience. The book dives into detail on the relevant concepts that can be found in the intersection between lighting and camera, such as colour temperature, dynamic range, angles, f-stops and contrast, just to name a few. The book is 156 pages long, is divided into four parts, with 21 chapters.

Who is the book for?

This book is for a lighting designer or operator who wants to learn how to light for camera. The way the industry is going, this will soon be a book for all lighting designers and operators.

Who might benefit from reading this book?

Anyone involved or invested in the relationship between a lighting designer and operator and a camera operator and director; a lighting person looking for a bit of an insight into what a camera operator or a camera director is looking for in order to get their shots. Conversely, a camera operator or director interested in learning about a few of the concepts and tools available to the

lighting team. A technical director who needs to balance the competing needs of a show looking good for camera and for a live audience.

Who is this book not for?

Anybody not involved in the relationship between camera and TV lighting. Basically, team audio and anybody involved in a field where cameras are not used.

What I liked about the book

My favourite chapter of the book was chapter 10 – Aesthetics: Style and Taste, closely followed by chapter 6: Colour and Colour Temperature. The book was written by two very knowledgeable authors. Personally, I really appreciated that they took the time to

go through some of the more basic camera concepts such as exposure and depth of field.

How I think the book could have been better

As mentioned above, my favourite chapter was chapter 10. The downside to this was that the chapter was only four pages long. I felt like the reader really could have gotten more out of the book had this been expanded upon. I get that good, televised lighting is very much a subjective thing and an art form, however I feel like there could have been a 'cheat sheet' of sorts at the back of the book for those after a quick reference. I think the photos in the book needed to be colour, not black and white, especially since a lot of the photos were discussing lighting angles.

Rating

Readability: 8/10

The book was very easy to read. Part of that could have been my interest in the topic. I got through the whole book in four sittings. The chapters were also short which made the content much easier to digest. The book was well written, to the point, and flowed quite easily despite talking about a rather technical subject.

Supporting materials: 5/10

There was not a whole lot in the way of supporting materials. There were a few diagrams that were helpful in explaining concepts. The photos in the book would have been much more useful if they were printed in colour, not black and white.

Relevance: 8/10

Very relevant. Cameras are popping up everywhere for live events, and have extended well past TV and dedicated camera shoots. We have IMAG at nearly all corporate events and we are even seeing festivals and theatre shows lit for camera. This book goes into all of this. I do like that the authors take the effort to cover the camera part as well as the lighting side.

Usefulness: 7/10

I found this book very useful. It would have scored higher if there was a reference, summary, and cheat sheet at the back for someone who has read the book and is putting it into practice. While it is a good book to read and learn something from, it is also a book you would refer back to. Definitely a book to have your own copy of.

Value for money: 10 /10

Lighting for camera is fast becoming commonplace in our industry. We are well on our way to a place where the knowledge in this book will be essential knowledge for any lighting designer or operator – core curriculum, if you will. To own a book, written by two experts, in a fast growing field, for under \$60, reads as excellent value in my books.

Total: 38/50: 4 stars

About the Authors

James L. Moody

James L. Moody was the Head of the Technical Theatre Program, Technical Director, and Lighting Designer for The Theatre Academy at Los Angeles City College (A Professional Conservatory Program). Considered one of the founders of concert lighting, he received the first Concert Lighting Designer of the Year award from Performance magazine in 1980.

Jeff Ravitz

Jeff Ravitz is a lighting designer, lecturer, and writer specialising in live entertainment and events being captured for television broadcast and streaming. He was awarded the Primetime Emmy for his lighting of Bruce Springsteen & the E Street Band: Live in New York City on HBO, and was previously nominated for Cher's Extravaganza: Live at the Mirage. He has also received 10 regional Emmys and four Telly Awards for television designs, and was named a Parnelli Lighting Designer of the Year.

YOUR GOLD COAST EVENT DECOR PARTNERS



07 5520 4648
www.eventsfantastic.com.au

OUR BRANDS:





WHY DO I (STILL) DO THIS?

Pat King – Smooth operator and frenetic sound engineer

He's very personable, is Pat. Though at age 63, time and health issues have taken a toll. "I'm not the soldier I used to be, that's for sure," he says from Seaford near the Mornington Peninsula in Victoria. He has a van PA and install business called 'King Production Services'.

Pat is the son of Irish Catholic immigrants and had red hair as a kid. "I got picked on a lot, got kicked out of school and was a bit naughty." In year 7 and six feet tall; "I punched out a couple of the school bullies, no trouble after that."

He was shipped off to boarding school at 15, "I think my parents wanted me away from the local louts, just about the best thing that ever happened to me. I became heavily involved with the school band, which I loved with a passion".

School lunchtime concerts, strangely common in the 1970s, where a school would hire a band for an appearance. The school band would relish the chance and the accompanying bucks. "I would help out with the band gear, strut around, talk to the girls, and take lots of photographs".

Local legends in his hometown of Devonport, Tasmania, Bush Turkey were about to set sail for another mainland tour and needed a sound guy. "It was the adventure of a lifetime for a 17 year old, setting up their PA and mixing the show, touring. I hired them my van as well and made the same in a night as my friends on the dole would make in a week." His enthusiasm in the telling is awesome.

Pat went on to work with well over 5,000 bands, I'm getting dizzy as he lists them, an

encyclopaedic memory of the legendary and the cul-de-sac of names from 1978 until now, many Aussie legends among them, the list is endless.

Today Pat's client list is mainly tribute bands. Ramble Tumble, Soul Chisel, Aussie DC, Whole Lotta Rosie, Brown Sugar, INXSive, No Exit, Reckless. He lists many more, and I get retro PTSD having mixed some of this sort of band in recent years. *(He's also mixed one of my solo shows – Ed.)*

"For a van PA gig, I get there around 2pm, way early to take the pressure off. A couple of great young fellas help with the setup and operate lights. The band finish around 11.30, hour and half to load out, and I'm home by 2am usually". The current situation has Pat doing venue walk-ins most nights, one or two van PA gigs a week.

The van is a trustworthy Hiace with GIGPIG plates. The PA is 8,000W with a MixWizard, analog rack, JBL subs, RCF mid/highs, "beautiful" 600W wedges and 30 odd LED lights. Nothing heavier than 20kg these days, remembering back when his Perreaux amp racks were 130kgs each.

So why the attraction?

"This is all I've ever done, and I just love it. I've had no other profession. Life is great now! I'm

getting lots of work and having fun". He does regular house mixes at Scotties Garage - five minutes north, plus other local venues. That introduces new bands, so he gets extra PA work.

Family is very important; he has four adult children and one granddaughter. "My youngest son Connor is about to qualify as an electrician, so I want to get back into AV install work. I landed some absolute whales in the past; I've always been good at talkin' the talk."

Pat's parallel pathway veered out of live work with Peter Trojkovik's Troy Sound Reinforcements, and into sales at Brashes/Allens, while he had a full-time crew handling logistics and often mixed shows after his day job. Live recording became a significant part of the business, including the very first Australian ADAT digital multitrack recording, a live CD for Dutch Tilders at the famous Station Hotel Praharn, the machines having only cleared customs two days prior.

Pat got very sick in 2017. "I had a failing liver for about 18 months, got up one morning and collapsed in the kitchen with blood all around me, then lapsed into a coma for a week. I had hepatitis, unknown to me, possibly from a blood transfusion when I had a serious motorbike accident in 1980. I did enjoy a drink, but I was still driving the truck home, so it wasn't all grog. My sister who is a non-drinker has liver issues, so I think it was partly genetic".

"After that I was sick all the time and had a liver transplant in August 2020. I spent almost a year in hospital. Lockdowns made it worse – I was in a room by myself, fully isolated and nearly went nuts. I transferred to a ward and that saved my sanity. A senior guy from Hills was in the next bed, so we could talk AV." That made all the difference!

"I went in at 98kg and came out at 62kg, hospital food wasn't much chop and I was virtually chained to the bed, nurses paranoid I was going to fall over. My diet now is a lot smaller. I eat like a snail and I still don't have much muscle strength, so I can't lift heavy stuff anymore".

"I'm just so glad to be back doing gigs and loving it! When you're told that you are going to die but you don't, it gives you a whole different perspective on life. I'm very much a people person. Most of the guys are great friends and I have fantastic band room conversations and I love to take the piss. I'm up on current events, history, and of course music, and there's often a lot more in people than you first see". That's what drives Pat; he loves a good chat.

But he's still out there on the gig circuit. "My brain and ears are good – everyone's happy with my work. My gigs aren't high stress anymore. I go in humbly as the lowly worm – everyone knew me in the 80s, that was my time. I was the man then, I'm just the old man now, but I'm totally okay with being a senior citizen, and it's a different world now".

The circle is joined. Pat mixes gigs. "My circle of new bands request me at venues". He's happy, he gets the job done, and his name is Pat King.



SCAN AND SUBSCRIBE

Love to get your news online?
Or just can't pass up a real-life,
glossy, printed magazine?

Whatever your preference, we have the
perfect subscription offer for you.

Simply scan the QR code here or visit
cxnetwork.com.au/cx-magazine-subscribe/
and subscribe to the industry's most relevant
and in-depth magazine - delivered straight to
your door or inbox!



DIGITAL ACCESS ONLY

- / Weekly CX News
email on
Wednesday
- / Subscribe to digital
web reader
- / Read on our site
- / Download in
PDF format

FREE

1 YEAR PRINT + DIGITAL

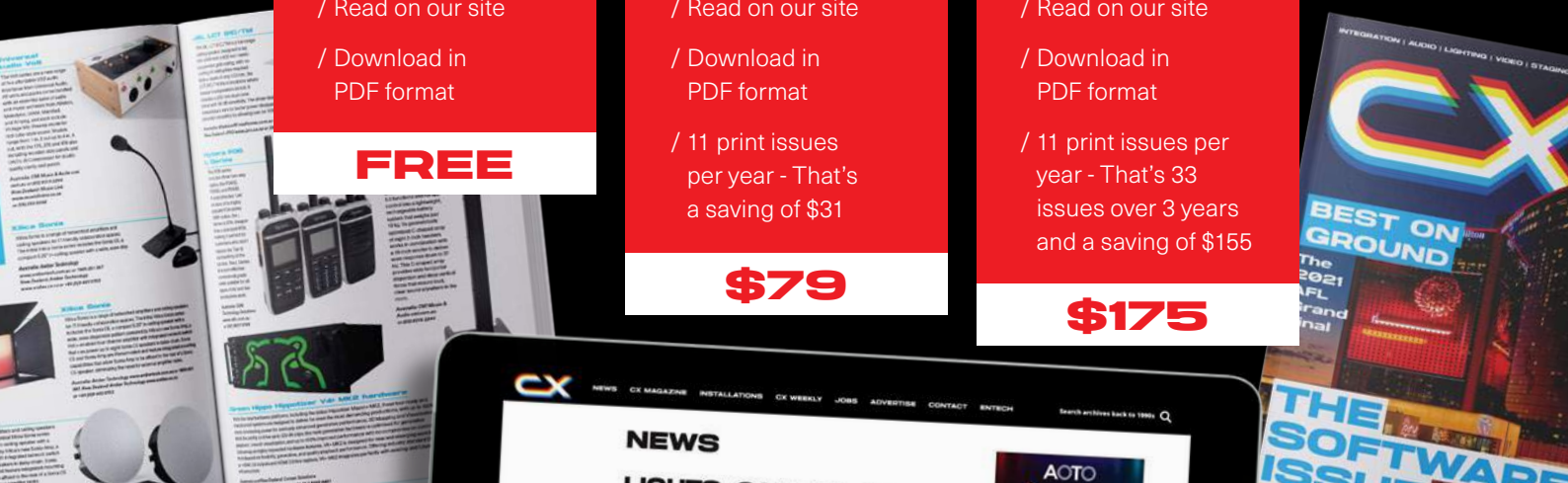
- / Weekly CX News
email on
Wednesday
- / Subscribe to digital
web reader
- / Read on our site
- / Download in
PDF format
- / 11 print issues
per year - That's
a saving of \$31

\$79

3 YEAR PRINT + DIGITAL

- / Weekly CX News
email on
Wednesday
- / Subscribe to digital
web reader
- / Read on our site
- / Download in
PDF format
- / 11 print issues per
year - That's 33
issues over 3 years
and a saving of \$155

\$175





We tech people are diverse by nature and background. But we are not worth as much on our own as we are together. Hence, every year, we assemble at Integrate to network, share ideas, and talk turkey. Sometimes, we even make the pretence of prodding products (that we already know all about because we did our online research before attending, no?).

Coming together every year has become a tradition for many in our industry. That is, if you (or your company) can afford the time and expense to attend. Is it worth it? Well, that's your call - it's pretty hard to quantify exactly what return you get from this investment in time and effort. Personally, I've always found the networking alone to be worthy, but did I ever ink a sale on the show floor? Once, yes, I got an in on a freelance job. Unfortunately, this was just before the whole world shuttered up, so that alliance didn't last long. Otherwise, most of the benefits have panned out longer term, through building on established connections and making new relationships with previous, current and future workmates.

Keynote speakers and tech talks are often worth attending. Check out the schedule - if you see more than one or two of interest, the ticket price will provide good value. Getting your company to pay for these might be tricky. Again, they will be deciding on the ROI. If they say no, yet you choose to invest your own hard-earned, so be it. Much of this can already be gleaned online but rarely as concise. Further, Q&A sessions let you drill into any details that may not be immediately clear elsewhere.

Amalgamation with Security Expo offers a wealth of opportunities to check out a closely aligned industry and companies. Who knows what prospects await you there? More than once, I've wandered into trade shows other than the one I was directly attending and found products, companies and contacts that I would not have otherwise known about. Be curious and open to possibilities.

Yet again, my broken body forbids my attendance in person. But my heart and mind will be there with you, gawking at all the cool electronica, hanging with old colleagues and friends, integrating products with people.

Like most of the last 6-7 years, I will instead be working from home, sitting at the keyboard in my study, which becomes my office when I have income to produce. I have become proficient at delineating (in my own head) when I am working and when I am not. However,

this demarcation is not so easily obvious to anyone else. I also use the study for relaxation and recreation. I know when I am watching YouTube, reading the news or playing games, but this is not so apparent to others, who may assume that is all I do in there.

It has already taken several years to educate my partner Dana about the nature of WFH. She understands it as an abstract concept but the reality of a home environment morphing with a corporate office has been fraught in its implementation. Like in many homes, pandemic lockdowns provided a few flashpoints between us, trying to get the balance right. I'm ok with 100dB EDM pulsing through the house - just not when I am trying to concentrate on writing, editing or interviewing. Noise cancelling headphones only block out so much. Even with acoustic insulation in the study walls.

We had finally found an acceptance of each other's needs around this but recently have another spanner in the works. Having lost both our fathers to the ravages of time and disease, our mothers now represent the last link to that generation. Mine has lived alone for decades and is most comfortable that way but until the unfortunate demise of Dana's father, her mother Rae has only known 60 years of married life in a suburban house.

Over the last year or two, it had become obvious that her solo widowhood was becoming unsustainable. The old dear was missing (crucial, medical) appointments, forgetting to eat and becoming a worry for her kids, who are now spread far and wide. Several family conferences came up with the idea that we could forestall any nursing home plans by doing a tour of the children's homes. We are all comfortably established where we are, but the physical distances are great. Brunswick is closest to the family home of Glen Waverley but the rest of them are spread between Gippsland, Strathbogie Ranges and Dunedin, NZ. None very easy for day visits.

We are the first stop on this tour de Ma. The 'kids' (now between 50 and 60 years of age!) all pitched in to help convert Dana's study into a comfortable home within a home for Rae. Dana moved her own office and (considerable) sewing setup into our bedroom. Fortunately, it is a space large enough to accommodate

multiple uses. The house itself can also easily fit many people physically. But it is the day-to-day integration that has proven most challenging. So far, there have been more than a few moments of frustration and a lot of miscommunications, mostly compounded by unused or misplaced hearing aids. Here is one case where proper device integration would be a godsend!

There are also cultural conflicts. We have all become creatures of habit and having those routines disrupted is awkward at best.

We've experienced - scrapping for the last banana ... letting each other know where we are at for the day ... organising eating and cleaning patterns ... working out how much perfume is too much ... adapting to the limitations of an off-grid existence ... being located 30 minutes' drive to the closest country town (that completely shuts up shop at 12.30pm on weekends) ... foregoing takeaway

meals ... dinner at the table instead of in front of the TV - all challenges for a new dynamic.

I was not prepared for how difficult it has been to put this move into daily operation. We've long known that Rae is a bit of a nutter, but living with that day in day out has taken a new level of persistence. Even more so as her grasp on reality becomes more tenuous.

I said yes to all of this because I know that it is the right thing to do. One of my greatest fears is being stuck in the banalities and mundanities of nursing home life and I do not wish to inflict this on anyone else, particularly family. But that has not made the diurnal realities of this new arrangement any easier to contend with.

While you are wearing out your shoes at the annual bazaar, I will continue the trial of integrating an 84-year-old mother-in-law into my once cloistered home. More than ever, I truly wish I were there with you all this year...

"We are the first stop on this tour de Ma. The 'kids' (now between 50 and 60 years of age!) all pitched in to help convert Dana's study into a comfortable home within a home for Rae."





ShowPro Raytheon FC IP65

The Specs

Lamp source: 144 10W RGBW LED

Beam angle: 30°

Voltage: 100 – 240VAC 50/60Hz

Max power: 1100W

Power connection: powerCON TRUE in/out

Signal connection: 3 and 5 pin DMX in/out,
1 x RJ45

Dimmer: 0 – 100% 16-bit

Size: 585mm x 189mm x 308mm

Weight 13.5kg

The ShowPro Raytheon FC IP65 is a very a high-powered RGBW LED driven strobe, with a maximum output of up to 1100W. It's a well built, hardy, robust fixture. With 12 controllable sections, six DMX modes and compatibility with Art-Net and RDM, the Raytheon FC is a bright and powerful strobe suited for use in any situation. Effectively, the Raytheon has been brought in as a replacement to the Collider FC LED strobe, for those who know.

Construction

As it's an IP65 fixture, it looks and feels like a brick. I don't think it was designed to be the prettiest looking light, and that's OK – function over fashion does the trick. If this thing was to fall from height onto a stage you would likely find more damage to the stage than to the light itself. It weighs a solid 13.5kg and it is made from die cast aluminium with a matte/flat black brushed finish. For a metal object, it does well when it comes to reflecting and absorbing other light on stage. With reasonably compact dimensions of 585mm x 189mm x 308mm, it is about the typical size for a strobe, maybe even a touch smaller.

The lens and face of the light is not that big compared to other strobes of a similar size, but the output is incredible. The size of the face of the light might matter to some who are using them as an eye-candy type fixture, but as far as a strobe doing what a strobe does, it really doesn't matter that much.

It is hung on a single clamp. Between that and the range of the yoke, it can be hung at

any orientation. With its IP rating and the fact that it is a simple strobe, there are no user serviceable parts inside. In fact, nothing moves except the yoke. This is a big plus when it comes to service and maintenance.

Optics, Colour, and Brightness

The Raytheon FC IP65 is very, very bright. You would not need many of these to adequately fill out a stage or blind an entire audience. It features 144 10W RGBW LED chips in an array running 24 x 6. It has a respectable beam angle too, at 30 degrees which gives you a wide throw for a strobe and good intensity. As is the case with most lights, and is especially true with the Raytheon, don't look at the light source – it's blindingly bright.

The Raytheon FC features additive colour mixing with a mix of four different coloured LED chips (those being red, blue, green and white). The unit is capable of mixing some very bright, saturated colours. A Warm White (WW) LED colour chip could have been handy to have instead of Normal White (W).

Applications and Features

It's a strobe light, first and foremost. Anywhere that asks for a strobe you could put the Raytheon, be that indoors or outdoors. It could handle an outdoor festival, a nightclub, or even a permanent install. Technically, you could use it as a flood light or to light a cyclorama or back drape because of its brightness, throw, and colour mixing. That said, for a light that is this bright, this powerful, and this specialised, it would likely be overkill to use it as anything but a strobe.

It features a halogen effect mode in which the colour temperature and dimming curve behaves like that of a halogen fixture. It can be run in a pixel mode with 12 individually programmable sections of 12 LEDs. This makes for some pretty cool eye-candy looks, especially when used en-masse. It is a neat feature to have that would probably be a bit more effective if there was a larger face on the unit.

Control and Programming

For what is essentially a static LED fixture, it sucks a lot of juice. Don't be fooled into thinking that it has a low power draw simply because it is LED. Beware: one by itself takes up nearly half a 240V 10 amp circuit.

It can be controlled using 3 pin or 5 pin DMX as well as ethernet RJ45. It has its own on-board control panel which is password protected (up down up down, like they all are...). It has 6 DMX modes/ personalities including 2 different pixel modes and a halogen mode.

The Halogen mode is great if you want to use the Raytheon FC as a crowd blinder, much like what one might have specc'd a Mole-Richardson style fixture for in the past.

Verdict

It is a great strobe, it is a true strobe, and it doesn't try to be anything else. It is very bright and very durable. I get that it is an LED fixture, but I am impressed with how cool it runs, relative to its output and power draw. I've seen much less powerful LED fixtures run a lot hotter straight out of the box.

The strobe itself is towards the top of the market as far as power and brightness is concerned. Any addition or extra would take it away from being a strobe and would add another feature that just adds costs or adds a point of failure, as could be evident in the case of adding a motorised pan and tilt. Inevitably, with the way technology is going, we will see a day a few years from now where we have a brighter LED strobe that uses less power. For today, the Raytheon FC is a great, durable strobe you could use in any setting.

Product Info:

www.showtech.com.au/product/raytheon-fc

Distributor Australia: www.showtech.com.au

Distributor New Zealand:

www.showtech.com.au/homenz/



Are you concerned about your mate's mental health?

FACT: Most Australian tech crew and roadies have attempted or considered suicide¹!

Support those around you and register for free mental health training



www.entertainmentassist.org.au

Supporting the mental health of Australian entertainment industry workers

¹Passion, Pride, Pitfalls Dec 2014

ALL OVER THE DIAL

Snippets from the archives of a bygone era



When Marilyn Monroe was asked if she had nothing on during her 1949 calendar shoot, she replied, “It’s not true that I had nothing on; I had the radio on.” That era from 1925 to 1950 was deemed the Golden Age of Radio in America. In Australia, commercial radio changed dramatically in the 1960s as rock ‘n’ roll and contemporary music evolved at breakneck speed, along with the madcap comedy of presenters such as 2SM’s Ian MacRae in the 1960s and 1970s, culminating in the hilarity of Triple M’s Doug Mulray in the 1980s and 1990s. This was the era when I was bitten by the radio bug, and, for me, these were the golden years of radio, unlike the modern era where all that glitters is not gold.

The great solo DJs from the 60s to the 90s have annoyingly morphed into teams of two and even three or more modern-day presenters, all laughing at their own boring talking points and unfunny insider jokes and presenting a repertoire of auto-tuned and frequently tuneless music, often accompanied by antiquated quiz shows and meaningless chit-chat. Of course, this is all sour grapes from someone who couldn’t get a start in commercial radio. But you’d have to have the bubonic plague not to get a start in community radio.

My entry into the world of community radio announcing was partially a tribute to those retro radio days, partially to satirise today’s radio, and partially to satirise a world gone mad. Radio is basically music, news, and talking points, and it’s hard to say which one is in the worst decline, but talking points must surely be the hot contender. Just recently, I suffered through a tedious and protracted radio monologue from a jock on a local commercial radio station whose prime talking point questioned why people didn’t say ‘please’ often enough. Riveting stuff! Another talking point that droned on painfully was, “Would you eat off a public barbecue?”

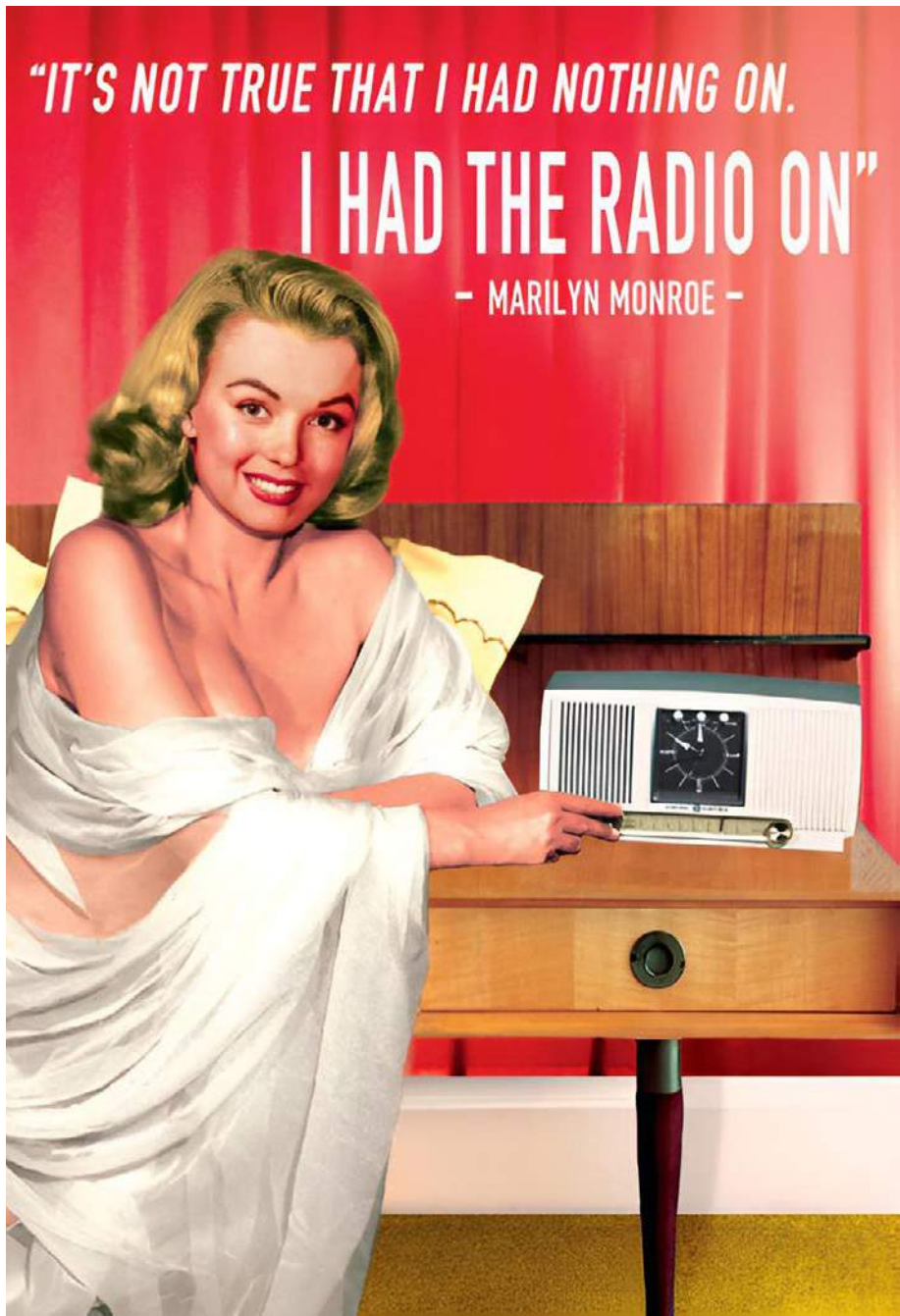
There was no audition or air-check required at the local community radio station when I applied in 2016 for a position as a radio presenter. After all, this was a station that still had one of its octogenarian DJs carting in a turntable and cases filled with vinyl LP records to play on-air, even though the practice had been phased out some 35 years earlier. I was warned to stay away from political comment and even political satire, which the station wrongly thought was banned under the ACMA Codes of Practice, Section 3.3. However, the last line in the long list of taboos in the code cites an exception for anything in the ‘legitimate context of a humorous, satirical, or dramatic work.’

My fellow announcer, Soundbyte Sal, was an AI-generated voiceover. Sal had even more boring talking points than her contemporaries and an even more annoying laugh. Sal would revel in things like a report about two chocoholics who hijacked a truckload of Mars Bars, and she’d always end with her annoying, repetitive, digitised laugh. I was generally regarded as a loose cannon at the station, and I was closely monitored.

Enforcing the station’s mistaken belief that political humour was banned, only a month

or so into the gig, a fellow broadcaster burst into my on-air studio to protest what was a very tepid quip I made about the then Prime Minister, Malcolm Turnbull. I was, at the time, poking fun at my own name, which I disliked as a child, thinking it not to be all that macho. This is something that Monty Python picked up on in *The Life of Brian*. I pointed out that the saving grace for disliking my own name was when I met a fellow kindergarten classmate who stuttered, and when he announced his name as Malcolm, it sounded like he was throwing up. I pointed out that, in spite of the fact that Malcolm was not too bright, we did become friends. I then added the falsehood, “I never dreamed he would become Prime Minister.” Alas, that spelled the demise of my first community radio spot.

After a hiatus of some five years and not having recovered from the radio bug’s bite, I joined Myall Coast Radio, where I was given the full support of the station manager and all of the staff, and there was no ban on comedy. But finding your voice on radio is not as easy as it sounds. As 5th century BC philosopher Socrates said, “Know thyself,” and since I got bored if I wasn’t clowning around on-air, I decided to continue in that vein.



All the presenters at Myall Coast Radio were given free rein to source their desired music genres; mine included contemporary and rock and pop songs from all eras, including the current era. Female artists such as Ariana Grande, Rihanna, Taylor Swift, and Katy Perry dominated the list of modern-day artists and also seemed to highlight the shortage of A-list male singers. My three-hour shifts, which contained about a dozen songs per hour, were intermingled with two or three comedy spoofs that were pre-recorded in my home studio using a DAW, which I also used for levelling the songs to -16 LUFS (loudness units full scale). The trick was to pretend that the recorded segments, mixed on my little Yamaha AG06, were actually live; so to match the sound of the station's Rode Procaster dynamic microphone, I dusted off my vintage AKG D330 BT dynamic microphone, which features bass and treble frequency contour switching.

The station used a RodeCaster Pro mixer, which Rode markets as a podcasting mixer, but it's also great for broadcasting. One feature that a lot of podcasting mixers leave out that Rode includes is the 'listen' or 'solo' button. This is essential for live broadcasting, as you can have an off-air rehearsal of what you're about to say live, or you can clear your throat, test your voice, et cetera. I used this button extensively. The RodeCaster Pro also has a record feature using an SD card; however, all radio stations by law have to record logs, so I just downloaded the logs of my shows to analyse what worked and what didn't work.

All the phone-ins for my ridiculous quiz shows and competitions were bogus voices created on my DAW by raising and lowering my voice pitch and using a phone filter. 'No Prizes for Guessing' incorporated a 'secret sound', which was always something blatantly obvious, like ice cubes falling into a glass or a beer can popping. Phone-in contestants would then offer senseless guesses like, "Is it a diesel locomotive?" When one of the phonies would eventually guess the secret sound and ask

((bssound))

BAND PA SYSTEMS, VOCAL PA SYSTEMS, LIGHTS

Pick up and do it yourself, or Delivered, Set up and Operated by experienced Crew.

Mark Barry; (03) 9889 1999 or 0419 993 966

www.bssound.com.au
mark@bssound.com.au

RentalPoint
SOFTWARE

Powerful web based software

GET THE LATEST INDUSTRY NEWS VIEWS AND JOBS TO YOUR INBOX EVERY WED

Register now at cxnetwork.com.au

for their prize, they would be reminded of the name of the game, 'No Prizes for Guessing.' There was also Masterquiz, which locked contestants into a single category like Australian Bushrangers or Popular Artists of the 50s, where contestants would all answer either Ned Kelly or Elvis Presley to every question. And, of course, I had my own boring talking points, where I'd call someone for a social or political comment and often end up getting Fidel Castro or even the Fuhrer himself on the line.

Late in 2023, the station manager of Myall Coast Radio had to severely scale back his commitment because of health problems, which left a bit of a vacuum. The studio also had to relocate further from my home because of rental problems. It was a time when I had a number of mounting family commitments to contend with, and when the other shoe finally dropped, I realised that preparing a comedy show for radio had become very draining. You have to be both fresh and topical when you are playing to virtually the same audiences for every broadcast, unlike a stand-up comic who moves from venue to venue and can rehash the same material over and over.

My last show was December 23, 2023. I wished my handful of listeners a Merry Christmas while informing them of the new viral threat to the world, MERS (Middle East respiratory syndrome), a virus linked to dromedary camels. I played the audio of a sick camel to my listeners, imploring them not to take their sick camels to Christmas parties, and I bid my last farewell.

I received two great accolades, which are treasured memories, from the station manager during my 16-month sojourn at the station. The first, only a month after I had started, was, "You're different." Some 12 months later, this was augmented to, "You're shocking!"



RodeCaster Pro II



AKG D 330 BT



Brian on-air at Myall Coast Radio 2023



aceta Accreditation

Rolling Out to Members in 2024

For most industry peak bodies, an accreditation program is their most valuable role, not only to benefit constituents, but to assist:

- Acquirers find suitable goods and service providers,
- Organisations seeking a compatible trading partner,
- Individuals looking for their ideal employer, and,
- Any situation where a productive relationship is sought.

For an industry, accreditation serves many purposes, and is a key component in elevating and maintaining standards, whilst in a broader sense is a productive tool in bringing an industry closer to all levels of government, their administrations, agencies and utilities.

Another optional ACETA Member Advantage

For more information, or to become a member, please visit aceta.org.au or email julie@aceta.org.au

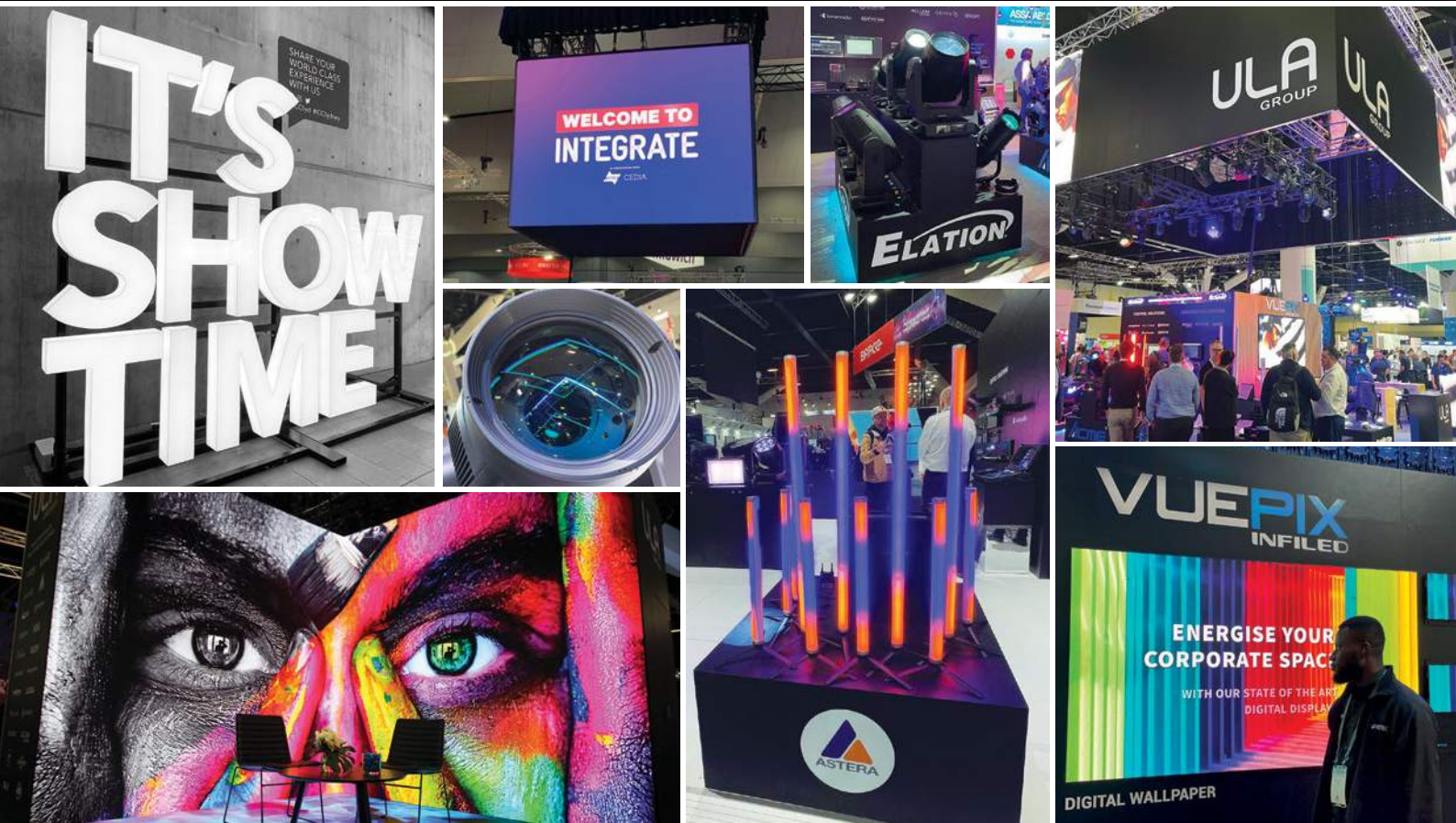


ULA GROUP

EXPERIENCE OUR TECHNOLOGY

INTEGRATE EXPO, 21st - 23rd Aug, ICC Sydney

ULA Group Stand #F28



PROUDLY REPRESENTING WORLD LEADING INDUSTRY BRANDS

VUEPIX
INFILED

ELATION

lumenradio

ACME

NOVA STAR

GRIVEN

DJIPower

ASTERA

dop
Choice

BROMPTON
TECHNOLOGY

SGM

GLASSILED

OSIDIAN
CONTROL SYSTEMS

7M⁴
Milos. Works better.

arKaos

uvmedico

ACCLAIM
LIGHTING

ChamSys

pharos

MDG

CHAINMASTER
THE WORLD OF MOTORS

ULA
GROUP

LEADERS IN INNOVATIVE VISUAL TECHNOLOGY

AUS 1300 852 476 | NZ 09 218 6532 | info@ulagroup.com | ulagroup.com