

# CX

CX209 / DECEMBER 2024 / \$10.00AU

INTEGRATION / AUDIO / LIGHTING / VIDEO / STAGING

**TOURING**

# PEARL JAM

*Legendary Seattle grunge band Pearl Jam embarks on their highly anticipated 'Dark Matter' world tour*

# THE DECEMBER ISSUE

*See you in feb!*

## '25 RENTAL DIRECTORY

We've catalogued 30 of the best hire companies across Australia

## LIGHTING

Lee Curran Lights 70s musical 'Jesus Christ Superstar' for 2024

## TRAINING

CVP: finding a way to train the next generation

## INSTALL

Sennheiser's Role in Learning at St Philip's Christian College

## News

- / Chameleon's Elation Investment
- / ENTECH Update
- / Anolis for the Hordern Pavilion
- / LSC's new hire
- / Will taxing multi-nationals help?
- / VuePix Infiled's Long Sunset
- / Nine's Olympics coverage upgrade
- / BSG adds Rivale
- / Double Win for TDC
- / Acuity Brands acquires QSC
- / \$30 million for WAAPA
- / Hibino's majority share in InSight
- / AV1 Marks 20 Years

## Regulars

- / Andy Stewart's Listen Here
- / Jenny Barrett in NZ
- / Backstage with John O'Brien
- / Brian Coleman: The Gaffa Tapes

## RoadTest

- / Claypaky Volero Wave
- / Laserworld tarm 3
- / Elation PROTEUS RADIUS

# MICROCOM<sup>®</sup> XR

WIRELESS INTERCOM FOR EVERY BUDGET

## A WORLD OF POSSIBILITIES

**PLIANT**  
TECHNOLOGIES

PMC-900XR-AN  
FULL DUPLEX  
WIRELESS  
BELTPACK



PMC-HS900XRS / PMC-HS900XRD  
SINGLE OR DUAL EAR, 2-CHANNEL,  
ALL-IN-ONE HEADSETS

PMC-REC-900AN  
2-CHANNEL,  
LISTEN-ONLY  
RECEIVER PACK



# NAS

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



# AT NO STAGE

STOP BULLYING  HARASSMENT

AT NO STAGE  
STOP BULLYING  HARASSMENT

No matter what stage in your life,  
or the stage it plays out on...  
**At NO Stage** will bullying and harassment  
be tolerated in the live music industry!

 **CrewCare**<sup>®</sup>  
For ALL Live Music Crew

# CONTENTS

## News

Chameleon Touring Systems Gears Up For High-Profile Tours and Events With Elation PROTEUS	4
Anolis for Hordern Pavilion	6
QSC to be Acquired by Acuity Brands	8
LSC Control Systems boosts operations team at Melbourne HQ	8
Could taxing multi-national live music companies help grassroots players?	10
ENTECH Moves to May	10
The Long Sunset Captured by VuePix Infiled	12
Nine Network upgrades Olympics coverage with Calrec and D2N – Technology Solutions	14
BSG Discover No Rival for the Rivale	16
Double Award Win for TDC at Australian Event Awards	18
InSight Systems announces majority share acquisition by Hibino Corporation	20
\$30 million philanthropic partnership for WAAPA	22
AV1 Marks 20 Years with Emerald Celebration at the Museum of Contemporary Art Australia	24
<b>New Gear</b>	25

## Features

Lighting: PAR Can Superstar <i>by Allee Richards</i>	34
2025 Rental Directory - Search by state	38
2025 Rental Directory Index - Search by company name	52
Training: CVP - finding a way to train the next generation <i>by Jason Allen</i>	54
Touring: Pearl Jam's Dark Matter	57
International: Robe at Lollapalooza Berlin 2024	60
International: L-Acoustics L-ISA Creates a Sonic Sanctuary at CAN Festival	64
International: Chuffed to be on Starlight Express	67
Installation: Transforming Education Through Clear Sound	70

## Regulars

Listen Here: Separation? I Thought We Were Mixing? <i>by Andy Stewart</i>	27
New Zealand: A New Era for WOW: Innovative Stage Design Unveiled <i>by Jenny Barrett</i>	30
Backstage: Volunteering – Why would you do this? <i>by John O'Brien</i>	78
The Gaffa Tapes: Keeping the Wolves at Bay - The Micromanagement Disease <i>by Brian Coleman</i>	80

## Road Test

Claypaky Volero Wave <i>by Kurtis Hammer</i>	72
Laserworld tarm 3 <i>by Chris Manton</i>	74
Elation PROTEUS RADIUS <i>by Kurtis Hammer</i>	76



Cover Photo – Pearl Jam's Dark Matter Tour 2024. Photo Credit: Dallas Sisson  
Contents Photo – Starlight Express. Photo Credit: Pamela Raith

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](mailto: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.

# Chameleon Touring Systems Gears Up For High-Profile Tours and Events With Elation PROTEUS



Tony Davies and Cuono (Con) Biviano

Leading Australian production company Chameleon Touring Systems has made a significant investment in Elation's PROTEUS MAXIMUS and PROTEUS BRUTUS power luminaires, greatly expanding their ability to deliver robust lighting solutions for high-profile tours and major events across the region.

The new fixtures, supplied in late September through ULA Group – the exclusive distributor of Elation products in Australia and New Zealand – have already seen action. In early October, Chameleon upgraded the lighting rigs for two landmark events: the 2024 National Rugby League (NRL) Grand Final at Accor Stadium in Sydney and Knockout Outdoor, Australia's largest outdoor music festival at the Sydney Showground. They have also gone out with high-profile touring rigs, including Pearl Jam's 'Dark Matter' tour and Coldplay's 'Music of the Spheres' tour in Australia and New Zealand, and are slated for Australian shows for Take That and The Killers.

## Build Quality and Light Output

Chameleon sought to replace several outdated lighting fixtures in their inventory from brands that no longer offer this category of light. Tony Davies, owner of Chameleon Touring Systems, began exploring Elation PROTEUS fixtures at last year's LDI trade show and afterward worked with ULA Group's Cuono (Con) Biviano to look more closely at build quality and light output.

"We put them up against a couple of existing fittings as a benchmark and were impressed," Davies said. "The output from the PROTEUS BRUTUS is incredible, especially for a non-discharge fixture, and the MAXIMUS delivers excellent spot and long-throw beam capabilities." In addition, their IP65 rating is perfect for the Australian climate, where outdoor events are

common and the demand for high-output, weatherproof solutions is critical.

The PROTEUS BRUTUS is a weatherproof LED Wash FX fixture with a powerful 75,000-lumen output from a 1200W peak field LED engine, 4.5° to 45° zoom, and a wide range of lighting effects (gobos, animation, iris, frost). Chameleon's new BRUTUS fixtures were supplied with optional framing shutters. The 50,000-lumen PROTEUS MAXIMUS is Elation's market-proven, all-purpose power luminaire with profile/beam/wash capabilities and a comprehensive FX package.

## Heightened Visibility on International Riders

Davies noted the growing presence of the PROTEUS series on international rider specifications, which also made the decision to invest somewhat easier. "We've seen PROTEUS fixtures appearing on multiple US and European tours and from our view, it has become the American fixture of the moment," he stated, pointing out that Chameleon has always invested in a strong American brand and a strong European brand. "PROTEUS offers a punchy, reliable Spot and Wash that can handle the outdoor conditions, and the time was right to invest in it."

## ULA Group and Elation

The investment in the PROTEUS fixtures marks Chameleon's first major commitment to Elation products, and Cuono Biviano,

Managing Director of ULA Group, and his team looked after Chameleon every step of the way.

"We are elated that Chameleon Touring Systems have made a major investment into Elation flagship products," says Biviano. "Working through the acquisition process with Tony and his team, I was really impressed by their thorough due diligence processes and the attention to detail he and the team demonstrated when selecting these products. The way they operate and prioritise their clients and the market's needs is a true testament to being a market leader. We look forward to growing the Australian Elation fleet with them."

Davies added that the relationship with Elation's team, particularly International Sales Manager Jonas Stenvinkel and Global Sales Director Eric Loader, also played a crucial role in their decision-making process.

## Elevating Tours and Festivals

With over 36 years in the industry, Chameleon Touring Systems continues to lead the Australian market in production support for tours, festivals, corporate events, and film and television productions. The addition of the PROTEUS MAXIMUS and PROTEUS BRUTUS fixtures further enhances their ability to deliver world-class lighting solutions across the region highlighted by several major tours and events over the coming months.

# A WORLD OF POSSIBILITIES



## MICROCOM<sup>®</sup> XR

WIRELESS INTERCOM FOR EVERY BUDGET

Simple to operate and budget-friendly, MicroCom XR is the ideal intercom solution for applications where quality wireless intercom wasn't previously a viable option. MicroCom XR delivers hands-free operation, great sound, and excellent range, all at breakthrough pricing. Now you can cut the cable and have effective communication to get your job done more easily.

MicroCom XR's excellent range and rugged construction make it the perfect choice to deliver dependable performance for any application including theatre, concerts, corporate events and just about anywhere groups need to communicate together. With MicroCom XR, there's finally an easy-to-use intercom solution that gives your production the right wireless intercom at the right price.

Not sure which MicroCom XR model is right for you?



**PMC-900XR-AN  
FULL DUPLEX  
WIRELESS  
BELTPACK**



**PMC-REC-900AN  
2-CHANNEL,  
LISTEN-ONLY  
RECEIVER PACK**



**PMC-HS900XRS / PMC-HS900XRD  
SINGLE OR DUAL EAR, 2-CHANNEL, ALL-IN-ONE HEADSETS**

## CONTACT NAS FOR A DEMONSTRATION.

- Available in 900MHz bandwidth
- Adjustable side tone and mic gain levels
- Superior dynamic range provides clearer audio in loud environments
- Compact & durable belt pack, lightweight, rugged, and weather-resistant
- Pack-To-Pack Communication with no base station required
- Flexible – Set up multiple work groups for various roles
- Wide selection of professional headsets available for a variety of applications

**PLIANT<sup>®</sup>**  
TECHNOLOGIES



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

# Anolis for Hordern Pavilion



L-R; Jason Oxenham, Technical Manager of The Hordern, Jono Boer, General Manager of SimpleMotion Lighting, and Scott Hart, Electrical Supervisor of SimpleMotion Lighting



Photo Credit: Louise Stickland

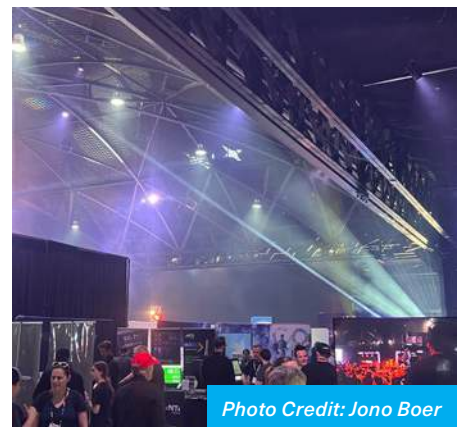


Photo Credit: Jono Boer

**The Hordern Pavilion, often referred to as 'The Hordern', is one of Sydney's most iconic and historically significant landmark venues. Originally opened in 1924, it now regularly hosts live performances, dance parties, sports tournaments, trade shows, conferences, and a variety of other events.**

Recently, the venue unveiled a new house lighting scheme featuring 46 Anolis Ambiance RGBW XPs, specified and installed by SimpleMotion Lighting (SML), a specialist in venue infrastructure lighting.

With a portfolio that includes high-profile venues such as the Sydney Opera House and numerous other theatres, concert halls, and recital spaces, SML was approached by The Hordern's operators, Playbill Venues, to reimagine the lighting of the venue. The aim was to replace the outdated halogen lighting system with a more modern, energy-efficient solution that would accommodate the diverse events that take place at the venue.

SML worked in partnership with Jands, Anolis' Australian distributor, with additional support from Eddie Galak, Business Development Manager of Architectural Lighting. The project was led by Jono Boer of SML, alongside

Scott Hart. Together, they designed and implemented a lighting scheme centred around the Anolis Ambiance fixtures.

The Ambiance RGBW XP fixtures were selected for their high output, fitted with 60-degree lenses to ensure excellent light distribution, smooth dimming, and even coverage across the space. Additionally, they were chosen for the richness and quality of their colours, which allow the venue to be bathed in vibrant hues when desired, beyond simple white lighting.

SML had to stay within a defined budget and consider the venue's flexible seating configurations. The Hordern Pavilion can accommodate various setups, including all-standing formats for concerts and dance events.

The venue has a rich history, having hosted performances by legendary artists such as Frank Sinatra, Coldplay, Florence + the Machine, Justin Timberlake, Nirvana, Lorde, Queen, and The Jackson Five. Additionally, many of Australia's most popular bands have performed there during their rise to fame.

The lighting design includes 20 Ambiance fixtures rigged in the domed roof, four fixtures on each side of the room above the exits (for a total of 16), and an additional six fixtures covering the arches above the exits. Some of the lights are positioned where the previous lighting was located, while others are in new locations to align with the drape lines used to partition sections of the hall.

Custom plates and mounting brackets were fabricated to secure the fixtures to the ceiling and walls, with power supplies mounted on ceiling beam clamps. This task was completed with the help of rigging company Pollards.

The Anolis fixtures are controlled via DMX and a Paradigm architectural controller, which also enables zone control. Touchscreen remotes allow for easy access and operation. While the primary use of the lighting system is for smooth and even white washes, the venue can be instantly transformed with full-colour lighting, adding atmosphere and a new dimension to events.

Jason Oxenham, from The Hordern team, commented that the new lighting scheme offers the ability to create a tailored atmosphere for high-profile events such as the ARIA Awards. Additionally, the new system reduces energy consumption, contributing to the sustainability and lower carbon footprint of events held at the venue.

Though SML had not previously worked with Anolis, they had used other products from Robe (Anolis' parent company) on several occasions and found them to be "very reliable, easy to install, and program," according to Scott Hart. This positive experience made them open to using Anolis for The Hordern project.

Following the success of this installation, Anolis products have since been specified and installed at several other SML client venues.

# VELOCE PROFILE

the ultimate precision



Veloce Profile is a versatile luminaire that shines in all conditions—indoors, outdoors, even in salty environments. Defying conventions, Veloce Profile boasts a cutting-edge sealed monoblock 850 W high-efficiency LED module, calibrated at 6500 K. This trailblazing module delivers a luminous flux of 43,000 lm, perfectly aligned on the black body curve for unrivalled light neutrality. Weighing in at just 40.5 kg, Veloce Profile is the lightest luminaire in its class.

**6 Series**  
**850 W**

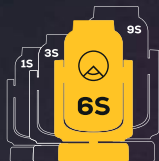
**Luminous Flux**  
**43,000 lm**

**IP Rating**  
**IP65**

**Front Lens**  
**180 mm**

**Beam Aperture**  
**4 ° to 52 °**

**Weight**  
**40.5 kg**



**AYRTON**

For all enquiries and sales, contact your nearest Show Technology below or email [sales@showtech.com.au](mailto: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

# QSC to be Acquired by Acuity Brands

QSC, LLC a market leader in the design, engineering, and manufacturing, of audio, video and control solutions that are designed to create impactful experiences, have announced that they have reached a definitive agreement to be acquired by Acuity Brands, Inc ("Acuity").

"Bringing QSC together with Acuity underscores the critical role AV technology plays in live, hybrid, and virtual experiences," said Joe Pham, Chairman and Chief Executive Officer of QSC. "Our two organisations are aligned on a long-term mission and core values that drive our mutual passion for innovation, customer satisfaction, and employee well-being."

QSC will become part of Acuity's Intelligent Spaces Group to execute their joint vision of making spaces smarter, safer, and greener with disruptive technologies that leverage data interoperability.

"From our roots in pro audio to our Q-SYS platform solutions, our talented teams are well-positioned to bring our mission to life for our customers, ecosystem partners, and our system integrators who serve them," said Jatan Shah, President of QSC. "With Acuity's Intelligent Spaces Group, our rich landscape of data will deliver dynamic and engaging experiences that captivate and inspire."

Morgan Stanley & Co. LLC is serving as the financial advisor to QSC, and Proskauer Rose LLP is providing external legal counsel.



Greg Lowe - General Manager, LSC Control Systems

## LSC Control Systems boosts operations team at Melbourne HQ

LSC Control Systems, the leading manufacturer of advanced dimming, power distribution and power management solutions, has made a significant new addition to its Melbourne HQ operations team with the appointment of a new General Manager, Greg Lowe.

With 30 years' experience in high-tech manufacturing, much of it within the global automotive supply chain, Greg has previously held positions as General Manager, Managing Director and Non-Executive Director, at both domestic and multinational businesses. He has a Master of Business Administration degree (MBA) and is a Graduate of the Australian Institute of Company Directors (GAICD).

Having lived and worked in North-East Asia for much of his career, Greg has seen firsthand the economic value that comes from local innovation and a strong, efficient manufacturing base. In this senior management role at LSC, he is responsible for overseeing LSC's daily operations, with particular attention to its expanding production line.

"I'm delighted to join the team at LSC Control Systems," says Greg. "It's a company with a 40-year legacy of innovation and an enviable reputation in its market, not just at home in Australia, but internationally. Its expansion has been achieved by products of its own design and manufacture, and that's a testament to founder Gary Pritchard's enduring vision for superior lighting and power control products. What's more, the recent acquisition by Robe Lighting presents a huge opportunity for further growth. There are exciting times ahead, and I look forward to contributing to that future."

Gary Pritchard comments, "We are in a period of rapid growth in markets worldwide, so it's vital to maintain and maximise the efficiency of our entire operation. I am very pleased to welcome Greg to the company: his experience will be of great benefit to us all going forward."

[www.lsccontrol.com.au](http://www.lsccontrol.com.au)



INTRODUCING

# MAC ONE



## THE POWER OF ONE(S)



**COMPACT & LIGHTWEIGHT**  
Easy to move and install



**NARROW FAST BEAM**  
Very impressive and snappy beams



**BEAUTIFUL BACKLIGHT**  
Unique eye-candy looks from Fresnel Lens and backlight effect



**FRESNEL WASH**  
Compact wash light that fits everywhere



**SCALABLE**  
Easy to deploy in large quantities using smart rigging accessories

**Martin**

[www.martin.com](http://www.martin.com)

© 2023 HARMAN. All rights reserved.



For all enquiries and sales, contact your nearest Show Technology below or email [sales@showtech.com.au](mailto: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

# Could Taxing Multi-National Live Music Companies Help Grassroots Players?



Dr Sam Whiting

There is growing support for the British music industry to voluntarily implement a levy within the cost of stadium and arena tickets to support grassroots music venues. Dr Sam Whiting, music industries expert at Melbourne's RMIT University, explains why Australia should follow suit.

Dr Sam Whiting is a Vice-Chancellor's Senior Research Fellow at RMIT University and a 2024 Churchill Fellowship recipient. Sam will travel to the UK and Europe in 2025 as part of his Churchill Fellowship to investigate and learn from the work of the UK Music Venue Trust.

"The UK government has taken a significant step in addressing the top-heavy and deeply unequal nature of the contemporary live music industry, by advocating for an industry-led ticket levy."

"A similar levy in Australia would create a much-needed revenue stream for independent and grassroots music venues, promoters and

artists, improve the health of Australia's live music ecosystem from the foundations up and ensure that the next generation of talent receive the opportunities they deserve."

"In an Australian context, such funding could be managed by the recently established Music Australia and used to subsidise costs associated with staging grassroots music events."

"It could also be used to ensure that musicians regularly performing to sizable audiences are paid at least the Musicians Australia \$250 Minimum Fee, contributing to the long-term sustainability of musicians' careers and rebuilding a middle-class of Australian

musicians that has been hollowed-out since the emergence of streaming."

"An ABC investigation last month revealed how multi-national live music companies have consolidated their influence within the Australian sector and the subsequent impact on local operators. At the same time, audiences are also moving away from festivals and local music events towards high-end arena tours."

"A levy for large performances and venues in Australia could create a much-needed revenue stream for independent and grassroots venues, promoters and artists who have been hit hard by inflation and rapidly rising insurance costs."

"A similar scheme already exists in France, where a statutory levy contributes to a publicly administered fund, and a levy on Premier League football tickets is used to generate funding for local and grassroots football clubs across the UK."

## entech Moves to May

As ENTECH enters its 31st year, the new chosen date of May promises much; with more trade less busy alongside end of year and next year budgets. But the next tour is sooner, so the solution is a cut-back Regional Tour of Geelong, Newcastle and the Gold Coast next May. The National Tour resumes to all five cities in May 2026.

For May 2025, each location is adjacent to the largest market – the east coast. Geelong to Melbourne is 1.5 hours from the CBD, while Newcastle to Sydney is two hours. The Gold Coast to Brisbane, 1.2 hours, and each city and surrounds has a vibrant market.

The 2025 Regional has a slightly downscaled floor plan but with all the usual attractions like EnTALKS, the Chameleon Café and Happy Hour - all the features that make ENTECH unique in the world of trade shows.

Down the highway, the 2025 Regional is joined by the 2026 National Tour in May and the NZ Roadshow in July 2026. With the Regional Tour running at reduced cost, the organisers say the total spend for an exhibitor doing the Regional in May and the National a year later is roughly the same spend. Bookings are open now.

[www.entech-roadshow.com](http://www.entech-roadshow.com)

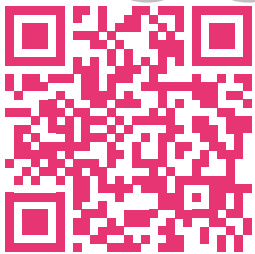
# SAVE ON

# SHURE

## SLXD RANGE



Sounds of Summer



FIND OUT MORE



## BLX RANGE

## WIRED MICROPHONES



Offer valid 01/11/24 to 31/12/24 or while stocks last. Full terms and conditions are available at: [www.jands.com.au/promotions](http://www.jands.com.au/promotions)

proudly distributed by

 **JANDS**  
[jands.com.au](http://jands.com.au)



# THE LONG SUNSET

CAPTURED BY VUEPIX INFILED

**The Long Sunset - Australia's most picturesque music and culture festival, returned to the beautiful Scenic Rim region for the first weekend in November.**

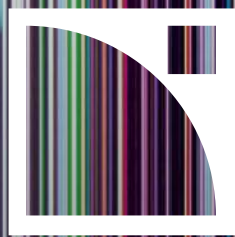
Part of the Queensland Music Trails series, the production of the festival was managed by the team at EventCo, who engaged Onesol Productions to supply large format LED screens for the main stage.

Two VuePix Infiled AR series screens of 3.9mm pixel pitch – both six metres high and four metres long – were set up on each side of the main stage as IMAG screens. The Brompton Tessera SX40 processors and Tessera SD distribution units were used to power the screens with picture perfect content, delivering an ultimate festival experience for all The Long Sunset fans.

At the very front of the line up were the iconic Australian artists Matt Corby and Angie McMahon, joined by New Zealand's soul-electronic collective LEISURE, alongside an electrifying indie rock outfit Eliza & the Delusionals, award-winning singer-songwriter Emma Donovan, rising indie star Lyric, future-soul superstar Ngaiire, and indie folk icons Sons of the East.

The Long Sunset also invites the festivalgoers to immerse themselves in a utopia of art and culture, offering yoga classes, participating in storytelling workshops, various unique marketplace stalls, all accompanied with a great choice of local food and wine.





L-ACOUSTICS

# SOKA

INTEGRATE DISCREETLY

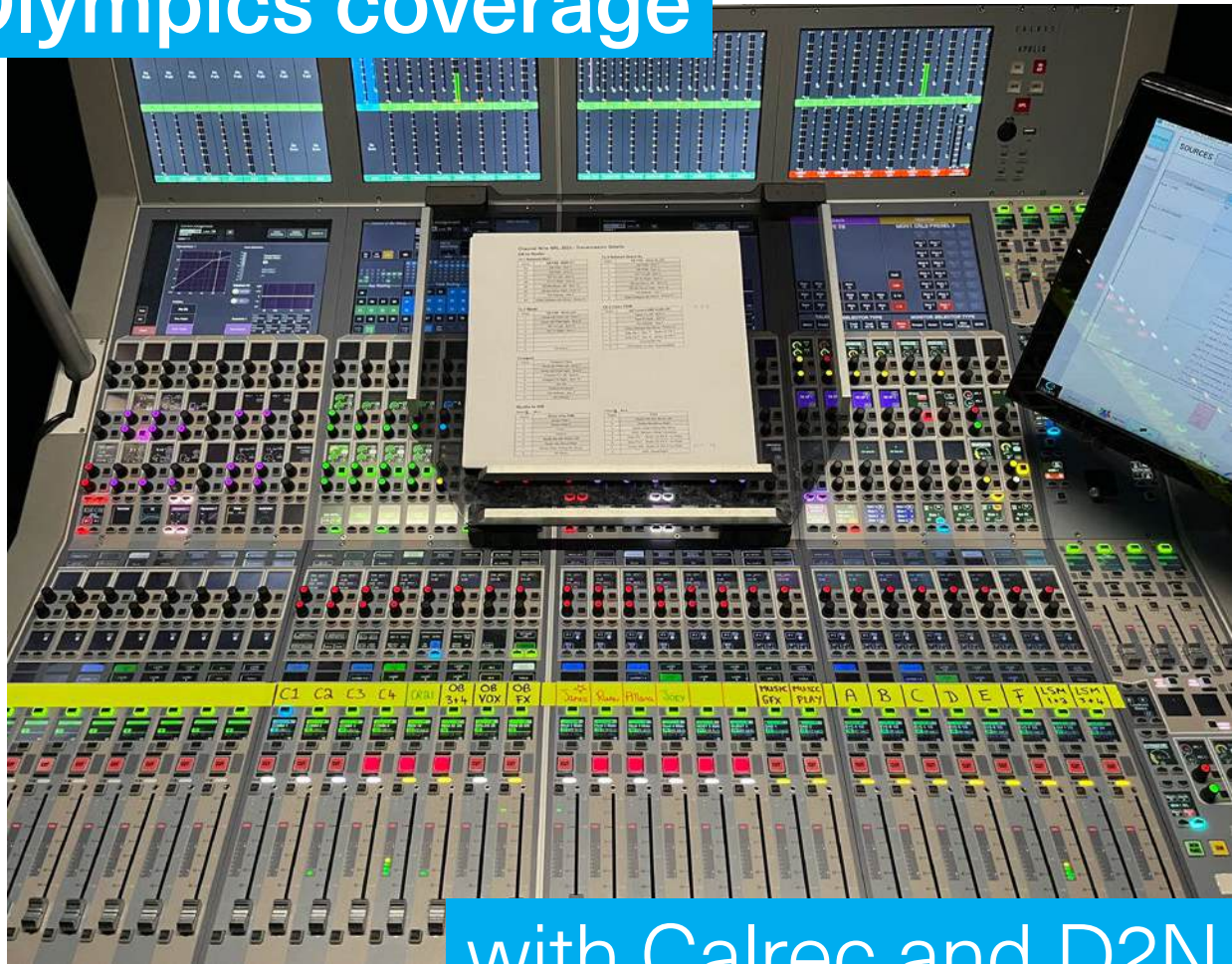
proudly distributed by



**JANDS**

[jands.com.au](http://jands.com.au)

# Nine Network upgrades Olympics coverage



## with Calrec and D2N – Technology Solutions

The Nine Network has been using Calrec analogue products and solutions for many years in Australia. Over the years there has been an increasing progression towards using Calrec's digital solutions, such as the Omega and Sigma series, and eventually their Apollo range connected to IP driven Impulse Cores. When Nine wanted to upgrade their Calrec solutions for this year's Olympics they turned to Calrec's Australian distributor and reseller, D2N – Technology Solutions.

Nine Broadcast Tech Support Engineer - Communication and Audio specialist Shaun Zuccolotto explained, "Nine's philosophy is all about interconnectivity. This not only applies broadly to the connectivity that we have between our eight bureaux across Australia and our LA branch, but also goes down to infrastructure level whereby we require our devices and systems to interconnect between one another with great flexibility, ease and reliability. The Calrec approach of providing connected audio signals and pathways across multiple studios and control rooms allows for

that methodology that Nine desires to be ensured and maintained to the finest detail and highest level. As such and to complement this, D2N were the right technology partner to help us with our recent Calrec upgrade."

As a result of the upgrade, Nine purchased two Calrec Brio audio mixing consoles from D2N to add to their existing Calrec ecosystem. These consoles were specifically purchased to handle the Olympics' broadcast coverage by handling 82 DX (distribution feeds) and facilitate the curation of 24 CX (contribution feeds) by adding Nine's own

commentary from 13 commentary booths across Paris and five commentary booths in-house from their HQ at ODS.

Zuccolotto continued, "Between the two Apollo worksurfaces, VP2 headless mix engine and two recently purchased Brios, our facility was able to successfully keep our news channel on air whilst adding two continuous broadcast channels and our 9Now online digital broadcast platform that ran for the duration of the Olympics' coverage. Thanks to D2N and Calrec we successfully and comfortably handled this major event in and amongst our BAU and existing facility."

Nine run three control rooms, seven studios and six off-tube booths in their Calrec ecosystem.

Calrec stage-boxes carry the audio signals to and from the various handoff points across their studios on multiple floors and their data centre. They then process the audio at any of their five Calrec consoles and pass these audio signals to air or to their ISO record units for broadcast purposes.

As a result, they are able to run three control rooms independently and have the ability to handle a large number of audio requirements from their Brios for more bespoke requirements.

Zuccolotto added, "Calrec is a tried and tested audio mixing system that is highly dependable and adaptable to any of our needs. Having migrated into the IP domain, we are able to tie into our PMN (Production Media Network) using 2110-30 signals that allow for flexible and powerful audio routing making our philosophy of 'any signal - anywhere' so much more achievable. We are a fully compliant 2110 IP facility and have the power at our hands to route audio to any floor in our multi-story building across IP domains using Layer 3 routing with ease. We really have entered into a world of unparalleled processing power and DSP functionality with our Calrec ecosystem."

Zuccolotto also sees great history and promise in the Calrec brand adding, "It is

a very competitive brand that has a great global reputation. Having personally visited the home of Calrec in Hebden Bridge in the UK, I can speak honestly about the passion and pride that they have in their product. It is clear to see that they have their ear to the ground listening and watching the market and continuously keeping ahead of their competitors with technological advancements."

Shaun Zuccolotto and the Nine team see Calrec solutions, provided and supported by

D2N, as the solution to their audio mixing requirements, as he concluded; "With D2N being in the country and more specifically Sydney, we have a partner who is in our own time-zone that is able to react to our wants and needs in a timely manner and they are always happy to respond with swift professionalism. As a customer, we know that D2N will be able to deal with any issue or request that we have and that gives us the peace of mind that a 24/7 broadcast facility requires."



# ELATION®

## THE HOTTEST PROPERTY ON TOUR

### THIS SUMMER!

IP65 / IP66 RATED | VISUAL CREATIVITY | POWERFUL PERFORMANCE | BUILT FOR OUTDOORS



**PROTEUS  
MAXIMUS**



**PROTEUS  
BRUTUS**



**PROTEUS  
RADIUS**



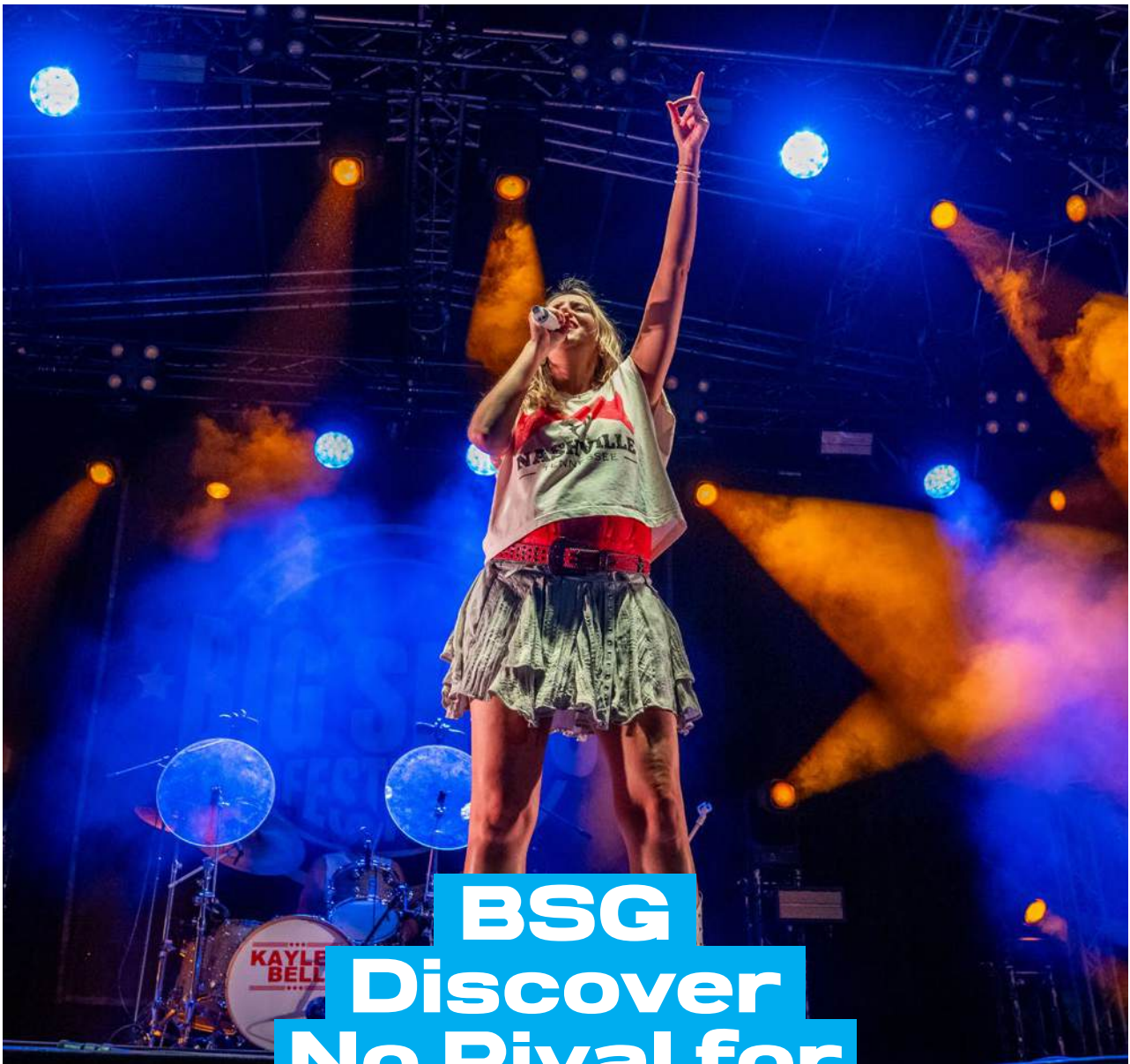
**PROTEUS  
ODEON**



**PULSE  
PANEL FX**



**CALL US FOR A DEMO** AUS 1300 852 476 | NZ 09 218 6532 | [info@ulagroup.com](mailto:info@ulagroup.com) | [ulagroup.com](http://ulagroup.com)



## BSG Discover No Rival for the Rivale

**Brisbane Sound Group recently added 16 Ayrton Rivale fixtures to their hire inventory, which have been in constant use since they went into stock. Whether it's for their own productions, cross-hire projects, or special events, these lights have been working hard and getting plenty of praise. They even used them in their first lighting masterclass training night, where they proved to be a big hit.**

The most exciting moment so far came at the Big Skies Festival, headlined by The Screaming Jets. The Rivale lights were the highlight of the lighting setup, and all the operators loved them. The Screaming Jets' lighting designer was so impressed that he added the Rivale fixtures to his 'must-have' list for future shows.

"This was my first time using the Ayrton Rivalas and, as with all Ayrton fixtures, they didn't disappoint," said Greg Butt, LD for The Screaming Jets. "However, the Rivalas were at the next level, with incredible output, great colour saturation, and minimal

loss in punch with gobos, prism, and animation features."

BSG's Head of Lighting, Andrew Detenon, confirms that the Rivale has been a fantastic purchase for them. Initially, he was looking for a premium moving profile with framing, commenting that the IP65 rating is a great bonus while keeping the form factor nice and compact.

"Less weight on the roof is always a good thing, too," he added. "The zoom on these fixtures is amazing, and the colour rendering is superb. I used all 16 for my

design at Big Skies Festival 2024, and multiple lighting designers commented on the saturation in the colours, even when a gobo was used. They were the stars of the show. A huge thanks to the Show Technology team for their incredible support with the sale and after-sales service on these fixtures."

Overall, these lights have quickly become a favourite in BSG's inventory, getting rave reviews from everyone who uses them. They're definitely a solid addition to their lineup and are helping elevate the lighting experience at every event.

# STARCOLOR RANGE LED FLOOD LIGHTS



**STARCOLOR128**

- RGBW COLOR MIXING
- CONTROL PANEL
- WATERPROOF IP65
- PRE-PROGRAMMED SHOWS
- FOR INDOORS AND OUTDOORS



**STARCOLOR72**

- 9X 8W 4-IN-1 LEDS
- DMX CHANNELS: 4, 8, 10
- ROBUST ALUMINIUM HOUSING



**STARCOLOR72B**

- 9X 8W 5-IN-1 LEDS
- RGBAW COLOR MIXING
- BUILT-IN BATTERY



**STARCOLOR200**

- 24X 10W 4-IN-1 LEDS
- DMX CHANNELS: 4, 8, 10
- CONTROL PANEL WITH LED DISPLAY



**STARCOLOR540**

- 36X 15W RGBW LEDS CONTROLLED PER ROW
- WATERPROOF IP65
- DMX512 AND WDMX

FIND OUT MORE



DISTRIBUTED BY AVE  
WWW.AVECORP.COM.AU  
03 9706 5325

# Double Award Win for TDC at Australian Event Awards

TDC named **Production Company of the Year** and **Event Supplier of the Year**



From left - Fran Smith, Alex Rendell, Trevor Watt, Drew Ferrers, Hannah Anderson-Reid, Kate Hamilton, David O'Connor, Chris Fitzgerald from TDC at the official Australian Event Awards ceremony

TDC – Technical Direction Company was awarded Production Company of the Year and Event Supplier of the Year at the 2024 Australian Event Awards and Symposium held on 23 October 2024 at Le Montage, Sydney.

These prestigious awards demonstrate TDC's excellence in innovation, creativity, and commitment to delivering world-class event productions. "We are deeply honoured to receive these awards," said Michael Hassett, Managing Director at TDC. "This recognition by the industry and judging panel reflects the passion, creativity, and dedication of our team, who continuously push the boundaries of what is possible in the event space. Every project we deliver is a collaboration with talented individuals - our clients, partners, and incredible crew - who make the impossible possible."

## TDC's Innovative Projects of 2024

This year, TDC has led ambitious and high-profile projects like Dream Circus at Luna Park, which won the award for Best Achievement in Design with Artists in Motion utilising advanced projection mapping and custom-built visual effects transforming the event into a magical, immersive experience. Vivid Sydney 2024 received recognition, winning Best Cultural, Arts and Music Event, for its breathtaking light installations across iconic landmarks. The BBC Earth Experience utilized cutting-edge projection and interactive displays to bring nature to life. TDC further showcased its expertise at the FIFA World Cup's opening and closing ceremonies, and provided a LED Volume studio environment and production for

Australia's first virtual production feature film, Mercy Road. TV shows, included The Voice, Australian Idol, The Hundred with Andy Lee and Australia's Got Talent.

## Embracing Technology & Trends

TDC's success is driven by its focus on emerging technologies and TDC is continuously seeking out innovations that enhance both live and virtual event experiences.

"Our pursuit of innovation keeps us ahead of industry trends, and we are committed to exploring new ways to create impactful experiences for our clients across many industry sectors," said Michael Hassett.

During the awards ceremony, the judging panel praised TDC for pushing boundaries and fostering strong industry relationships.

# Spatial sound design for **everyone**

For more than 30 years, Spacemap technology has powered the world's most complex sound productions, from Cirque du Soleil to Broadway. With the free Spacemap Go iPad app, those same creative capabilities are available to every audio pro, whether you design soundscapes for theater, concerts, sound art installations, or houses of worship. Reimagine the way you create with spatial sound design and mixing tools in the palm of your hand.

[meyersound.com/spacemap-go](http://meyersound.com/spacemap-go)





Nest at Vivid Sydney 2024. Photo Credit: TDC - Technical Direction Company



“From sporting events to television and live performances, your dedication to excellence across all facets of event production is remarkable. Your flawless execution, team celebration, and commitment to continued education set you apart as a powerhouse in the industry.”

**A Tribute to the TDC Team and Clients**

TDC’s leadership extended heartfelt gratitude to their team and clients for their collaboration. “To all our clients who trust us with their visions, and to our amazing team at TDC - your skill, professionalism, and constant pursuit of excellence are what make this company what it is today. This award is as much yours as it is TDC’s,” said Michael Hassett. “The late nights,

tight deadlines, and complex productions we’ve navigated together have been nothing short of remarkable, and we are incredibly proud of everything we’ve achieved as a team. Thank you!”

Winning Production Company of the Year and Event Supplier of the Year solidifies TDC’s position as a leader in event production and technology. As the company looks to the future, it remains committed to pushing the boundaries of creativity and technology, creating unforgettable experiences for audiences in Australia and around the globe.

“It’s a reminder that what we do has a lasting impact. We are so proud to be part of this vibrant, creative industry, and we’re even more excited about what the future holds,” added Hassett.

# InSight Systems announces majority share acquisition by Hibino Corporation

Melbourne’s InSight Systems, a leader in workplace technology, announced that on 30 October 2024, it officially joined the Hibino Corporation family, a global industry leader in audio visual and IT solutions. This development provides a significant opportunity for InSight Systems to expand its business across Australia, enhance its service offerings, and continue delivering solutions that go beyond expectations for clients.

InSight Systems will gain access to Hibino’s extensive resources and expertise, strengthening its ability to deliver cutting-edge workplace technology solutions and maintain its leadership in the Australian

market, while keeping its core values of teamwork, innovation, and client satisfaction at the forefront.

“The acquisition by Hibino brings new energy to InSight Systems and enables us to build on the exceptional service we provide,” said Dan Baldwin, Executive Director and co-founder. “It gives us the financial backing and resources to grow our business in Australia, invest in our team, and continue delivering the innovative workplace technology solutions our clients expect.”

Wayne Schultz, co-founder and Executive Director, added: “We are committed to maintaining the same high standards of service that our clients rely on. With Hibino’s support, we’re in a stronger position to expand our capabilities and this partnership secures a bright future for InSight Systems and our employees.”

While Hibino Corporation will acquire a majority interest in the business, Dan Baldwin and Wayne Schultz will continue to lead InSight Systems as Executive Directors, ensuring continuity in leadership, vision, and the company’s commitment to excellence.

“With Hibino’s backing, we’re excited to continue growing and bringing new opportunities to our team,” said Baldwin.

Tad Shimojima, Deputy General Manager of Hibino Corporation, said: “We are excited to support InSight Systems as they continue to grow and succeed in the Australian market. InSight’s dedication to innovation, quality, and client satisfaction perfectly aligns with our own values at Hibino. We look forward to working together to deliver exceptional workplace technology solutions and helping InSight Systems strengthen their position even further across Australia.”



# HALF THE SIZE ALL THE POWER

avantis **SOLO**



IT'S TIME FOR YOUR **SOLO**



**ALLEN & HEATH**  
[www.allen-heath.com/avantis](http://www.allen-heath.com/avantis)



# \$30 MILLION PHILANTHROPIC PARTNERSHIP FOR WAAPA

Edith Cowan University (ECU) and Minderoo Foundation have entered into a transformational \$30 million, 25-year philanthropic partnership to advance Australian arts and culture by supporting a state-of-the-art new home for the university's Western Australian Academy of Performing Arts (WAAPA).

The biggest-ever gift to the performing arts in Australia will support the future excellence and sustainability of the revered Perth-based performing arts training academy. It is one of the largest donations received by a WA university and in the top ten of all philanthropic contributions to any Australian university.

The partnership with Minderoo Foundation builds on the significant \$853 million investment made between ECU, the Western Australian Cook Government and Australian Albanese Government in the new ECU City campus through the Perth City Deal, amplifying the activation and vibrancy it will bring to Perth for the benefit of all Western Australians.

It recognises the significance and ambition of the new ECU City campus, which is currently under construction in Perth's CBD and on track to open in semester one of 2026. ECU City will bring more than 300 public performances a year to world-class theatres in the heart of Perth.

As the centrepiece of the \$1.7 billion Perth City Deal, ECU City will bring together creative industries, business and law, and emerging technologies. The 65,000m<sup>2</sup> university is set to invigorate the Perth City Link precinct and the Perth CBD by introducing a community of more than 10,000 staff and students to stimulate economic activity and patronage for surrounding businesses.

The new WAAPA at ECU City will complement a number of major performing arts projects being delivered across Perth to grow WA's creative industries and support economic diversification, including the Cook Government's \$233.5 million state-of-the-art screen production facility near Malaga, \$150.3 million Perth Concert Hall redevelopment and transformation of the Perth Cultural Centre.

Minderoo Foundation's gift will support ECU and WAAPA's bold vision to deliver nation-leading, state-of-the-art

performance and learning venues within the new ECU City campus, as well as internationally distinguished performance training for emerging artists.

Incorporating the specialist fit-out of WAAPA's performance spaces and an endowed fund, it will help WAAPA deliver its long-term strategic programming for decades, and have a transformational impact for students, staff, artists and audiences by connecting all Western Australians with the arts.

The specialist fit-out grant will equip WAAPA's six public performance venues and two performance-capable rehearsal spaces with advanced acoustics, box-in-box engineering and best-in-class technology. With cutting-edge design inspired by the world's best theatres, the facilities will create exceptional opportunities for students to hone their craft.







WAAPA's performance venues include a Recital Hall, Playhouse Theatre, Dance Theatre, Jazz and Contemporary Music Studio, Flex Theatre and Aboriginal Theatre, as well as Music Rehearsal and Playhouse Theatre Rehearsal spaces.

The groundbreaking agreement also establishes investment in a new Premier Visiting Artists Fund, which is intended to foster deep, sustained training for WAAPA students across residency programs, teaching and other high-impact formats, led by world-renowned artists. The fund will enable the delivery of an ongoing program of teaching excellence that attracts the best talent to Perth's doorstep, building WAAPA's global profile.

The \$30 million agreement will increase the WA arts and culture sector's access to global talent and networks and will help position WA as a leading destination for creative talent and the arts.



			
<p>ALL TERRAIN STAGE</p>	<p>ULTRA STAGE</p>	<p>MOBILE FOLDING STAGE</p>	<p>LITE STAGE</p>

transtage  
**Australia's Leading Portable Stages**

We offer a wide range of high-quality, user-friendly portable stages for events of any scale. Contact us for a quote today.



Phone: 1300 712 066

Email: [info@transtage.com.au](mailto:info@transtage.com.au)

Website: [www.transtage.com.au](http://www.transtage.com.au)

# AV1 Marks 20 Years with Emerald Celebration at the Museum of Contemporary Art Australia



**Event production company AV1 celebrated its 20th anniversary on Saturday 26 October with an intimate emerald and platinum-themed event held at Canvas, the newly opened fine-dining restaurant at Sydney's Museum of Contemporary Art Australia (MCA), a longstanding AV1 partner venue. The celebration brought together current and former long-term employees, marking two decades of operation in the events industry.**

The evening began with a private viewing of Primavera, Young Australian Artists, an exhibition supported by AV1 as part of its ongoing partnership with the MCA. Following the exhibition, guests enjoyed a three-course dinner overlooking Sydney harbour.

Speaking at the event, Nigel Mintern, Managing Director of AV1, said, "As we look back on two decades in this industry, it's impossible not to feel immense pride. From small beginnings, we've grown into a trusted leader, curating premium event experiences for our clients and exceeding expectations time and time again."

"A heartfelt thank you to our long-serving staff, whose dedication and loyalty have

shaped AV1 into what it is today... None of this would be possible without our amazing clients, who trust us to bring their visions to life. We thank them for allowing us to be part of their journey. Together, we've made magic happen."

Nigel ended his speech by presenting Keith Wootton, AV1's Founder, with a platinum record, symbolising the 20-year milestone.

"I started AV1 in 2004 from my home office with a laptop, a three-in-one printer and a mobile phone," said Keith, at the event. "Although it was a crowded market and I had no business plan, I did have a spirit of adventure and soon realised that AV1 could be something special. AV1 has had amazing growth and success over these 20 years

and I'm very grateful to everyone who pulled on an AV1 t-shirt and contributed to the adventure. Long may it continue!"

Over the past 20 years, AV1 has grown into a well-recognised presence in the industry, producing over 1,000 events for its clients in over 150 venues each year. Highlights from the company's 20 years in business include its achievement of B Corp status in 2016; expansion into Melbourne and the Gold Coast; production of the Rotary International Conference in 2019 for 14,000+ delegates; and winning 14 Meetings & Events Australia (MEA) Awards, including induction into the Hall of Fame from 2015 to 2018 and most recently, the MEA National Audio Visual Services award in 2024.



### Green-GO Beltpack Accessories

Green-GO have released accessories for their wireless beltpacks. The ECA-BPDeskstand provides the ability to situate Green-GO beltpacks in a visible location for stationary users. They have also released 'Bumpers' – sleeves that fit around the face of beltpacks, allowing users to colour code their beltpacks according to teams. ECA-Bumps-COL8 come in Green, Red, Yellow and Blue and are available in packs of 8. ECA-Bumps-BLK8 are packs of 8 in Black.

**Australia and New Zealand:**  
**Event Communications Australia**  
 evcomaus.com.au +61 (0)412 908 432



### ADJ UV Par 100IP

The new UV Par 100IP from ADJ is a rugged LED-powered UV luminaire. It features a 100 Watt C.O.B (Chip On Board) LED source, with an average operational life span of 30,000 hours. It outputs ultraviolet light in the 390-399nm range, generating a visible purple light as well as UV fluorescence effects. Beam angle of 120° allows a single unit to cover a wide area of a stage or crowd space. It also offers 0-100% dimming, variable speed strobing and an adjustable refresh rate. Weighing 6.4kgs, it is IP65 rated for outdoor use. Rear panel includes DMX in/out ports and IP rated locking power in/out. Can be operated standalone.

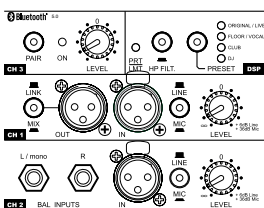
**Australia: ULA Group ulagroup.com 1300 852 476**  
**New Zealand: ULA Group ulagroup.com 09 218 6532**



**FBT**

## X-Series

Processed Active Speakers & Subwoofers



- 10" & 12" full range powered speakers
- 12" powered coaxial stage monitor
- 15" & 18" powered subwoofers
- Polypropylene (X-LITE) & Plywood (X-PRO/X-SUB) construction
- Two mic/line inputs & Bluetooth 5.0 on full range models
- Optional wall brackets & padded covers

**AUDIO BRANDS AUSTRALIA**

Audio Brands Australia Pty. Ltd.  
 Unit 10, 7 Meridian Place, Bella Vista NSW 2153  
 02 9659 7711 | sales@audiobrands.com.au  
 www.audiobrands.com.au

## AudioPressBox APB-MINI

APB Mini from AudioPressBox is a portable, active, pressbox with 2 Analog Line/Mic inputs, 1 Digital USB-C input and output and 8 Analog Line/Mic and 4 Digital USB-C outputs. It is suitable for both indoor and outdoor press conferences and is mounted in a heavy duty Nanuk case. The USB-C also allows a video conference in and out connection for a hybrid press conference.

**Australia and New Zealand: Event Communications Australia** [evcomaus.com.au](http://evcomaus.com.au) +61 (0)412 908 432



## AIDA PTZ4K12G-FN- DI-X30B Camera

Aida's new PTZ camera uses a 9MP 1/1.8" Sony CMOS sensor to capture in 4K resolution at 60fps. Outputs include 12G-SDI, Full Bandwidth NDI, SFP+ Fiber and Genlock. Control via IR remote, Web UI, or HTTP access. NDI control is automatic. Audio inputs via 3.5mm line in or Mini XLR. AI-based Autotrack automatically tracks targets.

**Australia and New Zealand: D2N Technology Solutions** [d2n.com.au](http://d2n.com.au) +61 (0)2 9837 6748



# NEW GEAR

## Sennheiser Profile Wireless

Profile Wireless is a compact all-in-one microphone system for creators and videographers. It includes a two-channel 2.4 GHz receiver and two clip-on microphones. Mounting and connection accessories are housed in a portable charging bar that doubles as a handheld interview mic. Profile Wireless comes with everything required (cables, adaptors and windscreens) to connect to a camera, laptop, phone, or to use as a desktop mic. 16 GB memory included in each clip-on mic for up to 30 hours of internal recording on the mic. Transmission range is up to 245m.

**Australia: Sennheiser** [sennheiser.com](http://sennheiser.com) 02 9910 6700  
**New Zealand: Sennheiser** [sennheiser.com](http://sennheiser.com) 09 580 0489



## Elation SOL II and SOL IV Blinders

Elation's SOL II and SOL IV Blinders are 2 and 4 cell versions of their SOL 1 single cell blinder. They use the same RGB+Lime+Amber+White LED engines with 93+ CRI and are IP65 rated. SOL II's 2 350W LED engines radiate a combined 30,750 lumens. SOL IV's 4 350W engines deliver a total 59,830 lumens.

Both models are equipped with variable 16-bit colour temperature adjustment between 1800K-8500K. They also incorporate dim-to-warm and redshift emulation. CMY emulation and virtual gel library complement advanced dimming curves and strobe effects.

**Australia: ULA Group** [ulagroup.com](http://ulagroup.com) 1300 852 476

**New Zealand: ULA Group** [ulagroup.com](http://ulagroup.com) 09 218 6532



# SEPAR- ATION?

## I Thought We Were Mixing?

Sometimes, all mix engineers want to talk about is their preferred method for 'gluing a mix together'. The rest of the time they're banging on about separation. So, which is it? Are we trying to glue things together or keep them apart?

When people talk about mixing audio, they often don't see the contradiction in their language, and there's none clearer in audio than the divergent philosophies of mix 'separation' and the other involving adhesives and 'glue'. For less experienced engineers these two concepts

seem confusing at best, particularly in combination, where the two must seem like a recipe for disaster.

Now I realise it's simplistic and glib of me to infer that mix engineers are in one of only two camps, and that these opposing sides are at loggerheads about how a mix should work. In truth, almost no-one in the business of mixing audio focuses solely on gluing things together, or conversely, keeping them separated. The true art of mixing involves a delicate combination of the two.

But what are these terms 'glue' and 'separation' really about? What do they mean, which tools do engineers use to conjure them, and how are they used in practise? Let's investigate.

### Tools That Glue

Glue is the clichéd term that essentially refers to anything that helps bring a sound or mix together and holding it in place. For many, glue's main dispenser is the humble compressor, which, like a squeezable sauce bottle, is used to lessen the dynamic range of a sound, adding a modified tone or increased harmonic distortion along the way. There's no 'glue' button on a compressor of course, but given how often people talk about adding this mysterious adhesive to a mix via their favourite compressor/limiter, you'd be forgiven for thinking there was. Glue takes other forms too, of course, but the compressor is by far the most commonly cited.



The  
P.A.  
People

## YOUR VENUE ENGINEERING SPECIALISTS

Event Communications

Venue Engineering

Installed Systems

Sales & Service

[papeople.com.au](http://papeople.com.au)



Chain Hoists and Control Systems



Staging Equipment for Venues



Actuators for Motorised Platforms

## Compressors



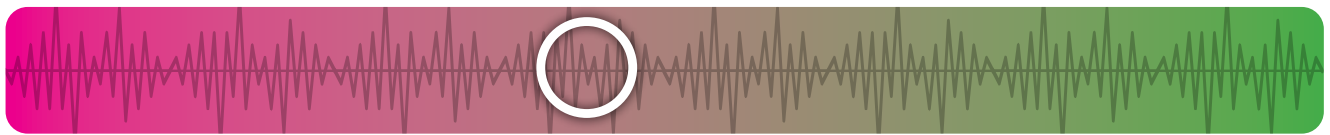
## EQ



## Reverbs and Delay



## Distortion



By controlling dynamics, compressors will typically restrict the scope of a mix; restraining its wildest tendencies and (depending on the way a compressor's controls are set) holding the most dynamic elements in check. When combined with the tendency of some stereo compressors to narrow the soundstage, modify a song's tone and increase the harmonic distortion content, here compressors are said to be adding 'glue to the mix'. Glue can also be applied to a single sound, or groups of sounds, to add more targeted adhesion. And to extend the metaphor, some sounds will respond better to one type of compression than another, in the same way that a certain material may require a specialised glue to hold itself together or stick it to something else.

There are other types of glue, too... not just ones that stick mixes together with compression.

Collectively, a second group of loose affiliates go under the banner 'effects'. Things like delays and reverbs, modulators and so on are all capable of acting as 'glue' in the right context. A mix can be bound together with effects by, for example, providing its elements with a common soundstage, so the various mix ingredients feel like they're inhabiting the one space. Giving sounds a context in this way is one of the best methods of bringing (or gluing) a mix together. Delays and reverbs tend to pull on sounds in a mix, drawing them back into

their surroundings rather than pushing them back as a compressor tends to do. Spatial effects like these also play on a listener's sub-conscious, creating the illusion of a space that the person may already recognise, meaning that the listener's own imagination is adding additional glue to the mix that isn't there – an esoteric notion perhaps, but true nonetheless.

Whichever way you see or hear it, effects can have an adhesive quality, bringing sounds together. Things like flangers and phasers do the same – encouraging sounds to feel like they share a common world, weird though it may seem. Distortion and saturation effects might restrict the tone and shape of certain sounds too, by gluing them together either powerfully or subtly with a shared sonic fingerprint, making them sound more aggressive, mangled or blurry – together. Modern effects plugins like resonant frequency suppressors (very narrow multi-band dynamic EQs) can also be very effective at providing 'glue' to whole mixes or individual sounds.

Even panning can be considered a form of glue, by facilitating the placement of sounds in a mix so that they seem balanced and coherent. When a sound is panned too hard to one side, for instance, it may feel like it's stuck to the wall of your soundstage, rather than inhabiting the space within it, and a pan pot can pull a sound back into the mix, thus making it feel more glued to the track.

I could go on with examples like this all day...

## Separators?

But as you may have already opined yourself by now, some of the tools we use to glue a mix together can also be used to separate sounds from one another in a mix. Things like compressors, reverbs, delays, panning and distortion can all aid in the separation of sounds from one another every bit as effectively as they add glue to your mix.

So, what gives here? I thought we were trying to establish two lists: glues and separators?

No.

This conversation is not about two distinct sets of audio tools at all, but rather one. Audio tools such as compressors, EQs, reverbs and so on are all on a spectrum of control, where every tool at a mix engineer's disposal can be either a separator or a gluing agent, depending on what's required by the mix. It's simplistic – indeed wrong – to consider any of these tools as being well suited to only one role. EQs do not just carve out space in your mix, and compressors don't just add glue. They are all capable of drawing sounds together or pulling them apart, depending on your mix's many requirements.

The tool most commonly attributed by our audio community to separation control in a mix is, of course, equalisation. EQs are famous for being able to 'carve out space' thus creating separation between sounds

and instruments. So, for instance an electric guitar might be 'separated' from a bass guitar in your mix by adding some midrange to its tone and filtering out the low end with a high-pass filter, thus avoiding the 'space' dominated by the bass.

But of course, some mixes start out with too much space to begin with – they don't all start out life desperately in need of more. When you pull up a simple song arrangement and listen to it for the first time, you don't scratch your head and think: "Oh my god, how am I going to find space in the mix to fit all this in?" Usually, it's quite the opposite. You're often struck by how stark and two-dimensional the soundstage is.

An EQ in this situation can be deployed to balance out sounds so that they occupy more of the same tonal space as one another, not less. To use our guitar and bass example again: in a mix where sounds seem too disconnected from one another, here we could cut a bit of harsh midrange from our far-too-bright electric guitar and boost some lower-mids to give the guitar more weight, while to our far-too-dull bass we could add a bit of bite with some midrange EQ and even some harmonic distortion thrown across it into the bargain. By creating tonal overlaps with EQ, we're bringing the sounds together, not pulling them further apart.

Similarly, our clichéd mix glue applicator – the compressor – could be used to push a vocal forward in a mix by giving it even less dynamic, thus allowing us to push it a little further forward in the mix, separating it out from a busy song arrangement. A boomy kick drum could likewise be given added separation in a mix by adding a compressor to the channel and slowing down its attack time, letting the click of the drum through before controlling the thump. The result is a clearer, more visibly defined (or separated) kick drum sound in a busy mix context.

Distortion too can go either way, acting as a gluing agent in one mix context, and a separator in another. You could, for instance, add distortion to that kick channel we just talked about to further enhance the bite of the drum's impact. Sometimes, counter-intuitively, distortion on an instrument in a mix can enhance its clarity.

And of course, effects of all kinds can add definition, separation and specialised character to a sound in myriad ways, defining and separating sounds out from the crowd, even when the arrangement is sparse. To me, the appearance of a sonic void is a more attractive sounding thing than an actual void. 'Air', 'plasma', or 'gravity' – call it what you will – between the mix elements sounds far more euphonic to me than a hole.

## The Spectrum

Mixing is all about context. Every mix is different, and as an engineer, it's important to stay open to each one's unique requirements, not approach the mix position loaded up with our own set of biases or 'techniques' for X, Y and Z. Some mixes start out life over-arranged and full to bursting with instruments and sounds. These may need you, the mix engineer, to lean your set of audio tools more towards the separation end of the spectrum. Other mixes may be stark, under-arranged and oddly misaligned in their tone. For these songs, your same tools may be deployed as gluing agents.

Never think of any of them as serving only one purpose.

And one last tip, the ultimate example of a tool that's perfectly suited to either role – that's the most overlooked tool in the kitbag in discussions like this: fader level control.

'til next time.

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

## Complete Workforce Management, From Hire to Payroll.

- Onboarding
- Job Scheduling
- Attendance Tracking
- STP Payroll

- Rental Point Integration
- Compliance
- HR Timesheets
- Made for AV Companies

LEARN MORE

+61 283172450

[www.crewcard.com](http://www.crewcard.com)

# A NEW ERA FOR WOW



## Innovative Stage Design Unveiled

2024 WOW Show

## Behind the Scenes Insights from Technical Manager James Killen

In a thrilling new chapter for the World of WearableArt (WOW), the three-week show that attracts around 60,000 people annually to Wellington, boasted a new state-of-the-art stage designed to redefine the audience experience for its 2024 season. The new stage has evolved the show experience, allowing audiences the chance to get as close as possible to the garments to really appreciate the incredible detail that goes into each piece.

Led by Production Designer Robin Rawstorne, the WOW team took the bold step of moving away from the familiar pointed shape of the set to the strong architectural shape of a prism. This opened up more options for the creative team within the various sections, as well as generating more garment entry points to the stage via two new ramps. The new shape also unlocked new possibilities for the storeys-high AV set up.

Taking full advantage of the new stage, Executive Creative Director Brian Burke and Show Director Malia Johnston conceived 'Dream Awake', a narrative that took audiences into a world between worlds spun by the mysterious and magical 'Dream Maker'. They weaved six realms inspired by the 2024 WOW Competition sections, which this year included Natural World, Geometric Abstraction, and Crazy Curiosities of the Creature Carnival joining the recurring sections of Aotearoa, Avant-garde and Open.

Every year the arena spectacle combines performance, live music, aerial artistry,

dance, and digital technology. As each entry is wearable, models traverse the stage like living pieces of art, moving through the space accompanied by lighting effects, performers and music, designed to enhance each piece. This year the models were accompanied by aerialists including the dazzling integrated dance artist Rodney Bell (Ngāti Maniapoto and Ngāti Rora), kapa haka performers, singers, roller skaters, and a large ensemble of dancers who provided the basis of every scene. Eden Mulholland's pre-recorded soundtrack accompanied by fiddle player Shimna Higgins and multi-instrumentalist Dave Khan was interspersed with live and recorded vocals by Sharn Te Pou as The Dreamer and Nikita 雅涵 Tu-Bryant as The Dream Maker.

The production team behind the show, led by Technical Manager James Killen, pulled out all the stops to support the ambitious 'Dream Awake' narrative. With a commitment to pushing theatrical boundaries, the creative leadership team, James and an array of talented Heads of Department worked

together to immerse audiences in a multi-sensory experience that included a new soundscape and integrated live cameras for giant projections to showcase the artistic intricacies of the designs at the heart of the show.

Resoundingly positive reviews frequently singled out the production technology and quality for special mention. Audiences loved being able to see the garments enlarged as they come to the fore onstage and the use of the full height of the arena space helped people feel connected to the performance regardless of where they were seated.

We talked to James Killen to discuss the vision behind the show, the challenges his team faced, and the technological marvels that made this a must-see production. James, Director of his own company Mambo Show Services, has been involved in some capacity with WOW since 2008, originally as a rigger and automation operator before moving up the responsibility ladder to assume technical lead in 2023.

**Q. How would you describe your role?**

Essentially I played devil's advocate asking the gnarly questions to make sure that what the creatives were proposing was technically achievable. Unless there was a massive technical obstacle we generally always said yes.

**Q. What were the time frames?**

I had small conversations now and again with the creative team from a year out, and got more heavily involved in the planning in February and March of this year, once the stage was signed off at the end of January.

We got into the TSB Arena on August 2 and had six days to build the stage including all the revolving elements in the cut out holes for smoke vents, trapdoors and LED strip. Then every Friday till September 5 we did a bit more rigging infrastructure. This put us in a really good place for production pack in, as we were just installing the show really, with all the infrastructure already done.

We had eleven days at the start of September to pack in with the first rehearsal on September 12. It all went relatively smoothly and according to schedule which is testament to how good the teams are at what they do. By the 10th all we were doing was the aerial orientation and fine tuning the rigging for the projection platform movements. It was really just the final touches.

James Killen

**Q. How did the scope compare to a typical show?**

It is WOW so it is significant! Installing the rigging was pretty immense taking over 1,000 hours all up. The riggers worked very hard to get everything in, in the time allowed. The other departments would all have comparable hours as well.

**Q. Did the new stage pose any challenges in terms of AV design?**

The new stage was pretty straightforward. The only issue was the access ways to the

trap doors which in places got pretty tight and posed problems for some of the garments because of their size.

The shape of the stage also meant that we had a compression point where it came forward and into the crowd. Everybody wanted their gear to be in the same place for the lighting, rigging, and flying. It was a real puzzle but the joy of working with such an experienced team is that everybody knows they need to come to the table and we talked it through. The lighting designer and the sound and AV teams worked around what needed to fly in and out for the scenic elements.

## infinity Furion S402 and P402 INTELLIGENT LIGHT

Powerful, lightweight IP65 moving profile & spot fixtures at affordable prices.



Great for concerts, theatre, television and live events.

S402 350w LED spot- 23kg  
P402 350w LED profile with shutters - 25kg

CMY Colour mixing  
Built-in effects



**Clearlight Shows Pty Ltd**

[www.clearlight.com.au](http://www.clearlight.com.au)

03 9553 1688



**Q. What was the biggest head scratcher for you?**

The main challenge for me personally was the height and weight limitations due to the maximum capacity of the venue. When we started to consider the amount of video, lighting, rigging, scenery and garments, plus people flying, we really had to think about where we could place parts of the rigging in order to be able to get the engineer's sign off.

Sound is also always a challenge in the TSB Arena with it not being sound treated. Bart Barkman as Sound Designer and Western Audio Engineering introduced d&b audiotechnik's Soundscape, the first time this immersive platform was used in Aotearoa New Zealand, lots more speakers operating at a lower volume. It was a wild concept and a New Zealand first with speakers placed wherever we needed to

hear the sound. It worked a treat with people being able to hear the sound of footsteps moving around the arena, for example.

**Q. What was key to the success of the technical design?**

I think this year the amount of work that went into planning and integrating the rigging and aerials was critical. For us the most important thing was to absolutely nail the requirements of the aerialists when we took the show from the rehearsal room to the arena. We made a real effort to understand what the individual performer's needs were in order to have a precise counterbalance at all times. For example, we had some people who wanted to start spinning on the ground before they started spinning upwards. We really had to customise our approach to meet their expectations.

**The Creative & Technical Teams**

- Executive Creative Director: Brian Burke
- Show Director: Malia Johnston
- Composer & Music Director: Eden Mulholland
- Production Designer: Robin Rawstorne
- Lighting Designer: Trudy Dalgleish
- Sound Designer: Bart Barkman
- AV Designers: Drop the Spoon
- Costume Designer: Gabrielle Stevenson
- Lighting: MJF Lighting
- Video: Streamliner Productions
- Audio: Western Audio Engineering
- Automation: Theatrical Solutions
- Infrastructure: Metro Production



2024 WOW Show, Avant-Garde section



Curves Ahead, Grace DuVal, USA



2024 WOW Show, Crazy Curiosities of the Creature Carnival



*Tailgater, Kerri Barrie, Australia*



*The Red Thread, Ian Bernhard, New Zealand*

Integrating wheelchairs alone is not actually too difficult from a rigging point of view. The tricky part was that we had another performer moving and interacting with the wheelchair. This required some out-of-the-box thinking to deal with the changing weight. We combined an advantage system with the rigger climbing up and down the tower to counterbalance the performer, so they were exactly at the right height at all times.

**Q. Favourite bits of tech?**

I think the huge video walls and the content provided by Drop the Spoon created in conjunction with the creative team really added to the narrative, distinguishing the different realms. The back screens were 26m wide by 7m high and the frost cloth screen was 21m wide x 8m high each side. Plus the huge live projection of the garments as well as the Soundscape.

**Q. What did you enjoy most?**

Getting to work with all the different Heads of Department. It is such an over-the-top show and so incredibly technically demanding and yet these guys pull it off seamlessly every year. They are just so good at what they do, and I got to work alongside them.



*Bridget Carpenter (WOW General Stage Manager) and James Killen*

# PAR CAN SUPERSTAR



## Lee Curran Lights the 70s Rock Musical for 2024

Jesus Christ Superstar was first released as an album in 1970. The stage show didn't premiere until the following year. The current production at the Capitol in Sydney and set to tour Australia in 2025, is in many ways paying homage to the show's origins as a rock 'n' roll album. First staged at Regent's Park Open Air Theatre in London in 2017, it has since toured the UK, with English Lighting Designer Lee Curran visiting Sydney recently to remount his design.

"The idea of the piece as a rock 'n' roll album is a core influence that runs through all elements of the show's design," Lee says. Elements include the band being on stage for the duration of the show, as opposed to in a pit or tucked away behind set. Soloists are featured in the blocking, and members of the cast play instruments and use handheld mics. At points the audience should feel as though they're at a gig, as opposed to a musical.

This design principal extends to the lighting looks and fixtures used on the show, which Curran describes as "a sort of neat evolution of the kind of units used in rock 'n' roll." With the most recent decades represented by Martin MAC Auras and Claypaky Sharpys and, for that Seventies feel, a lot of PAR cans. "In a rock 'n' roll sense I think there's something iconic about the visual of an MFL CP62 bulb. For older generations the visual of that lens and bulb is such a recognisable rock 'n' roll look."

At Regent's Park, Lee used 400 PAR cans, many of which were integrated into the set. This design choice was partly due to necessity as the outdoor venue had no overhead positions, but it also helped create architecture on stage. As the design has been revised to move indoors, then becoming a touring set, it has evolved but is still recognisably the same feel as Regent's Park.

This is Curran's second trip to Australia this year. In May he worked with Opera Australia at Margaret Court Arena remounting Tosca, which was also a collaboration between him and Jesus Christ Superstar's set designer Tom Scutt. Their design for Tosca received praise in The Age with reviewer Bridget Davies noting, "the dome [set piece] and intense use of lighting made the Act III finale, which often comes off as naff, incredibly successful." The fixtures used to create that noteworthy moment were PAR cans that swept across stage on moveable booms and, like Jesus Christ Superstar,

made up much of the set. The opera may seem like a far cry from a rock 'n' roll gig, but seeing the two shows Curran says you could recognise similarities in their design.

When asked if it is a coincidence that both his designs in Australia this year feature the same instrument so heavily or if he really just loves a PAR can that much, Curran says that it is both. The productions were designed by Curran and Scutt within 18 months of each other. "It was obviously something we were interested in exploring at that time." Of course, budgets are always a factor when deciding on what fixtures you use. Curran says if he were to ask for hundreds of any moving light fixture, a production manager would most likely laugh at him.

But it is clear he does have a fondness for the old fixture which he calls "a unique beast even amongst other tungsten sources."

All conventional lights are becoming somewhat of an endangered species. Curran acknowledges there are good reasons for that, but says it is a shame to contemplate as a designer. "We are going to lose unique tools that give us some looks that aren't reproducible by other technology. I think the PAR can is the absolute best example of that. The quality of dimming and the colour change, I don't think there's another fixture, even among other tungsten units, that has that degree of colour shift across intensity change."

This makes it the perfect tool for Jesus Christ Superstar as, at its brightest, the source becomes white, heavenly, and the rich amber quality at their dimmest "can also be reminiscent of the other place." The colour palette of Jesus Christ Superstar is led by the PAR cans, but like any modern live music event or musical, there are moments of saturated colour provided by the moving light rig. Curran is intentional with his use of this colour.



Photo Credit: Jeff Busby



Photo Credit: Jeff Busby



# VUEPIX INFILED

# THANK YOU

TO ALL OUR PARTNERS AND CLIENTS FOR ANOTHER GREAT YEAR!

[vuepix.com](http://vuepix.com)



Photo Credit: Jeff Busby



Photo Credit: Jeff Busby

“Some musicals it feels like every number is a different colour and by the end of it, it can feel, no pun intended, like oversaturation. It can be difficult to read if there’s any intention of what the colours are doing. In this show when there is intense colour there is a reason for it, rather than just being a background setting.”

Intention and restraint seem to be guiding principles of Curran’s designs, that are led by dramaturgy rather than “showing off all the toys we’ve got.” He thinks of his designs as musical scores with high points, low points and shifts. “Even in straight plays, a piece always has a sense of timing and a musicality even if there’s not literal music playing.”

Reading Curran’s bio, his recent and notable works see a focus on contemporary dance, theatre and opera. He has worked as a full-time designer for just over a decade, but his career in lighting spans back much further than his bio. He was technical manager at the Institute of Contemporary Art in London at a time when they did a lot of live music and gigs. The familiarity with live music fixtures and looks was obviously useful for *Jesus Christ Superstar*, but what he learnt working in that venue has informed all aspects of his career. “The mode of working was different. I wasn’t watching rehearsals. A lot of it was busking and I got the feel for the gig as it went along.” Busking taught him the ability to improvise, which is a necessity for a designer. “We’ve all been in a situation where you go into tech and you start making the show and the things you imagine just don’t work when you try and realise them on the stage. You can’t draw time on tech and send everybody home while you come up with Plan B. You need to think of a solution.”



Jesus Christ Superstar Australian Cast. Photo Credit: Juliet Taylor



Improvisation is not to be confused with winging it, as the job also requires a lot of detailed planning, imagining what the cues are going to be and discussing what kind of looks you are going to achieve with the director and the designer. And Curran believes in the importance of attention to detail as “absolutely nailing it can make a work sing.”

He uses an example with the PAR cans. “They all need to be rigged at the exact spacing and all the bulbs have to be the same. If that bulb is behaving differently, we are going to swap it out. We go through and curve and proportion every single one so they all look exactly the same when they’re sitting at eight per cent or 11 per cent.” This level of detail has an impact that he describes as “exponentially greater than when it’s nearly right.”

Curran was nominated for both the Olivier and the Knight of Illumination award for his design on Jesus Christ Superstar and the production won the Olivier for Best Musical Revival. With it now touring around Australia almost eight years later, Curran should feel confident he has nailed it this time.

“Fundamentally it’s a great show,” he says, and that “the design team were really in tune with each other making a really good piece of work.” Despite the musical now past its fiftieth anniversary, Curran thinks audiences will feel like they’re watching a show that could’ve been written last year. “I don’t think there’s that many productions you can say the same about.”








Lee Curran

Lee Curran is a lighting designer of theatre, dance, and opera. Lee has worked with artists and organisations such as the National Theatre, Regent’s Park Open Air Theatre, Almeida Theatre, Royal Shakespeare Company, Royal Court, Donmar Warehouse, Royal Opera House, Hofesh Shechter, Royal Exchange Manchester, Rambert Dance Company, LIFT, Boy Blue Entertainment, and the Royal Danish Opera.

Lee has been nominated for the Olivier Award for Best Lighting Design four times - A Streetcar Named Desire (2023), Summer and Smoke (2019), Jesus Christ Superstar (2017), and Constellations (2013). He has also been nominated for a Knight of Illumination award three times, for Summer and Smoke, Jesus Christ Superstar, and Orpheus and Eurydice.





WE HAVE YOUR EVENT  
**BACKDROP SOLUTIONS**



**1800 737 037**  
[www.backdrops.com.au](http://www.backdrops.com.au)

OUR BRANDS:



# 2025 RENTAL DIRECTORY

Welcome to our Rental Directory - Your ultimate guide to the top equipment hire companies across Australia in 2025.

Whether you're in need of equipment, specialty services, or event supplies, this directory makes it easy to find the best rental services tailored to your needs.



**Elite Event Technology**

Unit 2/5 75 Sheppard St,  
Hume, ACT, 2620

T: (02) 6260 2311

W: [www.eetechnology.com.au](http://www.eetechnology.com.au)



EET is focussed on providing the highest level of technical equipment and personnel in Canberra. With the region's largest and most sophisticated inventory, experienced and passionate staff, our goal is to ensure that our client's objectives are achieved and expectations exceeded, no matter how large or small the event is. Our experience as a company spans over 30 years and we build and draw on this every day to ensure 100% satisfaction. Whether you're planning an executive presentation, conference, gala dinner, concert, special event or festival, we have the technology and creativity to engage your audience. Your message is clear – let us ensure it stays that way.



**Audio Visual Events**

1/12 Frederick Street,  
St Leonards, NSW, 2065

T: (02) 9438 5656

E: [rentals@audiovisualevents.com.au](mailto:rentals@audiovisualevents.com.au)

W: [www.audiovisualevents.com.au](http://www.audiovisualevents.com.au)



Since 2002, Audio Visual Events has earned a reputation as one of the most reliable names in the industry. We are known for exceptional dry hire solutions and a flawless record in delivering technical production for events of all sizes across Australia. Our meticulously maintained fleet, stocked with industry-standard brands, is housed in technician-designed racks and cases. And, we are committed to constant investment in evolving production technologies. With our team of experienced technical event experts, we ensure a stress-free journey from the initial brief to seamless execution. Whether you need a comprehensive quote for end-to-end technical production or are looking to dry hire equipment to enhance your event, AVE has all your AV needs under one roof.

Download our product catalogue at [www.audiovisualevents.com.au/equipment-catalog](http://www.audiovisualevents.com.au/equipment-catalog)



**Big Picture**

40 Lord Street, Botany, NSW, 2019

T: (02) 9316 6771

E: [oz@bigpicture.com](mailto:oz@bigpicture.com)

W: [www.bigpicture.com](http://www.bigpicture.com)



Big Picture, an NEP Live Events Company, is the leading production partner and supplier of video tech and live event solutions. We help clients make, manage, and show the world their content. From large international broadcasts to regional productions, Big Picture and the NEP Worldwide Network are proud to cover it.



\*See QLD for more location details.

**Chameleon Touring Systems**

86 Ferndell Street, Chester Hill, NSW, 2162

T: (02) 9643 4999

E: hire@chameleon-touring.com.au

W: www.chameleon-touring.com.au



Chameleon Touring Systems is proudly Australian owned and operated. Since 1988 we have been supplying equipment and personnel for indoor and outdoor live entertainment, concerts, film, television, theatre, architectural design, installation and consultation, as well as special events all over the country. We carry the largest and most diverse lighting and rigging equipment inventory in Australia, which has been carefully selected from leading international manufacturers (including ACME, Astera, Ayrton, Chauvet, Claypaky, Elation, ELC, ETC, GLP, Kinesys, LumenRadio, Luminex, Macula, MA, Martin, MDG, PROLIGHTS and Robe) to ensure we are providing safe, reliable and quality solutions that meet the needs of the most discerning designers from all over the world. Whatever it may be, however big or small, simple or specialised, we look forward to working with you on your next project.



**dplr Pty Ltd**

7 Allen Street, Waterloo, NSW, 2017

T: Phone: (02) 9037 3757

E: hello@dplr.com.au

W: www.dplr.com.au



dplr is a full-service production AV company which focuses on creating unforgettable events and experiences. We are a turn-key supplier for activities of any size or scope, locally or nationally, working with creatives, brands, festivals, local government and community groups, to deliver technical solutions through innovation. Our hire equipment includes lighting fixtures from Chauvet and Ayrton, audio systems from d&b and QSC, and a large range of LED screens, commercial displays, projectors and staging. All of this is supported by our diverse and highly skilled team of technicians.



**Eventspec**

4 Garling Road, Kings Park, NSW, 2148

T: 0477 898 189

E: info@eventspec.com.au

W: www.eventspec.com.au



Eventspec is a leading event production company based in Sydney, offering a wide range of audio-visual services and corporate event streaming solutions. We specialize in AV hire, event staging, and live streaming services, using top-tier equipment from brands like Vuepix, Brompton, ACME, Shure, JBL, and more. Whether you need dry hire, turnkey event production, or white-label services, we deliver seamless execution for in-person, hybrid, and virtual events. Our expert team ensures flawless production with a focus on detail, making us the go-to partner for high-quality corporate events and event streaming.



**NSW**

## Flick Switch

Sydney

T: 0439 881 003

E: [contact@flickswitch.com.au](mailto:contact@flickswitch.com.au)

W: [www.flickswitch.com.au](http://www.flickswitch.com.au)

Facebook: [flickswitchptyltd](https://www.facebook.com/flickswitchptyltd)

Instagram: [\\_flickswitch\\_](https://www.instagram.com/_flickswitch_)



Flick Switch is far more than a rigging rental company. We have built our business on delivering high quality solutions with years of experience in a wide variety of markets, including film, television, live events, international touring, and theatre. With our years of experience in audio, lighting, screens, sets, (and the list goes on) we can go further than just the support rigging. We are also able to rig the equipment too. Planning and installing the power and data distribution, fixtures, fly systems, audio, LED screens and other equipment, fine tuning, focusing and operating. When you engage Flick Switch you can expect not just an extensive high-quality range of equipment, but highly personalised service, attention to detail, with safety always our highest priority. Our client's confidence and trust are at the core of our business. We aim to give you this peace of mind so you can focus on the creative delivery of your production.



**NSW**

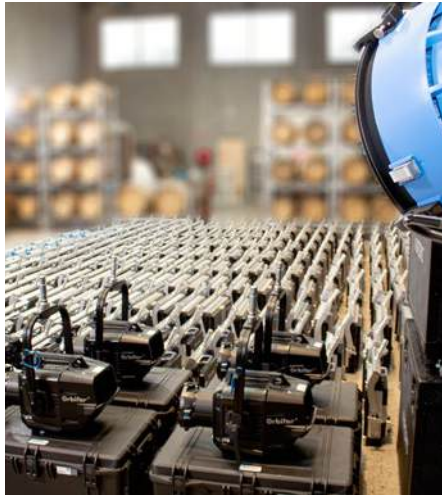
## Focal Point Rental

1575A Botany Rd, Botany, NSW, 2019

T: (02) 7208 4485

E: [info@focalpoint.rentals](mailto:info@focalpoint.rentals)

W: [www.focalpoint.rentals](http://www.focalpoint.rentals)



Specialising in film, television and the entertainment market. Focal Point provides comprehensive rental support along with a wide range of new lighting technology and equipment. Featuring pre-delivery training, customer service phone support, and an in-house technician available for repairs.



**NSW**

## Forefront Productions ALV Pty Ltd

2/246 Macquarie Road,  
Warners Bay, NSW, 2282

T: (02) 49544 771

E: [hire@ffp.com.au](mailto:hire@ffp.com.au)

W: [www.ffp.com.au](http://www.ffp.com.au)



Forefront are based in Newcastle, some would say an outer suburb of Sydney - local but without the expense. With our inhouse trucking we are always somewhere in the country. We have an extensive inventory of the latest rider-friendly audio, lighting & video gear, well equipped for events from small functions up to arena sized touring. With over 30 years in the industry and a likeable team, we will bring a wide spectrum of experience to your event.



**NSW****QLD****VIC**

\*See QLD and VIC for more location details.

## Harry the hirer Productions

Building D1, 3-11 Shirley St,  
Rosehill, NSW, 2142

T: (02) 9666 8699

E: [Productions@harrythehirer.com.au](mailto:Productions@harrythehirer.com.au)W: [www.harrythehirer.com.au/expertise/av-production](http://www.harrythehirer.com.au/expertise/av-production)

Harry the hirer Productions are a full-service production rental supplier with large stock levels of lighting, video, rigging, staging, and good quality audio product. Harry the hirer will happily supply a single component to support any production or event requirement, and also have extensive experience in full turn-key technical equipment support. Call us to get to know our full-time team of tech experts, or just to chat latest kit.

**Harry  
the hirer.  
Productions****NSW****QLD****SA****VIC**

\*See QLD, SA and VIC for more location details.

## NW Group

Building Q, 10-16 South Street,  
Rydalmere, NSW, 2116

T: (02) 9061 7300

E: [ask@nwgroup.com.au](mailto:ask@nwgroup.com.au)W: [www.nwgroup.com.au](http://www.nwgroup.com.au)

NW Group is one of the top suppliers of full-service live event production in Australasia. We have extensive experience working across all sectors of the event market, including corporate, arts and entertainment, special projects, and venues. Our team of experts is equipped with cutting-edge equipment and technologies to ensure flawless production for any type of event. Our comprehensive range of services includes audio reinforcement, visual projection, intelligent lighting, staging, rigging, and more. Whether you need assistance with event planning, equipment rental, or on-site technical support, NW Group is here to help. Contact us today to discuss your upcoming event and discover how we can take it to the next level with our unparalleled production services.

**NW GROUP****NSW**

## Scene Change Sydney

3/2 George Place, Artarmon, NSW

T: (02) 9906 8909

E: [sydney@scenechange.com.au](mailto:sydney@scenechange.com.au)W: [www.scenechange.com.au](http://www.scenechange.com.au)

Scene Change Sydney is a full-service technical supplier offering a wide range of solutions in audio, video, lighting and staging. They boast an extensive inventory of world-class LED panels, including outdoor, lightweight, transparent, corner, and true curving options, designed to suit various applications without compromise. With a team of expert project managers and technicians, Scene Change provides competitive, high-quality solutions tailored to meet diverse event needs.

**SCENE  
CHANGE**

**NSW**

### Start Webcast

Based in Blacktown, NSW, 2148, servicing Australia-wide

T: 0430 333 064  
E: [wecanhelp@startwebcast.com](mailto:wecanhelp@startwebcast.com)  
W: [www.StartWebcast.com](http://www.StartWebcast.com)



B2B technical engineering and speciality equipment hire. We assist AV production companies to deliver engaging interactive real-time and multimedia experiences to local, national, and international audiences, becoming an extension of their business. Specialising in the less common stuff like bespoke hardware/software development, (e.g. gameshows, interactive exhibits), broadcast quality webcasts, best-in-class video conferencing links using Poly and Cisco, lipstick cameras, wireless video, XPression graphics, remote system control, management and monitoring. The weirder the better!



**STARTWEBCAST**  
INTERACTIVE STREAMING PRODUCTION  
[www.startwebcast.com](http://www.startwebcast.com)

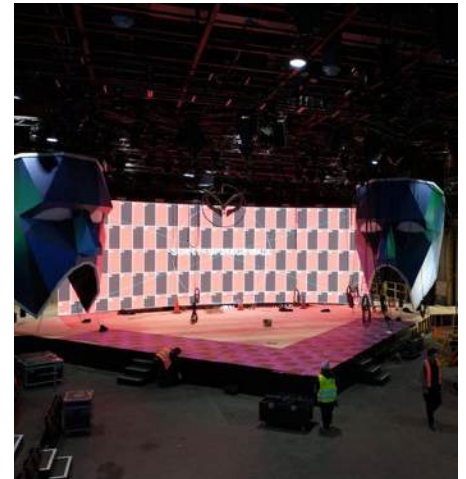
**NSW VIC**

\*See VIC for more location details.

### TDC – Technical Direction Company

2-33 Bowden Street, Alexandria, NSW, 2015

T: (03) 9647 5900  
E: [Hello@tdc.com.au](mailto:Hello@tdc.com.au)  
W: [www.tdc.com.au](http://www.tdc.com.au)



TDC is a leading supplier of video technology and production for the events and entertainment industry. Our team engineer the latest in high-end video technology to deliver projection mapping, LED technology, virtual productions, media server technology, broadcast and camera tracking solutions. Our purpose-built studios in Sydney offer a LED Volume and all the facilities required for movie and TVC production.



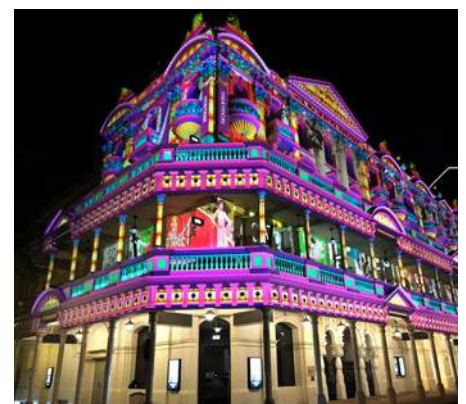
**NSW VIC**

\*See VIC for more location details.

### The Electric Canvas

Unit 4, 19-21 Gibbes Street, Chatswood, NSW, 2067

T: (02) 9417 2077  
E: [info@theelectriccanvas.com.au](mailto:info@theelectriccanvas.com.au)  
W: [www.theelectriccanvas.com.au](http://www.theelectriccanvas.com.au)



The Electric Canvas is an award-winning Australian company, recognised around the world as a leader in large-scale and architectural projection. Established in 1997, with locations in Sydney and Melbourne, the company is a complete solution provider with a multi-discipline in-house creative content department and specialist technical staff, entirely dedicated to providing focused support for complex projection and mixed media productions. Our unique business model in the Australian projection mapping market allows us to provide complete turnkey projection solutions incorporating creative services, technical design, projection mapping, equipment and infrastructure supply – all from our extensive in-house resources.



**NSW**

### The P.A. People

8-12 Ford St, Greenacre, NSW, 2190

T: (02) 8755 8700

E: [eventcomms@papeople.com.au](mailto:eventcomms@papeople.com.au),

[sales@papeople.com.au](mailto:sales@papeople.com.au)

W: [papeople.com.au](http://papeople.com.au)



The P.A. People boast one of the largest independent Clear-Com rental fleets globally. Our comprehensive inventory includes FreeSpeak II wireless full-duplex systems, Helixnet partyline systems and LQ network interfaces, Motorola two-way radios, distributed audio systems and control equipment, CCTV and sound pressure level (SPL) monitoring, and full audio systems and consoles. We stock an extensive range of Yamaha consoles including the new DM7, Rivage PM5s, QL1s and QL5s along with a comprehensive range of arrays and speakers from Bose Professional, Community, and JBL. Our systems are capable, scalable and can be supported by an experienced service team. The P.A. People operate Australia-wide.



**NSW**

**QLD**

**VIC**

\*See QLD and VIC for more location details.

### Tri-Point Rigging Services

5-7 Hale Street, Botany, NSW, 2019

T: (02) 9666 4642

E: [nsw@tripointrigging.com](mailto:nsw@tripointrigging.com)

W: [www.tripointrigging.com](http://www.tripointrigging.com)



Tri-Point services the screen, concert, and event industries with a variety of rental products, including chain hoists, truss, counterweight, event scaffolding, tab track, Bomac, scrims, and green and blue screens. Based in Sydney, Tri-Point also operates branches in Melbourne and the Gold Coast, and can provide equipment with or without delivery, designed and installed or as a dry hire only. Tri-Point also provides turn-key outdoor staging solutions, engineered and installed on-site.



**NT**

### Total Event Services

122 Reichardt Road, Winnellie, NT, 0820

T: (08) 89808222

E: [hires@tes.com.au](mailto: hires@tes.com.au)

W: [www.tes.com.au](http://www.tes.com.au)



From humble beginnings as Top End Sounds in 1981, we grew from a small sound and lighting company and expanded to become Total Event Services, offering services from party and event hire, through to complete production services. We have Darwin's largest inventory of pavilions and shade, including the awesome Saddlespan stage covers and our new range of POP-UP marquees. We can supply you with furniture, theming, staging, big screens, lighting... and that's just the beginning! Whether your event is a grand gala dinner for 4000, or a private function for 10... we cater for them all. Awards nights, community events, markets, conferences, festivals, shows, fetes, sporting events, weddings and parties... From our Darwin-based warehouse we service the entire NT, northern WA, and north QLD.



**QLD NSW**

\*See NSW for more location details.

### Chameleon Touring Systems

233 Lavarack Avenue, Eagle Farm, QLD, 4009

T: (07) 3260 2663

E: [hire@chameleon-touring.com.au](mailto:hire@chameleon-touring.com.au)

W: [www.chameleon-touring.com.au](http://www.chameleon-touring.com.au)



Chameleon Touring Systems is proudly Australian owned and operated. Since 1988 we have been supplying equipment and personnel for indoor and outdoor live entertainment, concerts, film, television, theatre, architectural design, installation and consultation as well as special events all over the country. We carry the largest and most diverse lighting and rigging equipment inventory in Australia, which has been carefully selected from leading international manufacturers (including ACME, Astera, Ayrton, Chauvet, Claypaky, Elation, ELC, ETC, GLP, Kinesys, LumenRadio, Luminex, Macula, MA, Martin, MDG, PROLIGHTS and Robe) to ensure we are providing safe, reliable and quality solutions that meet the needs of the most discerning designers from all over the world. Whatever it may be, however big or small, simple or specialised, we look forward to working with you on your next project.



**QLD**

### ELS Productions

30 Taree Street, Burleigh Heads, QLD, 4220

T: (07) 5593 5105

E: [info@els-productions.com.au](mailto:info@els-productions.com.au)

W: [www.els-productions.com.au](http://www.els-productions.com.au)



Established in 1984, ELS is a full-service event and entertainment technology supplier. We service the corporate, entertainment, touring and community markets. Our rental inventory includes L-Acoustics, Yamaha, Midas, AVID, Martin, ClayPaky, Ayrton, Hog, grandMA, Global and CLS trussing and structures, LED Vision LED screens, NovaStar, Barco and BlackMagic video processing, and 4K SMPTE fibre camera chains.



**QLD**

### Events Fantastic Australia

3b/45 Leda Drive, Burleigh Heads, QLD, 4220

T: (07) 5520 4648

E: [hire@eventsfantastic.com.au](mailto:hire@eventsfantastic.com.au)

W: [www.eventsfantastic.com.au](http://www.eventsfantastic.com.au)



Events Fantastic offers an extensive range of event decor and inventory for hire, making us the go-to choice for event managers, event producers, venues, and audio visual professionals in the Australian corporate event production industry. Our diverse decor selection includes everything from bespoke hand-painted Backdrops Fantastic theme backdrops to conference and gala modular backdrops, draping, inflatables, illuminated furniture, light-up letters, dance floors, props, linens, and centrepieces. With our extensive inventory, you can save time and effort by sourcing all your event decor needs in one place. We are based on the Gold Coast but ship our event decor Australia-wide daily.



**QLD****NSW****VIC**

\*See NSW and VIC for more location details.

## Harry the hirer Productions

24 Motorway Circuit,  
Ormeau, Queensland, 4208

T: 0425 781 145

E: [Productions@harrythehirer.com.au](mailto:Productions@harrythehirer.com.au)W: [www.harrythehirer.com.au/expertise/av-production](http://www.harrythehirer.com.au/expertise/av-production)

Harry the hirer Productions are a full-service production rental supplier with large stock levels of lighting, video, rigging, staging, and good quality audio product. Harry the hirer will happily supply a single component to support any production or event requirement, and also have extensive experience in full turn-key technical equipment support. Call us to get to know our full-time team of tech experts, or just to chat latest kit.

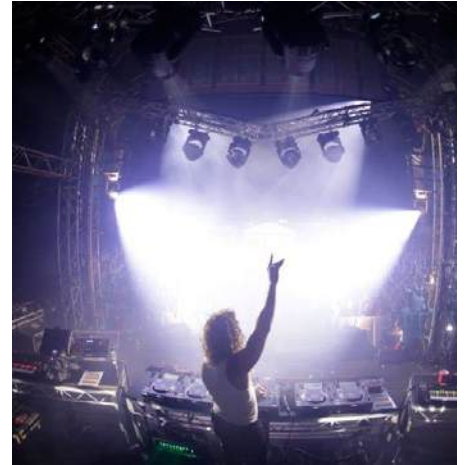
**Harry  
the hirer.  
Productions****QLD****NSW****VIC**

\*See NSW and VIC for more location details.

## Harry the hirer Productions - Touring & Music

24 Motorway Circuit,  
Ormeau, Queensland, 4208

T: 0425 781 145

E: [touringandmusic@hthproductions.com.au](mailto:touringandmusic@hthproductions.com.au)W: [www.harrythehirer.com.au/expertise/av-production](http://www.harrythehirer.com.au/expertise/av-production)

HTH Productions Touring & Music now has a full suite of the latest lighting, rigging, video, LED and camera systems to meet the requirements of the Australian touring and music demands. Our pre-vis and prep spaces in Queensland, Sydney or Melbourne warehouses have plenty of space to build the most complex shows before going out. We love to be involved, no matter how big or small your show is, and we're always up for a chat, especially about our next investments into lighting and video. Give us a ring.

**Harry  
the hirer.  
Productions****QLD**

## LED Vision

30 Taree Street,  
Burleigh Heads, QLD, 4220

T: (07) 55935107

E: [info@led-vision.com.au](mailto:info@led-vision.com.au)W: [www.led-vision.com.au](http://www.led-vision.com.au)

Established in 2014, LED Vision is a professional LED screen supplier. We offer fully integrated LED screens for indoor and outdoor events servicing the corporate, entertainment, sporting, promotions and touring markets. Our rental inventory includes over 350 sqm of LED panels ranging from 1.9mm to 8mm pitch indoor and outdoor, complete IMAG systems, NovaStar, Barco and Blackmagic video processing, and Blackmagic cameras. Global and CLS trussing structures. LED trailers from 7 sqm to 28 sqm, 4.9 to 8mm pitch.

**LED  
VISION**

**QLD****NSW****SA****VIC**

\*See NSW, SA and VIC for more location details.

## NW Group

39 Fulcrum Street,  
Richlands, QLD, 4077

T: (07) 3073 2800

E: ask@nwgroup.com.au

W: www.nwgroup.com.au



NW Group is one of the top suppliers of full-service live event production in Australasia. We have extensive experience working across all sectors of the event market, including corporate, arts and entertainment, special projects, and venues. Our team of experts is equipped with cutting-edge equipment and technologies to ensure flawless production for any type of event. Our comprehensive range of services includes audio reinforcement, visual projection, intelligent lighting, staging, rigging, and more. Whether you need assistance with event planning, equipment rental, or on-site technical support, NW Group is here to help. Contact us today to discuss your upcoming event and discover how we can take it to the next level with our unparalleled production services.

**NW GROUP****QLD**

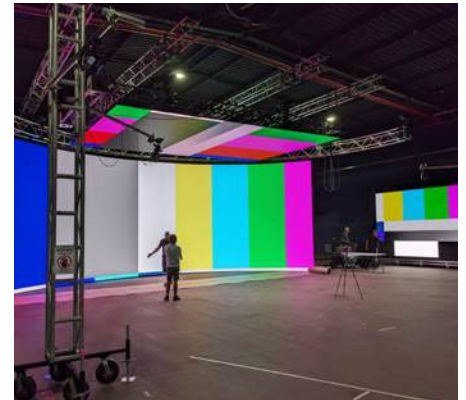
## Pixel Line

Unit 4, 58 Frederick St,  
Northgate, QLD, 4013

T: (07) 3103 3171

E: hello@pixel-line.com.au

W: www.pixel-line.com.au



Pixel Line is your go-to supplier for premium large-format LED screens, projection, media servers, broadcast, and switching and control equipment in Queensland. Our focus is the supply of expert technical services and premium video equipment for live events, temporary displays, and film and TV production. We stock a massive range of ROE Visual LED, Brompton Tessera LED Processing, Christie Digital and Panasonic projection, Barco Event Master E2 and S3 units (with Encore 3 soon to arrive), Dataton Watchout V6 and V7, and more. Our recent investment in ROE Visual Ruby 2.6F means the very latest and best, next generation LED is now available right here in Queensland.

**Pixel Line**  
YOUR PROJECTION PARTNER

**QLD****NSW****VIC**

\*See NSW and VIC for more location details.

## Tri-Point Rigging Services

Gold Coast

E: qld@tripointrigging.com

W: www.tripointrigging.com



Tri-Point services the screen, concert, and event industries with a variety of rental products, including chain hoists, truss, counterweight, event scaffolding, tab track, Bomac, scrims, and green and blue screens. Based in Sydney, Tri-Point also operates branches in Melbourne and the Gold Coast, and can provide equipment with or without delivery, designed and installed or as a dry hire only. Tri-Point also provides turn-key outdoor staging solutions, engineered and installed on-site.

**TRI-POINT**  
TRIPOINTRIGGING.COM

SA

### AJS Lighting Sound Events (a.k.a. Andy J Sound)

10,12 William St, Mile End South, SA, 5031

T: (08) 8221 5551

E: info@ajsound.com.au

W: www.ajsound.com.au



Established in 1996, we are a proud family-owned company that combines the latest in vision, sound and lighting technology to achieve cutting-edge, creative and engaging experiences. AJS collaborates with clients to provide customised solutions, and our technical and service excellence ensures that each of your events is unforgettable. We boast a large and dedicated staff passionate about their service to the industry.



SA

### Novatech Creative Event Technology

153 Holbrooks Road, Underdale, SA, 5032

T: (08) 8352 0300

E: hello@ncet.co

W: www.ncet.co



Novatech is one of Australia's leading and most respected family-owned audio-visual production companies. Since their inception in 2001, they have been driven by a passion and commitment to staging exceptional events across Australia, using leading brands such as L-Acoustics, ROE Visual, Brompton, Barco, disguise, MA Lighting, ClayPaky, Ayrton, Shure, Riedel, and more. Whether you need equipment for dry hire, long term hire or a full turn-key solution, Novatech can offer competitive rates right across Australia. Backed by experienced staff and an ever-increasing inventory of the world's best brands, Novatech provides you with the confidence and peace of mind when staging your next event. Check out our equipment fleet at [ncet.co/equipment/](http://ncet.co/equipment/)



SA

QLD

NSW

VIC

\*See QLD, NSW and VIC for more location details.

### NW Group

43 Winwood Street, Thebarton, SA, 5031

T: (08) 8317 6030

E: ask@nwgroup.com.au

W: www.nwgroup.com.au



NW Group is one of the top suppliers of full-service live event production in Australasia. We have extensive experience working across all sectors of the event market, including corporate, arts and entertainment, special projects, and venues. Our team of experts is equipped with cutting-edge equipment and technologies to ensure flawless production for any type of event. Our comprehensive range of services includes audio reinforcement, visual projection, intelligent lighting, staging, rigging, and more. Whether you need assistance with event planning, equipment rental, or on-site technical support, NW Group is here to help. Contact us today to discuss your upcoming event and discover how we can take it to the next level with our unparalleled production services.



**VIC**

### Clearlight Shows

5 Horscroft Place, Moorabbin, VIC, 3189

T: (03) 9553 1688

E: hire@clearlight.com.au

W: www.clearlight.com.au



With a focus on supplying cutting edge stage lighting equipment for corporate events, schools, theatres, churches, and film and television, Clearlight Shows hire department has been a major supplier to the entertainment industry for over 40 years. Stocking the latest products, we have invested heavily in the equipment designers and venues ask for from leading brands including Infinity, Wentex, Swefog, Astera, ETC, Robe, Showtec, LDR, Martin, Chauvet, Vari-Lite, Zero88, and Selecon. Boasting a well-equipped showroom at our Moorabbin warehouse, designers can evaluate the latest hire products in an accurate setting to push their creativity to the limits. Adding to the hire experience, we can complement your rental with a full range of accessories and consumables including tapes, gels, fluids and spare lamps.



**VIC**

### Concert Lighting Systems Australia

1 Rogers Street, Port Melbourne, VIC, 3207

T: (03) 9646 8890

E: hire@clsa.com.au

W: www.clsa.com.au



Since 1976, CLSA has continuously evolved, keeping pace with advancements in lighting technology, staging and rigging to offer state-of-the-art equipment. With its team of skilled professionals and a commitment to excellence, CLSA has become a trusted partner in design, fabrication, equipment supplies and service for concerts, festivals, theatrical productions, and more. We hire stage decks, steps, access ramps, handrails, truss, stands, base plates, ballast, chain hoists, power distribution, drapes, smoke and haze machines, stage lighting, and outdoor stages. We also supply licenced riggers and experienced crew to install rigging, staging, and stage canopies, and can assist with your designs.



**VIC**

**QLD**

**NSW**

\*See QLD and NSW for more location details.

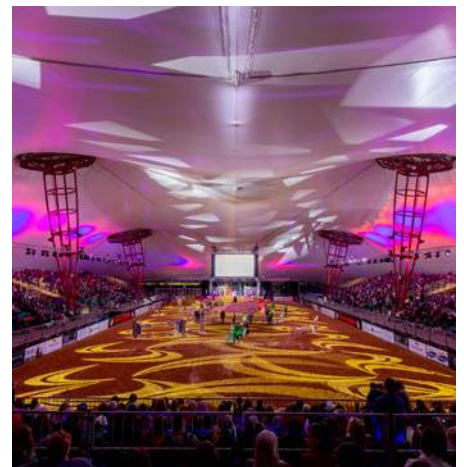
### Harry the hirer Productions

81 Burnley Street, Richmond, VIC, 3121

T: (03) 9429 8688

E: Productions@harrythehirer.com.au

W: www.harrythehirer.com.au/expertise/av-production



Harry the hirer Productions are a full-service production rental supplier with large stock levels of lighting, video, rigging, staging, and good quality audio product. Harry the hirer will happily supply a single component to support any production or event requirement, and also have extensive experience in full turn-key technical equipment support. Call us to get to know our fulltime team of tech experts, or just to chat about latest kit.



VIC

## HD Production

8 Myrtle Road, Kialla, VIC, 3631

T: (03) 5752 5012

E: [contact@hdpro.com.au](mailto:contact@hdpro.com.au)

W: [www.hd-production.com.au](http://www.hd-production.com.au)



HD Production is regional Victoria's premier audio-visual production supplier, providing the latest in production equipment with an experienced team, dedicated to ensuring your next event is seamless and stress free. Based in Shepparton, HD Production provides professional audio-visual production solutions across regional Victoria. We cater to all events from small conferences to large exhibitions, from community and sporting, to arts events and large outdoor music festivals. Services include audio and lighting equipment hire, live video streaming, IMAG, projection and LED screens, staging and rigging hire, backline hire, production management, operation and crewing.



VIC

## Impress AV

4 Trinity Way, Pakenham, VIC, 3810

T: 0401 750 607

E: [aaron@impressav.com](mailto:aaron@impressav.com)

W: [www.impressav.com](http://www.impressav.com)



Impress AV is a premier audio and visual production company, delivering end-to-end production for all events. With the latest in AV technology, touring-grade PA systems, lighting, LED video walls, and broadcast vision, we can bring your performance to the level expected at the world stage. No event too big or too small. If you want your event to leave a lasting impression, leave it to Impress.



VIC

QLD

NSW

SA

\*See QLD, NSW and SA for more location details.

## NW Group

80 Proximity Drive,  
Sunshine West, VIC, 3020

T: (03) 8657 0400

E: [ask@nwgroup.com.au](mailto:ask@nwgroup.com.au)

W: [www.nwgroup.com.au](http://www.nwgroup.com.au)



NW Group is one of the top suppliers of full-service live event production in Australasia. We have extensive experience working across all sectors of the event market, including corporate, arts and entertainment, special projects, and venues. Our team of experts is equipped with cutting-edge equipment and technologies to ensure flawless production for any type of event. Our comprehensive range of services includes audio reinforcement, visual projection, intelligent lighting, staging, rigging, and more. Whether you need assistance with event planning, equipment rental, or on-site technical support, NW Group is here to help. Contact us today to discuss your upcoming event and discover how we can take it to the next level with our unparalleled production services.



**VIC**



### Outlook Communications

29 Reserve Street, Preston, VIC, 3072

T: (03) 9495 1755 or 0431 818 620  
E: jack@outlookcomms.com.au  
W: www.outlookcomms.com.au

Outlook Communications (a division of The Big Production Group Pty Ltd) provides innovative technical solutions for theatrical productions, concerts, and events. Our wide range of audio, lighting and video gear, and experienced technicians allows us to exceed expectations. From providing a speaker and mic, to providing technical elements for a full theatrical production, and everything in between, Outlook will help bring your event to life.



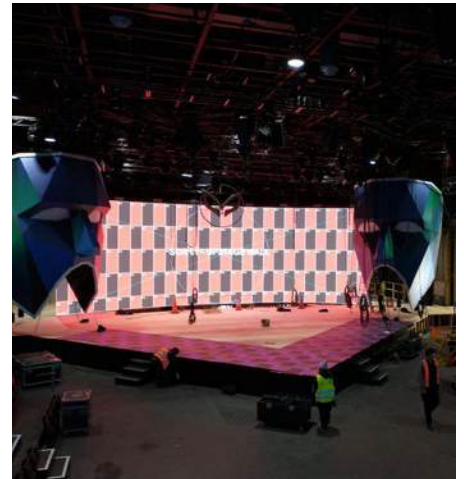
**VIC NSW**

\*See NSW for more location details.

### TDC – Technical Direction Company

39 Bayside Avenue,  
Port Melbourne, VIC, 3207

T: (03) 9647 5900  
E: Hello@tdc.com.au  
W: www.tdc.com.au



TDC is a leading supplier of video technology and production for the events and entertainment industry. Our team engineer the latest in high-end video technology to deliver projection mapping, LED technology, virtual productions, media server technology, broadcast and camera tracking solutions. Our purpose-built studios in Sydney offer a LED Volume and all the facilities required for movie and TVC production.



**VIC NSW**

\*See NSW for more location details.

### The Electric Canvas

Unit 2, 19 Barrie Road,  
Tullamarine, VIC, 3043

T: (03) 9338 8198  
E: info@theelectriccanvas.com.au  
W: www.theelectriccanvas.com.au



The Electric Canvas is an award-winning Australian company, recognised around the world as a leader in large-scale and architectural projection. Established in 1997, with locations in Sydney and Melbourne, the company is a complete solution provider with a multi-discipline in-house creative content department and specialist technical staff, entirely dedicated to providing focused support for complex projection and mixed media productions. Our unique business model in the Australian projection mapping market allows us to provide complete turnkey projection solutions incorporating creative services, technical design, projection mapping, equipment and infrastructure supply – all from our extensive in-house resources.



VIC

QLD

NSW

\*See QLD and NSW for more location details.

## Tri-Point Rigging Services

F/15 Slough Rd, Altona, VIC, 3018

T: (03) 9315 9885

E: vic@tripointrigging.com

W: www.tripointrigging.com



Tri-Point services the screen, concert, and event industries with a variety of rental products, including chain hoists, truss, counterweight, event scaffolding, tab track, Bomac, scrims, and green and blue screens. Based in Sydney, Tri-Point also operates branches in Melbourne and the Gold Coast, and can provide equipment with or without delivery, designed and installed or as a dry hire only. Tri-Point also provides turn-key outdoor staging solutions, engineered and installed on-site.



WA

## Mega Vision Australia

25 Gordon Road West,  
Osborne Park, WA, 6017

T: (08) 9444 6556

E: talk2us@megavision.com.au

W: www.megavision.com.au



Since our establishment in 2001, Mega Vision has consistently set the benchmark for excellence in AV hire and equipment. With a commitment to delivering exceptional audio, visual, and lighting solutions, we've been the trusted choice for businesses, events, and households across Western Australia for the past two decades. Now in our new Mega warehouse, our extensive inventory of cutting-edge equipment caters to gatherings of any size, from small private parties to grand music festivals. Audio, commercial screens, lighting, staging decks, large LED screens, mobile stage, special effects, DJ equipment or a party at home, our team guides you through the process, ensuring tailored solutions that meet your specific requirements. Mega Vision has the right equipment for you!

## DIRECTORY INDEX

### AJS Lighting Sound Events (a.k.a. Andy J Sound)

10/12 William St, Mile End South, SA 48  
08 8221 5551  
info@ajsound.com.au  
www.ajsound.com.au

### Audio Visual Events

1/12 Frederick Street, St Leonards, NSW 39  
(02) 9438 5656  
rentals@audiovisualevents.com.au  
www.audiovisualevents.com.au

### Big Picture

40 Lord Street, Botany, NSW 39  
(02) 9316 6771  
oz@bigpicture.com  
www.bigpicture.com

### Chameleon Touring Systems

• 86 Ferndell Street, Chester Hill, NSW 40  
(02) 9643 4999  
• 233 Lavarack Avenue, Eagle Farm, QLD 45  
(07) 3260 2663  
hire@chameleon-touring.com.au  
www.chameleon-touring.com.au

### Clearlight Shows

5 Horscroft Place, Moorabbin, VIC 49  
(03) 9553 1688  
hire@clearlight.com.au  
www.clearlight.com.au

### Concert Lighting Systems Australia

1 Rogers Street, Port Melbourne, VIC 49  
(03) 9646 8890  
hire@clsa.com.au  
www.clsa.com.au

## dplr Pty Ltd

7 Allen Street, Waterloo, NSW  
(02) 9037 3757  
hello@dplr.com.au  
www.dplr.com.au

## Elite Event Technology

2/5 75 Sheppard St, Hume, ACT  
(02) 6260 2311  
www.eetechnology.com.au

## ELS Productions

30 Taree Street, Burleigh Heads, QLD  
(07) 5593 5105  
info@els-productions.com.au  
www.els-productions.com.au

## Events Fantastic Australia

3b/45 Leda Drive, Burleigh Heads, QLD  
(07) 5520 4648  
hire@eventsfantastic.com.au  
www.eventsfantastic.com.au

## Eventspec

4 Garling Road, Kings Park, NSW  
0477 898 189  
info@eventspec.com.au  
www.eventspec.com.au

## Flick Switch

Sydney  
0439 881 003  
contact@flickswitch.com.au  
www.flickswitch.com.au

## Focal Point Rental

1575A Botany Rd, Botany, NSW  
(02) 7208 4485  
info@focalpoint.rentals  
www.focalpoint.rentals

## Forefront Productions

### ALV Pty Ltd

2/246 Macquarie Rd, Warners Bay, NSW  
(02) 4954 4771  
hire@ffp.com.au  
www.ffp.com.au

## Harry the Hirer Productions

- D1, 3-11 Shirley St, Rosehill, NSW 42  
(02) 9666 8699
- 24 Motorway Circuit, Ormeau, QLD 46  
0425 781 145
- 81 Burnley Street, Richmond, VIC 49  
(03) 9429 8688

productions@harrythehirer.com.au  
www.harrythehirer.com.au

## HD Production

40 8 Myrtle Road, Kialla, VIC  
(03) 5752 5012  
contact@hdpro.com.au  
www.hd-production.com.au

## Impress AV

39 4 Trinity Way, Pakenham, VIC  
0401 750 607  
aaron@impressav.com  
www.impressav.com

## LED Vision

45 30 Taree Street, Burleigh Heads, QLD  
(07) 55935107  
info@led-vision.com.au  
www.led-vision.com.au

## Mega Vision Australia

45 25 Gordon Road West, Osborne Park, WA 52  
(08) 9444 6556  
talk2us@megavision.com.au  
www.megavision.com.au

## Novatech

40 153 Holbrooks Road, Underdale, SA 48  
(08) 8352 0300  
hello@ncet.co  
www.ncet.co

## NW Group

- 10-16 South Street, Rydalmere, NSW 42  
(02) 9061 7300
  - 39 Fulcrum Street, Richlands, QLD 47  
(07) 3073 2800
  - 43 Winwood Street, Thebarton, SA 48  
(08) 8317 6030
  - 80 Proximity Drive, Sunshine West, VIC 50  
(03) 8657 0400
- ask@nwgroup.com.au  
www.nwgroup.com.au

## Outlook Communications

51 29 Reserve Street, Preston, VIC  
(03) 9495 1755 or 0431 818 620  
jack@outlookcomms.com.au  
www.outlookcomms.com.au

## Pixel Line

47 4/58 Frederick St, Northgate, QLD  
(07) 3103 3171  
hello@pixel-line.com.au  
www.pixel-line.com.au

## Scene Change Sydney

50 3/2 George Place, Artarmon, NSW 42  
(02) 9906 8909  
sydney@scenechange.com.au  
www.scenechange.com.au

## Start Webcast

50 Blacktown, NSW 43  
0430 333 064  
wecanhelp@startwebcast.com  
www.startwebcast.com

## TDC – Technical Direction Company

- 2-33 Bowden Street, Alexandria, NSW 43  
(03) 9647 5900
  - 39 Bayside Avenue, Port Melbourne, VIC 51  
(03) 9647 5900
- hello@tdc.com.au  
www.tdc.com.au

## The Electric Canvas

- 4/19-21 Gibbes Street, Chatswood, NSW 43  
(02) 9417 2077
  - 2/19 Barrie Road, Tullamarine, VIC 51  
(03) 9338 8198
- info@theelectriccanvas.com.au  
www.theelectriccanvas.com.au

## The P.A. People

42 8-12 Ford St, Greenacre, NSW 44  
(02) 8755 8700  
eventcomms@papeople.com.au  
47 sales@papeople.com.au  
www.papeople.com.au

## Total Event Services

50 122 Reichardt Road, Winnellie, NT 44  
(08) 89808222  
hires@tes.com.au  
www.tes.com.au

## Tri-Point Rigging Services

- 5-7 Hale Street, Botany, NSW 44  
(02) 9666 4642  
nsw@tripointrigging.com
  - Gold Coast 47  
qld@tripointrigging.com
  - F/15 Slough Rd, Altona VIC 52  
(03) 9315 9885  
vic@tripointrigging.com
- www.tripointrigging.com



# CVP

## Finding a way to train the next generation

CVP Events Film & Television, based in Melbourne, do exactly what their name suggests; video and visual support for live events, theatre, and concerts, including recording and broadcast, LED screens, projection, media servers, IMAG, TVC production, video design, event management, and more. They're often seen inside Hamer Hall, providing video for recording and broadcast for long-term production partner, the Melbourne Symphony Orchestra (MSO).

"Pre-pandemic, we were doing very small amounts of live streaming and video recording for the MSO," says David McKinnon, Director of Technology & Creative and General Manager at CVP. "The pandemic obviously accelerated the MSO's live streaming and broadcast activities, and that's become a normal part of their activities. We've become more of a corporate partner to the MSO and do almost all their video works, with a few minor exceptions."

Earlier this year a rare opportunity arose when the MSO had scheduled performances



of French composer Gabriel Fauré's 1890 masterpiece Requiem, preceded by Australian composer Elena Kats-Chernin's 'Mythic' and Finnish composer Sibelius's Symphony No.7. As is increasingly becoming the norm, CVP were commissioned to capture the concert for broadcast, with the ABC handling the audio.

"For one reason or another, the MSO decided not to film this programme those nights," relates David. "The ABC were still there doing audio for their radio broadcast. The artists were already mentally prepared that there would be cameras, and we saw this as a perfect opportunity to do some real-world training without the pressure

of a live broadcast. We pitched the idea to the MSO, and they were instantly on board. Their support of the initiative was invaluable, as they too are big supporters of the development and upskilling of individuals."

CVP were now in a position to run a full-scale live video production and train staff at the same time. The audience were real, the musicians were real, and the atmosphere was identical to normal working conditions. "I found previously that if you try and train staff during rehearsals, it lacks the energy of a live broadcast. This was for real; everyone's looking at you, it's about focus and creativity. It's two 50-minute halves of the concert, and when the red light goes on, you are on."



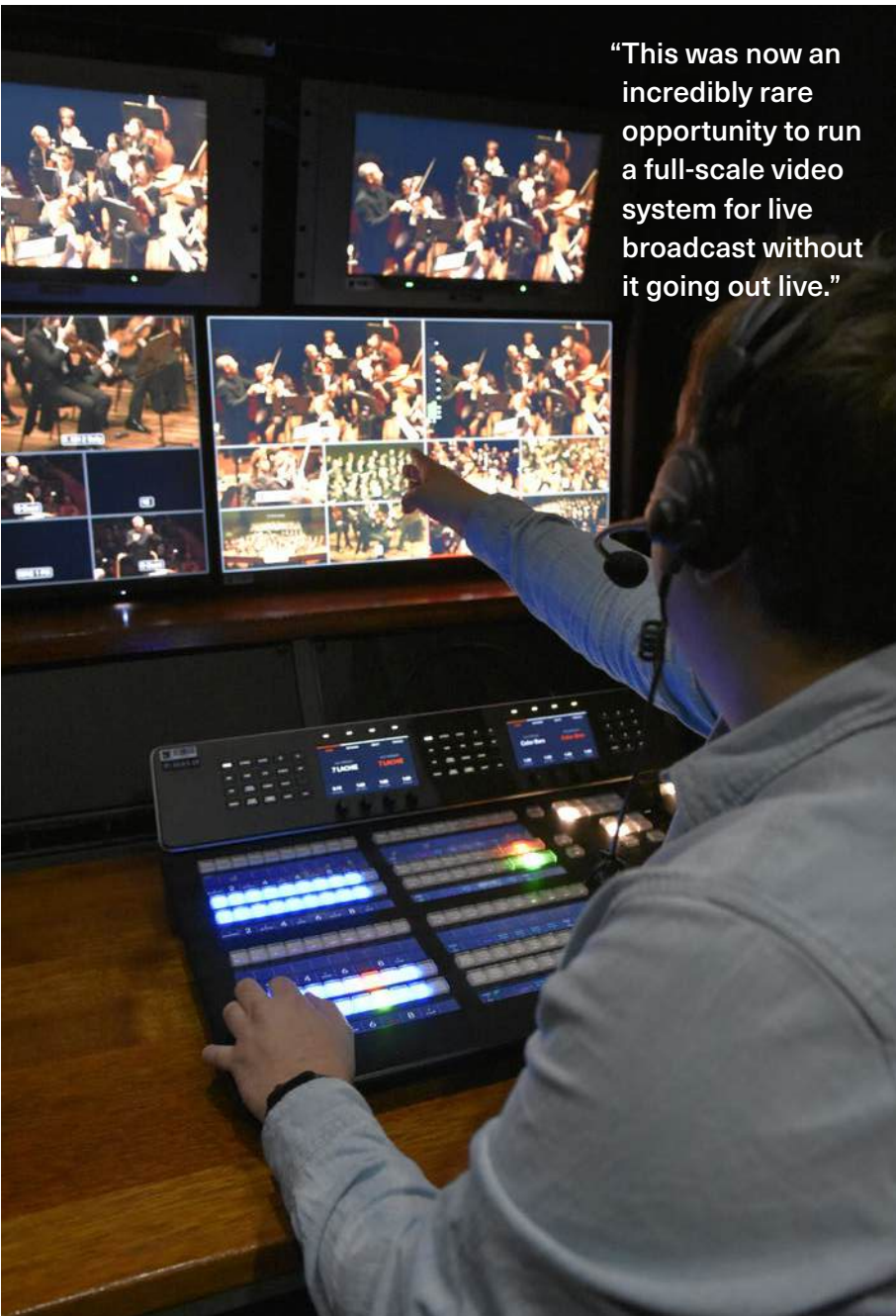
Along with upskilling their own junior staff in a live concert environment, CVP reached out to Deakin University to offer current students the chance to work alongside the team. “Deakin University have a Bachelor of Film, Television and Animation degree,” outlines David. “At an open day I once attended, I got to chatting with the lecturer who runs the course, and he indicated they’re desperate to get real-world experience for these students, as most educators are. This concert meant that they could experience first-hand something that they never would before. We offered positions for four students, they advertised it internally, and we got four volunteers.”

In addition to the fresh talent, CVP was upskilling internally. “I normally direct all the MSO shows myself,” states David, “because I have a background in classical music. It might not seem so to some, but classical music has a lot going on. Two of the other senior directors directed half of the concert each. Whilst this might be a little unorthodox, it meant the team could experience two different styles of direction and it meant that we could examine the tapes later and ‘aircheck’ our directors and chat collectively. At CVP we have fostered a culture of review and discussion. It not only allows our team a chance to chat and connect creatively, but it allows all of us to be accountable to the product we make and helps maintain our high standards internally. Our staff were given the chance to work in roles that they haven’t played before; whether that be, camera operation, robotic camera operation, and CCU, which is Camera Control Unit, in charge of colour and exposure control.”

“The CCU operator is required for the overall look of the production exposure and colour temperature,” explains David. “In broadcast, you’ll see the camera operator only has two handles; zoom and focus. Iris, which is exposure, is controlled remotely in a broadcast situation to keep colour even, and make sure the picture from every camera matches. Having this environment, where it didn’t really matter if anyone got it wrong, was invaluable. And learning how to use the robotic cameras is an entirely different art form.”

CVP parked their large-scale 4K OB truck in the special outside broadcast area outside stage door, which includes a full external patch bay. “The whole concert was shot in 4K,” continues David, “this presented another challenge for the operators as focus is critical in a 4K environment. We run a Blackmagic Design camera chain with Canon 4K glass. We use Panasonic 4K PTZ robotic cameras as well. There were four of the Blackmagic Design G2 cameras and six of the robotic cameras, so we gave each person doing robotics two cameras each. That was at a scale which mirrors what we would do for a normal MSO broadcast.”

Along with the technicalities of camera



**“This was now an incredibly rare opportunity to run a full-scale video system for live broadcast without it going out live.”**

operation, the Deakin students were hands on with the other side of any production, the load in and load out. “We split the Deakin students, with two helping to load in and two helping to load out,” recalls David. “We put one of our young warehouse staff on the de-rig, which was the first opportunity for him to go out in the wild world of live gigs! Of course, senior staff were on-hand to teach and guide the students, reinforcing that it’s a formal concert environment, and every cable run, and every piece of gear must be immaculate.”

The results of this training experiment have been overwhelmingly positive. “The Deakin students certainly impressed us; their existing knowledge was great, and their eagerness and passion were second to none,” David reports. “Our junior staff demonstrated skills that we weren’t sure they had yet. Because a lot of what we do is live, you’re always nervous about giving people that first opportunity. This enabled us to have confidence in our staff and we can now help them take the next steps in their careers. The MSO have been clear that they will support us if we do this again, and we absolutely intend to.”

These kinds of initiatives are a win-win for the industry and companies. Staff get upskilled, service is improved, and we create a pipeline for new staff to enter. It’s a model worth emulating. “This kind of training is a necessity for the whole industry, in every sector,” asserts David. “As an industry, we are seeing an unfortunate trend in lack of opportunity and training for newcomers. Decades ago, when video productions required more crew and support, there was training aplenty, led by the ABC and commercial networks, but as the industry changes, we see less chance for young people to break into the industry.”

“Our company has a history of giving young, passionate individuals a chance to start. We are incredibly proud to continue this tradition decades later,” concludes David. “In fact, since we have completed the training day, some of those Deakin students have returned in a casual employment capacity, doing shifts in our Mount Waverley warehouse and some in venues working on camera.”



# PEARL JAM'S DARK MATTER



Legendary Seattle grunge band Pearl Jam embarked on their highly anticipated 'Dark Matter' world tour in May, sharing their introspective brand of rock with audiences across North America and Europe before touring through New Zealand and Australia in November. Lighting designer Kille Knobel has worked with the band since 2000 and complements the 'Dark Matter' shows with a minimalist yet impactful design that uses Elation KL PANEL XL softlights as a key visual element in creating the distinctive looks.

The show brings video projection to the forefront with soft, organic visuals and minimalist lighting. When choosing fixtures for the tour earlier this year, lighting vendor Upstaging hosted a fixture shootout in Los Angeles for the designer, where she ultimately selected the KL PANEL XL and PROTEUS MAXIMUS as part of a larger lighting package. The fixtures were essential in creating the desired balance between video projection and lighting, two visual components that trade prominence throughout the show.

## Soft Colour Washes

Knobel reveals that the band has always liked colour washes and in the early iteration of Pearl Jam shows - before she came on board -

they often played beneath PAR can rigs. "The band loves the feel and simplicity of soft colour washes, and they brought that back up as a discussion topic for this tour," she shares. "In the early design phases, I kept coming back to the idea of a 'light box' above the band to create very dispersed light, like you would have in a film shoot, but in a way that wouldn't disrupt the projection. The KL PANEL XL gave me the control I needed, and with the addition of barndoors and intensifier lenses, I could manage the light perfectly," she explained.

Knobel's lighting concept included five lighting pods, each pod equipped with two softlight types, a row of KL PANEL XLs working with beam wash moving heads (Elation PROTEUS BRUTUS for the European shows). "The pods

were a hybrid idea," the designer said, "a combination of a light box with a beam wash fixture that could move and do more but was also soft."

## "The most beautiful colour range"

The KL PANEL XL's full-spectrum LED array, with RGBW + Lime + Cyan colour mixing, provided Knobel with what she says is the best-mixed colour she has come across. "I think the KL PANEL XL has the most beautiful colour range of any fixture I've used," she stated, noting that she is notoriously hard to please when it comes to colour mixing systems. "In terms of the bandwidth of colour and nuance of colour I could get with it, I was

just mesmerized. The richness I could get out of the colours is just gorgeous, and for me to say I like colour mixing in a light is really noteworthy! It's those extra colour channels that give you the depth of colour you're able to achieve and for a band that loves colour washes, these fixtures were the perfect tool."

## KL PANEL XL

The KL PANEL XL is an LED softlight that delivers full-colour washes or beautifully soft white light up to 44,000 field lumens. With precise colour temperature control, full-spectrum colour rendering, and even wash coverage, it provides exceptional lighting quality. Section control provides additional creative capabilities for colour effects and visual impact.

Knobel says that because the colour is so rich, the fixtures are best seen when they stand on their own. "I add them to contribute to the big looks, but when they're the backbone light of the look, that's my favourite way to use them," she says. "And because of the lens and the fact that you can do cell control, when you do run effects on them, it's actually very organic looking. Because it's such a diffused lens, you don't see pixelation, which fits with Pearl Jam's visual aesthetic. With a dimmer effect on them, it looks really good."

Knobel, who has 75 songs programmed in the lighting console, says she has a whole range of colours in her palette that she calls dirty colours. "It's really easy to create them with hard-edge lights but it's hard to achieve them with LED panel lights. That was my only challenge with the KL PANELs. The colours are so pretty, I couldn't make them look dingy enough!" She describes the look in a song that features a slow progression of panels coming on randomly over a minute and a half with some strobing. "I just love the simplicity of it, the edginess, where it feels like you're in a different space, not a traditional rock and roll application."

## Horsepower and Control

The designer acknowledges that initially, she was a bit worried about the level of horsepower from the fixtures and their ability to provide dispersed soft light across the entire stage. "When I put my meter on them at the shootout, I was a bit concerned as these were going to be at 45-to-50-foot trim heights in order to clear the projection. When we got to rehearsals though and I turned them on for the first time, I knew we were going to be OK!" Each of the KL PANEL XL units in the show is outfitted with an intensifier lens that is optimized for longer throws by increasing the

centre intensity by over 30% while keeping the field smooth.

Between the focus and the use of barndoors on the KL PANELs, Knobel was able to control the light and avoid light spill. "I was a little nervous about it because there's a lot of horsepower in the rig. I needed to know, in those songs where the lighting was doing more of the lifting, was I going to blow out the projection. The way that the fixtures were utilised and placed, I had faith in the concept and it ended up working out great."

A standout look that Knobel says defines how she wanted to use the light features a single KL PANEL XL in a minimalist, low-level blue wash that transitions between songs, creating an intimate, unconventional rock show atmosphere. "I love that I can turn on just one or two KL PANELs, and it's enough to light the entire stage," she said. "The simplicity and subtlety create an entirely different experience than what you'd expect visually at a rock concert."

## PROTEUS MAXIMUS

In addition to the KL PANEL XL, Knobel utilized Elation PROTEUS MAXIMUS fixtures as the hard-edged lighting component. Although initially uncertain about using the 50,000-lumen LED profile, Knobel ultimately found it outperformed her expectations in a side-by-side comparison with a comparable fixture that she had used before and liked. "I wasn't happy with the MAXIMUS in a previous non-music application, but in this shootout, it blew me away, especially in terms of colour, correction, and output. I walked out of the demo thinking, the MAXIMUS wins hands down and they became an essential part of the rig," she said.

The MAXIMUS, positioned upstage, on the sides, and in stadium wings, provide dynamic backlighting and effects along with occasional washes into the audience or onto the stage, complementing the softer wash from the KL PANEL XLs.

'Dark Matter' is proof that Pearl Jam is as fresh as ever and the band continues to sell out performances around the globe. Knobel's thoughtful use of lighting provides the perfect visual accompaniment to the band's legendary sound while maintaining the band's signature focus on the music.

Production Manager: John Lafferty

Production Designer/Technical Producer: Spike Brant, Nimblist

Lighting Designer/Director: Kille Knobel

Lighting Programmers: Will Flavin, Mark Humphrey, Eric Marchwinski

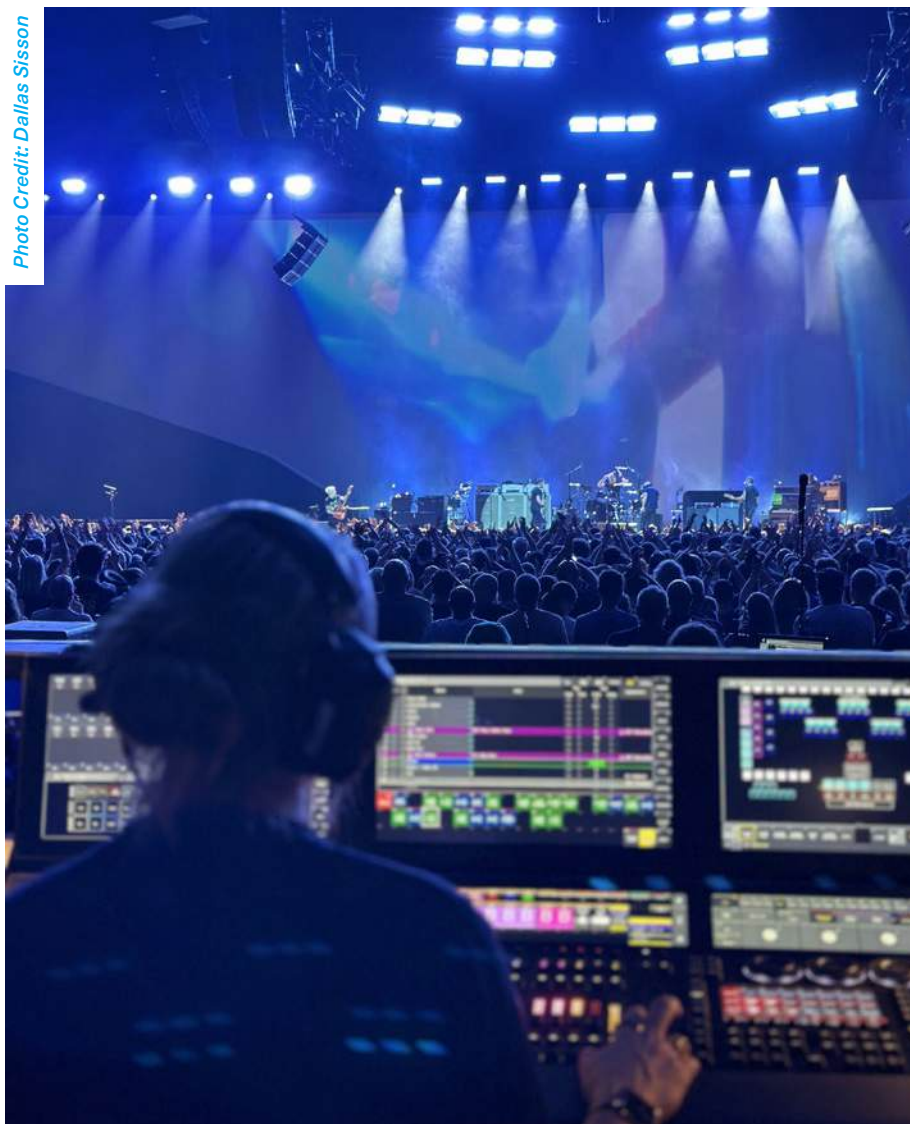
Creative Director: Rob Sheridan

Video Director: Blue Leach

FOH Lighting Tech: Dallas Sisson

Lighting Crew Chief: Mike Green

Photo Credit: Dallas Sisson



# entech

THE SHORTEST ROAD TO NEW BUSINESS

## MAY 2025 REGIONAL

Geelong May 13  
Newcastle May 15  
Gold Coast May 20

## MAY 2026 NATIONAL

Sydney May 19  
Brisbane May 21  
Melbourne May 26  
Adelaide May 28  
Perth June 2

## AUGUST 2026 NZ

Auckland July 28  
Wellington July 30  
Christchurch August 3

*Hop on Board!*

THREE UNMISSABLE OPPORTUNITES

[exhibit@entech-roadshow.com](mailto:exhibit@entech-roadshow.com) | +61 408 498 180 or +61 418 359 330

ENTECH presented by Kate and Julius Pty Ltd

[www.entech-roadshow.com](http://www.entech-roadshow.com)



# ROBE AT LOLLAPALOOZA BERLIN 2024

Over 500 Robe moving lights were supplied by three top German rental and technical production companies to four main stages at the 2024 Lollapalooza Berlin festival, organised by Live Nation and staged over two days at the Olympiastadion (Olympic Stadium), proving once again that Robe is a powerful, reliable and weatherproof choice for outdoor events needing quality production lighting.

The North and South stages, the Alternative Stage and Perry's Stage all rocked Robe this year supplied by TSE (North), the Media Resource Group – MRG (South & Perry's) and Sound Projekt (Alternative) as around 110,000 music fans over the two days were treated to a fantastic lineup and some sizzling hot pseudo-summer September weather as the mercury pushed over 30 degrees and the sun shone brightly.

FOH crews at these main stages appreciated some special Robe Festival Fridges, supplied

by Robe Germany, that were kept fully stocked up with cool water and refreshments for the crew and security staff who were on duty for long hours, ensuring everyone safely enjoyed some excellent performances.

## North Stage

This was physically the biggest stage at the festival - four bays deep, one more than the South Stage - with all structures supplied by Stageco.

Peter Weist was TSE's FOH lighting 'babysitter', he is one of their regular freelancers, and a classic festival production lighting design was presented that would work for all the acts including headliners OneRepublic on Saturday and Sam Smith on Sunday.

The Robe fixtures included FORTES, MegaPointes and Spiiders, all spread out over four trusses, with iFORTES on the front truss in the most exposed positions and additional MegaPointes on the floor stretching out along the side wings.

iFORTES were picked for their "power and impact even during the daylight hours," commented Peter, and daylight was the state for most of the festival. And while only the final headliners on each stage played in full darkness, having the lights there for all the daytime slots made a massive difference and

they were essential for everyone to also look good on camera.

They also needed intense fixtures to hold their own against the large LED screen surfaces.

MegaPointes were chosen for their speed and versatility and Spiiders as a go-to wash that's highly effective, elucidated Peter. The Spiiders were the oldest fixtures on the rig, but they were still highly effective and just "keep going and going," said Peter, adding that he is looking forward to using the just launched iFORTE Fresnel.

Four RoboSpots were in action at FOH, paired with four iFORTE LTXs - plus a spare - rigged on an 18-metre-high tower, with the base stations located stage right by dimmer city. Peter confirms that using remote follow systems provides far better working conditions for the operators than traditional follow spots, and it also means the FOH towers can be a bit slimmer and more elegant as there is less weight to support.

They accommodated six bands each day, half of which brought their own operators/lighting directors and the other half of which were lit by Peter who worked alongside a crew of around 15 for the set up and four for the run days.

He enjoys working festivals for the great vibes and the music, especially the bands he doesn't yet know.

TSE project manager Thomas Stütz was working on his third Lolla Berlin event, although TSE has serviced the festival right from the start with the inaugural Berlin edition in 2014. He explained that they are free to present a production lighting design that will function for all artists, and they choose to spec a lot of Robe because "everyone is happy using Robe."

They had two-and-a-half days to get in, up and running, with a festival style de-rig/re-rig overnight to make some adjustments for incoming headliner Sam Smith.

In addition to the top rig, OneRepublic added six MegaPointes under their main riser together with a bunch of strobes.

The art of designing a production rig for any festival scenario is to anticipate what the various guest LDs might want in advance, and that's always the challenge.

TSE worked closely with production riggers Big Rig and provided all the trussing and motors they needed to fly lighting, video and audio. Screen Visions were the LED screen vendor on this stage, while TSE also supplied the d&b audiotechnik PA system, together with 12 crew split between sound and visual departments.

Lolla usually marks the end of summer for the Berlin-based company, and Thomas also enjoys the pervading good mood and bumping into all the industry friends and people they know at FOH, after paths have often been criss-crossing throughout the summer.

At FOH, two Robe PATT 2013s were rigged in the structure to illuminate the Robe FOH Fridge which was a lifesaver and ensured everyone working in and around the lighting FOH area stayed hydrated and happy in the heat.

### South Stage

The South and North stages were offset by around 145 degrees facing away from one another, both in the main area of the stadium and operated in 'flip-flop' style. They were scheduled to allow the audience plenty of time to get from one to the other.

Lighting was supplied by Media Resources Group, and included Robe iFORTEs, BMFLs and Spiiders rigged over the stage, with eight iFORTE LTxs at FOH for follow spots, paired with eight RoboSpot BaseStations under the stage.

The number due was requested by Sunday night headliners, K-pop sensation Seventeen, who brought the festival to a fabulous

crescendo and close with their enthusiastic fanbase.

The standard FORTes were rigged in the roof trusses together with the BMFLs, and the Spiiders were divided between the roof trusses, with some along the top of the side IMAG screens.

On the floor, more iFORTEs were lined up along the bottom of the wings, below the IMAG screens – these exposed positions were an ideal place for IP rated fixtures – and upstage on the deck was a row of 14 MegaPointes for back lighting and effects.

"Obviously, we needed the intensity and brightness of these FORTes and BMFLs," commented Kilian Körber, Media Resources Group's key account manager on site.

He added that they supply lots of festivals throughout the summer season and there is "never a discussion" about which brand or fixtures to spec for these. "Everyone is very happy to work with Robe," he confirmed.

The FOH lighting co-ordinator here was Marvin Amstädter.

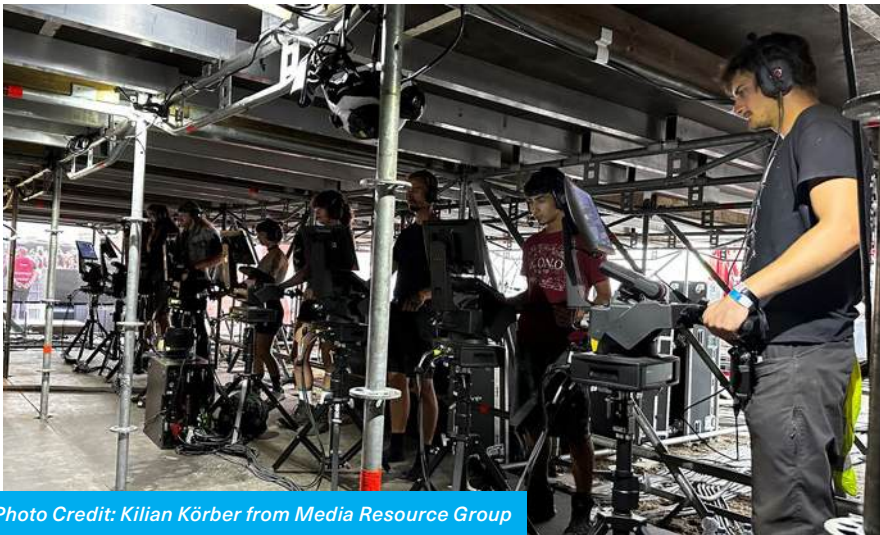


Photo Credit: Kilian Körber from Media Resource Group



Photo Credit: Louise Stickland



Photo Credit: Louise Stickland

## Perry's Stage

For the first year ever at Lolla Berlin, Perry's Stage lighting was also supplied by MRG based in Crailsheim in Baden-Württemberg. Perry's was located inside the imposing Olympic Stadium building itself, and as usual was a pumping haven for EDM and dance music lovers, headlined by Martin Garrix on the Saturday and The Chainsmokers on Sunday.

Obviously, they needed all those super-quick, effect-heavy fixtures so 34 MegaPointes and 52 Pointes were deployed, joined by 41 Spiiders, four BMFL Blades, 18 Tetra2s and two standard FORTes, which together with other luminaires, were positioned with reference to the headliner's lighting plots.

Lighting on Perry's stage was looked after by Oliver Reusch, and Kilian commented again that there was no question about having Robe on this fast-paced stage; "Robe on the rig makes it very easy for us in that everyone accepts the brand, there's never any questions, they are always happy to work with these products".

He emphasised that when his crew are happy, he always is, which is essential for a festival environment to run smoothly despite the long hours and hard work that everyone willingly puts in.

Media Resource Group has been using Robe fixtures regularly for around 15 years, and Kilian has been there for five and a half years looking after a range of ambitious and interesting projects.

He agrees that RoboSpot has revolutionised the concept of follow spotting, a practical system that saves techs from having to spend hours up towers and mentions that the new LED engines are now well bright enough for all long throw applications.

While there were not any used on Lolla this year, he thinks fixtures like the FOOTsie are a genius idea for front key lighting being used in conjunction with a RoboSpot system.



Photo Credit: Louise Stickland



Photo Credit: Louise Stickland

## Alternative Stage

Sound Projekt from north-east Germany supplied lighting and audio plus stage management services for the Alternative Stage for the fourth year, which hosted a slew of great artists including Sam Tompkins, Glass Beams, Christopher and many more. The stage was project managed for them by Fabian Schwabe and the lighting operator and FOH co-ordinator was Martin Trantow.

This year, there was no video on the stage, so all the visual drama and atmos needed to be created with lighting, for which they needed "properly multifunctional" lights that could cover many different scenarios, explained Fabian.

The production lighting design was a practical and well-tested festival formula, with 20 MegaPointes for the beams and 24 Spiiders for the washes, all

rigged in the three over-stage trusses and two roll-on-roll-off floor trusses to offer additional floor specials from the deck.

These were augmented with four iPointes and six Spiiders in the more exposed positions on the front truss.

The floor setup proved very popular this year, with all bands utilising it, and all the Robe fixtures were pulled from their rental inventory.

MegaPointes are "hugely flexible as they can be a beam or a spot," noted Martin, adding that the output was perfect for this size of stage and the six bands playing on it each day. A couple of the artists brought their own operators and Martin lit the rest, which ranged from jangling indie pop and big-beat rock to DJ sets.

The mix of genres, particularly on the Alternative Stage is something Martin really enjoys as well as the challenges of lighting them. "It's fun and also a great learning curve to produce a good lightshow for all these different styles of performers," he confirms.

Both comment on the quality of Robe products generally and the "outstanding" support from the Robe Germany operation, which also included a Robe DE Festival Fridge, which was extremely well used for all their events over summer 2024!

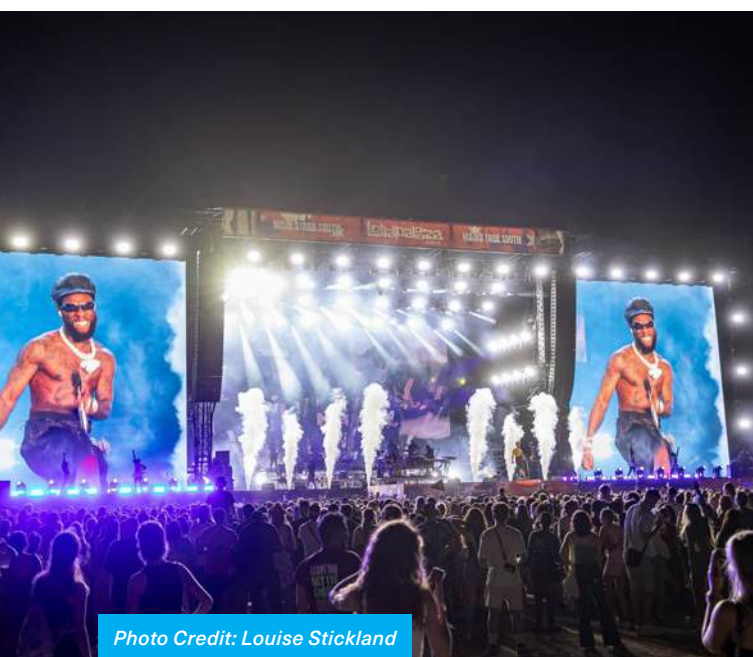
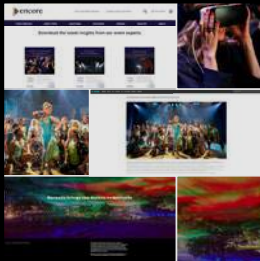


Photo Credit: Louise Stickland

# 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.

[vcscreative.com](http://vcscreative.com)



# L-Acoustics L-ISA Creates a Sonic Sanctuary at CAN Post-Rock Festival

*The breathtaking vista of Daqingshan National Park in China's Zhoushan archipelago was the backdrop for the CAN Festival, powered by L-ISA Immersive Hyperreal Sound*

Over 20 to 22 September, 19 experimental post-rock bands from 11 countries converged amidst the breathtaking vistas of Daqingshan National Park in China's Zhejiang province, with the dramatic coastline of the Zhoushan archipelago providing an ethereal backdrop. The festival attracted an international line-up of bands, including The Seven Mile Journey, a Danish band who hadn't graced Chinese stages since 2016, Whale Fall and This Will Destroy You from the United States, Australia's We Lost the Sea, and World's End Girlfriend from Japan.

Post-rock is a genre that eschews traditional song structures in favor of atmospheric, textural soundscapes. To fully immerse festival attendees in this unique sonic world, the organizers enlisted the help of L-Acoustics Certified Provider Rightway Audio Consultants (RAC) to design and deploy an L-ISA Immersive Hyperreal Sound system. "Our main goal in choosing L-ISA was to enhance the festival performances by displaying the genre's sense of emotion and atmosphere through a live immersive audio experience," says Huang Yadong, Chief Producer of the CAN Festival.

A post-rock fan for over a decade, festival creator and founder, Huang was impressed with L-ISA technology at festivals he attended in Europe and China. "It has been

my dream to produce a post-rock festival in China," he says. "This year, when that dream came true, I was compelled to offer the same L-ISA experience that had left a lasting impression on me," he explains.

Sound System Designer of CAN Festival and RAC's Director of L-ISA Immersive Sound, Li Feng, worked closely with the festival team and visiting band engineers to create a 5.1 L-ISA configuration. This included a Scene System of five hangs of 12 L-Acoustics K2 speakers, with an extension system of two further hangs of 12 Kara speakers. Front-fill was accomplished with 16 Kara boxes atop 32 KS28 subwoofers, ground-stacked in groups of eight. Nine Kara boxes placed around the audience area created a surround system.

Despite challenging weather conditions during setup, the L-Acoustics K Series IP55 rating ensured the system remained reliable throughout the three-day event. Visiting engineers were able to seamlessly integrate their pre-mixed spatial audio files into the L-ISA workflow, creating an unforgettable listening experience for the thousands of attendees.

"Instruments with wider frequency range like the violin, or even electronic soundscapes, benefitted from object positioning. We could manipulate the mix not just on the frontal system but from the rear surround as well," says Wang Tiequn, Chief Sound Designer of the festival. "If you closed your eyes, it felt like you were right on the stage."

# Sometimes it all gets too much...



The *Support Act Wellbeing Helpline* is a free, confidential counselling service that is available to anyone working in Australian music who needs to talk to someone about any aspect of their wellbeing.



THE SUPPORT ACT WELLBEING HELPLINE IS MADE POSSIBLE WITH THE SUPPORT OF:





The L-ISA Scene System of five hangs of 12 L-Acoustics K2

RAC's first-time presentation of a post-rock festival in L-ISA proved to be a unforgettable experience for outdoor festival attendees, who made their appreciation known on local social media platforms.

**“CAN Festival turned out to be a charming listening experience for festival-goers and an equally pleasant mixing experience for touring engineers, who easily adopted L-ISA technology's streamlined and efficient processes. Some engineers happily remarked that 'There's no way back!' from the live immersive audio experience,” concludes Li Feng of Rightway Audio Consultants.**

Learn more about Rightway Audio Consultants at [www.racpro.net](http://www.racpro.net)



Touring mix engineers created and immersive sound experience using L-ISA from L-Acoustics



L-ISA extension system of two further hangs of 12 Kara speakers



From left to right: Huang Yadong, Chief Producer of the CAN Festival; Wang Tiejun, Chief Sound Designer CAN Festival; Li Feng, Director of L-ISA Immersive Sound, RAC & Sound System Designer of CAN Festival

# Chuffed to be on Starlight Express

## Starlight Express at the Troubadour Wembley Park Theatre

Andrew Lloyd Webber's timeless classic *Starlight Express*, re-envisioned for the 21st century, has taken to the stage in the specially designed Starlight Auditorium at London's state-of-the-art Troubadour Wembley Park Theatre.

With new orchestrations, choreography and songs, the story of a child's train set that magically comes to life retains all its original wonder, with thrilling roller skate races around the auditorium and powerful performances from the 40-strong company of 'rolling stock' (engines and carriages) in an immersive production that begins from the moment the audience steps into the theatre. The audience is closely entwined in the action which takes place on a near in-the-round main stage with racing track 'spokes' leading off between sunken areas of seating and around the auditorium.

In anticipation of a long run, the show's producers, Michael Harrison Entertainment Ltd, made an early decision to purchase four MDG ICEFOG Q low pressure generators directly from MDG UK to handle the show's low fog requirements. Residue, noise levels and quality of low fog were all priorities when making the correct choice of generator, as well as flexibility to be able to fulfil any demand before the final artistic decisions had been put in place.

"With 40 roller skaters travelling at speed, it was vital we employed a top-class CO2 system because it would not leave any slippery residue - water or vapour - on the track," explains Oliver Thomas, Senior Production Electrician for *Starlight Express*.

"Noise levels were also a factor as the ICEFOG Q generators are located under the show floor very close to the audience. Although the show is loud, the experience is totally immersive, so the last thing we wanted was to have that magic broken by noisy technology, especially in the *Starlight Express* solo which is the most iconic in the show. I've used many low fog machines in theatre so know they are often noisy, but with the ICEFOG Qs, we can barely tell they are on!"

Two ICEFOG Q low pressure generators are located upstage left and right providing low fog across the centre stage area of the main floor. Two more ICEFOG Qs are embedded in the central stage lift where low fog is pumped through ducting that travels up with the lift and cascades down its sides to give the impression the lift - and the performer on it - is floating. "If we were to use smoke machines the atmosphere would become too 'smoky' with the movement of the skaters, but the ICEFOG has a really nice dense low fog that provides perfect wispieness but remains low enough for sight lines to remain uninterrupted when it is skated through," confirms Thomas.

The decision process was helped along by the service provided by MDG UK, whose Matt Wiseman took along a demo unit to the show's rehearsal studios in 3 Mills, East London. Here director Luke Sheppard and lighting designer

Howard Hudson were able to see how the low fog reacted with the movement of the skaters, and also try out new ideas to explore what effects could be achieved. It also gave the skating team the chance to feel confident that the low fog option would be safe and to acclimatise to skating through it on different surfaces.

"Being able to do that weeks before delivery was really useful and gave us peace of mind," says Thomas. "At the time of purchase, we were still in the process of deciding what effects we would want and where to locate the generators, so we took the decision to go with MDG as offering the widest number of options going forward. We wanted the flexibility to put the machines anywhere we wanted to create the effects we would ultimately want if we moved or changed things."

The low pressure version of the ICEFOG Q was chosen for a multitude of reasons, and excels in long running shows in particular: "From the start we have been conscious of the environmental impact of using low fog, so we wanted the most efficient machines that used the least amount of CO2 with the best effect," says Thomas. "By choosing the low pressure ICEFOG Q we were able to dispense with individual CO2 bottles and feed the four ICEFOG Q generators directly from two 230ltr CO2 dewar tanks located within the theatre.

Photo by Pamala Raith



These dewars have content gauges which make it easy to see how much CO<sub>2</sub> is left, so there is no wastage swapping out part-used bottles, and they are refilled directly (by BOC) on a weekly delivery. The dewars never leave the theatre, there's no time wasted or manhandling in disconnecting bottles and hosing, and we only pay for what we use. They are much easier to manage, cost effective and there's less wastage. From a cost and environmental point of view it's a very efficient system for long running shows."

Lighting designer, Howard Hudson agrees: "The ICEFOG Qs provided us with beautiful, even and dense low fog across our space and once again ticked all the boxes in terms of quiet operation and high reliability. Due to the nature of the show being staged on roller skates and all the complexities you'd expect that adding low fog into this environment creates, it was so important to choose a machine which could be cued to time so accurately with very little residue and I am so thrilled at the practical and artistic solution the ICEFOG Qs gave us."

The haze for Starlight Express is supplied by two MDG theONE dual haze and fog generators from Christie Lites, the main technical provider for the show. "The new production of Starlight Express is performed in a large space (60m x 30m) with inconsistent and varied air flow so we knew using MDG's theONE would be vital to provide a consistent and easily adjustable level of haze across the vast space," says Hudson. "For such a fundamental part of the design, we needed machines which could be easily maintained and operate quietly due to their close proximity to the audience and the ONEs really have excelled."

theONE generators are rigged over the stage area and in the gantry over the auditorium seating, their travelling cradles, Thomas states, making them "easy to roll on stage and useful to hoist into position."

"Tucked away in these positions they fill the room with really nice constant haze which is virtually undetectable by the audience," says Thomas. "The haze is so fine it just travels through the natural air circulation of the venue and gives the same great haze we would get from an ATMe, which is the traditional 'go-to' hazer for theatre. theONE gives us the volume and large range of control to handle the huge space without the network of ducting and multiple CO<sub>2</sub> bottles that a large number of smaller generators would require. Instead we feed the ONEs from the same dewar tanks as the ICEFOG Qs, the ONEs using vaporous CO<sub>2</sub> and the ICEFOG Qs using liquid CO<sub>2</sub>, and the fluid reservoirs on each of the ONEs holds 25 litres so they last for ages!

"MDG was extremely helpful in providing us with all the information we needed to create our own pipework to be able to site the ICEFOG Qs and the ONEs wherever we wanted. All of this ties together to form a very efficient, economical and environmentally conscious fog and haze system, and I would like to thank the team at MDG UK for their help in making this happen so quickly and efficiently."

"MDG haze machines provide a type of haze completely unrivalled in the theatre world," concludes Howard Hudson. "The lights and lasers on Starlight Express would be nothing without the fantastic MDG haze through which to see them!"

Starlight Express began its journey in June 2024 and has recently extended its booking until October 2025.





# SCAN AND SUBSCRIBE

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

What ever you preference, we have the  
perfect subscription offer for you.

Simply scan the QR code here or visit  
[cxnetwork.com.au/cx-magazine-subscribe/](http://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**





MobileConnect receiver



SpeechLine transmitter



MobileConnect app

## Sennheiser's Role in Learning

### The new Active Learning Centre (ALC) at St Philip's Christian College in Newcastle integrates Sennheiser's audio technology to foster seamless communication and collaboration across dynamic learning spaces.

The ALC at St Philip's Christian College represents a significant transformation in how students engage with learning. Designed to support diverse activities, from sports and drama to group discussions and remote teaching, the ALC reflects the school's commitment to modern, student-centered education. At the heart of this transformation is Sennheiser's suite of audio solutions, including SpeechLine Digital Wireless (SL DW) microphones, MobileConnect, and TeamConnect Ceiling 2 (TCC 2), which enable seamless communication and elevates the educational experience.

"We wanted a facility that really enhanced the concept of active learning within our schools," explains David Price, Director of Infrastructure

Development at St Philip's Christian College. The challenge was to create an intuitive, technology-driven space that met the needs of both educators and students. With a history of innovation dating back to the school's pioneering laptop program in 1999, they are comfortable being at the cutting edge of learning technology. The ALC was no different and required seamless audio integration to support diverse learning needs without overwhelming users with added complexity.

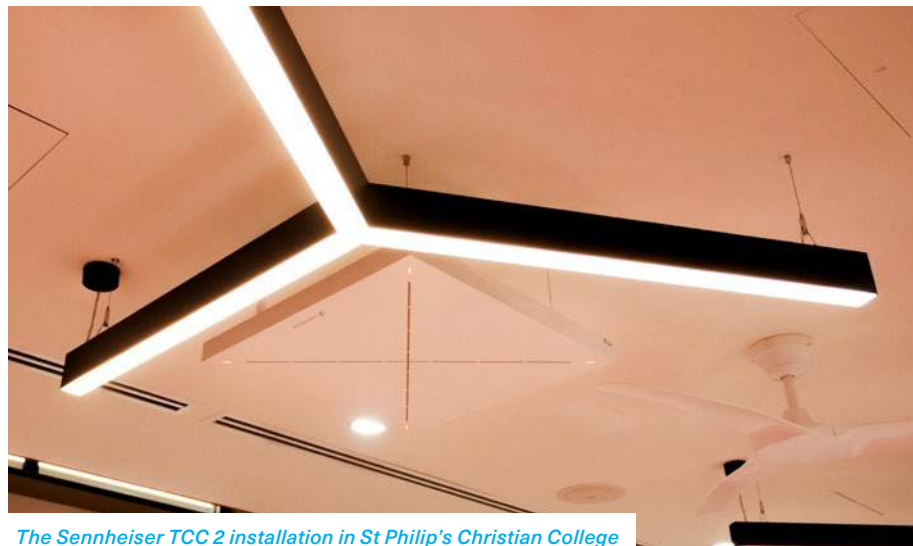
### Seamless Audio Solutions for Every Scenario

Working with InnAVate Integrated Solutions, the school implemented several key Sennheiser technologies. The SL DW microphones deliver crystal-clear audio for classroom discussions and presentations. "The decision was made to make it as simple as possible for our teaching staff, which is why we elected to go with handheld transmitters rather than packs and lavalieres," explains Price. These wireless solutions allow educators to focus on their students without technical distractions, reducing strain and

improving well-being. "They're not yelling throughout the classrooms – they can just talk in a normal voice."

Inclusivity was also a key consideration. The MobileConnect system offers personalised bi-directional communication, allowing students to connect through their own devices. This ensures both accessibility and hygiene, which were essential in the post-Covid environment. Anthony Finlay, Director of InnAVate Integrated Solutions, emphasises, "Having the ability to do that with personal devices rather than shared devices was the only conceptual way to keep everyone safe."

In the school's boardroom and tertiary classrooms, TCC 2 microphones provide seamless audio for remote collaboration. These ceiling-mounted microphones ensure intelligible speech during virtual sessions, enabling students and off-site lecturers to connect effortlessly. "Using the Sennheiser TCC 2 enables the speech within the room to be clearly heard at the other end," explains Price. "It really brings the students and the remote lecturer into the one space cohesively."



The Sennheiser TCC 2 installation in St Philip's Christian College

## Transforming Learning Through Audio

The integration of Sennheiser technology has profoundly impacted both teaching and learning at the ALC. Teachers can now engage naturally, without worrying about projecting their voices, while students benefit from improved audio clarity. The MobileConnect system has enhanced inclusivity, offering a more focused learning experience for all.

"These spaces aren't about 'chalk 'n' talk,'" says Price. "We want students - particularly in Years 11 and 12 - to experience adult ways of learning. This classroom format encourages critical thinking and the sharing of knowledge, preparing them for life beyond school."

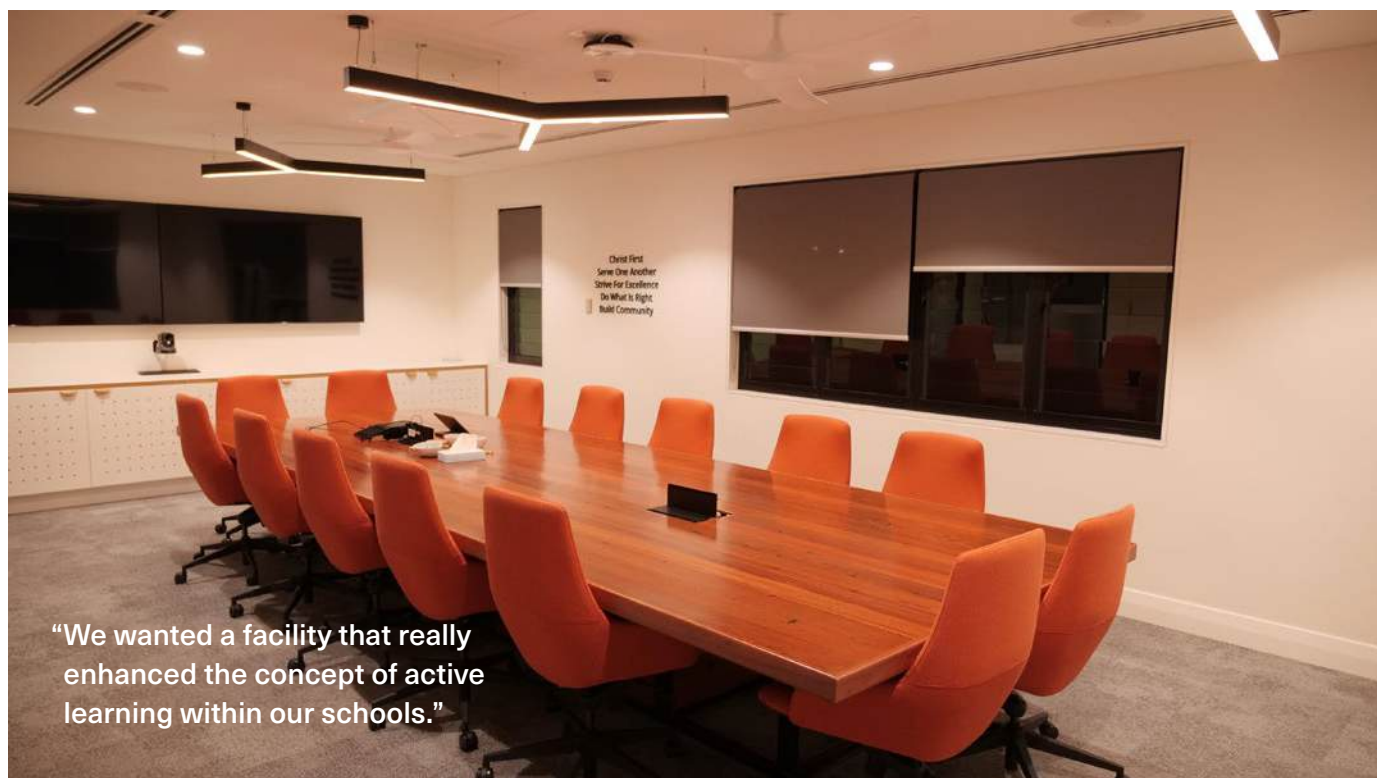
## Shaping the Future of Education with Sennheiser

The partnership between St Philip's Christian College and Sennheiser shows how intuitive, high-quality audio technology enhances education by fostering engagement, accessibility, and collaboration. The ALC provides students with a learning environment that reflects the modern university experience, equipping them with essential skills for the future.

More than just functioning well, Sennheiser's solutions integrate naturally into the classroom, allowing educators to focus on student engagement. Clear, reliable audio encourages active participation and critical thinking, helping students immerse themselves in meaningful learning and collaboration.



A close up of the SpeechLine Digital Wireless at St Philip's Christian College



"We wanted a facility that really enhanced the concept of active learning within our schools."

# CLAYPAKY

# VOLERO

# WAVE



The Claypaky Volero Wave is their latest offering for the moving head LED batten market. It is eight lights in one, as each head can be controlled individually. Each of these heads contains a mirror-based optical system, combined with a 40W RGBW LED. The mirror-based LED set up allows a higher light intensity and sharper, more focussed output than a standard LED set up. Claypaky are claiming that the Volero Wave is “the most dynamic light effect fixture on the market.”

## Construction

At a shade under 21kg and 1m long, it is a bit of an awkward lift to do by yourself. For indoor use only, and although well-built, you wouldn't want to see it get bashed around. You would definitely need the right roadcase for it if you were a production company or using them on a tour.

Like most lights these days, it can be hung at any orientation or mounted on the floor. They are designed so that you can have them next to each other and it forms a seamless fit where you can't tell where one ends and the other begins; great if you wanted to create a long line of them. There are no user serviceable parts on the Volero Wave despite the IP20 rating and the number of moving parts.

## Optics, Colour and Brightness

There are eight individual lights on the Volero Wave. Each of the eight heads are driven by a 40W RGBW LED engine with a native colour temperature of 8600K. Each head has

a front lens that is 86mm x 114mm with a fixed aperture (so no zoom) at 2.9°.

The beams have a really good, sharp, punchy long throw. There is a bit of intensity loss when you employ the darker colours, but you can see the beams for a long time in a hazy room.

I'm not sure whether it's the higher quality of the LEDs, the cooler than normal colour temperature, or the use of a mirror, but the colours you can get out of this fixture are quite vibrant, especially the greens and the blues.

## Applications and Features

Each of the eight heads can tilt independently with a tilt range of 220°. The tilt seems to be very finely calibrated. It's this finish and attention to detail here that makes it stand out from the pack. Although the eight heads can move independently, they don't seem to lose track of where the other ones are, and are designed to be aligned.

Although the fixture itself does not have pan capabilities on its own, it is compatible with the

Claypaky Panify system, which will allow it to pan infinitely.

A light like this will pretty much work in any live or televised performance space. They work well overhead, on the floor, or mounted vertically. A row on a truss or along the floor is usually more than enough to make a massive impact.

The Volero Wave really comes into its own when you use it to its full capabilities - they should be specified with that in mind. To have them uplighting a drape for a conference would not be doing the light any justice (and probably a waste of money too!).

One feature the light does not have is zoom. I imagine that in order to add the zoom function it would trigger a complete redesign of the optical system, meaning you may end up losing the mirror LED set up, which allows for the bright, sharp beams you get. On paper it doesn't seem like a good trade off, but once you use it in person, you can understand why the mirror LED took priority over a zoom range.

## Control and Programming

On the Volero Wave, each LED is pixel mappable, allowing for a huge range of effects and looks. It also features a function called 'Advanced Layers Management', which allows the use of three levels of effects simultaneously.

The Volero Wave can be a time consuming fixture to program and patch. To run it in its full extended mode, you basically have to patch and program two fixtures. That said, the results are well worth your time, as it is capable of doing a lot and producing some really cool looks.

It features four different personality modes that have DMX footprints of 23, 24, 29 and 32 channels. For control protocols, the Volero Wave is compatible with DMX and RDM, as well as Art-Net and sACN. It has a built-in web server, and data can be fed to and through the Volero Wave with both RJ45 and 5-pin XLR.

Power is taken in through a powerCON TRUE1, with both in and out ports. It draws

400W of power, reasonably efficient for a light this size so you can comfortably put five on a 10 amp circuit.

## Verdict

The Claypaky Volero Wave is unapologetically a top-tier effect light, with its main effects being wave/tilt based. With an effect light this specialised and this high-end, it requires an equivalent programmer and operator to extract its full potential. Make sure that you leave yourself enough time to program.

In the last few years, the LED moving bar light market has become a very competitive space, especially at the higher end. With the Volero Wave, Claypaky has entered the market with a rather unique offering capable of some pretty amazing things.

**Product Information:** [www.claypaky.it/en/](http://www.claypaky.it/en/)

**Distributor Australia and New Zealand:** [www.showtech.com.au](http://www.showtech.com.au)



## The Specs

Light source: eight 40W  
RGBW LED engines

LED colour temperature: 8600K

Zoom: 2.9° (fixed aperture)

Front lenses: 86 x 114mm

RGBW colour mixing: 16-bit

Linear 16-bit CTC 2500 – 8000K

Tilt 220° (each module can  
move independently)

High resolution electronic  
dimmer, 24-bit

High speed electronic shutter  
and strobe

Dimensions: 20.8kg,  
1000 x 329 x 182mm

# LASERWORLD TARM 3

At Element Live Productions, we have a broad range of client types and, consequently, gear to suit their requirements. There is a lot of regular AV gear but also some specialist offerings. We've come up with a concept we call 'niche at scale', where we go after different sectors, and grow the business in that direction.



Lasers were a perceived gap in our capability, but also in local offerings - there aren't all that many players in the Australian market. Further, we were recently joined by a new team member that holds laser safety officer training, and that gave us an incentive to expand in this area.

One of the major impediments to hire and utilisation of lasers in this country is safety and the regulations surrounding that. We like to go quite high level with our offerings. That includes equipment, but also processes, requiring high levels of diligence, and a complete safety understanding of the product and associated regulation.

As part of this offering, we feel that we have the full gamut: that we understand the product, we understand the safety requirements and regulations, and that we can therefore deliver these shows confidently and safely.

We saw a range of shows coming up that are EDM-heavy outdoor DJ events and that kind of thing, so the addition of lasers to our core business offerings was going to be a real point of difference.

Element looked at what was on offer in this country and talked with AVECorp about some of their product lines. With some personal experience of Swiss companies, we were keen to explore the Laserworld offerings. These looked like solidly built and engineered products that are high end, suiting our niche at scale approach.

We settled on Tarm 3, which are full-colour white light RGB lasers that are designed for professional laser-shows, graphic projections, installation projects, and night clubs. Their solid construction and inbuilt safety features also make them ideal for rental companies like us.

We wanted to do quite heavily saturated shows without necessarily leaning into the old trick of going super high power. The Tarm 3 are a 'true' 3 Watt system that have great mirror speeds

and are really solidly built. We expect to see them outputting at full power for many years.

Another key aspect of choosing these units is flexible and robust control options. We can use the Laserworld 'Showcontroller' software to do easy standalone setups but also integrate them into fully programmed DMX driven shows when it is called for. The Tarm units can also be run via LAN, ArtNET, and ILDA.

The next major selling point (versus cheaper units) is that these have a very high scan speed and fast reliable mirror system that will stand up to life on the road. This makes the projected image look a lot more true-to-life, rather than the jerky artifacts you can get with lower end lasers.

Laserworld Tarm units work very well for graphics projection. The mirrors are incredibly precise and the integrity of the beam and its divergence over distance is also very good with these models. We can be showing high resolution images because the beam divergence and diameter is very much at the higher end of the spectrum. Although the beams can travel hundreds of metres, we recommend a 30 metre throw distance for indoor arenas. This distance keeps images sharp and punchy.

The Showcontroller software is very intuitive to use but also includes lots of safety features. Setting 'no scan zones' is a really important thing in the laser world, and we can be confident with this software that our lasers will not shoot into the crowd scanning angle. Further, there's a myriad of cut out and lock-out features on these units and software which for us is very important to us, enabling adherence to the various regulated standards.

Our Tarm units have a great cooling system that is very well considered. They run cool and quiet, and you can feel the heft in them. They're built like the proverbial tank. So this is quite confidence inspiring straight out of the box.

Tarms can be easily IP addressed, and the back panel system includes physical interlocks as well, which are part of the safety suite. Multiple LAN ports allow for easy daisy chaining between units.

The design of the mounting yokes means that when you do focus them in a given position, you can be confident that they will remain in that position regardless of how robust your set might be, or how much energy there is on the stage. They are built to be focused and remain

in position and be properly locked off in that position. They are IP54 rated and the internals are pretty much a sealed system, so they don't incur much dust ingress.

As a hire company, gear reliability and ROI are important factors for us. The diodes used in Laserworld tarms are top notch and we are confident that they will still be outputting the rated 3W in several years' time. Purchasers get a certificate to confirm all of that as well. And AVE stand behind their equipment with

great service and support. We feel more like collaborators than customers.

**Product Information:**  
[www.laserworld.com/en/](http://www.laserworld.com/en/)

**Distributor Australia:**  
[www.avecorp.com.au](http://www.avecorp.com.au)

**Distributor New Zealand:**  
[www.mdrlighting.co.nz](http://www.mdrlighting.co.nz)



## The Specs

Guaranteed power at aperture - 3,000mW

Power Red - 1,000mW/637nm

Power Green - 900mW/520nm

Power Blue - 1,700mW/450nm

Beam specifications (full angle) - ca.  
4.5mm/<0.6mrad

Scanner- 45kpps @ 8° ILDA; optional  
CT-6210 with LAS Turboscan: 60kpps@8°  
ILDA, max. 60°

Max. scan angle - 50°

Laser source - Diode

Laser class - 4

Operation modes - ILDA, DMX, LAN,  
Art-Net, integrated SD card, stand-alone,  
master-slave; integrated intelligent  
ShowNET laser mainboard with display

Basic patterns - over 120 (layers, tunnels,  
fences, waves, etc)

Accessories - incl. waterproof flightcase,  
power cable, manual, key, interlock  
connector, full version Showeditor  
software license included

IP rating - IP54

Power supply - 85 V – 250V//AC

Power consumption - 170 W

Dimensions - 320 x 260 x 140mm

Weight - 12.5kg

**Chris Manton is General Manager at Element Live Productions. The company started as an IT business, Element ICT, and organically added AV hire and production as they went, rebranding to become Element Live Productions in mid 2024. They like to pursue projects that are complex, unique, and stylish – a little like them and their diverse and widely experienced staff.**

# Are you concerned about your mate's mental health?

**FACT: Most Australian tech crew and roadies have attempted or considered suicide<sup>1</sup>!**

**Support those around you and register for free mental health training**



[www.entertainmentassist.org.au](http://www.entertainmentassist.org.au)

Supporting the mental health of Australian entertainment industry workers

<sup>1</sup>Passion, Pride, Pitfalls Dec 2014

## Elation

# PROTEUS RADIUS



**The Elation PROTEUS RADIUS is an IP66 rated moving head beam with a really long throw. It currently sits as one of the smallest lights in the Proteus range of IP rated moving heads, but don't be fooled; it is a punchy light.**

The PROTEUS RADIUS uses a 100W Solid State Phosphor-Converted light engine. It produces a dense beam similar to a laser (it isn't a laser engine) but comes without the associated risks and regulatory challenges facing lasers. It is far from just being a one-trick pony, and the beam it produces is very impressive. As far as performance is concerned, that is its main selling point.

### What is Solid-State Lighting?

Solid-state lighting, or SSL, is a type of lighting that uses semiconductor devices and wide bandgap materials to produce light. Phosphors generally convert high energy light into lower energy (cyan/green/orange/red) and/or broadband white light which falls in the visible spectrum.

This process runs in contrast to your older, more traditional forms of illumination like incandescent bulbs and fluorescent lamps which use resistance or high voltage discharge in a gas to produce light, and as a by-product, heat.

### Construction

The light comes with an IP66 rating. The head cover is aluminium. It is heavier than it looks and might surprise you the first time you pick it up. It feels solid and hard wearing, like an IP66 light would. The IP66 rating also means that the light is a sealed unit, meaning zero maintenance. Just keep it clean. The handles make it easy to grab and it can be hung in any orientation. It weighs in at 20.4kg without clamps, is 516mm tall, 395mm wide, and 270mm deep.

### Optics, Colour and Brightness

The PROTEUS RADIUS is super bright. It packs a punch like you wouldn't expect. The beam it produces is a very intense 0.9° beam with an iris-like gobo to make it even smaller. To my eye it could be 0.1°. Even without haze, in a dark room it casts a serious beam.

Noteworthy is how cool the light and the beam are. It does not get hot.

It uses CMY (subtractive) colour mixing and features a 25-position colour wheel. While you do lose some intensity when you shift towards some of the darker blues, purples, and reds, the light itself is bright enough to overcome this.

It has a CRI (Colour Rendering Index) score of 70 and is a native 6000K light engine, which is recorded as having a 2,700 lumen total fixture output.

### Applications and Features

Use it indoors, use it outdoors; it works well anywhere it has a chance to project over some distance. It has infinite pan and tilt, which is pretty cool, and you can do a lot with it. The PROTEUS RADIUS does not have a zoom range, but it does have four prisms and two frosts to help soften and spread the light.

It has two gobo wheels, one with 13 interchangeable rotating/indexing metal gobos, while the other has 24 static stamped metal gobos. Almost all of the gobos would be considered aerial gobos as opposed to projection gobos.

### Control and Programming

The PROTEUS RADIUS is very straightforward to program. It's compatible with DMX, RDM,

Art-Net and sACN. It can accept 5-pin DMX in/through as well as RJ45 Ethernet in/out. It has a proper full colour 180° reversible onboard LCD menu with a six-button touch panel and two different DMX modes.

## Verdict

One of the biggest shifts in lighting technology over the last decade has been the proliferation of LED light engines. LED sources continue to gain ground in many applications they were once deemed unsuitable for, including flicker-free operation in film. Increasing R&D and product improvements are addressing other issues, including dimmer curves and redshift. There are some applications, however, that look as though an LED light engine might never

suit. One of those is the narrow (less than 1 degree) long-throw beam fixture.

Phosphor source technology was first used by Elation back in 2017, right in the middle of the shift to LED lighting. They claim to be the first to use this technology in a moving head fixture. It would appear that they have tapped into something we may not be able to see LED technology accomplish. It is good to see them continue with its development.

The Elation PROTEUS RADIUS holds up very well in all categories amongst its competitors, while outperforming some on adaptability, performance, ruggedness, and excellent support.

Product Information:  
[www.elationlighting.com](http://www.elationlighting.com)

Distributor Australia and New Zealand:  
[www.ulagroup.com](http://www.ulagroup.com)

## The Specs

100W Solid State Phosphor-Converted (SSPC) light engine

Colour temperature 6000K, CRI 70

IP66 housing

2,700 lumen total fixture output

Beam angle: 0.9°

Infinite high-speed 360 degree pan and tilt

CMY colour mixing, 25 position colour wheel

FX package with rotating, fixed gobo, four prisms and dual frost

Dimensions: 270mm x 395mm x 516mm (L x W x H), Weight: 20.4 kg





# VOLUNTEERING

*Why would you do this?*

**Have you ever done something for nothing? You know, given your time freely without any financial recompense? If yes, skip to the end - you understand. If no, read on so that you might be inspired to put your hand up to help others.**

I've just spent another weekend giving my time up for free. Thursday night, I coordinated a bunch of locals to put on the first of this summer's regular pizza nights. (I've written about this before in these pages. Issue #200 - People). Friday, I was setting up the PA at the local hall for the following night, which was a bush dance raising funds for a range of local community groups. I grew up earbashed by bush bands (my mum played in one) and I now suffer greatly while listening to widdly-diddly-dee type music. I still took one for the team, because the band were lovely to deal with, they were all good players, the punters loved it, and we raised a heap of money.

Sunday, it was back into town to suit up in fire gear and drive the CFA truck to a festival market, where we entertained a brace of kids by letting off the sirens and

squirting hoses. I then went back to the hall and cleaned up from the previous night. Just as we were pointed towards home, the siren went off, so trucks of volunteers in yellows were duly dispatched for an afternoon cleaning up someone else's mess. Today (Monday) is rest day from community work, so I am here writing for you (working for coin). Tomorrow night, I'll be chairing a meeting of the committee that coordinates the venue where we share pizza.

**Formal/Informal**

Now, I don't always have the energy or time that this festival weekend demands but I do regularly give my existence to neighbourhood ventures. This can be defined as formal volunteering. Informal contributing happens more spontaneously - I've been known to open the odd door

for random folks before. Smiling at a shopkeeper costs nothing and brings great joy to all. Helping an old dear with her shopping bags is also free yet rewarding.

Out here in the country, emergency services are mostly volunteer staffed. As are many other community causes, such as Rotary, CWA, Men's Sheds, and more.

But, in the city, there is also plenty of opportunity to give your time: to your place of worship, your children's school (helping out with a fete, concert, or fundraising sausage sizzle), or any other local group. The most common of these is via a sporting club. You can coach, cater, referee, or help administer a club. Not only will it help support the activities of the organisation, it will also win you kudos with the other club members.

Offering your professional production experience or using your industry contacts to swing a sweet deal on PA or lighting can make a big difference to a community event.

Environmental and Climate Change organisations also rely heavily on donated labour. Activities include conservation, rehabilitation, and adaption. Many hours are given to tree planting, threatened species protection, land management, clean-up, wildlife rescue, recycling, education and citizen science.

Representative industry bodies are another great avenue to give something back. I'm sure that CEDIA, Meetings & Events Australia, ARCA, CrewCare, ACETA and AVIXA would all welcome your input.

There are many benefits in volunteering. You can establish new connections, increase your skills, make new friends, learn to understand others better, and end up with improved physical and mental health and wellbeing. And that's just what 'you' get out of it. Those that rely on the services and handouts that such organisations provide will be forever grateful for your efforts.

### Downsides to Donating Your Presence

There is little doubt that gifting your services can be a real time suck, taking you away from work or family commitments. And, not only is it unpaid but it often takes a financial commitment or, at the very least, you can incur out of pocket expenses that you'll never see reimbursed. As such, it is often not attractive to those already struggling financially.

Volunteer numbers have copped a real hit during and since lockdowns. According to Volunteering Australia (1), the formal volunteering rate went from 29.5% pre-pandemic to 24.8% in 2020. It was already down from 32.1% in 2010.

I've noticed similar trends in the organisations that I support. It's becoming much harder to find willing bodies. Conversely, I've also learned to be much more selective with which roles I take on, particularly after recent health scares. I can see the problem with the broader public not wanting to get involved.

It can be a lot of hard work too. Overnight, one of the committees imploded and I am now scrambling frantically to pick up the pieces. As chair, it is incumbent on me to find a solution and I am madly calling, visiting and trying to keep everyone calm as we resolve our current dilemma. None of us get paid to go through this grief. Ultimately though, we do it for the greater good. Which is why I will persevere until we find a solution to this current mess.

### Pro Bono and Self-Righteousness

Eight years ago, at the wake after my father-in-law Rob's funeral, I was chatting with the husband of a family friend. His name is Steven and he is a senior lawyer in a busy commercial firm. I asked him if he'd ever done any pro bono work and he replied: "No way. My time is too important for that". Somewhat stunned, I took a deep breath and let him have it: "What makes you more important than anyone else? I don't care how many letters you have after your name, all you do is take! You are a greedy, selfish excuse for a human being. Rob would have been appalled." I honestly don't care how offended Steven felt, either then or now.

Rob's youngest daughter Dana is my dear partner of 23 years. She recently wrote a short piece for the local newsletter on why she joined the CFA:

**"The rewards of volunteering have been surprisingly immense. The comradery shared on the truck, helping people in challenging times, seeing other parts of the country, being part of a team and making a difference are some of the benefits. Pushing beyond my comfort zone and putting all the training into effect has helped me grow personally."**

I am very proud of her efforts in helping others and thoroughly support her in doing CFA and other community endeavours. The tricky bit is ensuring we both continue to make time for each other and ourselves. Which we generally succeed at.

### So, Why Volunteer?

Because you care about more than just yourself. Because you get something back from giving. Because no-one else is going to do it.

Because you give a damn.

That's why.

(1) <https://www.volunteeringaustralia.org/wp-content/uploads/Volunteering-Australia-%E2%80%93-Navigating-change-and-charting-a-new-course-volunteering-in-recent-times.pdf>

**(( bsound ))**

**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](http://www.bssound.com.au)  
[mark@bssound.com.au](mailto:mark@bssound.com.au)

**RentalPoint**  
SOFTWARE

**Powerful web based software**

**CX**

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

Register now at [cxnetwork.com.au](http://cxnetwork.com.au)



# Keeping the wolves at bay

## The Micromanagement Disease

**Some are born managers, some achieve management skills, and others have management thrust upon them. I never aspired to manage anything other than my bank account and personal affairs, but I ended up managing bands, venues, and, towards the end of the millennium, all the audiovisual presentations at Sydney's Macquarie Bank. The bank was a great gig, and I had a great crew that ran the AV operations like a well-oiled machine until a micromanager threw a spanner into the works.**

Years earlier, when I waltzed into the Philippines as a sound and lighting installer in 1983, the position quickly morphed into band management. I booked and managed all the bands for a single nightclub, but the bands were always under contract to the club. After writing and recording songs for a couple of the bands, I wanted to give them exposure in other venues, but the club's American owner, fearing he would lose the bands, bitterly objected, and as he sank lower into his alcoholism, I began to

negotiate my own management contracts. This didn't go down well, and after some heated disputes, I moved on, signing several bands for other venues.

I soon realised that after installing the audio and lighting and booking the bands for venues, my position became very fragile because the venue partners and investors didn't want to pay my ongoing fees. So, every band that I booked for the next three years was under a management contract to me, which was signed in the presence of an attorney.

My management style was largely geared to my expectations of the bands' performances in clubs that were patronised by GIs from the neighbouring US military base. I was considered to be somewhat controlling with repertoire, appearance, and professionalism from the outset, but as long as the bands retained their popularity and professionalism, I didn't interfere.

My first Australian management venture was back home in Sydney in 1987 at the Local Inn, West Ryde, where, as the venue manager, I installed the sound and lighting and booked the bands and the DJs. Prior to my arrival at the venue, which was devoid of patrons, they had been booking virtual garage bands, and to quickly rectify this, I engaged a booking agency. I did ask for management control of all aspects of the venue, but the owners stopped

short of giving me control over the bar staff, who only referred to me as 'the lighting guy'. After the venue became successful, I was offered a reduced management fee, and I moved on.

My engagement at Macquarie Bank, Sydney, began some 12 years later when I was employed by Neil Langford, the founder of Spaceage Communications, to train the bank staff in the use of the high-tech audiovisual equipment that his company was in the process of installing at the venue. I was embedded into the installation crew and put on tools for the first two weeks, where I learnt invaluable skills from technical superstars. Spaceage Communications went on to win the ENTECH 2000 Award for Best Audio Visual Integration Firm.

Macquarie Bank already had an AV manager, Julie, whose previous position was as an assistant at an audiovisual company that pioneered video conferencing; those were the days when you had to type hashtags to get a connection via Telstra ISDN (Integrated Services Digital Network) lines. Julie dressed immaculately in an array of trendy business suits; she had a charming demeanour and a cheeky sense of humour, which was a bit too indelicate for the egos of the financial wolves she had to deal with in the meeting rooms. And when they realised she lacked technical ability, the wolves turned on her.



# 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

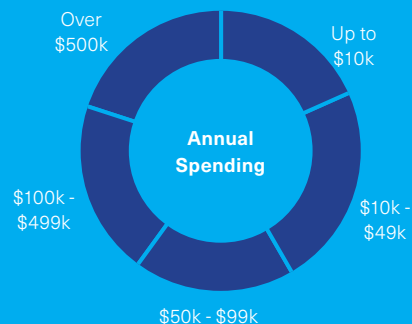
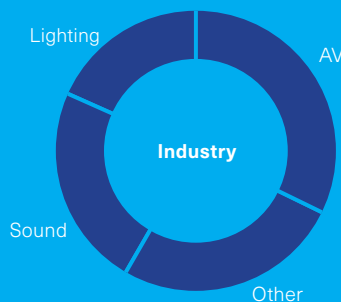
The website makes over **40,000 impressions** per month.



#### 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](mailto:jason@vcscreative.com) or call 0407 735 920 for more information.

Although I was initially employed to train the bank staff to use the AV equipment, my role quickly changed to facilitating the meetings and ensuring there were no technical glitches. If technical problems occurred, Macquarie Bank's Managing Director/CEO, Alan Moss, whose salary was widely reported as being above \$30 million per annum, would sometimes approach me directly and ask for details. Thankfully, these were always problems at the other end of the worldwide video conferencing hook-ups, and Alan Moss was always polite in accepting my no-nonsense explanations.

After some weeks, Neil Langford took me to lunch, where he announced that Macquarie Bank wanted me as their audiovisual manager. I remember him commenting at the time that I didn't appear to be overly excited. Meanwhile, Julie, who was supposed to take over after the training period, was on a downhill slide and in the firing line. She had approached me with tears in her eyes, saying, "Tell me what I'm doing wrong!" It was a very short conversation wherein I praised her for the way she meticulously handled all the booking requests for video conferences and presentations, but I advised her not to get involved in the technical side of things. She agreed, but I had a difficult time calling off the wolves that were baying for blood. Ultimately, Julie became the event coordinator, and since she did such a great job, a contingent of people still thought she was the AV manager.

Requests for technical presentations and audiovisual conferences started to mount, and we had to request additional staff from Spaceage Communications to cope. All that was asked of technical staff was to be willing to learn the technicalities of the position, to be meticulous about being in their scheduled meeting rooms on time, and to exercise a professional attitude. Surprisingly, not all fledgling technical staff could comply with these simple instructions. There weren't any other rules; if crew members wanted to have lunch in a city bar, it was imperative that they kept their mobile phones on, had reliable wristwatches, and had a good supply of mints. Most of our crew were excellent at their jobs and didn't need to be constantly monitored or pressured; those who didn't want to comply were replaced.

We had to work seamlessly with the reception department that took the initial bookings and also the catering department that provided meals and beverages in the various meeting rooms. However, because these departments often feuded with each other, an overall manager was brought in to oversee the departments, including AV. The new general manager brought with her a disastrous micromanagement style, which she dispensed with wrecking ball diplomacy. Micromanagement is where managers want absolute reign over all aspects and decision-making of personnel and departments under their control, often exercised to an extreme

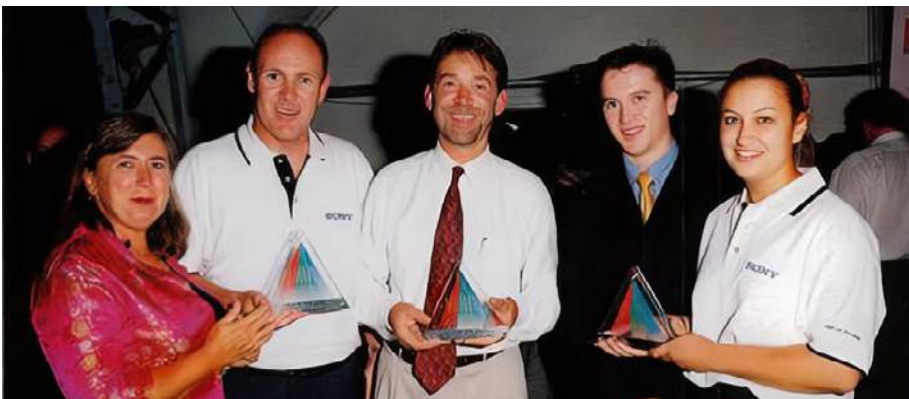
and unhealthy degree, and I have never been successful at keeping these wolves at bay.

Every morning before sunrise, I would leave my western suburbs home for the journey into the city, often taking problem-solving telephone calls along the way. I'd arrive at the bank in time to iron out various issues in the multi-room facility and then set up the large auditorium for the 7:30 am start. This was to hook up the worldwide video conferences for stock market updates to major cities in Australia and around the world, including New York, where it was 3:30 pm, 30 minutes from closing time at the NYSE (New York Stock Exchange, Wall Street). I would arrive home in the late evening after dark, but despite the long hours and busy schedule, the new micromanager insisted on a paper trail of endless written reports and constant updates about events and technicalities, which she had absolutely no concept of. There were constant acrimonious criticisms of our non-completion of ridiculous directions, along with overly complicated instructions interwoven into an amalgam of gibberish and corporate jargon. She also embarked upon a bizarre save-the-trees campaign, where she'd fill the printer with the reverse side of previously printed documents, which made our audiovisual documentation look like a dog's breakfast.

Every baby boomer knows where they were when JFK was shot. Similarly, I remember walking across Sydney's Domain in the year 2000 when I was hit with the cheapest shot of my professional life, which was delivered via a phone call from the new micromanager. She insultingly told me that she didn't consider me a manager at all. This, she claimed, was because I hadn't filled out her micromanagement twaddle and because I opposed her continual interference in technical matters she didn't understand. Her aberrations ultimately caused most of our internal clients to book their meeting rooms at outside venues, and my reluctance to comply with her idiocy resulted in my employer having to relocate me to a new venue. Julie hung on for a time but ultimately resigned to form her own audiovisual company, recruiting me as her operations manager.

Micromanagement was the behemoth that would again plague me in my role as editor of BEN (Broadcast Engineering News), which ended abruptly in 2005 when I left to join CX. Although I had successfully edited the magazine since 2003, a newly appointed micromanager insisted on the same mundane reporting and senseless interference that I had encountered in the past.

In my novel, Neon Province, there is a corporate manager, Tina Fagan, whom my protagonist loathes: "He despised how she submerged her ineptitude in a sea of corporate jargon, the excesses of which she expressed at meetings that failed to accomplish any worthwhile goals." Of course, any resemblance to real-life figures or characters is purely coincidental.



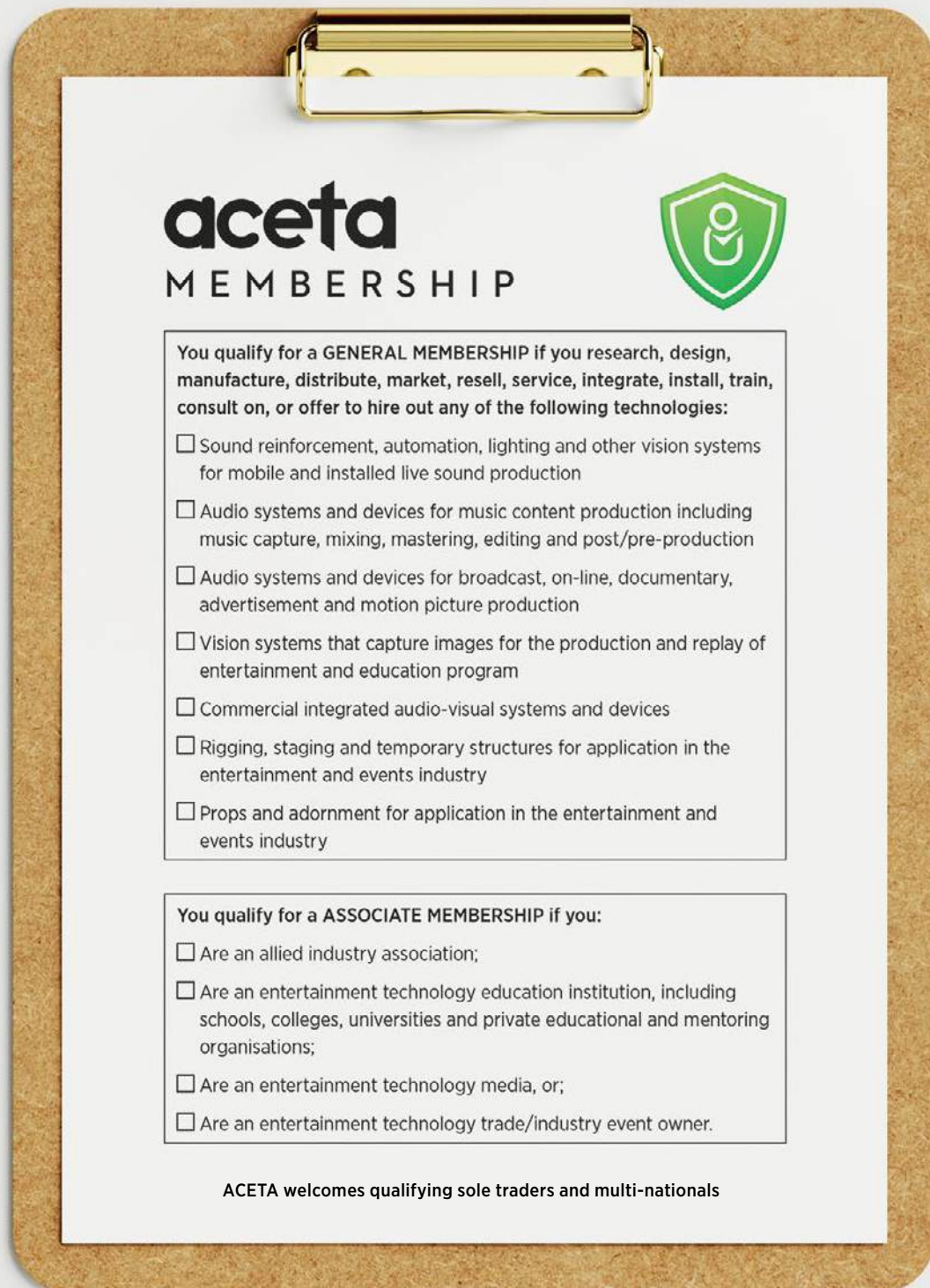
Spaceage Communications wins Entech 2000 Award for Best Audio Visual Integration Firm




Macquarie Bank Sydney

# Do you qualify for ACETA Membership?

Take our 30 second test and find out...



**aceta**  
MEMBERSHIP



You qualify for a **GENERAL MEMBERSHIP** if you research, design, manufacture, distribute, market, resell, service, integrate, install, train, consult on, or offer to hire out any of the following technologies:

- Sound reinforcement, automation, lighting and other vision systems for mobile and installed live sound production
- Audio systems and devices for music content production including music capture, mixing, mastering, editing and post/pre-production
- Audio systems and devices for broadcast, on-line, documentary, advertisement and motion picture production
- Vision systems that capture images for the production and replay of entertainment and education program
- Commercial integrated audio-visual systems and devices
- Rigging, staging and temporary structures for application in the entertainment and events industry
- Props and adornment for application in the entertainment and events industry

You qualify for a **ASSOCIATE MEMBERSHIP** if you:

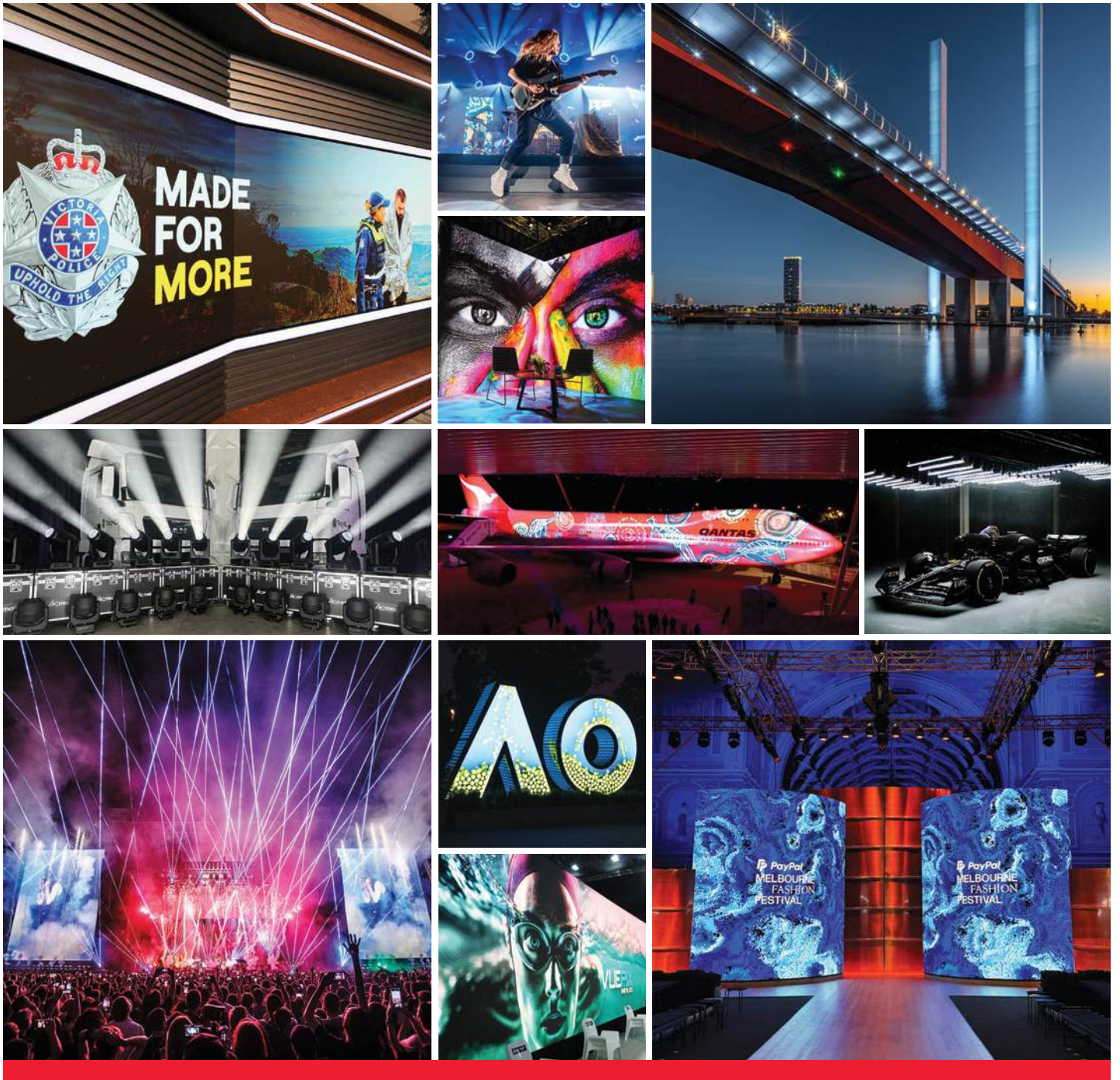
- Are an allied industry association;
- Are an entertainment technology education institution, including schools, colleges, universities and private educational and mentoring organisations;
- Are an entertainment technology media, or;
- Are an entertainment technology trade/industry event owner.

**ACETA welcomes qualifying sole traders and multi-nationals**

**Join Your Industry Peak Body Now**

2025 Membership applications are now available.

Contact [julie@aceta.org.au](mailto:julie@aceta.org.au) or visit [aceta.org.au](http://aceta.org.au).



# Thank You!

TO ALL OUR PARTNERS & AMAZING CLIENTS  
FOR YOUR TRUST, SUPPORT AND LOYALTY.

**HERE'S TO A SUCCESSFUL 2025 WITH YOU!**

**ULA**  
GROUP