

# CX

INTEGRATION / AUDIO / LIGHTING /



## THEATRE

# BEETLEJUICE

The cult movie turns musical with Meyer Sound

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- / Metallica's M72 world tour with PIXERA
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- / Martin MAC Aura Raven XIP
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## IMMERSIVE

# HARRY POTTER

An illuminated and immersive Forbidden Forest Experience in Brisbane

## INTERNATIONAL

AYRTON ON TOUR  
W/ ROBBIE WILLIAMS

CLAYPAKY AT  
GLASTONBURY

MONTREUX JAZZ  
FESTIVAL '25

THE WORLD OF  
HANS ZIMMER

## UPGRADE TO VIO

Limited-Time Offer on VIO L208 & L210!

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VIO L210 VIO L208

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Designed for touring applications



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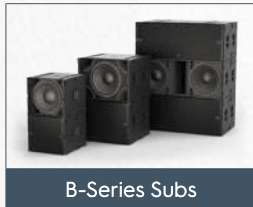
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THAT PERFORMS.**

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SYSTEM SOLUTIONS



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B-Series Subs



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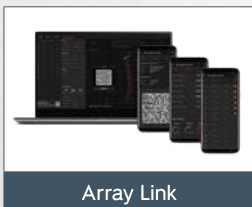
Rigging & Accessories



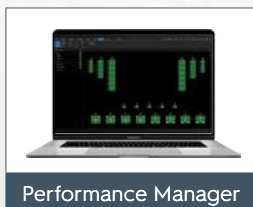
Crown Amp V racks



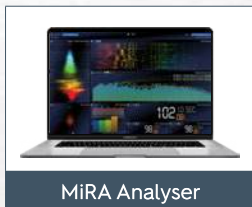
Venue Synthesis



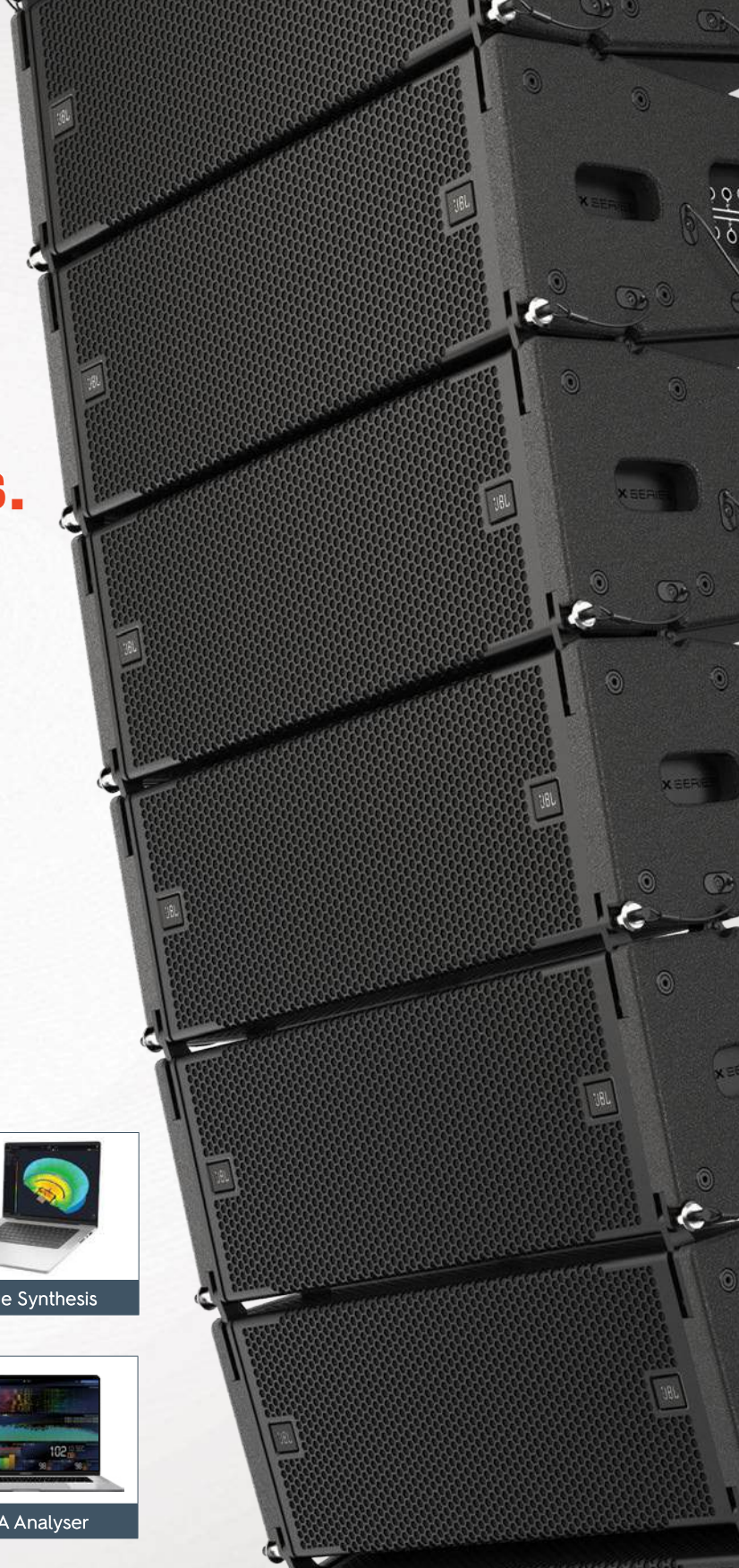
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## New Gear

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Cover Photo – Beetlejuice The Musical - Australian Production - Photo Credit: Michelle Grace Hunder  
Contents Photo – Metallica's M72 world tour. Photo Credit: AV Stumpf

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# QUEST IMPRESS

## 2025 Product Launch and Brand Update

**On Wednesday 13 August, I had the absolute pleasure to attend Quest's 2025 product launch and rebrand at Quest HQ, held within Australian distributor Group Technologies Training and Demonstration facility in Melbourne.**

Quest speakers are everywhere; look up next time you're in a café, restaurant, pub, nightclub, museum or anywhere else there's music. They've been engineered in Melbourne for over 20 years and have grown to be an international brand with a loudspeaker for every application, and amplifiers to go with them. And a lot of it is still built here too. Who said Australians can't manufacture competitively?

Quest invited consultants, integrators, and end-users from around the country, and Group Technologies hosted with their customary class and flair. After a networking and drinks session, we were ushered into the excellent PA demo

room and were treated to one of the best new product presentations I have ever seen, globally.

"This is a very special day for us, as we launch two new ranges, and a significant upgrade to an existing product line," said Quest co-founder Mark Ladewig in his introduction. "It's been a global effort to get a project of this size together, and it's thanks to the expertise of many people from all over the world, who have contributed their unique talents across multiple disciplines. We started work on some of these products back in 2020, and we've spent thousands of hours on R&D and design."

Director of Sales Shane Cannon took over and got right into it, introducing us to the upgraded MX6 and MX8 loudspeakers, and their new addition, the MX4. They're all two-way weatherproof loudspeakers, IP55, or IP65 with an included connector cover fitted. The model names are totally straightforward, The MX4 has a 4" woofer, the MX6 a 6" woofer...you get the idea. Then Shane unleashed an audio demo of the MX8s, without subs, and no 8" in a plastic box has any business sounding as good (and as loud) as they did.

Shane went on to announce two new models of pendant speaker, one with a 4" and one with a 6" woofer. In addition, an intriguing new product that is a variation on their existing MX6C ceiling speaker, with the addition of a PoE amplifier with a Dante/AES67 input, that can also power another MX6C.

The next reveal was updated QXD four channel power amplifiers, with the addition of Dante/AES67 and DSP. The DSP is impressive at this end of the market – 32-bit, 96kHz sample rate, FIR filters, parametric EQs, compressors, and dynamics. They're built to play nice with major players like Q-SYS, and have a host of power saving green features.

Shane then debuted the Qi Series of timber cabinet loudspeakers designed for installations, including two weatherproof models in the most commonly deployed sizes of 8" and 12". Two compact companion subwoofer models, a 12" and an 18" were also released. We were then treated to a demo, starting with the QI5 5" and working up to the QI5 15", with sub. The QI15 pinned me to the back wall with a heavy EDM track and stayed utterly clean while doing it. Very impressive.



# AUSTRALIAN DESIGNED AND MADE.

The Qi Series feature meticulously crafted hardwood cabinets, enhancing acoustic integrity by minimising resonance, while advanced driver technology ensures precise audio reproduction. Versatile mounting options and a subtle, refined design allow the Qi Series to blend seamlessly into a variety of environments.

## Qi SERIES LOUDSPEAKER FEATURES

- LF high-excursion woofer
- HF compression driver
- Constant directivity rotatable horn flare



### GET IN TOUCH

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



General Manager Anthony Touma closed out the show with an update on Quest's clean, cool new website, new logo, and marketing strategy, with an increased emphasis on assisting consultants and integrators to pitch and present to their clients. He also teased Quest simulator software that will help them do this.

Best of all, every new product in the presentation is either in production or already shipping, with the whole range available by October. Support Australian manufacturing and get quoting!



Anthony Touma



# Blackmagic Design has everything you need for 2110 IP video systems!

Now you can build affordable live production and broadcast systems with SMPTE-2110 video! Blackmagic Design has a wide range of 2110 IP products, including converters, video monitors, audio monitors and even cameras! You get the perfect solution for integrating SDI and IP based systems. Plus all models conform to the SMPTE ST-2110 standard, including PTP clocks and even NMOS support for routing.

## Build Professional SMPTE-2110 Broadcast Systems

The Blackmagic 2110 IP Converters have been designed to integrate SDI equipment into 2110 IP broadcast systems. The rack mount models can be installed in equipment racks right next to the equipment you're converting. Simply add a Blackmagic 2110 IP Converter to live production switchers, disk recorders, streaming processors, cameras, TVs and more.

## Conforms to the SMPTE-2110 IP Video Standard

Blackmagic 2110 IP products conform to the SMPTE ST-2110 standard for IP video, which specifies the transport, synchronization and description of 10 bit video, audio and ancillary data over managed IP networks for broadcast. Blackmagic 2110 IP products support SMPTE-2110-20 video, SMPTE-2110-21 traffic shaping/timing, SMPTE-2110-30 audio and SMPTE-2110-40 for ancillary data.

## Uses Simple 10G Ethernet for Low Cost

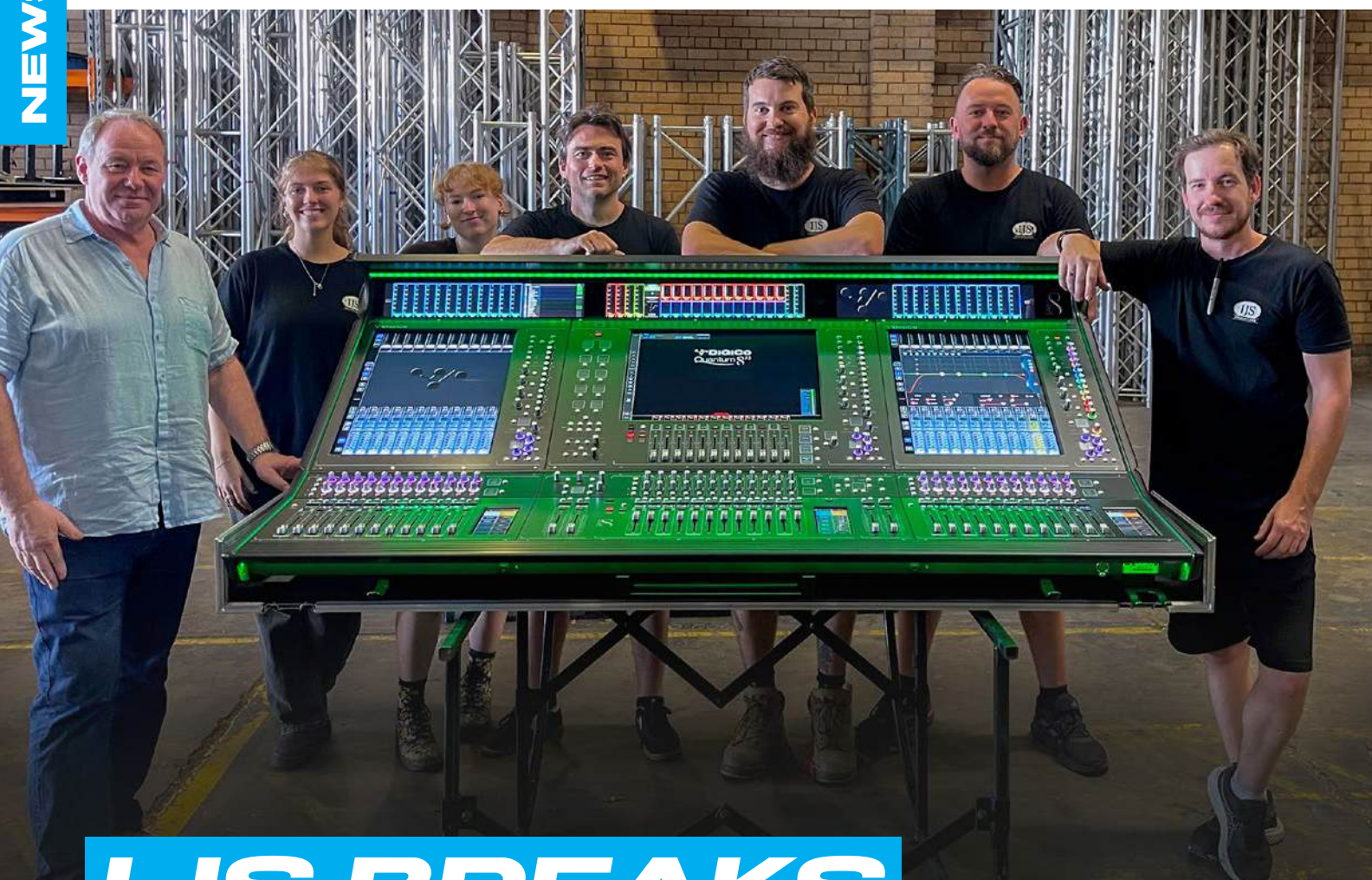
Blackmagic 2110 IP Converters are available in models with RJ-45 connectors for simple Cat6 copper cables or SFP sockets for optical fiber modules and cables. Using simple Cat6 copper cables means you can build SMPTE-2110 systems at a dramatically lower cost. Plus copper cables can remote power devices such as converters and cameras. There are also models for optical fiber Ethernet.

## Incredibly Easy to Install

One of the biggest problems with SMPTE-2110 is needing an IT tech on standby to keep video systems running. Blackmagic 2110 IP converters solve this problem because they can connect point to point, so you don't need to use a complex Ethernet switch if you don't want to. That means you get the advantage of SMPTE-2110 IP video with simple Ethernet cables, remote power and bidirectional video.

**Blackmagic  
2110 IP Converters  
From \$505**





# IJS BREAKS NEW GROUND

## DiGiCo Quantum 852

*For over three decades, Brisbane-based company IJS has helped clients navigate the often-complex landscape of technical production, providing high-end audio, lighting, staging and backline for concerts, festivals, corporate events and beyond. Further strengthening its technical capabilities, IJS recently welcomed DiGiCo's latest digital mixing console, the Quantum 852, into its ranks.*

"It's important that our consoles are rider-friendly, reliable, and remain current with market trends," explains IJS General Manager, Jay van Lieshout. "DiGiCo consoles are highly sought after, thanks in part to the workflow advantages of the DiGiCo ecosystem. In short, engineers love them, so it just makes sense for us to stock them in our hire inventory."

IJS' investment in class-leading hardware and technologies is fundamental to its operational philosophy. Over the past decade, the company has compiled an impressive inventory of DiGiCo consoles including three Quantum 338 consoles, two SD11i and an SD10 and now, a Quantum 852. The addition highlights the company's focus on future-ready solutions that support a variety of production scenarios.

"IJS has been updating and scaling up its audio inventory in recent years," van Lieshout continues. "As part of this, it made sense to have a large format, high input count console such as the 852 in our growing fleet."

The Quantum 852, DiGiCo's flagship console, leverages the unique processing power of the manufacturer's seventh-generation FPGA

engine, offering up to 384 input channels, 192 aux/subgroup busses, and a 64 x 64 processing matrix, all with full channel processing. Advanced tools like Nodal Processing, Mustard Processing, True Solo, and Spice Rack enhance its versatility and sound-shaping capabilities.

Redefining the scale and flexibility of digital mixing consoles, the Quantum 852 retains the exceptional sound quality of the Quantum hardware, ensuring total capability in production environments where uncompromising audio quality is critical.

IJS' client roster spans some of the biggest names in live entertainment, with 2025 already seeing it piloting the likes of Woodford Folk Festival, Blues on Broadbeach, Six60 at Brisbane Riverstage, and Ministry of Sound: Classical, at HOTA.

As van Lieshout concludes, its continued investment in the industry's very best is creating a solid base for the growth of IJS.

"Now equipped with the DiGiCo Quantum 852, IJS is well-positioned to build on its legacy while ensuring adaptability to evolving production demands."

# UPGRADE TO VIO



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Designed for touring applications

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For a short period, NAS and dBTechnologies are offering massive discounts on both the VIO L208 and VIO L210 active line array modules.

Don't miss your chance to upgrade your audio setup with these high-performance systems at unbeatable prices.

Get in contact with NAS for details.



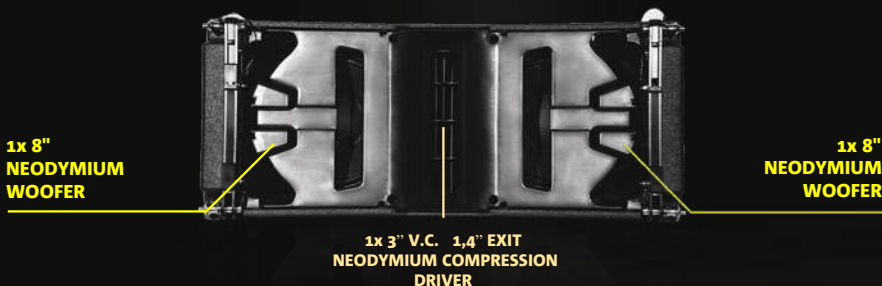
1x 10" NEODYMIUM WOOFER

1x 10" NEODYMIUM WOOFER

1x 3" V.C. 1,4" EXIT NEODYMIUM COMPRESSION DRIVER

### VIO L210

Two-way active line array module • HF 1x1.4" Neodymium • LF 2x10" Neodymium Class D DIGIPRO® G3 900W/RMS Amplifier • Max SPL 135 dB • Double rotary encoder 28.6 Kg per module •



1x 8" NEODYMIUM WOOFER

1x 8" NEODYMIUM WOOFER

1x 3" V.C. 1,4" EXIT NEODYMIUM COMPRESSION DRIVER

### VIO L208

Two-way active line array module • HF 1x1.4" Neodymium • LF 2x8" Neodymium Class D DIGIPRO® G3 900W/RMS Amplifier • Max SPL 133.5 dB • Double rotary encoder Only 18.1 Kg per module •

## VIO Series

dBTechnologies

## NAS

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# Metallica's M72 world tour elevates visual experience with PIXERA media server system

Metallica's groundbreaking M72 world tour, renowned for its innovative in-the-round stage and "no repeat weekend" format, has taken a bold step forward by adopting the PIXERA media server system from AV Stumpfl. This transition enhances the tour's massive video setup, delivering an unparalleled visual experience across its eight 100 foot-tall towers, each featuring three 50 x 30 foot LED screens, totalling 24 discrete surfaces; the brainchild of creative director and production designer Dan Braun.

The M72 tour, which began in 2023 and has captivated upwards of 80,000 fans per night, relies on a sophisticated technical infrastructure to match its ambitious creative vision. Metallica's switch to PIXERA, first tested at the Soundstorm festival in 2023, has proven transformative. "PIXERA's rendering capabilities, especially for Notch effects, are unmatched," says Tom Denney, media server engineer for the tour. "These boxes handle up to two simultaneous Notch effects without dropping frames, which is critical for our 38 camera setup and dynamic visuals."

David Leonard, media server programmer and operator, echoes this sentiment, highlighting the system's reliability and flexibility: "PIXERA version 25 has been great. I've had zero drops or restarts. The layer-based interface and tools like layer referencing make it easy to manage 50 different screen mappings per show, keeping the visuals fresh and immersive." Leonard programmes a timeline per song and then builds out his cue list based on the band's set for the evening. Leonard's ability to adapt on the fly is crucial, as Metallica's setlists – drawn from the band's vast discography – are finalised just before showtime.

The PIXERA system, comprising eight servers (four main, four redundant), supports a true one-to-one redundancy workflow, ensuring seamless performance.

"The band and creative team prioritise reliability, and PIXERA delivers," Denney notes. "Each tower receives a 4K signal, and our utility machine handles additional outputs for festivals or broadcasts, like when we streamed to 3,000 cinemas worldwide."

The system's 16 terabyte drives (upgradable to 60TB) accommodate the tour's 3.5TB content folder per show, enabling effortless transitions between



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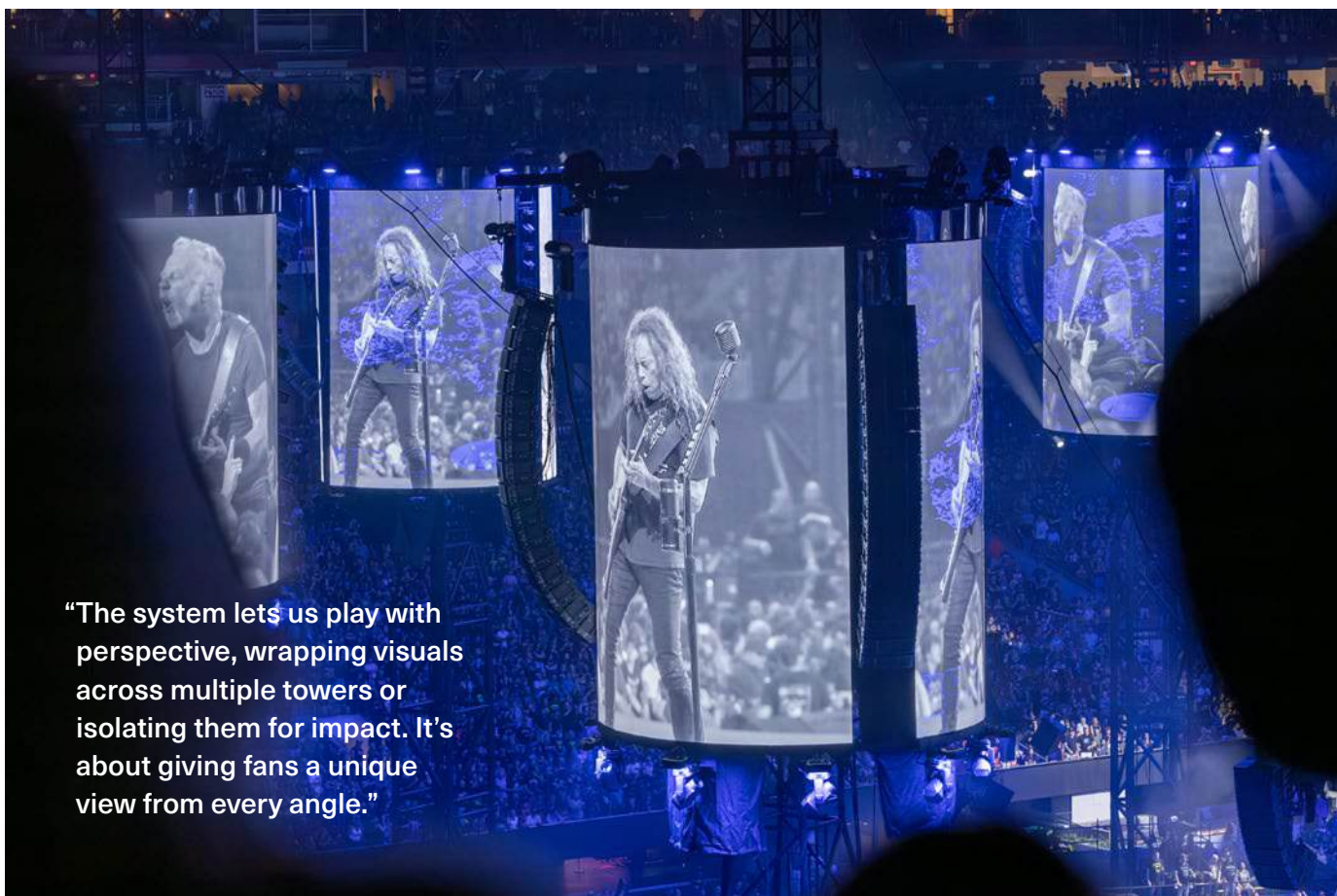
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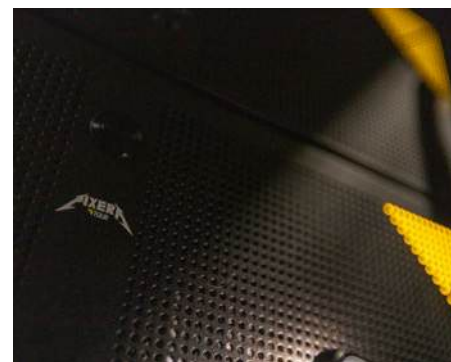
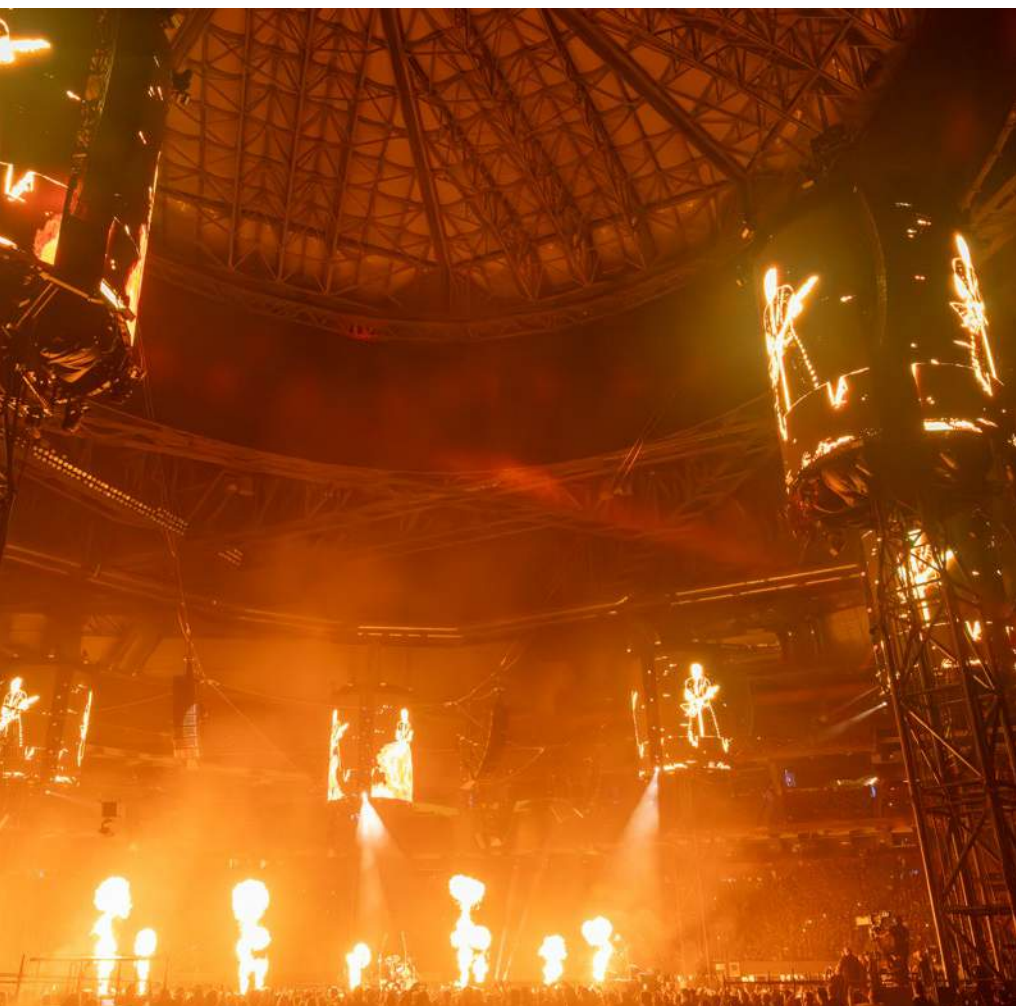


the main “tower show” and festival configurations without time-consuming offloading.

The eight PIXERA servers make up one of the six custom “barges” that comprise the tour’s video infrastructure, and fibre lines connect video village to the racks of the eight towers in the stadium hundreds of metres away. “The barges cut our server and camera setup time to under an hour, despite hundreds of cables,” Denney explains. “PIXERA’s Hub tool simplifies managing eight servers, from network configuration to fan speeds, making our workflow incredibly efficient.”



“The system lets us play with perspective, wrapping visuals across multiple towers or isolating them for impact. It’s about giving fans a unique view from every angle.”



Video director Gene McAuliffe, who spearheaded the adoption of PIXERA, praises its creative potential. "The system lets us play with perspective, wrapping visuals across multiple towers or isolating them for impact. It's about giving fans a unique view from every angle," Leonard recalls from discussions with McAuliffe. The support from PIXERA's team has also been a game-changer. "From Soundstorm to now, their support is the best I've experienced," Denney adds. "Whether it's a bug fix or a new feature, they're responsive across time zones."

Now on a North American run, and heading to Australia in November, PIXERA empowers the M72 tour to push boundaries further, blending cutting-edge technology with the live energy Metallica brings to every show. "PIXERA feels future-proof," Leonard says. "We're already planning to adapt these files for other shows – it's that versatile."

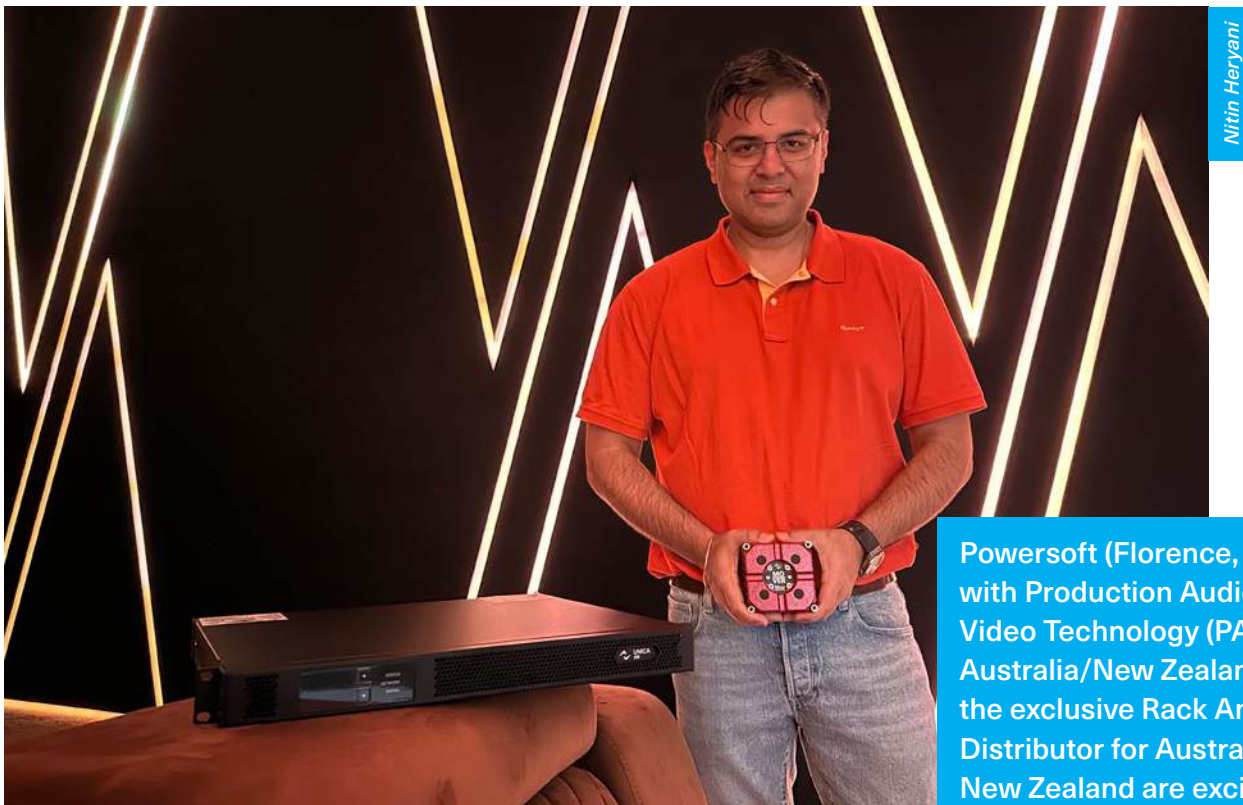
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Nitin Heryani

## PAVT partners with Integrate Unlimited for residential and cinema sectors

Powersoft (Florence, Italy) with Production Audio Video Technology (PAVT Australia/New Zealand) as the exclusive Rack Amplifier Distributor for Australia and New Zealand are excited to announce a local partnership with Integrate Unlimited in Australia to cater for growing demand in professional DSP and Audio-over-IP amplifiers as well as MOVER tactile solutions for the residential and cinema sector.

"We (PAVT) are excited to partner with such a dedicated distribution company who not only have a synergetic brand portfolio, but share our passion for customer service and technical support for consultants and system Integrators. There is no better suited technology platform on the market today for integration into professional or domestic cinema and mixed media rooms than Powersoft and we look forward to supporting Integrate Unlimited installation partners together - either for their own system design recommendations with MAG Theatron, or for opportunities to provide best in class amplification and DSP for any loudspeaker solution an installation may require," said Ben Clark, PAVT Technical Support Manager & Rational Acoustics SMAART Instructor AUS/NZ.

"Powersoft was a natural partner for us at Integrate Unlimited, considering all the leading manufacturers in the world rely on Powersoft for their state-of-the-art amplifier design and technological prowess, including MAG Theatron. In order to support our existing dealer base within the residential market and potential new custom integrators, PAVT provide the perfect synergy to impart the necessary training and product support to

elevate our dealer base to the next level," said Nitin Heryani, Director, Integrate Unlimited.

Powersoft have technical partnerships with many modern global cinema powerhouses including MAG, Christie, Sphere Entertainment

and of course, Dolby, who recently announced a collaboration for implementation of Dolby Atmos Connect AES67, the quicker, easier and more reliable way to integrate and commission a Dolby Atmos system of any size.



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SCAN for  
**MORE**

Clearlight Shows

# OPEN DAY

On Wednesday August 30, lighting and staging hire and sales company Clearlight Shows threw open the doors of their Melbourne office and warehouse to current and prospective customers, plus the customers of the future, to show off their wares.

With big production houses, small theatre companies, LDs of every stripe, and a bunch of students from Melbourne Polytechnic dropping in, I attended the open house after dark, when the lighting fixtures could really show off what they can do.

Tastefully draped off in their very own Wentex drape system and filled with a nice haze, the busy warehouse presented nicely, divided into sections showcasing their brands and gear.



RSC Lightlock in action



RSC Lightlock in action

Lampy lighting consoles, Capture lighting software, Highlite Infinity lighting fixtures, and LDR followspots were the stars, but I really got intrigued by some lesser-known offerings.

The big news was the completely new Infinity Furion FX402 Bar, which was only released in Europe weeks before the event. Managing Director John McKissock order the unit on display the day they were available, meaning this was the first one to make it to the southern hemisphere. The Infinity Furion FX402 Bar is an IP65-rated LED batten with 10 high-power 60W RGBW LEDs in 10 tilt heads with zoom and 60 warm and cold white strobe pixel LEDs. It goes to head-to-head with other big players in the market, and the LDs I talked to about it were very keen to get it on their shows. It is blazingly bright, and capable of some very, very cool effects.

The Infinity Furion P602 Profile with framing shutters was also getting a lot of attention.



Students hands on with the LDR Astro 600

It's a lightweight, IP65-rated moving head with 600W flat-field LED with CMY + CTO colour mixing and colour wheel with 7 colours + open. It's got a rotating gobo wheel with 7 gobos, static gobo wheel with 9 gobos, and rotating 5-facet circular prism. Zoom range is 6.5° to 56.6°.

The students from Melbourne Polytechnic were really enjoying getting hands-on with the

LDR Astro 600 and Astro 250HP follow spots. I managed to walk across the beam and can attest they have extremely serious output, and can throw comfortably from the highest dome room in the country.

One of the lesser-known products that got my attention is the RSC Lightlock, which is a specialised motion-dampening system for moving lights which allows them to be



Two Infinity Furion FX402 Bars on demo

**NEW**

# FURION SERIES

BY &infinity

## FURION FX402 BAR

10x 60 W RGBW LEDs | 60 CW + 60 WW strobe pixels | 200° tilt per head

Motorised zoom (2.7° - 31.4°) per head | Edge-to-edge mounting and easy alignment | IP65-rated



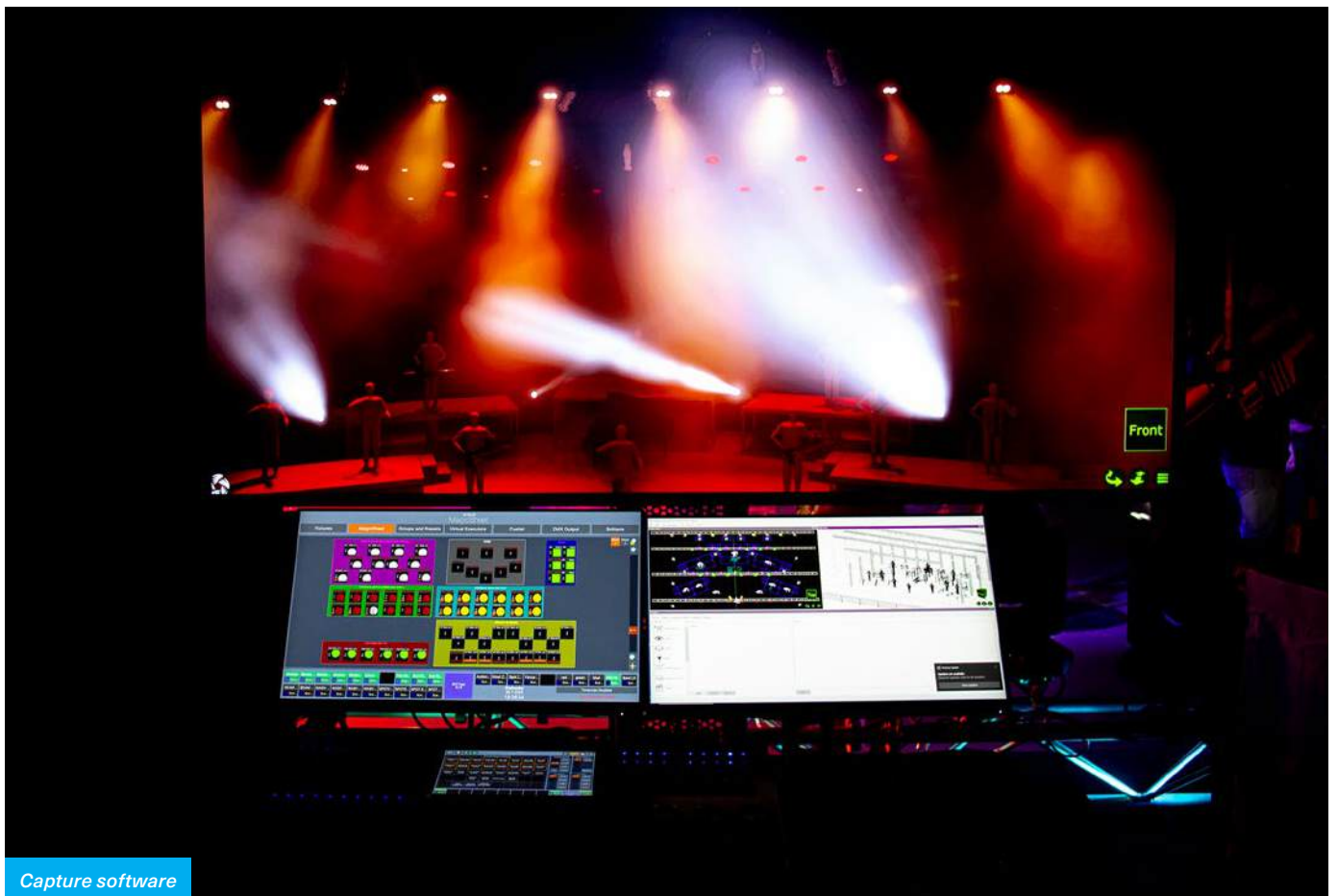
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rigged on very lightweight hanging or flown structures. Basically, it stops truss moving when the light moves. RSC stands for Royal Shakespeare Company, who developed the product years ago. There's even a video online with Sir Patrick Stewart himself explaining how they work. Clearlight have been distributing them for years, and big companies like PRG and Resolution X have serious stocks of them.

I love finding out about small, niche things that have been invented to solve very specific problems. Highlite's Mammoth-branded TerraFix spikes are definitely in this category – a range of stands that you can spike into sand, earth, even rocks, to mount lights on when you're working outdoors. They are kinda threatening in real life – don't make your LD angry!

Wentex are now pretty well known around Australia for their fantastic pipe and drape system, which even a sound guy like me can put up and make look good, thanks to their ingenious combination of telescopic supports and Velcro. But they also make all kinds of staging gadgets, including the Rapido curtain clamp. It's a quick release clamp for hanging curtains off a bar, with nothing else to tie or fiddle with. It makes moving a drape from one fly bar to another incredibly fast, as it locks as soon as there's weight on it.

Clearlight continue to surprise with the range and depth of the solutions they have in their range. I encourage anyone serious about their lighting to have a chat to the team and find out more about some of ingenious gadgets they bring into the country.



Capture software

# STRADALE PROFILE

small in size, immense in power



Stradale Profile embodies the principle of perfect homothety within Ayrton's Ultimate range, standing as the first ultra-compact luminaire of the brand-new 1 Series. Following in the footsteps of Rivale, it reduces its visual footprint by 15%, achieving this through meticulous engineering and extreme miniaturisation. Every detail was optimised—streamlining the structure, refining effect modules, and minimising component size—to push integration to new limits.

**Luminous Flux**  
**20,000 lm**

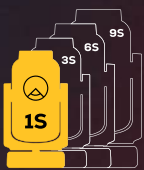
**Variable CRI**  
**70 to 86**

**IP Rating**  
**IP65**

**Beam Aperture**  
**4 ° to 52 °**

**Front Lens**  
**140 mm**

**Weight**  
**23.5 kg**



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# VuePix Infiled Screens Power the Finish Line at the 2025 Gold Coast Marathon

VuePix Infiled LED screens took the prime spot at the finish line of the ASICS Gold Coast Marathon 2025, delivering a dynamic visual experience for one of Australia's premier running events. Held in early July, the marathon drew over 35,000 participants from 49+ countries, all converging on the Gold Coast for a weekend of endurance, celebration, and community spirit.

Organised by Events Management Queensland in partnership with EventCo, the event showcased world-class athleticism and innovation. EventCo engaged Onesol Productions to deliver a high-impact digital signage solution, including a custom-designed LED arch and perimeter screens for the finish line.

Towering at four metres high and stretching 12 metres wide, the double sided VuePix Infiled LED arch served as a striking visual gateway for participants completing their race. The vibrant digital display created the perfect dynamic backdrop for live broadcast coverage, capturing each triumphant finish in vivid detail. It not only enhanced the experience for runners pushing through to the final moments, but also amplified the excitement for spectators cheering them on from the sidelines.

Now celebrating over 40 years of marathon excellence, the Gold Coast Marathon continues to unite a passionate community of athletes and supporters. With the bold LED screens lighting the path, every finish became a moment to remember.



# ONEstage

## New chapter for ONEstage

ONEstage, a leading Australian manufacturer of power, signal, and control systems for the events industry, is entering a new era. The company was recently acquired by a private Australian ownership group with aligned interests and industry experience. Founder Lachlan Elmore remains as General Manager and continues to lead R&D and manufacturing.

"This change gives me the space to do what I love; focusing on product development and technical innovation, while the new administration brings operational strength and long-term stability to the business," said Lachlan. "It's the best move for me, our customers, and the ONEstage brand."

With the transition complete, customers will now see immediate benefits:

- Thanks to newfound efficiencies, prices across the entire range have been reduced, with the RRP of their flagship product the 'SPD5' dropping by 20% as one example
- Their top technician Charlie has joined the team full-time, reinforcing their commitment to local support and technical excellence
- A new online store will launch in the near future, improving access to the range for customers Australia-wide
- Retail partnerships are expanding, giving customers more ways to buy
- CMI remains a valued sales partner, but no longer holds exclusive distribution rights

The company remains privately held and Australian-owned, and is focused on strengthening its supply chain, broadening market access, and supporting the industry with reliable, innovative products.

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**ADJ PAR Z series additions**

ADJ have expanded their PAR Z range with four new models. They are all based on the same look of the traditional Par Can with COB LED technology to drive the light. All four models are equipped with an Aria X2 transceiver, enabling both wireless DMX control and remote device management via a smartphone app. In addition, each fixture features 5-pin DMX input and output sockets, as well as locking power input/output sockets. The PAR Z300 3K features a 300W warm white (3,000K) LED engine that delivers an output of up to 8,878 lux with a CRI of 97. The PAR Z300 6K utilises a 300W cool white (6,000K) COB LED engine, offering an output of up to 13,980 lux with a CRI of 95. Both fixtures integrate a manual zoom function, with adjustments between 9°, 15°, 20°, 25°, 30°, 35°, and 40°. The PAR Z300 RGBA uses a quad-colour COB LED engine combining independently dimmable red, green, blue and amber LED chips. Output colours include white light with colour temperature variable between 2,300K and 9,900K. Delivering an output of up to 5,230 lux with a CRI above 90, this fixture offers the same manual zoom options as the white light models. The PAR Z150 RGBA Plus gets its power from an integrated rechargeable battery. It features a 150W quad-color COB LED engine capable of outputting up to 1,360 lux with a CRI greater than 90. Its internal lithium-ion battery allows five hours of continuous operation at full output and up to 20 hours in reduced power mode. This model offers selectable zoom options of 7°, 11.5°, 16°, 20.5°, or 25°.

*Australia: ULA Group [ulagroup.com](http://ulagroup.com) 1300 852 476*  
*New Zealand: ULA Group [ulagroup.com](http://ulagroup.com) 09 218 6532*

**ADJ Hydro Flex L7**

Hydro Flex L7 is an IP65-rated 420W moving head wash fixture with seven 60W RGBL LEDs with individual pixel control, tuneable white colour temperature control (2,700K – 10,000K), motorised zoom and built-in Aria X2 wireless management system. Onboard pixel effect programs add to selectable dimming modes, CMY and DMX modes and speed/fade control. Controllable via DMX512, ArtNet, sACN, KlingNet and Aria X2.

*Australia: ULA Group [ulagroup.com](http://ulagroup.com) 1300 852 476*  
*New Zealand: ULA Group [ulagroup.com](http://ulagroup.com) 09 218 6532*



**NEW GEAR**



**ADJ Vintage series**

The Vintage series from ADJ is a range of LED wash lights that double as decorative blinders. Vintage X is hexagonally shaped and features four 60W amber foreground LEDs (2000K) and 64 3W RGB background LEDs. All LEDs are individually controllable via Aria X2 wireless management, DMX, RDM and Bluetooth. The 150° field angle complements advanced strobing effects, retro background lighting, and silent operation. Vintage X supports multiple control modes, and a coffin locking system to interlock up to eight fixtures together.

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



**ADJ Vintage Bar**

The Vintage Bar from ADJ is a decorative blinder that floods the zone via a strip of amber blinder COB LEDs surrounded by a textured reflector, which is illuminated by RGBL colour mixing LEDs. The central strip uses four independently controllable 150W amber (2,000K) COB LEDs to punch out up to 27,000 lumens. A textured reflector panel surrounds this strip, and it is surrounded by 120 0.8W SMD 5050 RGBL colour mixing LEDs to give a background glow effect. Multiple mounting options are available and connectivity via 10 modes of DMX with RDM support. Also compatible with sACN and Art-NET.

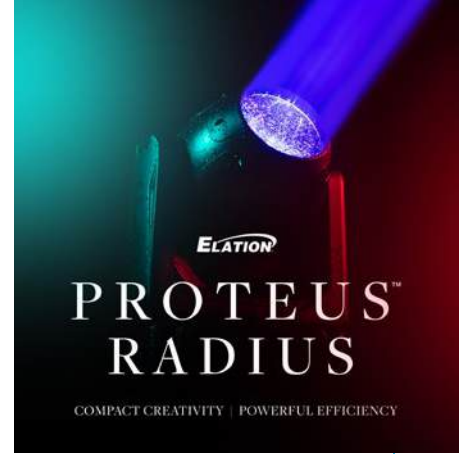
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## Elation PROTEUS ATLAS

Elation's PROTEUS ATLAS uses a LILI light engine, producing an intense beam comparable to 7K Xenon searchlights. This IP66 Beam FX can output up to 1,000,000 lux @ 20m (100,000 lux @ 100m), designed to show a concentrated beam of light spanning long distances. Featuring full CMY colour mixing and a 25-position colour wheel, 13 interchangeable-rotating/indexing metal gobos and 26 static-stamped metal gobos, multiple prisms divided between overlapping planes split beams, and the PROTEUS ATLAS includes Elation's Sky Motion system, allowing it to operate as a searchlight effect without the need for a dedicated lighting controller. Beam control is provided through a fast zoom and focus lens array with dual frosts, and 360 degree pan movement points it in the right direction.

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NEW GEAR

## Elation PROTEUS RADIUS

PROTEUS RADIUS from Elation Lighting is an IP66 Beam FX with a laser-based light engine. The LILI light engine produces a bright, concentrated beam of light that can span long distances with its ultra-narrow beam. Life span estimated at 10,000 hours. Drawing 100W, the PROTEUS RADIUS features continuous 360 degree pan and tilt, 13 interchangeable-rotating/indexing metal gobos and 29 static-stamped metal gobos, four prisms divided between dual overlapping planes split beams, dual frosts to soften the beam, and CMY colour mixing with CTO and a 25-position colour wheel.

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# NEW GEAR



## Obsidian ONYX 4.32

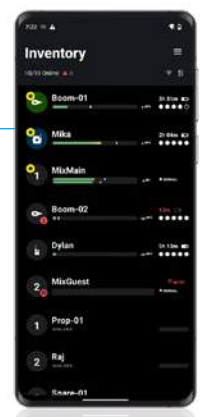
Obsidian have released ONYX 4.32, an update to their ONYX Lighting Control Platform. ONYX 4.32 is the latest iteration of its lighting control software for NX consoles and PC systems. Key updates include: cue list tracking, to skip over cues while keeping the show running smoothly; LTC audio input support for LTC timecode; quick fade and delay modes; DyLOS pixel composer upgrades to mapping, masking and mode selection; and 2D Plan now includes a mini-map.

**Australia:** ULA Group [ulagroup.com](http://ulagroup.com) 1300 852 476  
**New Zealand:** ULA Group [ulagroup.com](http://ulagroup.com) 09 218 6532

## Shure Wireless Workbench Mobile

ShurePlus Channels app has been upgraded and rebadged as Wireless Workbench Mobile. Key features include optimised frequency coordination for scanning and assigning frequencies, wireless control within reach, which offers flexible access via iOS mobile devices, improved UI with customisable looks and alerts, and a simple setup that connects over Wi-Fi or Ethernet. The app is available for free on Android and iOS.

**Australia:** Jands [jands.com.au](http://jands.com.au) 02 9582 0909  
**New Zealand:** Jands [jands.co.nz](http://jands.co.nz) 09 941 9780



## ETC Apex FP Lighting Console

The Eos Apex FP is ETC's latest lighting console. Based on the Apex 5, but minus the built-in display, the Apex FP offers users the ability to incorporate their own display via two 16mm (5/8 in) baby pin ports. Regular Apex features of customisable OLED Target keys for Direct Selects, reconfigurable inputs and outputs, six encoders, and one bank of RGB-backlit Target Keys keep the interface familiar. Control ports include DMX, etherCON Gigabit, SFP+, and provides 24K output.

**Australia:** Jands [jands.com.au](http://jands.com.au) 02 9582 0909. **New Zealand:** Jands [jands.co.nz](http://jands.co.nz) 09 941 9780

## ETC F-Drive RX

ETC's F-Drive RX is a centralised LED driver system that powers and maintains architectural and commercial lighting installations. It is a 2U rack-mounted solution capable of driving and controlling LED fixtures that require constant current or constant voltage. A natural partner to ETC's Navis LED fixtures, F-Drive RX uses DMX or sACN to receive commands and features 10 hot-swappable output cards, allowing for a total output capacity of 2,800W. A 1U power supply, available in 1,800W or 2,800W versions, supports the F-Drive RX.

## ETC Response 0-10V Gateway R3

The Response 0-10V Gateway R3 is the latest evolution in ETC's line of power control solutions. This DIN rail mounted controller accepts both sACN and DMX control inputs and is UL 924 listed for use with 0-10 V UL 924 listed Directly Controlled Emergency Luminaires (DCELs). Features include 24 Channels of 0-10V Sink Control, Emergency Lighting Ready with a contact closure input and "Push to Test" button, and custom dimming curves.

# NEW GEAR



## JBL Professional Control 400 ceiling speakers

The JBL Professional Control 400 Standard Coverage Series and Control 400 Premium Coverage Series ceiling speakers cover 15 new models. Together, these variants provide options at three distinct tiers of coverage consistency and price. The Standard Coverage Series is designed to provide high-performance audio at affordable price points. The Enhanced Coverage Series provide a more even frequency response throughout the coverage area and strike a performance to cost balance between the Standard and Premium models. The flagship Premium Coverage Series deliver utmost coverage consistency for installations for top audio quality and clarity. All models embrace design elements tailored for modern interiors. Most options include transformers to support both 70V/100V and low impedance applications.

**Australia: MadisonAV**  
[madisonav.com.au](http://madisonav.com.au) 1800 00 77 80  
**New Zealand: JPRO** [jpro.co.nz](http://jpro.co.nz) 09 275 8710



## TheatreQuip TensionGrid virtual floor systems

TensionGrid is a virtual floor system developed in Australia by TheatreQuip. It is a tensile wire rope access floor system designed for theatres and venues, allowing safe access to high level services including lighting fittings, audio equipment and/or rigging points. TensionGrid uses a custom wire rope woven fabric 'virtual floor' attached to locally engineered perimeter frame designs. Compliant with Australian safety standards and codes.

**Australia: TheatreQuip**  
[theatrequip.com.au](http://theatrequip.com.au) 02 8755 8500



## Redback Mix and Match Zone Amplifier Series

Redback Mix and Match Zone Amplifier Series is a modular solution designed to simplify zone PA amplification. This half-rack series offers flexible configurations and Class-D technology. The modular design allows users to mix modules for tailored PA zones. Power options range from 1 x 60W to 2 x 480W models. Speaker output at 100V or 8 Ohm, output connections are pluggable screw terminal, and input connections via RCA/3-pin Euroblock. Rated frequency response is 80Hz - 17KHz (+1dB/-3dB).

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Kiwi-Born and Crowd-Tested

# TABLEHUB LAUNCHES IN AUSTRALIA

by Jenny Barrett



Big Buddy Big Night Charity Gala

## Digital centrepieces turn tables into touchpoints

Imagine arriving at a gala dinner; the room hums with pre-show chatter, the clink of glassware, the quiet thrum of expectation. Then, as lights dim and a welcome message appears across every table, it's not on printed menus or folded programmes but on glowing screens embedded in the centrepieces themselves. This is TableHub in action - a New Zealand-designed innovation that turns static banquet tables into interactive, customisable touchpoints. Think delegate messaging, sponsor activations, content control. And it's just made its Australian debut.

### From Aotearoa, With Innovation

Having transformed events across Aotearoa since its soft launch in 2018, TableHub officially crossed the ditch this August, premiering as part of the Experience Gold Coast industry showcase. Billed as a flagship business events family, the multi-day event drew event planners, venues, and production professionals from across Australasia. The perfect testbed for a product that has already proven its value in New Zealand's vibrant corporate and creative event scenes.

For TableHub's founder Paul van't Hof, known in the AV and installation world as 'Goff', the move into Australia marks both a milestone and a strategic leap, "We've had so many requests to bring the TableHub technology to the Australian events industry. 'This is Gold Coast' was the ideal environment to showcase what TableHub can do," he said.

Partnering with Queensland-based TLD Event Creation, TableHub now has a physical base across the Tasman and is actively seeking like-minded AV partners and venues to help scale the experience.

The ambition? Make this Kiwi-born product a go-to solution for planners wanting dynamic engagement, seamless logistics, and strong sustainability credentials.

### Trusted at Home

Back in Aotearoa, TableHub has already become a staple for clients who value both innovation and reliability. Brand activation agency Curious Nation's Corinna Homer, who first encountered TableHub via The Production Co, says it was a no-brainer, "The minute I saw it, I knew it was a great offering, especially around sustainability.

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# N | PAVT



L to R: Adam Siggers, Jodie Siggers, Adam Volz (TableHub Queensland TLD), Paul (Goff) van't Hof (TableHub Founder), Steve Murray (TableHub NZ Operations)

So many of our clients now ask us to do everything we can to avoid printing menus, orders of service, that sort of thing."

She's used the product in various formats: digitalising print information, live slide cueing, and at the Big Buddy Big Night Charity Gala to run a live auction of charity items directly from the tables, "Whatever the brief is, TableHub just folds into it. Clients with a digital ethos particularly love it. It fits their brand, their values." Repeat bookings back that up, "Voyager Media Awards have used it for three years running now, and IAB Digital Advertising loved it so much they're already planning to use it again."

From an events production perspective, Corinna says TableHub removes stress rather than adding it, "They're really great to work with. They go over and above. For the Voyager Media Awards, we needed five extra tables at very short notice. TableHub didn't have the stock, but they somehow made it happen."

And unlike some tech integrations that demand hand-holding, TableHub's crew are intuitive and self-sufficient, "They come in, know exactly what needs to be on screen and when, and just get on with it. They also work really well with other contractors because they understand the event flow. I don't have to manage them and that's gold."

She's excited to see the aesthetic possibilities expand too, "I think we've only scratched the surface. As a centrepiece, there's a lot we could do to jazz the boxes up for weddings or glitzy events where you really want to beautify the space."





Harvey Norman Gala Awards

Lucy Heald, Director of Event Production Agency LH Events also sees TableHub's true strength in its visual punch, "You're always chasing that wow factor, especially with big annual dinners. Clients want something new but also something that's smart with the budget. TableHub ticks both boxes. It looks high-end and techy, but it actually reduces a lot of traditional event costs like printing, signage and table numbers."

"As an event producer, your role is to spot how it can enhance the experience and save money in ways clients might not have considered," she explains. "For one event, instead of designing and printing separate bar menus, I suggested we add a couple more TableHubs and placed them at the bars. It looked sharp, tied everything together visually, and the cost savings were significant."



Mitre 10 Awards

At larger events, Lucy says TableHub helps ensure the brand experience reaches every corner of the room, "No matter how far a table is from the stage, the messaging is consistent," she says. "It ties the whole event together."

She also credits the team behind the product for making implementation easy, "They bring more than just the tech. They understand event flow, content timing, legibility because they come from production themselves."

At one Mitre 10 event, it was the TableHub crew who spotted early that the menu layout wouldn't read well and offered a better design, "That kind of insight is huge. If a client doesn't have content creators in-house, TableHub can step in."

### Next on the Menu

Goff agrees. His long-term vision is to keep evolving the product, but he acknowledges that Aotearoa's market is too small to justify significant further development alone.

That's part of the driver behind launching into Australia, where the potential scale, and hunger for engaging event tech, could fuel the next round of TableHub features.

As for what's next, the plan is simple: expand the offering beyond Queensland, build relationships with event hire companies and venues, and keep delivering memorable, sustainable, technically seamless experiences, one table at a time.



# Things to do *when you don't know what to do*

**Sometimes recording and mixing sessions don't go as planned. They can feel uninspired, predictable... boring even. So what do you do the next time (un)-inspiration strikes? Give up, power things down and call it a night? Maybe so... or you could try some of these ideas instead.**

I can't tell you how many times I've been in the studio searching for an inspired sonic solution (yet again) to help me navigate my way out of my own musical mundanity. We all experience it at some point - feeling like your own worst enemy, surrounded by your all-too-familiar instruments, recording gear and mixing tricks.

When we feel this way, the overwhelming urge is typically to pack things up and call it quits. Unfortunately, we're not always free to simply abandon a session every time our (lack of) inspiration strikes. Sometimes we have to plough on regardless.

So if you're not feelin' it during a session, but carry on regardless you must, what do you do?

Well, while it's easy to say so here – and much harder to implement – essentially what you need to do is something different.

But of course when you're not thinking straight, or you're frustrated by the way a session is progressing, it's hard to simply turn on a dime and 'try something!' Besides, you may have already tried a dozen things, none of which have worked, and now you're out of ideas!

So what the hell does 'try something' mean at this point?

## **Step Away From Yourself**

What I would say here, as a general rule, is that 'trying' is more than half the problem in most situations where we find ourselves stuck in a rut. In these circumstances, I'd suggest abandoning trying altogether. Instead, take a chance... on anything else.

Accidents, flukes – whatever you like to call them – can be great wellsprings of sonic solutions, and inspirational into the bargain.

If you're feeling stuck in a recording or mixing rut, do something that allows chance to play a part rather than always trying to intellectualise or orchestrate every solution. While your capacity for thought, for sonic solutions, for logical musical progress might

be vast, outside this lies an infinite expanse of possibilities, though right now you may not be able to see or imagine them.

So don't even bother trying. Let chance do the imagining for you.

If you're mixing, try anything other than techniques overly familiar to you. If there's a delay plug-in you never use, try putting that on a sound that you'd 'never, ever put delay on!' And don't judge the outcome straight away, either. Listen to what comes of this 'heresy' and see if it triggers any ideas or flow. If you're using MIDI, try duplicating an established part and replace it with an entirely different voice. Sometimes simply mixing up the MIDI sounds in the arrangement is enough to release you from your malaise.

If you normally compress everything to within an inch of its life, try mixing without it for a change. If you're concerned that your mix is too wet, ditch the reverb on all the parts that have 'a hint of it' and turn one of the wettest sounds into a delay-only effect. Finally, pick one of the loudest elements and make that dry too. What does your mix sound like now?

The important thing to understand here is that sometimes, as you progress with your work, you can grow more and more fearful

of change, as if making bold moves will somehow destroy all your handiwork. In this day and age there is nothing stopping you from experimenting with bold moves.

### [The Welcome Re-Arranger](#)

If you're feeling particularly uninspired and you really can't be bothered doing anything at all, not even something different – because that would require effort – do some random backwards listening.

Reverse some, or all, the files on your multi-track timeline (if it's a digital recording), or flip the tape upside down (in the unlikely event that you're working with analogue reels) and just listen to the audio backwards. There's potentially a whole parallel universe of amazing sounds here for the taking that could potentially become part of your 'forwards' production if you're open to it.

Some of the best aspects of many of my favourite albums were discovered this way, proving the point yet again that not all sounds on an album are crafted and designed; many are discovered by chance.

Backwards nuggets can sometimes transform a piece of music by unexpectedly providing a 'hook' melody, or creating weird rhythms that are invisible to the untrained ear. They can generate slingshot dynamics into musical transitions or add other-worldly disturbances in the background of a piece. Then there are those musical or rhythmic loops that, when played backwards, trip the song out completely by providing a strangely hypnotic, indefinably bent quality.

I can't remember a time when reversing sounds in a timeline didn't quickly uncover something cool that added to the mix. And the best part about these bonus elements is that I've never had to expend any mental energy acquiring them.

### [Read The Stop Sign](#)

Sometimes the best thing to do – when you don't know what to do – is, well... nothing. Or in some cases, less than nothing!

Your apparent lack of inspiration (so-called) during a recording session might simply be the result of the lack of need. Put another way, your inability to conjure yet another 'cool sound' for your latest arrangement isn't necessarily the failing of your imagination, but rather the song's requirements. It may just be that the song doesn't need anything!

So don't bash your head against the proverbial brick wall any longer. Take a break for 20 minutes, and upon your return, listen to the song as if it were finished. Don't assume it's 'lacking'; hear it as a complete arrangement.

Flipping this expectation around will either confirm that you're indeed done, or it will trigger a response in you that will inform your next move.

Another thing to experiment with is playing the song while listening to only five of its key musical elements. Mute everything else.

How does the piece sound now? Still lacking something, or is it now (ironically) fresh and clear again? Going back to a song's core elements will sometimes trigger your imagination back into life, or indeed prove that some or all of the song can survive without some of its extraneous instrumentation. A crowded arrangement is stifling to the imagination. Cutting the song back to these core elements for at least some part of the arrangement might give you back the contrast you were looking for.

This form of editing can create a new sound and more pronounced structural dynamic contrasts without having to add anything.

### [Save As](#)

The other thing to consider when you're scratching your head looking for solutions is that you might have taken your song down the wrong road. Many a song arrangement and countless mixes have suffered this fate over the years, and the trick to making progress through these doldrums is learning to know when you're off course, admitting your errors and correcting them.

If you find yourself in this situation, face the problem head on, admit you're off course and set a new one. Save your session under a new name – 'New Mix Direction' or 'What Was I Thinking Before?' – and liberate yourself from the conservative bonds that all those hours of work have subtly placed upon you.

The hardest part about making this decision of course is that it always feels like a setback. But time has not been wasted! On the contrary, if you don't change course here you will only slow progress further in an egotistical attempt to save face, which makes no sense. How can a lame mix possibly allow anyone to save face? Retain your humility at all times and always act in the mix's best interests. Defensive engineers are lame engineers.

### [Old Macdonald Had A Farm, A.I.A.I.O](#)

Of course, with A.I. now at our disposal, we can always seek its input – before it disposes of us – by prompting an engine to offer us a solution to a problematic arrangement, lyric or mix. The responses from some of these online generators can often be pretty lame in my experience, but not always. And they're improving at breakneck speed, so before long they may be amongst our most powerful tools for extricating us from a sonic jam. I'm not thrilled with many other aspects of A.I. – my overwhelming concern is that it may rob us of the free will to learn this caper for ourselves, but I could be wrong about that.

For now at least, A.I. is undoubtedly a rapidly advancing tool that, if harnessed

correctly, can improve our audio workflows appreciably, in ways that were mere science fiction only a year or two ago.

### [Finally, There's You](#)

Last, but by no means least...

One final thing to consider when you're at your wit's end in the studio, is you.

The key to ensuring an endless flow of solutions in this game is the openness and curiosity of your own mind. An open mind, a curious mentality are crucial to a well-maintained wellspring of ideas. You can't keep providing solutions if your own thinking is growing narrower, your artistic view of the world shrinking.

Be curious.

This is what keeps you fresh and helps fight against your ego, which constantly tries to assert that 'this is the way it's done!'

There are countless ways to pursue artistic endeavours. If you think you know the best of them, you may simply be defending your own reputation rather than serving the song. We all make this common mistake, we're human after all. Claiming to know everything, particularly when this so-called 'knowing' acts as blocker against the ideas of others, can be a fast-track to mediocrity.

Be open-minded and curious – and if you insist on claiming to know only one thing, claim this: that there is always another way forward.

[Andy Stewart owns and operates The Mill on Victoria's Bass Coast. He's a highly credentialed producer/engineer who's seen it all in studios for over four decades. He's happy to respond to any pleas for recording or mixing help... contact him at: \[andy@themill.net.au\]\(mailto:andy@themill.net.au\)](#)



Andy Stewart



# Beetlejuice, Beetlejuice, Beetlejuice!

Photo by Michelle Grace Hunder

## The cult movie turns musical with Meyer Sound

“This is a show about death!” sings Beetlejuice joyously as the first big musical number of *Beetlejuice: The Musical* blasts the full house at Melbourne’s Regent Theatre. Based on the cult 1988 Tim Burton film, this is the Australian premiere of the show that debuted on Broadway in 2018, with music and lyrics by Melbourne’s own Eddie Perfect.

Eddie himself appears as Beetlejuice in this production, joyously chaotic and loving every minute of it. The character breaks the fourth wall so often, it’s a miracle the proscenium arch doesn’t collapse. Barley a minute in and he announces that the story is a ‘bold departure from the source material!’ as we find out that young Lydia Deetz is grieving the death of her mother, which is a bit of a shock, because we all loved Catherine O’Hara’s legendary performance as Lydia’s mother Delia in the movie.

This is indeed a show about death; it’s inevitability, not getting to say goodbye when someone is taken suddenly, not doing what you always wanted before your time is up, and grief. Karis Oka as Lydia Deetz is responsible for carrying the emotional centre of the show, as well as all of the biggest vocal numbers, and does so flawlessly. The hapless couple

Barbara and Adam Maitland, cursed to haunt their house forever after dying suddenly, are given much more depth than in the movie, their story being one of regret of not having followed their dreams.

Some aspects are a love-letter to the movie; the recreation of Tim Burton’s aesthetics, including a giant black-and-white-striped sandworm, the wild set design, and some of the iconic moments from the movie (no spoilers, sorry!). The Regent herself gets in on the act, its over-the-top baroque decoration the perfect background to the Burton look. A giant neon sign in the foyer welcomes you to The Netherworld, and on exit, warns you that you are re-entering The Real World. A not insignificant portion of the audience comes dressed as characters from the movie, or just inspired by the look.

Eddie Perfect’s music and lyrics are as crazy and dynamic as the bio-exorcist himself. Almost any style you can think of is thrown into the mix, often in the same song, and the dynamic goes from quiet grief to full volume anarchy. The original sound design was by New York’s Peter Hylenski, and Worldwide Sound Associate Justin Stasiw (also NY-based) came to Melbourne to hand the show over to Australian Associate Sound Designer Shelly Lee.

I’ve been tipped off that the sound design is very similar to that of *Moulin Rouge! The Musical*, another Hylenski design that won him a Tony, that I saw and reviewed way back in CX177 February 2022, in the same theatre. I thought that was the finest sound I’ve ever heard in a theatre production, and *Beetlejuice: The Musical* doesn’t disappoint – it’s the same beautiful clarity, natural sound, fantastically musical bass and huge impact when it needs it.

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The impact is from the Meyer Sound main PA, which consists of 14 elements of LEOPARD line array per side, flanked by five hung 900-LFC compact low-frequency control elements per side. The subs are augmented by two 1100-LFCs per side on the floor. The centre cluster runs eight LEOPARD loudspeakers, with two UPQs as downfills. A full delay truss at the back runs four Meyer Sound UPQ-D1 and four 750-LFC. Under the massive underhang that is the Regent's circle, there are six Meyer Sound USW-112P compact powered subwoofers and two rows of Meyer Sound UP-Junior delays. For extra coverage there are ULTRA-X22 side and front fill, with a full surround system for that cinematic experience. The whole system is processed through Meyer Sound Galileo GALAXY processors.

Production Engineer for the show, JPJ Audio's Andrew Poppleton, technically assisted Shelly Lee and Justin Stasiw by getting the JPJ Audio provided system into The Regent and up and running. "It's probably one of the smoothest installs we've done in quite a while," he relates. "Meyer Sound boxes are very easy to rig, as they're designed to get up and in quickly. Overall, from front to back, this is one

of the best sound designs I've heard inside The Regent. The bottom end coverage has been implemented extremely well, especially underneath that massive overhang. The six little delay subs, the USW-112Ps, certainly pack a punch all the way to the back."

"It's quite an impressive show, and everything works well," continues Andrew. "I think the most impressive thing about it is just how tight the bottom end is, and how big the drums sound. I've heard this room with different configurations, but the tightness of those 900-LFCs and 1100-LFCs is something to experience for yourself."

"It's a fast-paced, action-packed show," says Australian Associate Sound Designer Shelly Lee. "Unlike Moulin Rouge, the orchestra is in the pit. Some sound designers like all the mics on the orchestra to be voiced the same way and come from the same manufacturer, but Peter Hylenski is all about the right mic for the right instrument, so we have mics from

Royer, Sennheiser, Shure, Neumann, and DPA. All of the musicians have Allen & Heath ME-1 personal mixers, fed by Dante, and dial in their own monitor mix."

One of the really striking things about the sound design for Beetlejuice: The Musical is the density of sound effects – there's hundreds, which is another Hylenski signature. There's so many, there's a separate SFX operator at FOH.

"Anthony Craythorn is our head of department, and he's our main mix operator," continues Shelly. "Then we have Ghiovanna De Oliveira; when we opened, she was our sound effects operator. Some sound effects are fired by time code, some are fired by Anthony from the sound desk, but the majority of them are fired directly by the sound effects operator who is firing them in response to hand gestures or timing. Lighting and projection also fire a couple, and we fire a few of theirs. There is probably a sound effect in every line of the show somewhere."



Shelly Lee

**"It's a fast-paced, action-packed show"**



Photo by Michelle Grace Hunder



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Photo by Michelle Grace Hunder

On the day I saw the show, I dropped in to meet Giovanna and Anthony and check out their FoH mix position. Giovanna is Deputy Head of Sound, and is the main mix operator four times a week. "We have four members in the department," explains Anthony. "Backstage, we've got Luke and Monique. Luke covers everything out here as well, so we're triple covered on everything."

The sound effects set-up is fascinating. There's three monitors; one showing four camera feeds, one a main camera, and the other QLab. There's a PTZ camera controller, and a six-button MIDI Go Box controller from UK manufacturer That Little Box recessed into

the desk, which has adjustable height. Both FoH operating positions are decorated with Beetlejuice toys and props, and Giovanna has given the black desk lamps white sandworm stripes with PVC tape!

"I tried to make this set-up as custom as I possibly could," says Giovanna. "For example, this MIDI Go Box, if it sits up on the desk instead of sitting flush and you're operating it for hours a day, it's really painful. So I've recessed it and made it as flat as possible."

The extensive PTZ camera infrastructure is all in aid of the SFX operator hitting their cues. The operators have control, and zoom in on

details like hand gestures so they can hit their cues with perfect comic timing. It's an intense job that takes a lot of concentration. Even the height adjustable desk is important for this – some cues need you to be standing, some sitting, depending on how tall the operator is.

QLab is working hard on this show; "I have two QLab machines that are running constantly, with one redundant," continues Giovanna. "If anything fails in the primary machine, I hit a switch, and a GPIO trigger flips the output to the second machine and triggers the DiGiCo SD7 to use its alternate inputs. We have time code coming from our Ableton rig in the pit. I send MIDI to lighting, and lighting sends it back because there's a lot of cues when I am triggering sound effects that are also lighting triggers. We have all of our KVM control up here, and can get into any part of system running on the show, including our GALAXY processors."

All up, there are an astounding 353 sound effects cues. "I trigger 253," states Giovanna.



Photo by Michelle Grace Hunder



SFX desk at FoH



The full Meyer Sound FoH PA

"The other 100 are a combination of lighting and time code. We got the QLab file from the US tour. In pre-production, I was in the rehearsal room with the cast, which I have never done before. I had the base layer of the file, and as we went through rehearsals, they started adding more cues. For some of the cues, things changed. I had to source those cues until they found something else to replace them. Once we got into the venue, Shelly Lee and Justin Stasiw adjusted most of the volumes. But then once we hit previews,

they asked, 'What do you think about this? How do you think this lands?' and we edited from there."

Over on the SD7, Anthony Craythorn is wrangling a more modest 301 cues. "It's actually a little less than that, because some of them are check cues, but there's still quite a lot of desk cues," he says. "The only sound effect cues that I fire are voiceovers that I have to line up with what I'm mixing and the action on stage."

There are 16 channels coming into the DiGiCo SD7 from SFX. "All the levels of the effects are handled in QLab, so the desk is just a routing machine," Anthony continues. "We've got a surround side left-right and a surround rear left-right for the sound effects. They're also bussed into front of house left/center/right. It's almost like 7.1, but very custom, and nothing like any sort of Dolby standard. It's very much 'How can we make this work in the space?' We still have so much control over it. We used TiMax's panLab software to program the QLab



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panning. You hear it quite dramatically in the pre-show music, with all the stems of the track rotating around the room at different rates."

Anthony and Giovanna are both enjoying the front of house PA. "The Meyer Sound LEOPARDS really push all the way to the back of the venue, and you get a really great sense of the stereo imaging, even all the way up here," relates Anthony. "Surprisingly, even though I'm predominantly mixing off of under balcony fill and surrounds, you still get an incredible sense of depth. The centre cluster is quite high up, so I get a phantom centre. By the time it gets back to here, I'm getting that vocal image back through the delays, which are in mono, but you still get that sense of left/right. It's very transparent, and it's a dream to mix on."

The mix operators have their work cut out for them. "It's very dynamic show," understates Anthony by quite some margin. "Eddie's music is crazy. It goes from death metal, to ska, to jazz in one song. The first five minutes of the show is bonkers in terms of dynamic range, and it really translates through the system. We have careful compression through stages; we have input compression and bus compression, doing little bits along the way to help keep the mix in a certain window. In terms of mixing the band group, I'm controlling that post compression. We then artificially add back in those big dynamics that we need to create. It is a more produced sound; it's not completely open, but it's done in careful layers."

After the show wraps in Melbourne in mid-September, it's heading to Etihad Arena in Abu Dhabi for 10 shows, where they will black half of it off and turn it into some approximation of a theatre. After that, it's set to run in Singapore. It's showtime!



Anthony Craythorn



Giovanna De Oliveira



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# Powersoft Helps Bring the Wizarding World to Life

Harry Potter fans have had their fantasy world brought to life in Brisbane with 'Harry Potter: A Forbidden Forest Experience' running at Mount Cotton's Sirromet Winery in August and September. The illuminated, immersive night walk installation lets fans experience iconic moments from the Harry Potter and Fantastic Beasts movies, be menaced by a Dementor and Aragog the giant spider, and cast their own interactive spells.

The experience has already played in nine cities across four continents, including Melbourne, and is concurrently running in Chicago. Over two million fans have come through the gates, making it one of the largest interactive experiences in the world by audience. In Australia, experience and ticketing company Fever, in a joint venture

with global sport and culture agency IMG, are the producers, licensing the IP from Warner Brothers.

All of that IP, installation, props, lighting, sound, and control is brought technically to life by a key team that travels the globe, with local, on-the-ground technical management. Paul Osborne, Director at Catapult Creative Productions, was technical and production manager for Fever on the first Australian iteration in Melbourne in 2024, and has returned for the 2025 Brisbane season.

While a lot of attention is on the physical and illuminated aspects of the experience, audio is incredibly important.

"As you walk along, every five to 10 metres, there's a speaker, so there's around 400 speakers out in the forest; it's completely immersive," explains Paul. "The content is very localised - wherever you are, you are only hearing the audio that you're meant to hear at that location. The audio programme

is a mix of orchestral score, dialogue from the movies, and effects. There's narrative with characters from the film talking to each other. There's a section called 'Voices', which is sections from the films being whispered in your ear as you walk along."

Some audio effect moments are designed to make the sound seem to come from an object or location. In these areas, the background speakers are supplemented by larger speakers set in the forest to achieve the effects. For example, the howl of werewolves in the distance, or a big 'woosh' when a guest casts a spell.

It's a dense and complicated audio system, with each zone functioning differently. "In terms of audio channels, it's hard to define an actual channel count," Paul elaborates. "There are channels within channels; some sections are done just with a track that plays. Other sections are an orchestral score supplemented by effects. Then

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there's triggers within various props that trigger an audio cue. And some of the cues are interactive, triggered by the actions of the guests. It all adds up to a lot of channels."

To run the show, the technical systems use a 'hub and spoke design' with a central control location and 20 sheds built across the site to house power, audio amplifiers, and signal distribution.

"There's a show computer that runs everything on a cue-based system," outlines Paul. "There's one cue that overrides all the other cues called 'The Voldemort Takeover', which turns the whole site's lighting green and the audio at every location into a cue about Voldemort looking for Harry Potter, then everything has to reset back to where it was. That adds a layer of complication to the control system. In terms of audio distribution, Dante is perfect for this project, and we use it to send audio to 37 amplified audio controllers out in the sheds in the forest."

Those amplified audio controllers are 37 Powersoft T904s, originally specified by Andrew Johnson in the UK as Global Sound Designer for the project. They output 8000W over four channels, and come with internal DSP and Dante as standard. Audio equipment and support was provided out of NW Group's Brisbane office.

"The choice of the Powersoft amps comes down to the fact that they've got Dante, they've got DSP, they have remote control via their Armonia software, and they have included presets for all of the different speaker brands we are using," states Paul. "We are using every feature they have in this experience, and, of course, they sound great."





In addition to their extensive feature list and flexibility, the Powersoft T904s had to be able to operate consistently in the harsh conditions. "With our gear having to live in a shed outside in the forest for four months, they also need to be very reliable," confirms Paul. "There was a cyclone not long before we opened. In Brisbane at this time of year, when it rains, it rains properly. On top of the weather, you can lose power, and you have to expect that will happen. It's the best ad for Powersoft in terms of being hardy enough to handle all of this. A lot of products in our world don't like to be suddenly turned off and suddenly turned back on again."

NW Group Brisbane's General Manager Ray Moss was happy to invest in a few extra Powersoft amps to get the numbers that the project needed. "We've been evaluating our amp stock for a while, knowing that we're going to refresh our workhorse amplifier," says Ray. "When lined up with the requirements for Harry Potter, Powersoft ticked all the boxes. It's the combination of onboard processing, flexibility, routing, and Dante as standard. They are also ridiculously lightweight and a lot of bang for buck. Nothing else comes close for the money."

The T904s can take input from Dante, AES3, and analog, with the Dante and AES3 inputs

capable of daisy chaining directly, without the need for a network switch. While you can connect to a PC via Ethernet and use Armonia for full control, you can also attach a Wi-Fi access point and get control on any device via a browser. Along with a huge speaker processing preset library, there's also group controllable advanced EQ with raised cosine filters, and very long FIR filters, at 42.6ms.

Powersoft amplifiers are distributed in Australia and New Zealand by Production Audio Video Technology (PAVT)

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## Ayrton fixtures provide power and resilience for Robbie Williams Britpop world tour

**Robbie Williams 14th world tour, in support of his 13th studio album, Britpop, kicked off in Edinburgh's Murrayfield stadium on 31 May at the beginning of a 37-date tour of the UK and Europe, reaching mainland Europe by late June before its scheduled culmination date on 7 October in Istanbul's ITÜ Stadyumu.**

Lighting designer Paul Normandale of Blackburn-based Lite Alternative, the tour's lighting supplier, selected a total of 132 IP65-rated Ayrton fixtures including Perseo Profile, Veloce Profile, Argo 6 FX and the new Mamba, as the mainstay of his rig for this demanding tour.

This is the second time Normandale has toured with Williams; this time the Stufish-designed set is a dynamic construction of moving set pieces, large video screen flying pieces, a 25m wide main stage, a B-stage at the end of a catwalk and a C-stage further out into the crowd. The tour list mainly comprises stadiums, arenas and outdoor venues.

The IP65 rating of the Ayrton fixtures was an essential feature in Normandale's fixture choice, proving invaluable in the summer storms and intense heat that have washed across the continent this summer. But a major challenge is in lighting the transition from daylight to dusk/dark that comes with summer stadium concerts, combined with the output from the video screen set pieces.

"I needed bright, IP65 rated fixtures capable of handling all these scenarios, which is where the Ayrton Veloce and Mamba are especially valuable," says Normandale.

20 of Ayrton's new laser-sourced Mamba fixtures were chosen specifically for placement on the main stage wings from where they add width and scale to the stage in the stadium settings and provided stunning aerial effects.

11 Veloce Profiles are rigged on the front truss at a trim height of 16m and used for aerial effects, while a further 18 Veloce Profiles are in floor positions for backlighting and further aerial effects. A single Veloce Profile is employed as backlighting for band solo positions, bringing the total to 30. "The Perseo has become a work horse fixture, but the extra output of the Veloce is useful in stadium and large screen environments," confirms Normandale.

67 Perseo Profile fixtures, Ayrton's first compact multi-function IP65 rated fixture, are rigged on numerous ladder frames around the stage and on two flown trusses, and used as the show's main effects lighting.

Finally, 15 Ayrton Argo 6 FX are rigged on the front truss for dancers' wash light, and on the delay towers at a distance of 50m-85m from the main stage, providing key light for the C-Stage, B-Stage and thrust, with one Argo 6 FX held in reserve and positioned on the Rocket on which Williams makes his entrance, for backing vox and effects lighting.

Tour Lighting Director, Glen Johnson, adds, "The Veloce has been the standout moving light on the tour for me, with great optics and output, and the bonus of light and heavy

frost turning it to a fantastic wash beam. The Mambas have caused the most interest from everyone with the punch, and great three beam options for Spot, Beam and Special mode. Regarding the Perseo, it has just been as reliable as the first time I used them even though they take the most punishment on the show!"

The lighting is programmed and operated using two grandMA3 full size consoles (running MA3 software) and one grandMA3 lite as a tech and support desk. Johnson highlights the significant improvements the MA3 brings over its predecessor, particularly in the fast-paced environment of a touring stadium show.

"Timecode is simpler and quicker, and with plugins it's amazing to work with. It's a huge improvement from the MA2," says Johnson. "Reference positions are also a massive time saver, cutting down the workload on over 80% of the palettes I need to build each day."

He also points to the console's Phaser Engine as a powerful creative tool. "Once you get your head around what you can do with Phasers, you'll never go back to an MA2. The possibilities are endless."

### Creative Credits

**Creative Director:** Kim Gavin

**Lighting Supplier:** Lite Alternative

**Lighting Designer:** Paul Normandale

**Lighting Director:** Glen Johnson

**Motion and Set Build:** Wi Creations

**Set Design:** Stufish

**Special FX:** ER Productions

**Video:** Phil Mercer - Universal Pixels

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# CLAYPAKY FIXTURES TAKE THE FLYING BUS STAGE FOR A RIDE

at Glastonbury 2025

Claypaky HY B-EYE K15 Aqua lighting fixtures lit up The Flying Bus stage in the Unfairground at the 2025 Glastonbury Festival of Contemporary Performing Arts, June 25-29 at Worthy Farm in Pilton, Glastonbury, where Neil Young, Olivia Rodrigo and Rod Stewart were festival headliners.

The Flying Bus outdoor stage is built from two convoy buses pulled in the night sky by cherubs and a team of winged horses. The stage was located in the festival's Unfairground, a field dedicated to subversive art and music and filled with strange amusements, peculiar side shows, late-night dance venues, street art and sculptures. The Flying Bus hosted a Travellers Awareness night, carnival vibes and three nights of electronic music for excited fans.

GLX Productions Ltd., an industry leader in lighting, sound and video turnkey solutions for festivals, tours, corporate events and special projects, provided 12 Claypaky HY B-EYE K15 Aquas to The Flying Bus.

The HY B-EYE K15 Aqua sets a new

standard of brilliance while ensuring unrivaled IP66 protection. With a rotating front lens and the power to control each LED individually, the HY B-EYE K15 Aqua unleashes a mesmerizing world of kaleidoscopic projections and captivating eye-candy effects. It acts as a high-performance LED wash light, a flawless beam light and a jawdropping visual effect projector, all in one.

"We chose this fixture in particular for its stunning visual qualities, waterproof rating and renowned B-EYE lens effects," says Glenn Gridley, at GLX Productions. "The three-layer control system made creating visual effects easy with absolute control. The ability to split the fixture into two separate profiles made programming and operation much easier."

He believes that "the K15s added a new dynamic to the acid house and techno vibes that The Flying Bus hosts every year. The Unfairground itself was an area where nothing was as it seemed on the surface. Immersive, backwards sideshows combined with subtle political messages, and a team from wide and varied backgrounds, to make up the fabric of this incredible area."

For Gridley, "the B-EYE look is timeless, and the K15 Aqua is a perfect update of the classic K10 and K15 models. Completely enclosed in an IP shell, it works flawlessly in all environments. Not only that, the fixture housing itself is sleek and visually appealing too, so it's great for camera shots and general aesthetics."



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# Meyer Sound Delivers World-Class Sound for 2025 Montreux Jazz Festival

## Partnership Enters 39th Year with Support Spanning 15 Stages

Between July 4 and 19, the 59th Montreux Jazz Festival brought 250,000 music fans together for two weeks of live music along the sparkling shores of Switzerland's Lake Geneva. More than 700 performances from legends to rising stars filled its stages with genres spanning jazz, Latin music, R&B, pop, rock, EDM, and hip hop. Kicking off with a tribute to Quincy Jones by Chaka Khan, the lineup spanned icons and fresh voices alike, including Samara Joy, Max Richter, RAYE, Benson Boone, Shaboozey, and Brandi Carlile.

Now in its 39th year as the festival's Global Official Sound Partner, Meyer Sound powered 15 venues and spaces throughout Montreux with more than 400 loudspeakers, delivering extraordinary experiences for artists and audience members alike. All audio, lighting, and video equipment was supplied once again by Swiss rental company and integrator Skynight, with audio systems designed by Meyer Sound's Application Architect José Gaudin.

At the festival's iconic Lake Stage - its final year before a planned move back to the Auditorium Stravinski in 2026 - Meyer Sound deployed a loudspeaker system designed for scale and precision. For the first time, the stage's main system was powered entirely

by Class D amplification, offering a lighter, more efficient footprint without compromising impact. PANTHER large-format linear line array loudspeakers anchored the system, supported by LEOPARD, LINA, and ULTRA-X40 loudspeakers and 2100-LFC low frequency control elements.

"People love it. The detail is so crazy, you can hear things you've never heard on another system," says Martin Reich, the festival's sound coordinator and resident engineer at the Lake Stage. "The system is so well-behaved and precise, we can keep the energy focused on the audience without shaking the neighbours' windows, even with a five-story apartment building right beside us. The festival sits in the middle of town, so control is critical."

Beyond the Lake Stage, Meyer Sound systems enabled immersive and experimental performances across Montreux. At Ipanema, the festival's premier DJ venue, two ULTRA-X80 versatile point source loudspeakers served as the main PA, with support from ULTRA-X40 and ULTRA-X20 compact point source loudspeakers. Spacemap Go, Meyer Sound's spatial sound design and mixing tool, allowed DJs to move sound throughout the room even when working from simple stereo sources. "At first, I didn't expect it to work as well as it did with just a left/right signal, but it makes the room feel more alive," says Sebastian Hefti, Ipanema's front of house engineer. "It keeps the energy moving without distracting the artist."



The Memphis venue, a hot spot for late-night jam sessions, expanded its creative capabilities this year with ULTRA-X80 loudspeakers as the main left/right system, complemented by other ULTRA family loudspeakers for immersive effects. The space's Spacemap Go system supported both traditional mixes for visiting engineers and more adventurous spatial soundscapes, including real-time sound panning. The venue's technical team experimented with tactile control devices, including joysticks and stream decks, and linked audio movement with lighting automation, creating a synchronised immersive audiovisual experience.



For visiting engineers, Meyer Sound systems provided a transparent, reliable foundation for performances across all genres. Matthias Garrick, front of house engineer for RAYE, calls his experience mixing on the PANTHER system "nothing short of incredible... something about it sings, something about it soars, and of course it absolutely roars," he says. "Getting a large, tight mix with so many sources and still having the headroom to sit one of the most present vocals I've ever heard on top, these boxes take it all in stride."

With Meyer Sound systems covering stages from the open air Lake Stage to Montreux's most intimate venues, the company's role demands both flexibility and power. "This festival pushes us to think big and small at the same time," says Andy Davies, Meyer Sound's senior director of product management. "We're




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delivering the sheer power of the Lake Stage one moment, and enabling spatial, immersive moments at Ipanema and Memphis the next. That range is what makes Montreux special, and why, after nearly four decades, we're excited to keep evolving alongside it."

Additional comments from engineers at Montreux 2025

**Joey Diehl**  
**FOH, Benson Boone**

*"Thanks to the Meyer team [of Oscar Barrientos and Ianina Canalis] for how they tuned the Lake Stage system. I was not only surprised but also thrilled with how the show sounded. The power, clarity, and the speed of the drivers let me play around with details I rarely ever get."*

**Patrick Tunbridge**  
**FOH, Grace Jones**

*"It was fantastic to be back at Montreux Jazz Festival again this year mixing the Grace Jones show with Meyer Sound, this time on the outdoor Lake Stage. It was an effortless, very enjoyable experience. Of particular note was the system being almost devoid of any corrective EQ, and no EQ on my console master bus. Big thanks to Meyer Sound!"*

**Mike Droke**  
**FOH/PM, Diana Ross**

*"Having just come from touring a Meyer Sound rig from Major Tom, I was thrilled to know that we'd have the same focus and clarity for the festival date with PANTHER on the main stage. It didn't disappoint! A beautiful system for a beautiful stage. Thanks to all the Meyer Sound team for delivering yet again."*



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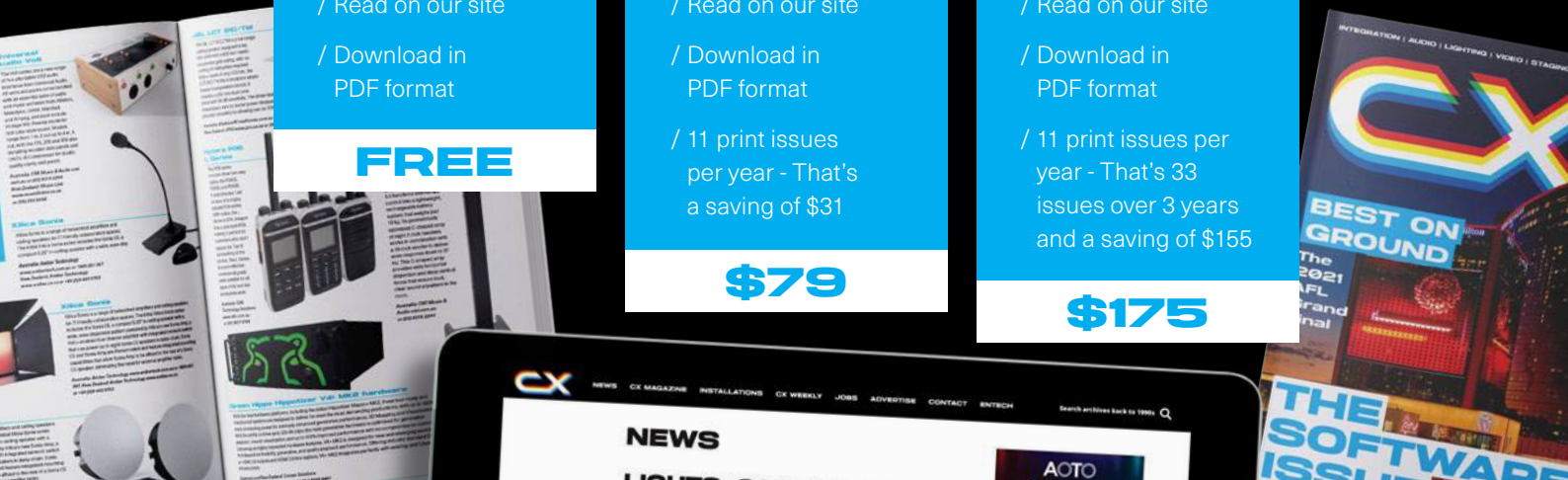
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# Immersive KLANG Monitoring delivers clarity and control for The World of Hans Zimmer - An Immersive Symphony



**The World of Hans Zimmer - An Immersive Symphony: The Theatre Experience, is an orchestrated concert series, that opened in the Oberhausen Metronom Theatre and touring Europe in Spring 2026. Featuring many soloists from Hans Zimmer's team, the requirement for individual monitor mixes was very high, so monitor engineer Thorben Stroehlein knew that only the capacity and smooth workflow of DMI-KLANG could deliver all the immersive mixes required.**

"We started planning in December and going straight into rehearsals was intense," Stroehlein explains. "Creating a show from scratch meant we had a lot to cover. We knew the orchestra would be large, with many soloists, and KLANG was our only option. Choosing DMI-KLANG reduced the channel count, but the effortlessly customisable console integration made it worthwhile."

The show connects audiences with Hans Zimmer's music in a uniquely intimate way, thanks to the theatre settings, the size of the orchestra and the accompanying visual effects. Stroehlein uses a DiGiCo Quantum 338 and manages four groups with 12 immersive in-ear mixes for the band. There are also 10 stereo mixes for the orchestra, delivered directly. With so many soloists, it is not possible to simply duplicate mixes, so the KLANG

system proved indispensable, offering a consistent listening environment for the band, and individualised mixes for soloists and vocalists.

"Once we started working out the input list, we knew sound checks would need to be fast and efficient," he continues. "With a high number of soloists, rehearsal time is tight. They don't have space in their schedule for long sound checks. Usually, we'll get the main orchestra, who are using a separate stereo system happy first, then move on to the soloists. But with KLANG everyone was happy quickly, making the whole experience much smoother. Our process is much more like a theatre show, it's a much more organic experience."

The World of Hans Zimmer: An Immersive symphony. The Theatre Experience is a brand-new show that

presents Zimmer's iconic scores in a fully orchestrated format in a much more connected and intimate format, it has been a huge success. Stroehlein had used KLANG before and welcomed the chance to work with it again, as his previous experiences made him familiar with the benefits KLANG offers. He encourages engineers to really immerse themselves in KLANG and take time to explore all its benefits.

"I had read case studies and reviews about KLANG," Stroehlein recalls. "People said you could hear everything more clearly, but I didn't truly get it until I loaded a multi-track recording and played around, that's when I really understood the difference. Take a track you know well and listen. You won't only hear the instruments more clearly but also understand lyrics better. That helps explaining the benefits to musicians."



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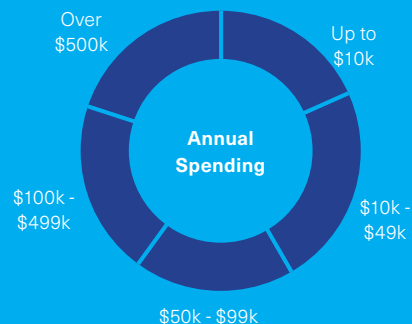
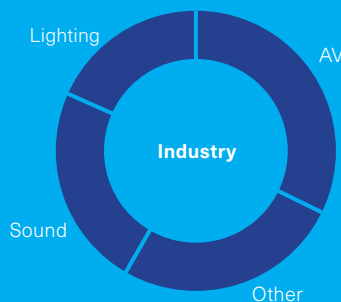
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A surprising benefit of KLANG's immersive mixes compared to a stereo mix, is how they affect instrument processing. Each source responds differently, often needing less EQ and gain adjustment. Stroehlein has noticed this across the board, but the improvement is most dramatic with drums and percussion.

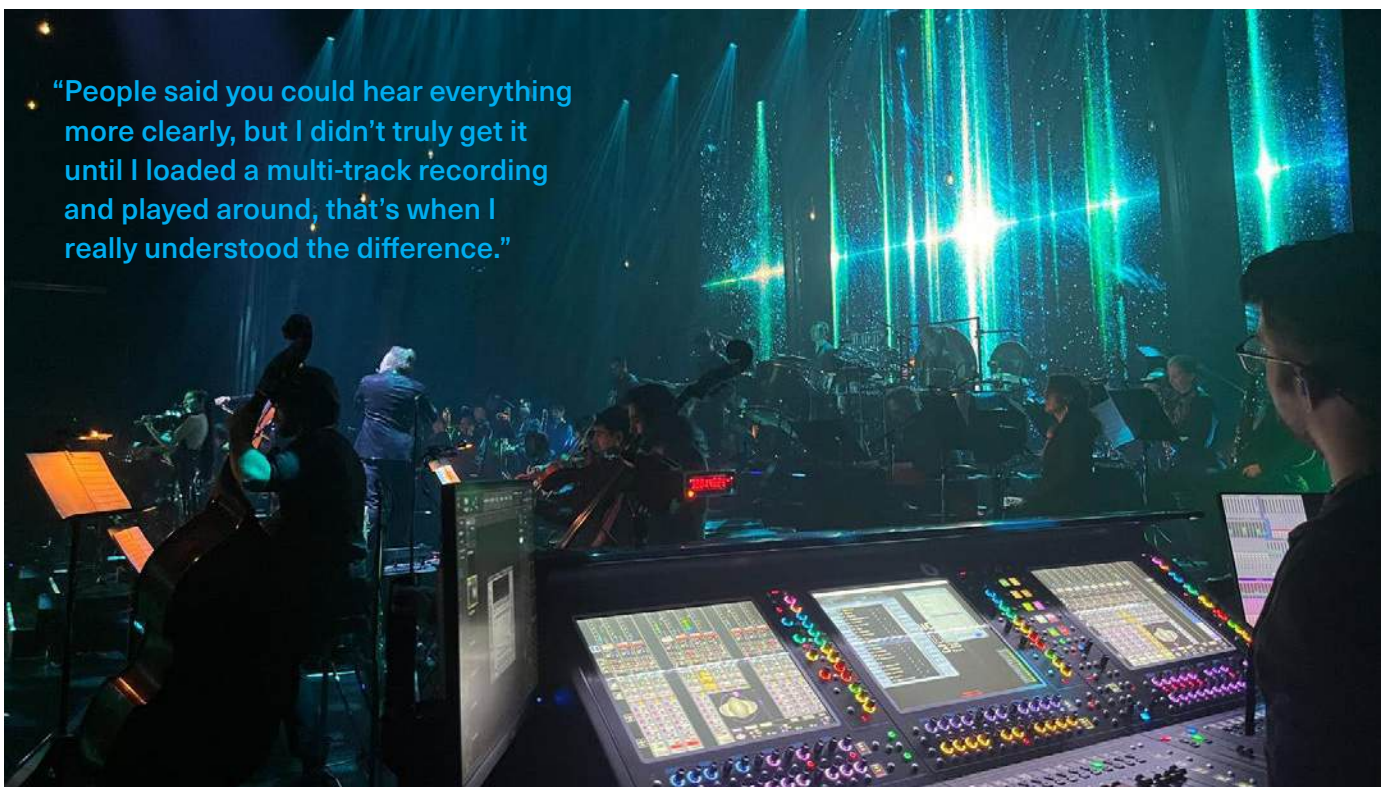
"Shifting positions of the individual parts of the kit in a mix, improves clarity and presence, but you lose the harshness," Stroehlein explains. "Placing the kick drum behind the player's head makes it clearly audible, but less punchy, this worked really well for the bassist. It blended naturally into the mix while retaining its natural impact, meaning that you also gain space for other drums, without changing levels or EQ. I noticed that if there is EQ or compression on the kit in a stereo mix, you won't need that in a KLANG mix."

Stroehlein's musical background helps him understand the score and create time-saving base-mixes for his artists. It is a system that works well with the DMI-KLANG integration offered with a DiGiCo console, and another important factor when sound-checks are condensed into a tight timeframe.

"I love the tactile feel of working with faders," he concludes. "It's easy to implement KLANG because so many German musicians have used KLANG before and are happy with it. For this show, the mixes have settled in very quickly, we set them once and never touch them again. With a show this intimate yet cinematic, that is a very big tick from me!"



**"People said you could hear everything more clearly, but I didn't truly get it until I loaded a multi-track recording and played around, that's when I really understood the difference."**



# THE BUZZ

BBC Earth Experience in Melbourne

TECH TALK

by Jason Allen



# AROUND HIVE

**The media server market has been ripe for a new entrant. At the moment, there's a vast middle ground missing between all-singing, all-dancing units like disguise, and simple solutions like BrightSign. You've either got a big expensive, centralised box capable of mind-bending realtime effects, or a cheaper networked alternative that's really just for digital signage.**

That's why Hive caught my eye on the showfloor at ISE back in 2024. Starting up in the UK, it was one of the company's first tradeshow outings, and there was, of course, a lot of buzz (sorry). Their offering is based around the ingenious Beeblade; a card-based system that runs on Intel's Smart Display Module (SDM) platform. This means they can be fitted in projectors and LED controllers that have an SDM slot, or run in one of three sizes of dedicated housings that Hive build. The Beeblades have four variations, with differing storage and processing power, and one variation of connectivity.

This modularity means it is incredibly easy to right-size any project, only buying and using the processing you need. The software is fantastic – even I, a sound guy, found it intuitive. It runs on everything, and can be controlled via a browser. You can even build your own GUIs for your client.

Leaning into the rampant puns, Hive's Nigel Sadler has given himself the job title of 'Chief Pollinator', which the rest of us would call Business Development Manager. It's his job to find and get big projects, spread the word, and manage client relationships. On the back of the announcement that ULA Group are now the Hive distributor for Australia and New Zealand, I spoke with Nigel over Teams about the history of the company, big projects Down Under, and the future of media servers.

"Hive was started by three friends; Dave Green, Mark Calvert and Trey Harrison," explains Nigel. "They'd been working together for a long time on various projects. Dave Green was the developer of the AI media server that is sold by Avolites. I was one of the founders and developers of Green Hippo, and I worked on that for 23 years."

While Dave and Nigel were both working their parallel lives building traditional live production media servers, they were both thinking the same thing; "When it came to installation projects where the servers were doing the same thing every day and night, it turns out we were both feeling guilty selling a big box that was capable of doing all of this insane real time stuff, but it's just doing the exact same thing over and over again. Does it really need to be this big, powerful, expensive box?"

Dave Green acted on this thought as the UK went into pandemic lockdown. He'd been making small, custom products for his projects, which led him to think that there was real market demand for this kind of product. The idea of a distributed, scalable, efficient, and cheaper media server environment had been born.



“The Beehive media server enclosure houses up to 16 Beeblades.”

Beeblade Nexus

Beehive media server enclosure

Adopting the Intel SDM format gave Hive a design for their blade. “It meant that we could make scalable systems,” continues Nigel. “It also meant that there were existing displays and projectors that we could put the blades into directly. This made a huge difference for projects like BBC Earth, which opened and ran in Melbourne. We were using Panasonic projectors and putting the blades inside. Intel has been promoting the format, and there were a whole host of new products with Intel SDM slots debuted at ISE this year. We’re now starting to see Intel SDM slots on LED processors.”



Nigel Sadler at ISE 2025 launching the Beeblade Nexus

When working with display devices without built-in SDM slots, Hive’s Beebox, Nucleus, and Beehive come in to play. They house one, two, and 16 Beeblades respectively. The Nucleus has become their biggest seller. “The Nucleus is 1RU with two SDM slots,” outlines Nigel. “It’s designed for using our Beeblades, but they’re just standard Intel SDM slots, so technically, you could plug anyone’s SDM cards into them. It’s allowing people to have a standard frame and insert size. It’s a really good format to use as a manufacturer because you can use it to standardise your product range.”

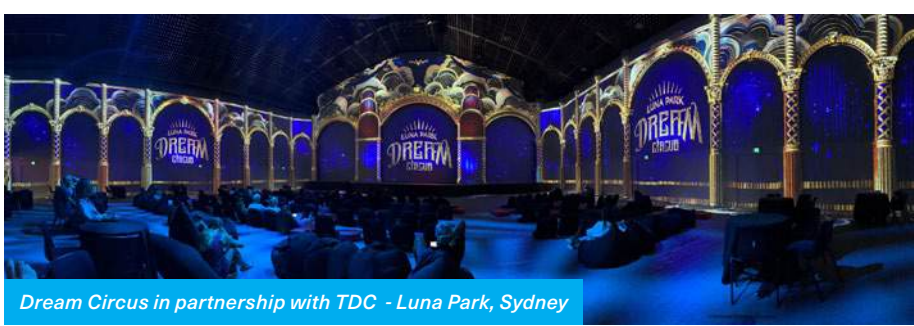
Still a very young company, Hive is constantly innovating. “We’re in that exciting, fast development mode, which means that we’re bringing out new versions on a regular basis,” enthuses Nigel. “We’ve got a new software almost every week. There are some big things coming up. We’ve got Dante support being added into all the devices, and we’ve just added a full pixel mapping solution so we can drive lighting fixtures. We’re currently working on more options for integrating with third party warping tools and camera alignment tools.”

The newest piece of hardware in the range is the Nexus variant of the Beeblade. It’s the world’s first 8K60 output SDM Media Engine with HDMI Genlock at up to 8K60 on its HDMI 2.1 output, and includes SMPTE 2110 support via a high-speed 100Gb QSFP connection. “Nexus is our future generation platform,” states Nigel. “It was a completely redesigned computer system. We actually had to design the computer itself from scratch. The Nexus is completely unique, because nobody has made anything that size with a 100Gb fibre output, or the ability to drive true 8K output and have multiple layers of 8K playback”

Ironically for a UK company, Hive did some of its initial large projects in Australia. “One of the biggest projects we ever did was the BBC Earth project in Melbourne,” confirms Nigel. “We also did Dream Circus with TDC at Luna Park in Sydney, and that’s still going strong. TDC have been continuing to do some Hive projects. At the moment, there’s a number of Hive immersive projects travelling around. ‘Tutankhamen: An Immersive Experience’ was in London recently, and that’s now gone to Glasgow. It’s expected that multiple versions will tour Europe. The company that developed that is working on other shows, and it all leads to the Hive network growing.”



Tutankhamun: The Immersive Exhibition in London. Photo credit: Antonio Pagano



Dream Circus in partnership with TDC - Luna Park, Sydney



Dream Circus in partnership with TDC - Luna Park, Sydney

# Sometimes it all gets too much...

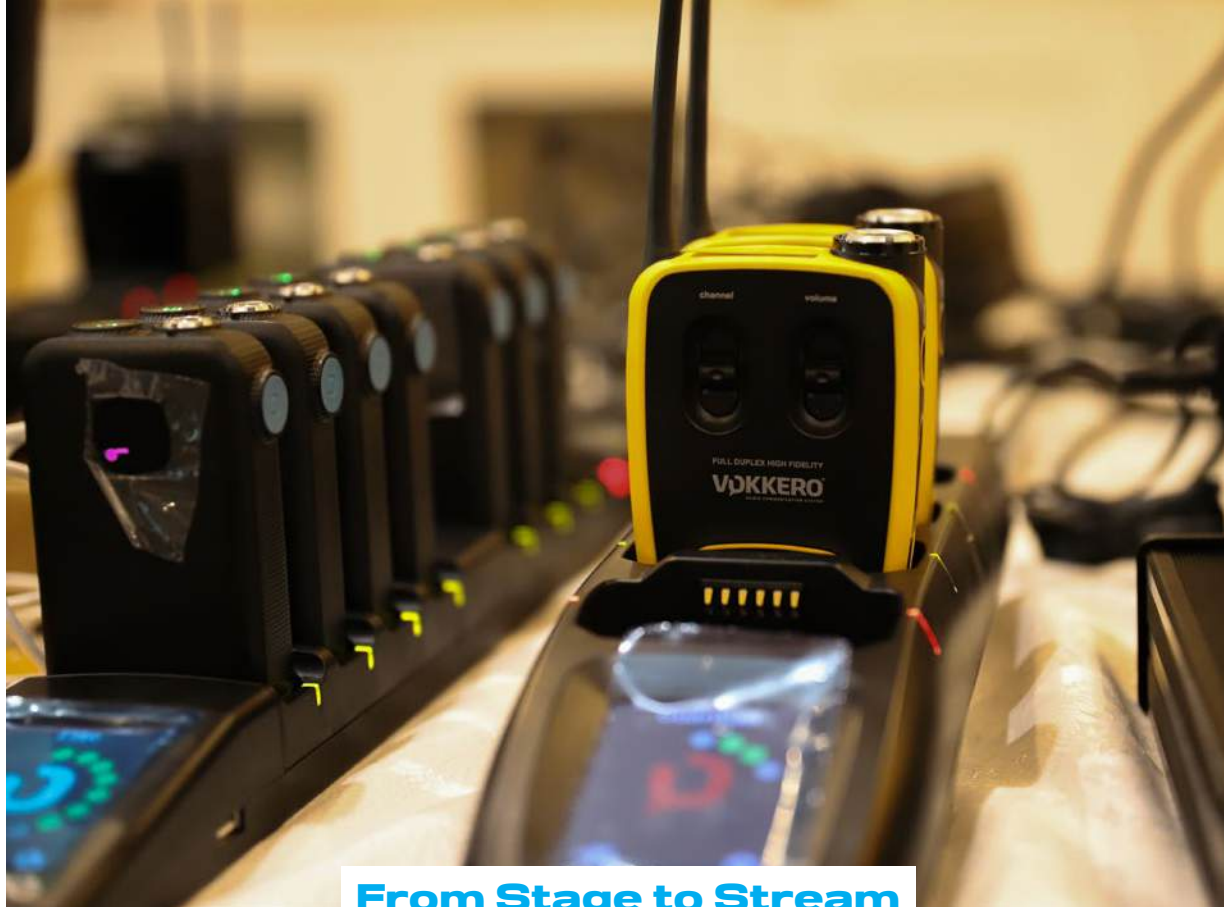


The *Support Act Wellbeing Helpline* is a free, confidential counselling service that is available to anyone working in Australian music who needs to talk to someone about any aspect of their wellbeing.



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**From Stage to Stream**

# How Vokkero SHOW Delivers Big on a Small Budget

**In live production, you don't get a second take. Vokkero SHOW makes sure your team hears it right the first time.**

The house lights are about to fade, the audience hum fills the air, and backstage is a whirlwind. In one corner, the lighting team is tweaking the final cues; in another, the set crew is quietly rolling scenery into place. Somewhere in the middle of it all, the stage manager's voice cuts through the chaos, not by shouting over the din, but through a crystal-clear wireless link that every crew member can hear instantly.

That's the Vokkero SHOW in action. Designed for the relentless pace of live performance, it takes what crews already expect from a comms system and strips away every frustration. There's no fiddling with a base station, no running cable, no complicated pairing process. Switch it on, pick your group, and in under two minutes the whole team is connected and ready to go.

Once the curtain is up, the SHOW proves why it's more than just another headset system. Its patented noise filter works tirelessly in the background, removing the

rumble of moving scenery, the chatter of the wings, and even the roar of the crowd when the mics are close to the stage. In the quiet moments, it's just as sharp, perfect for coordinating delicate sound checks in a silent auditorium.

It's also a system that adapts to the way crews work. Stage managers can enable a special "Stage Manager Mode" that lets them talk to every group at once without being swamped by every conversation in return. Departments can label their channels with their real names, so no one wastes time guessing who's on which line.

The SHOW keeps pace with the job too. Its new Bluetooth capability makes managing accessories and terminals effortless, with automatic reconnection so your favourite headset is ready the moment you are. And with an expanded range of compatible Bluetooth accessories, crews can choose what's most comfortable for them without worrying about compatibility.

Every environment is different, so the SHOW comes with three tailored radio

and audio presets - one for rigging, one for live performance, and one for studio work - making it easy to tune the sound for the task at hand. Behind the scenes, there's serious technical muscle: 10 radio frequencies with adjustable RF power, digital AES128 encryption for security, and the ability to support unlimited users with four groups per channel. Even the little touches matter, like the built-in alarm function that vibrates or beeps for urgent alerts, ensuring no one misses a critical call in a high-noise moment.

And here's the part that makes production managers breathe a little easier - it's remarkably cost-effective. With license-free operation in most regions, no need for bulky infrastructure, and the ability to scale from a small crew to an unlimited number of users, the SHOW delivers professional-grade performance without the ongoing costs and complexity of traditional comms systems. Crews get the same clarity and reliability used in top-tier productions, at a price point that works for theatres, festivals, corporate events, and broadcast teams alike.

## Live Streaming on a Budget - Without Compromising Quality

In today's world, many events aren't just about the in-room audience, they're also being streamed to viewers online. For small production teams tasked with delivering a polished live broadcast on a tight budget, the SHOW offers a perfect balance of performance and simplicity.

A two- or three-person streaming crew can stay in constant, crystal-clear contact while handling multiple roles, camera operation, graphics control, streaming software, and audio mixing, without the distraction of crosstalk or the need for bulky comms racks. Directors can even switch on "Voice Priority Mode," ensuring that when they speak, their instructions cut through all other chatter without hesitation.

Because the SHOW is license-free and requires no fixed installation, it's easy

to bring into community halls, school auditoriums, sports venues, and pop-up broadcast locations. This makes it ideal for councils, schools, small agencies, and community broadcasters looking to raise production values without raising costs.

It's not just theatre or small crews where SHOW shines. On a festival site, it keeps riggers, electricians, and AV crews talking seamlessly from one end of the grounds to the other. In corporate events, it links stage managers to technical teams without crosstalk spilling between departments. On a live broadcast set, it synchronises camera operators, floor managers, and directors in real time.

Vokkero's expertise in clear, instant communication doesn't end at the stage door. Across sporting federations worldwide, their Elite and Varsity II

systems bring the same reliability to referees and coaches. Elite is the tool of choice for top-tier sporting federations, from professional football to rugby and motorsport, where every call is decisive. Varsity II brings that same professional-grade clarity to community and grassroots sports, giving local referees and coaches the kind of communication once reserved for the pros.

From the green room to a live streaming event to the stadium, Vokkero has built its reputation on one promise: when it matters most, your team will hear exactly what they need to, the first time, every time.

Check out Vokkero SHOW through D2N – Technology Solutions: [d2n.com.au](http://d2n.com.au)



# 25 YEARS LATER



UAE National Day 50 - 2021 - control desk view

## After the iconic 2000 Sydney Olympics, The P.A. People's Event Communications team continue the legacy of Australia's greatest sporting event

The 2000 Olympics left a significant legacy within the Australian event industry, not the least of which can be found within The P.A. People, a leading solutions provider of event communications worldwide.

The P.A. People delivered many production and installation services for the Sydney Olympic Games, including the communications system for the opening and closing ceremonies, the majority of the intercom systems for sports presentation at the competition venues, permanent sound systems for the Olympic Stadium, several venues at the RAS showgrounds, and the Velodrome and the Tennis Centre, along with all the non-competition venue overlay sound and vision systems.

Fast forward 25 years, and The P.A. People are still the leading supplier of event communications systems in the southern hemisphere.

The P.A. People is one of the few major contractors worldwide who provide wired production intercom, two-way radios, wireless full duplex comms, CCTV and stage surveillance systems, theatrical cue lights, video transport, and audio systems to support the production of major sporting events. The team work on major events like the ceremonies for Olympic and Paralympic Games and their many feeder events such as the Asian, Pan American and European Games. The Event Comms team are also involved in the provision of audio and comms systems for many sporting, corporate and cultural events and ceremonies not only here in Australia but also in many overseas locations.

So what is event communications? From our perspective it is the provision of communications systems in the broadest possible sense. Seamless communications within the production team allows the participants to send and receive information

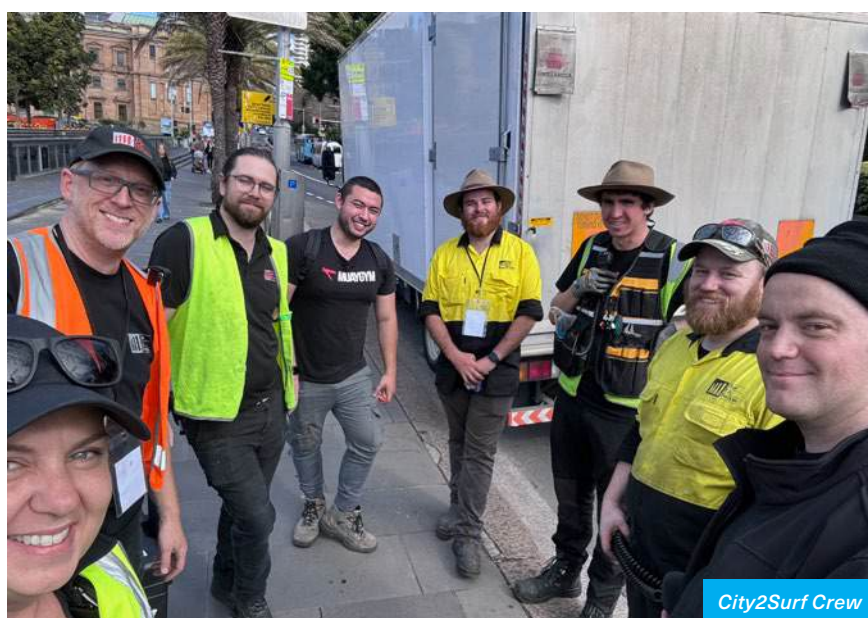
that facilitates the execution of their job efficiently, easily and effectively using multiple mediums including voice, text, and visual cues. We facilitate communications between the production team, ensuring everyone gets their cue when and where they need it, the producers in multiple countries for a multi-venue annual general meeting, and mass cast members and their choreographer and director.

By its very nature, the provision of a comms system is being executed at its very best when no one even acknowledges that it exists. When the comms system has been designed effectively and is working optimally it should be transparent. People should be able to do their job without impediment. But when it is not done correctly, everyone is quick to complain.

These days, communications comprise many separate parts to achieve our goals: wired and wireless intercoms, CCTV systems, two way radios, cue light systems, and mobile devices.



FSII Beltpacks



City2Surf Crew

Historically, the core of most communications systems is wired intercom. Depending on the scale of the event this could either be an analog party line system, a digital networked HelixNet system from Clear-Com, or possibly an Eclipse Matrix Intercom.

After the wired intercom system, we would typically look at adding a full duplex intercom such as FreeSpeak II and/or an integrated two-way radio package. Recently, fully integrated solutions such as Clear-Com's Arcadia can make the integration of wired and wireless systems seamless. Arcadia supports digital and analog party line, matrix style intercom panels, FreeSpeak, GPIO and 4-wire integration for two way radios and a 64 port Dante interface.

The P.A. People pride ourselves on the level of RF engineering that we apply to these larger projects which can typically involve more than 80 radio channels and well over 100 radio frequencies to coordinate.

Apart from the typical wired and wireless headset comms systems and fully integrated two-way radio systems, the P.A. People also provide a number of other systems to facilitate communications for the production team. One sub system that is growing in its popularity is the use of CCTV for both stage management and security.

Another common feature of a contemporary communications system is the use of an IP network as the overarching backbone to the project. All our comms systems are delivered over a large Ethernet network. Events such as the ceremonies for UAE National Day, the AF1GP, Sydney's New Years Eve and the Vivid Sydney festival all deploy significant networks to support the event.

"Our philosophy is to create a network environment first, and to deliver and connect all of our comms elements over that backbone, including the matrix intercom system, matrix key stations and partyline beltpacks, CCTV

cameras and viewers, timecode displays, cue lights, noise monitoring, file and print services, and audio. Not only do we deploy our services across the network, but we also monitor almost all our sub systems using IP and SNMP technology, from the radio bases to the UPS's and everything in between," commented Nicky Dodds, Event Communications Manager at The P.A. People.

The P.A. People also have an enviable inventory of audio systems and equipment with a specific focus on large-scale sporting and special events. Loudspeaker solutions range from Bose Professional ShowMatch arena scale line arrays, through point and shoot coaxial cabinets from Community and Celco, JBL specialist column speakers, to literally hundreds of music horns. Their inventory includes 44M series amplifiers from Linea Research, while consoles are Dante enabled Yamaha models from Rivage PM5 down through the new DM7 and QL series.



## Martin MAC Aura Raven XIP

For those familiar with the Martin range, the MAC Aura Raven XIP is basically a big Aura XIP, about the same size as the Quantum Wash, but 50% brighter. It is a large face LED moving head wash light. It can be pixel mapped, video mapped and has a broad range of features and capabilities. It is one of the more spectacular lights on the market today.

### Construction

The IP54 rating is great; a lot of the new range of Martin fixtures are being released with an IP54 rating, and becoming much

more common across other brands too. Will we see a day soon where all high-end lighting fixtures have a higher IP rating?

Weighing in at 28.8kg it definitely feels like a two-person lift. It has dimensions of 603mm (h) x 528mm (w) x 285mm (d). The frontal lens diameter of 343mm sees it classed as a large face wash light. Just for reference, here are some of the lens sizes for a few of the fixtures in the current Martin range:

- MAC One frontal lens: 150mm
- MAC Aura XIP frontal lens: 196mm
- MAC Aura Raven XIP frontal lens: 343mm

I think most large face wash lights look good, and the MAC Aura Raven XIP is no different. The lens has the same 'bubble' look as lot of the Martin LED wash lights; think Quantum Wash and Aura XB. It does have a rugged yet stylish feel to it as well.

Like most Martin lights it is aesthetically a more conservative design which tends to age well, even in a landscape of fast-moving technology and trends.

### Optics, Colour, and Brightness

The MAC Aura Raven XIP features a 24,500 lumen output. It seems brighter in person, and that might have something to do with it being a large face wash light, or maybe it's the many different ways you can measure lumen output. Like the Aura range, the MAC Aura Raven XIP features the main light source as well as the 'aura' back light. The main light source is 37 40W RGBL (Red, Green, Blue, Lime) LEDs. The aura light source features 234 0.25W RGB LEDs. Each LED on both the main light source and the aura can be individually controlled.

The main light source and the aura backlight has a virtual colour wheel with 48 colour presets and variable colour

temperature control ranging from 2,000K all the way out to 12,850K. At default it has a Colour Rendering Index (CRI) score of 75. It can be optimised to achieve a score of 86.

The colours are deep and rich. The white light is a very good soft white. It has a choice of four dimming curves, which may not seem like a huge deal, but it definitely makes a difference with a light like this. It has a lumen to weight ratio of 851 lm/kg, which is not bad at all.

### Applications and Features

The Martin MAC Aura Raven XIP is a very high end wash light. Large scale concerts and big budget broadcast would be the best suited applications. Any five-star venue that needs a wash light that doubles up as an eye candy fixture would be a good home.

You can video map these and run content through them. It makes for some really cool looks and blurs the lines between a lighting fixture and a video item. It can be controlled by Martin P3 visual control, and when using them for effects or running them through a media server, they are best used en-masse.

As it is a large face wash light, don't expect the zoom ratio number to be as impressive. The actual zoom range itself is 9.7° – 50°. It also has motorised pan and tilt with a pan range of 540° and a tilt range of 250°.

### Control and Programming

You can't run the fixture in full extended (called Plaid) mode with a DMX cable. In full extended mode, it takes up a DMX footprint of 851 channels. For reference, the industry standard grandMA3 full size lighting console includes 20,480 control parameters as standard. This means that you could run only 20 MAC Aura Raven XIPs in full extended mode before you needed to add nodes or NPU's to increase your parameter limits. This amount of control means the eye candy stuff you can do with this light is next level.

Are we about to enter an era in stage lighting where we see traditional 5-pin DMX cable phased out and replaced by runs of Cat6? If more lights start to follow the lead of the MAC Aura Raven XIP, we very well could.

With a light this feature-rich it goes without saying that the better your programmer/operator and the more time you have, the more you will be able to get out of this light. Compatible control protocols for the Raven XIP include DMX, RDM, Art-Net, RDM over Art-Net, sACN and Martin P3.

The six DMX modes available are Compact (22 channel), Basic (38 channel), Extended (149 channel), Ludicrous (266 channel), Plaid (851 channel), and Compact Direct (22 channel). Just about all the parameters

are 16-bit controllable as opposed to 8-bit. 16-bit controllable parameters include beam and aura dimming, beam colour mixing, zoom, beamshaper indexing, pan and tilt.

If you are having a look at this light, make sure you check out the range of inbuilt effects and macros. They could save you a whole heap of time programming. They include quite realistic effects for things like water, fire and lightning. Step through them one by one; it really gives you a glimpse at what is possible with the Mac Martin Raven XIP.

### Verdict

I love it. We have a light that can do so much that you can't physically put it on one DMX Universe. For wash lights, it's the highest of high end. With the macros, effects and pixel mapping capabilities, it really pushes the envelope on what we call a lighting fixture.

This light is arguably one of, if not the best large face wash light on the market today. If that is what you are looking for, make sure you check out the Martin Mac Aura Raven XIP.

Product Info: [www.martin.com/en/products/mac-aura-raven-xip](http://www.martin.com/en/products/mac-aura-raven-xip)

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



ACME

SANDANE  
FROST

**The ACME SANDANE FROST is an IP66 rated LED Par with a few points of difference. It is marketed as a compact, lightweight, energy-efficient light that offers high output and exceptional colour mixing. I know there are a lot of LED Pars on the market, but this one is well worth a look.**

### Construction

The ACME SANDANE FROST would be classed as a compact fixture with dimensions of 266mm (w) x 158mm (d) x 320mm (h). It weighs 6.5kg. The face of the light, the actual LED array, is about eight inches in diameter. This makes it about the same as a Par 64, arguably the most popular Par size.

It is also IP66 rated, meaning that it is fully protected from dust and can withstand high pressure jets of water from any

direction. Basically, it can live outside, just not underwater. It's compact, it's light, and it's easy to hang or put on the floor. With one clamp, it's a one-person job, and with no moving parts, it's a low to no maintenance fixture.

### Optics, Colour, and Brightness

SANDANE FROST is a multi-source LED Par. It features 55 6W RGBL (Red, Green, Blue, Lime) LED diodes, with the lime LED included for more accurate colour rendering. Colour temperature is variable from 2,500K all the way up to 8,000K.

The fixture draws 215W of power and has an output of 9,400 lumens. Pound for pound, it packs a proper punch. For context, an old school conventional 500W WFL (Wide Flood Lens) Par 64 gives a lumen output of about 3,500 lumens. The ACME SANDANE FROST uses less than half the power and gives much more than twice the amount of light of a standard Par 64. Very efficient.

Possibly the main selling factor that separates it from the rest of the LED Par

pack is the electronic frost. It is a frost with no moving parts. It is variable and can switch between different angles. It is effectively DMX controllable Smart Glass. If you have seen how Smart Glass works, it's glass that can go from clear to frosted with the flick of a switch, (most commonly seen in high end shower screens) then you will know how this technology works.

I love the out-of-the-box thinking by ACME to use Smart Glass to shape the beam. Using innovation like this in a market as cost-driven and competitive as the LED Par market speaks volumes to their R&D team behind the scenes.

The beam angle goes from 18° - 53°. For reference, a VNSP (Very Narrow Spot) in a Par 64 has a beam angle of about 12° and a WFL (Wide Flood Lens) has about a 50° beam angle.

### Applications and Features

LED pars in general are great to put anywhere you need blocks of colour. Put them on a truss behind a band, have them uplight a drape or a wall. Just

about anything that needs to be lit or coloured that isn't front light could use the SANDANE FROST. You can use it inside or outside, as part of a show, or an installation. The beam angle is adjustable to cover just about the full Par range.

These would be a handy addition to any venue's inventory. They would also be very much at home in the inventory of a production house. LED pars are really handy; if you have them, you will use them.

When you are trying to make and market an LED Par, you operate in a pretty narrow band. If you put too many features in it, you no longer have a simple Par. If you do too much to the optics, you risk pricing yourself out.

### Control and Programming

The SANDANE FROST is a pretty simple light to control and program, which is exactly what you want from an LED Par. You can control the colour, intensity and beam angle. It can be controlled via either a 3-pin or 5-pin DMX cable. It has five different control modes; 6 ch, 7 ch, 8 ch, 9 ch and 11 ch modes. It has an onboard control panel which allows you to manually control the fixture.

### Verdict

The ACME SANDANE FROST Par gives you the option to have all your different lens Pars (WFL, MFL, NSP, VNSP) in the one light. You could argue that it is a 4-in-1 par. Switching between all four can be done at the console. As it has no moving parts, it means no noise. Add to this a superior light engine and an IP66 rating and what you have is a high quality, versatile LED Par pitched towards the high end of the market at a really good price. Do yourself a favour and check it out!

Product Info: [en.acmelighting.com/item/SANDANE-FROST](http://en.acmelighting.com/item/SANDANE-FROST)

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

## The Specs

Light Source: 55 x 6W RGBL LED

Total lumen output: 9,400 lumens

Colour temperature output: 2,500K - 8,000K

Life expectancy: 20,000 hours

Beam angle: 18°, 36°, 53°

Field angle: 37°, 96°, 128°

DMX controllable Smart Glass technology

4 touch-button control panel

Optional half or full-size anti-glare shield

Double bracket design, and multiple installation methods are available



## Alpha Radio Sierra Echo

Talking  
through  
your  
squelch

Comms check from follow-spot 3.

Reading you 5 out of 5. How do you read us?

5 x 5 buddy. Spot 3 out.

Roger that.

There are many different ways to communicate with the world around you. The above example is a universally accepted way of using RF comms for interactions in emergency service and military spheres, since adapted for civilian use. It is designed for maximum information using minimal airtime. It works well if everyone adheres to the conventions. It also falls over when too many people are trying to talk over each other and using non-standard protocols (or none at all).

This underlies the need to understand your communication platform before using it. Knowing its limits, you can leverage strengths and mitigate weaknesses. Same with all tools - use them well and they will be your friend. Conversely, use them poorly and they will bite you. There ain't nothing quite so embarrassing (or career damaging) as a 'Send All' email that should have been kept as an internal monologue.

Protocols and procedures are the rules of engagement when it comes to comms. In some scenarios they are necessarily strict, in others, somewhat looser. Think military command and control in a war environment versus chit-chat between spot-ops on LX comms. Of course, some users will follow the rules better than others but, for the most part, these guidelines set the general tone. Bagging out the LD when they are secretly listening in to pre-show banter might cost you a job but it's

nothing like taking cover because you know the artillery is coming in hot.

### Platforms are not just shoes

Telephones attached to the wall, letters written in cursive longhand, and other tech of yore has ceded to email, chat forums, and Discord servers. These vary widely and wildly in how they set their codes of behaviour. Much of this is down to the owners and their moderators. The well run (and reasonably strict) arenas stay civil and naughty participants get swiftly banished. This moderation approach works ok on some forums but is not possible for mechanisms like email servers, listservs and the like.

Wireless show comms, high-definition audio transmissions, near field equipment updates and charging, unshackled performers no longer tangling in mic leads - these are all major quality of life improvements for the live



audio scene. For all its faults, the industry has made a reasonable fist of standardising on techs, protocols and modus.

### Moderate ... or uncontrolled?

Moderation is a double-edged sword for me. I've been online community cop more than once and still deal with awkward mental flotsam and emotional scars from the experience.

But many platforms really need concerted moderation. This is more a social limit than technical constraint. With little exception, this boundary is set for a particular user or group that thinks that they are above all rules. Those that like bending the social norms will find technical flaws to exploit in this game. Everyone clicks 'yes' to the terms and conditions. Not all follow them.

I do feel for the poor folk who are employed as moderators by the major social media outlets and the moral detritus of raw internet sewerage that they have to wade through every day. May their souls stay strong in the face of such fetid evil.

Is it coincidental that Social Media and Sado Masochism share the same initials?

Most 'no holds barred' venues quickly devolve into hateful troll-fests where the shoutier voices drown out any modicum of common sense. If you enjoy that drama, good for you. A nearby town has two different FB groups. There is the respectful, moderated one with lots of useful, if dry, community information. Then there is the unrestricted FB group. Unsurprisingly, it is a hotbed of conspiracy cranks, flat earthers and Sky News refugees. I happily ignore them both.

For the rest of us, when things devolve too much, we will migrate to another platform where decorum is a little more controlled. Until it gets overrun by attention seeking nasties, then off we head to the next promised land before it gets all X-itty too. Rinse and repeat.

### Some comms are more equal than others

WMAS is an absolute breath of fresh air for live wireless transmissions. Anyone who remembers taxi radios coming across the PA when more than a small handful of radio mics were active will second this. Multiple available channels, high bandwidth, stable transmissions without overlap or conflict - what a dream last century.

Apart from the ubiquitous Internet and its multi-faceted multiplicity, modern comms have some real upsides. Not the least of which are the emergency locator technologies like PLB and EPIRB that continue to save lives on a regular basis. I have two friends still alive due to this magic gimcrackery.

Other contemporary improvements such as digital radio, texting, streaming, and real time emergency alerts have been a great way to share instantaneous information. Remote surgery over the Internet would have to be one of the greatest.

Personal tracking is all good when you want to know where the kids are but not so pleasant when a nasty ex is cyber stalking. Social media in general seems to have this dilemma of reward versus risk.

In light of all the potential pitfalls, I've set up a series of conventions for my interactions online.

Rule #1: If in doubt, say nothing.

Rule #2: Would you like this said about you? No, then say nothing.

Rule #3: Learn the conventions of each medium and stick to them - it will make it so much easier for everyone in that group. Me included.

Rule #4: Leave the world a better place than when you found it.

Rule #5: Nuance is easier conveyed in person. Keep it calm, clear and concise when at the keyboard.

### Screaching from the soapbox

From smoke signals and songlines to DMs and tweets, your ability to share information with your world depends on using instrumentalities correctly. Like all formalities, there are ways to bend the edges, and this suits the cheeky among us (me included), but smart punters know when to push boundaries and when to stay within accepted lines.

Anyone who has switched on a CB radio will know the terror of channel 40 - the trucker's channel. I call it channel PHUQN, cos that's what it sounds like. I sometimes put it on for some lowbrow entertainment while travelling down the highway. The sweary rant factor increases in intensity and volume the closer to the big city you get. When there is more f.p.m. than even Samuel L. Jackson could muster, it's time to switch to the radio. Yay, NWA on RRR!

Ovaries and outies.

- mic drop.

# 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**

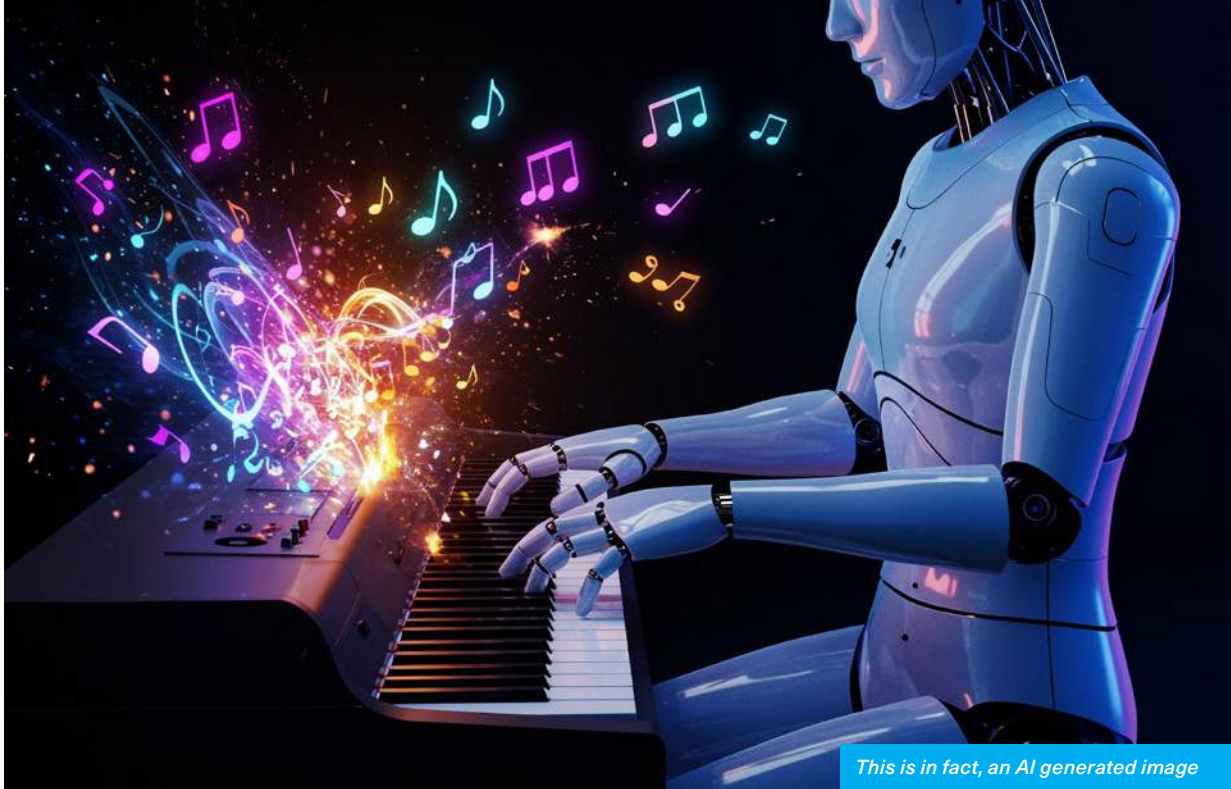


[www.entertainmentassist.org.au](http://www.entertainmentassist.org.au)

Supporting the mental health of Australian entertainment industry workers

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

# A Hard Day's Byte from MIDI to AI



This is in fact, an AI generated image

**My foray into the digital world wasn't via a PC or a digital mixing console; it was via a MIDI (Musical Instrument Digital Interface) sequencer at a time when Microsoft was still using MS-DOS as an operating system.**

It's been 40 years since MIDI empowered solo and duo live performers along with studio producers, but in no way is it a spent technology. Many AI music generation tools output certain results as MIDI files. This is so they can still point to sampled audio files for further editing using MIDI. While the two technologies complement each other, they are fundamentally different. MIDI allows various musical and digital devices to communicate with each other. AI uses algorithms that can analyse data, learn patterns, and then generate new content. Thus, AI has become a very useful tool that I regularly use for track separation and replacing vocals (mostly my own) with AI's digital performers.

My introduction to MIDI was when a former band mate, guitarist/vocalist Joey D, bought a Roland MC-500 for his one-man-band performances. When I eventually purchased

the MC-500's baby brother, the MC-300, for my own one-man-band show, Joey D came over and taught me how to use it. Using a sequencing device that could talk to both my U-220 rack-mount sound module and my Yamaha SPX-90 multi-effects processor was a surreal experience. MIDI was a pure sound, although guitar samples weren't that good because of their complexity, and vocal samples were virtually nonexistent except for 'oohs' and 'aahs'. That didn't matter, because we performed the guitar and vocal parts ourselves. AI can often misinterpret input during analysis and leave digital artefacts, whereas MIDI doesn't suffer from such misunderstandings.

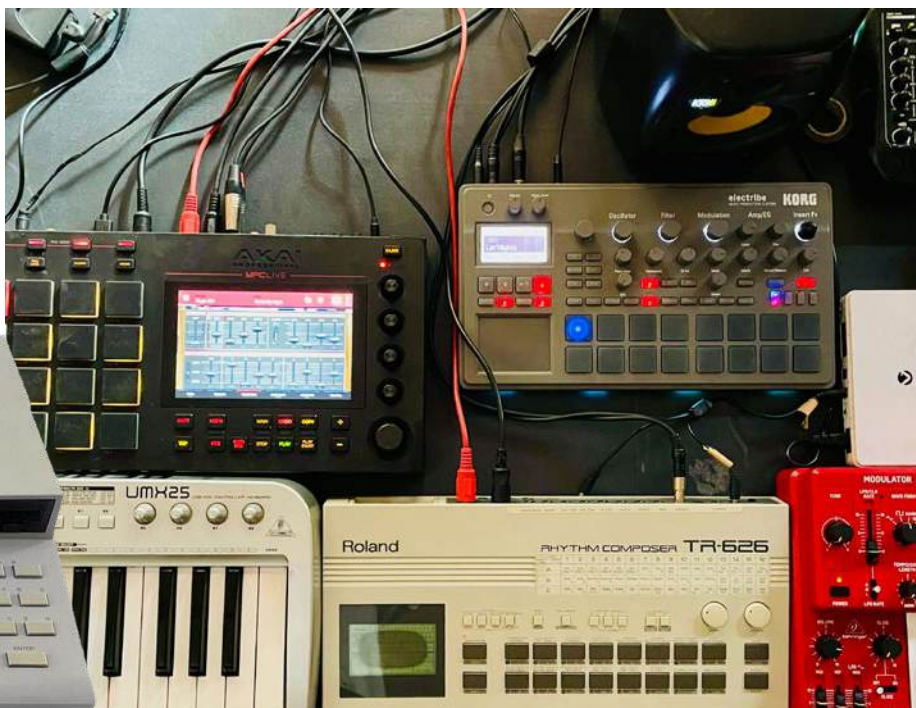
Since MP3 became the standard for music files in the mid-90s, there have been two full generations that may not have experienced the power of MIDI. Put simply, MIDI files use a binary code, which is a kind of text file that was stored on a 1.44MB floppy disc for the Roland sequencers. These files pointed to samples stored in a sound module. All MIDI-compatible devices had a MIDI Thru port, through which you could connect other devices that could communicate with the MIDI files. For example, my sequencer was connected to a U-220 rack-mount sound module, which would play all the sampled instruments, drums, keyboards,

bass, brass, strings, etc. Connecting a MIDI cable via the Thru port to my Yamaha SPX-90 multi-effects processor could add effects like echo, reverb, and chorus, along with very nice-sounding vocal harmonies. MIDI also had powerful control changes, which were CC messages that in real time could turn effects on and off or lower volume. For instance, if you wanted to add a harmony to your voice in the chorus of a song, a simple control message in the MIDI file could turn this on and off during the performance. Likewise, a control message on the humble MIDI file could turn on and off vocal effects such as reverb and echo in real time.

MIDI provides many of the components and guidelines for digital music, while AI can be the architect that analyses and uses those components in artificially intelligent ways. My prime use of AI has been to advance my penchant for writing parody songs, 'sung to the tune of' existing songs. I wrote parodies during my teenage years, but my first parody to be played on the radio was in the late 80s. This occurred when Sydney radio station 2Day FM organised a competition inviting listeners to create a parody song about their suburb. I was a Bankstown boy, living in its satellite suburb of Yagoona, which was where the first McDonald's in Australia opened. The suburb



Roland MC-300 Micro Composer



was also noted for the RSPCA's Animal Shelter, and former PM Paul Keating went to my school, De La Salle College Bankstown. My parody, which was hand-written lyrics mailed to the radio station 'sung to the tune' of Under the Boardwalk, was chosen and played on air.

*We had the first McDonald's in Australia, now I call that prestige, So our claim to fame besides the dog pound is a Big Mac with cheese, We raised Paul Keating, who raised our taxes and fees, It's a shame we can't blame him for the rise in our social disease.*

I was selling broadcast equipment to radio stations at the time, so I visited 2Day FM, and the chief engineer was kind enough to give me a copy of the tape, which was produced in their studios using live musicians, vocalists,

and backing vocalists. Backing tapes had to be performed by professional musicians in those days, and they were expensive, but the rise of MIDI made music backing a commodity, and with the arrival of the MP3 file, these could then be made into audio files. I began using MIDI-converted MP3 files for backing music, and legendary radio presenter Ian MacRae was giving me airplay. The limitations of singing the parodies were that I was limited to male vocalised songs and, of course, my vocal range. AI solved this problem, but not without its flaws.

Moises and Lalal.ai are well-established AI-powered tools that can split songs into individual components, including vocals, drums, and bass, to create remixes and different arrangements. This may not seem like an innovation given that music backing services like Karaoke Version have had

inexpensive, professionally arranged melodies with professional singers on separate tracks for eons. However, when writing parodies, you want to get as close to the original singer and backing music as possible. By splitting the original composition, you then have the original voice in the parody; this is especially effective for high and sustained notes that might have otherwise sounded a bit croaky. The AI voice is then steered into following the original singer's voice. You can even sing a song by a female artist in falsetto, and the AI female digital performer will interpret this as a female singer and produce a female vocal. Something that I found very interesting was how AI mimicked technical vocal qualities; while most AI performers had better tone and timbre qualities, they still very closely copied my phrasing and expressiveness; in fact, the results often still sounded similar to my voicing but with improved vocal qualities.



song lyrics and music and produce results as a multichannel MIDI file if requested. However, some of the classic modern songs come from the writer's own life experiences or individual journeys of other people known explicitly to the writer. For example, Carly Simon's 'You're So Vain' was a personal account from her real-life experiences with an unnamed person. James Taylor's hit 'Fire and Rain' was about the tragic suicide of his childhood friend Suzanne Schnerr at 19 years of age. 'Hey Jude' was McCartney's lament about a lost Julian Lennon trying to deal with the divorce of his parents. Lennon's song 'Julia' is about his mother, and 'Dear Prudence' was Lennon's observations of Mia Farrow's withdrawn sister, Prudence, during their sojourn in India with the Maharishi Mahesh Yogi.

The separation of music tracks by AI is called stem separation, and the individual tracks become the stems. I used stems for my community radio station sweepers, jingles, and air checks. There was a lot of talk about AI methodology when the remaining Beatles released Now and Then in 2023. The reality was that no AI machine learning (ML) of Lennon's voice was used; it was simply stem separation followed by some tweaking in the studio.

envelope, and it wouldn't take much for them to climb above their current wave of garden-variety music. Moreover, it would be more of a cost-saving venture than a major shift in music creation. I'm not currently aware of any mind-blowing hits or classics that are a result of AI composition, and satirical comments about the AI-generated group, The Velvet Sundown, included, "I wanted to go to their concert, but it was a 'hard drive'."

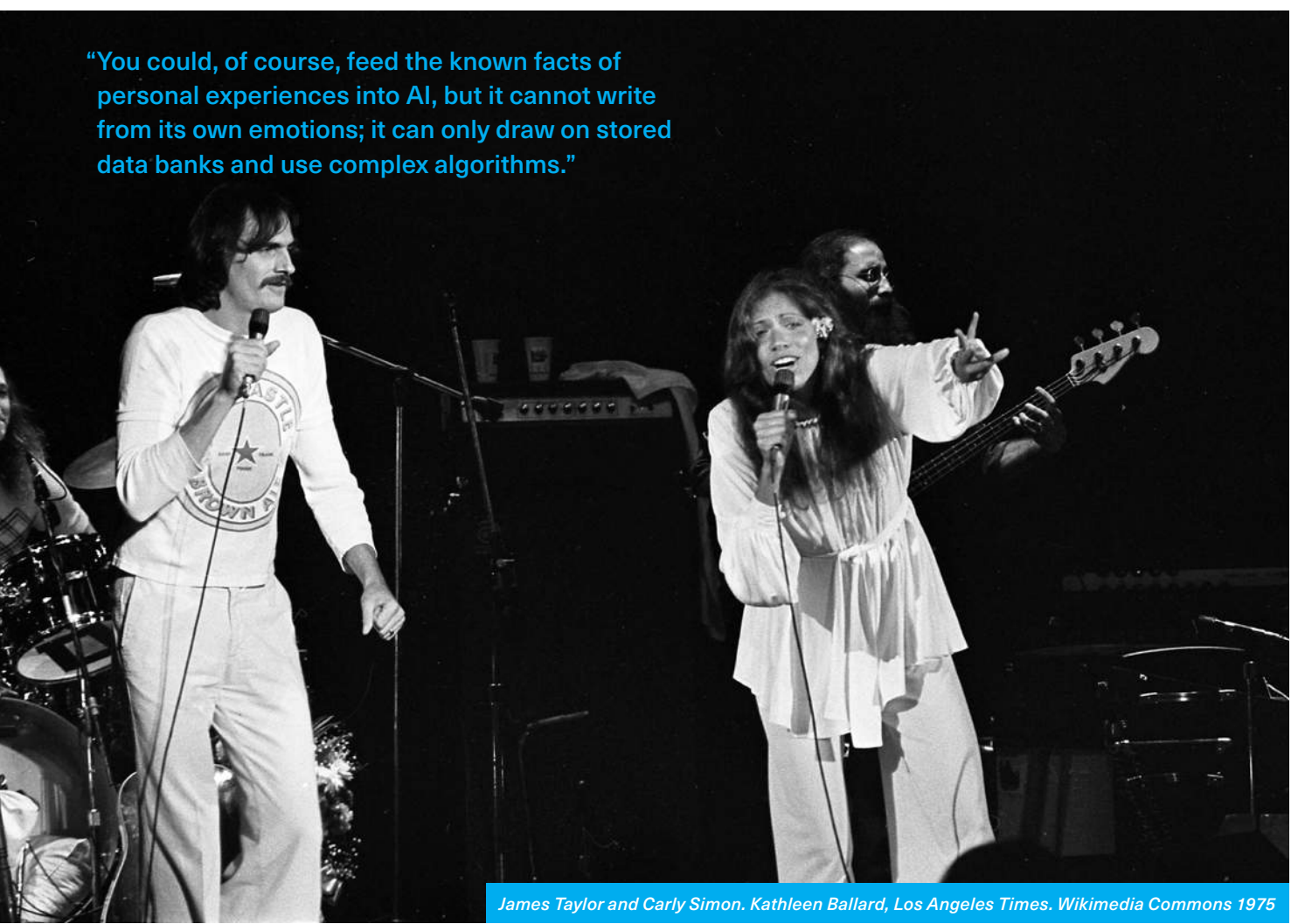
You could, of course, feed the known facts of personal experiences into AI, but it cannot write from its own emotions; it can only draw on stored data banks and use complex algorithms. It has a lack of genuine understanding and experience, and because it learns from existing data, it becomes predictable and lacks empathy and originality.

I've talked to many artists who believe that AI will eventually take over music composition, but my perspective is quite different. Of course, we are going to see the music conglomerates and major music streamers push the AI

Regardless of my personal preferences and predictions, music producers are increasingly navigating to AI music production software; even the enormously popular ChatGPT, which is primarily a conversational chatbot, can write

It's kind of paradoxical that gifted writers are fearful of an artificial intelligence that has been widely criticised for churning out overly padded, soulless garbage. To be fair, I asked an AI chatbot what it thought about these scathing comments. It agreed.

**"You could, of course, feed the known facts of personal experiences into AI, but it cannot write from its own emotions; it can only draw on stored data banks and use complex algorithms."**



James Taylor and Carly Simon. Kathleen Ballard, Los Angeles Times. Wikimedia Commons 1975

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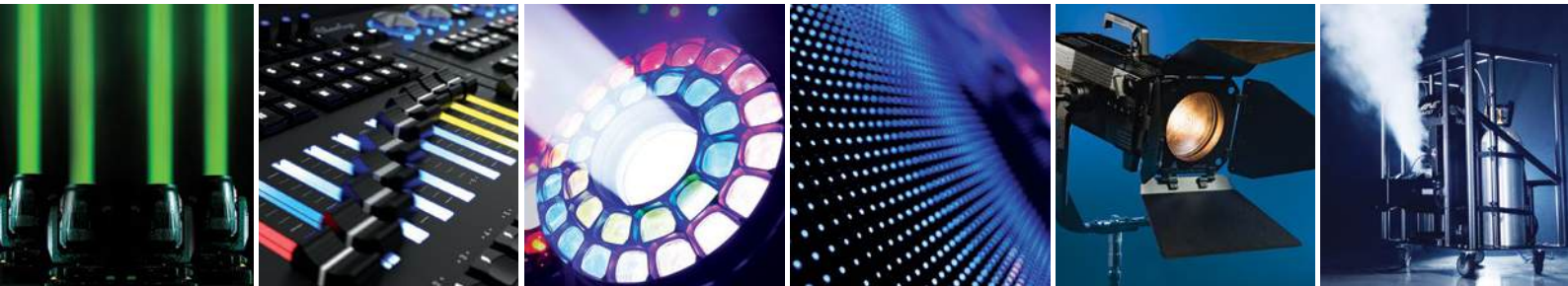
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