



INTEGRATION / AUDIO / LIGHTING / VIDEO / STAGING

**CENTREFOLD**

**A TRIP DOWN MEMORY LANE**

We go back to where it all began for Jands, with the first of 11 special CX editions!

**GIVEAWAY**

**SUBSCRIBE TO CX & WIN!**

Jands Celebrates 53 Years of 'Setting the Stage' and kicks off a year of massive giveaways!

**THE ENTTECH ISSUE**

**19 PAGES OF HIGHLIGHTS FROM THE SHOW FLOOR!**

**News**

- / LSC Wins Award
- / DiGiCo at Captivate AV
- / Brompton turns 10
- / Ross Video's Game Changer
- / Powersoft at Emerge Church

**Regulars**

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



**SRX900**  
POWERED SOLUTIONS

**HIGH PERFORMANCE ACTIVE PROFESSIONAL SOUND SYSTEMS**

[WWW.CMI.COM.AU/JBL-SRX900](http://WWW.CMI.COM.AU/JBL-SRX900)



For more information, contact the CMI Audio Solutions team.  
e. [audio@cmi.com.au](mailto:audio@cmi.com.au)  
p. (03) 9315 2244



# THE FAMILY IS GROWING

## INTRODUCING VTX A6 | VTX B15

The new **A6** dual 6.5-inch passive line array element and **B15** 15-inch subwoofer bring flagship VTX technologies to our smallest form factors yet. With advanced acoustics, common rigging systems and full software integration, it's never been easier to deliver extraordinary sound at any scale.

- Innovative 2-way design
- Proprietary JBL transducers
- Common voicing across VTX family
- VTX rigging system
- Comprehensive system accessories
- Shared configuration and deployment options
- Proprietary VTX industrial design



### Now Distributing VRX & VTX Array Loudspeakers

MadisonAV is your new home of the JBL VRX900 Series of Constant Curvature line array loudspeakers and the VTX family of products. This includes the newest members of JBL's VTX line array series, the VTX A6 subcompact dual 6.5-inch passive line array element and the B15 compact, arrayable 15-inch subwoofer.

**Sales Enquiries** 1800 00 77 80 [www.madisonav.com.au](http://www.madisonav.com.au)

**beyond connected**

# CONTENTS

## News

LSC UNITOUR Wins Australian Good Design Award	4
Captivate AV Leaps to New Heights with DiGiCo's Quantum 338	6
Brompton Technology Celebrates 10th Anniversary	10
Ross Video Launches Game-Changing Ultrix FR12 Router	14
Powersoft Channels Pentecostal Power for Emerge Church	17

## New Gear

18

## Features

d&b Audiotechnik V-Series at private The Killers gig <i>by Jenny Barrett</i>	32
Jands - Setting the Stage for 53 Years <i>Centrefold</i>	37
Jands in 1974 - The First Jands Factory	39
Intellect Projects Group Installs Meyer Sound <i>by John O'Brien</i>	64
Element ICT Grows with JBL BRX300 <i>by Fiona Davis</i>	66

## ENTECH

Your ENTECH Roadshow 2022 Show Guide! <i>All the Highlights of the Gear on Tour</i>	41
--	----

## Regulars

Listen Here: Drowning in a Sea of Synths <i>by Andy Stewart</i>	26
Can Dinosaurs Open the Door to AR? <i>by Jenny Barrett</i>	28
Backstage: Living Without Regret <i>by John O'Brien</i>	76
The Gaffa Tapes: Broadcast Blues <i>by Brian Coleman</i>	78

## Tech Talk

A Look Back at the Martin Mac 500 and 600 <i>by Kurtis Hammer</i>	70
What are the Challenges of Virtual events? <i>by Benjamin Powell, CEO of Bettercast</i>	73



Contents Photo – The Veronicas at Liberty Financial Group's 25th company anniversary.

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

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

All contents COPYRIGHT CX Network Pty Ltd 2022.  
Nothing herein to be reproduced in any format without express written consent.

# LSC UNITOUR WINS GOOD DESIGN AWARD

The winners of Australia's peak international design awards were announced on Friday 16th September at the 2022 Australian Good Design Awards. The Good Design Awards are the highest honour for design and innovation in the country and reward projects across 11 design disciplines covering more than 30 categories and sub-categories.

LSC Control System's UNITOUR received a prestigious Good Design Award Winner Accolade in the Product Design category in recognition for outstanding design and innovation.

The Australian Good Design Awards is the country's oldest and most prestigious international awards for design and innovation with a proud history dating back to 1958. Each year, the Awards celebrate the best new products and services on the Australian and international market, excellence in architectural design, engineering, fashion, digital and communication design, and reward new and emerging areas of design including design strategy, social impact design, design research and up-and-coming design talent in the next-gen category.

The 2022 Good Design Awards attracted high-quality design projects from Australia and around the world. These innovative projects were evaluated by more than 70 Australian and international Jurors, including designers, engineers, architects and thought leaders. Each entry was evaluated according to a strict set of design evaluation criteria which includes Good Design, Design Innovation and Design Impact.

Projects recognised with an Australian Good Design Award demonstrate excellence in professional design and highlight the impact a design-led approach has on business success and social and environmental outcomes.

The Good Design Awards Jury commented "An innovative way of providing power at live events, UNITOUR individually monitors all outputs to give operators complete peace of mind. The modular design is commendable, as is the dimmable 'stealth' front panel."

Dr. Brandon Gien, CEO of Good Design Australia and Chair of the Australian Good Design Awards said: "To be recognised with an Australian Good Design Award is a significant achievement, given the incredibly high standard of projects submitted in this year's Awards. The Good Design Award is a valuable independent endorsement of professional design quality. It tells the world this project not only represents design excellence, but it also surpasses the criteria for design innovation and design impact."

"We know that good design, when used effectively, can improve our quality of life and make the world around us better, safer, more efficient and more beautiful. It is clear from this year's winning projects that investment in professional design delivers real impact – be it at a commercial, environmental or societal level. As our world transitions to a less-carbon intensive future, a design-led approach to solving problems and delivering meaningful impact is going to become more critical," Dr. Gien went on to say.

"The Good Design Awards recognise and celebrate the transformative power of design thinking to find innovative, customer-centric



**GOOD  
DESIGN  
AWARD®  
WINNER**



## PROJECT DETAILS

**Project Title:** UNITOUR

**Designed in:** Australia

### **Project Description:**

The UNITOUR is a portable power distribution system for the live concert, theatre, trade show, corporate events, film, TV and entertainment industries. It solves the major problems that affect the operation of audio, video and lighting systems, whilst adding increased levels of safety and usability.

### **Designed by:**

LSC Control Systems  
Dave Burchell  
Gary Pritchard  
Pete Floyd  
Richie Mickan

### **Commissioned by:**

LSC Control Systems

solutions to local and global challenges and this year's Award-winning projects reflect just that. My sincere congratulations to all the designers, engineers, architects and innovators recognised in this year's Awards - you deserve to be celebrated at the highest level," Dr. Gien concluded.

# EOS APEX



The flagship Eos family console provides ultimate control at your fingertips, with a backlit programming surface, dedicated Target Keys, integrated 4K multi-touch monitors, 6+9 encoders and 5, 10, or 20 motorized faders, expanded playbacks, plus a master fader pair.

Large intelligent rigs, media servers, LEDs, timecode programming, busking – Apex handles it all with style.





Chris Lang from Captivate AV

# CAPTIVATE AV LEAPS TO NEW HEIGHTS WITH DIGICO'S QUANTUM 338

Employing a renowned host of premium audio, lighting and video systems to create immersive experiences, Captivate AV has been a proud provider of full production services on the Gold Coast since 2016. The company specialises in events and installations, carefully crafting purpose-fit audio-visual solutions for corporate events, schools, houses of worship, festivals, artists and beyond.

Spearheaded by founders Chris Lang and Russell Baker, Captivate AV's wealth of industry experience and attentive client care informs its reputable approach.

Enjoying vast accomplishments in the events space, the business's expanding system requirements prompted the company to invest in DiGiCo's flagship Quantum 338 mixing console in order to level up production.

Boostered by the robust foundation of their existing DiGiCo eco-system, and the company's enthusiasm for cutting edge technology, Director Chris Lang outlines Captivate AV's seamless integration of the Quantum 338:

"When first starting Captivate AV, [the directors] each had our own SD11i console

with D-Racks. As our need to supply larger systems grew, we added a SD8-24, SD10-24 and S21 to our inventory, along with various racks and connection accessories. When the Quantum series was released, it was clear this was now a new era of audio consoles and we wanted to be on the leading edge. With high demand for fibre systems from the touring market, this was a must and integrates nicely with our SD10 which is already on fibre. The Quantum's I/O port capacity is unmatched, and we can safely put the console in any situation with confidence that audio will make it to its destination - wherever needed, and by whatever means required."

Offering a generous array of features that meld DiGiCo's hallmark workflows with increased processing power and

connectivity, the Quantum 338 packs an innovative punch. Despite all the onboard technical enhancements, the console remains notably compact. Speaking on the console's capabilities, Chris recounts his experience in adopting the Quantum 338 into Captivate AV's workflow:

"Upon first firing up the console and running some multitracks through it, we were pleasantly surprised by how much nicer the effects processing came across. We also enjoyed applying some of the new Mustard compressors; bringing new life to traditional band instruments. Adding in the Chilli 6 on the Spice Rack was really the icing on the cake for what can now be achieved on board. After running it through some gigs, we really got used to having channels across 3 bright and



Captivate AV using Q338

responsive touch screens - something hard to go back from! Nodal processing came in handy on some effects busses, but it was really impressive being able to EQ and compress things a little differently through different wedges without having to duplicate channels for particular sends."

Taking full advantage of the 338's extensive DMI interface options, Captivate AV have

loaded their console's DMI ports with Dante connectivity and Klang immersive in-ear mixing. "We have been using Klang IEM processing since it became a part of the DiGiCo infrastructure and love being able to roll out great sounding in-ear mixes with ease," Chris explains. "The Klang DMI card is a useful tool and we have recently added a Klang:konductor to our inventory which we

can also loop in via HMA fibre. We are looking forward to deploying it with our larger multi-console setups."

Hillcrest Christian College, a Gold Coast-based education centre and Captivate AV client, were equally impressed with the Quantum 338. Recently employing the system for use in a school production of Disney's Beauty and the Beast, Theatre Manager Anthony Kissick was

# Creativity unleashed

All-New  
MX Series Solution



VMP is an all-new display control software that integrates design, management, and monitoring into one single platform. When paired with the flagship MX Series controller and A10s Pro receiving card, an incredibly professional LED solution is realized, providing stunning image quality, precise color adjustment, and an intuitive software experience. This represents a totally new solution for managing large high-end applications such as fine-pitch LED installation, studio broadcasting, tours, corporate events, virtual production and E-sports.

**NOVASTAR**  
[WWW.NOVASTAR.TECH](http://WWW.NOVASTAR.TECH)  
 ✉ [david@novastar.tech](mailto:david@novastar.tech)











Hillcrest Christian College using Q338

related at the opportunity to use the console:

"I have personally been a DiGiCo user for more than a decade and we currently have an SD11 as the primary console for our College theatre. Knowing that Captivate AV had acquired a Quantum 338, I was overjoyed when we were able to use it for our College's musical theatre production."

With the show encompassing hundreds of snapshots to manage a considerable number of inputs and outputs, Anthony was able to pre-program the production using DiGiCo's offline editor during rehearsals. Consisting of 36 channels of headset microphones, plus an 11-piece orchestra (all individually mic'ed with reed doubling parts and an expansive percussion section) along with multiple channels of playback, the show's engineering

requirements were significant. The Quantum 338 served to keep Anthony on top of these complex demands, with its trio of screens allowing efficient and flexible operation of channels.

Utilising the Quantum 338's comprehensive feature set to efficiently manage production, Anthony's encounter with the console resulted in a genuinely positive experience for the season:

"With young singers, it was important to keep stage volume low to allow their voices the space to be heard and captured by their headset mics. The Klang processing integration on the Quantum 338 allowed the orchestra and myself to have a seamless in-ear mix, and allowed the volume to be reduced on stage and in the orchestra pit,

while not compromising the experience of the musicians. The season was a huge success. The powerful snapshot and control group capability permitted easy automation of the input channels, while the Mustard channel processing and effects engine allowed us to creatively design a spectacular mix."

Demonstrated in both Captivate AV and Hillcrest Christian College's implementation of the console to enhance and refine production, the Quantum 338's capabilities bring a welcome boost in workflow, enjoyed by engineers and performers alike. Expanding his system with another solid DiGiCo offering has proved a perfect fit for Chris Lang and his clients, "We have a growing team of passionate and dedicated technicians, and we love good gear!"



Hillcrest Christian College



# SRX900

POWERED SOLUTIONS



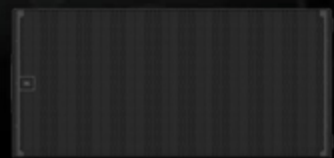
SRX906LA



SRX910LA



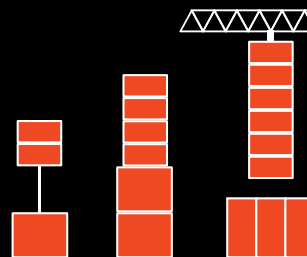
SRX918S



SRX928S

## Scalable and Affordable Line Array Solutions

JBL SRX900 Series professional sound systems bring 75 years of legendary audio innovation to compact, scalable, affordable powered line array solutions. The range, which includes loudspeakers and subwoofers, delivers the performance you've come to expect from JBL line arrays, with built-in amplification, DSP and app control. It's the perfect solution for rental companies, installations and musicians seeking the ultimate combination of performance and portability. Explore the JBL SRX900 Series at [cmi.com.au/jbl-srx900](http://cmi.com.au/jbl-srx900)



◀ Versatile rigging system provides flexibility to pole mount, ground stack, or fly the SRX900 Series.

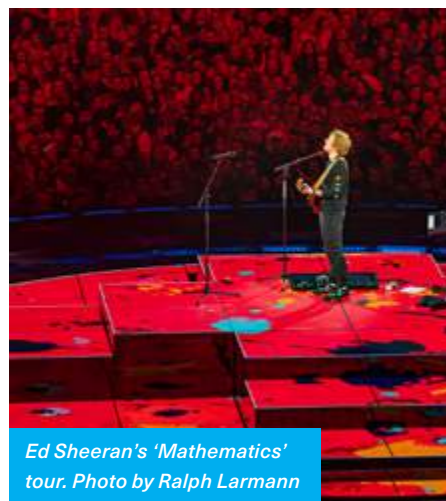


**Emi**  
Music & Audio

Proudly distributed in Australia by CMI Music & Audio.  
Contact [audio@cmi.com.au](mailto:audio@cmi.com.au) to schedule a demo  
[cmi.com.au/jbl-srx900](http://cmi.com.au/jbl-srx900)



SIX60. Photo by Matt Clode



Ed Sheeran's 'Mathematics' tour. Photo by Ralph Larmann



Mushang XR Stage

# BROMPTON TECHNOLOGY CELEBRATES 10TH ANNIVERSARY

## Walking down memory lane

Brompton Technology is celebrating 10 successful years in business, but the story of its revolutionary approach to LED video processing begins much earlier than 2012. According to CEO Richard Mead, it started while he was working with a team of designers, software developers and hardware engineers at Flying Pig Systems, now part of ETC-owned High End Systems, an innovative lighting control specialist and originator of the Wholehog lighting consoles.

After Flying Pig's purchase, seven of its original members, including Mead, decided to form their own company, Carallon, at the start of 2004. "Essentially, we wanted the freedom to develop our own control systems for the entertainment industry," explains Mead. "Inevitably, when you put a group of engineers together, they come up with a variety of ideas for products. We chose the ones we thought were best and created several spinoff companies from Carallon to take them forward. Brompton was the second of those spinoffs."

At the time, the LED video industry was in a period of significant change. It had been

dominated by big players like Barco who were providing LED video panels and proprietary processing as a package. Mead and the team saw an increasing number of decent quality LED panels being manufactured more cost-effectively in China, and they were attracting attention. But the one area where they fell short was the processing.

"The vision for Brompton from day one was to plug that gap and develop a processing system that could be paired with the panels coming out of Chinese factories," continues Mead. Brompton's first customer was VER, one of the world's biggest AV rental companies, now part of the PRG Group, who essentially pre-ordered the entire first run of Brompton's Tessera LED processors. By 2013, VER was using Brompton LED processing on the biggest live televised shows of the year, with the first really high-profile project being the Oscars.

## From live events heroes to film/TV LED processing experts

The company grew steadily, remaining very focused on live events until 2018 when new applications in film and television production

started to emerge, and the Brompton team saw they had a need for the same high-quality LED video processing the company had been providing for live events. "From the beginning, we'd always prioritised making LED screens look good to both the eye and the camera, so this new market was a natural fit for us," explains Mead.

In 2019, well over 80 percent of Brompton's business was still in live events. "But in 2020, because live events were so suppressed, we focussed on the area that was actually accelerated by the pandemic – virtual production and XR," says Mead. "Despite live events coming to an almost complete halt, we were actually able to grow our business through the pandemic."

Early adopters working with LED screens for film/TV did not always have a smooth ride. LED screens that were not designed with use on camera in mind sometimes turned out to be unsuitable, and the wrong LED solution or the wrong pairing of screen and camera would cause more problems than it solved. Even when working well, the LED screen was often a fixed point that every other department had to adapt to. But, despite those challenges,

# Absen and AVD Showcase Emerging LED Technology at Integrate 2022

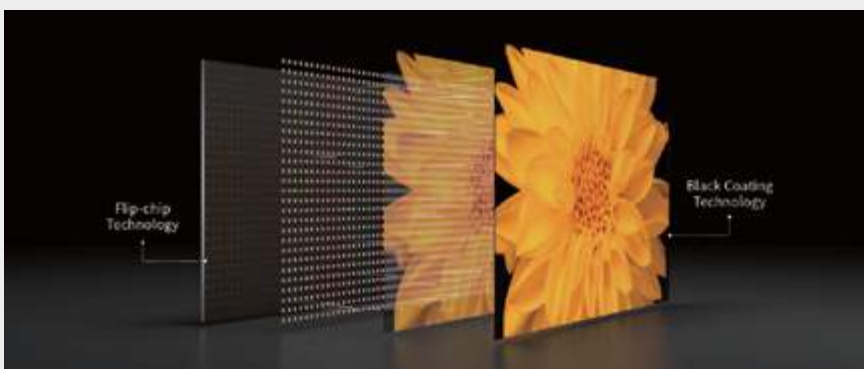
August 2022 marked the return of Australia's biggest Audio Visual exhibition, Integrate, for the first time since 2019. The event was held at Sydney's International Convention Centre and attended by many industry professionals, who for most part had not come together for close to 3 years due to the Covid-19 pandemic. For Audio Visual Distributors (AVD), it was their first opportunity to showcase the latest and greatest offerings from their LED screen supply partner, Absen, the global leading LED display solutions and service supplier. There were several new releases from Absen displayed on AVD's booth across multiple AV markets, including commercial, corporate and rental & staging sectors. Integrate marked the Australian first release for Absen of Clear Cobalt series, Absen's new Micro LED. It's a high-quality, stable product that incorporates inverted COB encapsulation technology and the HDR10 core algorithm.

With an all-black coating and black level correction technology, the Clear Cobalt series achieves movie-quality images with high brightness and contrast ratio. Moreover, the Clear Cobalt series use resin adhesive instead of traditional wire to attach each inverted LED chip to the substrate structure, which effectively glues the LED to the PCB. This process creates an extremely robust LED screen and enables the pixel pitch to be as low as 0.6mm. Absen NX series was also on display, positioned as a slim creative display in various commercial application scenarios. It adopts a special rotary clamshell back cover design. The NX series comes with 4 pixel pitches, 1.5mm, 1.8mm, 2.5mm and 3.7mm. There are two sizes: 960\*540\*43.5mm and 240\*540\*43.5mm, and the screens are available in normal brightness versions. Another major highlight was the always-popular Icon series, which

is designed to offer full turnkey HD resolution LED screens, suitable for corporate and commercial applications, such as meeting rooms, lecture theaters & indoor public spaces. The Icon series is available in 3 sizes 110", 138", 165" – all of which provide a 16:9 ratio and 1920 x 1080 resolution via direct view LED.



The show coincided with the recent release of the updated version of the popular Polaris series (v2.0). The new hardware improvement around the vertical and horizontal connections, and the unique pixel guard system was well received by the staging and events companies in attendance. Also on show was the "XR" model of Polaris 2.5mm and MR LED floor, which are specifically designed for use in the rapidly emerging virtual studio, film and TV digital sectors. Overall, AVD and Absen enjoyed a very busy and successful exhibition, showcasing world leading technology & further cementing the ongoing partnership of the 2 entities within Australia.



the technology's many advantages mean the market for LED in virtual production has grown rapidly.

Brompton has responded with a wealth of tailored features, working hard to ensure LED screens became a collaborative partner in the creative process, rather than an obstacle to work around. "This is an ongoing process of working with users to understand the pain points, then developing new features in our Tessera software, or integrating with complementary technologies to create more streamlined workflows for virtual production," says Mead. "The leading practitioners recognise the solid foundation that Brompton processing gives them, in terms of ensuring colour accuracy, eliminating artefacts and rock-solid reliability."

## Capitalising on growth opportunities

With the return of live events, and virtual production still going strong, there is rapidly increasing demand for Brompton's cutting-edge, robust, tour and virtual production-ready LED video processing products. To support these two core industry sectors, and to be able to apply the company's LED processing technology to new markets, Brompton has secured a £5.1M growth capital investment from specialist private client alternative investments business, Connection Capital.

According to Mead, the investment will enable Brompton to capitalise on growth opportunities and deliver outstanding visual experiences to more and more people worldwide. "Whilst our focus on quality and dedication to customer service will remain the same, Connection Capital's investment gives us the ability to scale up rapidly to meet demand and address the new opportunities that are presenting themselves," he says.

As part of the company's growth trajectory, Brompton has recently moved into a new UK HQ in South West London, which will feature

dedicated demonstration and training areas, and allow customers to better experience the company's latest offerings. The injection of funds will also facilitate further recruitment over the next six to 12 months.

As well as its base in London, the company has outposts in Shenzhen, Taipei and Los Angeles. Mead also reveals that it will open an office in mainland Europe in the near future.

"Our ultimate customers are the users doing live events or film and television production, and we have a team who are there to support them and work closely with them. But our processing needs to be integrated into LED panels, so we have another part of the business that works closely with our manufacturer partners who are integrating our Tessera receiver cards into their panels. This is a big focus for our offices in Shenzhen and Taipei, though they are increasingly supporting a lot of end users in Asia as well," says Mead.

## 10 years of success – what's it like?

For Mead, the company's success is multifaceted.

"The team take a lot of pride in the quality of the products, both in terms of the depth of features and their reliability. Everyone, from the engineers who develop the products and software to those that are out there selling and supporting it, is committed to delivering the absolute best. We are extremely proud of the quality of our support, which has been key to our success, originally in live events and now in film and television production. Brompton users can call us 24 hours a day, seven days a week and know they have an expert on the other end of the line who understands what they need and can help them solve a problem – and sometimes we're answering questions that aren't actually to do with our products. We see support as an opportunity to build relationships with users and make sure they know we've got their back."



Richard Mead

From its beginnings 10 years ago, Brompton now has a 50-strong team and delivers product to over 100 countries.

"I am extremely proud that Brompton LED processing solutions are trusted on tours for some of the world's biggest artists, most recently Ed Sheeran's Mathematics Tour and Metallica's The Return Of The European Summer Vacation tour; on film and TV productions such as Westworld, House of the Dragon, and Star Trek: Discovery; gaming tournaments like the latest League of Legends: Mid-Season Invitational (MSI) and the first Wild Rift Icons Global Championship; and in globally renowned virtual production and XR studios including Pixomondo (PXO), Big Picture Australia & NZ, Creative Technology (CT), AUX Media Group, Ark Ventures and Mushang XR Stage. There are too many projects to mention here, but we are grateful to all our partners and customers around the world for putting their trust in Brompton solutions."

## Global but true to its roots

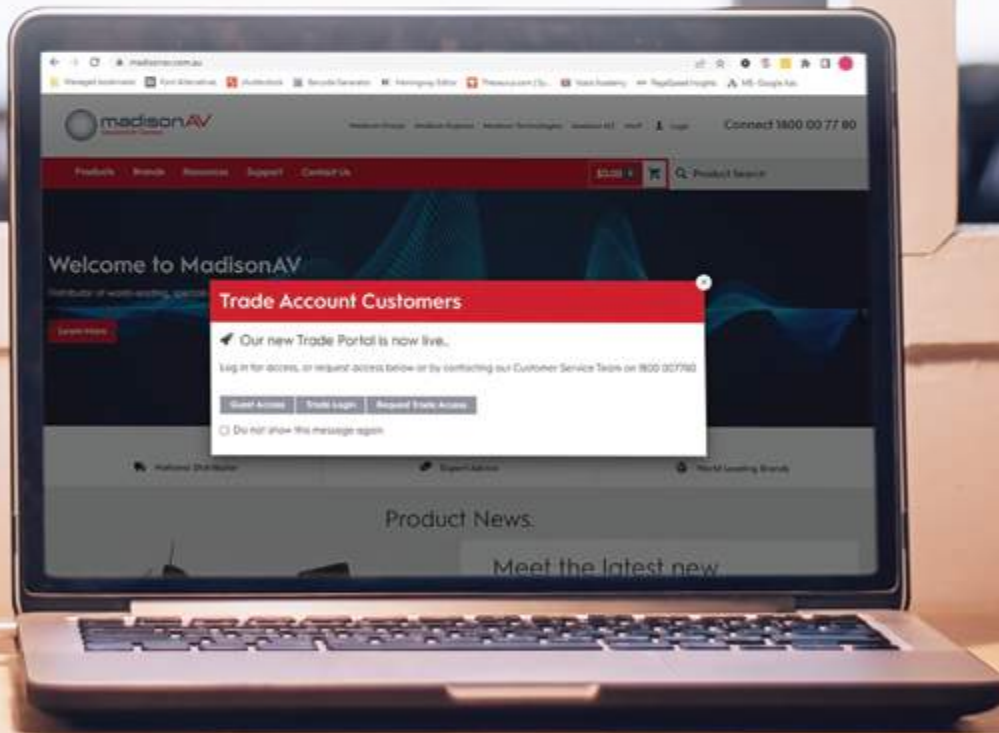
The company's global success does not mean its roots are forgotten. On the contrary, everything from the choice of name, designed to encapsulate a 'Made in Britain' quality feel, and its continued manufacture in the UK, honour its heritage. "Our promise," says Mead, "has, and always will be, to offer high quality products and service that our customers can rely on."

Brompton is an excellent example of a successful business that cemented its name in the live events industry and then pivoted, almost overnight, into virtual production for film and TV. It is now emerging even stronger.

"We have a passionate and highly skilled team, a global network of partners and customers, industry-leading Tessera video processing technology, diversified revenue streams, soaring demand for our products, and ambitious plans. We are very excited about the future for Brompton Technology."



# New MadisonAV Online Portal Request Access Today!



## INFORMATION AT YOUR FINGERTIPS.

Our new E-Commerce store and online portal provides authorised customers with access to trade pricing, detailed stock on hand information, quick ordering tools, price list downloads, as well as invoice and order history.



**madisonAV**  
Specialised AV Solutions

**We're committed to excellence in customer service and support.**

We're known for delivering reliable technical solutions from world-leading brands, whilst supporting you with market-leading expertise. We have also improved your access to vital information, by launching our E-Commerce store and online portal.

**Sales Enquiries** 1800 00 77 80 [www.madisonav.com.au](http://www.madisonav.com.au)

**beyond connected**

# ROSS VIDEO LAUNCHES GAME CHANGING ULTRIX FR12 ROUTER



Ross Video has launched the new, game-changing version of its award-winning Ultrix Router – the 12G ready Ultrix FR12. This ingenious new product is the ultimate routing, multiviewer and signal processing platform for studios, OB vans and flypacks.

As a true software defined platform, customers immediately enjoy significant cost, space, and power efficiencies with unparalleled flexibility and agility, especially relative to competitive hybrid routers.

Director of Product Management for Hyperconverged Solutions at Ross Video, Todd Riggs, explained, "When we launched Ultrix we had 1RU and 2RU frame sizes. A couple of years later we brought the 5RU frame to market. With the launch of the FR12, our award-winning platform makes a huge leap forward, one that will rock the world for a wide range of markets."

The FR12 is as attractive as it is clever, with its appealing smart door that's an LCD display designed to help you with monitoring your system, troubleshooting, configuring, and control via a high-resolution, full-size touchscreen panel.

The FR12 is powerful too, boasting up to 288 x 288 SDI ports with a 6144 x 6144 TDM audio fabric, up to 288 frame syncs, 288 clean quiet switches and up to 48 x 100 PIP multiviewers. It also has up to 8 SDPE blades that can be configured as a single 8ME Ross Acuity switcher, 8 independent Ross Carbonites or even a 4ME Acuity and 4 independent



Increased Capacity **Ultrix**



12G Ready **Ultrix**



Combined Benefits **Ultrix**



Software Defined **Ultrix**



Highly Intelligent **Ultrix**



Device Connectivity **Ultrix**



Money Saving **Ultrix**

INTRODUCING

# Ultrix FR12



## One platform, endless configurations

The award-winning Ultrix platform just got smarter and more powerful with a 12RU modular chassis capable of switching and processing audio and video signals starting from 16x16 up to 288x288, and from data-rates of 270Mb/s up to 12Gbps. Now shipping!

For Sales Enquiry: [Sales\\_APAC@rossvideo.com](mailto:Sales_APAC@rossvideo.com)

[rossvideo.com/ultrix](http://rossvideo.com/ultrix)

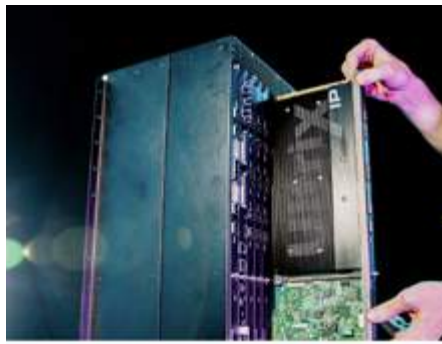
**ROSS**

Carbonites. In short, the routing, processing, and switching capability in the FR12 is very hard to beat.

Riggs continued, "In the past, a traditional system could use around 500 rack units. Now with the FR12, you're looking at only 14 rack units for the equivalent solution. That's over 500 less rack units and freed up space for your business to grow. Less hardware also means less power consumption, so while a typical system could consume 52,300 Watts, the FR12 equivalent system would only consume 2,400 Watts. Less hardware also means far less cabling – hundreds instead of thousands – and significantly less weight as the FR12 tips the scales around 100 lbs or 45 kg as opposed to a traditional system's massive 6284 lbs or 2850 kg!"

In addition, as the FR12 is the world's only router with an integrated production switcher, customers can build entire infrastructures with ground-breaking flexibility, performance, and integration.

Todd Riggs concluded, "The award-winning Ultrix platform just got bigger, smarter, and more powerful as the FR12's compact frame packs a massive punch with significantly more capacity, functionality and innovation. The FR12 also represents a major enhancement to the current Ultrix product portfolio and the capacity increase of the frame means Ross Video now addresses and can meet even more of the worldwide router and multiviewer market's requirements."



Hyperconverged Design

Ultrix



Multiviewer Integration

Ultrix



Pay as you go

Ultrix



Much More Power

Ultrix

For more information on the Ultrix FR12 go to:

[rossvideo.com/products-services/infrastructure/routing-systems/ultrix-12g-router-2022/](https://rossvideo.com/products-services/infrastructure/routing-systems/ultrix-12g-router-2022/)

## Interview: Todd Riggs

**At CX, we got pretty excited by Ross's announcement of the FR12. We've really only seen one thing vaguely comparable, and that was a custom-built solution made of many, many components from different manufacturers. We got Todd on the line to get some more info:**

**CX: The pandemic and major lockdowns here in Australia saw traditional live production companies turn into online event broadcasters overnight. Many of them have mastered and grown this new aspect of their business. They're now in a position to start upgrading and improving on the mainly ad-hoc video infrastructure they bought to get them started. Why should they now be looking at the FR12?**

**Todd:** Ultrix FR12 is the ideal platform for users looking to move forward with a flexible and integrated workflow. The system provides UHD throughout for upgraded quality, and the transport is independent from the processing workflow. With FR12, users can choose SDI, IP, fiber, or any combination of the three,

which ensures consistent functionality even if the topology changes. Additionally, the inclusion of software licensing means that adding new features is easy and economical. Hyperconvergence is one of Ross Video's key initiatives, and the Ultrix platform is at the heart of this strategy, which means lots of exciting things are being worked on for future enhancements.

**CX: The implementation of software defined solutions is spreading throughout production tech at the moment, from comms to processing. How are customers who are used to the traditional world of buying static equipment adapting to the change to the 'pay as you go' model?**

**Todd:** This has been one of the greatest selling points of the Ultrix platform. Software-defined solutions simplify wiring and installation decisions upfront while providing peace of mind for future expansion. Also, the ability for the software licenses to "float" within the frame has enabled customers to add the licenses where they need them on a production-by-production basis.

**CX: The environmental credentials of Ross and the FR12 are undeniably impressive. What particular innovation has delivered the largest reduction in power consumption?**

**Todd:** There are several aspects that contribute to this reduction in power consumption, but the most significant are the components we are using. There have been substantial advancements in FPGAs and other components that allow us to do more with less. This, in turn, has enabled us to design hardware that is incredibly flexible, integrated, and powerful, leading to reduced power usage in the FR12.

**CX: You've just finished up at IBC in Amsterdam. How was the reaction to the FR12 at the show?**

**Todd:** The reaction from the attendees at IBC this year was truly phenomenal. Ultrix FR12 is entirely unique in what it does and fits a real need for the market, and we definitely heard that from the people we spoke to on the show floor. The response was fantastic and exceeded our expectations.

**CX: Any significant FR12 early adopters you can tell me about yet?**

**Todd:** We have multiple early adopters – in fact, our lead customer has already received several FR12 frames to begin integration into their facility. We aren't prepared to go public with names at this point, but we will be sure to let everyone know when we are ready!



# POWERSOFT CHANNELS PENTECOSTAL POWER FOR EMERGE CHURCH



**To elevate its famously energetic musical worship services, Brisbane's EmERGE Church has installed Powersoft's high-performance T Series amplifiers as part of a major upgrade of its audio system.**

The Pentecostal EmERGE Church has three locations, with its main church in the suburb of Warner. The Warner building includes a 450-seat auditorium whose AV set-up is key to a typical church service, which includes a full band of drums, bass guitar, electric and acoustic guitars, keyboards, and 4–6 vocalists.

The original PA system, which was installed in 2000, when the Warner church opened, comprised four 12" horn (point-source) cabinets (2 per side) and two 18" subs under the stage. "In recent years, we noticed that the system was sounding tired and lacking the definition required for clean and clear vocal reproduction," says Ash Webber, one of EmERGE Church's head audio engineers, explaining the decision to upgrade its AV facilities.

"Achieving even frequency and SPL coverage

throughout the auditorium has always been a challenge, and at times this led to comments from the congregation that the audio mix was too loud in some seats while being too soft or lacking clarity in others."

EmERGE Church's last annual conference provided an ideal opportunity to audition prospective PA and amplifier options. An earlier audio upgrade had seen the church purchase an Allen & Heath dLive S7000 console, with DM48 mix rack and Dante card, and four Electro-Voice EVU-2062 front-fill speakers to augment the original PA system. For the conference, Harry Lloyd-Williams, founding director of Brisbane-based manufacturer AT Professional, provided the company's TLA508 Blackbird line-array system, with power supplied by Powersoft T Series amplifiers.

Suitably impressed by the combination of the AT speakers and Powersoft amps, the primary criteria for an upgraded sound system were even and clean coverage throughout all seats, for both music and speech reinforcement, the church leadership endorsed the system and approved an upgrade to the original PA.

The new speaker set-up, tuned by Brendan Keane, adds eight AT Professional TLA508 line-array cabinets (four per side), as well as two AT Professional CLA LF3200 18" subs under the stage. Both the new loudspeakers and the existing EV front fills are powered by four 6,000W, four-channel Powersoft T604 amplifiers.

At EmERGE Church, all signal processing is done within the T604s, which have built-in loudspeaker DSP, while input signals are delivered via the on-board Dante capability. The T Series' high voltage is also ideal for sharing power between the channels for applications such as bi-amped loudspeakers or subwoofers with passive tops.

"The new AT Professional PA system and Powersoft amplification combination has delivered our goal of even coverage and clear audio with exceptional results," says fellow head audio engineer Rob Camilleri. "The new system has been well received by the church leadership, congregation, worship band, audio engineers and guest speakers, and delivered increased intelligibility, musical definition and headroom.

"We thoroughly recommend and endorse the Powersoft amplifier platform and AT Professional for their exceptional customer service and quality products."



## PROLIGHTS ArcShine series

PROLIGHTS has extended its range of architectural lighting fixtures for permanent outdoor installations with the new ArcShine series. The LED linear fixtures are available in four sizes, 100cm with 18 LEDs (split in two sections) and 50cm with 9 LEDs. The medium power M18FC and M9FC units have 72W or 36W RGB+WW LED emitters, while the lower power S18FC and S9FC series have 36W or 18W emitters. Their native narrow optics - 8° on the M series and 15° on the S series - enhance colour mixing, keeping a high lumen output between 655 to 2,385 lumens (from the lower-powered, smaller version to the M18FC).

**Australia: Show Technology Australia**  
[www.showtech.com.au](http://www.showtech.com.au) (02) 9748 1122

**New Zealand: Show Technology New Zealand**  
[www.showtech.nz](http://www.showtech.nz) (09) 869 3293

# NEW

# GEAR

## Encore LP32IP

The Encore LP32IP is a multi-functional IP65-rated panel fixture. This rugged LED wash light offers smooth colour mixing with a vast palette of options and a high CRI. Suitable for use both indoors and outdoors in any weather, thanks to its IP65-rated casing design, this versatile luminaire can be used as a colour wash, blinder, strobe or eye candy effect.

**Australia and New Zealand: ULA Group**  
[www.ulagroup.com](http://www.ulagroup.com) or AU 1300 852 476  
 NZ +64 9 218 6532



## Chauvet Professional Ovation Rêve E-3 IP

The Ovation Rêve E-3 IP is an outdoor-ready, LED ERS-style lighting fixture. Virtually silent and IP65 rated, it's perfect for studio, theatre, and film applications – both indoors and out. It has a bright light engine that can produce full-spectrum colours and tuneable whites. Ovation Rêve E-3 IP features adjustable PWM, +/- green adjustment and emulated red-shift, and ultra-smooth 16-bit dimming curves and speeds to complement any lighting scheme, anywhere.

**Australia: Showtools**  
[www.showtools.com.au](http://www.showtools.com.au) or (02) 9824 2382  
**New Zealand: M.D.R Sound & Lighting**  
[www.mdrlighting.co.nz](http://www.mdrlighting.co.nz) or (06) 355 5073



# POINT SOURCE & LINE ARRAY

900W RMS ACTIVE 2-WAY SPEAKER

HF 1x 1" NEO - LF 2x 6.5"

COMPLETE NETWORKABILITY VIA RDNET

MAXIMUM VERSATILITY IN TOUR GRADE APPLICATIONS OR FIXED INSTALLATIONS

DSP PRESET SWITCH ON BOARD TO MATCH THE COVERAGE PATTERN IN USE

WIDE ACCESSORIES CHOICE FOR MULTIPLE APPLICATIONS



VIO X206: 60° x 90° VERSION WITH ROTATABLE HORN



VIO X206-100: ARRAYABLE 100° x 15° VERSION WITH WAVEGUIDE

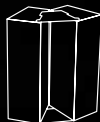
WALL MOUNTING



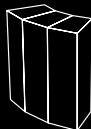
TRUSS MOUNTING



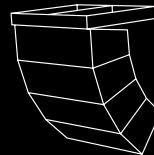
EXTENDED TRUSS MOUNTING



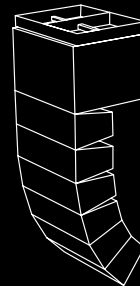
HORIZONTAL ARRAY



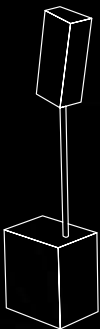
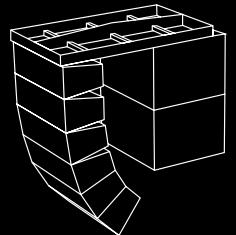
VERTICAL ARRAY



VERTICAL ARRAY WITH VIO S115



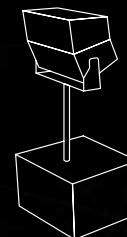
DOUBLE VERTICAL ARRAY



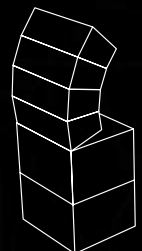
POLE MOUNTING

## VIO X206 2-WAY ACTIVE SPEAKER

Max SPL.....	131 dB
VIO X206 Frequency Response [-6dB].....	70 - 18,000 Hz
VIO X206-100 Frequency Response [-6dB].....	70 - 17,500 Hz
HF.....	1x 1", 1.75" v.c
LF.....	2x 6.5", 1.75" v.c
VIO X206 Directivity.....	60° x 90° [rotatable horn]
VIO X206-100 Directivity.....	100° x 15° [H x V]
Amplifier.....	900 W RMS
Processing.....	FIR Linear Phase Filters
Width.....	210 mm [8.3 in]
Height.....	650 mm [25.6 in]
Depth.....	270 mm [10.6 in]
Weight.....	17.3 Kg [38.14 lbs]



POLE-MOUNTED ARRAY



GROUND-STACKED ARRAY

dBTechnologies

## JBL VTX A6 and B15

The A6 line array and B15 subwoofer bring JBL's top acoustic technologies to compact form factors for small- to medium-size touring and fixed installations. The A6 6.5-inch passive two-way line array element is engineered from the ground up for stunning sonic performance and ease of integration and deployment, as a standalone system or as a supplement to larger VTX systems. It houses two custom 6.5-inch woofers and a 3-inch annular-diaphragm compression driver with a low-frequency extension to 67 Hz and 134 dB max SPL.

Extend the low-end range of VTX full-range systems with the VTX B15 15-inch subwoofer. The B15 features acoustic advancements such as SlipStream double-flared exponential ports and Differential Drive dual-voicecoil design and is based on JBL's new 2285H 15-inch woofer, which is engineered for linearity, efficiency and excursion that rivals 18-inch models. Two B15 versions are available: the arrayable B15 and the B15G, which is designed without rigging hardware for ground-stacked applications.

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



# NEW GEAR



## dBTechnologies IS Series

IS Series is dBTechnologies' new passive installation range of loudspeakers. The range includes

- IS4T and IS5T 4" and 5" cube speakers
- IS6T 2-way 6.5" coaxial cube speaker
- IS25T dual 5" plus 1" compression driver
- IS26T dual 6.5" woofers plus 1"
- two subs, with either a 1x8" or a 1x12" woofer.

The keyword here is ease of installation and unobtrusiveness. That's why each single system in IS Series comes with sleek design, Phoenix connectors, and are all available in black or white.

**Australia: NAS [nas.solutions](http://nas.solutions) or (03) 8756 2600**  
**New Zealand: Direct Imports [directimports.co.nz](http://directimports.co.nz) or (06) 873 0129**

# IT'S A SMALL STEP TO A **GIANT LEAP**



## avantis

The third mixer based on our 96kHz XCVI FPGA engine, Avantis puts all our next-generation technology in a standalone 64 channel / 42 configurable bus console, with dual Full HD touchscreens, a super-flexible workflow with Continuity UI, extensive I/O options, add-on processing from our flagship dLive mixing system, and a rugged full metal chassis.

Step up to Avantis. Leap ahead of the curve.

**ALLEN & HEATH**  
allen-heath.com/avantis

**FIRMWARE V1.1**  
AVAILABLE NOW



### **DIRECTOR IS HERE**

Comprehensive Editor and Control software for online and offline use.

### **OPTTRONIK**

New to dPack - direct from dLive OptTronik: Legendary tube-driven, electro-optical compression.



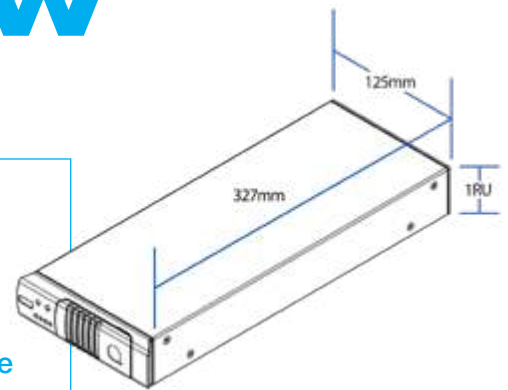
### **NEW FX**

Hotly requested FX from the dLive arsenal. Shape transients. Bring the sub-bass.



## QUEST DELIVERS MODULAR POWER WITH THE NEW QX-300A

Offering a unique modular approach to high-quality power amplification, Melbourne-based audio solutions company Quest Engineering has introduced a new amplifier design aimed firmly at the installation market. The QX-300A is a two-channel power amplifier featuring an agile 1/3RU form factor (allowing 3 units to be mounted in a 1RU space) and modern industry features.



### MULTIPLE CONFIGURATIONS



Based around a custom diecast housing with integrated hybrid thermal dissipation technology, the QX-300A series is a robust 2 x 150W system, with an optional integrated audio networking version also available.

Designed to offer a huge amount of integration flexibility, the QX-300A can be used with a variety of wall and table mount options, or up to 9 units can be mounted in a 3RU configuration, achieving an extremely high power-to-density ratio.

"In 2015, Quest launched the QX-280 Series, aimed at the commercial sound range. Combining a compact design, high performance power, and a semi-modular approach, these amplifiers enabled us to firmly re-establish ourselves in the corporate audio market. To offer a more complete commercial range of amplifiers, and to meet the expectations of audio integrators looking for a practical solution for all types of installations, we customised aspects of the QX-280 and created a fully modular offering in the QX-300 series," explains Managing Director Mark Ladewig.

Featuring superior UMAC Class-D amplifier technology, the QX-300A is able to deliver unparalleled audiophile-grade specifications for its weight and size, including the highest dynamic range and the lowest distortion performance of any comparable pro audio amplifier.

Slav Stepaniak, Quest Electronics Engineer, notes: "The 'D' version of the QX-300 is the first of many Quest amplifiers to feature integrated Dante networking. This allows for convenient deployment of decentralised system designs, ensuring the scalability, flexibility and reliability expected of today's installations."

Designed, engineered, and assembled in Australia, the QX-300A is perfectly suited to a variety of Pro Audio, AV and Hi-Fi applications.

**Australia: Group Technologies**  
[grouptechnologies.com.au](http://grouptechnologies.com.au) or (03) 9354 9133  
**New Zealand: Live Sound**  
[www.livesound.co.nz](http://www.livesound.co.nz) or (09) 378 9863

## Features

- High Performance 2 x 150W Power Amplifier
- Auto Load Sensing: 4-16 Ohm, 70V Line (Stereo)  
100V Line (Bridged-Mono)
- Energy smart technology (Green Energy Star & ERP 1275/2008/EC compliant)
- UMAC Class-D – full bandwidth PWM modulator with ultra-low distortion
- Dante /AES67 inputs available (offered as 'D' version)
- Individual volume control, Standby, 80Hz High Pass Filter
- Short circuit protection, DC protection, Under Voltage protection, Temperature protection, Overload protection
- UREC universal mains Switch Mode power supply with Power Factor Correction (PFC) and integral standby converter
- Rack-mountable 1RU 1/3 space, wall and table mount options available
- Euroblock style amplifier I/O connectors
- High Dynamic range incorporating DynamiQ Bass technology
- Designed, engineered, and assembled in Australia

# WE HAVE YOUR EVENT **BACKDROP** SOLUTIONS



### OUR BRANDS:





## inDESIGN MMP-1

The MMP-1 is a universal remote wall panel featuring three input modes: BT, Line input and USB audio file playback. It can be used as a remote input to distributed audio systems, or on its own connected directly to mixers, amplifiers or speaker systems. Users have the choice to connect the MMP-1 locally in an installed space or connect to devices remotely via inexpensive CAT6A twisted pair cabling.

**Australia:** *NAS nas.solutions or (03) 8756 2600*

**New Zealand:** *NAS nz.nas.solutions or (09) 414 4220*

# NEW GEAR

## OC707

Developed and built in Vienna, the heart of the OC707 is Austrian Audio's cutting edge OCC7 small-diaphragm capsule with True Condenser technology. Austrian Audio's proprietary Open Acoustics design ensures that the signal source is reproduced as resonance-free as possible. This design also serves to reduce the microphone's sensitivity to handling noise and shocks. The switchable 2nd order high-pass filter further enhances these features and can be used for sound-shaping; an effective tool against excessive proximity effects.

## Hi-X60

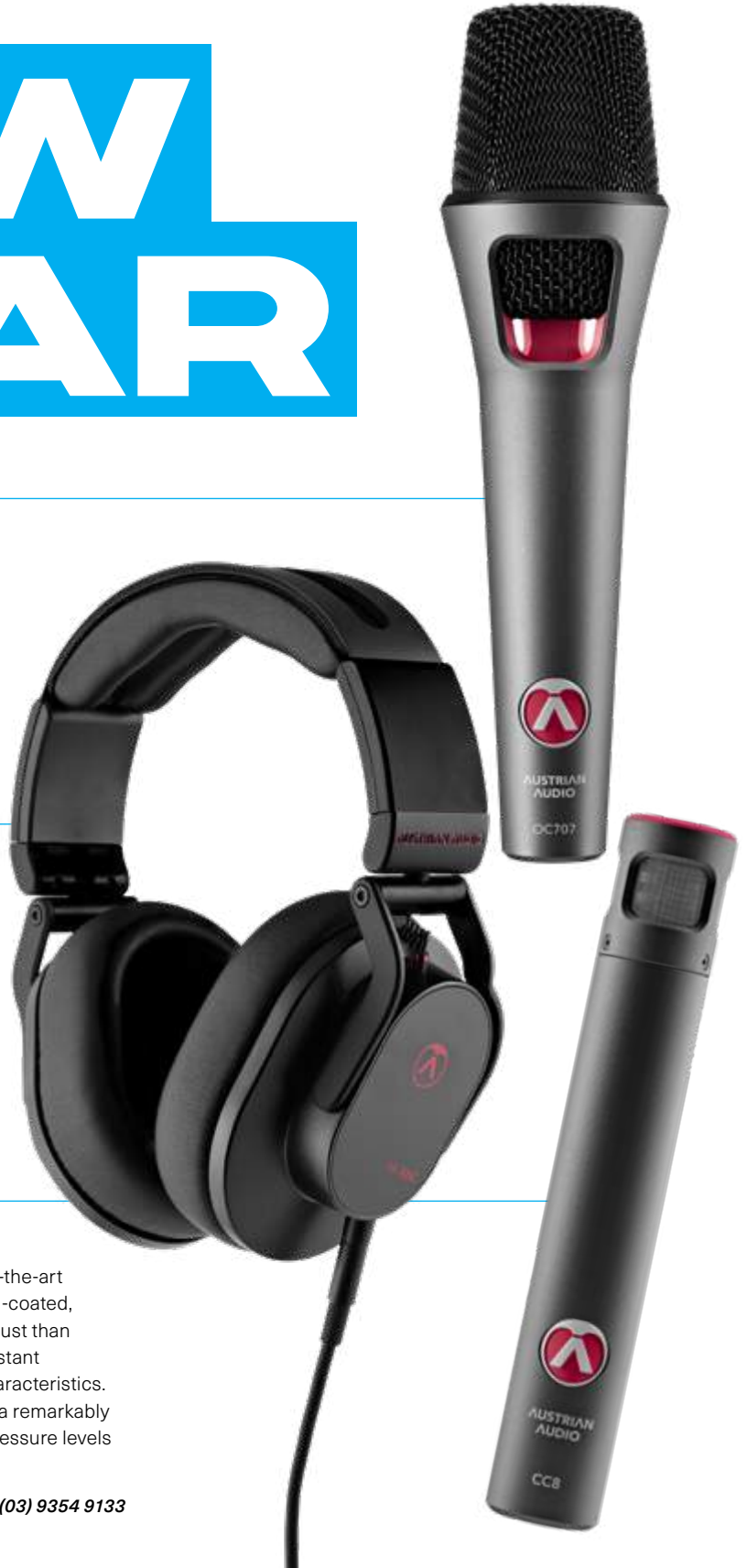
Featuring the pristine sonic signature of the Hi-X6 series, the Hi-X60 is a professional reference headphone system for recording, mixing and mastering. Ideally-suited for use in loud environments, such as the studio or front-of-house, the Hi-X60's closed-back isolation prevents sound from escaping out into the recording environment and interfering with the microphone capture. At FOH the high passive noise suppression ensures an optimum signal-to-noise ratio creating an accurate sonic environment. For instrument or vocal tracking, both features work together to provide the artist with a coherent, healthy signal without leakage.

## CC8

The CC8 is a high-precision cardioid pencil condenser microphone hand-built in Vienna. Perfect for instrument recording, the CC8 is based around Austrian Audio's state-of-the-art OCC7 condenser capsule. The capsule's 3 micron-thick, gold-coated, polyethylene naphthalate (PEN) diaphragm is much more robust than conventional Mylar alternatives. The fabric filter ensures constant broadband cancellation, resulting in outstanding cardioid characteristics. The OCC7 capsule and transformerless output give the CC8 a remarkably linear frequency response, handling extremely high sound pressure levels (SPL) of up to 156 dB without distortion.

**Australia:** *Group Technologies grouptechnologies.com.au or (03) 9354 9133*

**New Zealand:** *Jansen jansen.nz or (09) 377 3663*



## LD Systems IPA 424 T and IPA 412 T

The IPA 424 T and IPA 412 T are professional 4-channel installation amplifiers 4 x 240 W (IPA 424 T) or 4 x 120 W (IPA 412 T) at 4 ohms (transformerless) or 70V/100V outputs with toroidal transformer. They feature a Stereo/Parallel/Bridge mode selector switch per channel pair, 4 priority levels for diverse integration options, and a user-friendly front panel with signal, limit, protection, mute and bridge mode indicators per channel and clipping LEDs for the inputs. They also include a slot for future optional expansion cards for Ethernet or Ethernet + Dante.

**Australia:** AVE [www.avecorp.com.au](http://www.avecorp.com.au) or (03) 9706 5325. **New Zealand:** Direct Imports [directimports.co.nz](http://directimports.co.nz) or (06) 873 0129.



# NEW GEAR

## AVer VB342PRO

The new AVer Video Soundbar VB342PRO delivers unprecedentedly vivid images and clear details, providing a crystal-clear artificial intelligence-powered meeting experience. The VB342PRO is designed to enhance meeting experiences in small and medium-sized rooms. It is equipped with a 4K Pan Tilt Zoom (PTZ) camera and 92-degree field of view (FOV) optical lens with 15x zoom capability to deliver true-to-life video quality.



**Australia:** Amber Technology [www.ambertech.com.au](http://www.ambertech.com.au) or 1800 251 367. **New Zealand:** Amber Technology [www.amber.co.nz](http://www.amber.co.nz) or (09) 443 0753.

## Neumann M 49 V

Microphone connoisseurs around the world have awaited this news for decades: German studio specialist Neumann.Berlin announces a reissue of the legendary M 49. The M 49 V is a reissue according to original specifications and design documents from the Neumann archive. It uses the same circuitry as the last and most popular historical revision, the M 49 c, but with an even lower noise, hand-selected subminiature tube.

Detail improvements have been made to the pattern control unit, which now automatically adapts to the mains voltage and is also compatible with old M 49 microphones. Instead of the old bayonet connector, the M 49 V uses the RF-tight connector of the historic broadcast version M 249. In addition, the M 49 V can be configured via internal switches, either as a made-to-order option or post-sales by Neumann Service.

**Australia:** Sennheiser  
[en-au.sennheiser.com](http://en-au.sennheiser.com) or 1800 648 628  
**New Zealand:** Sennheiser  
[en-nz.sennheiser.com](http://en-nz.sennheiser.com) or (09) 580 0489





# DROWNING IN A SEA OF SYNTHS

## WHERE EVERYONE WOULD LOVE TO DROWN

It doesn't take much to get addicted to synths. Buying and collecting them can be more addictive than crystal meth, and as I've discovered recently, once you develop the habit for these wonky wonders, no-one in your audio fraternity will ever reign you in. The same goes for mics, guitars or preamps, frankly anything that emits, processes or busses a sound.

**Buying and collecting audio gear is a dangerously addictive game.**

And when it comes to addiction, audio producers like me are the most susceptible amongst our human sub-species (which may one day be revealed in our DNA profiles, who knows?)

We can justify anything:

"Oh, I need that mic for a new client, whose voice matches perfectly with the tonal characteristics of this valve mic from the '60s. No other mic seems to suit her voice, unfortunately. The brakes servicing on my car will have to wait."

Or... "Yeah that '70s synth sound can't really be replicated by anything else, let alone a soft-synth. And besides, it's the way I interact with it, the way the electronics smell, and the tactile nature of the instrument that makes all the difference."

Sometimes I even hear myself saying things like: "Well, yeah, I'm not a great player, that's

why I need so many different sounds around me. I'm inspired by new sounds and can quickly identify what will work in a song and what won't!"

Need I go on?

I'll admit it. I'm currently in the grip of a synth buying frenzy (as are some of my muso mates). I want to qualify this statement already, of course, by saying that I haven't actually bought that many. But somehow this sounds like the addiction talking.

I've tried to stop myself... hell, I even bought a 12-string guitar the other day to break the habit. But it didn't help. So then I bought a few cymbals. That didn't work either. It seems buying other audio equipment isn't really the solution... surprisingly.

Another insight into my addiction is my susceptibility to the opinions of total strangers. For example, just before I started

writing this article, I jotted down the Top 10 list of '80s favourites that some guy in Germany prefers. I don't know him, I have no idea what he's ever produced, but his opinion somehow matters right now.

As I say, I'm not well.

So what is this all about really?

I am, in all honesty, quite torn between the need (or desire) to hear new sounds, and the reluctance to build another building next door to house all this crap! I'm currently drowning in keyboards: some of which I've had for decades, some are old '70s and '80s icons that I've recently acquired, while others are brand new. I even have a pile of busted ones that I can't seem to turf.

The problem is that no amount of purchasing seems to sate my so-called 'need' to add new sounds to my production arsenal. Indeed, the more I delve into the world of hardware

synthesis, the more addicted I become. For example, I recently bought an old Juno 106 to have that old familiar '80s string sound at my fingertips. But has it provided me sonic-pad contentment? No (although I have used it on a few recordings already). On the contrary, now I seem hell-bent on acquiring every synth that ever uttered a sound similar.

I certainly don't 'need' all of them for work, that's clear. I don't need a Roland Juno 106 plus a Juno 60, plus a JX-3P and a JX-8P. Nor can I afford all of them anyway, even if I could justify them, which I can't.

## Drawing The Line

When it comes to audio equipment, I've had enough experience of the industry by now to know that we're all susceptible in some way to wanting stuff either because it sounds great, looks great, feels great, or gets the job done.

The problem is that there's no line we cannot cross; no amount of gear that is too much gear. For instance, who among us would say that 10 mics is too many? If you're recording bands in the studio, maybe it's 20. Maybe it's 50. And how many guitars or synths is too many, particularly if you're a producer or an exceptional musician? Is it three or 300? I once visited Bill Joe Armstrong's studio of Green Day fame and he had about 600 guitars! But did I think that was too many... well, it crossed my mind, but in the end, no. I thought not.

That's why we all frequently see so many pictures of the best studios, producers, musos and engineers surrounded by their respective hoard of gear, like cool cave trolls or Smaug. We rarely see audio gurus pictured with one synth or a single guitar, one preamp or a cheap microphone... it's always dozens.

And like all these candidates inadvertently vying for Most Addicted Audio Hoarder of

2022, we all want more gear, more sounds, more facilities, more plug-ins, more guitars... but no matter how much stuff we acquire, there will always be thousands of other pieces of Aztec Gold buried somewhere for us to dig up.

So where do we draw our own line, and frankly, who among us wants to?

Well, I think, in the end, we've all got to realise that there's a tipping point, over which we cease to be the person we once identified with.

For instance, you might have been a music producer at some point, but maybe now you're just a collector. Do you use all the gear you buy, or do you just boast about owning it at dinner parties? Maybe you were a great musician once upon a time, but perhaps now you're just another struggling studio owner.

Speaking from personal experience, my great concern in all of this is that I end up with so many new instruments that I am paralysed by options rather than liberated by them. Already I'm aware that a couple of the synths I was so excited to have acquired recently are gathering dust in the corner because five more have entered the fray since. It's all horses for courses no doubt, they will get used soon enough, but maybe I've already crossed a line into territory I always swore to avoid. Maybe I'm becoming a collector? Surely not.

In the end it's about productivity; what you achieve with what you've got, not how much stuff you acquire. If your pursuit is music and production, not gear per se, then try to avoid letting the acquisition of equipment become your focus. Buying too much audio gear, whether it be recording paraphernalia or musical instruments, can quickly pull you away from your main ambition, sometimes accidentally.

A good rule of thumb is to judge how much benefit you gain from a single piece of new gear, be it an old synth or a new microphone. If you use your new purchase all the time and find its benefits beyond question, then that gear supports your primary ambition. If, on the other hand, it sits in the corner and becomes nothing more than a thing you boast about owning, then that may well be something to consider selling. When you keep something like that for long enough eventually it starts to turn you into someone else... a collector maybe.

One thing is certain in this professional audio caper: the amount of gear you own is not necessarily proportionate to how much you earn in your professional role. You may literally spend another \$100,000 on equipment without being able to charge one more cent for your services! There aren't too many other viable businesses that spring quickly to mind that can boast this poor return on a capital investment.

So it pays to keep your addictive tendencies at bay as much as possible in this game. Sure, you'll always want more stuff, and no doubt you will acquire more objects of desire as the years roll by (I know I will). Just be careful not to get too carried away with purchasing them for their own sake. If you collect too many pieces of gear, don't use them nearly often enough, and bore the socks off others by inferring that simply owning them is cool (when in fact only using them is), then you may just be morphing into someone else.

Is that person really who you want to be?

[Andy Stewart owns and operates The Mill studio in Victoria, a world-class production, mixing and mastering facility. He's happy to respond to any pleas for pro audio help... contact him at: \[andy@themill.net.au\]\(mailto:andy@themill.net.au\) or visit: \[www.themillstudio.com.au\]\(http://www.themillstudio.com.au\)](#)



**THE LOOK**  
D R A P E H I R E  
[www.thelook-sydney.com](http://www.thelook-sydney.com)

17 Greenfield St Banksmeadow NSW 2019  
Email [mail@thelook-sydney.com](mailto:mail@thelook-sydney.com) • Ph 02 9797 6068 • Fax 02 9798 9243

# CAN DINOSAURS OPEN THE DOOR TO AR FOR LIVE AUDIENCES IN NZ?

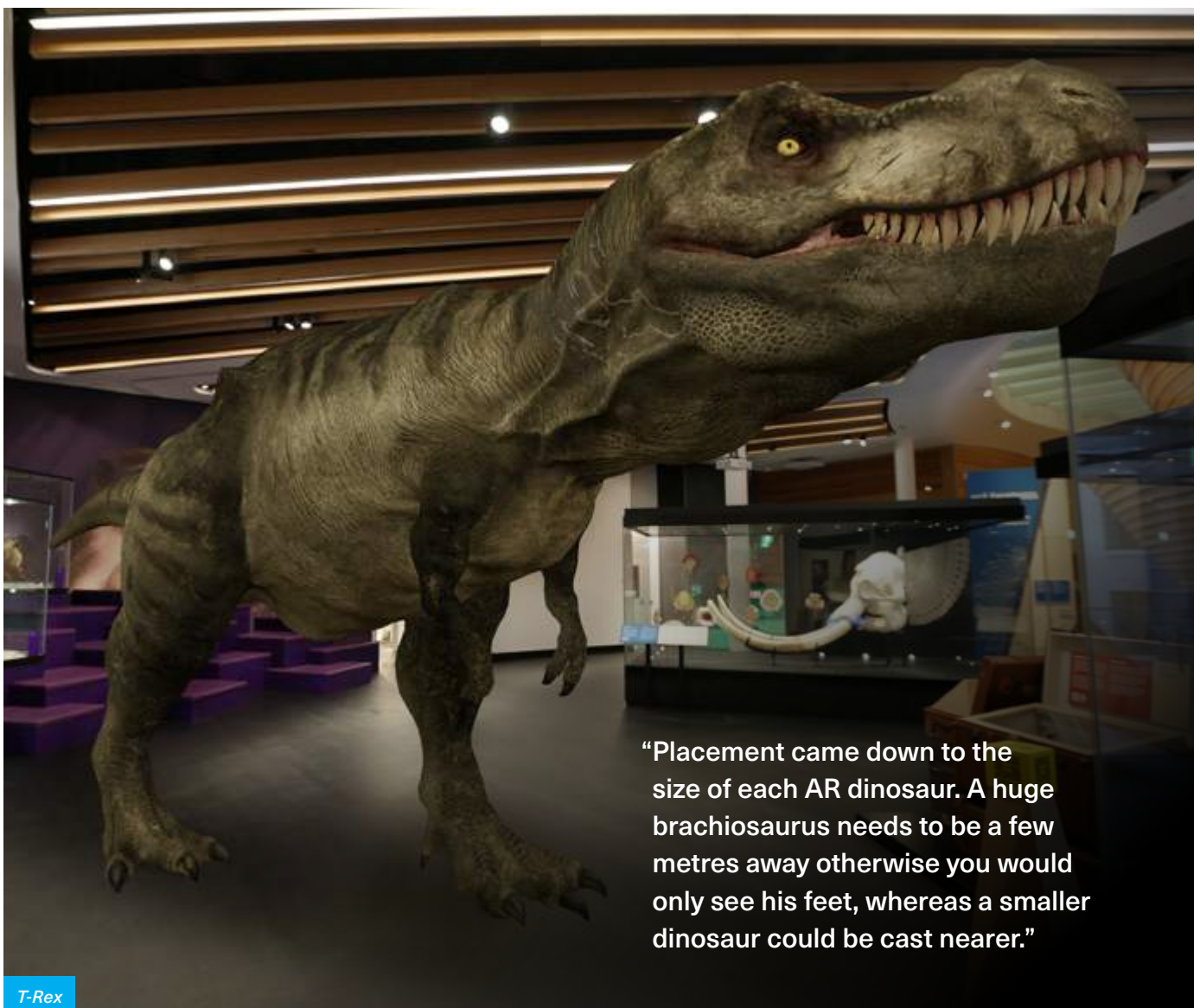
As the Coachellaverse launches and LiveNation and Snap partner to embed AR into a series of festivals and concerts across the USA, leading NZ digital creation agency Satellite demonstrate that ‘the magic is achievable’ by setting six full-scale dinosaurs loose in Auckland Museum.

The big concerts and festivals in the US have been experimenting with augmented reality (AR). Coachella partnered with Unreal Engine, the Epic Games 3D software development tool, to create a livestream with massive psychedelic 3D images blending in with Flume’s stage design and set, visible only to the at-home viewers. For

the festival attendees, a Coachellaverse app offered Coachella-themed AR effects and immersive Instagram filters were developed in collaboration with a number of Spark AR creators.

Snapchat and Live Nation also launched a series of AR experiences beginning with EDC 2022, the Electric Daisy Carnival, bringing

EDC’s iconic owl to life in the sky and daisies sprouting around festivalgoers’ feet. Not necessarily adding anything to the music, but a promoter’s dream as audiences Snapped and shared. Lollapalooza in Chicago, Wireless Festival in London, Rolling Loud in Miami and The Governors Ball in New York all featured AR.



“Placement came down to the size of each AR dinosaur. A huge brachiosaurus needs to be a few metres away otherwise you would only see his feet, whereas a smaller dinosaur could be cast nearer.”

T-Rex



Ankylosaurus

### The question is; how doable is it in New Zealand?

Satellite, a digital innovation, activation, event and content creation agency, recently partnered with Auckland Museum to create an AR experience to complement 'Peter', a twelve metre long, four metre high T-Rex skeleton currently on loan from the USA. Not only containing real bones, as opposed to

the more common place replicas found in museums, this skeleton is a stunning black colour due to mineral deposits on the bones, one of only four ever discovered.

"We have a close working relationship with the Museum, collaborating on projects a couple of times a year. The Museum team knew what they wanted; six true to life AR dinosaurs located throughout the exhibition," explains Bryn Irwin, Satellite's Head of

Production. "They were also adamant that there were as few barriers as possible; no apps to download or log ins."

Satellite were in agreement on removing an app from the equation, having found on previous AR projects that no matter how clever the AR component, it has to be easily accessible, "We did our homework and offered the Museum two options. We researched an open-source solution which

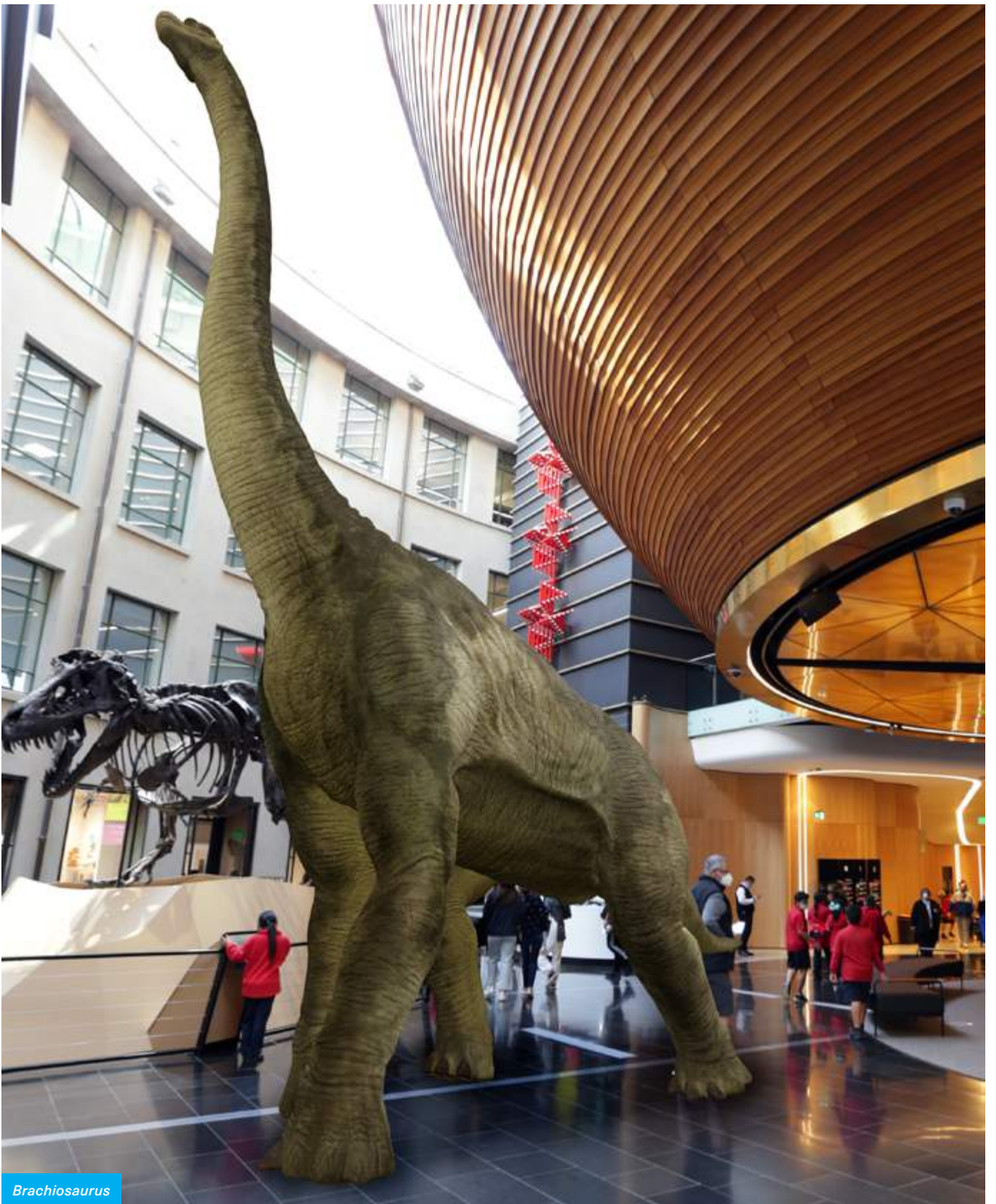
**AXIOM**  
YOUR SOUND PARTNER

Designed Engineered Manufactured  
MADE MADE MADE  
In Italy

AXIOM is a brand of PROEL SPA  
axiomproaudio.com

Exclusively distributed by: **AVE**  
AUDIO VISUAL ENGINEERING

03 9706 5325  
sales@avecorp.com.au  
avecorp.com.au



Brachiosaurus

was cheaper but with less certainty around the end result, and we approached a third party company, 8th Wall, who offer a browser based AR platform, at discounted rates for a charitable trust." The Museum went for the latter option and Satellite started work, partnering with 8th Wall.

"The 8th Wall platform hosts your AR objects and provides an existing set of libraries and code to support the placement of the physical objects. We sourced vector-based 3D models

of the dinosaurs online and then used our 3D rendering software to add animation and ensure that they were factually accurate. We wanted them as near to life-size as we could achieve whilst considering the practicalities of where they were to be located."

The main challenges were the lighting and placement, "The lighting was complicated by the different light levels in the various locations across the exhibition; some very dim, some quite bright. We coded the lighting

outside of our 3D rendering software to make it easier to tweak."

"Placement came down to the size of each AR dinosaur. A huge brachiosaurus needs to be a few metres away otherwise you would only see his feet, whereas a smaller dinosaur could be cast nearer. To support users with positioning the models, we used a static photo including a wireframe of the dinosaur during loading."

The Museum set up plinths with QR codes that could be scanned to reveal the dinosaurs, capitalising on the wide adoption of QR codes in recent times.

**“Anecdotally, it has been a resounding success. Everybody is delighted and enjoying photobombing the dinosaurs! It is the Museum’s first ever AR experience and has given them the confidence to experiment further.”**

If it sounds straightforward, that’s because it was. “AR is pretty basic. It doesn’t take months and months of planning. Assets already exist and the barriers are getting less and less. Yes, there is some cost involved but that is coming down too. You just need the right creative and development skills. I knew which of our developers to choose right away. He has a background in the visual space and was passionate about AR. All the costs are upfront too, bar 8th Wall’s monthly hosting fee, so extending the life of the project is simple.”

Bryn acknowledges that two of the potential risks of using AR at a larger live event, bandwidth and overloading the website, are mitigated by a museum environment, “We

compressed the objects down to 10MB, but visitors can use museum Wi-Fi too. And the maximum number of concurrent users is relatively small. For larger audiences, 8th Wall would need to scale their service to meet demand and there would be a cost against that, but it is still doable. And with 5G potentially accessible at stadiums, it is just a matter of the target audience upgrading their phones.”

Doable is Bryn’s AR mantra. As well as the ‘EDC-esque’ AR objects flying in the sky over a concert, he cites examples such as AR treasure hunts at trade shows where you unlock five objects and receive a free gift, or placing AR objects in your own space. U2 sat on your settee! The Satellite team are confident that they have the capability here and in Australia, where Satellite already has strong relationships with Coca-Cola, Telstra, and Monash University, to pull off AR in a large-scale live entertainment environment, “It just comes down to skills and creativity.”

For the Satellite team the barriers have already fallen or are falling by the wayside. No need to download an app, assets galore online, audience familiarity with QR codes, hosting platforms that can scale up for larger numbers, the ongoing roll out of 5G, and the increasing take up of 5G phones.

It is time to start planning.



Bryn Irwin

**CHAUVET 3**

**Shine bright in any weather**

SlimPAR Pro Q IP    Freedom Flex H4IP x5    Festoon 2 RGB    Freedom Gobo IP

COLORband Q4 IP

#LightWhatYouDo    CHAUVETDJ.com

# D&B AUDIOTECHNIK V-SERIES DELIVERS BIG BOX SOUND AT PRIVATE THE KILLERS GIG



**Melbourne's Front of House Productions provided full production for a corporate gig for Liberty Financial Group's 25th company anniversary at Reunion Park, headlined by US band The Killers and supported by Ben Lee and The Veronicas.**

The Killers, who have not toured Australia since 2018, flew in especially for this gig, tying it in with promotional interviews for their new single and Australian arena tour later in the year.

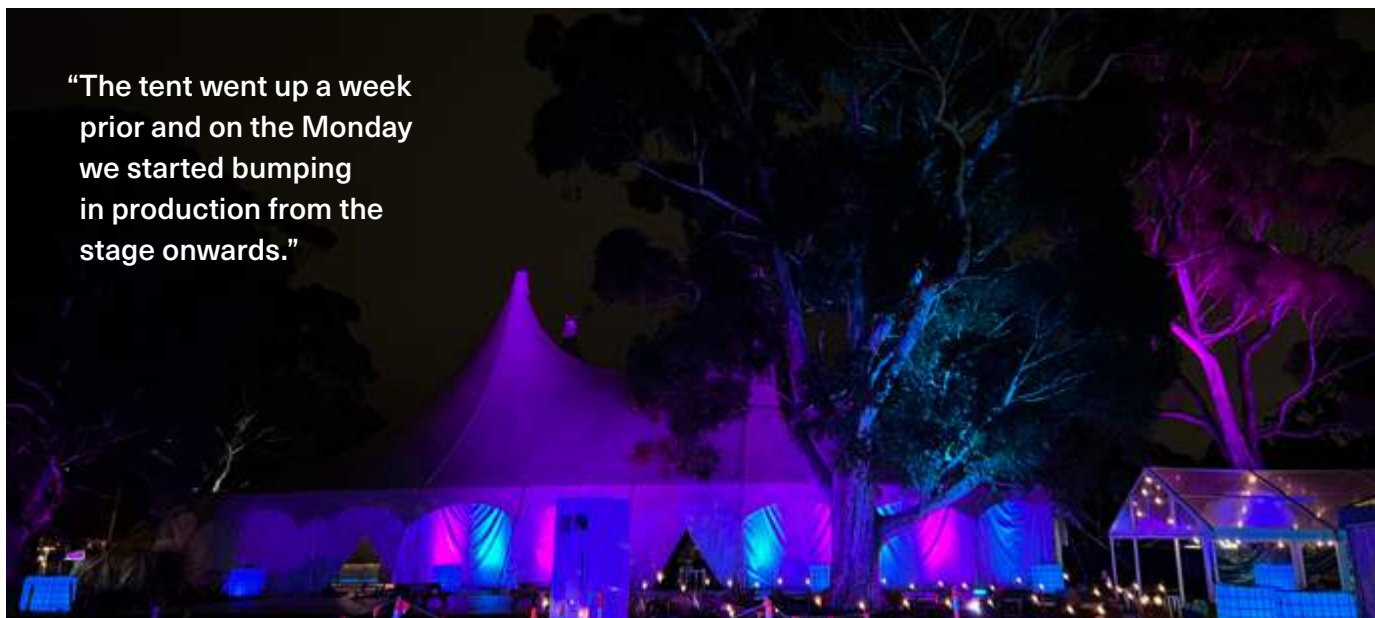
Front of House Production (FOHP) have a close relationship with events company Greenfields, until recently Velodrome Events, who are investing heavily in Melbourne's newest pop-up outdoor live music and performance venue, Reunion Park.

Systems Engineer Jesse Mahoney, who joined FOHP in January, talks us through the no-expense-spared birthday party for Liberty's guests and employees, "We basically looked after everything on site for Greenfields, same as we had for a couple of festivals that launched Reunion Park in March of this year. Greenfields produced the event and we production managed, handling the audio, lighting, video, and the architectural site lighting to beautify what is essentially a patch

of dirt – or a patch of mud in the case of this event!"

"The tent went up a week prior and on the Monday we started bumping in production from the stage onwards. The AV build was Wednesday and Thursday, with the gig on Friday. Then it was pack out." The scaffold stage and big scaffold towers were used to hold the PA, lighting and the IMAG video elements, "The tent didn't hold anything other than suspending the aerial performers who

**“The tent went up a week prior and on the Monday we started bumping in production from the stage onwards.”**



flew in the midst of crowd.” Then there was the pyro – four confetti cannons for The Killers and twenty-four streamer shots for the happy birthday moment, “It was a lot of production!”

Jesse’s focus was the audio, “We used the d&b audiotechnik V-Series which we’ve had for about five years and recently expanded from 24 boxes to 32 thanks to NAS Solutions, the Australian d&b audiotechnik distributor. I used 24, 12 each side, plus six a side flown V-SUBS as the low frequency extension of the V and six J-INFRA cardioid A subwoofers on the ground. It was all ArrayProcessed on D20s and D80s.”

d&b audiotechnik’s ArrayProcessing is an

optional software function within the d&b ArrayCalc simulation software. It uses an optimisation algorithm to determine tailored filters to help control the behavior of a d&b line array system across an entire listening area. ArrayProcessing can be applied to all GSL-Series, J-Series, V-Series, Y-Series and T-Series line array systems.

Jesse was very pleased with the sound, “The ArrayProcessing was magnificent. For a smaller box, the power output per channel of V plus flown V-SUBS is a really economical way to get the big d&b big box sound. Flying the V-SUBS next to them takes the whole array down into the sub-frequencies the same way it

would if it was a bigger box like a KSL, for less channel count.”

“It was really good. This is the first time I’ve put it up and thought, yes, this is the way it is supposed to be. We are always struggling with amp channel count because it is very difficult to buy new amplifiers at the moment. We bought some more D20s just so that we could ArrayProcess this particular gig. We had six D80s and eight D20s so it was really quite efficient on the amp channels, with two racks a side. A big sound for a small number of amps.”

For Jesse it was the ArrayProcessing that took everything to the next level, and not just in



terms of coverage, "They don't tout it enough but when you are ArrayProcessing a PA, if the PA has got the right number of boxes and has been physically deployed correctly, any array will be voiced exactly the same as any other one. You can have a main hang that is very flat and very deep next to a side hang that is very heavily curved and when they are both ArrayProcessed they will be voiced exactly the same. In terms of blending sources into each other it is incredibly consistent from hang to hang, and area to area, not just the coverage zone from the front to the back of the listening field. I'm a systems engineer so I move from gig to gig all the time and I've got a sonic signature that I expect the PA to hit. When you are ArrayProcessing you get that every single time you put it up. You don't have to EQ or fight the PA to get it into that same space like you normally do with unprocessed systems. As a systems engineer that consistency is extremely satisfying."

FOHP provided the Shure PSM 1000 in-ear





monitoring system and used the DiGiCo SD 10 and SD11 for the support acts whilst The Killers used d&b M2 wedges and the Solid State Logic L500 console, "They had their own FOH guy who was doing the work of three as they usually travel with a monitor person for the lead singer, a second monitor person for playback and ears for the band, and a FOH person. He did very well but he was sweating! We made sure that he was comfortable the whole way through, trying to make it happen for him before he asked."

Jesse was also impressed with the IMAG and the lighting, "It was visually pretty spectacular with interactive video elements such as pinball machines, a pinball arcade set up off to the

side, a four metre wide blow-up ball in the roof, and we built cube wall structures out of fifty-six water drums and put LED lighting in them which was really effective." FOHP had recently invested in a wide range of new lighting product and much of it was put to use at this prestigious event.

Finally like any festival worth its salt there was the mud, "There was a lot of rain and the internal area of the tent was laid with track mat and carpet. We all spent a lot of time wiping our boots and taking our shoes off to try and keep the inside immaculate whilst outside we were sinking in a mud pit!"

## THE GEAR

### Main Tent

- 2 x MA Lighting grandMA2 light
- 1 x GrandMA2 8 Port node
- 2 x Look Solution Unique 2.1 Hazer
- 16 x ShowPRO Duet LED Blinder
- 16 x ShowPRO Pluto 800 Wash
- 24 x ShowPRO Pluto 4000 Wash
- 8 x ShowPRO Pluto 350 Spot
- 8 x ShowPRO Pluto 250 Hybrid
- 18 x Martin Mac Viper Profile
- 32 x ShowPRO Dreampix Tubes (16 per side)

### Site Lighting

- 1 x GrandMA2 Command/Faderwing
- 1 x Wireless Solutions BlackBox F-1 G6
- 30 x ShowPRO FusionPAR Q XII
- 56 x ShowPRO LED PAR Quad-18
- 2 x ShowPRO Neptune 400 FX Wash

### Vision

- 210 x 500mm x 1000mm P4.8 Led Screen
- 1x 11m x 5m US LED Screen (with 4K Processing)
- 2x 2.5m x 4m IMAG Screens
- 1x 10m x 3m Interactive Zone
- Cameras And Vision Switching provided by Eventful Productions
- 1 x Tricaster TC2
- 1 x NewTek 2 Stripe Switcher Controller
- 4 x Blackmagic Design URSA Broadcast Cameras with SMTE & Broadcast Lenses
- 1 x Blackmagic design CCU Controller
- 2 x Birddog P200 PTZ Cameras with Keyboard Controller



# SCAN SUBSCRIBE AND WIN

Scan the QR code here, subscribe to the CX print magazine and you could WIN BIG with Jands!



Celebrating 53 years of Jands 'Setting the Stage', every subscriber to the print edition of CX Magazine from October 2022 to September 2023 will go into a monthly prize draw to win a prize from Jands, culminating in a huge Grand Prize draw in October 2023!\* (prize TBA soon)

Every edition until October 2023 will feature a centrefold drawing from Jands' past, present, and future. The Grand Prize winner will also get a custom printed copy of all 11 centrefolds, and a lifetime subscription to CX.\*

## Check out the next 3 months of prizes up for grabs!

### OCTOBER

Shure AONIC 50 Headphones in black + Shure MV7 Podcast Kit

*Prize valued at \$978*



### NOVEMBER

Pioneer DJ FLX6 4-channel DJ controller

*Prize valued at \$1,369*



### DECEMBER

2 x KRK Rokit Classic 5s powered studio monitors

*Prize valued at \$718*



\*Full Terms and Conditions can be found at our website: [www.cxnetwork.com.au/cx-magazine-subscribe/](http://www.cxnetwork.com.au/cx-magazine-subscribe/)

JANDS





**JANDS**  
*Setting The Stage for*

**53**  
**YEARS**



**Back Row:** Howard Page, Edward Robinson, (Unknown), Robert Young, Dennis Braham, Eric Robinson, Vagn Stenvei, Phillip Storey, Paul Mulholland **Front Row:** David Mulholland, Peter Rooney, Bob Grosvenor

# JANDS, 1974

The first Jands factory at 39 Chalder St, Marrickville, NSW

**Brothers David and Paul Mulholland and school friend Eric Robinson bought what was J and S Research Electronics on November 27, 1970 from founders Bruce Jackson (the 'J' in Jands) and Phil Storey (the 'S'). What was now Jands was operating out of a small upstairs flat in Rose Bay, a storage facility two miles away, and a woodshop in Redfern. After six months of struggling with this arrangement, the new owners bit the bullet and went looking for a factory to rent.**

Marrickville was identified as being affordable, and the young company took up a lease of 5,000 square feet at 39 Chandler Street. Jands were manufacturing PAs for their own use as a rental and production company; horn loaded sound systems fitted with JBL drivers. In addition to providing sound for concerts and festivals, they started manufacturing PAs to sell to bands and venues. They made their own amplifiers, mixing desks, and lighting equipment. Their gear was going out on shows all around Australia.

Reminiscing about the early 70s at Chandler Street, chairman of Jands Paul Mulholland remembers the first tour by an international act they landed. "We were doing an afternoon show in Sydney, and the promoter told me side stage that they

were performing in Melbourne that night and needed the PA down there," recalls Paul. "We suggested this was impossible. The promoter called over his assistant, who asked what the problem was. When we explained, he took out a gun and asked if this solved the problem. A truck then turned up, we loaded the PA in record time, and it went to the airport and on to Melbourne. The crew did the show that night."

Around the same time, Jands were engaged to run production on a "godawful" festival south of Sydney. "It wasn't going well," recounts Paul. "It was pouring with rain, there weren't enough people turning up, and it looked like it was going to be cancelled. That was a problem, because we couldn't afford to not get paid. The first night of the festival, we told the promoter

that he owed us and it was time to pay up. He told us to come back tomorrow. We said, "No, the deal was you pay when we arrive. We're here, the system's working, and the show's on."

"It was the 1970s, so everything was done with cash," continues Paul. "They pulled cash out of the ticket sales office and gave it to us. They paid us around \$1,000, and in the early 1970s that was a LOT of money. There was no security, there were bikies around and people wandering everywhere. We didn't know how to keep the money safe. So, we got one of the little 'silver bullet' type ring radiator tweeters off the top of the PA stack, put the money inside it, screwed it shut, and put it back on the PA. The cash stayed there until we got back to the factory and pulled it out. If someone had stolen that tweeter..."

Back in Marrickville, things could get just as colourful. "There never seemed to be anything going on in the factory next door during the day," remembers Paul. "But if we were dropping our gear off late on a Friday or Saturday night, the factory was all lit up. It was only one morning, when the cops arrived and interviewed everyone at Jands after there'd been a murder in a back lane in Marrickville, that they told us that it was illegal gambling."

# JANDS

## TRAINING SCHOOLS

**05**  
OCT

### Ampetronic Installer Training

Facilitator: Jacob Mumford  
Duration: 1 day  
Fees: \$95  
Location: Melbourne

**06**  
OCT

### Shure Advanced Wireless Training

Facilitator: Scott Harrison  
Duration: 1 day  
Fees: \$95  
Location: Melbourne

**18**  
OCT

### ETC - Level 1

Facilitator: Simon Tye  
Duration: 2 days  
Fees: \$95  
Location: Sydney

**19**  
OCT

### ETC - Level 2

Facilitator: Simon Tye  
Duration: 2 days  
Fees: \$95  
Location: Sydney

**19**  
OCT

### Biamp Tesira

Facilitator: Samuel Drury  
Duration: 1 day  
Fees: \$95  
Location: Melbourne

**20**  
OCT

### Biamp AV Networking

Facilitator: Samuel Drury  
Duration: 1 day  
Fees: \$95  
Location: Melbourne

**08**  
NOV

### Ampetronic Installer Training

Facilitator: Jacob Mumford  
Duration: 1 day  
Fees: \$95  
Location: Sydney

**08**  
NOV

### Biamp Tesira

Facilitator: Samuel Drury  
Duration: 1 day  
Fees: \$95  
Location: Auckland

**10**  
NOV

### Biamp Tesira

Facilitator: Samuel Drury  
Duration: 1 day  
Fees: \$95  
Location: Wellington

**16**  
NOV

### Shure Advanced Wireless Training

Facilitator: Scott Harrison  
Duration: 1 day  
Fees: \$95  
Location: Brisbane

**30**  
NOV

### Shure Advanced Wireless Training

Facilitator: Scott Harrison  
Duration: 1 day  
Fees: \$95  
Location: Adelaide

**06**  
DEC

### Biamp Tesira Practical Principles

Facilitator: Samuel Drury  
Duration: 1 day  
Fees: \$95  
Location: Sydney

**06**  
DEC

### ETC - Level 1

Facilitator: Simon Tye  
Duration: 1 day  
Fees: \$95  
Location: Brisbane

**07**  
DEC

### ETC - Level 2

Facilitator: Simon Tye  
Duration: 2 days  
Fees: \$95  
Location: Brisbane

**08**  
DEC

### Biamp AV Networking

Facilitator: Samuel Drury  
Duration: 1 day  
Fees: \$95  
Location: Sydney

For all enquires, contact **Bhargavi Shah**  
at [bshah@jands.com.au](mailto:bshah@jands.com.au)

FIND OUT  
MORE



**JANDS**

AUDIO  
LIGHTING  
STAGING

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

# ENTECH

R O A D S H O W

## 2022 SHOW GUIDE

Whether you're reading this digitally before ENTECH Roadshow rolls around Australia, or you've just picked up a copy at the ENTECH registration desk or Café, welcome back to ENTECH!

We were devastated when ENTECH was forced to close halfway through its run around Australia in March 2020. We were even more despondent when it was forced to cancel completely in 2021. But it makes this 2022 comeback all the sweeter!

ENTECH kicks off at The Concourse, Chatswood, Sydney on Monday 10 October. Wednesday 12 October sees it roll into the Melbourne Convention and Exhibition Centre's Bay 22 (near Goldfields) before heading up to

Brisbane's RICC at RNA – Showgrounds on Monday October 17th.

Doors open at 11 am in each city, and the training theatres on the show floor start at 11.30am. The legendary Chameleon Happy Hour kicks off at 4:30 pm with giveaways and prizes, and the show closes at 6 pm.

If you haven't already, register here: <https://regonsite.eventsair.com/entech-2022/reg/Site/Register>



## JANDS ARE CELEBRATING!

This year marks a very special milestone, as ENTECH major sponsor Jands celebrate 53 years of 'Setting The Stage'. *(This was meant to be a 50th celebration, but you all know what happened...)*

To mark the occasion, Jands are touring some choice pieces from their long history of manufacturing, which currently reside at the Eric Robinson Memorial Town Hall at Jands HQ in Sydney. Expect vintage mixing desks, lighting consoles and more – and you never know, you might have actually used one of the pieces on display at a show! There's some serious Australian production history to be seen, and you'd be mad to miss it.

Jands are also celebrating in CX Magazine! This edition kicks off 11 editions that will run with a Jands centrefold and subscriber giveaway, capping off with a MASSIVE grand prize giveaway in October 2023 (prize TBA soon!) Each month, a subscriber to the print magazine will win a prize from Jands. Every print subscriber will go into the draw to win the Grand Prize. They'll also win custom prints of all 11 centrefolds, and a lifetime subscription to CX\*!

Check out the next 3 months of prizes up for grabs...



### OCTOBER

Shure AONIC 50 Headphones in black + Shure MV7 Podcast Kit

Prize valued at \$978



### NOVEMBER

Pioneer DJ FLX6 4-channel DJ controller

Prize valued at \$1,369



### DECEMBER

2 x KRK Rokit Classic 5s powered studio monitors

Prize valued at \$718

## JANDS

Setting The Stage for

# 53

---

## YEARS

Scan the QR code  
& Subscribe to CX  
Print Mag for your  
chance to WIN!



\*Competition open to CX Print Subscriptions only. Full Ts&Cs can be found at our website: [www.cxnetwork.com.au](http://www.cxnetwork.com.au)

# AMBER TECHNOLOGY

The Amber Technology display will feature some of its recently launched products as well as a selection of top picks from its range of leading brands.



## Digital Projection Satellite Modular Laser System (MLS)

The Satellite Modular Laser System offers simple building blocks that lets users address a range of applications, from single projector installations to complex, multi-channel domes, caves, and simulators. The projector 'head' is compact, quiet, lightweight, and consumes little power, offering benefits across system design, transportation, installation, serviceability, and lifespan.



## Australian Monitor ZONEMIX

This is a next-generation zoning, paging, and control solution for projects seeking a flexible, competitively priced audio control system. ZONEMIX is a highly customisable audio mixer and paging system, and includes two audio mixers, various wall controllers, and programmable paging stations.



## Solid State Logic L200 Plus console

This mid-scale production console for music, broadcast, and film features the next-generation optimal core processing (OCP) technology to provide an extremely flexible I/O architecture and great DSP resource allocation. Its design is driven by ergonomic considerations, so all essential controls are within easy reach, while its unique layout also means screen arms or laptop mounts can be attached to either side of the console for a compact yet versatile working environment.

## DPA microphones

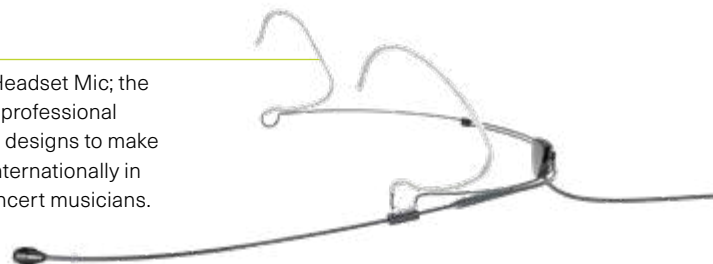
On display will be a range of DPA microphones, including: the 4466 CORE Omni Headset Mic; the 4488 CORE Directional Headset Mic; and the 4055 Kick Drum Microphone. Each professional microphone and headset is developed through ingenious engineering and robust designs to make DPA the professional microphone of choice in both local productions as well as internationally in Hollywood productions, Broadway musicals, international broadcasts, and for concert musicians.

Radical Engineering, Neutrik, and Rock N Roller will also be included in the Amber Technology display.



## Renkus Heinz ICLive X

Bringing a new level of flexibility to performance sound for integrators, contractors, and rental and staging companies, the ICLive X Series is the latest evolution of the medium-format, steerable line array. With its flexibility, coupled with being the most versatile, high-powered, steerable line array in the market, the ICLive X Series is suitable for nearly any live sound application.



Astera will be represented on a dedicated stand, showcasing the full range of their wireless technology for film, stage, and event lighting professionals. Amongst the popular Titan, Helios & Hyperion Tubes, NYX Bulbs & PixelBar battens, will also be the highly anticipated new fixtures – Astera HydraPanel, AX9 PowerPAR and the multi-purpose PixelBrick.

**ASTERA**



### HydraPanel

Mount anywhere, light anything. Small LED panel for flexible film and studio illumination. Beam shaping with six included light modifiers and a large range of mounting options make HydraPanel more flexible than any other product in its class. The full-spectrum Titan LED Engine generates an impressive 1300 Lumen output while running on battery power.



### PixelBrick

Multi-purpose uplight with the ability to build shapes. Say hello to Astera's next-generation multi-purpose light. In addition to being a battery-powered uplight and spotlight with 5 different beam options, multiple PixelBricks can be connected to form clusters and shapes. With about 10cm edge length and 1kg weight, it is small and lightweight while still featuring a powerful output of high-quality light which meets the highest demands of film, TV and stage clients.



### AX9 PowerPAR

Extremely bright and flexible 3-in-1 PowerPAR. The AX9 utilises the AX5's successful 3-in-1 concept which allows it to be used as wireless light and elegant uplight as well as a wired PAR light for longer or bigger installations. This makes it an extremely cost-efficient light and keeps your investment to a minimum. The AX9 packs extreme brightness in a compact and light housing while still giving you industry-leading colours and white tones thanks to its Titan LED Engine.



## EXCITING NEW PRODUCT RELEASES 2022



GEMINI



LYRA



EYES SERIES



AECO 5



PIXE LINE IP

## PROFESSIONAL LIGHTING TECHNOLOGY

▸ DYNAMIC ▸ RELIABLE ▸ AFFORDABLE ▸ LOCAL SERVICE & SUPPORT

## 3 YEAR WARRANTY



CONTACT OUR TEAM FOR MORE DETAILS  
 AUS 1300 852 476 | NZ 09 218 6532 | info@ulagroup.com | ulagroup.com

# AUDIO BRANDS AUSTRALIA

Audio Brands Australia's highlights include the new FBT X-LITE and X-SUB self-powered speakers and X-PRO stage monitor, the NETGEAR AV Line of 'AV Ready' Ethernet switches, and new MIPRO wireless mics, IEMs, and portable PAs.

Making its ENTECH debut is Optimal Audio, with a range of zone processors, amplifiers and speakers designed for the hospitality market. Other brands on show include Earthworks, where a selection of vocal and instrument mics will be on display, and 4 and 8 channel power amplifiers and a speaker processor from Linea Research. Selected products from Bosch, EV and Dynacord will be on the stand, along with talkback and comms solutions from RTS and Univox. Last but not least, a selection of PTZ cameras and controllers along with some HDMI products from Alfatron will be on display.

The team at Audio Brands are very much looking forward to ENTECH and meeting with customers, old and new!

AVECORP

AVE is excited about having all your favourite products that you know and love on display along with some new additions, such as the recently announced IP65-rated ColorBand Q4 IP, the SlimPAR Pro Q IP and Slimpar PRO Pix from Chauvet DJ, as well as the outdoor-rated Zenit W600SMD wash and the OTOS H5 moving head from Cameo.

Not only will we have three key products from Axiom Pro Audio (our latest brand acquisition) on display, but we will also be joined by official Axiom reps (VIC and QLD shows only). Axiom is a professional audio brand that is designed and made in Italy with deep research and development roots in the pro audio industry, delivering intelligent audio

solutions in a compact form factor with no compromise in sound.

You'll be able to experience the new AX16CL column array, one of the world's smallest column array systems, the versatile AX2065 line array system with SW215FA dual 15" subwoofer, and the ED120A professional 12" active 2-way point source loudspeaker.





### Absen Polaris

Absen's Polaris staging screens on display include the PL2.9 & the new PL2.5V2. This new series of LED panels offers optimised structure and performance including advanced horizontal side locks and a unique pixel guard system with edge protection.

### Marshall CV605 PTZ Camera

The wide-angle 5x optical zoom lens offers an impressive 85-degree field of view with smooth transition as well as an additional 10x digital zoom range. Marshall have adapted exceptional low-light sensitivity, ensuring a clear picture in variable and challenging lighting conditions.



### ClearOne

The BMA360 is a unique, ultra-wideband, frequency invariant beamforming microphone array in a ceiling tile format. The CONVERGE Pro 2 is the industry's most advanced professional audio DSP platform for conferencing and sound reinforcement applications. It outperforms in any size room, audio environment, and application.

# AUDIO VISUAL DISTRIBUTORS

Audio Visual Distributors will be showcasing the latest and greatest offerings from their suppliers, including Absen, Marshall, AVPro Edge, Cleerline, Barco, and ClearOne

### AVPro Edge

On display will be Active Optical Cables, Advanced HDMI testing gear, and MXNet, their AVoIP solution. The MXNet AV over IP video system offers interoperability with any HDMI source, display, USB HID device, or control system, as well as easy deployment and an amazing 10-year warranty.



### Cleerline

The AVD team will once again be doing live Cleerline Fibre termination demonstrations, with some great, robust tactical fibre solutions on display.



### Barco

AVD will have both ClickShare as well as the PDS-4K Presentation Switcher on display. While ClickShare needs no introduction, this switcher guarantees unsurpassed performance while also being exceptionally easy to operate. The switcher enables single screen, dual screen and quad screen switching with high-quality 4K processing, while optionally supporting Dante audio with the addition of an interface card.

# BOSE



## Bose Videobar VB-S

Bose Work solutions bring the simplicity and clarity of Bose to conferencing and unified communications. The Videobar VB-S is a compact all-in-one USB conferencing device that's easy to install and brings premium audio and video to rooms up to 3 x 3 metres. With four beam-steering microphones, a 4K ultra-HD camera, and signature Bose sound, VB-S delivers a meeting experience so clear you can read the room from across the globe.



## DesignMax Pendant Range

Bose has added four new pendants to the renowned DesignMax Loudspeaker product line, enhancing audio for any space. The new Pendant loudspeakers, including an outdoor model, expand installation options for system designers and installers with premium aesthetics. Create tailored solutions for background and foreground audio applications in any commercial sound installation with 16 models to mix and match.



## AMM Multipurpose Loudspeakers

Bose Professional AMM multipurpose loudspeakers feature a passive, coaxial two-way design and purpose-built versatility. Deploy them as mains, monitors, fills, or delays in portable setups or permanent installations. Consistent voicing with Bose AM array modules and Bose AMU utility loudspeakers means you can easily mix and match models from all three lines to create different types of systems. The AMM line is comprised of two full-range loudspeakers and a companion subwoofer, which require Bose DSP to ensure the best possible performance and loudspeaker protection. With a proprietary Bose Beamwidth Matching Waveguide, AMM loudspeakers ensure signature Bose sound quality, delivering consistent frequency response, clarity, and projection across the coverage area.

# CMI MUSIC & AUDIO

CMI are bringing some very exciting new products to the show.

We'll be introducing the eagerly awaited and recently released JBL SRX900 Series of line array systems and showcasing the celebrated Adamson CS Series line array and point source system. Come and see some of TASCAM'S incredibly versatile Dante enabled devices, including the AV over IP Encoder and Decoder Appliance for full HD live streaming, and much more! Come and visit us and have a chat to our Audio Solutions Team.



# CLEARLIGHT SHOWS

Clearlight Shows are the national distributor for Highlite International, Swefog, Luci della Ribalta (LDR), and are excited to be taking their Moorabbin showroom on the road showcasing the latest lighting gear. Are you looking to upgrade your tungsten lights to LED? Or want to add some new moving lights to your rig? Whatever your lighting goals, make sure you visit our stand to see the quality products we are offering (including a few new surprises!). We look forward to welcoming you on to our stand.

## Infinity iFX-640

The Infinity iFX-640 is a moving head effect fixture capable of controlling its 6 x 40-watt RGBW pixels individually. Create punchy saturated colours to smooth pastels and whites, seamlessly transition from a narrow 5° beam to a wide 36° wash utilising the motorised zoom. With an endless rotatable bi-directional front lens, multiple animation macros, diffusion blades and a diffraction filter to create a “flower” effect within the light beam, this small and lightweight fixture is perfect for creating eye-candy lighting effects to wow your audience.



## LDR Astro 600 LED Followspot

The latest LED followspot from LDR, the Astro 600 produces an astonishingly pure white beam of light with an extremely flat field. The 6000K Cool White beam generated by a single-source 600W COB prevents any colour shift during dimming. The Astro 600 has a double-condenser optics system with variable zoom from 7° to 14° and an unparalleled smooth dimming curve further contribute to its outstanding performance. Standard features include a six-colour colour-changer, movable clamp-on digital dimmer, and integrated fluid-head spigot.



## LAMPY by Showtec

The Showtec LAMPY light controllers from Highlite International make running your show easy, fast, and fun to operate. Offering a strong set of features for use with conventional and intelligent fixtures, control your lights with the very user-friendly and intuitive control interface. By adding an external HD touchscreen to compliment the onboard 10.1" screen, selection of groups, presets, fixture view, virtual playbacks, cue-list window, and DMX output windows, is right at the tip of your fingers. Available in the range are 2 models: the LAMPY 20 with 10 multifunctional faders; and the LAMPY 40 with 30 multifunctional faders. Both are available in a 1 or 2 DMX universe version. In addition to DMX, the 2-universe version supports Art-Net and sACN control protocol and are OSC compatible for use with an iPad or tablet. An optional LAMPY DNGL USB dongle allows the 1-universe versions of LAMPY to be upgraded to 2 universes with all the corresponding extra features.



# VISIT THE AMBER TECHNOLOGY TEAM AT ENTECH OCTOBER 2022

## **DIGITAL PROJECTION SATELLITE MODULAR LASER SYSTEM**

This truly unique system of projection building blocks for complex applications will be on our stand at ENTECH. You need to see for yourself how this modular projection system is changing the way projection can be applied in live production and commercial installation spaces.

## **SSL L200 PLUS CONSOLE**

The L200 Plus is the ideal mid-scale production console with a superb balance of processing power and plenty of hands-on control. Have a look at the L200's striking ergonomic design and unique layout to see how you could create a compact yet extremely versatile working environment.

## **DPA MICROPHONES**

DPA's latest Omni and Directional Headset Mics (4466 and 4488) plus the exciting new 4055 Kick Drum Mic will be on display.

## **RENKUS HEINZ ICLIVEX**

The ICLive X Series brings a new level of flexibility to rental and staging companies, integrators, and contractors, to provide the best solution for critical and demanding applications. Talk to our team to find out more.

Plus, on display will be Australian Monitor ZoneMix, JTS Professional's new SPT system, Radial Engineering, Neutrik, and Rock N Roller multicarts.

### **SYDNEY**

**October 10**

The Concourse  
Chatswood

### **MELBOURNE**

**October 12**

MCEC  
Bay 22 near Goldfields

### **BRISBANE**

**October 17**

RICC  
at RNA Showgrounds

CONTACT THE AMBER TECHNOLOGY TEAM TO FIND OUT MORE

1800 251 367 | [sales@ambertech.com.au](mailto:sales@ambertech.com.au)

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



# JANDS

Celebrating 53 Years 'Setting The Stage', Jands are going big to mark the years, with the first of 11 centrefolds in this very magazine, monthly prizes for CX print subscribers, and a huge grand prize (TBA) to be given away to one lucky subscriber in October 2023! They're also going big at ENTECH 2022 – check out these highlights on their stand.



## ETC Eos Apex 10

ETC's flagship line of lighting control consoles offers a sleek control interface engineered for your comfort and customization. With generous programming surfaces and the power to run complex rigs, Eos Apex is the ultimate hands-on, professional workspace – powered by the ultimate control platform.

Hot off the Integrate expo, Eventec has continued to grow, going from strength to strength. We have added additional employees, broadened ranges and added new brands in an attempt to service the industry as a whole with Lighting, Audio, Staging and Vision equipment.

For ENTECH, we can't wait to hit the road and bring our latest equipment to customers interstate. We've expanded Event Lighting with fixtures such as the Tsunami-IP and DELUGE27X15 which are both outdoor rated. Wharfedale has released the WLA-1 Hybrid Curvature Array which provides a high output system at an affordable price point. High End Systems have released both the Talen and Lonestar which are compact fixtures with an impressive array of features. Antari has recently released the Yeti S600 snow machine which is capable of throwing snow up to 20m and we will also have our brand new (soon to be released) battery powered spark machines from Spark Fabrica. Nicolaudie Group controllers will also be on show with a wide range of products to suit various applications and budgets.



## L-ISA Studio by L-Acoustics

Create Spatial Audio anywhere! L-ISA Studio's binaural engine can produce scalable natural, immersive 3D audio on headphones with head tracking, or up to 12 loudspeakers in any studio. Create 3D music for any spatial audio streaming platform such as Apple Music and Amazon Spatial Audio, and more.

## Robe LEDBeam 350

Bigger, bolder, brighter! Building on the highly successful LEDBeam 150, the big brother LEDBeam 350 has arrived, delivering more punch and presence to create even more fast sweeping beams and gorgeous washes.





### Disinfection

Without the appropriate protocols around microphone hygiene, the environment becomes open to risk of viral infection for both operators and performers.

### Communication

Without good communications systems, a production environment has the potential of being disjointed, and unsafe.



### Power Distribution

Without the mandatory requirements for electrical safety being fulfilled, the production environment becomes unsafe for all.



# EVENT COMMUNICATIONS AUSTRALIA

Event Communications Australia are focused on providing the highest quality tools of trade for the event and production industry. Our offering is based on the philosophy of providing tools that ensure safe and effective environments for all users. Everything about providing entertainment today is based on mitigating and or reducing risk on all fronts.

# HME SERVICES

HME Services is Australia's leading full-service technical integration provider for the entertainment and public spaces sectors, offering market-leading solutions in stage engineering, tracking and drapery, sound, lighting, and video.

HME Services has just been appointed the world's first official XMove stage automation system integrator and distributor of the XMove stage automation controller and we will be keen to show this off. HME will also be highlighting their new sewing room which is the largest in the Southern Hemisphere, as well as their world-class drapes and tracks. We will also have plenty of backstage consumables from trusted suppliers such as Tenacious Tapes, Flints, and Haussmann.



# SHOW TECHNOLOGY

Show Technology specialise in distributing professional equipment from the world's leading manufacturers of lighting and control systems, along with associated equipment that supports them. The exciting new laser-source Ayrton Cobra IP65 will be on display at ENTECH Roadshow, along with Martin's new workhorse wash light the MAC Aura PXL, and Show Technology's handpicked solution from ShowPRO; the creative DiamondBack.



## Cladding Couplers

To help you achieve professional-looking results for your structures



## BarriCage

A protective cage solution to protect your lighting fixtures in multi-purpose rooms



## Kuzar Towerlifts

A compact lightweight and cost-effective towerlift to stand out with your light panels, truss builds, and speakers



## SRS Controllers

High-quality control systems to suit any level of chain hoist systems that offer reliability, flexibility, and safety in the hoist control market



## Feather Weight Design Cases

Flight-friendly case solutions to help your equipment traverse the globe



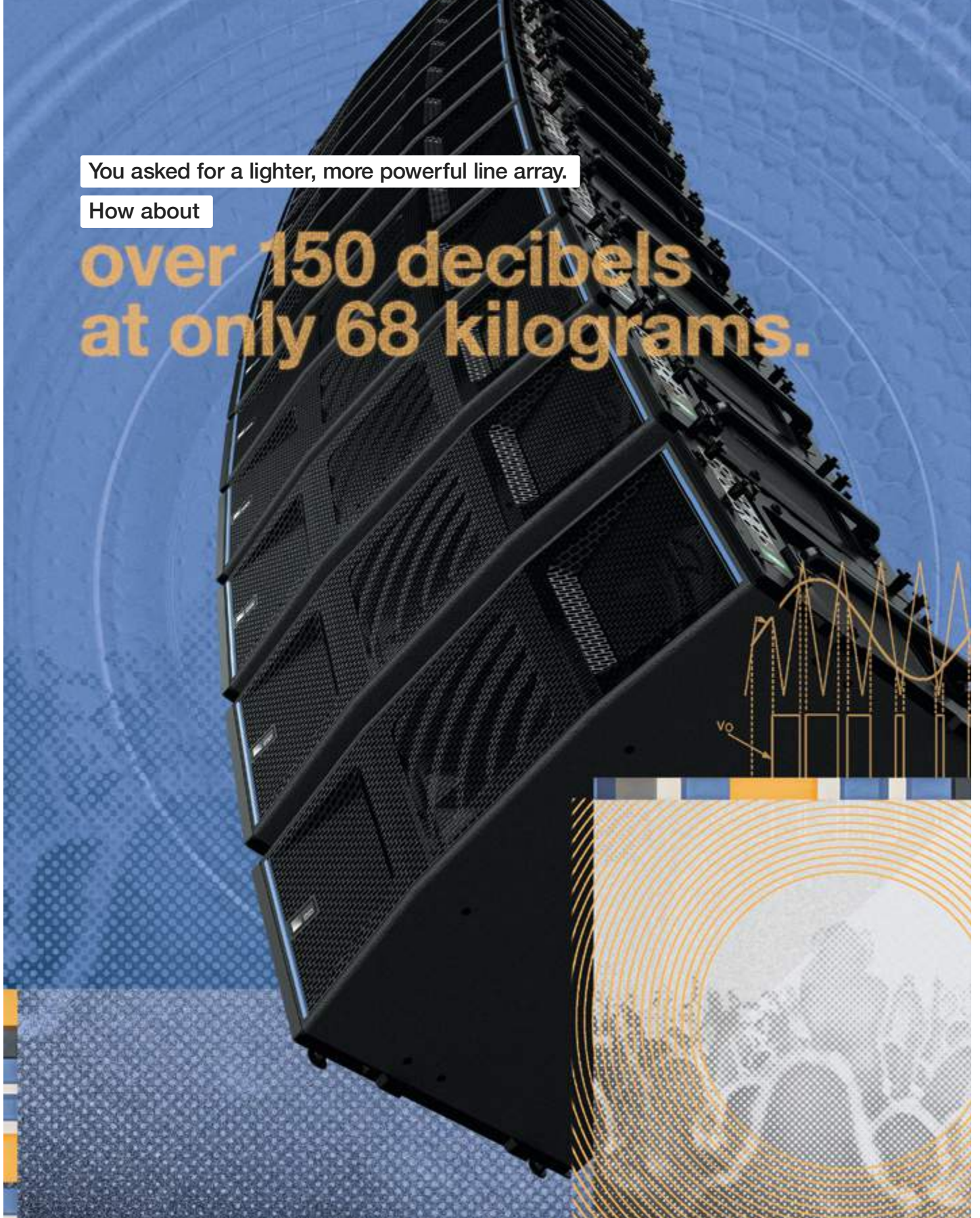
# DESIGN QUINTESSENCE

Design Quintessence is proud to supply the staging and events industries with an extensive range of products and protective transit solutions. Visit us at ENTECH 2022 and talk to our friendly staff about solutions for your next build or tour. This year, we are excited to add more innovative solutions to our existing range.

You asked for a lighter, more powerful line array.

How about

over 150 decibels  
at only 68 kilograms.



## PANTHER

You know what you want in a line array. And now, we're giving you more than you ever thought possible. Introducing PANTHER. Over 150 decibels at only 68 kilograms and 97 centimeters wide. Exactly what you asked for—turned up a notch.

**You spoke. We listened. And then we went wild.**



# PANASONIC CONNECT

Panasonic Connect plays a central role in the growth of Panasonic's B2B solutions business. From museums to universities, or from concert halls to corporate installations, our industry leading projectors and professional 4K displays are making an impact across by giving users freedom to express their creativity and engage their audiences.

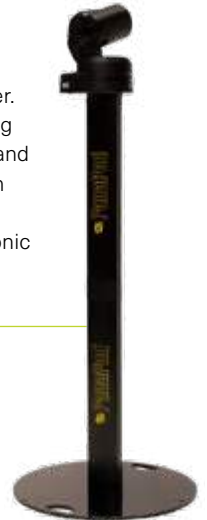


## PT-RQ25K Series

Go bigger. Go brighter. Go bolder. Introducing the world's smallest and lightest 20,000 lumen 3-Chip DLP 4K laser projector, the Panasonic PT-RQ25K series.

## PanaPod

PanaPod is a standalone elevation system designed for professional PTZ cameras. PanaPod can be used on a stage, in a studio, on a sports field, in a conference venue, or in a press conference, to provide an unobtrusive camera position which doesn't interfere with the artists, players, presenters or the sequence being shot.



# MEYER SOUND

Meet the award-winning new PANTHER large-format linear line array loudspeaker along with other featured products including the ULTRA-X20 compact wide coverage loudspeaker, USW-112P compact subwoofer, Milan-certified Galileo GALAXY Network Platform, MM-4XP miniature self-powered loudspeaker, and UP-4slim ultracompact installation loudspeaker.

# LSC

## Unity

The Unity installation power system will also feature at all the shows. Linked to LSC's Houston-X monitoring systems, it allows remote access to all premium LSC products, keeping you in the know as to what's happening with your LSC power system. Nexus and MDR DMX data distribution products will be available to check out as well.



## Mantra Mini

The Mantra Mini is ideal for your next install, be it simple direct control via a remote panel, or integration with your building management system. It's powerful enough to do what you need yet still intuitive enough to be easy for anyone to operate; any teacher, building manager, student can just hit a button and have the stage and room look just how they want.

## UNITOUR

Dominating the LSC booth will be the 48-Way and 24-Way UNITOURs, both highly developed and ready for the festival season ahead. The UNITOUR features a patented earth leakage monitoring system, which allows you to not only measure current and voltage on each channel, but also earth leakage. You'll also be introduced to a new character, who's here to explain all the benefits the UNITOUR has to offer. Keep your eye out for that cheeky chappy!... and some merch too!



# THE P.A. PEOPLE



## Movecat

Movecat provide a complete range of chain motor products and hoisting control systems from the entry level ECO-X range, through the D8+ PROstage+ and PLUS-X range to the OMK BVG-C1 compliant and VMK variable speed models, along with load monitoring systems and their SIL3 compliant I-motion control systems. The P.A. People are able to provide system integration and full automation solutions. Our Venue Engineering team includes factory trained Movecat technicians and service personnel, and we are able to provide design assistance, periodic maintenance, certification and ad-hoc callout services.



## TheatreQuip

This 'next generation' range of hoists from TheatreQuip will be known as Reference, with each product meticulously designed and independently certified to comply with Australian Standards and with the new EN17206 Standard, "Entertainment Technology - Machinery for stages and other production areas". The range will include a series of drum hoists that span capacities from 350kg up to 1,800kg and drifts in excess of 20m, alongside the next generation of pile-winding hoists.

## TEQSAS



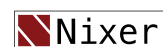
The LAP-TEQ range from TEQSAS is a selection of specialist rigging tools for production applications from Germany. The range includes devices to measure the inclination of a cluster of loudspeakers; determine the height of an array, truss or LED screen from the floor; monitor the load on a hoist, and to control chain-hoist from a simple pendant while monitoring inclination height and load.

## Serapid



Serapid is the developer and manufacturer of the original Rigid Chain Technology and has been meeting the vertical and horizontal transport needs of venues and theatres around the world for over 50 years. Their product range is the most versatile for venue applications and we are delighted that Serapid has chosen to partner with The P.A. People and our Venue Engineering team as our supplier of linear actuator technology.

When you are looking for Venue Engineering, you have a choice . . .



Sales Hire Service | Venue Engineering | Installed Systems | Event Communications

See us at ENTECH - Sydney / Melbourne / Brisbane - in October

# NAS



## A-Series

A new tool that combines the ease of point source clusters with the level and frequency distribution of line arrays, delivering signature d&b sonic quality in an augmented format. One that delivers exponentially more flexibility in both physical setup and acoustic control. The A-Series combines the best elements of existing d&b system technology to create an entirely new loudspeaker concept. Bending the rules of what a sound system can do, while maintaining the familiar d&b focus on directivity and system unity.

## KSL-SUB

The KSL-SUB is a cardioid subwoofer for the KSL System. It can be used to supplement KSL8 and KSL12 cabinets, either flown (KSL-SUB) or ground stacked (KSL-GSUB). When the KSL-SUB Adapter frame is used, KSL-SUB cabinets can be flown in mixed arrays in connection with KSL-TOP cabinets. The KSL-SUB cabinet is an actively driven, 2-way bass-reflex design housing three long excursion neodymium 15" drivers.

## VIO X206 Series

VIO X206 is an ultra-compact active professional speaker that delivers sound pressure and linear response to the highest level. Available in 2 versions with a standard 90x60° coverage or a 100x15° dispersion pattern, which basically turns the full range speaker into a line array module. The ultimate solution for complementing VIO PA systems and setting up compact high-performance stand-alone systems, meeting the requirements of both the production and integration world.

## MicroCom XR

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



## CrewCom CB2

The latest member of the CrewCom family, the full-duplex, install-friendly and feature-packed CrewCom CB2 is an ideal solution for small to mid-level applications requiring a reliable, great sounding wireless intercom with excellent RF coverage and range. Available in both 900MHz Oceania and 2.4GHz CE compliant models, the system includes the CrewCom CB2 base station and up to six CRP-12 two-channel radio packs to create a powerful but economical wireless intercom system.



## iD-HP Point Source Loudspeakers and Subs

The inDESIGN iD-HP loudspeaker series is a compact, high output design suitable for mobile and permanent sound installations. Attention to detail during development of these products provides high SPL output with a smooth neutral sonic character, and multiple installation options at a very competitive price.



## FX Series Power Amplifiers

The FX Series is a range of multi-purpose installation DSP-equipped amplifiers. The FX series amplifiers feature a built-in Wireless Access Point (WAP) for simple connection and configuration via Wi-Fi as well as an intuitive web-based software UI. With 6 models to choose from starting at 2 x 60W in a half rack unit to 4 x 500W in a two rack unit, there's an FX that will fit just about any project.



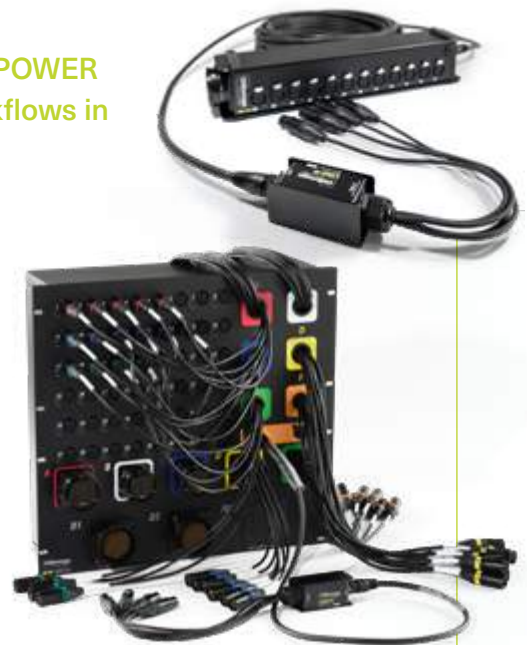
ONEstage are dead-set on their purpose:

UNIFY the disciplines, CONNECT the equipment, and EMPOWER the user to provide quicker, safer, and more effective workflows in power and signal distribution applications.



### ONEstage LYNXio

LYNXio is a modular etherCON break-in/out adaptor to facilitate connectivity of audio, lighting and comms products, and quick patching for multi channel RF or in-ear systems. Featuring an internal RJ45P connector with phoenix-style connectors, to facilitate easy modification, integral M4-M8, and rack ear accessory to mount in 19" rack strip.



### ONEstage split/patch Systems - SP482/3

48Ch 2 way passive split-patch – optional ISO output (3-way). Various configurations with matching Signal Stage Drops (SSD8/SSD12/SSD16e) available. Industry standard, LK connectors with crimped pins, for maximum reliability. Colour coded input connectors and patching tails to match the stage signal drop boxes for a coherent and tape free stage.

ONESTAGE

## ASTERA ROAD SHOW 2022



## AUSTRALIA & NEW ZEALAND

ASTERA hottest products | Crowd favourites | Original merchandise | Refreshments & Great vibes

Melbourne | Sydney | Brisbane | Adelaide | Perth | Rockhampton | Newcastle | Darwin | Canberra | Coffs Harbour  
Cairns | Townsville | Gladstone | Mackay | Geelong | Auckland | Hamilton | Wellington | Christchurch | ...



CONTACT OUR TEAM FOR MORE DETAILS

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

# PAVVT



## Rational Acoustics Smart V9

Beginning with version 9, Smart will be moving from a version-based system to edition-based system. There are 4 different Editions of Smart, all based off the same v9 codebase and with shared GUI/control settings/hotkeys, etc. Editions are differentiated by feature-set and functionality. Smart Licenses will now be available in one of two ways, either as a Perpetual License or as an Annual Subscription License. A Perpetual License is the same as what we currently offer for v8 and Di v2. Customers pay a one-time payment for a license that never expires and is owned outright by the end user, with free "after dot" updates and bug fixes throughout the life of the license. An Annual Subscription License is valid for 1 year from the date of purchase and is automatically renewed each year unless cancelled by the subscriber prior to the subscription expiration date. The license is not owned by the end user, just rented from Rational on a yearly basis. Updates & bug fixes are free, as long as the subscription is active.

## EAW AC6

Following the technologies in Anya and Anna speaker enclosures, the AC6 offers all of the benefits of ADAPTive performance in a pillar enclosure. AC6's 120° horizontal dispersion further extends the capabilities of ADAPTive Systems offering a dramatically smaller product in the ADAPTive family. An infinite amount of columns of AC can be flown as mains in a wide variety of applications, or integrate AC with the larger Anya and Anna modules within the same venue for endless coverage possibilities.



# PHANTOS

Phantos will be demonstrating ONYX lighting control products from Obsidian Control Systems. This includes ONYX NX DMX, NX TOUCH, NX WING, NX2 and NX4. We may be able to include the newly released NX1, NXK and NXP at ENTECH as well. New road cases we developed for some of the more expensive consoles will also be on display. These include a fly pack case for the NX Touch, and lift console cases for NX2 and NX4. We look forward to talking to existing and future customers at ENTECH.



## iSEMcon

iSEMcon offers cutting edge technology in the design, manufacturing, distribution and marketing of high quality microphones and accessories. Our strategy is to serve the acoustic measurement market using our competitive edge in innovative products to the customer's advantage. Today's market demands new approaches and iSEMcon's mission is to work closely with our valued customers and distribution partners to establish a concrete business relationships.



# REDBACK

Redback look forward to catching up with many of their valued customers at ENTECH to chat about new product developments, ideas and trends in public address. They have many new lines to preview, plus a brand new dedicated Redback catalogue reference, filled with their newest products. More than anything, Redback enjoy talking to installers and AV integrators about new trends, product features and ideas to help grow the industry. Drop on by the stand to chat with their sales team. Redback look forward to seeing you at ENTECH!

## The 2022-23 Redback Product Guide

For the first time, Redback have produced a dedicated catalogue so that customers, system designers and architects can have a central reference for their product line. This 96 page catalogue dispenses with the rest of the Altronics product range and focuses solely on public address, and also features all of the new lines on show at ENTECH.

## The IP Communicator Paging System - A4868

This system has been developed in conjunction with leading Australian PA contractors and an international IP audio manufacturer. It is designed to be simple to set up and install, and most importantly easy for the customer to use. There is no complex programming or set up involved. This flexible system is ideal for schools, shopping centres and large facilities where multi-zone paging is required between multiple buildings. It bridges the gap between internet protocol (IP) based and traditional 100V line PA systems. All components are designed to be plugged into the building local area network (LAN) and will connect to existing building PA, alarm and bell signalling equipment.

## 4x4 Audio Matrix System - A4450

Feature packed yet simple to set up and use, this mic/line level mixer pairs with easy-to-use wallplate controllers. With 4 inputs selectable to up to 4 zones it is ideally suited to gyms, cafes, restaurants, small clubs and function centres. Designed with end users in mind, this complete audio source controller for buildings and venues provides source selection and level control from remotely located wallplate controllers located up to 300m from the main unit. Multiple inputs can be selected/mixed to a zone as desired. It can even be used with our new 7" LCD touchscreen paging console!

## 4x8 Stereo Audio Switcher System - A4460

Designed to allow the distribution of 4 stereo audio input sources to 8 stereo output zones making it ideal for use in function centres, hotels, meeting rooms and domestic homes etc. Sends audio sources from one room to another with total ease. Combined with touchscreen wallplates, this system provides a central control of audio sources within any environment, mixing up to 4 inputs into 8 zones. Each master control plate can control every zone, plus stream Bluetooth audio. The local zone wallplates provide source selection for each zone, plus local Bluetooth, all wired back to the main unit using standard UTP cabling. Four external MP3 triggers are also provided to play different sounds on events – such as doorbell activation, motion detection, gate opening etc.

## 12x16 Audio Matrix System - A4650

Redback set out to see just how much they could fit onto the rear panel of a 2RU case with the new 12x16 audio matrix system. With touchscreen wallplate controls in up to 16 zones, its perfect for multi-function venues where multiple sources have to be sent to many different zones and configurations need to be changed quickly. Incorporating 4 microphone inputs and up to 12 line inputs, this easy to set up and control matrix is ideal for RSL clubs, pubs, taverns and function centres. Operation is intuitive and requires no complex training. Any input can be selected to any output zone or combination of zones. All four mic inputs can be selected simultaneously to any zone or combination of zones, along with one of the auxiliary inputs.



# TM STAGETEC SYSTEMS

tm stagetec systems can't wait to be back at ENTECH Roadshow!  
We have a huge range of products to discuss and demo including;



## Direct Out Prodigy.MP

Designed to address numerous applications in live sound, broadcast, installation and recording, PRODIGY.MP provides flexible I/O, dual network audio, DSP functions, sample rate conversion and powerful hardware and software. Fully modular, the hardware can be configured to specific requirements, giving budget savings and flexibility.



## Merging Anubis

Flexibility, power and quality at your fingertips, whatever your challenge. The Anubis is a unique, compact AD/DA in its configurability without changing the hardware. Included is the new 32bit dual PreAmp topology, incredible headphone amps, D/A converters, all combined with a powerful low-latency mixing engine evolved from 25 years of DAW design.



## Stage Tec AVATUS

The new AVATUS mixing console concept is capable of revolutionising the work of sound engineers in all areas; in theatre and broadcast applications as well as in the studio or live use.

# RIEDEL AUSTRALIA

Come and see Riedel Australia at ENTECH Roadshow to see latest cutting edge real-time communications and video solutions! Our latest flagship intercom matrix, the Artist 1024 will be on the stand along with Riedel's 1200 and 2300 series Smart Panels featuring the recently released 'Audio Monitoring App', which turns our 1200 series intercom panels into a full functioning professional audio monitoring bridge.

Additionally, we will be showing the MicroN UHD, our latest fully 12G capable product in the MediorNet family, plus its extensive multiviewer engine capabilities. We will of course have old friends like Bolero, our state-of-the art wireless intercom to show you, as well as our brand new PunQtum IP-based partyline product range. So come join the party at Riedel's stand at ENTECH this year!



# ROXX

Roxx is developed in Germany by a team with years of experience in the entertainment biz. They know what the market needs, having lived and breathed the industry alongside their customers. The Roxx team have identified key market niches where quality engineering, clever operation and superior components combine to create usable and flexible fixtures for the professional market, for designer, tech and operator alike. All products are IP rated and feature the highest quality components for longevity in touring or installation.



## Flex Series

The Flex Series is a series of battery powered uplights and mains powered yoked fixtures for the hire/rental markets. All feature a powerful central LED source, plus a halo of extra LEDs to allow creative control of different effects, as well as several accessories. Products in the series have various uses, from TV to corporate events, and everything in between. All have wireless DMX and app control onboard and are IP rated.

Stop past the LSC booth for more info and a demo of the range. There'll also be a guest from Roxx attending to answer all your questions, plus cool Roxx merch will be available.



## Cluster Blinder

The Cluster Blinder family is the first "real deal" LED Blinder available in the market, with genuine DWE output, colour and control. Dim curve and tungsten simulation can all be adjusted, and the full colour version adds the ability to adjust colour temp and flood in RGB colour, maximising the uses for your blinder fleet (audience flood, stage wash, house lights, etc).



## E.Show and A.Show

The E.Show and A.Show series of high-quality PAR products, with super high levels of CRI/TLCI, interchangeable lensing and barndoor accessories, all feature wireless DMX onboard, as well as the Roxx App, which allows basic control via a smart device, ideal for basic setups like trade show booths. The TW+ unit features a 6-colour system for the highest level of colour control and colour quality.



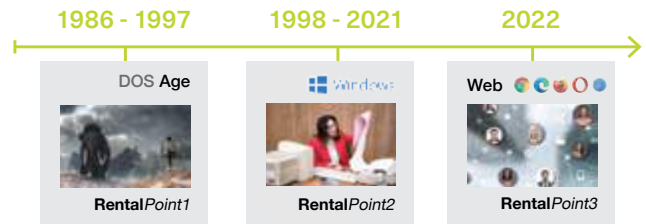
# TECHNICAL AUDIO GROUP

**ALLEN & HEATH** - Starting life in London in the 1960s, Allen & Heath custom-built mixers for the likes of Genesis, Pink Floyd, and The Who. Fast forward to today and we're touring with Billie Eilish, Bring Me the Horizon, Jacob Collier, and loved by gigging bands, rental companies, installers, houses of worship, and many others across the globe. And now, to meet the needs of audio engineers worldwide, a global launch at ENTECH 2022: Ampersocks.



# RENTALPOINT

RentalPoint will be demonstrating RentalPoint3 which is web browser based software and a reimagining of the RentalPoint platform developed over many years. The software has been updated with new features and integrations.



DLA GROUP



## ELATION Professional KL PAR FC

The KL PAR FC is a compact full-colour-spectrum LED fixture that provides high output, precise colour temperature control, full-spectrum colour rendering, and even wash coverage. Offering powerful colour intensity and a wide array of saturated and pastel colours from its efficient RGBMA engine, it is also optimised for the tuneable white light requirements of film and television. The KL PAR FC is an ideal key, fill, and area wash light source for theatre, House of Worship, and any production requiring outstanding performance and colour quality. It incorporates a highly efficient 5-in-1 (RGBMA) LED engine that produces up to 11,000 field lumens, equivalent to existing 750W Tungsten PAR fixtures, and is delivered with multiple lens choices that are easy to replace in the field. Outstanding colour rendering quality with a high CRI of 92 and TLCI of 95, precise CCT presets, and remotely adjustable LED refresh frequency makes this unit the perfect choice for today's fast-paced production environments. Rugged and portable, the fixture can be suspended using any standard clamp, or floor mounted using the integrated stand. It is fully self-contained without the need for an external power supply and offers locking power pass-through for easy linking of multiple units.



## LumenRadio Stardust

Stardust takes industry leading CRMX technology to the next level with the introduction of features for the most demanding situations, setting the standards for Wireless DMX by providing unprecedented control and flexibility. Capable of delivering eight DMX/RDM universes and expanding the function of Cognitive-Coexistence with the new Fleet Alliance, it has the reliability you trust and the amount of universes you need. The enhanced radio design allows for record breaking ranges on all eight universes simultaneously. The onboard Wi-Fi and Ethernet provides both configuration via web portal and transmission of sACN and Art-Net, while the Bluetooth interface enables configuration via the CRMX Toolbox App. With the intuitive colour screen, it's easier than ever to configure, using operation profiles to quickly change settings on the fly while the built-in backup battery makes sure the show will go on.



## ACME Gemini

The Acme Gemini is an amazing dynamic effect light for both touring and installation. It is a brilliant strobe, a dynamic zoom bar and a dual lighting effect, all in one. It combines 5x 60W full-colour LEDs together with 36x 18W Cold White LEDs, with individual pixel control. Infinite Pan and Tilt allows you to create continuous effects. The zoom bar beam angle is a 2.8° beam out to a 31° wash. Integrated fold-down clamps assist with fast and easy rigging. Acme Gemini are available in touring roadcases of four units.

# Sometimes it all gets too much...



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



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



# INTELLECT PROJECTS GROUP (IPG) INSTALL MEYER SOUND

Norths Leagues Club & Liverpool Catholic Club



**PA shootouts – gotta love ‘em. When Norths Leagues Club in Cammeray, Sydney went to upgrade their auditorium, they did the right thing. Consultants, demos and the comparison session. They had spent a long time in planning, and it was time for action. All the vendors tried their big box array systems and were disdainful when Meyer Sound’s Owen Ironside rolled out the ULTRA-X40, a point source box with two rotatable 8” cone drivers and a 3” compression driver. He turned them on and blew everyone away, thus sealing the job.**

Kellyville’s Intellect Projects Group (IPG) won the tender to install the Meyer Sound system into Norths. The stage is curved into the room with everybody surrounding it and two tiers for punters. According to IPG’s Justin Baker, the configuration called for; “Three ULTRA-X40s covering the front ring and a further four in the rear delay ring. And two 1100-LFC subs on the floor either side of stage.” The X40s are all flown, with the horns rotated.

Justin and the team used Meyer Sound Galaxy processing to setup and calibrate the system. His process was; “Literally, time domain alignment. No EQ at all. We didn’t need to.” Why? Because, “they sounded great out of the box. It was actually really quick to tune it.” There is also some Q-SYS handling Dante routing and control for simple functions when Norths’ users don’t need to fire the whole rig up.

On the back of their success at Norths, IPG pitched and won a Meyer Sound design for Liverpool Catholic Club (LCC), also in North-Western Sydney. They’d already been in there

with some Meyer Sound MJF-210 monitors as a demo. In another classic shootout scenario, IPG did an A-B comparison for the venue operators. Justin reckons, “they were just blown away by it. They responded: ‘wow, we are going to buy 10 of these things!’”

According to Owen, these dual-10 monitors were designed for Metallica’s drummer Lars Ulrich. “They are amazing monitors,” says Justin. “You can sit it there next to a drummer and he can kick away on his kick drum, and it will just keep taking it. If they are good enough for Lars, they are good enough for whatever!”

The LCC showpiece is the huge auditorium, catering for up to 700 pax. Owen again helped design a system to suit and, when presented with the quote, “the club didn’t even flinch over it” according to Justin. They responded, “Yes, we’re happy with that.” What they got was eight elements of LINA linear line array per side, with two 750-LFC subs each. Justin: “Then we’ve got six UP-4slims for fill front stage, and an ULTRA-X40 for centre fill.” This is all Galaxy processed.



LINA

1100-LFC

UP-4slim

ULTRA-X40

Galileo Galaxy

MJF-210

LINA



When asked if the LCC was the best sound system ever handed over by IPG, he replied, "Yes, I'd have to say it is. For that size system - yes, definitely." He is particularly fond of the even output from this rig. "That's where Meyer Sound is awesome - there is no signature sound. It's just flat. Whatever's coming in, is whatever's going out. That makes it so easy for the client to go; 'we can take whatever, we can tune it however.' One engineer can come in and tune it his way, another can tune it another way. That's where it works really well."

Meyer Sound's recent shift to direct selling into Australia without a local sub-distributor is an interesting one. In these instances, it has also worked well, allowing the end customer affordable access to a premium product that may have previously been out of reach.

IPG also provided extensive AV, control and lighting for both these venues. It fits in with their company philosophy of; "We will do anything that a cable plugs into. Everything has to interconnect with everything. We'll just own it; we'll make it work."

When they start with products that work so well straight out of the box, that makes it easier for IPG to provide systems and experiences that not only just work but keep blowing their customers away.

## GEAR LIST & SPECS

- Meyer Sound ULTRA-X40: <https://meyersound.com/product/ultra-x40/>
- Meyer Sound 110-LFC: <https://meyersound.com/product/1100-lfc/>
- Meyer Sound Galaxy processor: <https://meyersound.com/product/galileo-galaxy/>
- Meyer Sound LINA: <https://meyersound.com/product/lina/>
- Meyer Sound UP-4slim: <https://meyersound.com/product/up-4slim/>
- Meyer Sound MJF-210 <https://meyersound.com/product/mjf/>



# ELEMENT ICT GROWS WITH JBL BRX300

Just over a year ago, Chris Manton from Sydney's Element ICT sat down with CX to discuss the newly acquired JBL BRX300 compact line array for their hire stock. "I was honestly blown away that something with the capabilities of the BRX300 exists at that price point," said Chris. At that stage, the system comprised two subs and eight top boxes. So where to from here? More BRX of course!

The first few gigs mid 2021 debuted the new purchase, with an addition of two extra array modules each side, loaned by CMI, who convinced them it was worth growing it out. According to Chris, flying six array modules with two subs blew them and the audience away. This was enough to convince them to continue running this configuration for a while before purchasing their own additional subs. There's nothing like try before you buy!

Over the last year, Chris explains they have, "grown it to as big as they can take it." What started out as two subs and four array modules has now doubled to four subs and eight tops each side with full array frames, after recently purchasing the final four array modules. With eight tops per side being the maximum you can fly with the array frames, it makes no sense to keep adding subs and four more arrays per sub, since you can't fly the additional configuration, Chris notes.

Their now fully specced set up has enabled Element ICT to provide a system that can be sliced and diced to create whatever they

want and works for all general purpose indoor and outdoor work, with versatility being a key component. Priding themselves on being a solution-based business, having flexibility in what they can deliver is paramount.

The new steroid-pumped larger system saw one of its first outings at a four-day Christmas in July event in Canberra, which included everything from rock acts to 30 piece stage bands. The general consensus was that despite it not being a fully modellable array and steerable, the throw and clarity it delivers is surprising. Translation: darn awesome! Backup dual 18 subs to augment the system in the big open-air space were even brought along, with their services left unrequired.

Alongside the new fully grown out system, a newly purchased ground support stage made its debut in Canberra with its inclusive set of production services. After sitting on it for a year and finally taking the plunge, Element ICT teamed up with DQ to design and build the semi-customised structure. According to Chris, an existing design was utilised, with

PA wings added in, "giving us the ability to fly and use that array correctly and all the right heights, but also to give us that presence as well so it's a 15m width at that point." It also comes decked out with rigging for all lighting, including in-house lights, fully automated, full of movers and general audience lighting.

This is no 'truck based on wheels' kind of stage, but a true ground support structure, with Chris pointing out the, "key benefits over truck stages are its capabilities from a wind loading and also from a flown weights perspective", making them a much tougher stage. It also makes more of a statement with a roofline spanning 7m high. The drive behind this was to crack into the sub-stage festival market, preferably established festivals, which is the current vision for the organisation.

A great asset in building the stage with DQ was the ability to have CAD available in the cloud. This meant Element ICT could easily customise the design with DQ through the process. By just going online, the ability to zoom in, spin in three dimensions, double

**FEELING  
THE PINCH?**  
Check out the special  
reduced membership  
offer for people in  
financial hardship

**COLLECTIVE STRENGTH**

**CAMPAIGNING**

**WORKPLACE SUPPORT**

**DISCOUNTS & BENEFITS**

**NETWORKING**

With more than a century as **the leading advocate for workers in the arts and entertainment industries** and dedicated and experienced staff, MEAA is the union for any lighting, audio, staging or rigging crew who work in theatre, live music, concerts, conferences and events venues.

**BECOME A MEMBER TODAY**

[meaa.org/join](http://meaa.org/join) [1300 656 513](tel:1300656513) [members@meaa.org](mailto:members@meaa.org)  
[fwithMEAA](#) [@withmeaa](#) [withmeaa](#)



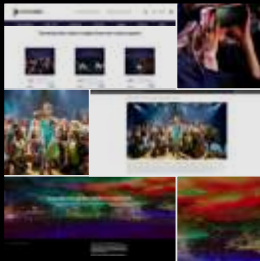


check right components in right locations and marrying it with the inventory that gets loaded on the truck, made this a real game-changer. All information can then be passed onto ground crew, riggers and engineers as required for verification. Forget static photos; this allows people to visualise and understand the context of what they're looking at from all different dimensions. Great for those spatially challenged among us.

All of this rapid growth in the last year has led to more larger scale work for Element ICT, as Chris reflects on how far they've come in a short space of time. Being a solutions-based business, he also notes that they are, "uber flexible to the point of distraction sometimes." Their major point of difference: "Let's put the customer first and see if we can collaborate with them, rather than just give them out-of-the-box solutions and making them fit their requirements."



# Creative Services for the AV and Entertainment Technology Industries.



**Specialist  
Content  
Creation**



**Integrated  
Print & Digital  
Media**



**Marketing  
& Business  
Development**



**Professional  
Event  
Services**

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

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



# A LOOK BACK AT THE LIGHTS THAT PUT MARTIN ON THE MAP

## MARTIN MAC 500 AND MARTIN MAC 600

First released in 1997 by Martin Professional, the Martin Mac 500 Profile and Mac 600 Wash were sold alongside each other marketed as a complimentary wash and profile option. Known for their durability, both were popular lights that were specced worldwide, including Australia. They quickly gained a reputation for being simple to service and work on, despite being quite high tech at the time. They were versatile and user friendly from all perspectives, as an operator, a technician, or as set up crew.

### Why sell a wash and a profile together as part of the same 'family'?

When putting a lighting rig together, it can be advantageous to get your spots and your washes from the same 'family' of lights as they will typically be of similar power output, have the same colour mixing capabilities and even the same parts.

### Wash vs Profile

A wash light typically features a larger lens, casts a larger, flatter field of light, and has more frosts and colour temperature features. They are usually used when you need to light a larger area such as a stage.

A profile typically has gobo wheels, shutter kits and casts a sharper, more focussed beam of light. Typically used to create beams of light through smoke, project gobos or to light specific objects, such as lecterns or specials.

The Mac 500 and Mac 600 were modular lights that had a lot of interchangeable parts. Both were able to fit into the same flight case, making transport much more convenient. They also used the same rigging hardware and could be mounted and configured to

any orientation. The base and the yokes were basically the same, the way to tell them apart is from the design of the head of the light.

They both drew 750w of power and used the same 575w discharge lamp. Both fixtures had a pan/tilt range of 440°/306°. They were the same length and width, with the Mac 500 being slightly taller and slightly heavier. Both used 3 pin DMX, not 5 pin as is standard today, but could run on 5 pin DMX with an appropriate adaptor.

Common issues for both lights were yoke covers cracking, ballast issues, as well as overheating, which can lead to cracked filters, and in extreme cases, warped wheels. Overheating was more of an issue in the Mac 500.

Given that in 1997, DMX-able, intelligent lighting fixtures were a relatively recent thing and many of the features were considered quite 'new', there were a few features that stood out, such as:



- An option to disable the pan and tilt reset. What this would do is stop the light moving during its reset cycle when you first powered them up. This meant that you could pre-address or change settings of the light without having to take them out of the case. Although a seemingly small feature, it saved hours of prep time and avoided double handling. To enable this, all you had to do was press and hold 'menu' and 'enter' at the same time on start up.
- A setting to determine the indexable wheels (colour wheel/gobo wheel) rotates in one direction only or takes the shortest path to its next position, further enhancing the smoothness of operation.
- A safety feature called a 'no hot strike', which can prevent lamps from blowing too early as well as protect the internals of the light. What this meant was that you cannot lamp on the fixture for eight minutes after lamping it off. Although a well warranted safety feature that saved countless hours and dollars in repairs, it could get rather frustrating if you had to do a reset mid show.

Although they shared many similarities, they were also very different.

## MAC 600 WASH FEATURES

- CMY colour mixing system
- 4 position colour wheel plus open
- Frost and indexable beam shaper
- Strobe effect up to 8 Hz, random strobe
- 18°, 25° (standard) and 65° lens options
- Mechanical dimming

The Mac 600 was the wash light of the pair. It weighed about 31.5kg and claims a 20,500 lumen output. The light can be run in either 10 channel or 14 channel mode. The Mac 600 was known not only for being a bright, punchy, market-leading wash light, but also for its smooth dimming curve and smooth movements. The Mac 600 featured a Fresnel lens.

Originally designed for use in lighthouses by Augustin-Jean Fresnel (1788 – 1827), the Fresnel lens is designed so that a lens can have a large aperture while projecting a concentrated beam. It has seen extensive use in entertainment lighting. There have been many other uses for Fresnel lenses over the years including but not limited to:

- Cars, namely sealed beam headlights
- Magnifiers, Fresnel lenses can be used as hand-held magnifiers
- Camera lenses and reflectors
- They are used to concentrate sunlight onto solar panels

**NEW PRODUCT**

**NEW PRODUCT**

Now available with an Electronic Ballast

## The MACnificent Team

**The Martin MAC 600 Fresnel and MAC 500 profile moving head luminaires make up the ultimate professional lighting package.**

Together, they are the most flexible and compatible solution to your lighting requirements.

**They're Made For Each Other.**

The MAC 500 and 600 are both examples of cutting edge, road proven Martin experience. Take performance. Though they share the same base, yoke and light source, they are two completely different products that complement each other so well, they even fit in same flight case.

The MAC 600 is the powerful washlight with unbeatable color. The MAC 500 is the feature-packed profile spot. It's a match made in Denmark.

Both lamps fit on three available flight cases

**What's more, you can buy them.**

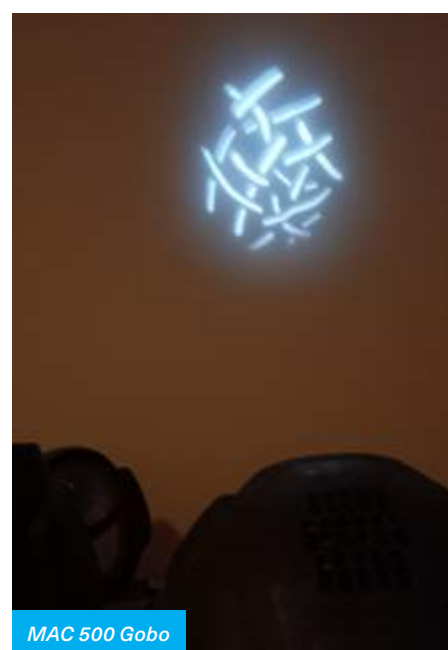
Rental is not always the best option. You can purchase (or lease) the MACnificent Team secure in the knowledge that they're supported by the most extensive international distributor network in the industry and a thorough commitment to customer service.

THE PRODUCT GUIDE '97/98

Call your local dealer for a **FREE 72 page catalogue**

**Martin**  
Martin Professional

Call: USA: Florida (+1) 954 927 3005, California (+1) 818 252 0399, South West (+1) 817 577 8404, Mid West (+1) 847 280 9610  
Latin America: (+1) 954 927 3005 • United Kingdom: (+44) 1622 755442 • France: (+33) 1 69 12 10 00 • Italy: (+39) 432 671 730  
India: (+91) 80 84 53 741 • Singapore: (+65) 842 3031 • Denmark: (+45) 87 42 88 88 • Internet: www.martin.dk



The 600 featured a CMY/subtractive colour mixing system and is based on three circular, graduated dichroic colour filters: cyan, magenta, and yellow (CMY). Each colour can be added from 0 to 100%. The colour wheel contains red, green, and blue dichroic colour filters plus a 5600K to 3400K colour correction filter and open white. The CMY colour mixing system was not featured on the Mac 500.

Two beam shapers allow you to widen and flatten the beam. Very useful when trying to light a stage. A single frost filter on the same wheel softens the beam. The high-speed mechanical shutter allows light to be flashed at up to 8 Hz.

Known in its time for offering an impressive array of effects and its sharp focus, the Mac 500 profile weighed 32.8kg and could be run in either 12 channel mode or 16 channel mode. It had a claimed output of 9,000 lumens.

The Mac 500 has two 9-position plus open colour wheels, therefore giving the operator 100 different colour combinations. There are four colour temperature filters and 14 dichroic colours, which offer 67 different combinations. There is one fixed gobo wheel which contains nine different gobos, plus an open position. There is also a rotating gobo wheel in the Mac 500 which has five rotating gobos, plus open. The Mac 500 also has a three-facet rotating prism/variable frost.

Pan and tilt resolution could be set to be either 8-bit or 16-bit. With 8-bit pan/tilt resolution, the pan and tilt are divided into 256 equal increments. With 16-bit mode, the pan range is divided into 32,768 increments and the tilt range into 45,567 increments. This allowed for much finer, smoother and more accurate pan and tilt movements. The pan/tilt range was 440°/306° in both 8 bit and 16 bit modes.

The beam can be focused from as close as two metres, a large feat at the time for a large moving light. The diameter of the iris went from 100 percent (fully open) down to 15 percent. Smooth, high resolution 100 percent dimming is coupled with a shutter capable of strobe

effects up to 23 Hz. You also have the option to choose the dimming curve. You can select between linear or simulated tungsten dimming.

The Mac 500 and Mac 600 are now 25 years old. It is unknown how many working examples still exist and how many, if any, are still in service. The pair would be Martin's best offering and arguably the industry standard in spot and profile movers at the turn of the century. They were a sales success for Martin and really put them on the map as a manufacturer of quality, intelligent DMX operated stage lights. This reputation continues today.



## MAC 500 PROFILE FEATURES

- 1 fixed gobo wheel with 9 gobos plus open.
- 1 rotating gobo wheel with 6 gobos plus open.
- 2 colour wheels each with 9 colour slots plus open.
- Motorised iris and focus.
- Rotating prism.



MAC 500 and 600 in Magenta



MAC 500 and 600 in Cyan



MAC 600 in Yellow

# WHAT ARE THE CHALLENGES OF VIRTUAL EVENTS AND HOW TO OVERCOME THEM?

Running any kind of event is inevitably a challenge; that's why event producing is a job and not a hobby. Virtual and hybrid events bring their own unique complications that may be overlooked by those with more experience running in-person events. However, even with COVID-19 increasingly more of a mild nuisance than a mortal threat for most people, virtual events are now indelibly part of the events landscape, so it helps to know what challenges event producers will face and, more importantly, how to overcome them.

Of course, this being CX, we're going to be looking at this more from an AV support perspective than that of an event producer. However, even if some of these tips seem obvious, it will help to know what clients may be at risk of overlooking so that you can give them advanced warning and offer to get them out of the metaphorical hole before they've had a chance to dig it too deep.

## Plan Ahead

No, this article hasn't been guest-authored by Captain Obvious. As illogical as it may seem, one of the biggest challenges faced by event planners is failing to plan. More specifically, it is failing to adapt the plan for the specific needs of virtual events.

"One of the most common misconceptions we hear about virtual events is that clients feel their timeline is shorter than or similar to an in-person event. Truthfully, planning a virtual



Photo Credit: Jonathan Borba. [unsplash.com](https://unsplash.com)

or hybrid event takes more time, which we refer to as the pre-planning process,” said Bill Wassmer when interviewed by CaptioningStar. A veteran events and communications professional and founder of NxtGen Events, Bill and his team have spent most of the COVID-19 pandemic helping their clients adapt to virtual events.

“To ensure your presenters are prepared, content is loaded to your platform, technological needs are taken care of and more, you need to have the right resources on your side, and you need to build extra pre-planning time into your schedule. This keeps your virtual event from failing to deliver the expected ROI,” he explained.

It's important to stress to clients that, while the technology being used for a virtual event is pretty much plug-and-play from an organiser's perspective, those actually using the technology may need time to learn how to, especially if they need to load content onto it. As Bill said, this is especially true for presenters, but can include others.

### Know Your Limits

While modern AV technology is an amazing enabler, it is still limited by its medium of transmission: the internet. Many is the virtual

event that has been seriously disrupted by bandwidth limits and spotty connections. Countless feeds and flashy special effects certainly look impressive on paper, but they can create massive amounts of lag if you're trying to force too much data down a connection not built for it.

“The best virtual events don't have to be flashy. In fact, Associations Now reminds us that it would be best if you keep effects to a minimum to ensure that it's a smooth experience for all your attendees,” said Cassandra Logan, a freelance event producer, in her guest blog post for CadmiumCD. “The higher the graphics needed to render an event, the more lag attendees might experience. 3D models are great for impressing your audience in a trade show, though not all of them will see it. If you're using a camera to film a live stream, scale your video output to 1080p or, at least, provide the audience the option to adjust video quality. The key takeaway here is to provide quality assets without ruining the experience.”

She added that event producers need to expect that there will be technical difficulties and prepare accordingly. Sure, there are steps they can and should take to minimise the difficulties, but having a fully prepared backup host could be the difference between a mere “difficulty” and an outright event failure.

### Keep the Audience Engaged

COVID-19 brought a lot of previously little-known terms into common usage, one of which was ‘screen fatigue’; tired eyes caused by looking at digital devices for too long. With events generally being quite lengthy in nature, event producers run a very real risk of losing most of their audience long before the end.

“With so many people experiencing screen fatigue it has become a challenge to keep attendees focused and engaged. However, planning virtual events that have very immersive experiences can solve that challenge,” said Yinka Freeman in the CaptioningStar article. “Sessions can be made to be very interactive with the audience, by creating live Q&A, polls, surveys or quizzes and a live chat with a chat moderator. Picking a virtual event platform that focuses on attendee engagement is extremely important in the beginning stages of planning – a platform that offers gamification is a huge plus.”

Yinka's point on interaction among attendees is an important one that should be stressed to event producers. Events and conferences are inherently social events, but it is easy to view virtual events as little more than a glorified YouTube video. Allowing attendees to interact with each other and the speakers will help to retain the event feel.



Photo Credit: ConvertKit. unsplash.com



Photo Credit: Campaign Creators. unsplash.com

"Connection between attendees, sponsors and exhibitors plays a huge role in engagement. You want to make sure that they can independently connect with each other during the event, whether that is dedicated networking times or free flowing networking throughout the event," Yinka added. "Creating bitesize sessions is a great way to keep your attendee's attention focused and keep them engaged. Shorter sessions combined with a short Q&A or a short quiz work well."

"My last note is to incorporate breaks into your event. Those can be dance breaks, wellness breaks, or fun activities like trivia or a treasure hunt. These will keep your attendees logged on and engaged with each other throughout the entire event."

### Choose the Right Platform

Bettercast is, of course, a virtual event hosting platform, so of course we're going to stress the importance of choosing the right one. However, we are not necessarily going to say that the right one is always Bettercast. It is important for event organisers and AV specialists alike to understand that there is no universal 'right' option. Which platform is right to use will inevitably depend on the event it is being used to host.

"It's really important to know what you want the attendee experience to be and also what your objectives are first," said Ashanti Bentil-Dhue, formerly head of digital media and events at EventMind (though now the founder and CEO of Good Soil Leaders) in an interview

on Hubilo's EventTalks podcast. "It's really important to know what it is you are looking to achieve so you can select from the plethora of virtual events platforms that are available."

She added that, given the ever-growing list of platforms, each with slightly different features, it can be challenging to make a confident decision on which to use, especially for people new to the industry. The one feature she stressed as important above all else was customer service, adding, "In the virtual environment, things go wrong. The question is, does the platform that you're working with provide you with any support in those situations, either in the initial stages when you're building or during the event being live? What support are they providing to ensure that your event is a success?"

## 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**



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

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

Supporting the mental health of Australian entertainment industry workers

# LIVING WITHOUT REGRET



**"Gee, I really wish I hadn't done that." Know that feeling? We've all been there, made a mistake, maybe a major one, then felt the nature of its impact dawning on us. There can be a gaping raw hole in your soul when you know you messed up. There is no save file for this. You just have to suck it up and wear it.**

When it happens, make whatever reparations are needed, take a big deep breath and vow not to do it again. But don't stop trying.

It is far better to regret something that didn't work out as expected, than regret never having attempted it in the first place. In this context, it is better to not regret at all.

## Freedom of choice

Guess what? Life's hard and full of difficult choices. You don't always know where they will lead either. That is both beautiful and scary, and a vital part of being alive.

And your decisions are never without consequence. In physics, every action has an equal and opposite reaction. In life, the proportionality of the response may vary from 'cool, I got away with it' to 'oh no, I just cocked up bad', but there will be a comeback of either way.

Living without regret doesn't mean not being responsible for your own actions, nor does it give license to hurt others. Quite the contrary - not having regrets means making good choices in the first place. And if they weren't optimal, then learning the lessons from the missteps and not doing them again. Well, not too often anyway!

It means accepting and owning your mistakes. That takes some brutal self-honesty at times, but the payoffs are generally worth it.

Failure is OK and normal. If you haven't failed, have you really pushed yourself? If you never want to fail, you can take all the safe choices. You might get lucky with this approach.

Equally, you may not. Life throws curve balls. Some do 'all the right things', get tripped up by an arbitrary happenstance and fail anyway. C'est la vie. Some folks throw caution to the wind and things just seem to fall in place for them. Good luck to them.

Accidents, illness, war, famine, alien probes - these things are all out of your control. They can affect anyone, regardless of genetic or social heritage, regardless of financial wealth, divine intervention or lottery magic. The random number generator of fate is truly chaotic.

It would be very sad to sit in dotage and look back on all of the things that might have been if only you'd shown a little courage.

## Park, drive or reverse?

How best to achieve this lofty life state then? Start by looking forward - that's where you are headed. Project all the different possible goals in your mind and the paths to get there.

Dream big, but don't forget to also look backward - that's where your lessons are. Learn from mistakes, both yours and others, so that you may make better decisions as you go. History is full of repeated gaffes, blunders and outright howlers. Best not copy them.

Above all, making the most of your opportunities requires living right here and now. Fully involving yourself in the moment and enjoying whatever task is at hand. It may be drudgery but if it is helping you towards that goal, find some Zen in whatever step you are on.

## Exempli Gratia

Recently, I accidentally hit reply-all on a text to 90 people. Oops. When I told someone close, they said, "good thing it was you and not me that did that." I don't think they meant me harm in that; more that they knew I'd accept the mistake and not stress over it. That is much easier for me than them. And yeh, I copped blowback: confused or angry reply texts of 'who are you?', 'I don't know your number', etc came for days.

There were two ways to deal with this: beat myself up over a minor mistake that is

undoable; or laugh it off each time I got pinged. I took the latter and had an amusing couple of days.

I've made life-changing personal and professional mistakes. Haven't we all? Like many, I've equally made scores more good decisions. Nothing's perfect, no-one's ideal. Each step, no matter good or bad, leads you to where you stand now.

Other great examples: I permanently trashed my knee studying Aikido. Bummer, but that's OK - learnings made there have underpinned much of my later persistence and fortitude. I started in live music with a goal of studio production. Tinnitus killed that dream but a pivot to lighting enabled another. Biggest of all, I've permanently damaged my back, ostensibly from building a house. But this house is my home, where I feel safe, secure and alive. It is worth every ache to live in such an environment.

## Regret nothing

All this relentless positivity and self-belief schtick - am I blessed? Not in the least. I've endured many hardships, continue to live with multiple chronic ailments and struggle to get through some days. It would be easy to dwell on that misery and get sucked into a black hole. Rather, I blank it out with good music and long walks in the garden. It works for me, but you do you. Just do something that works to negate the negatives.

When I'm sitting in the dentist's chair or yet another doctor's waiting room, do I regret that I lived hard when I was young? No. It was so much fun in that instant. Pain and disability might suck now but every youthful binge built my character to what it has become.

I'm about to put it all on the line and have my first ever solo photography exhibition. If it goes well, that's awesome. If not, no matter - I gave it a good crack. If anything, I regret not doing it earlier.

Life is for living and living happens now. Not tomorrow, not yesterday, but right now ... the very moment that you are in. Get out and enjoy it, without remorse, guilt or shame.



# ADVERTISE WITH US



#### CX Magazine

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



#### CX News

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



#### CXnetwork.com.au

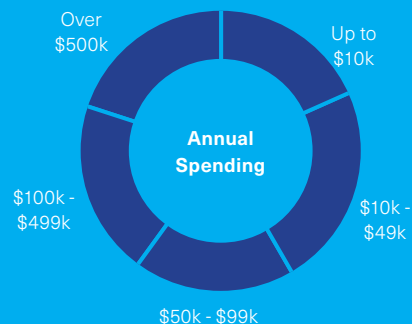
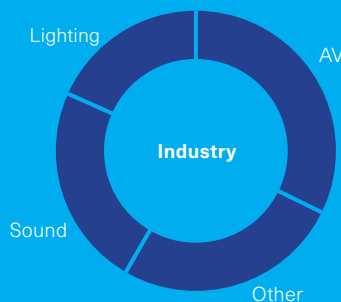
The website makes over **40,000 impressions** per month.



#### Social Media

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

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



**Our audience are YOUR potential customers.**

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

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



Inmarsat Satellite

# BROADCAST BLUES

## Stop the press, I want to get off!

Returning home from my third interview for the position of Editor of a national broadcast magazine, and unsure of the outcome, I muttered to myself negatively, “Oh well, there’s always alcohol.” Days later the ringing phone excitedly heralded the imminent news that I had been awarded the position, which ultimately would bring about the same indulgent result.

The advertisement, which was listed as Journalist/Editor, led me to believe, naively, that I would be editing my own articles, not editing the entire magazine. This misconception later became the subject of some amusement especially when I related a bogus version of the story to a work colleague who then published my buffoonery in the company’s official journal: “Brian originally applied for the position of janitor, but so impressed management with his ability to change the paper towels in the men’s room that he was offered the position of Editor.”

Although the publication of this gag did little to enhance my stature, things hadn’t been looking too bright since my first day on the job when the Associate Publisher took me to a nearby cafe, and over coffee told me, “Don’t worry, your job is safe, but they’re trying to scrap the magazine because it’s in the red.”

I soon became aware that I was in the employ of an organisation awash with low morale and

a large staff turnover. The hierarchy consisted of Publisher, Associate Publisher/Ad Guy, and Editor. My first publisher was eventually replaced; my second publisher was sacked, and some time later the departure of the Associate Publisher/Ad Guy left me in sole charge of the magazine, which, ironically, was now back in the black.

There was no shortage of bizarre incidents that occurred under the roof of this establishment (now defunct), but for me the most bizarre was when I was summoned to the office in my second year by my third publisher who demanded an explanation for an article I had included in the magazine.

“This is plagiarism,” she said, slamming the magazine down on the desk and adding, “I’ve just been down to see this advertiser, and I happened to show them your article as an example of how we supported their products; and they informed me it’s their article from their own magazine.”

“That’s correct,” I said.

“Well, aren’t you ashamed?” she insisted.

“No, it’s a press release. They sent it to me for publication, and as you can see I didn’t by-line it.”

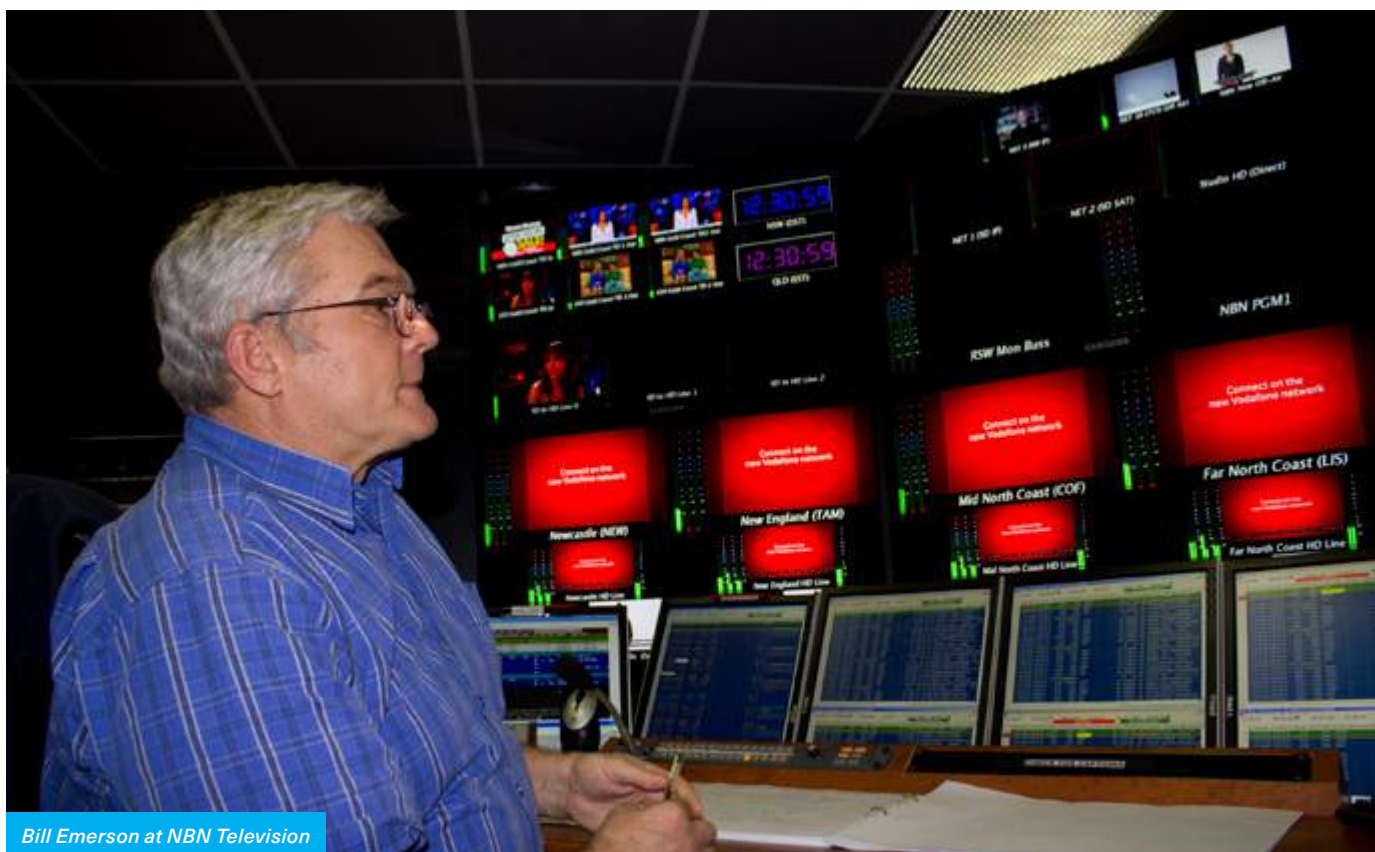
“But you’ve added graphics and you have a different headline.”

“Yes, that’s what we do with press releases.”

A long silence ensued, but there was never any apology.

My love of the broadcast industry and writing about it became my only solace during those harrowing years wherein I passionately pursued new innovations like the MPEG-4 AVC (Advanced Video Coding) codec, which hadn’t yet gained notoriety as a broadcast codec. I also wrote prolifically about the advancements being made by Inmarsat, especially their BGAN (Broadband Global Area Network), which could connect a laptop computer in a remote location, even a desert, to the broadband network worldwide via satellite.

Australian digital TV was introduced in January 2001, only two years prior to my first edition as Editor, and there was plenty to write about with the debate raging as to why Australia was so slow to embrace the new digital technology with only a 28% take-up. Questions were also



Bill Emerson at NBN Television

being raised as to why television stations, reluctant to broadcast HDTV, had to be forced by law to transmit 1,040 hours of native HD content per year, and the 'Cash For Comment' affair once again raised its ugly head.

HD was the buzzword of that era, but there was an abundance of furrhies about the technology. Sales staff selling big screen HD televisions, some not up to specifications, talked glowingly about how their customers could watch Australian sports on the big screen in full HD, when sports in Australia at the time were only broadcast in SD (Standard Definition). Such broadcasts were only possible with high definition OB (Outside

Broadcast) vans, and the only HD OB vans in Australia belonged to One80 Digital Post stationed at the NBN Television studios in Newcastle, NSW. And it was One80 that went on to shoot the Eagles Farewell 1 Tour in Melbourne in 2004 in HD (1080i).

One of the last bastions where one was allowed to consume alcohol during work hours was journalism. And whilst the office drinking culture was in decline, if not taboo by the end of the 20th century, journalists were exempt. They were free to attend alcohol fuelled functions where they could gain an insight into important publishing content. My initial Associate Publisher/Ad Guy would drag me

along (not that I minded) to these functions, dangling the carrot of free editorial to his clients while trying to sell them advertising space in the magazine. I found it amusing that he was a teetotaler, if not a borderline abolitionist, who would give me chiding looks across the table, but reluctantly had to abandon his austere principals to attend such functions.

I managed to ditch my Associate Publisher for a memorable Sony function in 2004; he would never have understood the difficulty of trying to modify one's drinking habits when you find a waiter standing at the ready with a white napkin draped over his arm pouring

**(( bssound ))**

**BAND PA SYSTEMS, VOCAL PA SYSTEMS, LIGHTS**

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

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

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

**RentalPoint**  
SOFTWARE

**Use it Anywhere!**

Powerful web based software  
Designed for your business!

**CX**

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

Register now at **cxnetwork.com.au**



Graeme Armstrong, Technical and Operations Manager outside One80's HD OB Van



Sony's QRIO robot

one of the better red wines while you dined on grilled Barramundi flown in fresh from Central Queensland.

After this exquisite Sony dining experience all the guests were ushered to an adjacent room and treated to a show by Sony's humanoid entertainment robot. However, it was I that probably had the greater fuzzy logic, and after years of telling all and sundry that I had seen a live performance of ASIMO, which was Honda's robotic creation, I realised I had in reality seen Sony's QRIO robot.

Rarely in the past had I imbibed during work hours, but back at the office the editorial flow was often thwarted by recalcitrant departments within the organisation, and the pressure would build until I'd find myself exchanging my editor's chair for a bar stool at the local RSL.

I was soon to find I was not alone at the bar. There were other dissidents that met regularly, and the only excuse for a premature departure were those immortal words, "I'm on deadline." Meanwhile, the breathalyser in the lobby, which was supposed to encourage restraint, became a tool of competitive folly for those returning to work, so much so that the RSL removed it.

I won't dwell on the subversive practices of autonomous departments that were detrimental to the publication, but management always seemed oblivious to the problems, and reluctant to resolve them. At one particular function, which my wife also attended, she was asked covertly by management, "What do you think about your husband's drinking habits?" And she replied, "He never drank like that before he worked for your company."



# *The ACETA Archive of Excellence*

A progressive and visionary program from ACETA,  
honoring remarkable careers and preserving the heritage  
of the Australian Entertainment Technology Industry.



Roger Savage



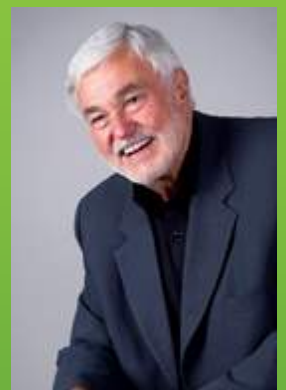
Colin Stevenson



Roger McLachlan



Murray Tregonning



David Bell

Visit [www.aceta.org.au](http://www.aceta.org.au) to watch the  
interviews of these great industry stalwarts

# ULA GROUP



EXPERIENCE OUR LATEST TECHNOLOGY AT **ENTECH** ROADSHOW

PROUDLY REPRESENTING WORLD LEADING INDUSTRY BRANDS

VUEPIX  
INFILED

ChamSys

ELATION  
PROFESSIONAL

lumenradio

CHAINMASTER  
THE WORLD OF MOTORS

GRIVEN 

ASTERA

NOVA STAR

SGM

ADJ

DJPOWER

uvmedico

MDG

arKaos

Acme

BROMPTON  
TECHNOLOGY

7M

LUXIDEL



ULA  
GROUP

AUS 1300 852 476 | NZ 09 218 6532 | [info@ulagroup.com](mailto:info@ulagroup.com) | [ulagroup.com](http://ulagroup.com)