

CX

INTEGRATION / AUDIO / LIGHTING / VIDEO / STAGING

INTERNATIONAL

DEPECHE IS BACK!

Jason Baeri lights Depeche Mode's World Tour

MUSE OF THE PEOPLE

Sooner Routhier and Jesse Lee Stout light Muse's American Tour

MIXING DESK FINESSE

DIGICO'S QUANTUM 338

The Nest at Phoenix Central Park chooses DiGiCo's Quantum 338 for high quality sound, adaptability and "Capabilities we haven't even thought of yet"

THE FUTURE ISSUE

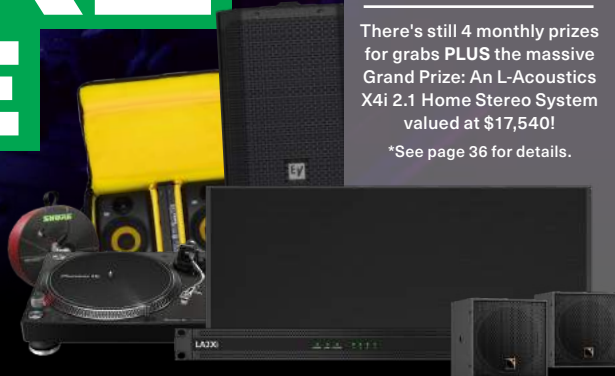
- / INNOVATIVE: INNOVATING
- / STAGEKINGS VENUE SYSTEM
- / KLANG: MINNESOTA ORCHESTRA
- / IN-CAMERA VISUAL EFFECTS
- / AMX: 40 AND INTO THE FUTURE

JANDS x CX

WIN BIG WITH JANDS

There's still 4 monthly prizes for grabs PLUS the massive Grand Prize: An L-Acoustics X4i 2.1 Home Stereo System valued at \$17,540!

*See page 36 for details.



News

- / TAG go carbon neutral on deliveries
- / AVD and the New ENTECH Road Show
- / ACETA Rolls Out Accreditation
- / D2N's deal with GT World Challenge Team
- / Prolights in GTV9 Studio
- / MadisonAV take on Humly and Nureva

Regulars

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

Road Test

- / Meyer Sound ULTRA-X40

THOR NOW IN STOCK!



ENGINEERING INNOVATIVE POWER FILTRATION AND PROTECTION PRODUCTS.

NAS
nas.solutions

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





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

beyond connected

CONTENTS

NEWS

Powered by sunshine, TAG dials up its local delivery options	4
Audio Visual Distributors and the New ENTECH Road Show	6
ACETA Rolls Out Accreditation	8
D2N Inks Deal with GT World Challenge Asia Team	10
PROLIGHTS brings control to GTV9 Studio	12
MadisonAV take on Humly and Nureva	14

NEW GEAR

FEATURES

In Profile: Paul Charlier <i>by Allee Richards</i>	26
Lighting: Robe Helps TAPFS Reach Dark Side of the Moon <i>by Louise Stickland</i>	29
Jands: Competition, Centrefold Lift Out, and L-Acoustics L-ISA Hyperreal Sound System at Sydney Coliseum	36
Memento Mori: Jason Baeri lights Depeche Mode world tour with Elation Artiste and new Rayzor Blade	56
Will of the People: Ayrton Perseo and Domino LT fixtures shine on Muse's North American Tour	58

THE FUTURE ISSUE

Phoenix Central Park: DiGiCo's Quantum 338	32
Innovative: Innovating <i>by Kurtis Hammer</i>	41
The Future of Venues: Stagekings' huge temporary venue system <i>by Jenny Barrett</i>	44
Minnesota Orchestra Goes Immersive Online with KLANG	48
The Future Of Lighting For In-Camera Visual Effects	50
AMX at 40 and Into The Future	52

REGULARS

Listen Here: A.I. in the E.I. <i>by Andy Stewart (not A.I.)</i>	20
New Zealand: Remembering two stalwarts of the NZ lighting industry. Commemorating Hugh Kenderdine and Neil Dearlove <i>by Jenny Barrett</i>	23
Tech Talk: Ghibli – Putting Ayrton on the Map <i>by Kurtis Hammer</i>	60
Backstage: Toffler and beyond <i>by John O'Brien</i>	65
The Gaffa Tapes: After Dark <i>by Brian Coleman</i>	66

ROAD TEST

Meyer Sound ULTRA-X40 <i>by Matt Zalewski</i>	62
--	----



Cover Photo – Kyoshi at Phoenix Central Park. Photo Credit: Tom Wilkinson
Contents Photo – Depeche Mode. Photo Credit: Steve Jennings

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

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

All contents COPYRIGHT CX Network Pty Ltd 2023.
Nothing herein to be reproduced in any format without express written consent.



Powered By Sunshine

TAG DIALS UP ITS LOCAL DELIVERY OPTIONS

Technical Audio Group is now making carbon neutral deliveries around Sydney with an all-electric, solar charged, eight ton, eight pallet truck.

Having long wanted to improve the certainty of local deliveries, particularly those direct to work sites where access is limited and where timing needs to be flexible and reliable, Team TAG researched the options and settled on a beauty with the SEA 300 EV.

"As a service to our customers we want to guarantee deliveries and we were finding that local couriers just don't have the flexibility to wait and make sure difficult deliveries are completed," said TAG Warehouse manager Shane Linfoot. "You can't blame them. They're on a tight schedule and have to complete their runs, but it doesn't work when one of our deliveries is critical and that's why we made

the decision to take control of those sort of deliveries ourselves."

But why go electric? An electric vehicle is consistent with TAG's commitment to sustainable solutions, and the SEA 300 EV is designed and built in Australia, so ticks a lot of boxes.

"On paper, an eight-ton electric truck is an eye watering investment that doesn't make financial sense," stated TAG CFO Craig Durrant. "If it was purely a business decision, we wouldn't have taken the leap but there are much bigger factors at play here, like the environment and the condition of the planet we pass onto the next generation. Every time tag|zero hits the road it serves as a powerful reminder that a carbon neutral solution is not only possible but in fact a serious and viable option. And the lack of exhaust emissions is something everyone out in traffic can enjoy immediately!"

With the unprecedented demand for all things EV, it took 18 months for TAG's shiny new SEA 300 EV to be delivered. SEA-Electric are an Australian company and a global leader in electric commercial vehicles. The SEA 300 EV utilises a Hino cab/chassis with the diesel engine and gearbox replaced by a SEA-Drive electric power system plus batteries sufficient for a 220km range. The company manufactures around five electric trucks every week at its Dandenong, Victoria facility.

With 108kW solar array on their Kings Park warehouse roof, tag|zero is charged directly from the sun. "There's something beautiful and compelling about turning sunlight into local deliveries," said Shane. "We're working our solar array pretty hard now with nine electric warehouse vehicles, the odd EV charging up and now tag|zero. Nonetheless, if you're passing by, you're still very welcome to drop in for some free juice, and if you see tag|zero on the road please give us a wave."

NOW AVAILABLE FROM NAS!



C2 TWO-WAY SURGE PROTECTOR WITH BEST FILTRATION

2 PROTECTED OUTLETS
LARGE PLUG ADAPTORS
SPACE SAVING FLAT HEAD PLUG
FIRE RETARDANT



PS10 10A PURE SINE WAVE POWER STATION WITH ELITE FILTRATION

PURE SINE WAVE OUTPUT
UNDER/OVER VOLTAGE STABILISATION
8 PROTECTED OUTLETS
AERIAL AND PAY TV PROTECTION
3 ISOLATED BANKS
DATA/VOICE PROTECTION
FIRE RETARDANT



E1/45S FOUR-WAY FILTERED BOARD WITH BETTER FILTRATION

4 PROTECTED OUTLETS
EARTH DETECTION CIRCUIT
LARGE PLUG ADAPTOR
AERIAL PROTECTION
PAY TV PROTECTION
DATA/VOICE PROTECTION
FIRE RETARDENT



RF11iQP PRODIGY REMOTE

AUTO RESTART (OUTLET 1)
REMOTE MONITOR AND NETWORK CONNECTION
RACK MOUNTABLE - 1RU APPROX
ADJUSTABLE SIDE BRACKETS
OTA FIRMWARE UPDATE
MULTICAST DNS - EASIER TO FIND ON NETWORK
SIMPLE NETWORK MANAGEMENT PROTOCOL
4 X IEC CONNECTIONS (REAR)
7 X 3 PIN OUTLETS (FRONT)



AUSTRALIAN DESIGNED
AND ENGINEERED

6 YEAR REPLACEMENT WARRANTY

Audio Visual Distributors and the New ENTECH Road Show



Audio Visual Distributors (AVD) are importers and distributors of specialist AV products headquartered in the Gold Coast, Queensland, with offices around the continent and in New Zealand. Their brand portfolio includes integration staples like ClearOne conferencing, AVPro Edge AVoIP distribution, Clearline optical fiber, Barco ClickShare collaboration, Absen LED displays, and Marshall cameras.

At ENTECH Roadshow 2023, AVD and the team, headed by Director Elkie van Zyl, will be on tour showcasing their wares to the expanded audience drawn to the show, with its renewed focus on AV integrators and engineering consultants.

"AVD has always had a range of products that fit across a number of vertical markets," explains Elkie, "and we initially joined ENTECH Roadshow to showcase our solutions for rental and staging. What we've found since, is that there's an enormous amount of crossover between traditional AV and the production

market, and, as such, ENTECH has worked really well for us."

AVD will be showcasing AVPro Edge's MXNet AVoIP ecosystem and their 'no BS' 10-year warranty. With preconfigured network switch solutions, MXNet makes setting up large AVoIP networks easy, without needing a degree in IT. Add in signal distribution via AVD's Clearline fiber, input from Marshall cameras and ClearOne beamforming microphones, through to output courtesy of Absen's huge range of LED products, and AVD carry a solution for any size integration project.

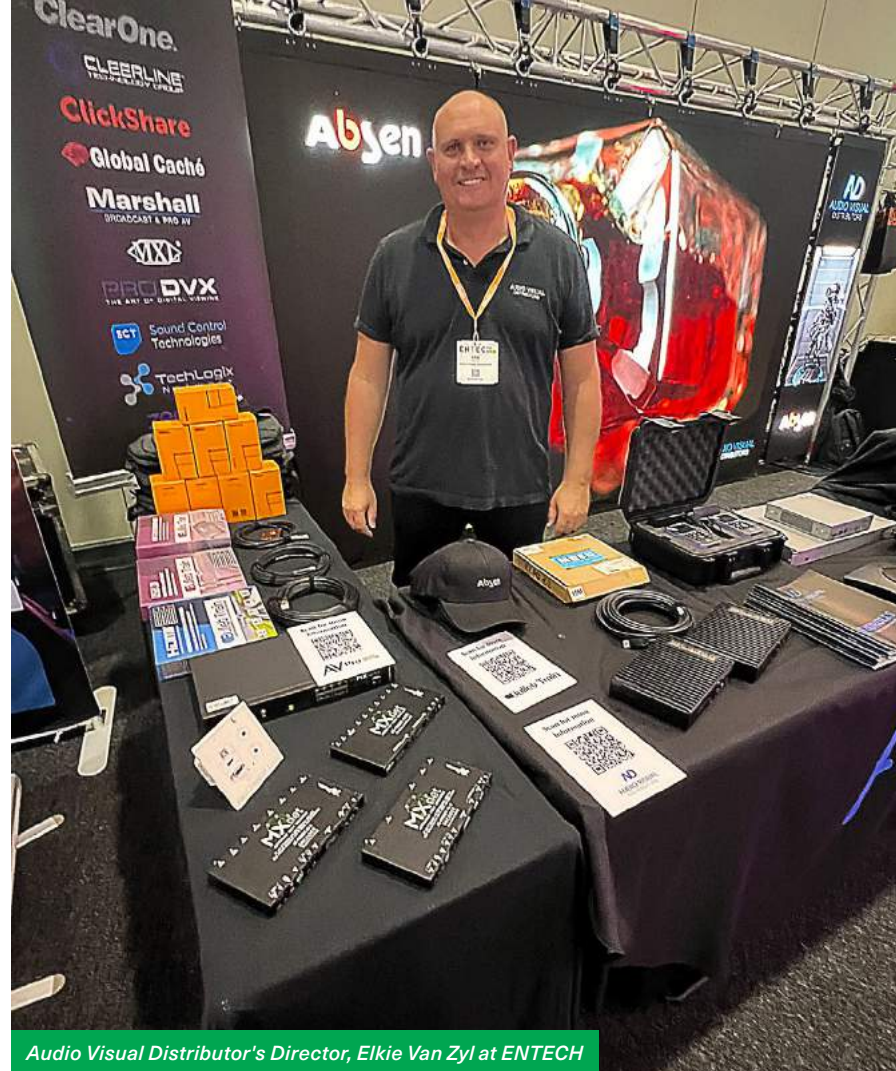
"We love seeing our integrators and consultants at ENTECH," relates Elkie. "Because the show is quite different to a large, centrally located trade show, we find it has a much more relaxed atmosphere. We've found the atmosphere translates into refreshing, open, and honest conversations with customers, particularly those with AV consultants. People seem to bring a different, more open mind-set to ENTECH, which leads to great discussions and more 'aha!' moments, when they realise they've found something new and useful to their business."

ABOUT ENTECH ROADSHOW

ENTECH Roadshow is the only trade show for AV and entertainment technology professionals that visits every major population centre in Australia, opening up access to more business opportunities than any other event. ENTECH will visit Sydney, Melbourne, Brisbane, Adelaide, and Perth in October 2023, bringing a fresh perspective on the industry to every local market.

If you are interested in exhibiting at ENTECH 2023, please email the show organisers at exhibit@entech-roadshow.com to obtain a prospectus.

More info: entech-roadshow.com



Audio Visual Distributor's Director, Elkie Van Zyl at ENTECH

entech

10 - 24 October 2023

5G+8K UHD LED Display Solution

VMP

+

CX80 Pro

+

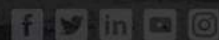
CA50E

Single-port input with 8K loading capacity, and ethernet output port with 5G ultra-large bandwidth, 1 controller, 16 network cables, easy to load 8K LED screen, greatly simplify 8K system solution chain of ultra-high-definition, high frame rate, high bit depth.

NOVASTAR

www.novastar.tech

✉ david@novastar.tech



5G+8K





ACETA Rolls Out Accreditation

A new accreditation system from the peak industry association ACETA was unveiled at its conference in Wangaratta on May 7. ACETA V.P. Tiny Good detailed the benefits of accreditation, which gives purchasers and hirers confidence that an organisation is operating ethically, is solvent, and has a physical address in Australia.

Tiny outlined the process for accreditation and discussed the methodology which starts with a simple application, a declaration, and then moves to assessing other elements, without lawyers or accountants. The cost of accreditation is around 10% of membership, with each accreditation in force for three years.

The scope for accreditation covers all membership types for any business, as diverse as an importer, a production company, or a specialist service provider. All businesses have uniform requirements and should be potentially eligible for accreditation provided they are properly structured and managed.

Having the word 'Accredited' with an icon from ACETA gives buyers confidence in due diligence and affects the attractiveness of the business, particularly to government customers such as councils. It also means buyers can order goods online knowing the origin of the shipment is within Australia, avoiding inadvertently becoming the 'importer' when an online purchase is shipped from outside Australia.

Tiny gave the scenario where the online order appeared to be from within Australia, but when delivered the imported items were

now potentially un-compliant or not meeting regulations. He singled out staging and rigging products which potentially leave the importer - the purchaser - liable for prosecution if the products fail and injure people.

On that topic Tiny also revealed the draft Temporary Structure Guide, also developed by ACETA, which provides a template for venues and production suppliers to be one step ahead of Building Surveyors who audit most outdoor and large shows. Assisted in compiling the guide by Paul McCarthy from PBM Enterprises, Tiny has drawn on decades of rigging, staging, automation and show infrastructure work at his company ShowTech Australia.

The Guide will be available free on the ACETA website.

ACETA Commission the Skills On-Ramp

A forum at the ACETA Convention heard that technical skills shortages in the entertainment, theatre and events industry are at an all-time-high. Facilitated by this author, delegates recounted frustrations finding suitable training providers and trainees. The Australian Vocational Education and Training (V.E.T.)

framework was deemed unfit for purpose when it comes to our industry.

Making the point there are just 26 providers of CUA30420-Certificate III in Live Production and Technical Services, I stated that the Victorian Arts Centre is the only industry trainer. Things are more dire at Certificate IV level, with just nine training organisations.

Beyond formal V.E.T. training and Degree Programs run by higher education providers, it was agreed almost all training in technical roles is now ad-hoc, on the job, often using a buddy system. Delegates then reported slow and low uptake with fewer school leavers and potential trainees coming through doors, often due to lack of knowledge of job types and career opportunities.

ACETA then appointed a sub committee comprising Showtech Australia CEO Tiny Good, PBM Enterprises head Paul McCarthy, and myself, to draft an 'on-ramp' package to assist potential entrants and most importantly their influencers; teachers, mentors and parents, to better understand which roles fit which entrant and crucially, where to find trainee opportunities.

The package is anticipated before Spring.

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.





D2N TECHNOLOGY SOLUTIONS INKS DEAL WITH GT WORLD CHALLENGE ASIA TEAM

D2N – Technology Solutions has signed a multi-year deal to supply a comprehensive Riedel Bolero and Kenwood intercom solution for the Triple Eight Race Engineering/Johor Motor Sports Team who compete in the Fanatec GT World Challenge series. With multiple teams, driver’s championships and Bathurst 1000 wins, Triple Eight are a powerhouse of the pit lane.

The Fanatec GT World Challenge Asia Series is the continent’s biggest multi-class GT race series. It also comprises a quarter of SRO Motorsports Group’s worldwide GT3 sprint racing platform where the performances of manufacturers and drivers contribute towards a global championship as well as domestic titles. The series is also one of a select few multi-class championships to mix GT3 and GT4 cars, with the latter’s teams and drivers fighting for their own class wins and titles.

Commenting on the D2N comms deal Triple Eight Race Engineering’s GT Team Manager, Andrew Simpson said, “D2N’s Managing Director, Jason Owen successfully has previously worked with the team to supply

vital equipment to our GT team. Since then, Jason has provided an excellent Riedel Bolero and Kenwood intercom solution which fully satisfies the requirements of our Asian GT program.”

Triple Eight’s requirements for their Asian GT program needed a solution that was more expansive than the one the team had been using in Australia.

Simpson continued, “The new communications system needed to be more powerful, flexible, and critically have the ability to change between the different radio frequency restrictions in different countries. As such, the Riedel Kenwood solution D2N



"The new communications system needed to be more powerful, flexible, and critically have the ability to change between the different radio frequency restrictions in different countries."

have provided us with will allow us to simply change what range of the DECT spectrum the system operates on to comply with different regulations in various countries."

The full communications solution D2N proposed and provided for the Triple Eight GT Asia team Simpson describes as a winning combination adding, "The Riedel Bolero and Kenwood intercom system gives each team member a belt pack to communicate effectively

across different channels to each section of the team. Having six-plus different lines of communication on the belt pack system also allows for a much more streamlined way of communicating amongst the team. For example, our engineers can talk easily to other engineers, our crew chief can talk to each car's respective crew and so on - all in super high-quality audio. The Kenwood mobile units provide excellent signal when communicating with the car on track."

As far as quality and reliability of the D2N solution are concerned Simpson is equally complimentary concluding, "D2N are the undoubted leader in high quality racing communications and Riedel and Kenwood make great products. The programming interface we now use is intuitive and user friendly. The beltpack units themselves are great quality, with excellent signal strength, battery life, sound quality and ergonomic buttons. As a result of having D2N as a technology partner, the Triple Eight Race Engineering team will exclusively use the Riedel Bolero and Kenwood system they have supplied us with throughout our campaign in GTWC Asia for all our communication needs."



TRUE LIGHT[®]

Show your true colours

Get high quality lighting from LED panels that have extra emitters while maintaining per-pixel colour accuracy – with TrueLight you can ensure skin tones look as natural as they were meant to be.

Meet us at Cine Gear, Booth number: S3227

RGB
RGBW

MEET THE FUTURE



www.bromptontech.com
info@bromptontech.com
+44 (0)20 7471 9444



PROLIGHTS

brings control to GTV9 Studio

When GTV9 Melbourne decided to update its lighting, it turned to PROLIGHTS, backed by local distributor Show Technology, and the excellent reputation of the brand. Having a fixture they could add more too, or replace in a short lead time, from any of the main Melbourne rental houses, was definitely a major consideration with the purchase.

The resulting package comprises 22 EclFresnel TW 11, EclFresnel 2KTW, 22 EclPanel TWC, 18 EclPanel TWCjr and 13 EclProfile CT+.

Since the installation, the studio has halved the fixture count in the rig from the old tungsten luminaires, resulting in considerable savings in power. "Our talent have even commented on how cool the studios are these days," remarked Daniel Saveski, Senior Lighting Director at GTV9. "The best thing about LEDs is once the colour temperature is set, there is no colour shift when lowering levels. This was always the fun and sometimes challenging side in lighting faces with a tungsten source."

Shane O'Dwyer, Lighting Supervisor at GTV9, added that he particularly likes that there is a very even colour temperature between all of the different fixtures which, he points out, really helps when you are lighting one show with multiple lights. "The evenness of the light output is awesome, especially the profile fixture, from the middle of the beam to the edge, there is no drop off which has changed the way I can light, making it so much easier," he commented.

Shane has enjoyed using the EclPanel TWC fixtures for fill light especially in conjunction with an egg crate which has allowed him to control the light and stop the set being washed

out. "The ability for fixtures to switch to RGB mode has meant we have so many more creative options and can respond quickly to a creative request from a director or producer during a live show."

The tunable White from Daylight through to Tungsten means that Daniel and Shane can now get the best look out of the set screens, with so much control over the light output.



SOME JOBS REQUIRE A **BIG** LINE ARRAY.
FOR EVERYTHING ELSE, **THERE IS**

MAILA®



MINIMAL SIZE MAXIMUM POWER

From an acoustic point of view the strength of MAILA lies in generating tremendous sound pressure levels from an extremely compact footprint.



SMARTLINK+® CONNECTION

The SmartLink+® cable-free connection transmits both the audio and power and allows the installed passive satellites to be detected for automatic or manual DSP processing.

MAILA® APP

The MAILA Quick-Setup App provides remote access to the various elements of the system and their DSP settings via a wireless connection with a tablet device.

MAILA®
MODULAR ALL-ROUND INTELLIGENT LINE ARRAY

MAILA is not just "one" product, it is a scalable system that sets new standards in terms of user-friendliness and flexibility: a compact line array system based on four modules that can cover almost any application ranging from a small business conference to a medium-sized festival.



the four **MAILA®** modules



Discover MAILA at:
ld-systems.com/maila

Exclusively distributed by:
AVE
AUDIO VISUAL ENGINEERING
www.avecorp.com.au

LDsystems LD
your sound. our mission.



Humly Room Display



Humly Under Desk Booking Device

MADISONAV TAKE ON HUMLY AND NUREVA



Nureva HDL200



Nureva Microphone Mist Technology

HUMLY

Humly, a Swedish workplace experience company, has continued to expand internationally, appointing MadisonAV to distribute their suite of workplace solutions in Australia.

"We are happy to be working together with such an experienced and innovative company in Australia. Their technical expertise, combined with the quality of their product range makes them the perfect partner for Humly. We think our Workplace Management suite fit in nicely with Madison AV's product portfolio," says Humly Sales Director, Daniel Assarson.

The Humly Workplace Solutions product suite, including the six-time award-winning Humly Room Display, launched in 2020, is available

and proven to work in any combination based on business needs. The seamless interoperability of all Humly Workplace Solutions also eliminates integration chaos and security concerns. At the same time, custom hardware and a flexible API ensure freedom and interoperability with a customer's broader technology ecosystem, a perfect fit for MadisonAV's customers.

Ken Kyle, CEO of MadisonAV, said; "We were introduced to Humly at the ISE show in Barcelona. It was obvious that their products would fit perfectly with our initiatives in workplace solutions, and the model was in keeping with our own push towards cloud-based technologies. Coupled with the aesthetics of the hardware, the depth of security that has been incorporated, and the infectious enthusiasm of the Humly team, we were in no doubt that the product was going to be at home with us, and we're excited to get started with Humly in the Australian market."

Humly Workplace Solutions products (Humly Room Display, Humly Wayfinding, Humly

Reservations, Humly Visitor, Humly Floor Plan) are a comprehensive suite of workplace solutions to book, manage and optimise office spaces for businesses of all sizes. Recently they launched their new ground-breaking hardware product, Humly Booking Device.

ABOUT HUMLY

Humly is a "Workplace Experience" company that releases time for knowledge workers and streamlines the use of resources in modern workplaces with self-developed meeting room screens and flexible solutions for booking desks and other resources. By facilitating frequent recurring activities and reducing the number of disruptions in the office, Humly creates value by saving time and reducing frustration for end users while optimizing the use of the office's fixed workspaces and workplaces. Humly is a global company with establishments in Europe, Asia, North America and now Australia, that provides solutions and services worldwide through local partners.

[Learn more at www.humly.com](http://www.humly.com).

NUREVA

MadisonAV has also announced its appointment as an official supplier of Nureva audio conferencing products in Australia. This strategic partnership will enable MadisonAV to expand its portfolio of high-quality collaboration solutions while continuing to provide unparalleled support and access to products from leading global brands to its clients across the region.

Powered by patented Microphone Mist technology, Nureva audio conferencing systems bring clear, reliable audio to meeting and learning spaces. The technology fills a room with thousands of virtual microphones so in-room participants can move around and still be heard clearly by remote participants.

The Nureva product line includes the HDL200 for small rooms, HDL310 for large rooms and Dual HDL410 for extra-large rooms. They all feature true full-room microphone pickup, easy

installation and continuous autocalibration that automatically adapts to any room configuration.

"Working with Nureva is an exciting development for MadisonAV," said Ken Kyle. "We are always looking for innovative audiovisual solutions that solve real-world integration challenges, whilst enhancing customer experiences, and Nureva does exactly that. Nureva products deliver a winning combination of outstanding audio performance, integration simplicity and adaptability to environmental changes – all at a very attractive price point."

"We are thrilled to work with MadisonAV in Australia," said Susan Jickling, Director International Sales for Nureva. "MadisonAV's dedication to providing value-added solutions aligns perfectly with our mission to revolutionise collaboration experiences in medium, large and extra-large spaces. Their extensive market reach, technical expertise, and strong customer relationships will undoubtedly drive the adoption of Nureva solutions across various industries in Australia."

Nureva's innovative technology delivers a range of benefits, including:

- Unrivalled audio quality: Nureva's patented Microphone Mist technology ensures crystal-clear audio pick-up for all participants, regardless of their location in the room



Nureva HDL200 in the home

- Seamless integration: Nureva solutions seamlessly integrate with popular collaboration platforms, facilitating effortless communication and collaboration across devices and software
- Scalability and flexibility: With scalable options for medium to extra-large meeting rooms and classrooms, Nureva solutions offer the flexibility to adapt to evolving collaboration needs

ABOUT NUREVA

Nureva Inc. is a technology-rich private company that makes it refreshingly easy for IT teams to equip meeting and learning spaces with great audio. The technology also features continuous autocalibration, noise reduction, position-based gain control and simultaneous processing, providing remote participants with a clear, reliable listening experience. A passion for achieving simplicity through deep user understanding drives the company's product roadmap and the value it creates for its customers. For more information, visit Nureva's website www.nureva.com

lumenradio WIRELESS WITHOUT WORRIES

ONE SUPPLIER OF WIRELESS DMX TECHNOLOGY

Stardust

Luna

Moonlight

Black Box

White Box

NOW AVAILABLE EXCLUSIVELY FROM ULA GROUP IN BOTH AUSTRALIA & NEW ZEALAND

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

NEW GEAR



DiGiCo Reveals Codename Stingray Quantum852

DiGiCo has announced the launch of the next generation of large format live audio production mixing consoles. As you would expect from a brand-new console from DiGiCo, it has been designed from the ground up. Familiar, yet different, and with improved audio quality via enhanced algorithms, Quantum852 delivers a massive leap forward in processing power. It is neatly packaged with 1000 nit LCD screens for full daylight operation and a newly designed worksurface, giving users the confidence that, true to the DiGiCo ethos, Quantum852 has been designed not just for now, but for the future.

With that firmly in mind, Quantum852 also includes a raft of eco credentials. Its lightweight alloy construction reduces weight, which in turn helps mitigate its environmental impact during transportation. It has a reduced operating power, thermal cooling fans along with convection cooling and temperature dependent

cooling. Further reducing Quantum852's environmental footprint is the inclusion of sustainable and recyclable materials.

Quantum852's tech spec is equally as impressive. Featuring fully redundant processing, each engine is powered by five of the latest 7th generation FPGAs and next generation SHARC DSP processors. Quantum852's input count increases to 384 mono channels, with 192 Aux / Sub-Group busses, plus the familiar LR / LCR / 5.1 Master busses. It comes with a 64 x 64 Processing Matrix, 36 Control Groups, two Solo busses and 64 FX Rack slots. There are 48 Graphic EQs, 384 Nodal Processors, 128 Mustard Processors and 32 Spice Racks.

The magic continues with the Ultimate 'Stadius' modular LOCAL I/O, with each of the three cards providing four Stadius Mic-Pres, four Stadius Line Outputs and two Bit Perfect AES I/O. On the back of each engine there are eight single or four

redundant BNC MADI ports, Word Clock, AES Sync and Video Sync inputs, Dual USB 2.0 Sockets, a SuperSpeed USB 3.0 socket, 4k DisplayPort Overview Out, 5-Port 1Gbps network switch, Dual DMI slots, Waves SoundGrid port and Optocore inputs as standard, with space for an optional second Optocore loop.

The three 21.3 inch, all-new daylight bright screens ensure there will never be a situation where viewing is difficult. There are also three 19.2 inch dedicated meter bridge screens, three dedicated 6.8 inch control screens for bank and layer switching, and 69 1.3 inch worksurface screens, all of which are touch sensitive for channel selects and solos, ensuring instant access and control.

Australia and New Zealand: Group Technologies
grouptechnologies.com.au
+61 3 9354 9133



William AV WaveCAST WF T5C

William AV, a global leader in hearing assistance technology, has launched the latest version of its popular WaveCAST C Wi-Fi audio system. The WF T5C is built on a hardware-based digital signal processors audio system architecture, letting system optimisation achieve the highest quality experience for the particular audio stream being delivered. It is designed to meet accessibility requirements in any setting where background noise, room acoustics, or distance from the sound source presents a listening challenge.

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

New Zealand: NSL nsl.co.nz
or 09 913 6212



Audio-Technica AT2040USB

The new AT2040USB microphone features a dynamic design for voice capture with added USB connection. Combining the broadcast-quality performance of the AT2040 dynamic podcast microphone with plug-and-play USB functionality makes this the ideal microphone for podcasters, streamers, and other content creators to achieve professional results.

Australia: TAG www.tag.com.au or 02 9519 0900

New Zealand: Direct Imports
directimports.co.nz or 06 873 0129

Epson EB-L770U

The EB-L770U is a lightweight, compact projector that offers native WUXGA with 4K Enhancement and 7,000 lumens of brightness. Display images up to 500" and switch between a variety of aspect ratios, from standard 16:10 to ultra-wide 21:9 that provides for a more immersive experience, ideal for hybrid work environments as well as classrooms. Designed with convenience in mind, this projector features a 20,000-hour virtually maintenance-free laser light source, and the optional ELPEC01 camera that can simplify complex multi-projector applications.

Australia: Epson www.epson.com.au or (02) 8899 3666

New Zealand: Epson www.epson.co.nz or (09) 366 6855



NEW GEAR



Ayrton Rivale Profile

Equipped with a 160mm frontal lens and a brand new 450W high-efficiency LED module, calibrated at 6500K with a luminous flux of 27,000 lumens, Rivale Profile can produce an ultra-intensive beam of 4° with a 13:1 zoom ratio and a zoom range of 4° to 52°. A new high-definition progressive CMY colour mixing system allows a perfect reproduction of pastel colours. A variable Deep RED channel optimises the colour rendering index at low levels and offers a progressive red with a high level of saturation for specific needs. A progressive CTO and a seven-position colour wheel complete the palette of tools dedicated to creating colour.



Ayrton Argo 6 FX

Argo 6 FX is a versatile, fully equipped luminaire designed for a multitude of applications. It borrows from the main features of the Wash version and offers continuous rotation of the pan and tilt movement. Argo 6 FX is equipped with a high-definition liquid effect system enhanced by a translucent honeycomb that can generate complex graphic effects.

Australia: Show Technology Australia
www.showtech.com.au (02) 9748 1122

New Zealand: Show Technology New Zealand
www.showtech.nz (09) 869 3293

Ayrton Argo 6 Wash

For the first time, Ayrton has provided individual control of the LEDs on the Argo 6 Wash version and added a virtually infinite library of effects. A complete library of pre-programmed colours allows quick creation of subtle, dense, and contrasting swathes of light. Its black honeycomb and perfect separation of the light sources help to significantly boost the level of contrast.



Elation Fuze Wash 500

The full-colour-spectrum Fuze Wash 500 is a compact yet powerful LED Fresnel moving head fixture with zoom designed for theatre, television, events and a wide array of other precision lighting applications where a high-quality soft field of light is required. The Fuze Wash 500 excels at producing the soft field light that designers require when highlighting performers or scenery on stage. The unit offers full-spectrum performance from a 92+ CRI engine that utilizes a 500W 5-color homogenized LED array of Red, Green, Blue, Mint, and Amber sources.

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



Clipsal Pro Wallplates by Dynalink

Dynalink have released a range of stylish Clipsal Pro series wallplates for AV connections. If you are using Clipsal Pro series in commercial spaces, this new range ensures matching aesthetics throughout the installation. This series utilises genuine Clipsal Pro wallplates which have been remachined with clip-in inserts featuring HDMI and USB connectivity. A brush entry wallplate allows easy use of pre-terminated cabling in AV installs.

*Australia and
New Zealand: Altronics
www.altronics.com.au
or +61 (0) 8 9428 2122*



NEW GEAR

QSC Q-SYS PL Series

PL Series is a portfolio of performance installation loudspeakers designed to enhance any Q-SYS system in a broad range of entertainment applications, including auditoriums, houses of worship, theatres, small sports venues and more. Q-SYS PL Series includes a wide range of form factors (line array, point source and subwoofer), allowing integrators to ensure an optimal audio experience for each unique space. When paired with the power of the Q-SYS Platform, including Q-SYS processing and network amplifiers, PL Series lets integrators take advantage of simplified setup and custom voicings (Intrinsic Correction), advanced telemetry, monitoring and customisable end-user control.

*Australia: TAG www.tag.com.au
or (02) 9519 0900
New Zealand: NSL
www.nsl.co.nz or (09) 913 6212*



RF Venue CP Architectural Antenna

The new CP Architectural Antenna folds the performance of the acclaimed CP Beam Antenna into the same slim enclosure as the Diversity Architectural Antenna to deliver an unobtrusive, high-performance solution to the problems of wireless IEM signal dropouts. Unlike LPDA ("paddle") remote antennas with a fixed polarisation, the CP Architectural Antenna uses a unique circularly polarised design to deliver a consistent signal to IEM bodypacks, even when the performer bends or twists. The antenna's low-profile housing can be installed on a wall or ceiling for optimal line-of-sight to IEM users. The housings can also be painted to match any interior for aesthetic neutrality, which room designers and architects appreciate.

*Australia: Jands www.jands.com.au or (02) 9582 0909
New Zealand: JPRO www.jpro.co.nz or (09) 275 8710*



entech 10 - 24 October 2023

Be part of something bigger...

Join us at ENTECH 2023 - The touring tradeshow that reaches majority of buyers across Australia, with average spending exceeding \$423 million.

For a copy of the ENTECH 2023 Prospectus email exhibit@entech-roadshow.com

A.I. IN THE E.I.

The world is a complex place to navigate, always has been, but more recently the challenges seem to have come thick and fast. In the various entertainment industries where most of us work day-to-day, job insecurity and runaway technological change seems to have produced a perfect storm of instability. Where will all this lead us in the years and decades ahead? Um... well... hmm... sorry, just a sec. Someone's at the door.

Let's just kick things off by stating here from the outset that I really have no idea where our various entertainment industries will be a decade from now. I'm not sure I could even predict the shifts of the next few years, to be honest... and that's troubling.

Will there be new players in the music industry soon? Like for instance, Woolworths A.I., selling its own songs in the supermarket aisle and offering you free tickets to a 'live' show featuring its avatar, 'Freshy,' when you buy more than \$100 of groceries? (If that happens, I'm doing my shopping at Coles). And will Freshy's songs be produced in the Fresh Music People's own microphone, and instrument-less studio with vast amount of input from A.I. and only a smattering from human staff? Quite possibly.

Maybe the MCG will be selling out multiple concerts for 'Bot the Robot - Live on Stage' by then; a hologram artist who doesn't actually exist, but whose popularity in 2026 has broken all records for A.A. (Artificial Artist) concert ticket sales.

Maybe immersive audio will be standard in every physical space by then too... or perhaps not. Certainly by 2033, a decade and a lifetime from now, our entertainment preferences might have shifted off axis beyond all recognition.



Perhaps gigs in '33 will be experienced in our own personal Augmented Reality Booths, a space in the house that replaced the study and defunct surround-sound AV room (if you ever had one) way back in 2027. Here you lie weightless in a bath of warm silicon, covered in an absorber that attracts microplastic air pollutants and viruses to its surface, rather than having you breathe that crap in while you're 'out.' Uber and Apple will have cornered both these markets by then, of course: Uber with its Ubabsorber and Apple with its new aesthetically pleasing: iNeverleavethehouse.

Or maybe not... both those companies may be long gone by then anyway, and plastic too, with any luck.

Perhaps my personal (arguably naïve) vision of the future will prevail; that humans will remain attracted to other talented, creative people rather than a computer-generated avatar, and choose to be entertained by others of the flesh and blood variety, live on stage or via their favourite replay format. A future without artists is something I just can't (or perhaps simply refuse to) imagine.

BUT WAIT, THE FUTURE'S ALREADY HERE!

The problem I see with predicting the future of our various entertainment industries is not that it's foolhardy, but that for the most part, it's not the future we're even discussing, but rather the present!

Most visions for the future that many of us see as 'possibly becoming a reality a decade from now' have, in fact, already happened!

Let's take A.I. for example. Anyone who thinks this is something that we need to 'get ready for' or 'gear up to embrace' hasn't been paying attention in class. It's already here folks, and it's decided to stay!

If that challenges you; if you feel like a moratorium should be placed on the idea while you take the time to wrap your head around it, you're not alone, but unfortunately, it

won't make any difference. Like the industrial revolution, nuclear weapons, and social media before it, the A.I. revolution has been thrust upon us.

Within 12 months, at the outside, it will have become a significant player in everything we produce, stage, plan for, or record. It will contribute to brainstorming sessions and design work, suggest new products, build them for you, write all your advertising material, tune PAs, run down feedback problems, design the lighting palette for a theatre piece based on the script, write and arrange your lyrics and music, suggest backing vocal melodies and sing most of them for you, mix and master everything, and hopefully hand you a coffee as you walk through the office door. Why you would still be going to the office, however, is anyone's guess, since A.I. will apparently be doing all the tasks for you.

A.I. has become the gorilla who rented the spare room in your house without asking, he's here now and we just have to find ways of making him feel welcome so he doesn't decide to turn on us while we're asleep.

But I've got to stop this line of thinking right here... I don't think I can stand another second of it.

If you're anything like me, you've had a gutful by now of people projecting a dystopian image of the future; a world in which no-one bothers to learn anything, create anything or develop a human skill anymore because, in the future, A.I. will apparently do all the thinking, designing and grunt work for you.

What I'd like to think instead, if I may, is that we, as human beings, are still in charge of our own future; it hasn't been written for us quite yet by some amoral learning algorithm that intends to do away with us in the next few years.

I'd like to offer some thoughts instead of what I'd like our industry to do in the years ahead to make the jobs of us creative types easier, so that we can spend more time tapping into our human spirit, expressing it in new and inspiring ways... robots be damned!



PRESENTING AX64

THUNDER | CORE AUDIO INTERFACE

NEXT-GEN AD/DA/DD & AUDIO ROUTING COMPUTER INTERFACE

Digital Audio Denmark (DAD) has launched the AX64, the 2nd product in the ThunderCore series. The new versatile and modular multi-format audio A/D, D/A and D/D converter with 8 slots for the acclaimed audio I/O cards known from the AX32 and NTP Penta product family. Designed for Post Production, Studio, Live music and Installed Audio domains.



FEATURES

- 2 Thunderbolt 3 ports (15W power each)
- 256 Bidirectional Channels at 48 & 96 kHz
- ASIO / Core Audio Thunderbolt PCIe Drivers
- MADI/BNC - Optional 2 x SFP
- ADT / Lightpipe (16 ch.)
- DANTE: 256 ch. at 48 kHz, 128 ch. at 96 kHz, 64 Ch. at 192 kHz (IP core)
- Internal Router: 4096 x 4096
- WC I/O
- SPQ 64 Ch. with 16 filters
- Pro | Mon Support
- 8 slots for any available expansion cards
- Avid Eucon enabled devices via DADman
- 32bit Floating Point Processing
- Summing processor 64 output / 512 input busses

DAD CARD OPTIONS The user can install up to 8 optional I/O cards in the AX64. The cards are fully inter-changeable between the products. Please note that any future cards developed for the AX64 will not be backwards compatible.

EXPANSION CARDS FOR DAD AX32, AX64 and PENTA PRODUCTS:

- 8 Analogue Inputs (Line signal)
- 8 Analogue Inputs (Mic preamps)
- 8 Analogue Outputs (Line signal)
- DANTE Card (128 Ch.)
- Dual MADI Card (2 x 64 ch.)
- AES Card (16 Ch.)
- Dual MADI Module (2 x 64 Ch.)

Sold, Serviced and Supported by CDA Pro AV Pty Ltd
Unit 13, 538 Gardeners Road, ALEXANDRIA NSW 2015



www.cda-proav.com.au

sales@cda-proav.com.au

02 9330 1750



A HUMAN PERSPECTIVE

The hard reality might simply be that for engineers and producers in the music and entertainment industry, things will change radically. Particularly jobs involving 'screwdriver work', recording, studio and live mixing, mastering and post-production work in general, these roles will become more that of a curator, aesthete and designer. They will be squarely based around your 'human input' (unsurprisingly), your capacity for deciding what you like or don't like when presented with 10 variations on a theme, rather than having to build these themes yourself.

The next generation of 'technical' roles will be more about knowing how to prompt technology to offer you solutions and then choosing between them, rather than knowing how to set a compressor correctly for a snare drum or set up the cleanest gain structure for a vocal.

What will separate one individual from others, what will define 'your sound' as it were, will be your aesthetic choices, likes and dislikes, not your capacity for advanced knob twiddling. There will be upsides and downsides to this of course, but perhaps being liberated to make creative choices with a clear head will do us all the world of good.

But will we still have jobs as a result of all of this 'advancement', all this freedom to provide your exclusively human creative input? Not sure, but I'm doubtful.

One thing is clear though: in the future, software companies will really need to step up their game and (ironically) turn their thinking around a full 180 degrees. They've had an outrageously charmed run for decades now, using everyone as a guinea pig for their own designs (and failings), providing almost no feedback about technical problems when they arise and leaving human operators, who are

busy trying to be creative, to solve them with almost literally no feedback. This attitude to end-users has to stop.

Perhaps for the next few years, rather than getting A.I. to crash headlong into the entertainment industry and take over the roles of humans, software developers should concentrate on making software that repairs itself and learns to work for the human 'curator,' rather than treating us all like lackies.

Software needs to be able to interact with users in ways it never has before. It needs to be able to find technical solutions to its own software problems, not assume that the operator has the time or capacity to be able to run down problems on the program's behalf. I, for one, am entirely sick of it.

And acoustic design needs to be brought into the 21st century too. The days of everything being half-arsed in venues, studios and post-

production houses need to end. Venues seem almost incapable still in 2023 of providing a space where performers can play comfortably on stage, and audiences can enjoy high quality sound reproduction that leaves them wanting more. It should be at the forefront of future thinking, especially for architects and designers and venue operators. It must no longer be something considered after a building is built, or when the budget is already spent.

But I'm out of space now folks, and my A.I. avatar is suggesting that I've added too many jokes and not enough detail in this article. It has given my article a score of 78% but suggests a rewrite that would bump that figure up to 100% in 0.48 of a second. But I'm resisting the temptation...

For now.

Into the future we go.

Andy Stewart owns and operates The Mill studio in Victoria, a futuristic world of old analogue gear, quaint instruments and microphones mixed with moderately cutting-edge technology. There's a distinct absence of A.I. for now. But for how long?



Remembering two stalwarts of the NZ lighting industry

Commemorating Hugh Kenderdine and Neil Dearlove



The technical innovator Hugh Kenderdine and the visionary creator Neil Dearlove formed an unforgettable duo in the late 70s and early 80s, before forging ahead on divergent paths. Industry counterparts share their recollections of these two remarkable individuals.

Chris on Hugh

Chris McKenzie, Sales Director of Professional Lighting Services (PLS) and Kenderdine Entertainment Lighting, had a long and close relationship with Hugh, meeting for the first time in the early 70s when Chris was moonlighting from his TV day job. "I was a lighting tech at the Wellington Opera House and Hugh was part of an Auckland touring company. I still remember that first impression he made. He was very low-key but efficient and amazing to work with. I recall he always had time to help the youngsters like me."

This generosity of spirit is a recurring theme, both throughout Chris and Hugh's friendship and in Hugh's relationship with people across the industry, "So many people got their first break because of Hugh. Neil Dearlove started out at Kenderdine's with Hugh even helping out with his first deposit on a house. Ray Channon was another, setting up the original rock & roll touring company, with trucking and staging as well as lighting. If he met young people who didn't know what they wanted to do with their lives, he'd let them come and work for him on a casual basis or help them find other work in the industry. He's a bit of an unsung hero."

Chris himself was one of the many who benefitted from Hugh's kindness; "In the early 80s I was in Auckland working for the Vidcom of old and as Kenderdine's was really the only lighting place in town, I frequently hired gear from Hugh and we would chat and exchange ideas. When I decided to become a freelance gaffer and needed a vehicle, he shared his deal with Avis with me, so typical of his generosity." One thing led to another and with Chris's access to and knowledge of the TV and film industry and Hugh's array of lighting equipment and technical aptitude, a partnership was born that would later become PLS, the TV and film arm of the stage and live



Hugh with his brand new Altman Satellite followspot



Hugh operating with 24 channels of Theatrelight glory (John Coutts on Sound)



Neil at his café in Rarotonga



Hugh and Neil using the genie to get a bathtub up to the second floor



Neil and his dog



Hugh Kenderdine



Neil Dearlove



events lighting hire company Kenderdine's, originally established by Hugh in 1959.

A journeyman electrician by trade, Hugh fell into the theatre business. Back then a lighting tech had to be a licensed electrician and Hugh's mum asked him to get Grafton Theatre Company out of a hole, having been dropped in it by their electrician. He didn't know anything about lighting, but they needed his ticket, so he helped and got the bug. Hugh worked out of a number of homes, including in Mission Bay where Hugh and Neil worked together until end of the 80s. Hugh got the main LX contractor business at The Showgrounds, and then established the 6 Fox St Parnell premises as staff numbers grew ('83-93), then Burret Ave Penrose ('93 - 04), Cook St CBD ('04 - '20), and lastly and to this day at Rosebank Rd, Avondale.

It was Hugh's passion for technology that underpinned Kenderdine's success, "He built some impressive power distribution and

lighting systems for touring shows over the years. He was also a complete computer nut. When I first really got to know him, he had a TRS-80, a very early computer, and I'd joke that he would spend a week programming it to do something that I could do on pen and paper in a day."

This love of new technologies stood Hugh and the company in good stead, "He was never scared of trying a leading-edge lighting control system and if there was money in the bank he would take a punt. A lot more of the punts proved to be successful than those that sat on the shelf." As a result, Hugh had good contacts with suppliers when New Zealand's import restrictions eased, "We would be ordering something, and someone would ask if we could get one for them too and the sales side of the business just grew from there. When the

electrical wholesale business opened up, GEC Lighting approached Hugh and asked if he could look after their range of TV and film lamp sales, and we'd had Altman Lighting since the mid-60s."

Serendipity, as always, played a part in the business success too. "It was the TV series Hercules and producer Rob Tapert that gave Hugh and I the opportunity to really grow the company. Rather than thinking we've got six weeks' work we could maybe buy something; we had a guaranteed thirty-six weeks' work for six series. Hercules enabled us and many other companies to be less reactive, invest in gear and take New Zealand entertainment technology to the next level."

Chris recalls their business partnership fondly, "He was a wonderful backstop. He would

always have an idea on how to do something. I might have had the operational eye, but Hugh brought the practical, suggesting safer or longer lasting solutions. As a trained electrician he would have a very sound overview of a solution."

Outside of the business, Hugh was a solid supporter of many industry organisations and New Zealand theatre. Always avoiding the limelight himself, he volunteered resources, sponsored events and supported trade shows, "He was extraordinarily generous to the industry. Even when the business was just getting a foothold he would help the NZ Association of Theatre Technicians (NZATT), the precursor to ETNZ, with photocopying and newsletter mailouts. His support for theatre was ceaseless."

Hugh lit thousands of shows, including many of the greats. He worked with the Ballet, the Opera, and many of the Amateur Dramatic companies. He lit a broad range of shows at His Majesty's, St James, the Civic, the Auckland Town Hall, and all the theatres around the country. He lit shows at the Showgrounds and Trillos. One pivotal event was the Great Ngāruawahia Music Festival in 1973. Hugh got the LX contract and purchased a lot of new gear and hired a crew of people to work. Hugh was never paid and it almost sent him bankrupt. Fortunately, his wife's job kept them fed, and Hugh's creditor's allowed him to trade out.

Hugh's quiet but significant contribution across every component of the industry has been recognised with Life Memberships including ETNZ and Auckland Musical Theatre, whilst many technicians across New Zealand can thank Hugh for patiently and gently teaching them a thing or two.

Hugh passed away peacefully on March 14th 2023, aged 88.

Chris, Ruthe, and John on Neil

Neil Dearlove, Hugh's mentee and eighteen years younger, sadly passed away suddenly within weeks of Hugh. In Chris's words, "Neil was a visionary, enormously creative and incredibly practical. Working during the heyday of big product releases, he was in his element."

Hugh and Neil were renowned for their problem-solving abilities. Hugh's daughter Ruthe Kenderdine recalls how much time the two families spent together with their children close in age and Hugh and Neil working flat out, like so many in the industry, through other people's socializing hours, "Neil was Hugh's right hand man at KEL for much of the 1970s and into the early 1980s, working from the basement of Hugh's house. Together they came up with creative solutions for all sorts of things, and lit many great shows together."

Neil discovered his passion for lighting having upped sticks from Palmerston North to Sydney in 1967 as a fifteen year old, surviving on any work he could until he found his niche as a lighting tech. He returned to New Zealand with a new wife and a creative gift for lighting that took him all over New Zealand and overseas, staging product launches (the flying Toyota's at the town hall are still talked about today), touring bands, Bruce Lee exhibitions, and conferences; freelance, with Hugh, and then with Bong and Noon Wong at Multi-Media Systems.

It was an IBM conference in Rarotonga in 1986 that sent Neil off on another adventure. John Woods, friend and neighbour in the Cook Islands, takes up the story, "A year later, the family sold up and came to live on a tropical island in the middle of nowhere. They sold the house in Pakuranga, said goodbye to the pristine lawn, and returned to Raro."

Ever resourceful, John recalls Neil's many business pursuits, "He got a job as a sparky at the airport, set up a jet boat business, opened up an electrical shop which morphed into a gift shop, became the country's first internet provider, set up the original Café, and the Matavera coffee shop and roastery. So many firsts for Raro."

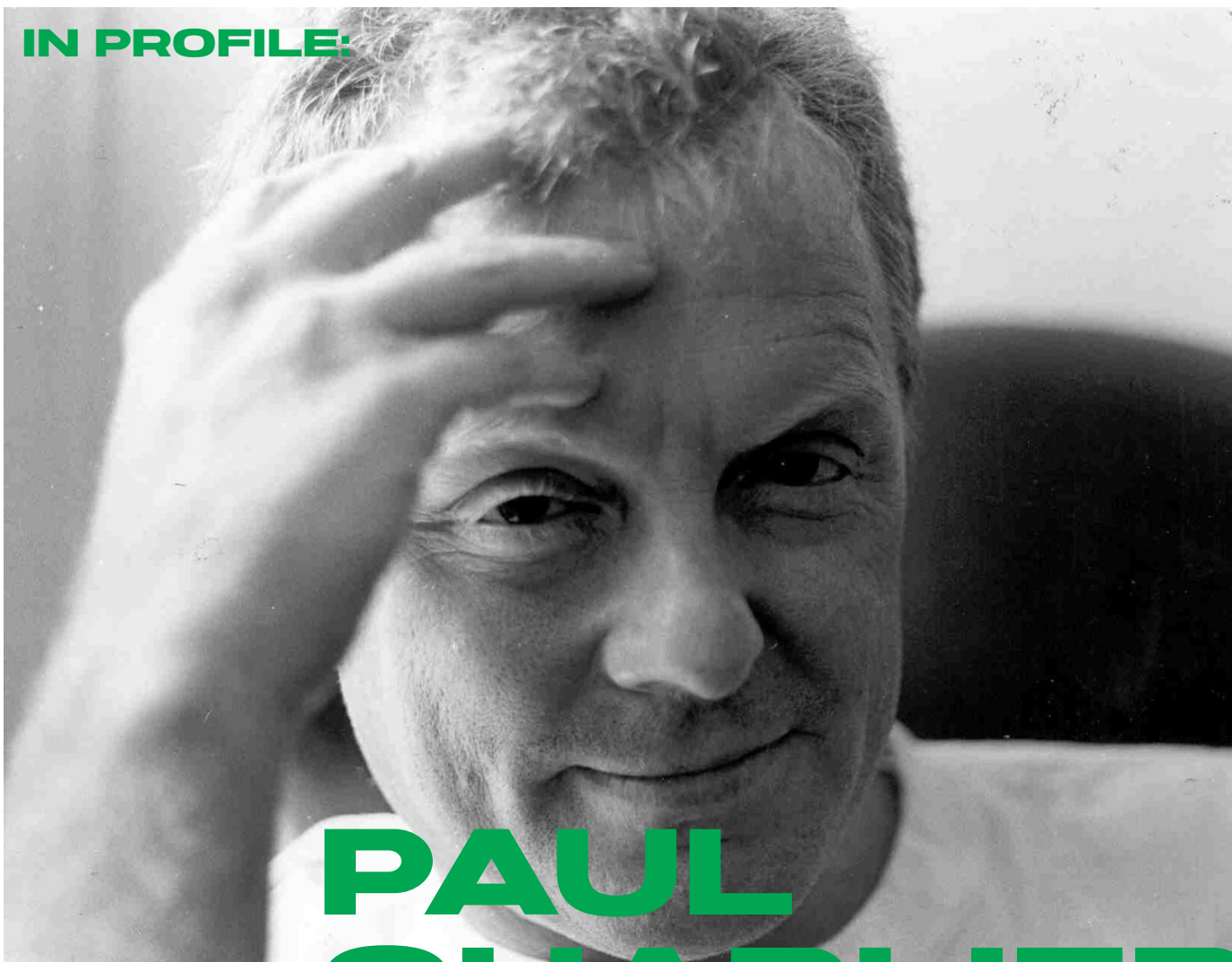
Following in the footsteps of Hugh, Neil too encouraged, supported and mentored people across the island and leaves many grateful protégés in his wake.

WE HAVE YOUR EVENT BACKDROP SOLUTIONS



NEW ZEALAND

IN PROFILE:



PAUL CHARLIER

Paul Charlier has composed and sound designed for approaching 200 productions across theatre, dance, physical theatre, film, TV, radio, and audio-visual installations. He started out with industrial noise outfits SoliPsiK and SPK and since then his works include: Liv Ullman's *A Street Car Named Desire*, Stephen Soderberg's *Tot Mom*, Judy Davis' *Faith Healer* and *Dance of Death*, and a lot of plays with Neil Armfield at Belvoir in the day, Michael Blakemore's *Copenhagen* at STC, plus his *Deuce* on Broadway and *Afterlife* at the National Theatre, London; Marrugeku's *Jurrungu Ngan-Ga (Straight Talk)*, DV8's *The Cost Of Living* and *Force Majeure's Already Elsewhere*. He scored the films *Candy*, *Last Ride* and *The Final Quarter*, and sound designed *Looking for Alibrandi* and *Paul Kelly: Stories of Me*.

I don't get around to asking Paul Charlier if he has any formal education in sound design and music composition. It's evident speaking to him that his expertise in the field has largely come from experience. "I've always had this thing that the way to learn is you find the person and just go talk to them," says Paul. "It's probably a pre-internet way of learning."

In 1992 Paul self-designed a research trip that he was very grateful to get funding for; "I'd just seen *Aliens*, the 1986 sequel to *Alien*. It has an extraordinary mix in the way of integrating voice, music and sound effects. I just wanted

to find the person who did it. So I went through the credits and started sending faxes saying I'd be in England, can I meet you?"

When Paul went to meet Graham Hartstone at Pinewood Studios, he was expecting "some young cowboy in his twenties who was pushing the limits." What he found was a much older gentleman with a wealth of experience who explained to Paul how everything he learnt working on James Bond films and David Lean films had informed his work on *Aliens*. "At that point I realised it's not a moment-to-moment thing, but a huge tome of experience

that you gather and develop project-to-project."

When Paul started working as a sound designer in theatres he was working on reel-to-reel tape. Over his career he has worked through the transition to CD and then to computers. Each medium has its limitations, but he explains the experience of "just hacking it through with whatever is available" has developed skills in being able to find his desired effect with whatever he has on hand.

"Stage managers in the 90s were operating lighting and sound off reel-to-reel and



"With Prima Facie, the speakers are quiet low on the set because we wanted the music to come from the same place as the actor's voice."

Paul worked with physical theatre company Stalker in the 90s, which he describes as; "a master class in learning how to write music that could follow the action." When performing high-risk work, such as jumping off sets on bungee cords, the performer won't jump on the fourth beat of the bar, but only when it's safe. "That was in the CD era. One version of Stalker's Blood Vessel was on five CD players, to break the music up across different discs and keep it in time and in line with the performance."

Another major factor in designing sound is not just how it integrates with the performance, but with the audience. "One of the things I always hated was front of house stereo that was way up above the audience," admits Paul. "I found it very disorientating because the sound was coming from the gods and the story was happening much lower on stage."

With each show Paul will enter the theatre and see what the venue has and how he can reconfigure it to get the best effect for that specific space; tech specs can't always be relied upon to be up to date. A trick he often uses is turning speakers around and facing them at a wall or the roof, so the sound bounces off. It creates a more natural diffusion and means the sound coming from the speakers is merged with the actors' voices.

"There's a trend at the moment where most of the new sound systems are set in what's thought to be the best position for radio mics and everything else revolves around that," reports Paul. "Over the last couple of years, I've started to ignore the house systems. What I've been tending to do is use a pattern of three Meyer Sound UPJs or UPAs, or larger depending what the theatre has, plus a Meyer Sound sub and putting them either behind the set or back just above the set or sometimes within the set to pull the sound down. With Prima Facie, the speakers are quiet low on the

analogue mixers with no automation," recalls Paul. "It was very hands on. The advantage of that system was that they were very responsive to each performance. They could automatically adjust if an actor was under-powered or something changed during a performance. With all the great aspects of automation, it can be hard now for the operator to adapt within a live performance. The skill and knowledge with using QLab is knowing how to put the material together to allow for flexibility so there are ways to adapt depending on the performance."

He uses an example of a recent score he designed for Griffin Theatre Company's production of Suzie Miller's Prima Facie. "The first cue is 16 stems that start together and then each of the following QLab cues remixes it. It's very flexible with the performance. If lead actor Sheridan Harbridge's timing changes, the mix changes with her. It's not one pre-recorded piece that sits under the scene. Different instruments and parts come in at different times depending on the performance. It's complicated, but it's what I've learnt to do from working in different formats."



PROstage+ Series Chain Hoists

Our lightest D8+ single-fall-hoist ever:

- 500kg or 1000kg D8+ lifting capacity
- Weight ~29kg (500kg) / ~62kg (1000kg) @ 18m
- Improved body with unique 'D-shaped' chain
- Limit switches and 6 pin Weiland control
- 12m, 18m or 24m black chain and textile chain bag
- Stocked in Australia

ONE. STOP. SOLUTION.

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

set because we wanted the music to come from the same place as the actor's voice."

In addition to integrating the sound with the action on stage, this system has advantages when designing shows that will go on tour. "I started trying to attach the speakers to sets in a way that the sound system toured with the set, so we weren't dependent on different set ups in different venues. Sometimes you will use the existing house system to elaborate it or fill in the gaps depending on the layout of the theatre."

But, of course, the design still has to allow for flexibility when touring. "Worst case scenario, you just have to do a stereo show that can slot into every venue. For *Prima Facie*, there are two versions in QLab side-by-side. There's the multichannel surround version plus a stereo mixdown within QLab. So if the venue is smaller and limited, they can play the stereo one. If they have stereo and subs, they can play stereo and the sub channel."

While there are challenges to adapting to different venues, Paul appreciates that theatre allows him to invent playback systems to be unique for each space and each show. This attention to how the audience will hear the performance is perhaps due to Paul's belief in the pleasure of sound and of listening. And this

belief extends from the listener experience to sound's role in narrative. "There's a pleasure in the colour of music and sound. When it gets too literal or treats the audience like they're idiots, I get bothered by that. If the actors are portraying the story perfectly clearly, why do you need to double-up on that?"


"*Prima Facie* starts with 'user friendly' techno music that breaks apart under the performer, it doesn't necessarily underscore her feelings, it gives the actress something to play off. Sheridan is doing an extraordinary job of the development and disintegration of the character after a rape, so the music doesn't need to reiterate that. Rather it is meant to be about how alienating and unforgiving the environments she finds herself in - the police station, the hospital, the courtroom - are."

He describes this desire not to overscore narrative as; "pushing against the waves at the moment. We're back into a way of scoring in theatre, film and TV where things are over-emphasised, and there's a lot of this is what this scene is about in the music. Mostly I think it comes from a fear of silence, that silence means nothing is happening, or a lack of confidence that a scene is working, or a fear that the audience isn't paying attention. I don't know; maybe they aren't. It's being talked about in a different light in terms of mixes for

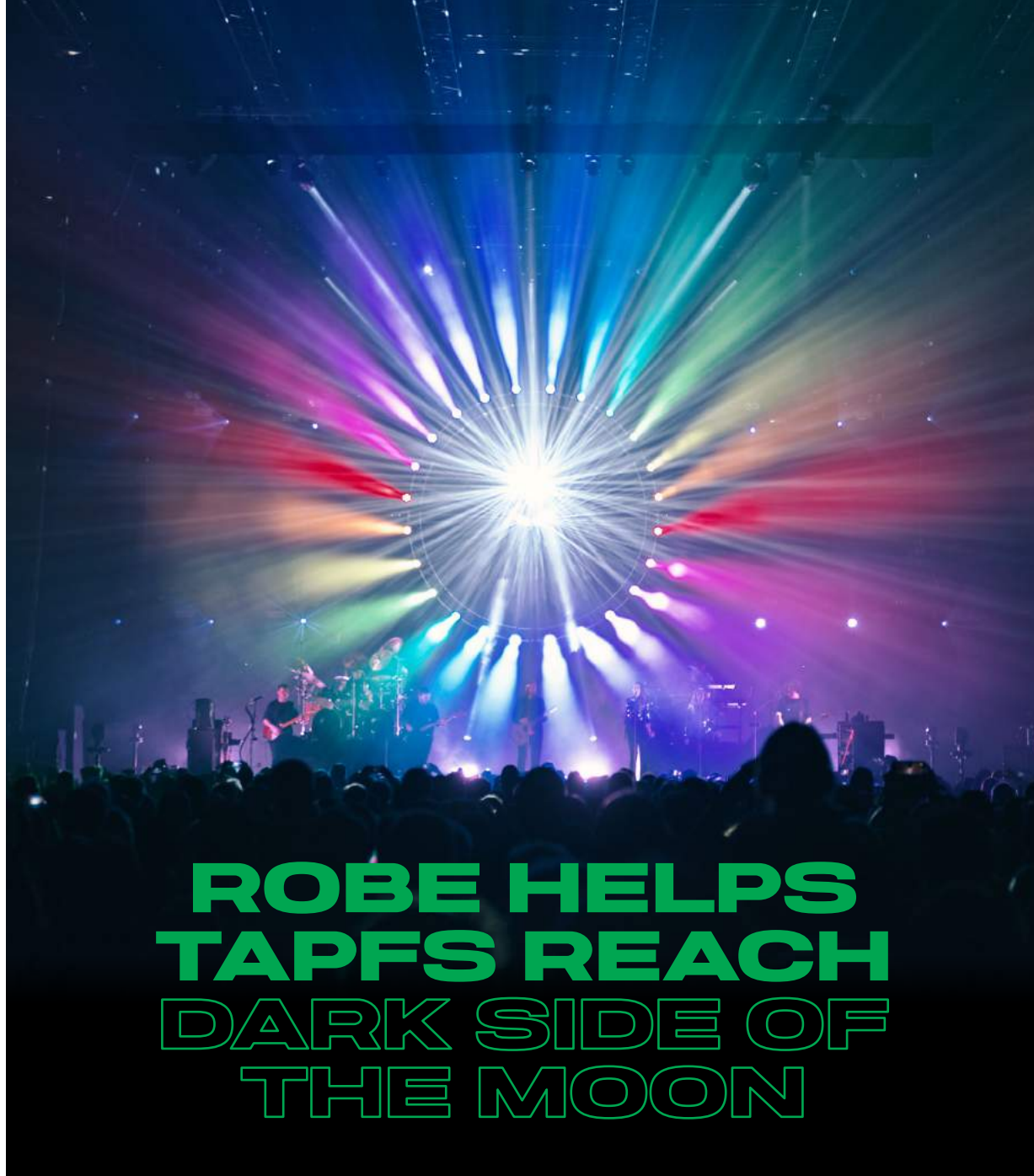
programs on streaming services, where they're very aware that half the audience isn't looking at the screen all the time, but looking at their phone, and only listening to the program. So there's a whole new type of sound use that is developing that is designed to trigger you to look up from Twitter and look at the screen because if you don't you're going to miss an important visual plot point."

While most people would most likely guiltily admit to what Paul is describing, he maintains that split focus is not new. He worked on the sound design for the 2000 film *Looking For Alibrandi*. Wanting to know how younger audiences were responding, he went on a Saturday night screening in the western suburbs of Sydney. Despite that there weren't smart phones in a cinema at that time, he describes groups of teenagers having picnics on the floor below the screen and talking all the way through the film. "Split focus was always a part of it. The phones aren't the culprit, they've slotted into existing habits."

The tome of experience that Paul has developed over his career is incredibly broad. From sound effects to music composition and acoustics, but he maintains that it's the integration of all those elements that makes a sound design. "There's no division".



"There's a pleasure in the colour of music and sound. When it gets too literal or treats the audience like they're idiots, I get bothered by that."



ROBE HELPS TAPFS REACH DARK SIDE OF THE MOON

Ever popular, The Australian Pink Floyd Show (TAPFS) continues touring year-round entertaining audiences of all ages, from original Pink Floyd fans to new ones not even born when the massively influential rock legends enjoyed their heyday in the late 20th century!

TAPFS, arguably the most authentic, successful, and long lasting of numerous tribute bands, has just finished a lengthy European arena tour.

Lighting designer Tom Mumby has worked with them since 2012, initially coming onboard as the projector tech, and then moving on to LD'ing and operating lighting in 2016. The Grimsby-based lighting rental company, Stage and Light Ltd, of which he is a director, is also the lighting vendor for all the UK and European touring work, and this latest design utilised 38 x Robe LED Beam 150s and 22 x Spiider wash beams.

The current aesthetic is based on a collage of many classic Floydesque lightshow elements, all meticulously researched by Tom, who has added his own carefully crafted contemporary touches and twists to the visual mix.

The look is dominated by a five metre circular truss centre stage, which together with strategically placed drapes, masks off an LED wall behind. The original Pink Floyd are acclaimed as pioneers of visual art and dramatic stagecraft, and for the TAPFS show, video still plays a central role in all the song narratives.

The 24 LEDBeam 150s are spread evenly around the trussing circle, and are a perfect size and proportion for the job.

"Weight was a concern," explained Tom, especially in the context of some of the older theatres they play, so this was another reason for choosing the compact and powerful LEDBeam 150. "For a fixture only weighing 5.5kg, the output and speed vs physical size is incredible!" remarked Tom, clearly impressed with the investment.

"The huge zoom range and brightness of the LEDBeam 150 ensures they really 'pop' even



"The huge zoom range and brightness of the LEDBeam 150 ensures they really 'pop' even when all the rest of the rig is on, and they are 'more than enough' when just using the circle for more clean and utilitarian looks."

when all the rest of the rig is on, and they are more than enough' when just using the circle for more clean and utilitarian looks."

Nine LEDBeam 150s also provide the front key lighting. As the band are largely on their positions, Tom can dial them right down using the zoom. "Even at 11 metres trim, they are excellent and very capable of this task," he stated. The amount of LEDBeams that can be fitted into one road case also assists with a tidy truck pack.

Side lighting is really important in this show, and integral to the design are four Spiiders downstage and another four LEDBeam 150s

upstage, the latter slotted neatly in between the drums and keyboards, some on tank-traps and some on the deck.

Upstage are four wing trusses, all pre-rigged, flown below the rear truss either side of the circle in higher and lower positions each side, which create the primary look of the show, and each of these truss sections is loaded with three Spiiders.

The remaining six Spiiders are on three back trusses and are predominantly used for essential backlight on the band. "Again, the zoom and the output are second to none," noted Tom. "They enable a multitude of looks,

strong beamy backlight, rear key light or open white washes," he says, elaborating that the colour range, from rich saturates to delicate pastels, also makes them "great fixtures".

The Spiider's interesting and cool Flower Effect is used a couple of times in the show to shift the dynamic of the space. Tom explained that when he ran out of options, holding back on the spots for another look in the song, he could throw in a gobo style look utilising the Spiiders with this option.

He uses the flower as a kaleidoscopic effect pointing right into the audience during 'One of These Days' as a bit of lighting trickery to divert





their attention from the fact that Skippy, the giant kangaroo, is being inflated!

"They are definitely a multipurpose fixture with which you can make some really nice effects, and I've never found myself wishing I had spots as side light as Spiiders handle the task so well," confirms Tom.

Other inflatables featured in the show include a pig that comes out at the arena shows in 'Run like Hell', and a teacher that adds a schoolroom commotion during 'Another Brick in The Wall'. Apart from these massive props, no self-respecting Pink Floyd tribute show would be

complete without a major mirror ball moment, and that happens during 'Comfortably Numb'.

From a rental company perspective, when Stage and Light was looking at purchasing "reliable, rentable and affordable" moving lights, Robe was always a strong contender said Tom, stating that the tech support from Robe UK has always been "top notch".

When TAPFS recently played shows in the Czech Republic, he and his crew were invited to the Robe factory and showroom after several Robe staff attended the show. "Getting such positive feedback from the team at HQ

was also a great pleasure," he stated.

Tom runs the lightshow using a ChamSys MQ500M console. He enjoys working with the band, commenting that all involved are "brilliant people" and while the band will sometimes come up with ideas, he has plenty of creative freedom to shape the show.

Working alongside him on lighting were crew chief Sudip Shrestha, dimmer tech Luca De Lauri and video tech Tom Mann, with everything co-ordinated on the road by production manager Chris Gadd.

Australia's Leading Portable Stages Supplier


Trusted by more than 1000 customers all over Australia

transtage.com.au

Contact Us Today

☎ 1300 712 066


✉ info@transtage.com.au



Safe and Robust

Quick Assembly

Highest Quality



PHOENIX CENTRAL PARK



Sampa. Photo Credit: @jordankmunns

Sound, Canvas and Embodiment with DiGiCo's Quantum 338

Rising from the ashes of a once-fire damaged warehouse in Chippendale, Sydney, Phoenix Central Park has taken flight as one of the most extraordinary cultural institutions to grace the city in recent years. Designed around both the visual and performing arts, with separate unique spaces for each, Phoenix is a philanthropically funded project centred around bringing art to the public, free of charge.

Conceived and financed by arts philanthropist Judith Neilson, with daughter Beau Neilson leading as Creative Director, Phoenix is

host to a wide gamut of music, dance and conceptual performances. These acts are accessible to the public through a free ticket balloting system, where a lucky chosen few are admitted to The Nest, the venue's intimate performance space.

The Nest is a bell-shaped chamber with asymmetrical timber ribs winding around a central stage. Equipped with an immersive PA system, The Nest is able to accommodate a wide variety of amplified performance scenarios, including those incorporating a multitude of sound sources. At the heart of handling these sources now stands a Quantum 338, one of DiGiCo's flagship digital mixing consoles.

Joshua Milch, Phoenix's Head of Digital, explains why the Quantum 338 was chosen to handle all FOH and foldback duties in The Nest.

"One of Phoenix's core tenets is the free presentation of art and performance to a variety of people from all walks of life. We seek to provide a curated set of works catering to many different backgrounds and fields of interest. In the course of accommodating these performances, we've been presented with a plethora of different technical requirements. Before acquiring the Quantum 338, we were hiring in hardware based on whatever particular requirements were needed for each artist. We're delighted to have something permanent now, which will be able to handle whatever mixing requirements may come up. It's the console's ability to handle such a range of scenarios that made it the right choice for Phoenix."

"In the short time we've been up and running, we've had acts like Sampa the Great, Genesis Owusu, The Australian Chamber Orchestra, Jon Hopkins, Kelly Lee Owens and plenty more.

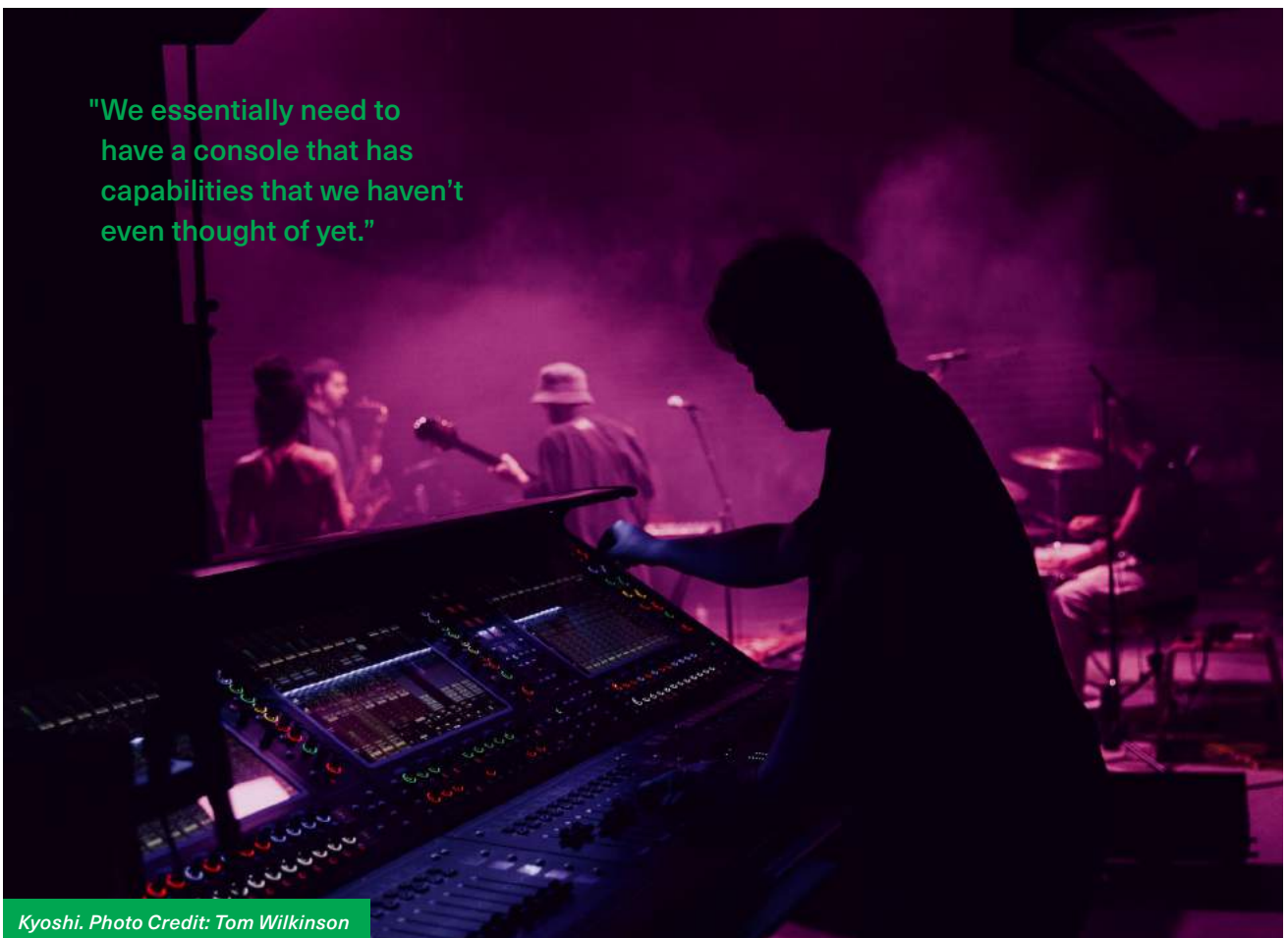
Phoenix has hosted piano recitals, traditional chamber music, pop, opera, electronica, experimental noise, Korean hiphop, funk, neo-soul, progressive jazz... you name it, and for each we have a commitment to a high quality of presentation, and to making sure we respect our artists with the best sound available. That's why audio quality was another huge consideration for us and the Quantum 338 excels in this area."

With an abundance of innovative new mix and interface features, DiGiCo's Quantum 338 represents a striking step up in connectivity and processing power, making it the most advanced digital mixing desk for live audio currently available. A comprehensive platform with an immense 128 input channel count, highly dynamic routing capabilities and a rich FX feature set has seen the console adopted by many top production companies throughout Australia.

Felix Abrahams, Head of Audio & Technical Production at Phoenix, holds a substantial background in live audio production and knew early on that a Quantum 338 would be the optimal solution to the venue's ever-changing technical requirements; "Phoenix is both an intricate and intimate space, with flexibility very much a recurring theme across our day-to-day work. We're very glad to have acquired the 338, as it fills a critical role very well, helping us achieve the finesse and adaptability required here. We essentially need to have a console that has capabilities that we haven't even thought of yet."



Sampa. Photo Credit: @jordankmunns



"We essentially need to have a console that has capabilities that we haven't even thought of yet."

Kyoshi. Photo Credit: Tom Wilkinson

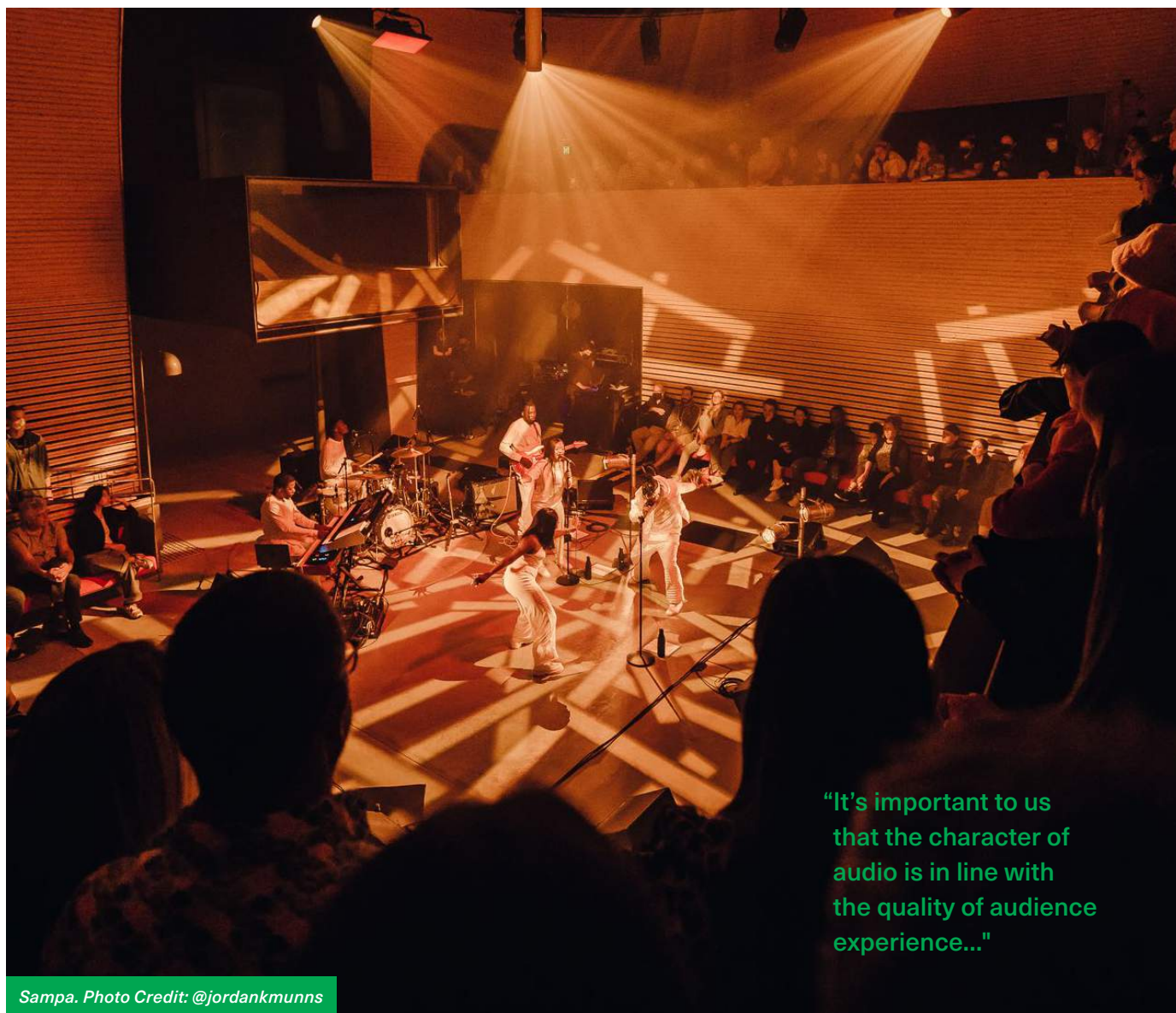
Felix goes on to detail his standard routing setup with praise for some of the Quantum 338's forward-thinking features; "Having a desk with a high channel count enables me to designate the first 36 channels as inputs, with the next 36 as monitor channels, the next 12 as stereo FX returns and 12 for system inputs like background music. We also make use of 8 outputs feeding IEMs and 8 outputs go to foldback wedges. The 36 monitor channels share the same inputs as the initial 36, but are routed differently, with entirely separate processing and effects. The ability to have individual dynamic EQs on any channel is a flexible piece of power that is truly unrivalled."

"I find the EQ on the Quantum more responsive than on previous DiGiCo consoles, and I am really liking the Mustard Tube amp modelling; a great improvement over DiGiTube. Mustard Processing has a sonic signature all of its own, and it's a good one!"

Felix explains that the wealth of the Quantum 338's onboard features mean much of the mixing is done 'in the box', with the processing and effects suitable in meeting the needs of more technically demanding acts; "We've been able to handle the requirements for



Kyoshi. Photo Credit: Tom Wilkinson



"It's important to us that the character of audio is in line with the quality of audience experience..."

Sampa. Photo Credit: @jordankmunns



1300. Photo Credit: @jordankmunns

"...a lucky chosen few are admitted to The Nest, the venue's intimate performance space."

orchestra, choir, and the sideshows of major artists. But we've also already used it on more esoteric setups. One such was a performance called 'Sound Touch' with composer Damien Ricketson, incorporating a lot of DIY sound devices, with a zoned PA setup and some channels feeding spot speakers."

"Another big advantage when working with modern digital consoles like the Quantum is the ability to have 'save and recall' on routing and channel setups. The 338 is a significant investment for the venue, but the proprietors may also need it to be used outside of Phoenix. Another likely venue would be Dangrove, which is Judith Neilson's Art Storage Facility, that also serves as an exhibition and performance space. Being able to program separate Session files for Dangrove and then go straight back into Phoenix with full recall is very useful."

Opening in early 2022, Phoenix has already played host to well over 20,000 attendees, embodying crucible and canvas for a myriad of national and international artists. Averaging four shows a week across a plethora of live expression, the team behind Phoenix maintain a delineated approach to production, as Felix reveals:

"It's important to us that the character of audio is in line with the quality of audience experience that the venue strives for. Thankfully, the artists coming through love the setup. They often tell me they feel comfortable in what they are hearing and that helps facilitate a strong performance. Part of that is thanks to the wisdom of the team, but another very real part of it comes down to the quality and control we get with tools like the Quantum 338."



Laura Jean. Photo Credit: @jordankmunns



SUBSCRIBE AND WIN 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 goes into a monthly prize draw* to win a prize from Jands, culminating in the huge Grand Prize draw to win a \$17,500 L-Acoustics Home Stereo System in October 2023!

Every edition of CX through 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!

5 MORE CHANCES TO WIN!

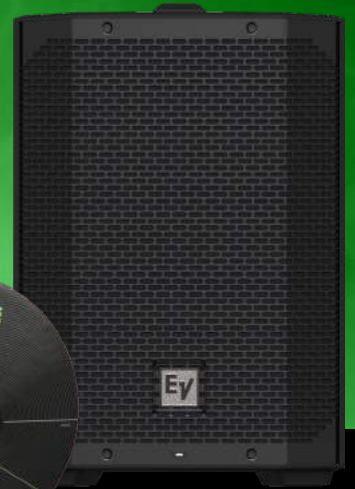
June KRK GoAux 4 (RRP \$779)

July Pioneer DJ PLX500 Black (RRP \$819)

August Shure AONIC 5s Clear (RRP \$879)

September Electro-Voice EVERSE 8 (RRP \$1907.40)

October - GRAND PRIZE!



GRAND PRIZE!

L-Acoustics X4i 2.1 Home Stereo System

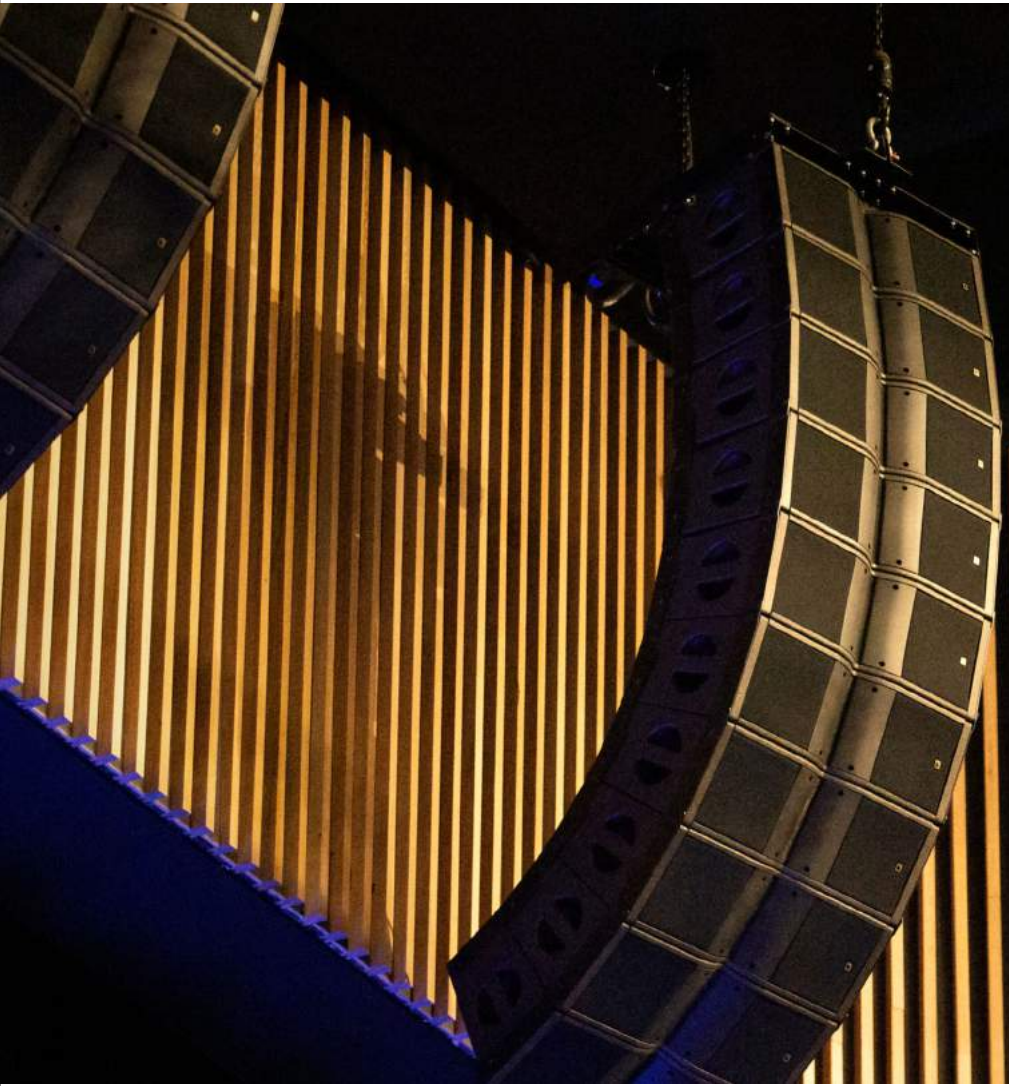
2 x LAC-X4i loudspeakers and 2 x LAC-XU4i brackets, 1 x LAC-SYVA-SUB subwoofer, and 1 x LAC-LA2Xi amplifier and processor **RRP \$17,540**

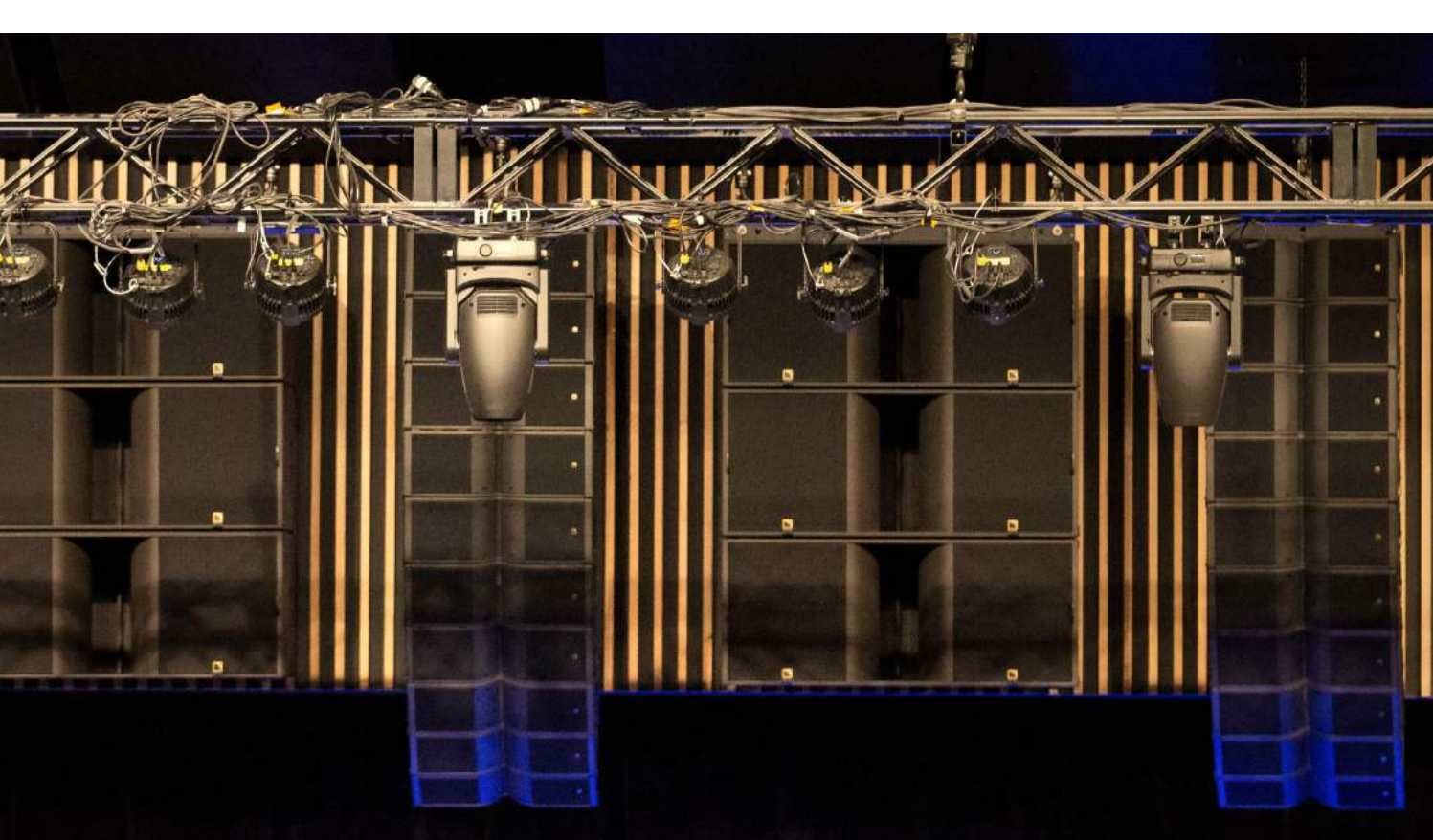
PLUS 11 x printed Jands Centrefolds and a lifetime subscription to CX!



Scan to enter







JANDS
Setting The Stage for
53
YEARS



2019:

West HQ's Sydney Coliseum Reveals L-Acoustics L-ISA Hyperreal Sound System

At its grand opening 12 December 2019, the brand-new West HQ's Sydney Coliseum announced a preferred supplier partnership with Jands and L-Acoustics to deliver a world-class L-ISA Hyperreal Sound System for the \$100m theatrical development.

The 'hyperreal' frontal scene sound system includes a 65-speaker system that heightens a sense of proximity and connection between artist and audience creating a multi-dimensional sound experience.

L-ISA technology offers a way to design, process, mix, and experience multidimensional sound which overcomes the pitfalls of audio radiating from the 'wrong' location. Accurate localisation of sound sources provides a vibrancy and immediacy lacking in live amplified audio. L-ISA matches what audiences hear to what they see, giving listeners the sonic equivalent of direct eye contact: sound, which is clear, natural, and highly intelligible, ultimately creating a direct and deeper connection between performer and audience.

Creating a world-class theatrical venue from the ground up provided West HQ with a unique opportunity to push the boundaries of venue design and theatre technology. Set with a goal to deliver a theatrical soundscape and performance experience unlike any other, Craig McMaster, Sydney Coliseum Theatre Executive Director, and Bicci Henderson, Technical Operations Manager, knew the importance of selecting partners who could buy into that vision. After discovering the L-ISA Hyperreal Sound

System and experiencing the depth and width of the sound produced, it was a clear and easy choice.

L-ISA 3.0

Flash forward four years, and L-Acoustics have just released L-ISA 3.0, in late May 2023. "As consumer audio platforms such as Apple Music, Tidal, and Amazon Music continue to make spatial audio more ubiquitous, having the ability to create and perform in immersive is now a necessity and accessible to all, regardless of skill level or format," explains Scott Sugden, Director of Product Management, Software, and Electronics, L-Acoustics. "The new L-ISA 3.0 platform brings more value to our immersive technology platform for those who've chosen to use it in their venues and for those who choose to create their content with it."

New features in L-ISA 3.0 include:

- A new FX Engine that allows designers to create reactive movements and trajectories of any kind
- The new Stereo Mapper feature that maps existing stereo content to an immersive speaker configuration without changing the original artist's mix.

- An entirely updated Snapshot Engine providing increased granularity and scope of what can be stored in snapshots, allowing users to choose which sources are visible at any given moment in time, with features such as source processing, delay, reverb, and more
- The capability to install qualified third-party applications and technologies on the L-ISA Processor II. The first application to natively leverage the outstanding processing power of L-ISA is Mixhalo, the ultra-low latency networking technology that unlocks high-fidelity, augmented audio for fans at live events

Jands – Setting The Stage for 53 Years

Since the Sydney Coliseum installation in 2019, L-ISA technology has been deployed by high profile artists across a variety of musical styles in hundreds of shows worldwide, attended by millions of people. L-Acoustics L-ISA is proudly distributed and supported in Australia and New Zealand by Jands, who continue to "Set The Stage" with the latest breakthroughs in immersive technologies.

www.jands.com.au
www.jands.co.nz

SHURE

GLX-D+
DUAL BAND
DIGITAL WIRELESS

**READY-TO-GO.
EVERY TIME.
AUTOMATICALLY.**



2.4
5.8

Dual Band
Wireless
Technology



Automatic
Frequency
Management

12
HOURS

Smart
Rechargeability
Included



Multiple
System
Installations



Exceptional
Digital Wireless
Audio



SCAN To Find
Out More

distributed by
JANDS
jands.com.au

INNOVATIVE: INNOVATING



The COVID pandemic has drastically altered the landscape and the trajectory of our industry. Many changes took effect, some more permanent than others. People and companies went in all different directions. For Jeremy Koch and Innovative, it was the perfect time to jump headfirst into Hybrid Events. Innovative have backed themselves by purchasing their own Hybrid Event Control Truck. Its most recent major project was at the GIANTS Stadium as part of the 2023 Sydney Royal Easter Show.

How and when did Innovative start out?

Innovative started from the lounge rooms of co-founders Brendan Sadgrove and Jeremy Koch back in the late 90s. It quickly progressed from a high school hobby business to a company with a 450sqm warehouse in Botany. From there it grew into a 1000sqm warehouse in Matraville and over the course of the seven years in that location it went from about eight full time staff to 22. Both Brendan and Jeremy are still at the company today as company directors.

What was Innovative prior to COVID?

Prior to COVID, Innovative were focused on large scale corporate AV. Innovative used to run themselves as a full live events production house, supplying full production packages from conception through to delivery. Though immensely rewarding and a lot of fun, like everything, it comes with its downsides.

Operating as a 'one stop shop' was too resource heavy. You constantly had to be upgrading and spending lots of money to stay in front. Now as we head into the post COVID era, Innovative are fully committed to the world of broadcast, however still with a focus on production management for large scale corporate events.



Jeremy Koch
Co-Founder,
Director at
Innovative.

When did you start in the industry?

I started in the industry when I was still in high school. I graduated in 1997, but we were doing and running gigs in the school hall before we left. Rock Eisteddfod really helped push me in the direction of show business.

What were you doing when you started? What was your first gig?

This is all a bit of a blur when I look back on those times. We were setting up gear and hiring out our school hall in 1996 and 1997 when it all really started. Add to that I was both on stage and behind the scenes in our

school musicals, running from the lighting desk to stage to do a scene or be in a dance routine. So much fun was had!

What has been your biggest achievement to date in the industry?

Well, there has been many memorable and amazing gigs, that's for sure. Recently I 'called' my first stadium show in Allianz Stadium. That was pretty amazing. But really, I would say being in business with Brendan (best business partner in the world!) and keeping a company running for over 25 years is the biggest achievement, especially through a global pandemic!

As live production ground to a halt throughout early 2020 a new opportunity was emerging in hybrid events and streaming. Innovative would jump into this space and hit the ground running. Using most of 2020 to get a feel for the viability and future of hybrid events, they would go in headfirst and it would become a core component of their business. Starting in late 2020, all of 2021 and early 2022, 'The HUB' at Pix on Location would be a massive success as a hybrid event studio that produced a constant stream of back-to-back shoots, streams and various other film and broadcast related projects.

What does Innovative do now?

Nowadays Innovative runs a smaller operation that is leaner and significantly more efficient. The focus is on broadcast and all related aspects. They still design, produce and manage the technical aspects of large events. However, inventory has now evolved and revolves around control systems, cameras and broadcast equipment.

They have kept some unique items such as 200+ Martin VDO Scepter 20 Systems with a plethora of custom rigging and brackets, and BARCO HDX 20K projectors with custom screens including a 25m wide by 4m high curved projection screen.

Innovative have been selling off some major items that are no longer their focus in order to fund a commitment to high level broadcast. They now have Fujinon 4K 107x Box lenses to complement a set of Panasonic 4K Studio

Cameras. They have the first Panasonic UE160 PTZ cameras in the country that bring PTZ performance within the range of studio cameras. The Ross family of products is growing with the addition of XPression real-time graphics.

Hybrid Event Control Truck

As part of their commitment to high level broadcast, Innovative also built their own dedicated broadcast truck. After the truck was acquired, it was gutted, stripped, then rebuilt and refitted, starting fresh. They have been able to take the truck and customise it to suit the needs of their clients.

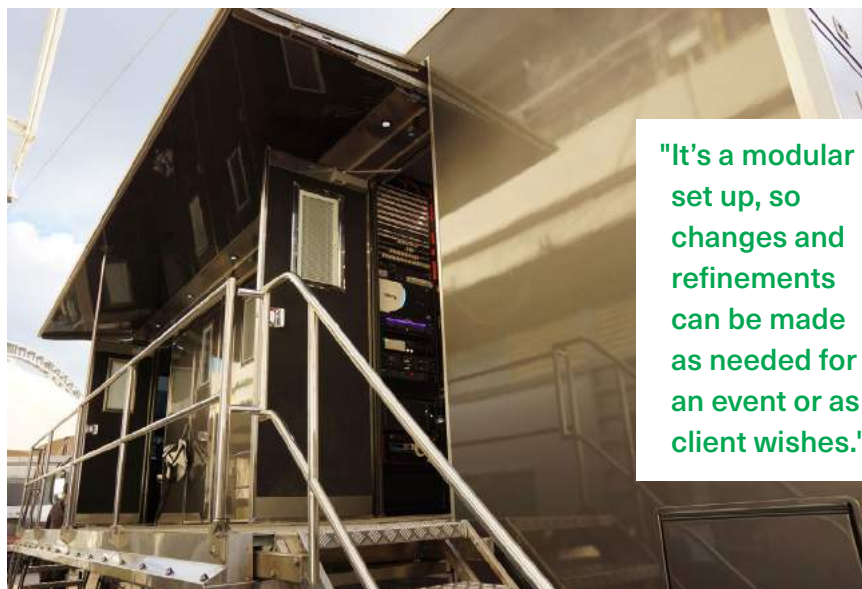
Because of the type of events covered, its technically not fair to call it a broadcast truck, as it does much more than broadcast. It's a hybrid event control truck. The goal has been to keep the truck wide scope so it can cover all aspects of hybrid events, not just broadcast. From the time saved on bump in and outs, the ability to fully program your show in the warehouse, the space savings on site to the increase in reliability, and reduction of risk, all while being an amazing space to work in. Innovative's truck is a new way to work at and control live events.

It's a modular set up, so changes and refinements can be made as needed for an event or as a client wishes. Up next is a full overhaul of the broadcast audio set up again before the end of the year. It's a bit of a secret as to what will be implemented; it will be an Australian industry first, so watch this space!

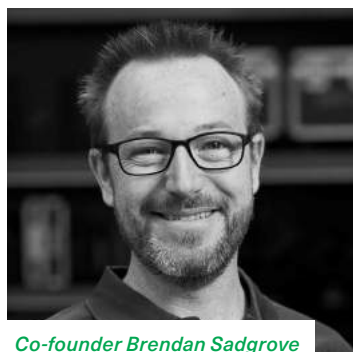


Innovative's Hybrid Event Control Vehicle

- UPS System that can stay online for 30 minutes in the event of power loss
- Ross Ultrix 4K 117 x 112 12G-SDI router with Carbonite SDPE Blade and 5 Ultriscape MultiViewers
- Ross TouchDrive TD2S Switcher Control Panel
- Barco E2 4K EventMaster Screen management system
- Barco EC-30 EventMaster Control Panel
- Capacity for 8 SMPTE cameras, plus the ability to add more if required
- Three hardware Streaming encoders
- 12 BMD Hyperdeck 4K recorders
- 'Show Machines' – 6x MACs and 6x PCs for presentations, videos, notes, editing, etc
- Ross XPression Realtime Graphics System
- 50TB NAS RAID Storage Array
- Fully 4K capable
- Three channels of slow-motion replay and slots/wiring for EVS
- A&H dLive Audio Control System – C3500, C1500, DM32 with Dante and MADI
- Directout 1024x1024 MADI Router
- Waves SoundGrid Extreme Server
- Dual 64ch Multitrack Recorders
- Secondary switcher and audio console (BMD Constellation 8K and A&H dLive C1500)
- PEPlink Router with SpeedFusion VPN and 5G wireless connectivity
- Netgear and Aruba Networking
- Riedel Artist and Bolero Comms
- Riedel Micron UHD Signal Transport system to external racks
- Back-ups and redundancies are all accounted for across the board



"It's a modular set up, so changes and refinements can be made as needed for an event or as a client wishes."

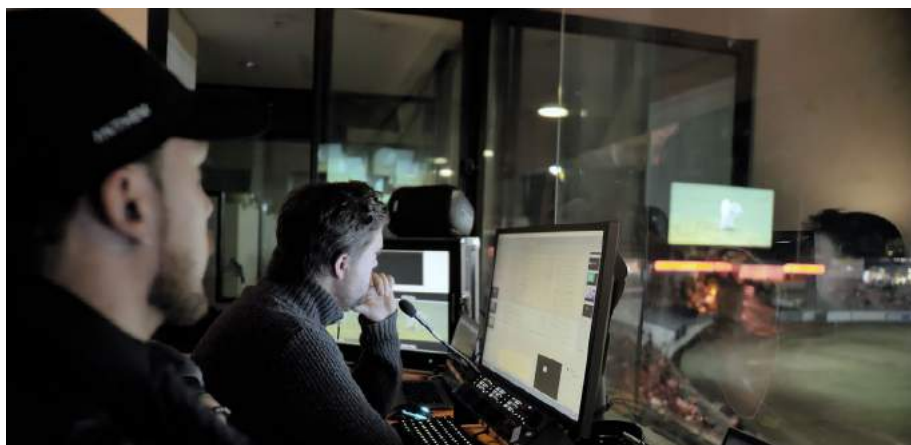


Co-founder **Brendan Sadgrove**





"We really got to 'stretch the legs' of the truck and see what we can do with so much amazing technology."



At GIANTS Stadium

Innovative and their Hybrid Event Control Truck ventured out to GIANTS Stadium in Western Sydney in April this year to run events at the Easter Show. GIANTS Stadium is basically an empty shell. There are no in-house or venue technical crew. Innovative had to rely on themselves.

They will be looking to build on to what they have been given here at GIANTS Stadium. With an eye to run with it as it is for now, but further

down the line to add their own flavour. Whilst still learning the venue and its infrastructure, it's obvious that there is so much potential waiting to be unlocked.

"Working in a stadium for two weeks was a great challenge for us and we learnt so much!" says Jeremy. We really got to 'stretch the legs' of the truck and see what we can do with so much amazing technology. We are already looking forward to next year and what enhancements we can bring to the show."

In a world where change is the only constant, Innovative have made some massive changes, in doing so they have grabbed the bull by the horns and made a full commitment to broadcast and hybrid events. With many more changes and challenges set to come for our industry, Innovative are looking to capitalise.

THE LOOK

DRAPE HIRE
www.thelook-sydney.com

17 Greenfield St Banksmeadow NSW 2019
Email mail@thelook-sydney.com • Ph 02 9797 6068 • Fax 02 9798 9243

THE FUTURE OF VENUES

Stagekings' huge temporary venue system debuts at Perth Festival

"It was pretty amazing. You stepped into this whole other world," Jeremy Fleming, Founder and CEO of Stagekings, reflects on the first outing of their new 55 metre clear-span temporary structure for Bjork's Cornucopia show at Langley Park.

Stagekings, renowned across the country for their custom stages and events structures, recently invested in the largest free spanning temporary structure in the Southern Hemisphere; "There is such a lack of medium sized venues around Australia and so much going on in the live music and entertainment space we wanted to meet the need." Jeremy explored options around the world and then Bjork came across his radar. "Bjork had

played in an Irmarfer Wave structure in Brazil and asked us if we would consider sourcing something like this for the Perth Festival."

Manufactured in Portugal, Irmarfer structures are used extensively throughout Europe and the USA and Stagekings were impressed. "The Irmarfer range stood out because of the huge rigging capacity meaning production don't need any additional structure underneath. We can hang a lot on the roof." They purchased the Wave 55 with a footprint of 55 metres clear-span width, up to 100 metres in length and 18 metres high. "It's a modular format so we have twenty bays that make up the 100 metre structure, with one 20 metre section where we can put a bay every 2.5 metres, for example over the stage, meaning we can have three tonne every 2.5 metres, which will easily cover off your sound and lighting."

The resulting capacity is impressive. "You are talking 5,500 metre squared, say 500 metres for the stage and using the rule of thumb of three people per square metre, you are looking at 12,000 to 15,000 people."

Logistically, the Wave 55 ticked a lot of boxes too. "It is made from aluminium and fits into five forty-foot containers so is easy to move around the country. It is quick to put up and break down, taking less than two weeks. We did Perth in nine days as it was a big open space but in more confined locations, it takes about twelve." It can be pegged down or weighted, pegs being the preferable option. "We've a focus on sustainability so we aim to reduce freight. If we need to weigh it down, like in Perth where the ground conditions were sandy, the ballast doesn't need to be bespoke so we can organise something locally when required."

The decking system can be built on unlevel ground and to multi-level specs for corporate seating, "But again it doesn't have to be custom decking, we can use our own and so we have plenty of options available."

The well know entertainment sector engineers Van de Meer Consulting engineered it to Australian specifications and with a wind rating of 162km/h it can take anything the weather

**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 [1300 656 513](tel:1300656513) members@meaa.org
[fwithMEAA](#) [@withmeaa](#) [withmeaa](#)



can throw at it. "The skin is heavy duty PVC and we've gone for white outside but with full black out internally. You can get clear skins, or they can be printed with any type of artwork which is exciting." The ends are capped with either flat or rounded gables. "We've currently got flat but we're bringing in two round ends which will look amazing."

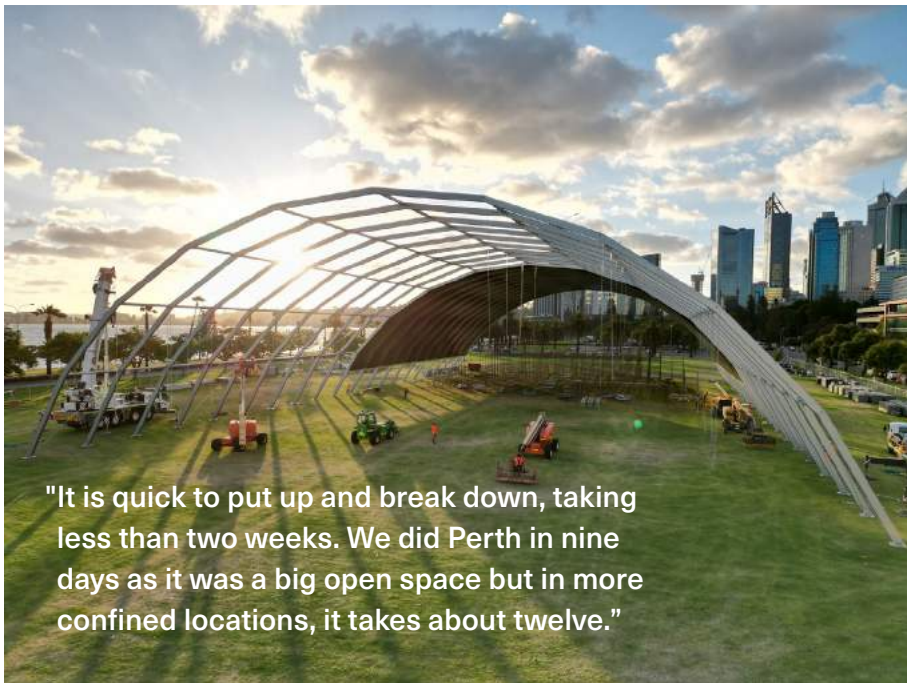
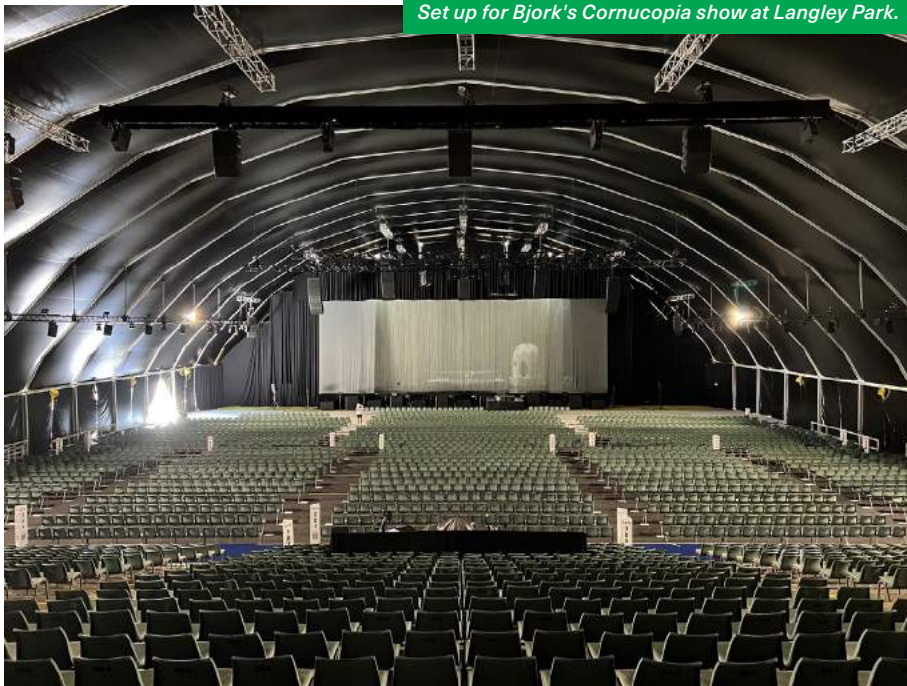
Jeremy was pleased with how much sound the PVC walls cut out. "In Perth we found that there was a massive drop off outside the park, but we have also got sandwich panel walls that will stop noise transmitting at ground level." The Stagekings team are currently putting a list together of places amenable to the temporary structure being installed, "We've quite a few in Sydney and some in Melbourne already."

On costs compared to hiring a venue, a client has recently priced the Wave 55 up against an Arena for a corporate event. "The costs are not only significantly less than an existing Arena, but you have more flexibility and less production to deal with because of the Wave 55's rigging capacity."

"We are really excited. The Wave 55 is filling a gap in the industry and we are getting lots of booking enquiries. We are looking at bringing in a second one, with a long-term booking coming up in the next couple of months. There's a lot of big international events over the next few years like the Commonwealth Games in Victoria and the Olympics in Queensland 2032. Irmarfer provided ninety percent of the structures for the Rio Olympics; one was 310 metres long and 75 metres wide, housing the athlete's mess, which is enormous. There is a lot of potential."

Stagekings' new temporary structures are good news for the industry, and with a focus on avoiding competing with the ubiquitous A frames, they intend to stay niche, "Next up I think we'll look at the twenty, thirty, forty metre Igloo structures." Keep your eyes peeled for a Stagekings temporary venue near you.

Set up for Bjork's Cornucopia show at Langley Park.



"It is quick to put up and break down, taking less than two weeks. We did Perth in nine days as it was a big open space but in more confined locations, it takes about twelve."



Seat Corporate Igloo



Sometimes it all gets too much...

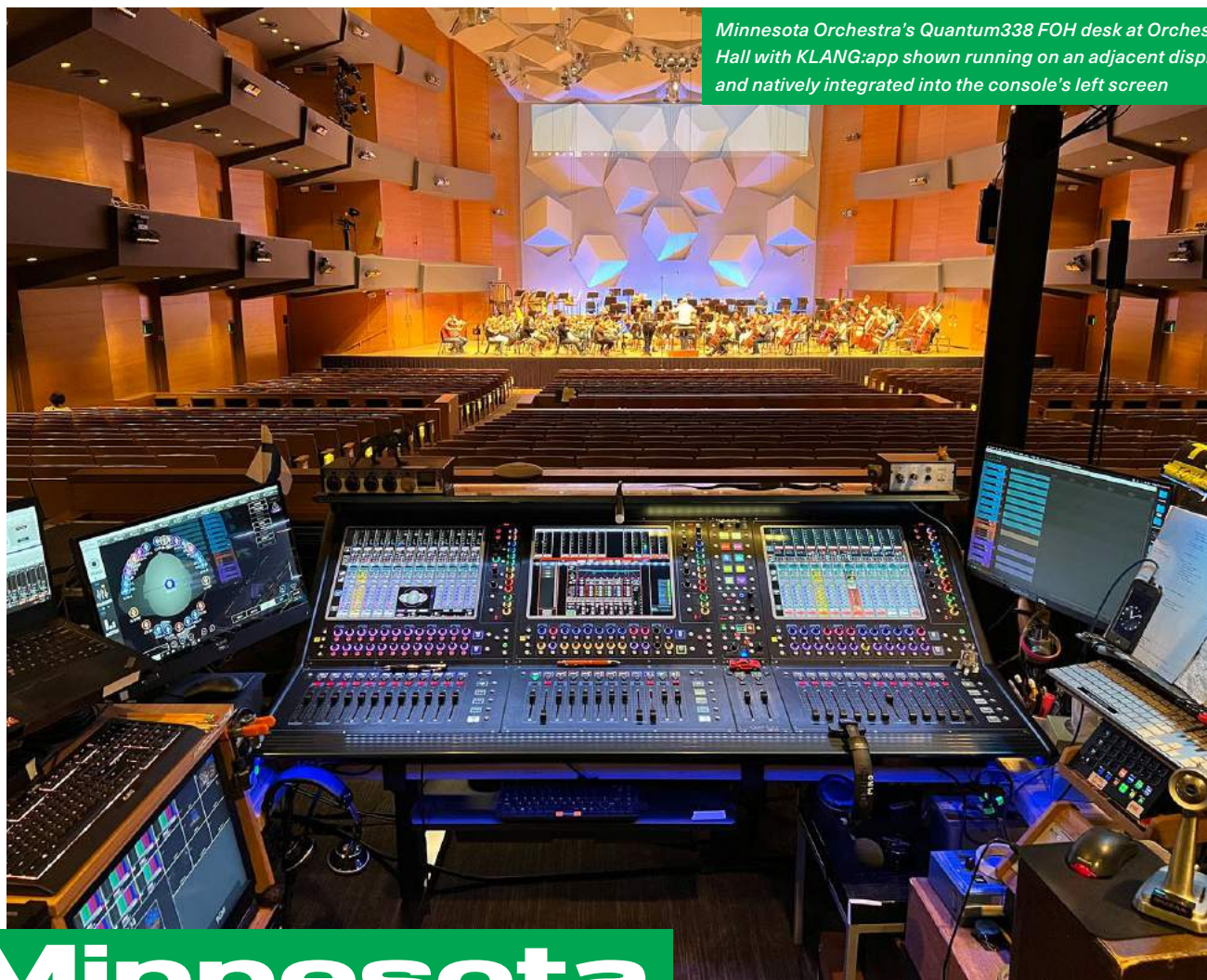


The *Support Act Wellbeing Helpline* is a free, confidential counselling service that is available to anyone working in Australian music who needs to talk to someone about any aspect of their wellbeing.



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





Minnesota Orchestra's Quantum338 FOH desk at Orchestra Hall with KLANG:app shown running on an adjacent display and natively integrated into the console's left screen

Minnesota Orchestra Goes Immersive Online with KLANG

The Grammy Award winning orchestra known globally for its acclaimed performances has turned KLANG:technologies' innovative in-ear monitor mixing system for the stage into a successful immersive broadcast solution using a DMI-KLANG card integrated with Orchestra Hall's DiGiCo Quantum338 FOH console.

When audiences tune into the Minnesota Orchestra's Digital Concert Hall or social media channels to hear the Orchestra's livestreams and digital concerts, they're treated to a sonic spectacular; an immersive rendering of the performance's mix that puts every listener using earbuds or headphones virtually at the conductor's podium.

Utilising KLANG:technologies' immersive software solution developed to allow musicians on stage to very naturally hear themselves through their in-ear monitors in a realistic three-dimensional soundstage, the Orchestra's audio team has now essentially

extended that experience to anyone, anywhere, with earbuds or headphones. "We did this the first time in September of 2020 as a proof of concept of spatial audio for the digital audiences, and we could see that it was something special," says Minnesota Orchestra Head Audio Engineer Jay Perlman. "KLANG's immersive processors were originally designed for musicians that wear in-ear monitors to give them a sense of location on stage, and derives its 3D imaging by encoding binaural processing directly to the stereo signal. We are using it differently to give audiences an immersive experience instead."

Perlman sets up the immersive mix perspective on the venue's DiGiCo Quantum338 front-of-house console using its virtual soundcheck feature, recording to Reaper multitrack software, and rehearsing along with the orchestra three times during the week before each performance, which offers him the opportunity to fine-tune the mix and placement of instruments in an immersive panorama. Listeners online and on social media will all hear an excellent stereo image of the orchestra and the hall, but those with earbuds and headphones can access the entire immersive spectrum.

"Having everything integrated into a single platform, the Quantum338, DMI-KLANG card, and Reaper software, makes this process so much easier and streamlined, so that literally one person can do all of it," says Perlman, who mixes over his own JH Audio earbuds. "The trick is to have a great basic stereo mix that will sound good on the radio, TV, or a phone, but with the KLANG binaural processing encoded with it, so it's transparent for any

Minnesota Orchestra's audio crew (L-R): Audio Engineering Assist and Install Tech Jim Pfitzinger, Technical Director Joel Mooney, and Head Audio Engineer Jay Perlman



Mooney says the implementation of the KLANG system was simple and straightforward, and that any experienced front-of-house or broadcast mixer can become accustomed to the immersive mix quickly. "The only real difference is the panning, which is 360 degrees, and above and below," he says.

Perlman proudly shares that the listener response has been extremely positive. "The KLANG technology is taking something that's already special and making it even more so," he says. "As you can tell in how we applied the DMI-KLANG processor to the streaming broadcasts, we like to take chances and experiment, and in this case, it created something truly remarkable."

Modifications to the broadcast's KLANG immersive mix are easily made with the touch and drag of a finger



device. However, with earbuds, it's an entirely different experience. The KLANG processing digitises the reflections you'd experience physically in the venue and reproduces them in your ears. It's a very dramatic effect."

Joel Mooney, Minnesota Orchestra's Technical Director, says the unique application of the DMI-KLANG system was intentional from the very start. "We had made a major purchase from DiGiCo, in the form of the Quantum338 console and related items, and the folks at DiGiCo brought up the KLANG system as a monitoring solution, but we saw this unique potential for it immediately," he says. "Orchestral music is a great fit for immersive sound, and KLANG is a great way to achieve it for our online audience."

Are you concerned about your mate's mental health?

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

Support those around you and register for free mental health training



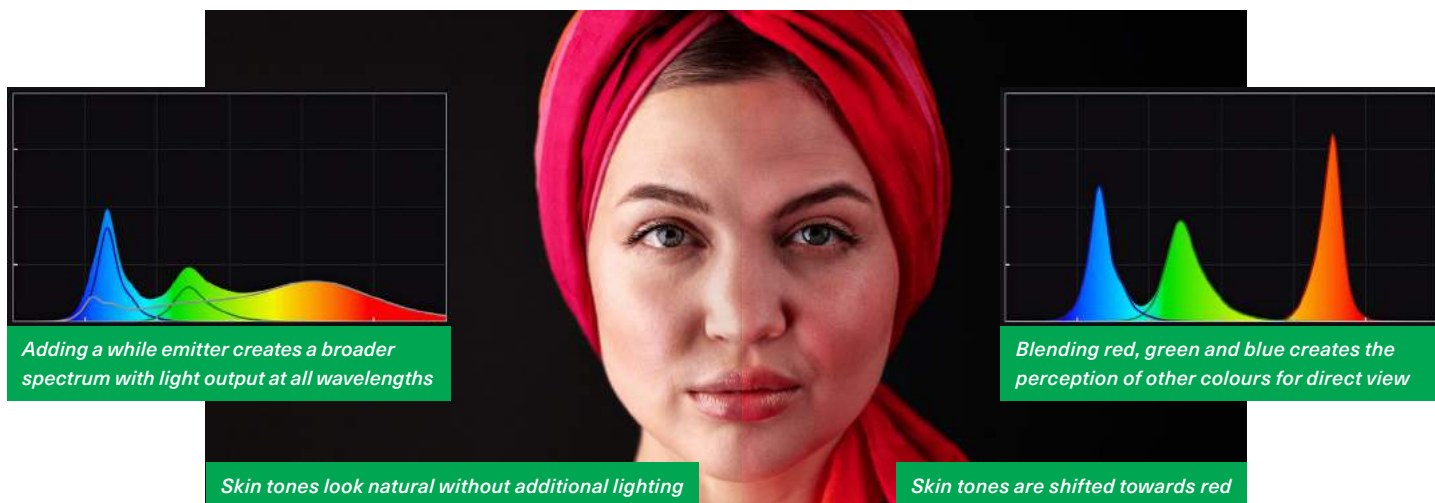
¹Passion, Pride, Pitfalls Dec 2014

www.entertainmentassist.org.au

Supporting the mental health of Australian entertainment industry workers

THE FUTURE OF LIGHTING

FOR IN-CAMERA VISUAL EFFECTS



One of the benefits of shooting a scene within a virtual production LED volume is realistic reflections and lighting from the LED panels themselves. The RGB panels we use today are great for direct view, but not so good at lighting a scene. Their spectral output is very different from normal lighting sources, so skin tones in particular can look unnatural and some colours are shifted.

Adding an additional white LED emitter to every pixel offers a potential solution. A white LED has a broader spectrum with light output at all wavelengths, so skin tones look natural and colour shifts are avoided. But if every pixel is RGBW, how is this additional emitter controlled when the source video only contains RGB data? And how is colour accuracy maintained with the extra complexity of additional emitters?

The answer is TrueLight, a game-changing new technology from Brompton Technology. It builds upon the company's unique Dynamic Calibration technology to enable RGBW panels to be fully per-pixel colour-calibrated and ensure that colour accuracy is maintained at all times. It gives the user full control of how the RGB to RGBW conversion is achieved through an intuitive user interface, so they can easily get the right result for a particular application.

The outcome is a significant leap in colour-rendering accuracy, especially noticeable on skin tones and in blending foreground elements with virtual environments.

The complex algorithms required to perform spectrally-aware, full-colour, per-pixel dynamic calibration for an RGBW panel rely upon the immense processing power of the new Tessera G1 receiver card. The G1 is by far the most powerful receiver card ever to go into an LED panel, and its potential to disrupt the world of LED video is already being recognised with

the G1 receiving a Product of the Year award at the recent NAB show.

Utilising the full range of Tessera software features, TrueLight takes advantage of PureTone for consistent linearity of both RGB and 'W' LED output, ThermaCal for temperature correction of all LED colours, ShutterSync to eliminate on-camera artifacts for RGBW lighting and direct-view applications, and Extended Bit Depth to significantly enhance the dynamic range of RGBW output, amongst others.

Chris Deighton, Brompton's CTO, comments: "There has been increasing interest in broader spectral output from LED panels, and we were determined to meet this demand without compromising the existing levels of image quality and flexibility expected by Brompton users. The immense processing power available in the G1 receiver card means TrueLight can perform spectrally-aware full-colour per-pixel calibration of all four RGBW LED colours, with fully dynamic controls to adapt the spectral behaviour in real-time. We're incredibly excited to see how the industry adopts this technology to achieve ever more realistic in-camera visual effects."

NAB Show attendees were among the first to witness the revolutionary TrueLight in action, with the demos being made in collaboration with ROE Visual, who were showcasing their brand-new Carbon 5 RGBW panel powered by

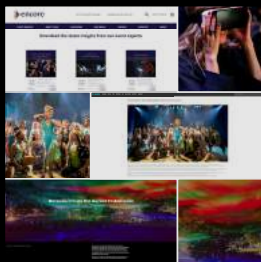
TrueLight. Carbon 5 RGBW is the first panel of its kind calibrated by Brompton's Hydra advanced measurement system to offer a fourth emitter providing a broad spectrum white.

Frank Montero, Managing Director at ROE Visual US, comments: "ROE is very proud to be investing in new technologies with Brompton. Brompton and ROE have long been successful partners in live events and virtual production. Our rapid collaboration on Carbon 5 RGBW is just a small measure of what we can accomplish together."

According to Cesar Caceres, Brompton's Product Lead, thanks to TrueLight technology, users can dynamically adapt spectral behaviour using controls in the processor UI, including optionally disabling the 'W' LEDs for conventional fully-calibrated RGB-only operation.

"TrueLight technology unlocks a whole new realm of possibilities for applications that demand uncompromising image quality and colour accuracy," Caceres concludes. "Whether it's virtual production, XR, simulation, theatre, fixed corporate installations, fashion, or retail, TrueLight represents an industry-changing solution for scenarios where the screen is used as a lighting source. TrueLight is the perfect choice for high-end applications that require nothing but the best."

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.

AMX AT 40

AND INTO THE FUTURE



The MX20. AMX's first wireless AV controller

A New Era of Simplified Solutions in Networked AV and Control

AMX has been pioneering automation and video distribution technologies since 1982, when founder Scott Miller, working in his garage, invented the first wireless AV controller.

Today, AMX leads the industry in innovative, scalable IP-based AVC solutions for the corporate, government, education, and hospitality markets, with systems in the boardrooms of Fortune 100 companies, top universities and the control centres of defence departments and intelligence centres around the globe.

As AMX approaches its 40th anniversary, Jamie Trader, HARMAN Professional Division's Vice President of Global Product Line Management for Video & Control, shares insights on ways the company's mission has evolved, and remained constant, with every generation of technology.

AMX has achieved a lot of "firsts" in the past 40 years: first wireless AV controller, first to digital, first to standards-based programming adoption, first to JITC-certification, first to 4K, first to pure IP video window processing, and so much more. Which achievements stand out most?

All of these were really incredible. But the one that stands out the most is the simplest one: the very first product. It was the MX20 Wireless AV Controller. This was a product that came from Scott watching the interaction between teachers and students, witnessing the teacher being constrained by technology, and thinking: if I could remove the cable that's tethering teacher to tech, I could improve the human interaction in that classroom. I could improve learning.

The AMX MX20 Wireless AV Controller was the company's very first product. Founder Scott Miller came up with the idea to ease the technology constraints of teachers.

His garage door (and its wireless opener) would become the inspiration for solving that human interaction problem. And his garage itself would become the place he'd build and sell those first prototypes.

That "first" stands out because it set the DNA, or the blueprint, for our business and our brand. It's a business case study in creating value through a combination of observing human behaviour and finding creative approaches to improving, or simplifying, how people interact with technology and with each other.

Our roadmap is not designed as a specification stair step or a massaging of features. It's a manifestation of observations, creativity, and a strong desire to help people get technology out of their way. Help people interact, learn, create, produce.

The company's mission has always been to simplify the way people interact with technology. How has that goal evolved with new technologies and workflows?

The business of simplifying human interaction with technology hasn't really changed, not because technology hasn't, but because people haven't. People want the same things today that they wanted 40 years ago. They want to get their job done. They want to be able to go into a room, interact with other human beings, share and express ideas, solve problems.

They want to have meaningful experiences, and sometimes technology can get in the way. And sometimes the physical environment can get in the way. So, the business of automation has not changed. You're still trying to synthesise human behaviour with digital information and the physical environment surrounding you.

What has changed is the complexity and breadth of technologies. It used to be the technology that you were bringing into a space was not necessarily very complex. It had limited functions and offered limited ways to interact with it or automate it.

For over 40 years, AMX products and solutions have been designed to do one thing; to harness technology and simplify life for the user. Explore the milestones along the way.

Today, software-based codecs, calendaring systems, voice engines, network infrastructure...all of these things provide a massive amount of capability and very rich APIs. Everyone promotes simplicity and flexibility because of the availability of these APIs. But what this really does is put a burden on systems integrators and technical end users to sift through more documentation, write heavier code, process more data, test more automations.

So while the business, or the goals, of simplification haven't changed, the focus on which friction to eliminate has.

What are the most pressing AV technology challenges facing systems integrators today, and can you give me examples of ways AMX is solving them?

Systems Integrators (SIs) and technical AVIT managers are in the business of solving problems. They are people who curate exceptional experiences for their customers by meaningfully pulling together disparate things in a way that helps people do and experience more. It's a great thing that they're problem solvers, because there are two big ones that everyone is facing today:

First, the primary challenge they're facing is supply. Predictability in supply. SIs are in the business of predictability. Profitability depends on it. It's a business of making sure you can specify and work with equipment that not only works well, but is available when it's needed. HARMAN has put a tremendous

amount of focus in supply over the past couple years. We're working more strategically with all advanced sourcing teams, implementing material planning processes on a wider time horizon, and of course working more synergistically with Samsung and partner-sourcing teams.

But most importantly, we continue to bend our roadmap toward a reduction in overall components. Find ways to do more with less. In one respect, our roadmap looks at requiring customers to buy less. In the other respect, where purpose-built appliances continue to be desired (if not required), it's about looking at components differently. Choosing components of higher availability and regional diversity being key. Again, getting more from less. Not only is this important for our customers' bottom line, it's important for the sustainability of our planet.

Second, the need for every space to facilitate hybrid communications is, while a commercially fantastic opportunity, a significant challenge everyone faces. There's the obvious part about how software-based communication capabilities running on standard operating systems can often have less-than-predictable behaviours. This, of course, can create friction and foster frustration. But there's the less-than-obvious part about the swinging pendulum in consumer attitude toward those applications.

SIs are constantly confronted with enterprise IT departments standardising on one UC platform only to have users work outside those adopted standards. What may be a prevailing preference for Teams or Cisco or Zoom today might be a completely different solution tomorrow. Further, large companies often have fractured adoption, whereby some departments are leveraging the institution's tools and other departments are not. Of course, there's also the consumer attitude towards how they access these communications. Do you use capabilities from a dedicated "rooms" appliance, or host and control the communications directly from your personal laptop or mobile device?

Combined with the mass proliferation of USB peripherals in this space (and the way operating systems interact with USB devices), the challenges to SI increase. The challenge is how to produce a predictable experience in a way that lets users do what they prefer, what's natural to them, versus forcing them into a communications experience that distracts them from what they're communicating in the first place.

Many manufacturers are hitting this space with additional peripherals: more cameras, more mics, etc. Some are productising the software capabilities into dedicated compute devices. There are a lot of good companies doing good things. That said, with this flood of consumer-available peripherals and dedicated compute devices, people are asking more now than ever for help in improving how all this stuff works

together. People are asking for adaptability, how to accommodate various UC apps (and the consumer attitude towards them), different compute devices, ever-expanding peripherals, different behaviours, and so on.

So this is where AMX is observing our customers and our consumers alike. Looking at the current tethers that tie people to their tech. And shaping our efforts around freeing people from those constraints. Liberating people from proprietary tools and forced work streams.

The future of digital and networked AV is less about feature packing and more about the value of transported video in a media ecosystem. In that context, how will we see AMX products continue to offer advantages at the enterprise level?

We're continuing to support, but also expand on, what can be done with video that's moving around on a network.

For most manufacturers, AV over IP is simply about helping get a signal from point A to point B. It's a transport technology. But the reason that AMX's SVSI product portfolio is so widely adopted is because it's just that: a complete portfolio. It's more than transport. It's window processing, recording, time-shifted playback, standards-based non-proprietary control, and in some respects, it's even basic digital signage. Not only have the encoders and decoders always offered the highest fidelity, low latency, beautiful video...it's offered users the most robust experience with that video on their network. And it's done it securely with unparalleled reliability.

For over 40 years AMX products and solutions have been empowering people to be their best. The driving force behind that mission has always been the culture and creativity instilled in the people that have designed, engineered, built, marketed, sold and everything else that was required to deliver AMX innovations to



For over 40 years AMX products and solutions have been empowering people to be their best. Thanks to everyone that has contributed in some way to the AMX story.



Clockwise from top left: One of the world's first advanced wireless remote controllers. The very first AMX touch panel. An early home theater remote control center. The first tilting AMX touch panel. Translucent colored touch panels.

its end users. Thanks to everyone that has contributed in some way to the AMX story.

So the video roadmap is more about what more can be done with video once it's on a network. It's about expanding flexibility. Participating in a larger ecosystem of networked endpoints; hardware and software. Because that's really what consumers are investing in; the ability to do more with fewer barriers.

This anniversary marks the beginning of a new era of AMX products and platforms aimed at offering more flexible, scalable solutions across every category. Can you share a glimpse of what's coming down the line?

With each AMX launch, no matter which era of control or which video transport platform you're talking about, we've always pushed the edge of standards adoption. So you can imagine that a big part of our next launches are going to be about modern standards, but not for academic sake.

From a control perspective, we're looking at which standard tools have not been brought into the AVIT space yet that should be. Tools that reduce the need for proprietary education or certification. Tools that enhance SIs' efficiency, profitability, and ability to dynamically support their customers. It's also about helping them, and our consumer, tap into a much broader and diverse talent pool of skillset and imagination.

We're also looking at helping SIs better scale their business by tapping into the diversity of their teams. As global SIs serve global consumers, having platforms that support talent diversity is absolutely critical. But also, platforms must be interoperable among legacy, current, and future platforms...as well as in blended manufacturer environments.



MILESTONES
1982-2022

2022

2019 - 2022
AMX celebrates 40th anniversary with debut of its next-generation Varia professional-grade touch panel series. AMX also introduces Jetpack AV control kits and Precis PR switchers and windowing processors. Enova DVX models received platform enhancements that included AMX 4K60 4:4:4 video fidelity, BSS DSP, Crown amplification, and dbx feedback suppression. Expansion of the InConcert strategic partner program continued through collaborations with leading networking and collaboration technology providers.



2020



2015 - 2018
AMX becomes the networked AV authority through the acquisition of SVSI and consequent firsts in 4K60 4:4:4, IP-based window processing and standards-based control. Unveiled next generation of streamlined Modero control and scheduling touch panels as well as Enova DGX and DVX switching and distribution products.



2013 - 2014

AMX is acquired by HARMAN. NetLinX NX central controllers, the Modero G5 graphics engine, and HydraPort retractable solutions also debut.



2009 - 2012

AMX celebrates 30th anniversary by unveiling four iconic product lines — Modero X Series panoramic touch panels, Enova DGX digital media switchers, Enova DVX presentation switchers and HydraPort products.



2006 - 2008

AMX grew significantly with the acquisition of several companies including AutoPatch, Endelex and Matrix Audio Designs. AMX also debuted the world's first ZigBee-enabled handheld remote with touch panel functionality and the first color-communicating thermostat with integrated weather forecast.



2004 - 2005

Major manufacturers began embedding AMX Dynamic Device Discovery Protocol into their products to identify connected AMX systems. To simplify system design, AMX also launched its VisualArchitect software platform.



2002 - 2003

AMX launched its Modero touch panel family, which becomes the flagship of the AMX product portfolio. NetLinX integrated controllers and Resource Management (RMS) software were also introduced.



1995-2001

AMX begins trading on the NASDAQ stock exchange with 130 employees and distribution in 40 countries. Its products are adopted by Fortune 500 companies and by a global who's who of residential owners.



1990

1983 - 1994

AMX grows phenomenally, introducing many revolutionary products and establishing and leading the advanced control system market.

1982

AMX story begins with need for simple tools that harness technology. AMX launches its first product, the MX20 wireless controller for 35mm slide projectors. It not only solved a problem, but was also easy to carry and fun to use.

Finally.

Stress free
client livestreaming.

BetterCast

Visit bettercast.io and sign up for free now.

Jason Baeri lights Depeche Mode world tour
with Elation Artiste and new Rayzor Blade



Depeche Mode is back touring in a big way with their Momento Mori world tour with lighting design by Jason Baeri and lighting supply by 4Wall. Elation lighting features in Baeri's design, including three fixtures from the award-winning Artiste series of LED movers, Monet, Mondrian, and Rembrandt, along with Elation's new Proteus Rayzor Blade.

The Momento Mori tour, which is out in support of their newly released album of the same name, kicked off on March 23 in Sacramento, California, marking their first tour in five years. The European leg begins May 16 in Amsterdam with a North American autumn leg set to launch in September. Baeri has support from Joe Bay, who serves as associate lighting designer and lighting programmer, while Sarah Parker is out operating the show as lighting director.

M BACKDROP

His first outing with Depeche Mode, the designer says talks with the band began in late October of 2022 and by mid-December a preliminary design was completed, which later saw small refinements. The tour features a 27-foot tall M backdrop, a large structural piece running video that Jason says was one of the most important aspects of the design. Dutch artist and longtime Depeche Mode photographer/videographer Anton Corbijn came up with the basic concept, which Baeri helped flesh out and turn into a physical product for the production design.

CHANGING PERCEPTIONS

The M has a dual role, as Baeri explains; "It's designed to be a scenic piece rather than just a video screen so it has depth and weight. So when you play video across both the main screen and the M, you have two planes of video that look different for anybody in the house. People who view it dead on have a different perception of it than people who view it from the side or at a higher angle. It physically changes what you're viewing and

how you experience the films that Anton has made. That was the basic concept that we started with, a physical object that would not just be a video effect but would physically change your perception."

Lighting is used to match that same idea while supporting the physical frame of both the video wall and the M. "We were trying to replicate the same type of scale overhead that we were looking at on stage," says Baeri, "so the overhead lighting rig is actually a forced perspective mirror image of the M itself."

SYNTH AND ROCK

Active since the early 1980s, Depeche Mode is known for their distinctive sound, a blend of new wave/synth-pop and rock. Jason uses the rig to accentuate the expanse of moods and textures. "The music itself is really based on two separate ideas and we really had to embrace both," Baeri states. "We tried to pick one direction per song to go with, rock or synth, so the rig is broken into two parts that really reflect that. There are a lot of beamy looks and classic rock looks that are ParCan reminiscent, and then for the synth songs there is more LED colour and looks that feel more digital."

ARTISTE REMBRANDT

One of the workhorses of the rig, says the designer, is the Artiste Rembrandt LED wash moving head. "I love how much it's actually a real wash light! Many manufacturers have what they say is a wash light with a PC lens but it's really just a spot with internal frosts. They try to be the ultimate all-in-one tool but the quality of the light still feels hard edge. The Rembrandt on the other hand is a dedicated washlight where you get a good, splashy feel, and a real wonderful, soft quality of light. It does it really well and not in a way I see in other fixtures that are on the market at the moment." Baeri has the 51,000-lumen LED Wash fixtures working from the deck as shin lights. The fixtures feature throughout the show with the look for one of the band's biggest hits, 'Personal Jesus', built around them.

MONET AND MONDRIAN

Working from keylight positions and providing a bit of effect light as well are Artiste Monets, 45,000-lumen LED Profile luminaires with comprehensive FX package. "The Monets are a classic staple for me," Baeri comments. "It's such a clean, repeatable and reliable fixture that is just endlessly controllable. The ability to get them into those deeper, darker colours while still maintaining your output is a real big help."

Rounding out the Artiste series lights used on the Memento Mori tour are 51,000-lumen Artiste Mondrian LED profile FX fixtures, which the designer uses as an upstage effect light. "It's got that big fat lens on the front of it; it really holds its own with presence. We only use six of them upstage but they feel like a whole upstage wall of fixtures. They explode through the band and compete with the video well."

All three Artiste fixtures house Elation's proprietary 7-flag SpectraColor (CMYRGB+CTO) colour mixing system, and unlimited indexing and continuous rotation



framing, along with a host of texture, animation and layering solutions. "It's nice to have that consistency throughout the range and know that I can hit those colours when I need to."

PROTEUS RAYZOR BLADE

Seeking to emulate the frame around the video with lighting, Baeri says they sought a fixture to line the downstage edge and found what they were looking for in Elation's new Proteus Rayzor Blade. "The Rayzor Blade is a nice take on the bar light and fit that role really well," he

stated. "It's a really high-output fixture with clean colour mixing and a zoom that has a great range. They definitely help to ground the downstage edge of the picture."

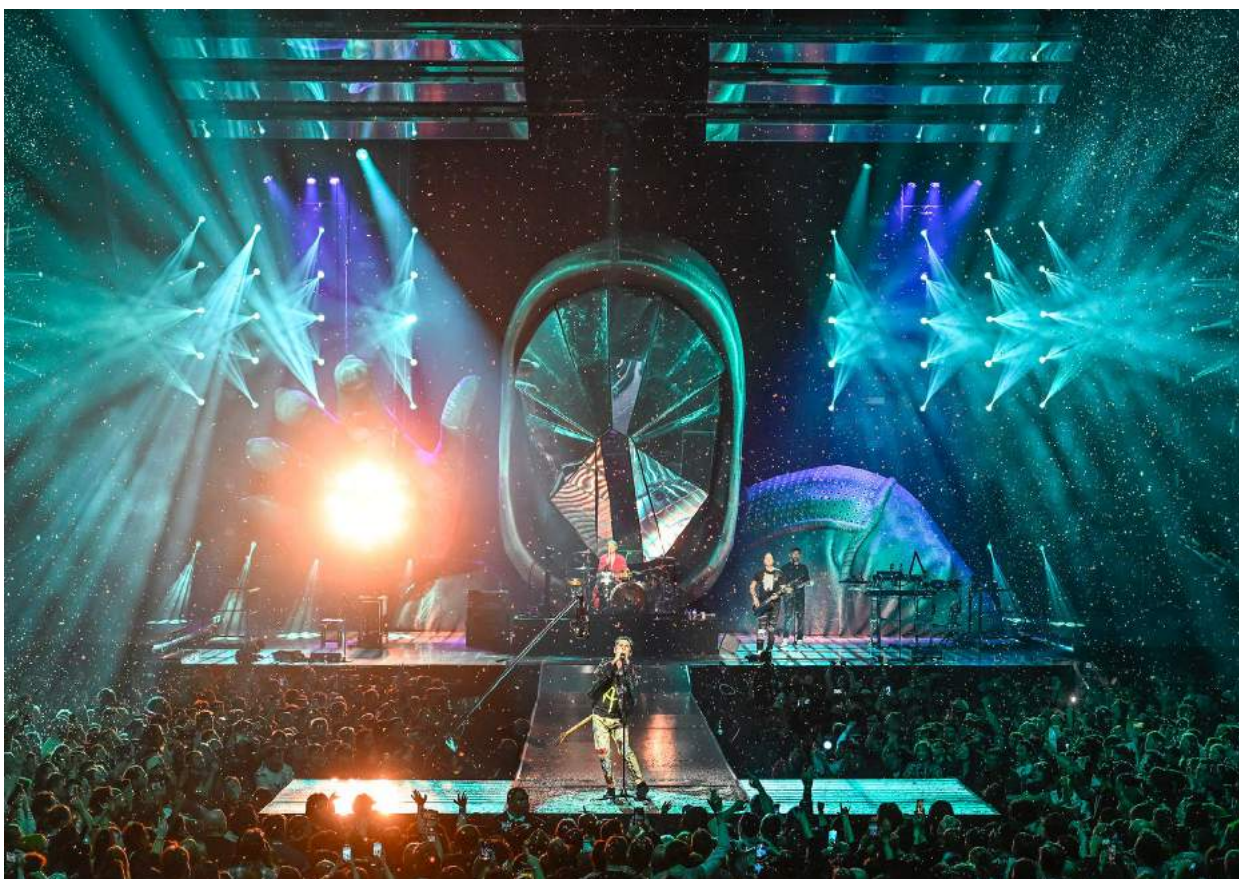
The Proteus Rayzor Blade is a tiltable linear LED light that functions as a wash, strobe or FX light. Available with 6 or 12 independently controlled 60W LEDs, the fixture zooms to 6° for mid-air beams and out to 45° for washes, and a 210° tilt rotation allows them to position dynamically. The fixtures are IP65 rated and are unique in other ways as well. Two high-intensity strobe lines of cool white LED dots run along the length of the unit, and they also include Elation's proprietary SparkLED twinkle effect.

"The strobe line is great!" Baeri exclaims. "It's like a big slap in the face. Even when there's a lot of brightness in the room it cuts through well." The designer incorporates the SparkLED effect in a couple of songs. "It helps diffuse the nature of the unit being such a technical object. It's a fun effect and even more useful for TV and camera work." Baeri shares that the original plan was for the Rayzor Blades to also line the runway but that idea had to be scrapped due to sightline issues.

The Elation equipment for the Memento Mori tour is being supplied by 4Wall worldwide and is a component of a more extensive lighting setup. When the band embarks on their European tour on May 16, the rig will expand slightly for stadium shows.



WILL OF THE PEOPLE



Ayrton Perseo and Domino LT fixtures shine on Muse's North American Tour

British rock band Muse recently finished the North American leg of its Will of the People tour, named for the band's ninth studio album that's packed with UK and Billboard chart toppers. Lighting Designer Sooner Routhier of Sooner Rae Creative, who served as Co-production Designer with tour Creative Director Jesse Lee Stout, chose Ayrton Perseo and Domino LT fixtures as stage lights and spots. ACT Entertainment is the exclusive distributor of Ayrton lighting in North America.

"I love the reliability of the fixtures and that they are rated IP65," says Routhier. "With Muse heading to Europe for a summer stadium tour at the end of May, it was important to have fixtures that could deal with inclement weather. We also love the fixtures' brightness and smooth field of colours." John Bahnick and Josh Wagner from Upstaging provided the Ayrton fixtures.

The post-apocalyptic staging of the new tour takes the band in "a very different direction from their previous tour" in our pre-pandemic, pre-insurrection world, notes Jesse Lee Stout. He partnered with Muse to transport the band to a near-future realm where an extreme group of vigilantes are resetting the world to ground zero.

Stout and Routhier created a massive grid that formed three walls of a skeletal building with the band inside. This simplistic industrial look became the visual identity of the underplay tour by Muse last autumn and carried through

to the Will of the People tour in 2023.

The production features a clear stage comprised of 75 percent plexiglass that exposes gear, lighting and other industrial materials; when the plexiglass decking is lit from below it adds to the skeletal feel of the stage. A 15-foot animated flaming logo is an acronym for Will of the People. Two inflatables more than 30 feet tall tower over the stage; one of them, dubbed "WILL", wears a plexiglass mirror mask, which bounces light as do kinetic ceiling mirrors.

"The content helps explain a narrative of these vigilantes unifying after witnessing a non-violent protester brutalised by a pack of authoritarian figures adorned in golden armour and bull skull-shaped masks," says Stout. "This figure appears as a 40-foot inflatable for the encore."

For Muse's arena shows, 16 Perseo fixtures were located on the bottom of the forms

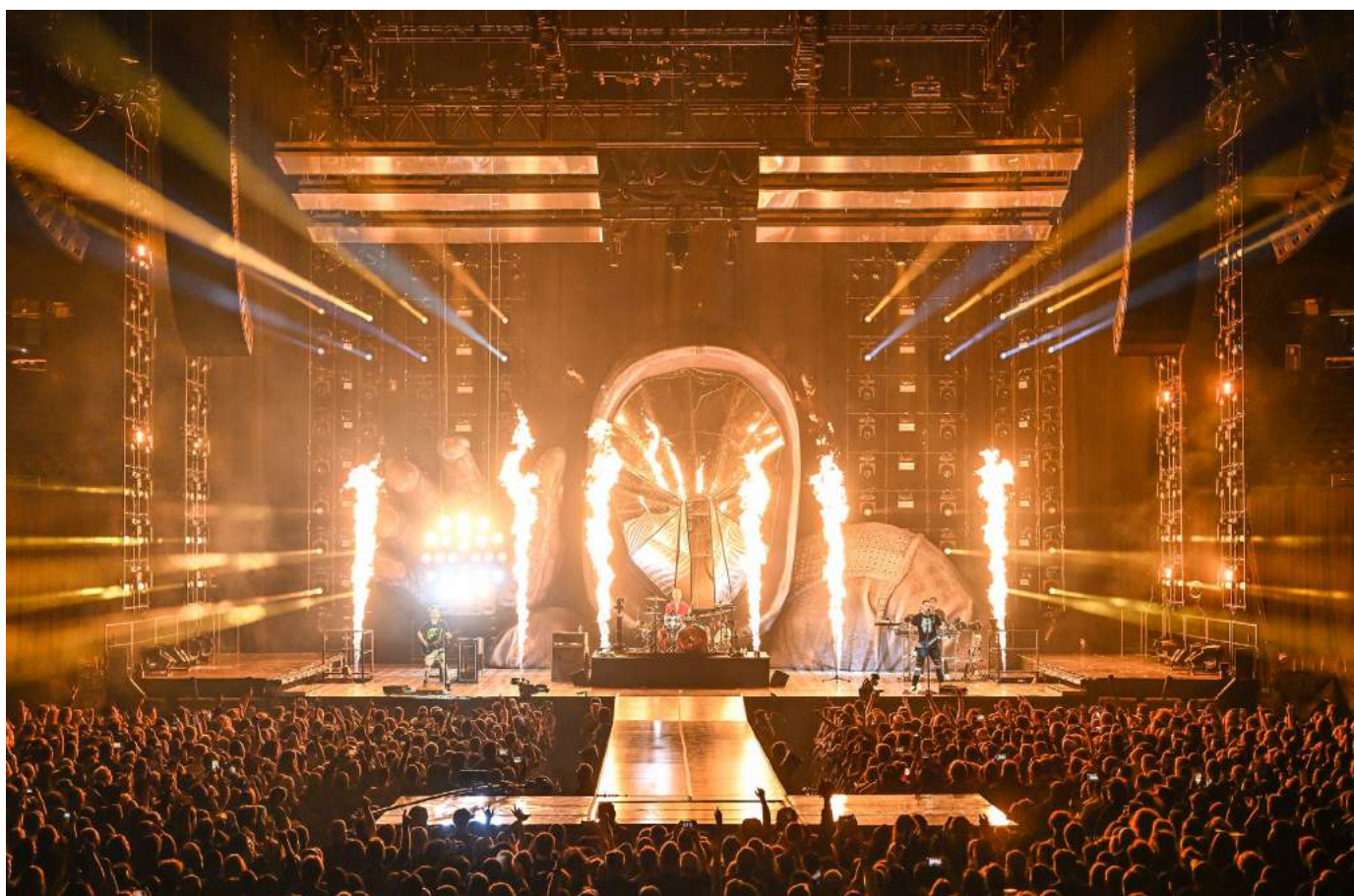


surrounding the stage. Eleven Domino LTs were deployed as spotlights, with eight on a FOH truss for front light, and three on an upstage truss for backlight. When the tour plays stadiums this summer 12 Domino LTs will be mounted on FOH delay towers and three upstage for backlight.

The North American tour marked the first time that Aaron Luke, the Associate Lighting Designer and Lighting Programmer, worked with Perseo and Domino fixtures although he has used other Ayrton fixtures in the past. "I've been very happy with Ayrton products for their brightness, efficiency and reliability," he says. "Using IP-rated fixtures now made them the right choice for this tour as we head outdoors."

The Domino LT, in particular, was selected for its compatibility with the Follow-Me system used on the tour. "We needed a bright light with long-throw optics and a flat field as well as the speed to keep up with artists who quite literally sprint from the main stage to the B stage at times," says Luke.

"We've been very happy with the performance of all the Ayrton fixtures and have had absolutely zero issues with them," he reports. "The support we received from ACT was amazing, as always," adds Routhier. "We love ACT!"





The Ayrton Ghibli is an LED moving head spot, sold by Show Technology from 2017. It would be one of Ayrton's first moving head spots sold in Australia. It was a game changer for Ayrton and how they were perceived in the Australian market. What would follow would lead Ayrton to be one of the best-selling lighting manufacturers in the country.

WHO IS AYRTON?

Ayrton Lighting was founded in 2001 off the back of collaboration between professionals in lighting, technology, and industrial design. Their goal has been to translate new technology and avant-garde development concepts into unique and original products.

Although they have only really come onto the scene in Australia over the last five or so years, Ayrton have been around a lot longer. Arguably, the most well-known Ayrton products prior to the Ghibli are the MagicPanel, MagicBlade and MagicDot.

The goal of the Ayrton Ghibli was to be the best feature-packed LED moving head spot on the market. It was going up against some real moving light heavyweights in Claypaky, who were coming to market with their Axcor range, and Martin, who were competing with their ERA and Encore performance ranges.

One downfall of LED lights is that some flicker on TV. As well as this, the dimming curve on an LED fixture, especially in an RGB fixture, will have different colours fading out at different rates. For example, fading out an RGB fixture over 10 seconds on camera could result in having the last half a second being green. This has been taken care of with the Ghibli. Its

white LED engine is flicker-free and is perfectly suited for television applications and video events. We are now seeing more and more gigs that are lit for camera rather than the audience.

The Ghibli has an impressive zoom range of 8:1. At its narrowest point of 7 degrees, it is as wide as a Martin MAC 101, a light considered to be a pin spot. Out to 56 degrees it can be used to wash a stage. For reference, a WFL (Wide Flood Lens) Par throws out an oblong beam of 30 degrees by 51 degrees. It has a flat beam field meaning that there is no hot spot in the middle of the light; the amount of light is even on all parts of the beam.

It is a versatile work horse fixture, more than capable of making up the backbone of any high-end lighting rig. Its quieter than you would imagine too, making it great for corporate or TV gigs.

The Ghibli's gobos are great but can be a little hard to change; they're also a custom size. By now, the Ghiblis have become so popular this doesn't matter anymore. In the stock range of gobos there is a two-colour gobo. When in open white, it looks white and yellow and mixes accordingly (i.e. changing the light to blue will have the output as blue and green).

Although it's a modular light, everything is very compact. Modules need to be taken out a certain way and in a certain order. Belts can be tricky to change or replace. Emphasis has been created on making it a smaller, more compact light. This came at the expense of being able to easily work on them and pull them apart if you needed to do a deep clean or get to certain modules or parts for cleaning. Probably best not to attempt repairs where you are removing modules and belts unless you have experience servicing moving lights. It might not be the best light to learn on if you want to teach yourself to be a moving light tech.

The base is relatively small for the head of the light. Not really an issue, even when using them as floor fixtures, but worth noting. This could also be a knock-on effect from trying to make the light as compact as possible. On the flipside, this resulted in a smaller footprint, meaning you could stick more of them closer together, both on the ground and on the truss. Clamps can be moved to multiple positions to account for truss webbing.

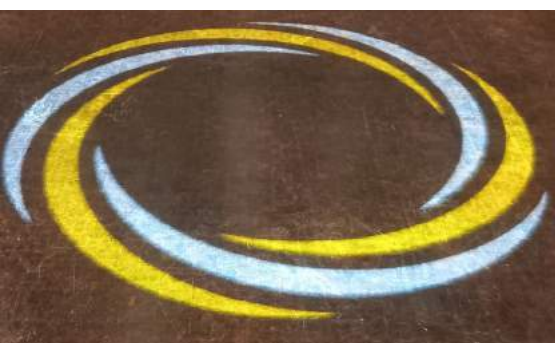
The general consensus is that the Ghibli has been found to be very reliable, with very few issues. A fantastic feat, as teething issues would be more than understandable. Obviously we haven't seen the light or the brand with

moving head spots in the 10 – 20 year age range, but the early signs are good and its looking like the Ghibli will go the distance in the long run.

It has wireless DMX, handy in today's environment. What that also does is future proof the light; one would expect to see more wireless DMX moving forward, not less.

Weighing just over 35kg, it is on the heavier end, but boasts a lot of features for its weight. Because of the size of the head, it can be an awkward light to flip - definitely a two-person lift. One thing keeping it at such a relatively light weight is that it is IP20 rated. There is an IP65 rated version of the Ayrton Ghibli called the Perseo, which weighs just under 39kg.

After the release and success of the Ghibli, Ayrton followed up by releasing a large range of fixtures such as the Diablo, Domino, Cobra, Zonda, and Mistral, to name a few. In just a few short years they have gone from a few lights to offering something to most segments of the moving light market. Their range continues to grow and develop with many more releases on the horizon.



THE SPECS

OPTICS

- 13 elements 8:1 zoom high-resolution optic system
- Beam aperture: 7° to 56°
- Fast motorised linear zoom
- Tempered anti-reflective coated lenses
- 137 mm frontal lens

LIGHT SOURCE

GHIBLI S

- 36,000 lumens 8000 K white light engine
- Total luminaire output: up to 23,000 lumens
- Colour temperature output: 7000 K
- CRI: greater than 70

GHIBLI TC

- 26,000 lumens 6500 K white light engine
- Total luminaire output: up to 17,000 lumens
- Colour temperature output: 5900 K
- CRI: greater than 90

GHIBLI S & GHIBLI TC

- Rated life (L70): up to 40,000 hours
- Flicker-free source management suitable for TV and film

MOVEMENT

- Moving-head operated via either 8- or 16-bit resolution
- Pan and tilt with automatic repositioning
- Moving-head range: 540° (pan), 270° (tilt)

COLOURS

- CMY colour mixing
- Variable CTO colour temperature correction

- Fixed colour wheel with six complementary colours and High CRI filter

GOBOS

- Indexable rotating gobo wheels with 7 high-precision glass gobos, plus open position
- Adjustable-speed rotating gobo in both directions
- Fixed gobo wheel with 8 high-precision glass gobos, plus open position

FRAMING SYSTEM

- 4 individually positionable shutter blades on a 100% surface area in all positions
- Rotation of the framing system module: +/- 45°

IRIS DIAPHRAGM

- Fast iris diaphragm with adjustable dynamic effects
- Iris range: 15% to 100% open

FROST

- 2 frost filters: one light, one heavy

EFFECTS

- Graphic animation effect-wheel with continuous rotation in both directions
- 5-facet circular rotating and indexable prism

DIMMER / STROBE

- Electronic dimmer, allowing perfect light adjustment from 0 to 100% without colour variation
- Strobe effect, with speed adjustment from 1 to 25 flashes per second





Adelaide Town Hall. Meyer Sound's ULTRA-X40s provide extra volume for speech reinforcement, to get over a big crowd or a loud dinner.

MEYER SOUND ULTRA -X40s

USE CASE

At Scene Change Adelaide, most of our clientele are corporates, which means a lot of people speaking at lecterns, conferences, and dinners with a band. We also do a lot of outdoor gigs.

We installed a permanent Meyer Sound CAL 64 system in one of our regular venues, Adelaide Town Hall, eight years ago, and the system is great for 90% of the events that happen there. When we need extra volume for speech reinforcement or need more low end and volume for playback, we will bring in a pair of ULTRA-X40s and pole mount them around 25 metres apart. Like most town halls built in the 19th century, it's a large, reverberant, acoustically difficult hall. A pair of ULTRA-X40s can absolutely cover the entire space, and we can push them extremely hard when we need to without breakup or distortion.

We're typically driving the ULTRA-X40s straight from an Allen & Heath SQ-5 digital desk on

smaller gigs, or via a Yamaha QL5 on larger shows. When we need system processing for using the ULTRA-X40s as fill in distributed systems, or we're using the ULTRA-X40s with subs, we use a Meyer Sound Galileo 616 processor, which I monitor through Meyer Sound's Compass software. I like the Compass interface and find it completely intuitive.

COMPARISON

Meyer Sound describe the ULTRA-X40 as the successor to their UPA-1P. I've used UPA-1Ps extensively, both as part of Scene Change's inventory and with other companies. The UPA-1P is a 12" woofer and a 3" compression driver, with 100° x 40° coverage and a 1000W amplifier, weighing 34kg. This is quite different to the ULTRA-X40s two concentric 8" drivers and 3" compression driver all going through a rotatable waveguide with 110° x 50° coverage, powered by a 1950W amp, and the whole weighing 23 kg. I'm happy to say that the ULTRA-X40 outperforms the UPA-1P in every

Matt Zalewski is a Senior Technician at the Adelaide branch of national AV company Scene Change. Matt started his audio career recording at school, before moving onto mixing bands in pubs, studying at TAFE, then freelancing for multiple companies around Adelaide. He's been with Scene Change full-time since 2016.

way.

SOUND

While the ULTRA-X40s represent a sonic improvement over their predecessor, they still have what I'd call the Meyer Sound 'signature sound'. It's something I've gotten used to, as every company I've worked with has Meyer Sound loudspeakers in their inventory.

Meyer Sound loudspeakers have better phase coherence than their competitors, and that's where I believe their signature sound comes from. Their horns and waveguides are extremely accurate and tight, which is why they have such excellent side and rear rejection, which I'm always struck by when I'm working with them.

Having great rear and side rejection is extremely important when working with lecterns and lectern mics, which is our bread and butter. When you have a presenter who hasn't got great mic technique, the gain before



Don't just hear it. Hear it right.

You've heard us amplify with perfect clarity. You've heard us in standing ovations. You've even felt us, in the standing hair on your arms. And now, get ready to experience all the ways we deliver honest sound. meyersound.com



feedback you can get because of the rejection really helps.

The other thing I'd say about Meyer Sound and the ULTRA-X40s is that 'you get out what you put in.' Meyer Sound use the term 'honest sound' in their marketing, and that's exactly what it is. Because the ULTRA-X40s phase is so accurate, the timing so perfect, and you've got all the signal coming through the acoustic centre that is the waveguide, they faithfully reproduce your signal. It's not just that their frequency response is flat (which it is), they are tight, there's lots of headroom and gain before feedback, and they will absolutely go for days in terms of level.

PHYSICAL

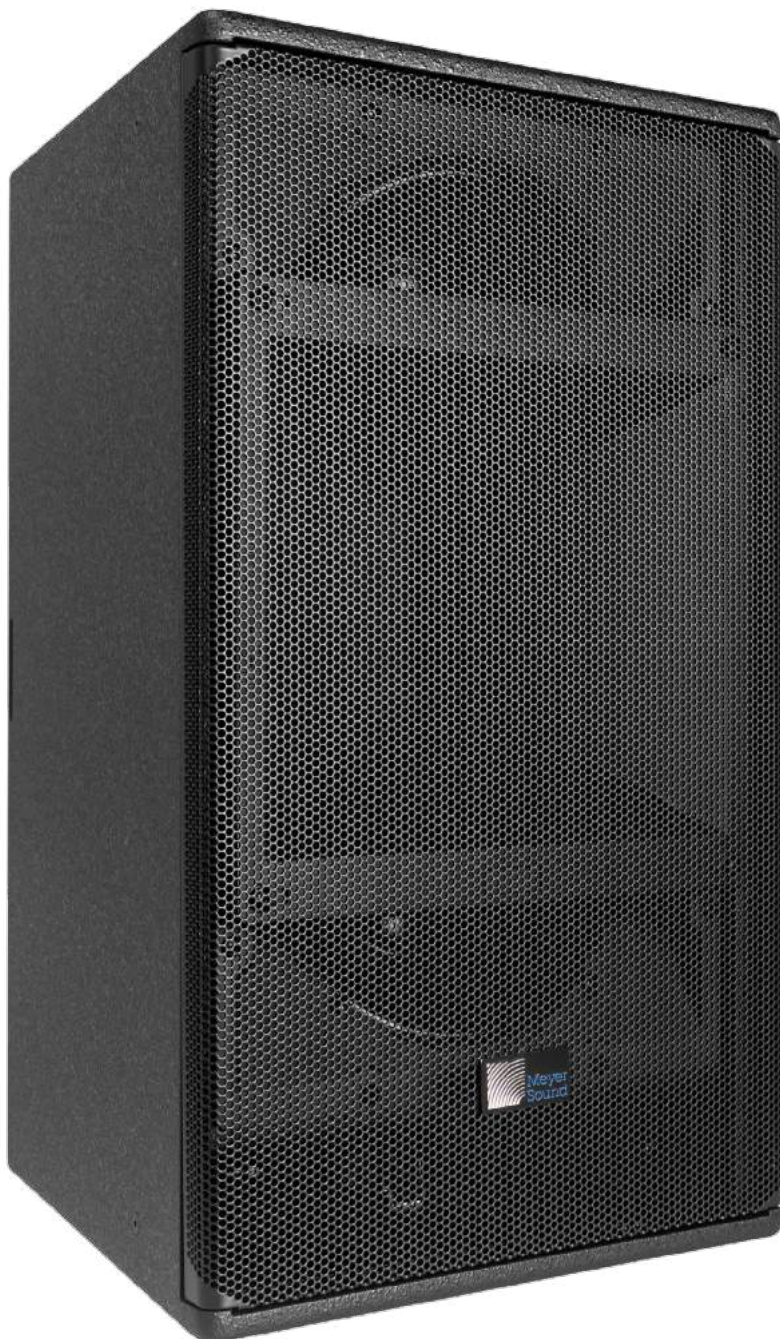
While they are 11 kg lighter than a UPA-1P, I have to say I did find the lack of handles on the sides annoying initially; there's just the one on top. However, I do understand why they've done this, which is in part for the sleek corporate look

which we benefit from. To be honest, I'm quite short and even I find it quite easy to get them on a speaker stand. Once you figure out your technique to get them onto the poles, it's not hard.

The M20 top hat mount that speaker stands go into is just 35mm deep, which I found a little surprising when I first pole-mounted one. It does feel quite different from other manufacturer's top hats, but obviously it's fine.

CONCLUSION

The ULTRA-X40 is a more-than-worthy successor to the industry-standard UPA-1P. We're also using the smaller ULTRA-X20 dual 5" for smaller gigs with great results. Having deployed the ULTRA-X40s across all our regular venues, and on multiple outdoor events, I have never had an issue, and can always rely on their superior sonic performance.



Product Information: meyersound.com

Distributor Australia and New Zealand: meyersound.com

THE SPECS

ACOUSTICAL

Operating Frequency Range:
55 Hz – 19.5 kHz

Frequency Response:
56 Hz – 19 kHz ± 4 dB

Phase Response: 90 Hz – 19.5 kHz ±45°

Maximum SPL: 138 dB

Linear Peak SPL: 132.5 dB with 18 dB crest factor (M-noise), 130 dB (Pink Noise), 131 dB (B-noise)

COVERAGE

Rotatable horn: 110° x 50°

TRANSDUCERS

Low Frequency: Two 8-inch cone drivers;
4 Ω nominal impedance

High Frequency: One 3-inch diaphragm
compression driver connected to a
rotatable horn; 8 Ω nominal impedance

AUDIO INPUT

Connectors: XLR 3-pin female input
with male loop output; optional XLR
5-pin connector to accommodate both
balanced audio and RMS signals.

AMPLIFIER

Type: three-channel, Class-D

Total Output Power: 1950 W peak

THD, IM, TIM: <0.02%

Cooling: Convection

AC POWER

Connector: powerCON 20 input
with loop output

Automatic Voltage Selection:
90–265 V AC, 50–60 Hz

PHYSICAL

Dimensions:
W 318 mm x H 567 mm x D 356 mm

Weight: 23.6 kg

Enclosure: Premium multi-ply birch with
slightly textured black finish

Protective Grille: Powder-coated, round-
perforated steel

Rigging: 11 integrated M8 threaded points;
35 mm Pole Mount with M20 thread;
optional accessories for various rigging
options

TOFFLER AND BEYOND

What does tomorrow hold? Who really knows. You might expect or hope for something in particular, but can you fully guarantee that? No. All you can do is hope for the best and deal with what comes up.

From an early age, we are asked "what do you want to do when you grow up?" Like we'd really know the potential options available with such minimal experience.

Many gravitate to stereotypes of fireman or nurse, no doubt while wearing blue or pink respectively. We are influenced by all that surrounds us, but particularly our home environment, and even more so, our parents.

My cheeky answer of "I don't want to grow up" usually met with tut-tuts and raised eyebrows. I did grow up, yet still without a clue of what I wanted to be or do. Not sure what that says about my folks.

I've since worked it out and I want to be a good person. Nothing more, nothing less. Jobs have come and gone, and several career paths attempted, but I've continued honing my inward and outward integrity. That defines me far more than any employment or vocation ever will.

CUTTING AND POLISHING THE DIAMOND

Whether by your own design or random good luck, if you find a profession or pursuit that you like, you still have to acquire adequate competence to sustain it. Which leads to learning, training and practise. And hacking through the bad days until good days are more common.

I've made up a universal talent formula that seems to apply across multiple sectors. After:

10 hours - you've got the basic hang of it but know there is a way to go.

100 hours - you think you are an expert.

1,000 hours - know that you are no expert but are now refining your craft.

10,000 hours - if you are not an expert by now, you are in the wrong game.

That's your aptitude sorted. Now comes my job contentment matrix. With any new job or activity, if after:

10 hours

You love it - come back tomorrow.

You hate it - consider options but hang in there, it might yet gel.

100 hours

You love it - start boasting to family and friends.

You hate it - it's about time to start looking for something else.

1,000 hours

You love it - guess this is your career for the foreseeable future.

You hate it - you either have serious financial commitments or change-phobia (sticking with the devil you know).

10,000 hours

You love it - guess what your epitaph is?

You hate it - seriously, what are you doing with your life?

PLANNING FOR THE POSSIBLE

Even with all the random potential ahead, it's still wise to make a plan, however vague or loose. Look for tactical approaches that will let you work towards your strategic goals. As ever in life, be ready to tweak the plan as your situation evolves. And be prepared to throw that all out the window when major life changing events happen.

Personal things like accidents, medical emergencies, health conditions, family breakdowns, or sudden epiphanies can come out of the blue. Global black swans like climate, war, and disease can (and should) be cause for reconsideration of what is important and how to go about getting there.

Comedian Matt Ruby nailed it recently: "Life throws awfulness at you. There's nothing you can do about that. But you control your reaction to these negative events." We've all experienced this in recent years. My own responses have not always been elegant, but they have been the best I could muster at the time, a timeframe seemingly compressing the distance between past, present and future.

NOT NOSTRADAMUS

Reading, consuming and eating popular culture have long been side projects of mine. Many trends I've seen coming but one I didn't was cooking shows. In the early 90s, a group of us decided to get together for a feast. Nothing unusual about that.

For a creative challenge, we recorded the whole process with video and stills. From that, we produced a short movie capturing the whole market to plate experience and ran off 100 or so dubs to VHS. I compiled a recipe book to compliment all the dishes. For Christmas that year, all of our friends and family received copies of both.

We didn't see the MasterChef trend coming and went our different ways. Like The Third Bardo, we were "5 years ahead of (our) time". Coulda, shoulda, woulda. But, didn't. And that's ok. We've all gone on different paths and are generally happy. I've now spent over 20 years hooked up with one of the other participants. None of us saw that coming at the time either!

I like how you cannot directly experience the future. It would be somewhat boring to know the end of the tale before you hear it. Even more so before you live it.

Using the lessons of history to deal with the surprises of today is a fundamental part of the human journey. The only moment that we actually exist in is the present. Enjoy it, and enjoy the journey of discovery as the present becomes the past and the future becomes now.

Which led to me becoming a firefighter anyway. A part-time volunteer one, yes, but still with all the trappings of flashy lights and sirens that so captivate little boys. My inner child really does enjoy driving a fire truck and my grown-up adult self enjoys serving my community. I didn't see that future coming ... but it makes for a rewarding present.





AFTER DARK

SNIPPETS FROM THE ARCHIVES OF A BYGONE ERA

My circadian rhythms dictate that I rise when the sun rises and sleep after dark. Adversely, I spent most of my career doing the graveyard shift in an industry often dogged by inebriated and unruly patrons.

Early in my PA hiring business I lived in a two-room apartment at the rear of my parent's place; one room was for storing the gear and the other was for sleeping, or trying to sleep after working a gig at some 3:00 a.m. closing venue. Arriving home in the early hours of the morning I'd often greet my Dad having breakfast in the main house before he left for work. This highlighted the depressing fact that my body clock was out of sync.

Daytime gigs were rare, but I quickly snapped up any cultural events that came my way including ethnic events like a Spanish Fiesta or a Vietnamese wedding, and there was even an alfresco Catholic mass. So it's ironic that amidst the turbulence and disorder of working

late night venues where I'd had lit cigarettes flicked in my face, or had to untangle brawling punters who'd fallen into my mixing console, the only unforeseen threat that knocked me off my feet was heatstroke during the load out at an open air event. The remedial treatment was to stop off at KFC for some sugary drinks and to help myself to a handful of their little salt packets en route to my next late-night gig at War and Peace. However, I don't think this should be taken as responsible medical advice for heatstroke.

War and Peace was a popular 3:00 a.m. closing venue in Parramatta, which started life as a disco in the late 70s and by 1982 had become a firmly established band venue. It was a

reasonably orderly venue, but it did have its moments. In those days 'lockdown' was only a term used in prisons, but I was twice in virtual lockdown, unable to load out whilst awaiting police intervention: once, after a knife-wielding patron held bouncers at bay at the door, and a second time when an inebriated customer, who had been diagnosed with a terminal illness, went berserk in the venue right on closing time.

During my sojourn in the Philippines in the early 80s I installed the sound and lighting and hired the bands at Rosie O' Grady's nightclub, which was just off the US Clark Airbase in northern Luzon and heavily patronised by US military personnel (see CX172 for full article). One evening three tanked US marines took to the dance floor, dancing with each other and spinning around while holding and spilling the contents of their beer steins over other customers. The venue manager, Jim Fox, who was ex US military security, told me to stay put at my sound and lighting consoles while he dealt with them. Jim had marched the marines almost to the door when the stage lights went out. This was a regular occurrence as our electrician had consistently warned me that my sixteen thousand watts of par cans were overloading the fuses, which were already as big as beer bottles.

I never tampered with the labyrinthine connectivity of Filipino fuse boxes, so I headed over to alert Jim who was dealing with the marines. Jim raced off to the fuse box leaving me with the drunken marines who thought I was some sort of security back-up.



Rosie O' Grady's 1983. Left is venue Manager Jim Fox and his wife



US Town Patrol was only a phone call away.

I was given a free hand to redecorate the club, which I changed to an agency band venue with DJs presenting a disco during the band breaks. Given the venue's past infamy it was hard getting the numbers through the door, but when our biggest opposition closed down for renovations they poured in and discovered the new place to be. Bands that played at KC's included the Sally King Band, the Wendy Saddington Band, and a host of covers bands.

KC's wasn't without its troubles. The club would be absolutely empty until midnight when patrons already plastered would roll in from other venues. I recall the entertainment manager of the Silverwater Speedboat Club who attended one night telling me that we shared the same crowd.

"How could that be?
We don't close until 3:00 a.m."

"Oh, we close at six," he said.

So, somehow licensed venues went from the enforced six o'clock closing times in the 50s

One of the marines sized me up:
"And I'll cut your ass, mother f***er."

Fortunately, as the words left his mouth another of the marines seemed to realise that I posed very little threat, and I learned later that Jim had already warned them that the feared USAF Town Patrol was only a phone call away. So, he began apologising and escorting the other two out of the venue.

The happy ending at Rosie O' Grady's didn't eventuate back home at West Ryde's Local Inn (formerly Jagger's nightclub) which had such a troubled history that the new licensee changed the name to KC's, named after Elvis' 1958 record and movie King Creole. When I arrived as entertainment manager in 1987, I found the venue was booking garage bands, which then played to empty houses.



Carol and the Lips at Rosie O' Grady's

((bssound))

BAND PA SYSTEMS, VOCAL PA SYSTEMS, LIGHTS

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

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

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

RentalPoint
SOFTWARE

Powerful web based software

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

Register now at cxnetwork.com.au

(that's 6.00 p.m.) to 6.00 a.m. in the 80s. The 'six o'clock swill' of the 50s, which brought about a frenzy of drunken anarchy as the deadline approached ended in 1955 in NSW, but dragged on in Victoria until 1966. And with all the bad press that late night venues get today it is novel to think that Australia's most notorious venue riot at the Star Hotel, Newcastle in 1979 erupted at closing time, which was then 10:00 p.m.

The doormen at KC's had their work cut out both inside and outside the venue. Brawls started over the most ridiculous incidents. There was the time an inebriated girl virtually cleared the entire dance floor when she began sensually pulsating to the music whilst making explicit sexual gestures. A drunken punter thought he'd cool her down by pouring his beer over her. Then the nightclub erupted into a giant free-for-all.

There was also the time when a band, prior to playing Lionel Richie's 'Dancing on the Ceiling', foolishly offered a prize if any of the guests could achieve the feat. Two drunken punters grabbed a mate, inverted him and tried to elevate him so he could somehow dance on the ceiling. They resented security intervening, and another huge brawl broke out.

Along with adhering to the adage 'keep your friends close and your enemies closer', I also kept my heavysset doormen close. So when an irate punter punched his girlfriend to the ground just in front of my mixing console, I alerted security.

"Can you point him out?" they asked. So, accompanied by my security, I approached the offender.



Wendy Saddington

"Excuse me sir," I said politely. But before I could finish the sentence he turned and let fly with a glancing blow to my cheekbone. Security then stepped in, but he foolishly continued his tirade, which was always going to be a losing endeavour.

"That's assault," complained his battered girlfriend about her assailant's treatment after security had neutralised him.

There were no RSA rules in the 80s, not that they're all that effective today, but the general rule at KC's seemed to be that you could order drinks from the bar until you could no longer pronounce them.

"KC's wasn't without its troubles. The club would be absolutely empty until midnight when patrons already plastered would roll in from other venues."



Ryedaes VIP Lounge, formerly KC's nightclub, Local Inn West Ryde

After yet another successful convention,
we have 3 new inductees being introduced into

The ACETA Archive of Excellence[®]



Watch this space to find out who...

PRESERVING OUR HERITAGE

The ACETA Archive of Excellence[®] acknowledges and celebrates individual achievers, who, by their generosity of spirit and unique skills, have created and enhanced standards that bestow credit on the industry, and create opportunity for others.

THE CHOICE OF LEADING LIGHTING DESIGNERS WORLDWIDE

DYNAMIC • RELIABLE • 3 YEAR WARRANTY



SUPER DOTLINE



NEOZONE



GEMINI



LYRA

