

CX

INTEGRATION / AUDIO / LIGHTING / VIDEO /

LIGHTING

Nick Schlieper LDs his 100th for STC

SPECIAL EDITION

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- / Austrian Audio OD303, OD505, and OC707 mics
- / Neumann NDH 30 headphones
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THE DISRUPTIVE ISSUE

/ IAN WHITWORTH ON DISRUPTION
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Contents Photo – Strange Case of Dr Jekyll and Mr Hyde. Photo Credit: Daniel Boud.

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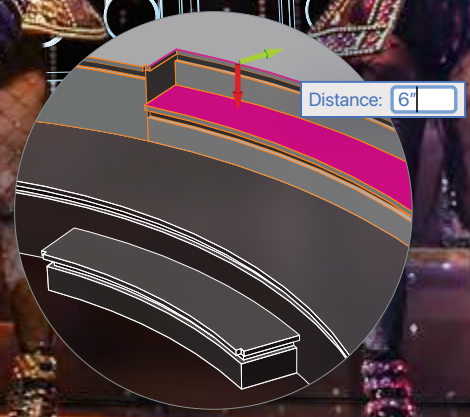
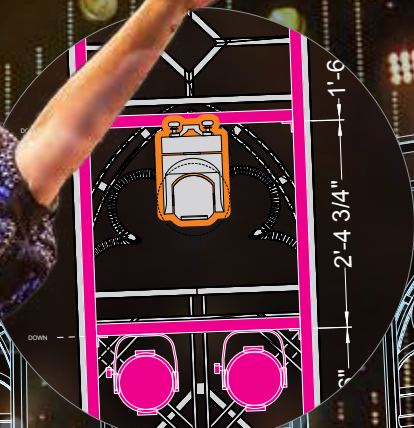
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Vectorworks continues to prioritise collaboration with Project Sharing, which facilitates multi-user file access, so you and your teammates can work collaboratively on a project no matter where you are in the world. Vectorworks also offers an extensive array of import/export options along with support for openBIM and IFC, and direct links with Revit®, SketchUp®, Rhino®, Photoshop®, Cinema4D, Solibri Direct, and more.

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Join your peers and experience Vectorworks Spotlight, the design-centred software solution that will supercharge your workflow.

CALI BEACH

Celebrate Their First Birthday in Style

Cali Beach, Australia's first luxury beachside rooftop precinct, celebrated with an ultimate poolside party headlined by Will Sparks, which kicked off in the afternoon of Friday 16th September, with many celebrities and party goers ready for a good time!

The Prestige Group, the in-house AV providers, took the production for this special event to the next level, adding some additional lighting and effect fixtures to an already impressive line-up.

"We know the venue very well. The audio and video system we designed and installed here is first class. However, we wanted to deliver a unique show for this special event, so we decided to add more Acme Lighting fixtures and some DJPOWER effect machines to the mix to enhance the atmosphere, making sure it was a night to remember!" says Nathan Wright, General Manager at The Prestige Group.

Looking back to one year ago, The Prestige Group were engaged to deliver an AV system for this unique landmark venue. They chose to install VuePix Infiled LED screens, Acme Lighting fixtures and DJPOWER stage effects to provide the beachside vibes and underpin the spectacular shows and world-class entertainment for the guests.



GEAR LIST

Cinema Screen

Product: VuePix Infiled MV6 Screen
 Pixel pitch: 6.9mm
 Physical Dimensions: 8m wide x 4.5m tall
 Total Screen Coverage: 36sqm
 Pixel Count: 746,496 pixels
 Weather Protection: IP65

DJ Screen

Product: VuePix Infiled GX3 Screen
 Pixel pitch: 3.9mm
 Physical Dimensions: 2m wide x 3m tall
 Total Screen Coverage: 6sqm
 Pixel Count: 393,216 pixels
 Weather Protection: IP65

Pool Screen

Product: VuePix Infiled MV5 Screen
 Pixel pitch: 5.9mm

Physical Dimensions: 10m wide x 1m tall
 Total Screen Coverage: 10sqm
 Pixel Count: 282,240 pixels
 Weather Protection: IP65

Lighting

64x Acme StagePAR Colour 100
 12x Acme Cetus
 4x Acme LYRA
 4x Acme Thunderstruck

Stage Effects

6x DJPOWER HF-210 Flame Machine
 6x DJPOWER H7D Fog Machine
 2x DJPOWER X4 CO2 Jet
 4x DJPOWER Cold Sparks
 2x DJPOWER Confetti Guns

Control System

NovaStar H2 Video Processor
 Arkaos MediaMaster Pro5 Software





"The technology we have chosen proved to be top notch," confirms Nathan. "When you consider the environment being the major factor here; direct sunlight on most days literally from dawn to dusk, replaced by tropical weather on the bad days, constant salty air exposure, and then patrons at times having too much fun by the pools, you really have to make sure that the technology you use is literally bulletproof."

The venue features three major VuePix Infiled video screens; one 3x2m portrait format

screen behind the DJ booth, the second one 10m wide x 1m high entertaining the guests by the pools and the Cinema Screen, 8m wide x 4.5m tall at the separate Beer Garden area.

"All of them have been performing flawlessly for the entire time," confirms Nathan. "Of course, provided that we service them well and give them the love they need in this environment."

"The Acme lighting rig has also been well selected, allowing us to go from mood lighting during the day to full powerful event lighting

when we want to highlight the acts and shows. We added extra LYRA fixtures (first install in Australia) and a few THUNDERSTRUCK strobe fixtures for the birthday celebrations. The owners love the extra kick they provided for the night, so it looks like they might be staying permanently," comments Nathan.

One year on, the venue is going incredibly well. It has quickly become the Gold Coast's hottest destination for both residents and holiday makers, offering world-class entertainment throughout the entire year.

Creativity unleashed

All-New
MX Series Solution



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

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Green-GO system

Provides reliable comms for remote Australian NASA launch broadcast

analogue input/output devices, supplied by Sydney-based specialist Green-GO distributor, Event Communications Australia.

"Green-GO was chosen for its robust DECT reception, ease of use, and reliability in the hostile Arnhem Land environment," says Event Communications Australia's Rod McKinnon. "Equally important was the portability and low weight of the system, especially considering the smaller aircraft necessary to reach the launch site with equipment being severely weight limited."

BIE Creative's Managing Director, Shane Hogan, continues: "As you can imagine, NASA has very strict limitations regarding what frequencies are able to be used in and around the launch site and command centre. All Green-GO components were compliant without issue."

Silvio Cibien, CEO at ANIMA Network Ltd for Green-GO, adds: "We're thrilled that a Green-GO communications system was used on such a landmark moment for Australia, the ELA and NASA. We designed our products to offer rock solid reliability, and for the broadcasters covering the launch this was mission critical. We'd like to congratulate the teams on a successful project and look forward to more crew communications for space missions using Green-GO solutions."

The Arnhem Space Centre is located on the Gove Peninsula in the Northern Territory and this was the first of many launches by NASA using the spaceport. Equatorial Launch Australia says the launches have catapulted the country into the space realm, with more exciting opportunities on the horizon.

A flightcase full of Green-GO headsets and belt packs kept TV crews connected for Australia's first commercial space launch recently, as NASA launched from Arnhem Space Centre (ASC) in the sparsely populated Northern Territory.

Broadcaster BIE Creative was challenged with producing a livestream of the build-up to the launch, and of the launch itself, which was hosted on the Equatorial Launch Australia (ELA) YouTube page. It was ELA's first collaboration with NASA, which chose their spaceport to fire a BBIX rocket, carrying an atmospheric observation/sensing platform to observe the Alpha Centauri constellation.

The milestone moment for Australia required the BIE Creative team to maintain reliable, continuous contact with each other. A Green-GO system comprising HS200Single and HS200Dual Headsets and WBPX wireless and BPX wired belt packs, interfacing to 4-wire





SRX900

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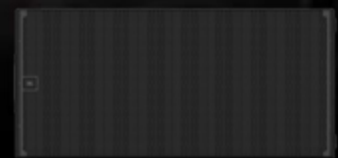
SRX906LA



SRX910LA



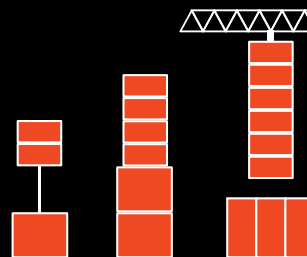
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HME SERVICES

Appointed World's First Official XM Automation System Integrator and Distributor of XMove Control Console

HME is proud to partner with XM Automation and present XMove automation to the live event industry in Australasia.

XMove is integrated into HME's control architecture to allow them to deliver powerful control over their world-class machinery at a price point that puts solutions within reach of smaller venues.

"As the world's first official XM Automation System Integrator, we have been given unique access and insight to integrate this control solution with our products," commented Glenn Harris, HME's Managing Director. "The XMove automation user interface offers complete flexibility to connect to any system. We're looking forward to bringing this innovative product to the Australian market, and have already collaborated with the Sydney Theatre Company to provide an automation solution for their recent production of Strange Case of Dr Jekyll and Mr Hyde."

The key to XMove is a simple, graphics-only approach to programming and the display of information that provides the user with a visual representation of the state, moves and cues. Because the universal language of symbols and numbers replaces words, the interface is truly international. Even complex multi-target moves are given a clear display that shows the moves that the axis will undertake.

Complex multi-target moves can be created simply with a visual interface that allows all parts of the move to be edited, and speeds and delays to be modified, either individually or all together. The complete sequence can be repeated multiple (or an infinite number of) times. The user is given clear feedback on the current status of the sequence when it is played back.

A 3D visualisation tool is key to an automation UI. Automation, by its very nature, is stage-time intensive. If automation cues are being rehearsed, the stage needs to be clear of any other activity, so the ability to program cues offline is paramount.

The visualisation view also provides a very useful training tool, with operators and programmers able to gain familiarity with the system quickly without the need to use valuable stage time.

Further, being able to show the creative team how an automation move will look, and plot the show, potentially even before it is built, means that the speeds/accelerations and travel distances can be checked before the automation is designed/built, potentially saving money.

The XMove control console features four independent playbacks with UP/DOWN/START/STOP and speed controls for each. Speed control is via a belt, with a visual display of the current set speed. A custom illuminated programming keyboard and trackpad interface to XMove. There are dead man's handles (for both left or right-hand operation) with optional foot switch output.

Earlier this year, XM Automations won the ABTT Engineering Product of the Year 2022 for XMove with the judges commenting: "A very flexible console with lots of potential to fully integrate into venues of many sizes. The console has been designed with the user in mind, including the ability to develop the programming offline with visualisation of the model included as standard. Also of note is the development of a standard protocol for automation control."

In September, the XMove platform won a PLASA Award for Innovation. The judges felt that this product was deserving of an award for being the first controller to potentially bring industry-wide compatibility to automation.

Features

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- Multi-target moves, locked groups, multiple users, shows, and multiple venues
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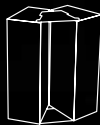
WALL MOUNTING



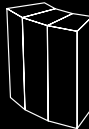
TRUSS MOUNTING



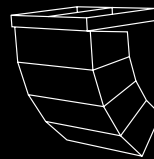
EXTENDED TRUSS MOUNTING



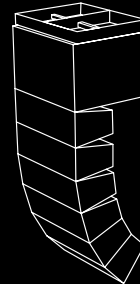
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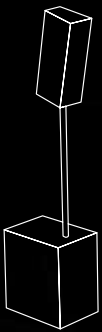
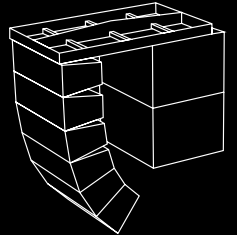
VERTICAL ARRAY



VERTICAL ARRAY WITH VIO S115



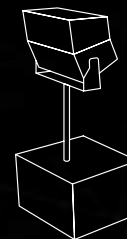
DOUBLE VERTICAL ARRAY



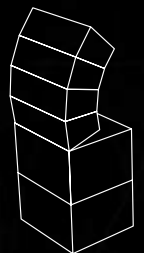
POLE MOUNTING

VIO X206 2-WAY ACTIVE SPEAKER

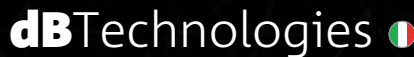
Max SPL.....	131 dB
VIO X206 Frequency Response [-6dB].....	70 - 18,000 Hz
VIO X206-100 Frequency Response [-6dB].....	70 - 17,500 Hz
HF.....	1x 1", 1.75" v.c
LF.....	2x 6.5", 1.75" v.c
VIO X206 Directivity.....	60° x 90° [rotatable horn]
VIO X206-100 Directivity.....	100° x 15° [H x V]
Amplifier.....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



POLE-MOUNTED ARRAY



GROUND-STACKED ARRAY



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ASTERA for Drapht and the West Australian Symphony Orchestra



Australian multi ARIA-award winning MC Drapht has recently released his new music video 'Jimmy Recard', featuring the West Australian Symphony Orchestra.

GSD Productions were appointed to supply the lighting production for the video recording, which was set up and shot at the Perth Concert Hall. They utilised 32 Astera PixelBricks and 16 Astera TitanTubes, spaced across the entire set to provide both direct and mood lighting.

"They are such great fixtures", comments Alex Spartalis, Project Manager of GSD Productions. "Our team loves working with Astera technology. They are so easy to deploy and operate and they provide perfect lighting

for gigs like this, when you need to be flexible with positioning your light sources, and precise with the colours for cameras".

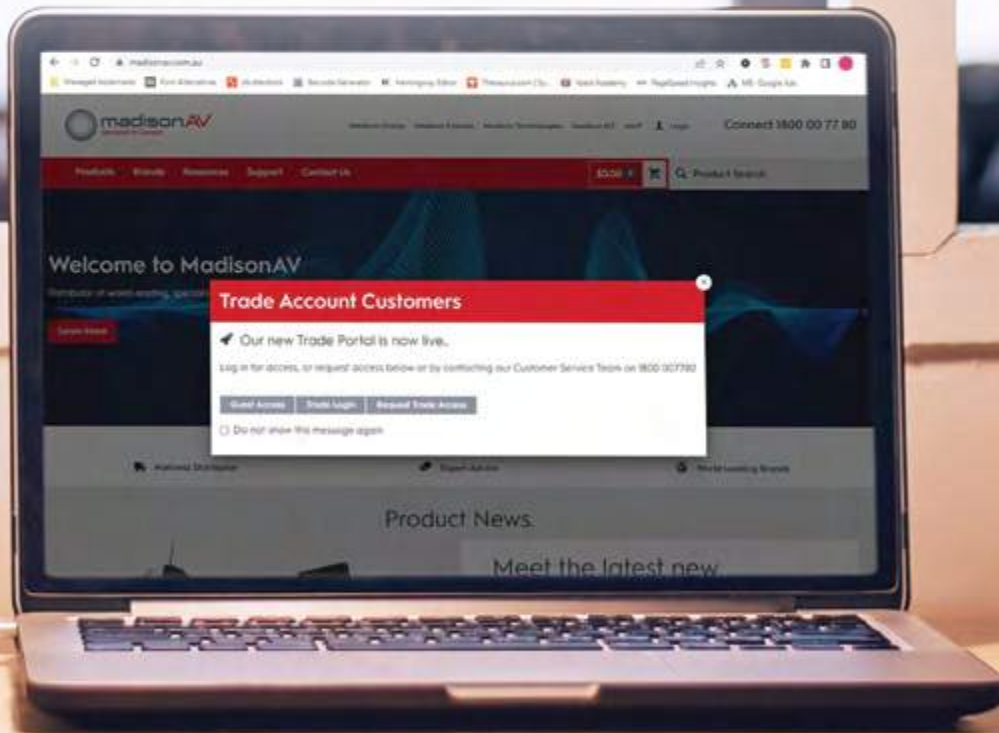
The music video features the award-winning West Australian Symphony Orchestra conducted by Jen Winley, playing music composed and arranged by Joshua Davis.

'Jimmy Recard' is the first single released from Drapht's third album 'Brothers Grimm'. The video clip was filmed by Christian Kennedy, directed by Steve Browne and edited by Drapht.





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Image courtesy City2Surf

Event Communications GAME ON!

A few weeks in the life of The P.A People's Event Communications department

The P.A. People's Event Communications team continues to deliver technical solutions and equipment for a broad range of local and international clients, from CCTV, trackside PA and venue audio, noise monitoring, wired and wireless comms, two-way radios, and critical signal infrastructure.

With teams covering events both in Australia and overseas, the Event Comms department has had a busy spring season. In recent weeks the team has been supplying comms solutions for:

- City2Surf, 'the world's largest Fun Run' bringing 80,000+ people together from all walks of life to run, jog, walk or stroll the iconic 14km course from Sydney CBD to Bondi Beach
- FIBA Women's World Cup Basketball at Qudos Bank Arena, the 19th edition of FIBA's premier international tournament for women's national basketball teams
- NRL, NRLW, and Australia Cup Grand Finals. Commbank Stadium hosted the Australia Cup final between NSW NPL side, Sydney United 58 FC and A-League club Macarthur FC, and Accor Stadium hosted the NRLW (Newcastle Knights vs Parramatta Eels) and NRL (Penrith Panthers vs Parramatta Eels)
- Monster Jam Stadium World Tour returned to Sydney, at Accor Stadium, slated as the 'world's larger than life motorsport'
- Saudi Opening Season Parade in Riyadh. The Saudi capital celebrates the start of Events Season with a grand opening parade, a state-sponsored annual entertainment and sports festival, part of the larger Saudi Seasons initiative held from October to March since 2019
- Sydney Kings, (the 2021 Champions) new 2022 Season at their Qudos Bank Arena home court
- Australian Motorcycle Grand Prix, part of the Grand Prix motorcycle racing season, which has been run at the scenic Phillip Island Grand Prix Circuit south of Melbourne since 1997

"Our teams have been active since COVID-related event restrictions eased late last year and we're excited to be back on the road serving our valued clients and doing what we do best," said Nicky Dodds, Manager of the Event Communications team. "These events are just a few highlights from the most recent period in The P.A. People Event Comms schedule," she added.

For further details, contact:
eventcommunications@papeople.com.au

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.



QZ M A R

JBL PRX900 Series

The JBL PRX900 Series includes three powered two-way loudspeakers and two powered subwoofers, built from the ground up to leverage JBL's most advanced acoustic innovations. All-new proprietary driver systems powered by ultra-efficient Class D amplifiers deliver clarity and definition even at maximum volume, with improved dispersion and beam width and smooth low-frequency extension. The PRX900 Series' class-leading DSP package, accessible via onboard LCDs and the JBL Pro Connect app, includes 12-band parametric EQ for system tuning and nuanced tonal control, and integrated dbx Drive Rack technology, featuring live and fixed Automatic Feedback Suppression, soft system limiter with Soundcraft Overeasy option and speaker delay settings and presets.

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New Zealand: JPRO
www.jpro.co.nz or
 (09) 275 8710



Elation Proteus Brutus

The IP65-rated Proteus Brutus is a 70,000-lumen LED wash FX fixture capable of high intensity washes and narrow beams that can cut through at tremendous distances. The fixture houses a high-efficiency 1200W 6,500K White LED engine. The custom peak-field engine with 2-to-1 centre to edge ratio gives powerful, high centre intensity beam and wash throws while allowing for more unique air FX. Together with a full spectrum CMY colour mixing system, the addition of linear CTO colour correction, as well as a fixed 6-position colour wheel for added colour customisation including UV and high CRI options, the Proteus Brutus offers colour combinations to satisfy even the most critical designer.

The Proteus Brutus has the power to cut through in any outdoor concert or special event and its fully dust and waterproof design makes it an optimal fixture for theme parks and cruise ships. Thanks to quiet operation, flicker-free functionality and DMX-controllable LED refresh rate, its on-camera impact will be welcome in TV and other broadcast environments.



Elation SMARTY MAX

The SMARTY MAX combines high output and long lamp life in a compact and lightweight Hybrid fixture. SMARTY MAX is the extreme output Hybrid featuring the new Philips MSD Platinum FLEX 400 lamp, and Elation's 2 year / 4,000 hours Ultimate Warranty. Rated at 480W and up to 4,000 hours smart lamp life, the SMARTY MAX includes CMY and variable CTO and is the world's first Hybrid incorporating a full iris for dynamic beam effects. Four prisms on two planes, dual frosts plus dual gobo wheel and the unique dual track animation round out the comprehensive FX package. Delivering 21,000 lumens from its large 160mm front aperture, the SMARTY MAX has a crisp output for extremely powerful beams, sharp gobos and bright washes, making it a flexible fixture for almost any application.

Australia and New Zealand:
ULA Group www.ulagroup.com
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DiGiCo Quantum338T

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Quantum338T's channel processing and mixing functions are identical to its live-focused Quantum338 counterpart, but the crosspoint matrix gains individual nodal delays and matrix aliases. This enhanced matrixing system plays a hugely important role within complex theatre output processing and this is all achieved without compromising any of the Quantum338T's general processing capabilities. Quantum338 is based on seventh generation FPGAs and includes 128 input channels with 64 busses and a 24 x 24 matrix, all with full channel processing. There is a new look and feel dark mode application, and three 17inch 1000 nit, high brightness, multitouch screens, allowing both the meter bridge and soft quick select buttons to be displayed on each screen. There are also 70 individual TFT channel displays and the floating Quantum chassis features 38 x 100mm touch sensitive faders laid out in three blocks of 12 fader banks, plus two dedicated user-assignable faders, each complete with high resolution metering.

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Powersoft has further enhanced its fixed-install product range by introducing AES67-compatible versions of its popular Duecanali and Quattrocanali amplifier platforms. The new Powersoft DSP+ models – comprising the Duecanali 804 DSP+, 1604 DSP+, 4804 DSP+ and 6404 DSP+, and Quattrocanali 1204 DSP+, 2404 DSP+, 4804 DSP+ and 8804 DSP+ – can receive AES67 streams natively by connecting the dedicated AoIP networking port to an AES67 network. All Powersoft amplifiers featuring a Dante card, including Duecanali DSP+D and Quattrocanali DSP+D models, can also be configured to work with AES67 audio streams by enabling AES67 mode in ArmoniaPlus or Dante Controller.

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NEW GEAR

Meyer Sound ULTRA-X and USW

Meyer Sound has announced the immediate availability of four more loudspeaker products that are now certified as stand-alone endpoints for direct connection to any AVB network compliant with the Milan interoperability protocol. Orders are now being accepted for new Milan input versions of the ULTRA-X20, ULTRA-X22, and ULTRA-X23 full-range loudspeakers and the USW-112P compact subwoofer. Aside from the input module, loudspeakers with Meyer Sound's Milan-certified endpoint module are identical to those with the standard analog input.

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Q-SYS Core 610

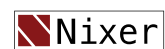
Following the innovation trajectory of the Q-SYS Core 5200 enterprise processor, the Q-SYS Core 610 processor combines the powerful Q-SYS OS with an enterprise-grade Dell commercial off-the-shelf (COTS) server delivering a flexible and scalable audio, video, and control solution to serve mid-tier applications that require high density channel counts. As a fully networked solution, the Core 610 allows users to centralise processing for multiple spaces or zones while distributing network I/O closer to the endpoints, for a more streamlined system design. This makes it equally suited for collaboration applications, as well as larger hospitality, entertainment, or transportation venues.

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NICK SCHLIEPER CELEBRATES 100 SHOWS AS LD

with Sydney Theatre Company



Macbeth 2014. Photo credit: Brett Boardman

Nick Schlieper is one of Australia's most highly awarded designers, having received six Melbourne Green Room Awards, six Sydney Theatre Awards (two for set design and four for lighting design), the inaugural 2013 Australian Production Designers Guild Best Lighting Design Award, as well as five Helpmann Awards.

This year alone, Nick has lit Bangarra Dance Theatre's *Wudjang*: not the past, Opening Night for Belvoir Street, North by Northwest (Kay and McLean Productions), and *Phantom of the Opera* (Handa Opera on Sydney Harbour). As covered in this magazine in the August 2022 edition, he lit Sydney Theatre Company's game-changing *The Picture of Doran Gray*, and then followed up with another Kip Williams' "cine-theatre" tour de-force, *Strange Case of Dr. Jekyll and Mr. Hyde*, which we cover in the coming pages. It's this production that marked an astonishing 100 productions that Nick has lit for STC.

Not slowing for a second, Nick is already working on his 101st production for the STC, Shakespeare's *The Tempest* starring Richard Roxburgh, before heading to Munich to light Penderecki's opera *Die Teufel von Loudun*. Somehow amid this schedule, I managed to interview Nick about his career, and the

remarkable feat of lighting 100 productions for Australia's premiere theatre company.

CX: What was the first show you lit for the STC, Nick, and how did you come to work for them?

It was Ibsen's *Hedda Gabler* at The Wharf, with the most electrifying performance by Judy Davis. It turned out to be a very auspicious debut. There were people scalping tickets on the front steps for up to \$80 or \$90 in 1986, and tickets were much cheaper in those days. It was a sensational performance. It was a great fluke to land that as my first show there.

I started off my career not sure if I wanted to be a lighting designer or a set designer. I fell into a job at *The Independent* in North Sydney, near the end of its days, and decided not to go to Sydney Uni to do arts/law, which is where I was headed. After that I worked a number of jobs. I did a six-month course with English lighting designer David Reid, who



Streetcar

with a half-new cast, going to Melbourne and Adelaide. It had been a massive success in Sydney, but they were in a jam. I think getting to light a fantastic show as my first show at Sydney Theatre Company was the quid pro quo for me taking on the gig. That was my swan song as a stage manager. After that, I started lighting roughly two shows a year at STC.

CX: Out of the next 99 shows, which ones still stand out for you?

That's hard, but going back through a list has stirred a few memories. It's hard to look past the most recent past, and The Picture of Dorian Gray. There was 2018's Harp in the South, if only because of the massive size of the undertaking. A production I think never got the attention it deserved was 2017's Chimerica. I'm also quite proud of Endgame in 2015 with Hugo Weaving as Hamm, and Waiting For Godot with Hugo Weaving and Richard Roxborough in 2013.

Then there's 'The Cate Blanchett Years', because we did so many shows with Cate; Uncle Vanya, Big And Little, War Of The Roses, and A Streetcar Named Desire. There was also a much lower profile show, a double bill that Cate Blanchett and Andrew Upton directed one half of each, called Reunion and A Kind of Alaska at The Wharf, where we filled the entirety of Wharf One with several inches of water!

The Australia Council had brought out. That course was administered by The Old Tote, the forerunner of the Sydney Theatre Company. While I was there, they offered me a job as an ASM. By this stage I had delusions of grandeur and had decided I wanted to really be a director. In those days that's how you learned to be a director; you were a stage manager and became the director's right hand. That caused a four or five year long career diversion.

I promptly closed The Old Tote. Before I'd hit 21, I'd closed two theatre companies! I ended up with a job at Opera Australia where I called half the repertoire as a stage manager. For

three years, I was just calling shows. I then thought, hang on, this was not really what I wanted to be at all. I moved back into lighting design. That was tough for a couple of years. Freelance lighting designers were still fairly rare, and there were maybe only four or five around by then. It was the very early 80s and it was certainly tough to make a living. I think it's safe to say publicly that Richard Wherret, Sydney Theatre Company's first artistic director, blackmailed me into getting them out of a jam.

He asked me to stage manage a tour of STC's very large production of Nicholas Nickleby

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It's funny, because the great big shows like War Of The Roses are the ones that you expect people to remember, and rightly so, but there are all these other, much smaller scale shows that I often remember just as fondly. It's interesting the way the smaller shows rear up in my memory and I think 'yes, that was a really good piece of work.'

CX: Would you say there is a unifying approach or philosophy that you bring to every single show, or do you adapt and change your intention according to the work? Do you feel that there's a common thread through your work?

I think my aesthetic is consistent. I don't think anyone can do anything about that; we all have our tastes. That said, given that vast variety



War Of The Roses



Chimerica

of pictures that go through my mind when I look back, it's obviously always in the frame of whatever production it is, but aesthetically I imagine that there is a fairly identifiable through-line there.

Philosophically, I know I haven't changed. I'm stubbornly consistent on that score. I think if you do not work on a show right from the get-go and genuinely have an input into shaping what it ends up both looking like and being like, I think you're not doing the job. I certainly have stubbornly continued to do that for a very long time.

CX: If you were forced to, how would you describe your aesthetic?

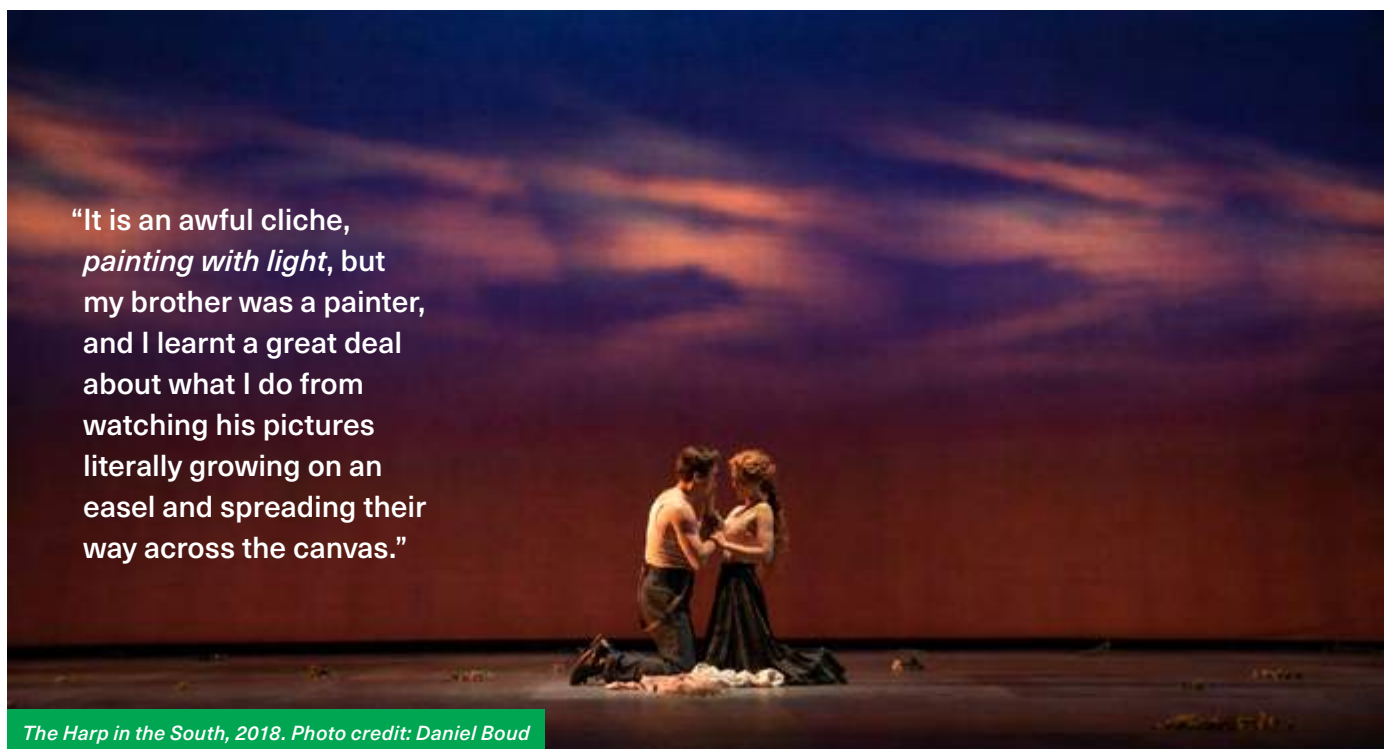
The cliché that always pops up in reviews is "painterly". I guess there is some truth to that. It is an awful cliché, "painting with light", but my brother was a painter, and I learnt a great deal about what I do from watching his pictures literally growing on an easel and spreading their way across the canvas. I learnt an awful lot about how to compose an image from

that experience. Then I've always been very interested in visual art, so it is a fairly major influence. I often use the analogy of painting producing an image on a two dimensional surface, to producing an image within a three dimensional space with light. I frequently use that as a teaching tool.

CX: Because this is a technical magazine, do you have a favourite lighting fixture?

A good tungsten profile. If you're doing 400 at a time, I still think you can't beat an ETC Source Four Profile. If you are doing something that requires more optical quality, then a Niethammer or a Robert Juliat.

In theatre lighting, we bowerbird things from other industries. The humble Par Can, for example; there was a period of two decades where I was producing rigs full of the things, stolen, in order, from the rock and roll industry, who themselves stole it from car headlights. I think that's the way that theatre has always worked.



"It is an awful cliché, *painting with light*, but my brother was a painter, and I learnt a great deal about what I do from watching his pictures literally growing on an easel and spreading their way across the canvas."

The Harp in the South, 2018. Photo credit: Daniel Boud



NICK SCHLIEPER'S LIGHTING

for STC's Strange Case of Dr Jekyll and Mr Hyde

The Kip Williams' adapted and directed Strange Case of Dr Jekyll and Mr Hyde, from the 1886 novella by Robert Louis Stevenson, took the technical lessons learned from 2020's The Picture of Dorian Grey and applied them to a darker, much more tightly controlled canvas.

STC artistic director Kip Williams calls his technique of integrating multiple live cameras, LED screens and pre-recorded video into live performance "cine theatre", and it's an apt description. Dorian Gray used the technique to dizzying effect as Eryn Jean Norvill played all characters in the work, acting against recorded versions of herself. The aesthetic of the production changed as the story progressed, employing multiple styles and looks.

Strange Case of Dr Jekyll and Mr Hyde uses the same technical principles, but is aesthetically anchored in a firmly noir look. An even more precise and controlled production sees actors Matthew Backer and Ewen Leslie hitting hundreds of marks with absolute precision, allowing for unbelievably accurate shots and interactions with video. An extremely faithful adaptation of the original work, it is a dark exploration of the good and bad within

everyone, which comes as surprise after a century of much lighter interpretations in popular culture.

CX Interviewed Nick Schlieper about the artistic and technical challenges posed by screens, cameras, dense dialogue, and making a 19th century text relevant today.

CX: Had you had worked with Kip Williams' screens and cameras many times before?

Yes, but not many. I have done a lot of shows with Kip, but I didn't do Suddenly Last Summer, which is one of the first shows where he used video in a big way. I did do The Resistible Rise of Arturo Ui, which had one screen only, but a lot of cameras and a very large screen that was the back wall of the stage. What I can say is 'thank god for the LED screen'. Having spent a career keeping light off of very sensitive projection screens, you couldn't even begin to contemplate doing shows like Dorian or Jekyll and Hyde with anything else but LED screens; it just wouldn't be feasible.

The obvious difficulty comes in lighting for the cameras and the live audience simultaneously. The kind of light the camera likes is the quintessential opposite to the kind of light that I like seeing on a stage. I'm always turning the contrast up, and cameras hate that. Then you throw in the fact that the camera never stops moving, so you're lighting everybody at 360 degrees. And you're still sitting in a theatre watching it. It's not like anyone is expecting

or indeed wanting TV studio-quality lighting, where every single light source has a soft box on the front of it. You've still got to produce images that look striking and heightened on the screen and the stage. I don't think we were entirely successful in that respect in Dorian, but were much more so in Jekyll. Of course, the black and white aesthetic of the show helps enormously there.

CX: Jekyll and Hyde has a consistent noir aesthetic. I see Bergman films and black and white 1970s Hammer Horror films. What were the aesthetic touchstones of that look?

It draws on one of my longstanding sources of inspiration, which is German silent movies of the 1920s. For me it goes right back to 1920's The Cabinet Of Dr. Caligari and Fritz Lang's Metropolis in 1927. That world, that's my personal touchstone. That aesthetic extends right through to the 1940s in Orson Welles' Citizen Kane and The Third Man. I re-watched Citizen Kane just before we went into rehearsals and I'm sure there's moments somewhere in Jekyll and Hyde that, at the very least subconsciously, are very reminiscent.

CX: You're fairly restrained in terms of light sources in Jekyll and Hyde. Is there a certain consistency to the fixtures?

It's a case of horses for courses. The rig is full of Martin MAC Encores. That colour temperature is perfect for treading the very fine line between lighting the show properly



and not putting a black and white image on stage, which obviously you can't do anyway. It's not the first time in the history of theatre that people have tried to produce something that, within its constraints, reads as black and white. That was one of the things I was most unsure about; how much colour I was going to get away with before it was fighting with the twin image on the screen?

That said, I didn't find it all that scary, because the colour palette I mostly work with is just shades of white and grey. There are a few notable exceptions to that, but that's my usual colour territory. A lot of the time I'm using the Encores without any colour in them at all. It's the perfect tool for this situation. The other reason I used them, and I used them on Dorian for the same reason, is because they're quiet. Once you start putting upwards of 40 moving fixtures in the rig in a great big empty, echoey, potentially boomy stage with no masking, it really becomes a factor.

We all know what happens when you go to a break in a musical and the room goes quiet, only it doesn't, just a massive heaving beast of a thing up in the roof going 'jg jg jg jg'. You can't do that under these circumstances and the performers are, if anything, just as mic'd as they would be in a musical. You've got a pair of very live microphones walking around even when there's only one person on the stage.

CX: How much is the use of moving lights dictated by the fact you have to work around moving LED screens?

LED screens are much easier to work with than projection, and are much more forgiving. But you still can't hit an LED screen directly with light; they're not that forgiving. I did this exercise for the future of Jekyll, should it tour; there's a 100-odd presets and just under 400 individual focuses. Now that's nothing in terms of a musical, but a hell of a lot for a play that doesn't even quite run two hours. It's very fiddly and an awful lot of those shots are literally head shots. They're doing five, seven seconds worth of stage time for one particular closeup on a camera and then they're gone and never used again. It makes those shows pretty difficult to pick up and tour quickly.

Then there's the fact that there's no fixed set. The premise is that it's always an empty theatre space. We positioned bits of scenery in the model, and we worked with the markup in the rehearsal room, but when you start out at the beginning, comparatively speaking, it's open slather where anything is going to end up and you couldn't do it without a lot of moving lights.

CX: I really noticed in Dorian the absolute precision of where anybody had to be at a given time, to the millimetre in some cases, and it was obvious before the show started just how many spikes there were on the stage. I didn't notice that to the same extent in Jekyll. I imagine it's just as precise, but you seem to have hidden it a little bit better.

It is. I think part of the reason you're more aware of it in Dorian is because it was only

Eryn Jean on stage. The fact of the matter is that there's more than 200 spike marks in Dorian and well over 300 in Jekyll. Part of that is because there are so many more pieces of scenery in Jekyll, so they're not all camera or performer marks. In Jekyll, there's a pattern of going from super-specific moments, where both actors have one toe on one mark, one other toe on another, and then one or both of them breaks out and roams freely around all over the stage.

That's the reason I used camera mounted lights so much more in Jekyll, because I didn't want to compromise the stage picture by lighting what would sometimes have been the entire stage, but only for 40 seconds only. It seemed a bit of an inevitability that I was going to need to follow them, rather than compromise the entire stage image all the time.

It seemed more true to the aesthetic of this production that the camera operator that's shadowing the actor also has this Cyclops eye that keeps interrogating that actor as they move. The other option would have been putting another 3000 cues into the show and following them around stage with the rig, but it would look awful and take way too long!

CX: What are the on-camera lights? Is there a certain one that you find works well in this application?

I can't tell you exactly what they are, but we bought them on the net. They're an off-the-

shelf box that does warm and cool and comes with its own white plastic diffuser. They're very small and very light. They get their power from the camera. The ones I used in *Dorian* I used much more sparingly, I think it was only three times in the show, and they were slightly less powerful. We went up a size for *Jekyll*, knowing how much more work they were going to need to do.

CX: With this style now known as 'cine theatre' and *Dorian* going overseas, do you think Kip will produce a series of works using these techniques?

Jekyll is inevitably being compared and contrasted with *Dorian*. I think there's a danger that people assume because it uses the same form, they expect the same kind of experience. We are using the same form to tell very, very different stories. I think people are surprised that *Jekyll* was so serious.

I suspect that most of the world, like me, had never read the book. Although I read a lot of Robert Louis Stevenson when I was young, for some reason, I'd never read *Jekyll and Hyde*. I completely underestimated the seriousness of the work. It's an exploration of the darker side of human nature. It's not light and it's not amusing in the way that moments of *Dorian* can be. *Dorian* is of course also a very serious story; I'm not saying it's a knees-up comedy by any means, but *Dorian* allows more levity than *Jekyll and Hyde* does. That allowance is doubled because you're being told the entire story by one person, rather than being shared between two. I think people have been surprised that we are doing a completely different work. It's a completely different experience in the theatre, rather than looking only at the form and expecting a unity of experience.



“LED screens are much easier to work with than projection, and are much more forgiving. But you still can't hit an LED screen directly with light; they're not that forgiving.”



Find My Direction Magnetically

Eddie Vedder wrote that line in a song once – ‘Find my direction magnetically’ – and it’s stuck with me ever since. It seems to me that a career in the audio industry is perhaps best found this way. It’s an obscure concept but if we talk our way through it together, maybe it’ll make more sense.

There’s a lot of facets to the audio industry. It’s a disconnected mish-mash of parts that produces countless varieties of, and for want of a better term, sound production. The collective rabble of sonic outcomes it creates demands a substantial mountain of equipment, endlessly evolving technology and a vast array of specific (and often non-specific) skills required by the human beings peddling within.

So when someone comes up to you and says: “How do I get into the audio industry?” the answer is often beyond the scope of any short (or even lengthy) conversation, mainly because the term audio industry itself means very little. So I’ve taken to using the term: “Find your direction magnetically!”

Okay, so this concept might seem like bollocks at this point, and in some ways it’s designed to be slightly obscure and a tad annoying (though I don’t expect this was Eddie Vedder’s original intention). A few people I’ve said it to have looked at me like I was under the influence of some sort of drug, but I assure you I am not.

The point here is simple. The industry is not bound together neatly like a ball of string. It’s a messy, often unregulated, non-compliant hodgepodge of jobs and skills that most people find themselves doing without necessarily having chosen. “I was going to be an architect... somehow I wound up here!” (A. Stewart).

And what’s worse, it chews people up, remunerates them very poorly and then regularly spits them out onto the scrap heap. Nice huh?

So if you’re imagining a job in the ‘audio industry’, or you know someone who’s (dare I say it) making noises about getting involved, you (or they) need to ask yourself why. If you can answer that honestly, then great... you’re ahead of the game already.

But once you’re in it, be warned! A few things tend to happen, especially to wide-eyed young people trying their best to make their way in the world.

They get lost, and for a variety of reasons almost as diverse as the industry itself, they end up doing something they really never intended.

How’s The View!

From the inside looking out, the industry is nothing whatsoever like the view from outside it looking in, something the ‘industry establishment’ tends to forget. Most young people, if they were to reduce it down to a single word, would say that it looked ‘cool’. They’re thinking music, they imagine crowds, fun, mayhem... maybe even performance... we all know this picture.

Countless numbers among us have thought this way, and I dare say, started out thinking: “To hell with working some crap job for the rest of my life... I’m gonna have fun and do this!” For me, I think I got hooked early on by going to some live gigs at the age of eight or nine... it certainly wasn’t because I’d been forced to play scratchy violin in my bedroom as a kid (although now I think I would have loved playing in an orchestra).

But let’s get something straight here... the audio industry is full to bursting with crap jobs. And not only are many of them of the excremental variety, they are poorly paid, insecure jobs to boot! Ironically, the only ones that are reasonably well paid are things like sales and marketing jobs etc, but of course, you could do that in the Renewable Energy sector or The Bureau of Meteorology... (I suspect there will be at least one vacancy there by now).

So, again, the trick to getting into the ‘audio

industry’ and thriving in it long-term, is to keep your mind on the thing that attracted you to it in the first place, no matter how naive the thought might have been, and always focus your efforts in that direction.

Because if you don’t, if you’re somewhat rudderless and easily influenced by others, you may end up doing one of the jobs mentioned earlier... the whiffy ones.

There are countless jobs, as I’ve mentioned, but let’s consider three basic ideas that might encapsulate why someone ‘wants in’, and then touch on ways to help them stick with their vision.

You might want to perform (be a musician or producer etc), or you might want to engineer (run the desk, the gear, the show!), or maybe you want to design stuff (build new technology, instruments, software etc).

The Musician Producer

So if your plan is to perform, what then? Where do you start, and where do you imagine ending up in 35 years? If you’re a musician planning on a career on the stage or the studio (or both), then make that your focus. It’s easy for me to say, but I’d urge you to resist letting that ambition go to seed over time and be replaced by a job lifting heavy boxes out of a truck for a living. (Some people like doing that too, of course, and it’s better paid work, frankly; I’ve done it myself in the past).

Practice your instrument, play on as many stages and recordings as you can, and over time you’ll develop the skills that will make you hot property for everyone else’s albums, as well as your own.

If you want to make records for a living, think of it this way: you’re at a global farmers’ market and the reality is that you’ve got to buy a stall there, setup your tent and put your stuff out

there for sale. Except in a few rare cases, you ARE the industry already, insofar as expecting it to employ you. You have to create your own job, be your own boss, do your own accounts, as well as do the vacuuming, wiring, mixing and budgets (actually the last one of those should be avoided, or you'll quit for sure.)

Technician, Engineer, Production

This is a vast area within the industry, where people can get very waylaid if they're not careful. On the flipside, some of the more technical sides of this part of industry can offer some of the most rewarding, well-paid jobs available.

The trick here, if you have a vision of yourself manning a console at the ABC, or designing a PA for a large touring rock 'n' roll act, is to focus on that vision, and keep it squarely in mind. Don't get side-tracked or swallowed up as part of someone else's ambition. If you want to design a new stage setup for Taylor Swift, you'll have to be single-minded and incredibly determined. And there will be nay-sayers all around you. Don't listen to them, ever.

You might even want to setup your own studio if you're of the technical persuasion. Again, set it up at the Farmers' Market, and get to work! Work hard and never stop learning.

One sidenote here, this part of the industry can be the worst paid of any job in the country, frankly. To illustrate my point, I spoke to a close friend last night who has been making records for over three decades, knows the caper inside out, both technically and musically, and been involved with huge acts, the album sales of which run into the tens of millions. He recently got asked by a well-known record company to work on an album for FREE! Why? Because it would be "Good for him, because it would raise his profile and potentially get him more work."

What a load of arse!

Get more work? What, where he volunteers to use all his experience and gear to develop an act for a record company so they can make literally all the money?!

If ever there was a perfect illustration of what the audio industry can be like, it's this. You're incredibly experienced, have all the gear, and you're considered valueless.

It's just plain criminal.

Designer, Technologist, Electronics Wizz

This is where I have basically no expertise, although I've known many of the world's great designers personally. So I guess my 'expertise' here is that I've heard lots of their stories.

Someone I knew well who was heavily involved in this side of the game was Bruce Jackson. Of course, Bruce was also arguably the most famous live engineer in Australian history, had roles as head of audio at several Olympic Games, mixed all the biggest acts in the world, including Elvis, designed gear, started Jands (he was the 'J' bit), developed digital technology, and ran several big companies that sold audio equipment to the world.

He basically did everything. If there was a single individual who had a foot in more audio camps than anyone else ever has, it was Bruce. He was living proof that while the audio industry is massively diverse, one person's interests can potentially span the lot. And he was a kid from Sydney. He did it all, and was the best in several fields of expertise. Did he listen to anyone who told him that his ambition was a pipe dream?

No.

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

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5G: WHERE ARE WE AT IN NEW ZEALAND?

The capability of 5G in the entertainment and arts space



Benee - 5G Street Museum

Following up on last month's look at the current potential for successfully integrating Augmented Reality into live entertainment, we address the current roll out of New Zealand's 5G network and capability.

5G is the latest generation of wireless technology and offers faster speeds and more capacity than 4G. This means it has the bandwidth to support the increasing demand for data year on year and the growth of technologies like Virtual Reality (VR) and Augmented Reality (AR).

In August, Spark launched a 5G Street Museum to demonstrate to Kiwis what emerging technologies like 5G and AR can do for Aotearoa, whether it be art, culture or the next era of entertainment. Matt Bain, Spark's Marketing Director reflects, "Over the decades we've seen how the wireless evolution has

transformed how we engage with the world. 1G enabled calls on the go, 2G introduced text messages, 3G gave us internet on the go, and 4G brought us video on demand. 5G promises to deliver another step-change in our experience. If the previous generations have taught us anything, it's that it's going to fundamentally change how we work, learn, connect, and are entertained."

"Spark's 5G Street Museum has enabled world-class creators; artists, dancers and singers, to explore entirely new ways of expressing themselves and in turn, with the speed and capability of 5G, offer their audience a new, immersive way to engage with them at scale and in the highest definition possible," says Matt.

The Spark 5G Street Museum app is free to download. The Street Museum exhibits can be viewed by the public across select streets in Auckland, Hamilton, Wellington, Christchurch, and Dunedin. Each exhibition explores new forms of storytelling and self-expression

through the power of 5G and AR. Parris Goebel is giving fans the chance to dance alongside her in an immersive 3D experience that showcases the incredible superhuman transformation Parris experiences when she performs. Benee has built a thriving natural AR world of positivity and fun – The Beneeverse. This exhibit embodies the source of her creative inspiration; a magical world where nature and imagination are flourishing. David Dallas walks us through a breakthrough moment that saw him become one of the brightest stars on the NZ hip-hop circuit and one of our most-streamed albums in the last decade. Teeks invites us to step into the waharoa and witness his personal experience as a singer/songwriter and how performing is a spiritual and ritualistic practice that connects him to his tūpuna (ancestors). And lastly Askew One is paying homage to the strength of New Zealand's urban and street art culture, bringing together decades of artists in a story of resilience and rebirth.

Over the last couple of years Spark has also



Askew - 5G Street Museum

partnered with Animation Research Limited (ARL) to bring to life local street art in Dunedin with AR and 5G, switched on 5G at Eden Park in 2021 in time for their first concert with SIX60 to enhance video sharing, and launched the 5G Race Zone for the America's Cup giving visitors the opportunity to feel, create, learn and even smell all things sailing, without getting on the water, by bringing together the best of sailing and technology in seven fully interactive zones.

Of particular interest to the live entertainment space is the potential for a standalone 5G network to unlock capabilities such as 'mobile edge compute' which is currently being trialled in the commercial sector. Mark Beder, Chief Operating Officer at Spark explains, "This is where we take more of the networks processing functions to the 'edges of the network' which reduces the distance data needs to travel from one point to another,

reducing the lag and allowing for real-time connectivity. A stadium could use this to enhance the spectator viewing experience. As an example, during the game, you could put on a VR headset or use your mobile device to view the game from multiple angles around the stadium. Imagine in real-time jumping to the live camera angle right alongside the goal line or viewing overlaid player stats. Or alternatively, if you were in the comfort of your

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own home and could put on a VR headset, you could watch the event as though you are there in real life, in high resolution and real time.”

The other capability that 5G standalone unlocks is network slicing, “Today our network is tuned to provide the best experience across a variety of devices. ‘Slicing’ provides the ability to tailor or ‘slice’ the network and then tune that ‘slice’ based on a specific use type. As an example, a live concert at a stadium in Auckland could slice a dedicated piece of network to live video stream to New Zealand households in real time and in high resolution, allowing for people who may not be able to get to Auckland to also experience the concert. They could then create another slice of the network purely for the connectivity in the stadium so that fans can send and receive

messages, make calls and post on social media.”

At this stage, Spark is still trialling standalone 5G and currently not offering it as a commercial service, “Although we know the future of 5G is really exciting, right now we are still in the early stages of rolling out 5G, so coverage might be one of the barriers to why an entertainment company might not be able to currently utilise 5G. 5G also doesn’t reach the same distance or penetrate obstacles such as buildings the same way 4G does so the location of the entertainment venue could play a factor.”

Mark Beder believes we are only at the start of how 5G will enhance the way New Zealander’s watch their favourite sporting match or experience a world class event, “In the future,



Parris - 5G Street Museum





David Dallas - 5G Street Museum

5G will completely transform the way we experience live events. This could be anything from using virtual reality to provide fans with front-row concert experiences from their couch, improving in-person experiences with augmented reality, or reducing the time waiting in a queue for drinks and food with artificial intelligence self-service checkouts. The opportunities to improve customer experience and business efficiency are endless."

Unfortunately, Spark is unable to disclose their future plans around 5G but Mark is excited, "There is definitely going to be more to come in both the consumer and enterprise sector so watch this space! Right now, Spark has 5G in forty-eight locations nationwide and close to a quarter of all the smartphones on Spark's network are 5G enabled and we expect this will keep growing, especially as Kiwis upgrade their smartphones and we expand our 5G coverage footprint."

And overseas... UK's 5G Festival Showcase

DiGiCo, d&b audiotechnik and Soundscape, Audiotonix, Brighton Dome & Brighton Festival, LiveFrom, Mativision, Metropolis Studios, Sonosphere, Virgin Media O2, Warner Music Group and Digital Catapult recently brought together twenty musicians playing at three different locations in the UK, at the Metropolis Studios, the O2 Blueroom, and the Brighton Dome. The project successfully resolved the issue of latency between artists collaborating remotely.

Sonosphere created a 7.1 mix for the in-venue stream at Brighton Dome, whilst DiGiCo Quantum 338 mixing consoles in Brighton Dome Concert Hall and the O2 Blueroom received all the live feeds, 200 channels in all, and a binaural feed

was created for the live stream for people watching on their mobile devices at home. Sonosphere also supplied a binaural stream, delivered via Shure in-ears and headphones, for a 5G equipped electric bus.

They were successfully able to take the audio feeds from each of the locations, bring them back into the spatial mixing studio at Metropolis and then broadcast the spatial mix out to a live, immersive system at Brighton Dome.

They got the latency down to an 8ms round trip from venue to venue, opening the way for musicians from different cultural locations and backgrounds to collaborate without having to travel, potentially creating new and exciting content for hybrid music events where there is a combination of live, in-venue audiences and remote viewing. Subject to access to 5G.



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2022: How To Make Some Money For Once

Your Rules Are Out The Window

Business is a strange beast in these post-COVID times. So many carved-in-granite rules you've learned all your working life just aren't true at the moment.

It's a task to get your head around even more change. Especially for those of us in the events and entertainment game who just spent two years being repeatedly thrown over Niagara Falls for the good of the wider community, while our IT and tradie friends got showered in cash.

Now it's skills and supply shortages. They can both work against you or to your advantage, depending on your ability to think and change. You now have more power over your customers than I've ever seen. If you use that situation wisely, you'll make some good money now. Or if you let it go to your head, you can create customer resentment that will come back to bite you when things inevitably turn around.

My industry, AV rental, has a long and shameful history of giving discounts purely because the client asked for one. We're so helpful and conditioned to say "yes" to every customer request.

"Can we change the setup from 10am to 1am?"

"Sure."

"I know it's already set up and lit but can we move the lectern to the other side of the stage?"

"No problems."



Ian Whitworth

"Can I have a discount? Because my budget is much lower than your quote."

"Yes."

AV comrades, the correct answer to that last question in 2022 is: no. Your client's budget problems are not your problems. If they walked into a restaurant and asked for the lobster, "but management only gave me a \$19.50 budget this year", you know what the answer is. They can have the prawn crackers, or they can leave.

Every client knows of skills shortages. Politely let them know it's a constant battle to find enough people to deliver the work, and it's really up to them to book in early or you may not be able to do the job. Which is the truth. Discounts shouldn't enter the conversation. If their budget is lower, help them with a specification more modest than their grand lobster ambitions.

An outbreak of supply cost madness

You need to charge more, because we're dealing with increased costs at every turn. Our businesses need some new trucks. If we order now, the delivery date is mid-2024. Do you think we'll be getting a discount?

Here's a yarn to illustrate how far the balance has shifted. A friend who runs a listed finance firm had a weekend in the country planned with his wife. He got home on the Friday to find a brand new, top-of-the-range SUV on his driveway. His wife told him a dealer had dropped it off earlier and told her it was theirs for the weekend.

He called the dealer and asked, "what's the go

with this car on my driveway?"

"Ah, I just thought you might like to give it a run up the country, see what you reckon, keen to hear your thoughts," the dealer said.

My friend pointed out it was not a demonstrator. It had fifteen kilometres on the clock. As an experience finance professional in the leasing industry, he knew that old line your dad always told you: the biggest depreciation is the moment you drive your car off the lot. So why burn that value for a country weekend?

"Get with the program," said the dealer. "If I sell it new, I have to sell it for list price. If it's used, I can sell it for 120% of list price because people are desperate to get one right now. Otherwise, it's an 8-12 month wait. So enjoy your weekend."

Strange times. If you're rich, you go to the used cars department and pay over the odds to drive away today. If you're a regular povvo customer, you go to new cars, where you'll get no deal on a car arriving in the distant future. That's the reality in so many sectors, and those of us who own expensive assets have to snap out of our old ways fast.

Time to look after your staff like never before

You know who won't do well in 2023? Traditional tight-arse business operators who pay their staff the bare minimum and believe they should be grateful for a job. Their staff will leave for places where they get a bit of respect. When you're used to ordering people around, having to persuade them will be too much of a jolt for some.



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TIMELESS BUSINESS
TRUTHS FOR THRIVING
IN A WORLD OF
NON-STOP CHANGE

UN DISRUPTABLE

IAN WHITWORTH

'Funny, smart and direct in its advice.'

SMART COMPANY

There are a lot of business owners who started in a time when tech staff were treated like 19th century plantation labour. They feel that if they suffered, today's staff must also suffer. But really, shouldn't you hope for things to get better over time? If you were a Dickensian chimney sweep, would you want your kids to inhale the same amount of soot you did? Or would you hope for jobs that are less dirty and dangerous?

In our industry, there's less soot. But there is the total destruction of your family and social life from long shifts and unpredictable schedule changes. Because the client kept changing their mind. In a time when there's not enough skill to keep up with demand, we have a mental health obligation to push back a bit.

The standard event model is out of date

So many rules going out the window. Here's another close to home: the conference model. Audiences come to a generic box of a room in a hotel, where they sit quietly as a presenter projects slides at them.

Let's step back and look at the wider view. In 2022, your corporate audience most likely spends much of their week remote working. On Zoom all day. In a chair, watching talking heads and slides for hours. A conference presentation room is basically a larger, slightly more 3-D version of Zoom, plus a bowl of Mentos and sandwiches at half time.

Conferences have always been run on the school model. Fun time with friends at lunch, cut short by a bell that rings too early. Conference managers run around and hurry

everyone back to class. Obedient silence as authorities tell you how it is.

Why would you want to come into the city for that? One of the biggest issues with remote workforces is the decline of company culture. It's hard to feel a sense of team bonding with tiny screen people you've never met.

When you go to the expense of bringing those people together, smart businesses want them to have a great time together. To experience something amazing, and to bond with workmates and industry associates. We're seeing clients putting on festival-style events where there's no compulsory agenda and no company presentations. Just hanging out and being with your people for a few days, doing a bunch of fun stuff that's on offer, or not doing it if that's your vibe. The audience satisfaction ratings have been off the scale.

This presents a challenge to an industry built on rooms with two drop-down screens, a lectern and PA. We're going to have to understand that clients' commercial goals and challenges have changed real fast. It's a chance for us to put on a great show with a bigger budget, if you ask the clients better, wider questions and listen.

Ask "what are you trying to achieve here?" before you ask "how many screens and mics do you need?" Bonus: the client will love you because talking about themselves makes them happy.

Chaotic change means it's opportunity time

Now is opportunity time. Because there's chaos and that's when customers change

suppliers. Normally they're quite conservative about that. They tell you they're thinking about it, then ... don't. I have painful experience in this. We launched our business in 2006, after a bunch of potential clients said, "We love you guys and would totally change suppliers if you set up an AV company!"

We were so up for that sweet prospect. We borrowed all the money we could and opened in four cities in year one. Looking back, I think: were we drunk? We put in proposals to all those clients. Every one came back with: "Thanks for all your effort, but on this occasion, we decided ... better the devil you know."

So we knuckled down for a couple of years of self-financed cash burn. Sometimes you have to live off two-minute noodles for a while. Then in 2008 Lehman Brothers went down, the world plunged into financial crisis, corporate budgets got slashed, and ... the enquiries started. 'Hi, cheaper, faster alternative people, can you give us a quote?'

It was customer habit-breaking time. We were off, and it's all been fine since then. I'm not wishing another global financial crisis on you, but all this turbulence can present openings you won't see in the normal times.

Ian Whitworth is the co-founder of national AV business Scene Change. He was once an AV tech but his staff won't let him near the equipment now. His business book 'Undisruptable: Timeless business truths for thriving in a world of nonstop change' is out on Penguin Random House. It's been the #1 Customer Reviewed business book on Booktopia for the last year.



Expanding the Boundaries of Control

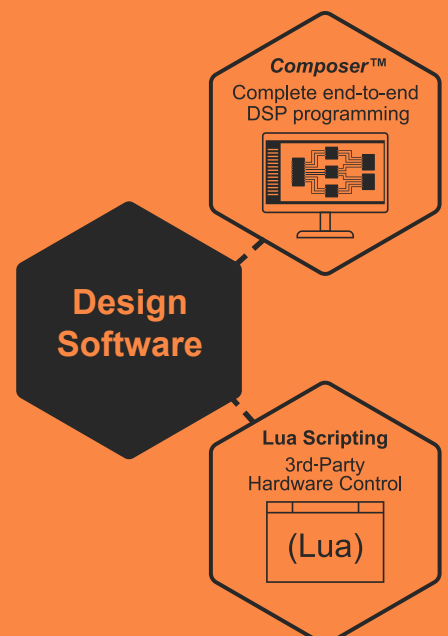
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JANDS
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L-Acoustics L-ISA debuts in Southern Hemisphere

The Adelaide Symphony Orchestra introduces Australia to L-ISA Immersive Hyperreal Sound



The live spatial audio revolution came to audiences for the first time in the Southern Hemisphere at Adelaide's Entertainment Centre on November 10 2018, as the Adelaide Symphony Orchestra performed the score to 'Harry Potter and the Prisoner of Azkaban' live with the film. With assistance from L-Acoustics, Jands, and production provider Novatech Creative Event Technology, the crowd of 3,000 was immersed in a sound-field that could almost be touched, as the L-ISA processor created perfect three-dimensional imaging across every seat in the house.

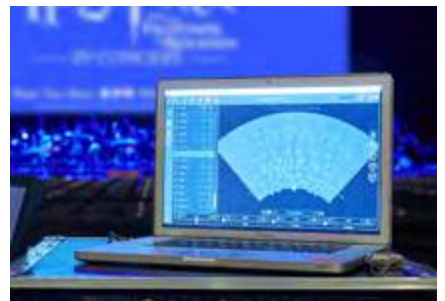
With seven hangs of 12 KARA, two hangs of 12 KIVA, 12 KIVA as in-fill, and eight SB28 subwoofers, all powered by L-Acoustics amplifiers, FOH engineer Charles Gagnon, aided by L-Acoustics L-ISA Applications Engineer Carlos Mosquera, conjured a sound field that perfectly rendered the natural acoustic image of the mass orchestral forces assembled on stage, including a choir of 70. Soloists could be pinpointed exactly where they sat, and at the other end of L-ISA's creative capabilities, the enveloping choir seemed to come from everywhere and nowhere at the same time.

"The sound is seamless," said one audience

member. "Normally you can hear the speakers. With this you can't."

"L-ISA affords me the luxury of doing some things I can't normally do," commented Charles Gagnon, who tours with the film in the employ of the show's producer. It was not only his first time mixing the ASO, but also his first time mixing with L-ISA. "It's very beneficent for dialogue, and allows a more refined soundstage because of the source positioning capabilities, creating a multi-dimensional sound. I'm mixing at the same level, but the system is filling the room differently, and I'm using less overall EQ."

L-Acoustics and Jands used the occasion to launch L-ISA and demonstrate its capabilities to the Australian pro audio community, hosting a group of influential mix engineers, acoustic consultants, and venue technicians. With pre-show presentations from L-Acoustics' Tony Szabo, Head of Application – Touring, Tim McCall, Sales Manager, and Jands' Scott Harrison, Technical Representative - Installed Systems, the group was treated to insights into L-ISA's design philosophy, practical tips for L-ISA system design, and a stunning orchestral multitrack demonstration using five SYVA systems. The group demonstrated the differences between



traditional stereo reproduction and L-ISA's frontal hyperreal sound technology, adding new layers of dimension and depth into the reinforcement, resulting in a reconnection between the audience, the artists, and the art.

Four years on, and L-ISA has been deployed in innumerable installations, including the Sydney Coliseum Theatre, supplied by Jands. It can also be heard powering live performances, residencies and tours, including Katy Perry's 'Play' in Las Vegas, Bon Iver's current EU and UK Tour, and musical CAGES in London's Riverside Studio.

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NST AUDIO

A Software Driven Hardware Company



There is an old parable about the chicken and the egg, which came first? We know in audio world; hardware was the original player. But it is increasingly reliant on software to provide nuance, power and control. Which one takes precedence now?

NST Audio are a UK company providing a range of audio matrix switchers designed for both the live sound and fixed installation markets. Their hardware is underpinned by extensive software development, the real power behind their product.

CX talked to founder Dan Cartman to find out the story behind one of the recent entrants to the ANZ DSP market and how they found their way here.

The Backstory

After completing a degree in Acoustics, Dan ended up working with various audio manufacturers, such as BSS, Turbosound and XTA. Learning to program software came with the jobs and has been his mainstay since. A foray out of the industry designing sound level meters gave some external perspective. He pays tribute: "I've done a tour of the UK companies. Paid my dues!"

11 years ago, a redundancy forced his hand. Faced with the choice of uprooting a growing family to chase a career, he started working on NST and stayed in the pleasant environs of North Yorkshire.

Software first, hardware follows

Now an accomplished programmer with deep experience in audio signal processing, Dan realised the true power that lay in software. He identified that "The nature of our kind of business is we are a software company that sells hardware. One of the problems in that is there's an awful lot of work involved before you've got anything to sell. That's the biggest obstacle."

Originally intending to personally focus just on software and employ others to build hardware and embedded systems, he soon found himself doing the lot. Some very late nights and long hours followed but he has since built up a team to take on the bulk of the work.

Doing it locally has been important to him. "One of the things that is critical for me, for what we do, is that we do build and assemble everything in the UK." Although sourcing base components through Asia and elsewhere, NST keep production as much under direct control as possible. Dan continues, "Metalwork is all built in the UK. A lot of the custom components are built in the UK. Basically, all the parts are assembled in-house." Only just in jest, he tries "keeping it in the UK, despite our government's best efforts to try and make it harder and harder!"

NST could subcontract parts of the assembly process and it would lead to easier business scaling but at the cost of quality control. Dan has cleverly identified that "the primary thing about audio products is reliability. There's not an awful lot of scope for 'oh, it won't matter if it crashes once in a while'. It's got to be absolutely bombproof. That's the important bit." By taking this approach, NST have kept their quality up and increased their reputation as solid gear worth investing in.

Slow buildup

Like any new company, "growth happened very slowly." This is not uncommon in our industry, and Dan was ready for the wait. "When you are a new brand, a lot of the market is very conservative with what they are willing to experiment with. They stick to a brand and stay loyal. There's a vast part of the market



ID48X

D48X



VR1 Wall Control

that needs to see a brand name multiple times before they are even willing to give it a go." So, they stuck to their guns and evolved with care.

Picking up regional distributors has helped heaps with momentum, which has increased over the Covid years. Dan finds "Our business moves around. The real key, as a manufacturer, is to not rely on one particular customer or one particular market." This diversity of outlets has helped them ride through the storm.

Group Technologies

The ANZ distributor that they appointed is Group Technologies. Their crew and Dan had long ago met in Guangzhou at a trade show, and they kept in contact. Their goals eventually overlapped, and they set up an arrangement.

NST's approach to partnership is as strategic as their gear development for Dan. "When we are looking at taking distribution on, we look

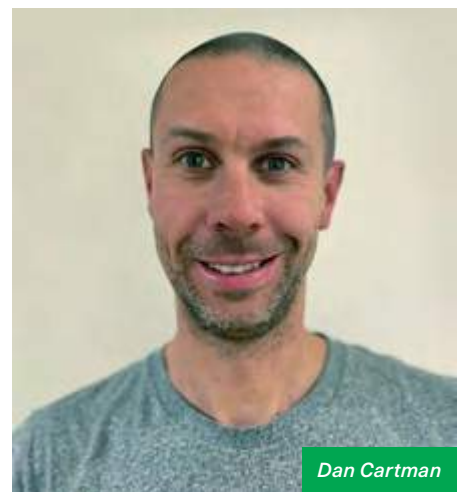
at what other brands are involved. And the portfolio of brands that Group Technologies have is pretty much a perfect fit for us. They've got a couple of loudspeaker brands, they've got DiGiGo, Austrian Audio. They've got this whole suite of complimentary products, which is great for us, because we are part of a system. From Group Technologies' point of view, they can sell a whole system to a customer."

Getting past QSC

It's no secret that QSC's Q-SYS has a fairly solid hold on the ANZ audio distribution market. But they are not the only player and there is plenty of scope for other companies to find a space.

Dan keeps an eye on it all: "In the DSP industry, some of the more basic stuff has been commoditised in recent years but there's still a gap for companies that are doing the more complex stuff. And those that are doing the bigger systems."

Instead of hopelessly going head on with an incumbent, NST have focused on their strengths – software and sound quality – as they fit perfectly into small and medium sized installs. Their gear will work well for sending to any output but shines when it is used in a larger system. The NST DSP is designed to sound great in everything from ceiling speakers to 5-way club banger systems, something that conferencing based DSPs struggle at.



Dan Cartman

This focus on audio quality is why NST have also found themselves regularly in high end home cinemas, particularly when Dolby Atmos is employed. "If you've got 15-20 speakers in a room, all of a sudden that 110dB noise floor, that's not enough. Having an extra 10dB with our products suddenly makes a difference. Plus, the sound quality starts making a real difference with the dynamic range that you have in those systems."

Controlling the future

As with much tech nowadays, control and integration are key parameters in a customer's choice. With a wall plate in the range for small rooms, NST do their utmost to be readily integrated into higher level control when those platforms make more sense to take over and provide UI.

One very prescient customer experience in our game right now is getting hands on stock. NST took a tactical approach and have invested in a deep inventory.

When customers contact asking "I need to do this and this and this - what have you got?" Dan replies "you can do it this way with this product." When asked "what's the lead-time?" Dan is proud to say that "I can ship it to you next week."

There are not too many AV manufacturers who can currently say that with the same confidence.



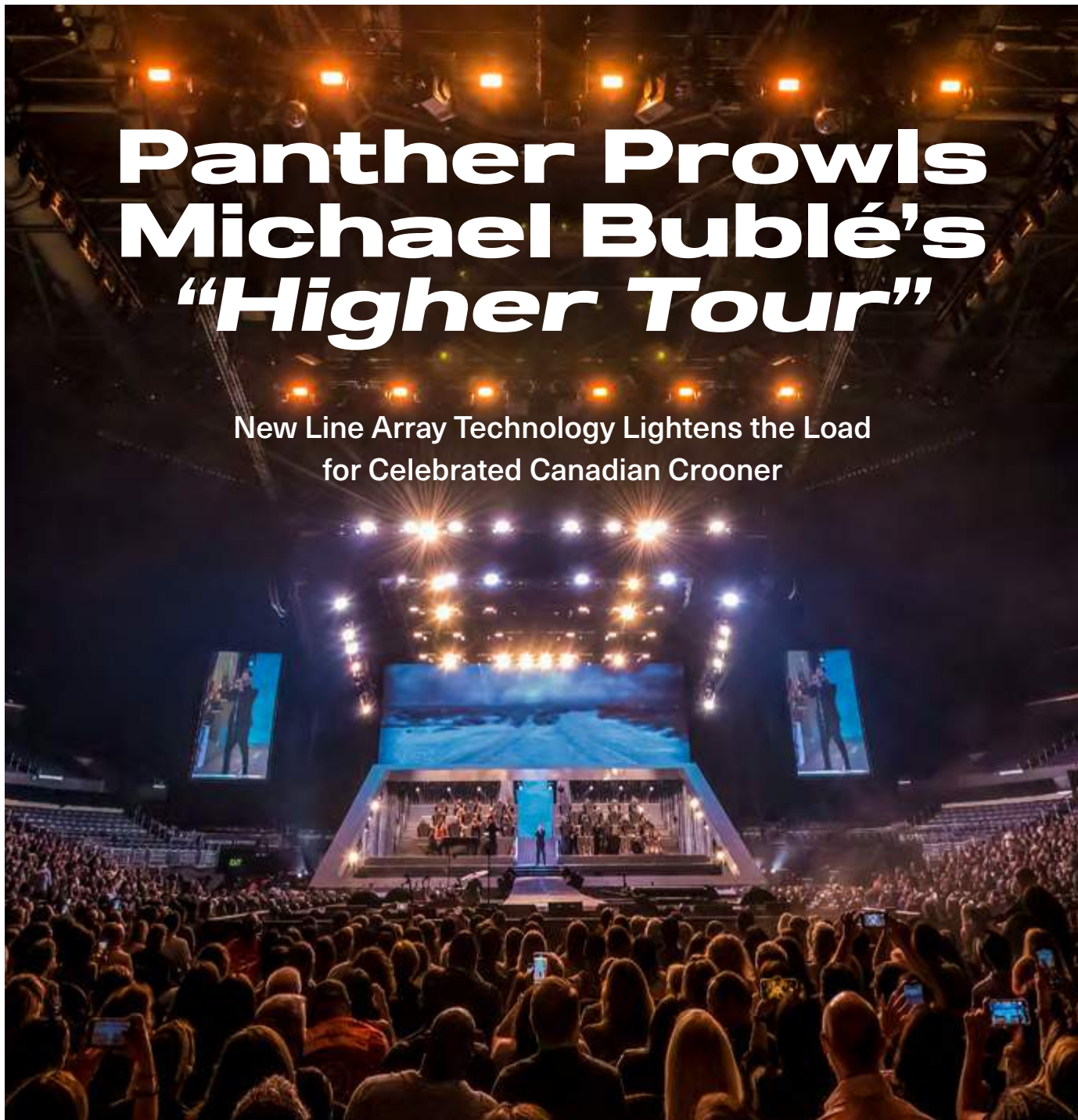
VM016



VMX88

Panther Prowls Michael Bublé's "Higher Tour"

New Line Array Technology Lightens the Load
for Celebrated Canadian Crooner



Michael Bublé's ongoing "Higher Tour" could best be described as an intimate party on a grand scale.

It's a full-tilt production in every respect, replete with a massive four-tier stage set to accommodate a full orchestra and backup singers, augmented on occasion by strings and a 10-piece choir, plus extensive lighting effects and four giant video screens. For audio support, Bublé is again carrying a "dual hybrid" Meyer Sound reinforcement system, comprising both main stage arrays plus massive centre-hung arrays which function as an over-specified delay system when Bublé is on the main stage and as an in-the-round system when he occupies the B-stage. This time, however, the tour has slimmed down

its audio footprint by replacing most former LEO Family and all M Series systems with 76 new PANTHER large-format linear line array loudspeakers.

"We are thrilled with the new PANTHER systems, not just sonically, we expect the best from Meyer in that regard, but also because these are much lighter and smaller boxes," says Craig Finley, the tour's veteran production manager. "No two-ton motors out here! And PANTHER packs very efficiently. We are essentially carrying two systems yet it all fits in one truck. And the power requirements are lower as well."

Bublé's long-time FOH engineer, Craig Doubet, notes that the advantages extend to load-in/out time. "PANTHER goes up and down very fast," he says. "We have 13 arrays in the air, and we now can get them all down and ready to roll

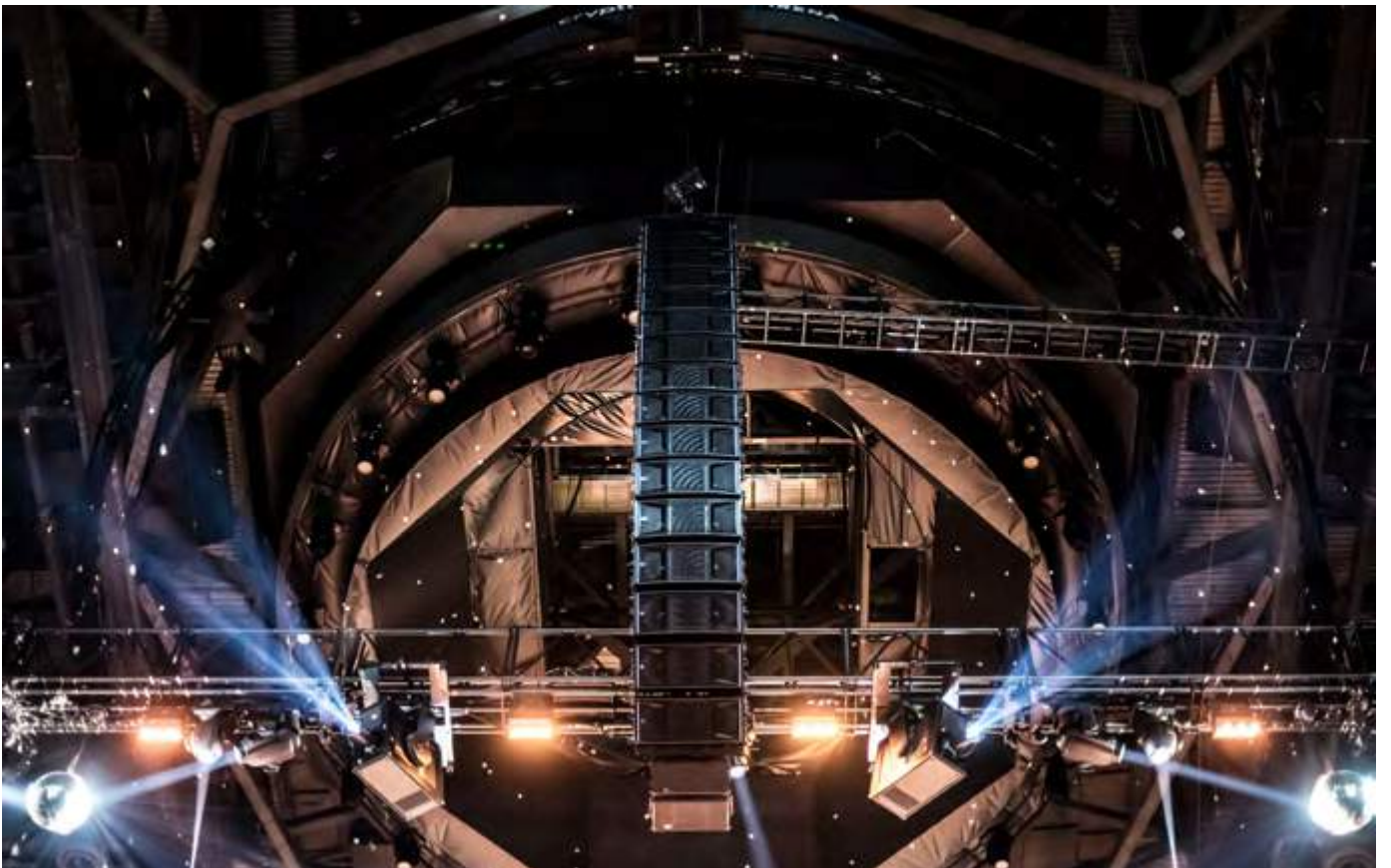
out in 75 minutes."

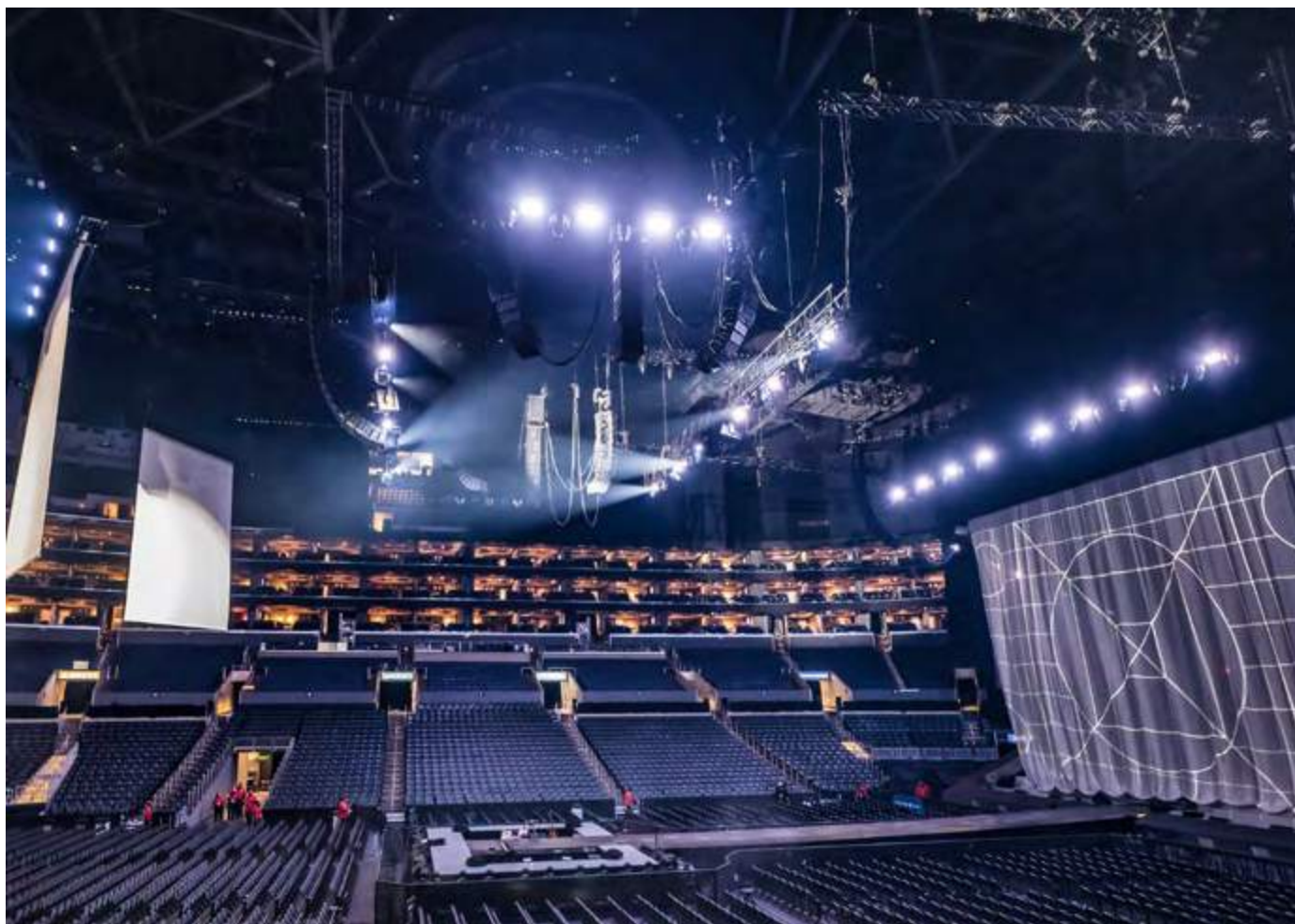
The logistical benefits from a slimmed-down system have not come with a performance penalty, but rather the opposite, claims Doubet. "It's a different box to mix on, and it took a while to get my ears around it," he says. "But in the end, it's right up my alley. It's very detailed, and the dynamics are almost effortless. Michael wanted a louder show, with more of a party atmosphere, and these speakers definitely do it. We are all pleased by the vocal sound, which is just amazing. It sounds just like Michael everywhere."

The main stage system is anchored by twin front arrays each with 14 PANTHER loudspeakers over four LEOPARD loudspeakers. The two side arrays each comprise 14 LYON loudspeakers while the front fills are eight ULTRA-X40 loudspeakers.

Low-frequency power comes from dual flown arrays of six each 1100-LFC low-frequency control elements supplemented by four 900-LFC compact low-frequency control elements on the floor.

The 48 PANTHER loudspeakers over the B-stage are flown as one array of 16 plus four arrays of eight each, with two LEOPARD loudspeakers under the long array and six each under the shorter arrays. Here, a total of 14 900-LFC elements, flown and ground stacked, drive the deep bass, and eight ULTRA-X40 loudspeakers contribute front fill. Elsewhere, 16 MJF-210 stage monitors provide foldback while a pair of Amie precision studio





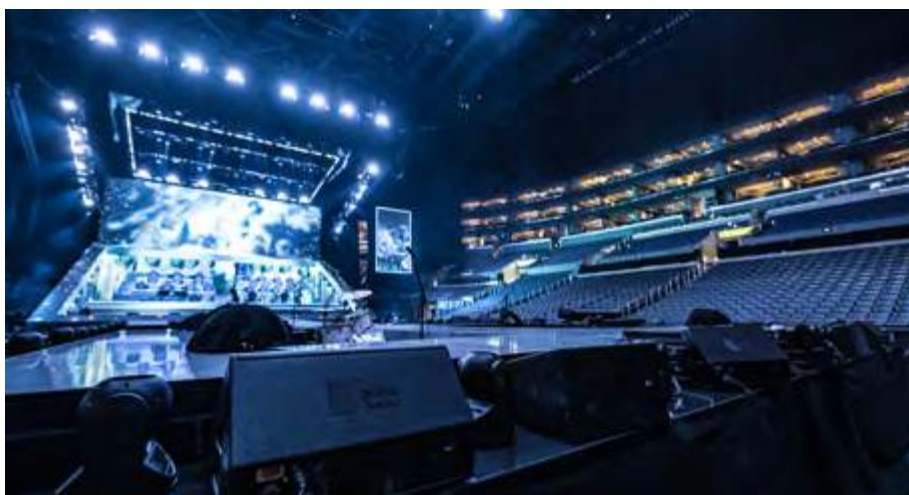
monitors paired with an Amie-Sub reside at FOH. Continuing a long-standing relationship, Solotech was again selected as the provider of the Meyer Sound systems as well as all other audio and video production elements.

As on his prior "Evening with..." tour, Bublé takes a leisurely singing stroll to the B-stage, with his voice in space tracked along the way using Meyer Sound's Spacemap Go spatial sound design and mixing tool.

"This time, having the same PANTHER systems at both the main stage and the B-stage keeps the sound of Michael's voice uniform in tonality as he gradually moves between the stages," says Doubet. "It also makes it easier to match the arrays when tuning the system."

Rounding out the key audio crew for the tour are systems engineer Fred Cantin and monitor engineers Martin Paré and Renato Petruzzello.

Michael Bublé's "Higher Tour" opened on August 8, with 38 shows scheduled in North America. The tour continues with 34 more shows in Oceania, South America, Europe, and the United Kingdom, with shows scheduled through May 17, 2023.





ROBE ROCKS

at the 2022 VMAs

The much-anticipated 2022 MTV VMAs (Video Music Awards) proved every bit as thrilling, visually dramatic and sonically entertaining as music fans globally have come to expect of this high-profile live broadcast extravaganza. This year it was staged at the Prudential Center in Newark, New York, and lit for the third year by Tom Sutherland of DX7 Design.

Tom, known for his fresh and innovative approach, utilized 229 Robe moving lights among others on a vast lighting rig that helped emcees Nikki Minaj, LL Cool J and Jack Harlow bring the onstage action, featuring 11 jaw-dropping live performances, alive in a megamix of beams, colour, textures, and movement.

Tom worked closely with set designer Heather Shaw from Vita Motus, camera director Liz Clare, creative director Paul Caslin, screens producer Trevor Burke from Visual Noise Creative and executive producers Bruce Gillmer, Jesse Ignjatovic and Barb Bialkowski

to help craft the high-energy show everyone wanted. It featured two impressive and identical triangular-shaped stages built at the long ends of the arena, both with LED floors and each with large upstage triangular LED screens.

In the middle of one long side was the 'MTV Entrance' a large scenic graphic of the channel's famous acronym, where artists entered the arena, stepping onto the chevron-shaped MTV Stage. A short tunnel at the back of the entrance revealed another LED screen, and the short runway also had an LED floor and sides. Much of the presenter action happened in this zone which was a popular celebrity 'hot spot'.

While that was a lot of LED for Tom to consider, he was the first to note that "working with Heather is great as she always considers the role of lighting relative to her set design." The two had also worked together on some previous projects in Asia, so there was a fluid and constrictive creative synergy.

The geography and layout of the two stages facilitated the full-tilt festival style 'flip-flop' of live artist performances that kept the pace and the vitality of the show pumping.

Tom positioned 76 of his MegaPointes, 38 per screen, around the triangular LED screen perimeters on each stage, with eight more a

side on two deck-based diagonal raised 'slip' positions at the back of the artist / VIP area, either side of the MTV entrance.

"MegaPointes were an easy choice," stated Tom, "I needed something with plenty of power, definition and variety to cut through everything and enhance the geometry of the room, so MegaPointe was my go-to!"

Thousands of variant MegaPointe looks and mountains of dancing and piercing beam looks were crafted with some quick and super-smart programming to support the different artists' performance narratives.

The lower sections of the two screens' trussing framework were removable to allow rolling risers and other stage trucks loaded with kit, scenic elements or backline to load on and off the stage smoothly.

The main overhead roof truss structures were also designed largely on a triangular theme to keep the symmetry intact and to achieve the best lighting positioning. Dotted around this vast airspace were 85 Robe BMFL WashBeams.

Power and precision were again the main reasons for picking and deploying these. BMFL has been a favourite fixture of Tom's for some time, and he continues to use them as a backbone for large scale spectacular shows like this.

They were needed to cut through the brightness of the screens, helping eliminate shadows for the 22 camera positions as well as making up the base presenter and house lighting looks that defined the overall architecture and aesthetics, all from their 50ft trim height!

Thirty-six Robe Spiiders were utilised in the tunnel behind the MTV stage and in its entranceway and for back lighting presenters on the chevron stage, and there were four Robe ESPRITES in the floor specials packages available on each stage.

Tom also capitalized on 16 RoboSpot Systems.

Eight remote controlled BMFLs per stage, comprising 10 x BMFL FollowSpots and 6 BMFL LT (Long Throw) fixtures, provided the principal key and back lighting.

The fixtures were dotted all over the trussing network in the roof and offered the flexibility and punch needed to ensure everyone could always be lit optimally.

Tom commented on how much easier and more efficient this operation is, especially in a constantly moving multi-camera environment, due to this proven and reliable technology from Robe.

"Being able to get all the different angles and change fixtures mid show, effectively getting a light into any position it is needed, has been a game changer in the world of follow spotting," declared Tom, adding that it brings the possibility of "lighting large television and broadcast shows like this with so much more precision and theatricality. It is amazing!"

The RoboSpot base stations were all located on one of the venue concourses ensconced behind the big 'M' of the MTV entrance scenic piece. The operators had control of pan, tilt, iris, and dimmer, with all other parameters running through the main lighting console.



As always, Tom worked alongside his own very talented team from DX7 Design to make this look awesome! Joe Holdman and Brian Jenkins were the man console operators, Joe taking care of the FX lighting including all the moving lights and all the LED pixels on the rig, and Brian ensuring that all the key lighting was in place and co-ordinating the RoboSpot system.

They were joined by senior associate designer and lighting director Hunter Selby, lighting directors James Colidcott and Jasmine Lesane, lighting programmer Stefan Zubocic, who dealt with around 100,000 PixMob LED wristbands on site, and lighting intern Noah Bresler. The gaffer was Alen Sisul and the lighting techs were Dennis Sisul and John Cox, with media programmed by Kirk Miller.

All lighting kit was supplied by Solotech, managed by Harry Forster and Dave Evans, and Tom's visual design also included approximately fifty lasers supplied by ER Productions.

All technical production had to be installed, tech'd, co-ordinated and programmed on-site in two and a half weeks, making time the biggest challenge, especially given the show's reputation for production excellence and everyone's high expectations.

"As always it was the teamwork, professionalism and the camaraderie that made it rock, not just from us in technical production, but those from every production aspect and all on the artists' side, which made it so special, and such a slick operation that we were all proud to deliver," concluded Tom.

A star-studded collection of visual winners on the night included Taylor Swift picking up the Best Video Award for her song 'All Too Well' (Taylor's Version), some exclusive live collaborations included Jack Harlow and Fergie, while Lizzo got eyes popping with her brilliantly choreographed interactive video and lighting performance for 'To Be Loved' (Am I Ready) and 'About Damn Time'.



IMMERSED in the OUTERNET



L-Acoustic L-ISA Brings Sonic Grandeur to Outernet, London's £1bn Immersive Entertainment Hub

Walking into the Now Building at Outernet, you see what may be the world's largest wraparound video display, with over 2,000 square metres of 16K LED screen to show immersive video content. Equally remarkable is the L-ISA immersive audio installation of 200 loudspeakers that plunge visitors into an immersive soundscape.

The Now Building, Outernet's centrepiece, is used both as an expansive indoor and outdoor walk-through space and as a closed venue that can host art installations, live concerts, film premiers, or any event the creative mind can imagine. In either configuration, Outernet is

poised to bring a magnificent real-time spatial experience to a projected number of over 400,000 people passing through the space each day.

The Outernet London story started when Consolidated Developments bought a large part of Denmark Street, known affectionately as the UK's Tin Pan Alley, with the intention to convert this piece of prime London real estate into an innovative, mixed-use development. Whilst Outernet is technologically mind-blowing, the site has been treated with sensitivity, with the all-important façade of Denmark Street fully preserved. In fact, from Denmark Street, the only hint of its existence is its unassuming, erstwhile alleyway entrance.

This grand-scale project was challenging yet exciting because of its sheer size and technicality. The team behind the installation included Consolidated Development owner

Laurence Kirschel, Outernet Global CTO Mike Whittaker, engineering consultancy Hoare Lea, audio-visual consultancy Auditoria, integrator SSE Audio, and L-Acoustics.

"Part of our creative brief was to deliver a multi-sensory immersive experience where visitors can see, hear, and even sense the aroma of the experience unfolding in front of them," explains Whittaker. "Our technical challenge was to create a 'tech stack' that would work seamlessly across innumerable applications and types of events, day after day. We needed to match the immersive video with immersive sound. For me, the sound was vitally important as it lifts the pictures off the walls and makes the hairs on people's necks stand up."

The LED screens that line the Now Building create a giant glass box. To complicate things further, two of the four sides of the screen 'room' can be slid aside, transforming the



Now Arcade is covered by L-Acoustics X4i side at floor level below the screens, with IP55-rated SB10i subwoofers distributed throughout the length of the corridor under ground-level grates



Now Pop Up 1 and 2 feature L-Acoustics 5XT at floor level below the screen and Syva Low hidden in the ceiling



The entire L-Acoustics system is run from LA2Xi amplified controllers



Looking up at the Now Building's spectacular LED screen with a view of the L-Acoustics A10i Focus and Syva Low that sit below it on the three opening walls



Now Trending is served by L-Acoustics X4i installed at ground level under the screen, SB10i hidden in the floor grate, and with 5XT and Syva Sub suspended around the perimeter of the room at transom level

venue from an enclosed room to an indoor and outdoor walk-through space that faces a small plaza. As a result, the acoustical elements had to be carefully planned to adapt to any of the venue's configurations whilst also being mindful that the site is in a mixed-use residential/business area.

Working alongside L-Acoustics from early in the project, SSE Audio, part of the Solotech Group, installed around 200 L-Acoustics cabinets across Outernet's five ground-level performance spaces.

"With such a complex architectural structure, it's important to get L-ISA to 'know' what condition the space is in. Ensuring we can work with its multiple configurations acoustically is vital, both for live and pre-recorded music," says SSE Audio's Senior Project Development Manager, Dan Seal, who worked alongside both L-Acoustics and Auditoria consultant Scott Willsallen on the sound system design. "The complexity of the project also meant that many disciplines had to be coordinated; creativity was key with loudspeakers being hidden in drainage channels, under screens, and above grills. But throughout it all, adherence to the high standards of the project was primordial."

The centrepiece of Outernet is the Now Building which is equipped with speakers at transom-level and ground-level to achieve consistency and coverage across the whole space. Twenty-four X4i are positioned across the base of one of the massive LED screen walls, while a further 12 X4i are hidden in the drainage system of the other three walls. Twelve compact SB10i subwoofers, which were developed specifically for the Outernet project to be hidden within the drainage gutters, provide low-end sound reinforcement. Eleven A10i Focus, accompanied by seven Syva Low subs, span the top of the three walls that can be opened for the indoor/outdoor space configuration. There are five optional cinema expansion points for deploying

portable Syva/Syva Low systems.

"The introduction of the SB10i to the L-Acoustics range of products has opened up many possibilities for our Systems Integration projects," adds SSE Audio Application Engineer Kyle Durno. "Options for positioning subwoofers were very limited on this project, both the Now Trending and Now spaces feature SB10i within the gutter system to extend the low-frequency performance of the floor level X4i, which are critical for screen-based audio content."

"The challenge in all of these spaces was getting consistent shared coverage over the audience to ensure that, no matter where you are in the space, you are immersed in the sound," explains Durno, who has been instrumental in programming the system. "We faced tough design constraints due to the video walls, so the combination of floor-level and transom-level loudspeakers was an effective solution."

To ensure homogenous performance between the near-field listening positions and the far-field, the team used the new spatial fill feature of L-ISA immersive technology. Spatial fill creates a virtual replica of the L-ISA Scene System and is an effective solution where shared coverage is less optimal. Using gain and delay-based algorithms for positioning audio objects, spatial fill improves object separation, coverage, and level consistency.

"We use spatial fill to improve the acoustic performance, especially in the near-field listening positions where the path-length difference between the floor and transom-level loudspeakers create negative comb filtering," Durno continues. "The result improves localisation for near-field listeners."

Next door to the Now Building, the trapezium shaped Now Trending space follows a similar audio configuration, with 34 X4i installed at ground level, 20 of which span the two walls covered by LED screens. An additional

upper level of 13 5XT coaxial speakers, complemented by four Syva Sub, are suspended around the perimeter of the room, while compact SB10i subwoofers are hidden in a gutter underneath the video screens. The adjoining Now Pop Up 1 and 2 spaces feature 14 5XT with two Syva Low and 12 5XT and one Syva Low, respectively.

The long, rectangular Now Arcade is designed as a walk-through to the other spaces but can also be used for private bookings. Here, there are rows of 19 X4i ultra-compact coaxial cabinets per side at floor level, along with eight SB10i subwoofers distributed throughout the length of the corridor.

All spaces are centrally managed via Q-SYS, with audio distributed via Dante and Milan-AVB across redundant networks. An extensive guest tie-line system enables incoming clientele to route audio throughout the venues, in addition to the in-house content production. "On-site staff and visiting engineers have access to each system in all spaces, feeding audio to the relevant L-ISA Processors via analogue, AES, and Dante," adds Durno. "This highly flexible system provides visitors with the right level of control and freedom to configure Outernet for their event, without altering or damaging the system in the process."

L-Acoustics was also involved with the commissioning of the system and training at the end of the project, with SSE Audio providing 24/7/365 support via Service+, a remote servicing solution provided by parent company, Solotech.

"The team has tackled the technical challenge flawlessly, delivering a truly world-class solution," concludes Outernet's Whittaker. "From L-Acoustics, the world leaders in premium professional sound, to our display partners working with us on delivering the world's largest permanently installed moving rig, we know we are in very safe hands. These partnerships have not only been crucial to getting Outernet up and running, but also in accounting for various specification changes as it has evolved and in ensuring our future success. I'm enchanted with all the acoustical realms L-ISA is revealing to us."

ENTECH

ROADSHOW

The ENTECH Roadshow Returns!

ENTECH finally returned in October after a two-year enforced hibernation! Crowds were vibing in Sydney, Melbourne, and Brisbane, and the atmosphere was like one big reunion party.

Three trucks full of new gear and a fleet of exhibitors were on hand to cater to a tradeshow-starved industry. New features for 2022 included cash giveaways, a photo booth, a treasure hunt for a plastic 'cash cow', and arcade games. Chameleon generously sponsored Happy Hour, and owners of this masthead, VCS Creative Services, curated and ran the ENTECH Education Theatres. ENTECH will return in 2023, and will head west to Adelaide and Perth once more!



TAG's Andrew Crawford with his Allen & Heath Ampersocks

Allen & Heath

Following on from the dazzling success of their five brand latte glass launch at Integrate, TAG chose ENTECH to debut another new, vital product to their range; Allen & Heath branded 'Ampersocks'. They run, of course, at 96kHz.

Amber Technology

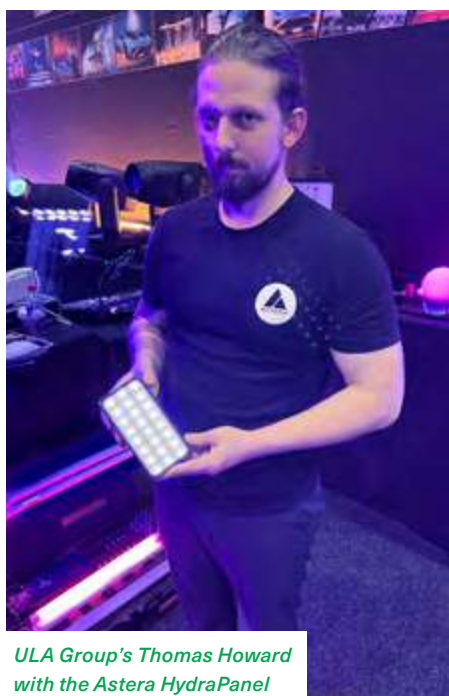
Amber Technology were highlighting the IC Live X Series of powered, beam steering array speakers from Renkus Heinz. The ICLive X series is a complete system, designed from the ground up, consisting of three freely combinable, steerable-array modules, the ICLX, ICLXL, ICLLX and a matching subwoofer, the ICLX-118S.



Amber Technology's Scott Riley with two models from IC Live X Series

Astera

Using Astera's Titan LED engine, the HydraPanel is a modular fixture that can be connected together in multiples to form one addressable and controllable fixture. The units use infrared to detect when and how they're connected, and users can control them via the Astera app or a lighting console via CRMX. Available accessories include intensifiers, diffusers, and two grids; 30 degrees and 60 degrees.



ULA Group's Thomas Howard with the Astera HydraPanel



Audio Brands Australia's Don McConnell with Linea Research

Audio Brands Australia

Audio Brands Australia were showing a range of amps and processors from English marque Linea Research, and running a beta of their new software, scheduled to be released around the time of printing of this edition of CX.

The new software expands capabilities in both grouping and monitoring devices, and features are more user-friendly GUI capable of controlling larger systems on just one page. Highlights in Linea's range include the ASC48 4x8 system processor with matrixing and processing. There's also the M Series touring amps and C Series installation amps, with both 4 and 8 channel models delivering up to 5000W per channel.

AVECorp

On the Brisbane leg of ENTECH, AVECorp got to totally open up their RTI PIKO laser system and show off what it can do!

There are many in the range, but AVE had a 33W RGB model utilising the latest RTI Semiconductor modules, which create a more uniform and accurate output. The PIKO is capable of really nice imaging and colour mixing over long distances, without the 'colour split' some lasers suffer. The PIKO also has an ultra high speed scanner, IP54 housing, dual control, and a ShowNETcard built in to connect, configure, and fire from a lighting console; no other control system needed.



RTI PIKO laser



AVD

AVPro Edge's MXNet AVoIP range have one killer feature – they're in stock and ready to ship! The range includes encoders, decoders, wall plates with full control, encoders for downmixing for high-end home AV, and most importantly, preconfigured ethernet switches!



AVD's Elkie van Zyl with AVPro Edge MXNet



Bose's Rob Phillips with the VB-S

Bose

Bose were all about the little things, in this case, the new Videobar VB-S conferencing device.

Smaller sibling to the VB-1, the VB-S is a compact all-in-one USB conferencing device that's easy to install and brings premium audio and video to rooms up to 3 x 3 meters. With four beam-steering microphones, a 4K ultra-HD camera, and signature Bose sound, the VB-S is perfect for small meeting rooms and work-from-home use. See the Road Test review at the back of this edition of CX!

Clearlight

Clearlight had two new products to make a fuss about.

First up, the Astro 600 LED followspot from LDR, with a choice between a 6000K Cool White and a 9000K Extra Cool White beam generated by a single-source 600W COB which prevents any colour shift during dimming, Astro is currently the best performing LED followspot in its category available on the market. Standard features include 6-disc removable colour changer, sizing iris, movable clamp-on digital dimmer slide and spigot with integrated fluid-head. Also making a splash was the Showtec LAMPY 40 2U, 2 Universe, 40 fader DMX lighting console. The desk allows you to add an external full HD touchscreen and take full mobile control over your fixtures via an iPad or tablet via OSC. Unlike most comparable sized consoles, the LAMPY 40 2U has no less than four encoder wheels with 1.3" OLED display for visual function information.



Clearlight's John McKissock with the LDR Astro 600

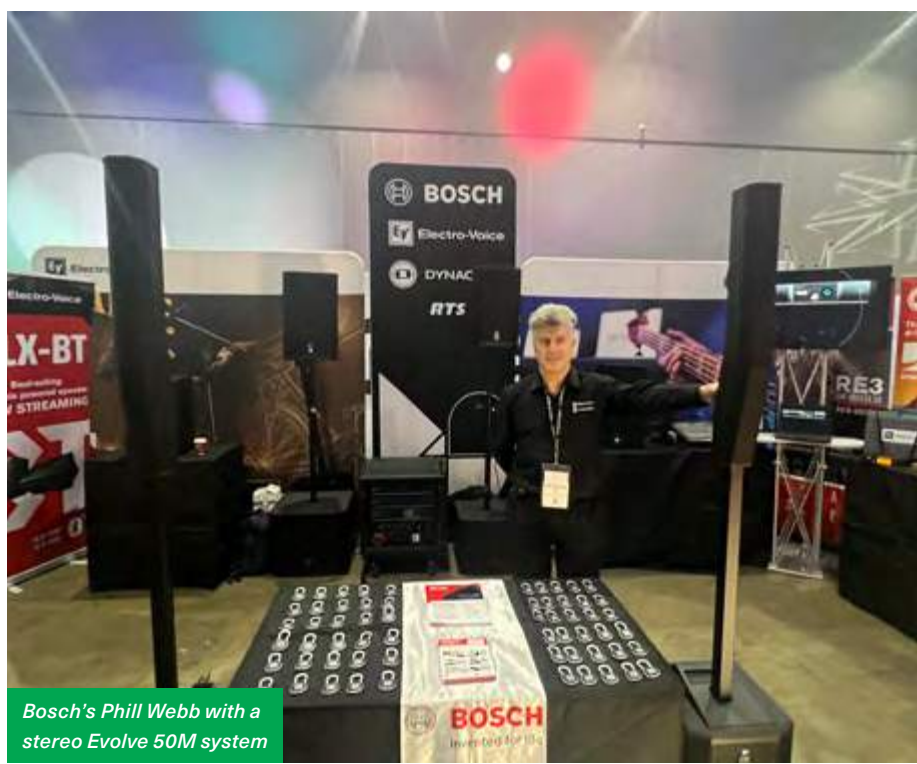


Showtec Lampy 40 2U

Bosch

Electro-Voice's Evolve 50 stick PA is five years old now. Bosch noticed that bands and AV companies were buying pairs and using them in stereo, so have added 'QuickSmart Link' to what is now the third version.

Using one Cat5 cable, you simply connect them together, designate them as left and right, et voila, you now have a 16 channel mixer controllable from either unit or the app, with FX, aux sends, and delay on an output if necessary!



Bosch's Phill Webb with a stereo Evolve 50M system

Creative Services for the AV and Entertainment Technology Industries.



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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.

CMI

CMI Music & Audio were heavily featuring the new JBL SRX900 powered line array.

The new SRX900 family includes dual 6.5-inch and dual 10-inch line array loudspeakers and 18-inch and dual 18-inch subwoofers. Because these systems are scalable and affordable, users can start with a small investment and expand over time. Also on the stand was the beautiful S7 line array and powered CS Series point source loudspeakers from Adamson.



CMI's Billy Mak talks to a customer while a video of Fohhn's Christian Bollinger beams in



Rod McKinnon with Green-GO

Event Communications Australia

Event Communications Australia were keen to introduce people to their range of smart solutions, including the Li.Lac microphone disinfector and ONStage power distribution. The Green-GO Communications comms and cueing systems rate special mention – you may have seen the news article at the beginning of this edition detailing their use by TV crews covering NASA's recent rocket launch from Arnhem Land!

Jands

Jands were celebrating 'Setting The Stage for 53 Years' in style at ENTECH, touring some choice pieces of memorabilia from their long history in lighting and sound control. Damien Juhasz from L-Acoustics was on-hand to talk about L-ISA Hyperreal Sound, and Andrew Maher was stoked to be touring with a new ETC Apex 10 lighting console.

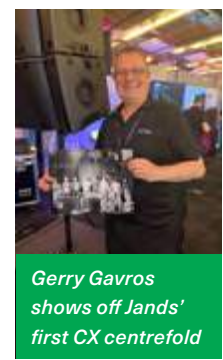
Apex is the new iteration of the ETC EOS system, and successor to their Gio and Titanium consoles. The 10 model in the pic is the middle of the range, with the smaller 5 below and and 20 above. They're all 24,000 channel consoles, running 48 Universes, but can go higher if necessary – talk to Jands if that's what you need! The hardware is running the ETC EOS software. The 10 features two large articulated multitouch 4K touchscreens, motorised faders, force feedback haptic encoders, customisable direct selects that you can label with your own image files, and all the bells and whistles available in terms of peripherals and IO. It's a beautiful piece of hardware!



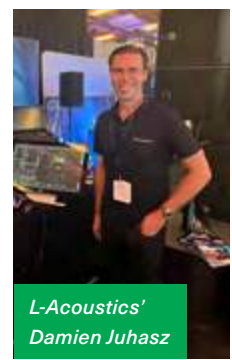
A few select pieces from the Jands Museum housed in the Eric Robinson Memorial Town Hall



Jands' Andrew Maher with the ETC Apex



Gerry Gavros shows off Jands' first CX centrefold



L-Acoustics' Damien Juhasz

LSC

The formidable UNITOUR premium portable power solution for video, audio and lighting formed the centrepiece of LSC Control System's stand, and LSC's Richie Mickan delivered a fascinating ENTECH Education Theatre talk and quiz regarding everything the clever engineers at LSC have spent the last two years learning about RCDs and Earth Leakage.



LSC's Darren McLanders with UNITOUR



HME's Nick Cook with an XM Automation XMove controller

HME

As covered in the News section of this very magazine, HME Services are proud to be the world's first official XM Automation System Integrator and distributor of their XMove control consoles.

XMove provides a stand-alone user interface for automation in the entertainment industry. Available as license purchase, XMove can be used as the interface for existing automation systems or on new systems where the control and mechanical systems are supplied by others.

An advertisement for Chauvet 3 lighting equipment. The top features the 'CHAUVET 3' logo. Below it, a dramatic sky with dark clouds and a lightning bolt is shown. The text 'Shine bright in any weather' is prominently displayed. In the foreground, several pieces of lighting equipment are shown, including a SlimPAR Pro Q IP, Freedom Flex H4IP x6, Festoon 2 RGB, Freedom Gobo IP, and COLORband Q4 IP. The bottom left has the hashtag #LightWhatYouDo and the bottom right has the website CHAUVETDJ.com.

PAVT

The Luminex GigaCore 30i is a production-ready ethernet switch with dual redundant power, 10 GB uplink and downlink for trunking, and is 100% NDI, Milan/AVB, Dante, and MA-Net ready. If it's networkable, the GigaCore 30i can deal with it!

The iSEMCon OPS 35-385 outdoor protection system for measurement mics does exactly what it says on the tin. There are already several out in the weather in Sydney logging SPLs to Smaart SPL and sending level info back to the control rooms in stadiums.



PAVT's Ben Clarke with the Luminex GigaCore 30i



iSEMCon OPS 35-385



Meyer Sound's Owen Ironside with an element of Panther

Meyer Sound

Meyer Sound's latest powered line array element, Panther, took centre stage.

It's already touring the world with Ed Sheeran, and providing more power with less weight in fewer trucks. It kicks out over 150dB from a cabinet weighing just 68 kgs, and of course, you don't need amp racks. It also comes with Milan AVB as standard.

NAS

The dBTechnologies VIO X206 top box is quite the novelty – it can be either point source or line source, simply by changing a waveguide.

Perfect for companies that want to send out a small left-right point source for corporate one day, then a six-a-side array for something louder the next. As a point source, the VIO X206 can be pole mounted, wall mounted, or hung off truss. As an array element, they can be arrayed horizontally or vertically, flown, ground stacked, or pole mounted. They're powered and processed with a Digipro class D 900 Watts RMS power amplifier and DSP, which is the same module that runs dBTech's high-end arrays. They're networkable via dB's Aurora Net software. Contact distributor NAS for more details!



NAS's Shane Bailey and Mitch Dalzotto with VIO X206 and sub

Redback

The Redback 4x4 Audio Matrix System (A4450) is a feature-packed, yet simple to set up and use, mic/line level mixer with wallplate controllers and paging mic. With 4 inputs selectable to up to 4 zones, it is ideally suited to gyms, cafes, restaurants, small clubs and function centres.

Designed with end users in mind, this complete audio source controller for buildings and venues provides source selection and level control from remotely located wallplate controllers located up to 300m from the main unit. Multiple inputs can be selected/mixed to a zone as desired. It can even be used with a customisable 7" LCD touchscreen paging console!



Redback's Andrew Shouten with the 4x4 Audio Matrix System



Riedel's Erik Miehs with PunQtum

Riedel

Riedel's PunQtum is an affordable digital wired partyline comms system that all runs off CatX cable, powered from a switch, or run in daisy chain.

A system can be as small as two Q110 beltpacks running on a switch, or scale up as big as you want. The Q210 Speaker Station is rack mountable for fixed operation positions, has a built-in loudspeaker, and can run four channels.

Are you concerned about your mate's mental health?

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

Support those around you and register for free mental health training



www.entertainmentassist.org.au

Supporting the mental health of Australian entertainment industry workers

¹Passion, Pride, Pitfalls Dec 2014

Show Technology



L to R: Alan Loh (MA), Harold Hassapis (ST), Ash Whelkan (ST), Paul Nicolaou (ST), Franco Zaghini (MA), Matt Jones (ST), Stephan Sarembea (MA), Branden Butler (ST), Keith Bradshaw (ST). Centre – grandMA3 console

Over on the Show Technology stand, and international delegation from MA Lighting were touring the country, getting to know their Aussie customers and listening to feedback about the new Version 3 software platform on grandMA.

Dignitaries included Regional Sales Manager for South East Asia Alan Loh, Director of Business Development Franco Zaghini, and Managing Director Stephan Sarembea. "MA Lighting are very responsive to user requests," says Show Technology's Harold Hassapis. "The grandMA3 is a console built by end-users, with a team of LDs, designers, and operators giving constant feedback. And not just the top-end clients, but everyday users from every sector including install, houses of worship, dealers, and schools. The MA Lighting team are very keen to take all the feedback they've heard at ENTECH and apply it across all of their market sectors."

ULA Group

The Acme LYRA sitting on ULA Group's stand was indeed extremely bright!

It's an IP66 rated moving head beam/spot/wash with framing, static and rotating gobos, 2x prisms, animation wheel, CMY colour mixing, frost, and iris. It's rocking a 1000W LED engine while staying quite compact and weighing in at 40kgs. You could throw anything at this workhorse...



ULA Group's Pascal Bonnet with Acme LYRA



tm stagetec's Treva Head with the Nexus compact TrueMatch

tm stagetec

The Stagetec Nexus compact TrueMatch is a table-top audio interface with eight channels of TrueMatch mic preamps boasting an impressive 158 db dynamic range.

It's PoE powered with 4 splits on each pre and can output Ravenna, Dante, or AES/EBU. All the routing and control is via a web GUI, and it even has DSP that will be activated in the near future.

Sometimes it all gets too much...



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



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What Are the Top Industry Event Trends of 2022?

With COVID effectively behind us, 2022 has been an extremely important year to watch in the events industry. Finally, the expert opinions and expectations for the future can be proven right or wrong. Which trends will persist after two years of only virtual events, and which will be immediately ditched in favour of the pre-COVID norm? The trends from this year are likely to define at least the next five years of events.

That being the case, we have sought out a couple of alternative perspectives from around the industry. As the readership of CX Magazine is predominantly made up of events AV experts, you will likely have your own idea of the year's top trends and ours will probably be much the same as yours. However, the trends observed by speakers and event managers will likely play their own parts in directing the development of future events-oriented AV technology.

Best of Both Worlds

Ryan Foland is a professional speaker of some seven years' experience and host of the World of Speakers podcast by SpeakerHub. "What we're seeing now is that some companies and organisations are striving to go right back to in-person events because they know that there's definitely a demand for it," he told us.

"But then, there's this hesitancy around being caught in a trap of setting up an event that then gets cancelled. As a result, I've seen this trend towards hybrid events."

Annett Polaszewski-Plath is also a veteran of the events industry, with a period as managing director for Germany, Austria, and Switzerland at Eventbrite among her experiences. She agreed with Ryan when sharing her observations on 2022's event management trends with CEO Today magazine. She said, "While a significant number of people are keen to return to on-site events, EventMB reports that 71% of event planners will continue offering virtual access to their events. Offering a best of both worlds approach, hybrid events allow organisations to reach audiences virtually and at scale while providing an on-site component with space for intimacy and informal networking. Organisers have realised

that there is a huge difference between hosting high-quality hybrid events and merely streaming your event online.”

Mind the Gap

One obstacle preventing a heavier lean towards virtual and hybrid events has been, according to Ryan, the gap in AV knowledge and experience among speakers, effectively the same as what Annett said about the gap between a high-quality hybrid event and a basic stream. “The big in-person live events just being cut off at the knees was a definite shock to everyone, especially in the speaking industry, because of all the technical challenges of flipping from in-person to digital or hybrid,” Ryan said.

“A lot of speakers have set up their own greenscreen station,” he said, demonstrating his own setup. He has incorporated his love of sailing into the design, so a single tug of a rope by his desk rapidly unfurls the green cloth like a sail. “But I think that there’s a technical gap for people who are comfortable with the idea of greenscreen and just know to put it behind them, but they don’t recognise the importance of proper lighting, a suitable camera and the necessary technology to make it work properly.”

Ryan went on to explain that he uses an ATEM Mini Pro for visual effects, including showing his slides in the background of his presentation instead of sharing his screen as a separate window. Such dynamic elements keep even

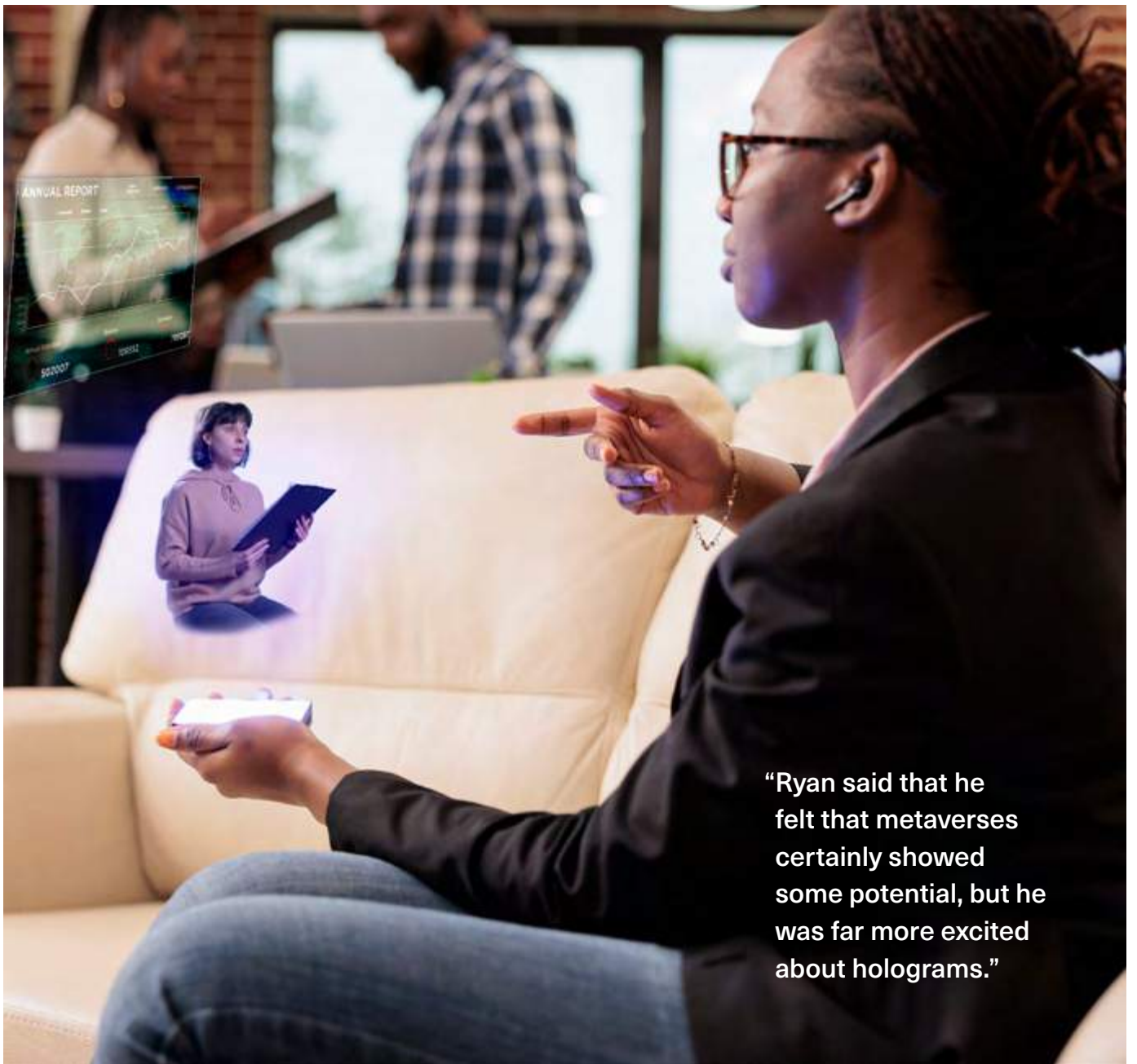
his virtual events compelling, and audiences engaged.

He added that, besides many speakers not knowing the many features the technology offers and how best to use them, there is also an experience gap of speakers just not knowing how to speak to a camera instead of an audience. Lacking the energy of a crowd to draw on, he said, there’s a risk of presentations becoming dull and monotonous. “I think that speakers end up having to bridge that technology gap by bringing more energy, being more creative with how they’re presenting, stopping to ask questions, going into breakout rooms and properly engaging with the audience. This is best practice for speaking, but it’s amplified when it comes to digital,” he said.



Ryan Foland





“Ryan said that he felt that metaverses certainly showed some potential, but he was far more excited about holograms.”

The widespread lack of technical knowledge of even quite basic home studio setups and, just as important, how to use them to their full effect, has perhaps contributed to the rush back to in-person events in 2022.

The Experience

Both Ryan and Annett agreed that the thing people had been missing from virtual events was the broader experience of attending an event. “Attendees want to be able to communicate with each other, ask questions and engage with speakers. They want to get answers to their questions, actively participate rather than just listen, and make new connections,” said Annett.

She added that there were certain experiences from virtual events that do enhance the in-person experience and should be strongly considered when planning a hybrid event. “Tools like online ticketing, remote registration, seating and real-time interpretation have all added to the overall experience,” she said.

“The more event managers cater to the needs of attendees and provide them with ways to better engage, the more valuable and memorable the event will be. Because the success of an event isn’t measured just by how many people attend, but also the quality of their experiences and whether those people felt involved.”

Ryan said, “It always has to be about the experience. Gone are the days when I just show up and start talking. Now there’s warming people up, involving them in the chats, I use breakout rooms all the time, I bring people up and spotlight them whenever they’re asking a question. All of that interaction has to happen or else you’re just a stagnant screen. I think there’s going to be some move towards people interacting on their phones. There are a few different games and things that people have been playing with on Zoom, but that experience part, where people are actually engaged, is essential.”

The Future

In the immediate short term, Annett advises incorporating gamification techniques to add a new dimension to events. When asked to predict the further future, Ryan said that he felt that metaverses certainly showed some potential, but he was far more excited about holograms.

“I know a few speakers who have been exploring that and it’s a goal of mine,” he said. “In particular, James Taylor has been doing some great work in this space. He and his wife speak on creativity and what they’ll actually do is go to a local studio that has a full rig for cameras and they will project themselves on stage to an event with sound and interaction with the audience. That’s created the ability for him to be in multiple places without the travel and attend digitally while still having that ‘live’ experience.”

He also asked, only partially joking, where the AI solution that reads the audience engagement levels for you is.

Austrian Audio

OD303, OD505, and OC707

The story of Austrian Audio over the first five years of its existence has been an interesting one.

Formed almost overnight in Vienna, Austria, in 2017 when 22 employees were cut loose from AKG, the company could have released their own microphones almost immediately. Instead, they chose to spend two years developing something new. Their first two releases were aimed squarely at the studio market, but now Austrian Audio have a full complement of products for both studio and live, including the three vocal mics that are the subject of this review; the OD303, OD505, and OC707.

OD303 - The Entry Level Workhorse

This is the newest mic in Austrian Audio's range and debuted at LA's NAMM Show in June this year, which is where I first saw it. Its pricing puts it firmly in contention with the "world's most well-known dynamic mic", and all of its competitors. And that is exactly what I was A/B-ing it with.

Firstly, out of the box, the OD303 has a reassuring metal heft and solidity. The industrial design is sleek, and you immediately get the sense you are holding professional equipment. The most striking thing about it visually is how the capsule seemingly hovers above the body of the mic, sitting in a cradle not unlike a flaming torch.

That design is key to what Austrian Audio call their "Open Acoustics" technology. The aim of the design is to negate the effects of 'cupping' the mic, which we all know on most dynamic vocal mics turns them into an omni, with feedback ensuing and horrible vocal tone thrown in. I torture tested the OD303 with both hands in the tightest 'cup' I could muster and I could barely get the tone to change, let

alone feedback to take off in the wedges. I have quizzed the tech heads at Australian distributor Group Technologies as to how this is done, and it's a tightly held trade secret.

Tonally, the OD303 really suited my baritone/somewhat tenor voice. Most of the time, I have to add around 4 or 5 dB around 2kHz to give it some intelligibility and interest, and stop it sounding dull and honking. The OD303 brought out the intelligibility without any EQ. I'd be very interested to hear it on a real tenor, and a female vocal. In all, it gave me way more to work with as an engineer than the standard vocal mic we all know and love. It's easier to cut than add, and the OD303 gives you a very workable signal indeed.

Superior off-axis response is another of Austrian Audio's point of difference, and this supercardioid was much more sensitive to the sides and rear than the incumbent, making it much more forgiving to those with less-than-ideal mic technique. Handling noise was basically non-existent.



THE SPECS OD303

Directional characteristic: Supercardioid

Frequency range: 35 Hz – 16 kHz

Sensitivity: 1.8 mV/Pa

Pop Noise Protection: 3D Pop Noise Diffuser

Impedance: 1200 Ω (symmetrical)

Load impedance: > 1 kΩ

Main Connector: XLR 3 pin

Dimensions: 194 x 53 x 53 mm

OD505 – The “Active Dynamic”

The OD505 is very similar to the OD303 but adds a couple of features that elevate it to the next level. It is a dynamic mic, but does require +48V to run, as there's a little circuitry in there helping the sensitivity and output. Next, there's a switchable HPF at 120Hz. While the OD303 is 'design and engineered' in Austria, the OD505 is designed, engineered, and manufactured there.

The result is a more premium experience than the OD303. There's more sensitivity, and it picks up a lot more detail than the OD303. It's crisper, has more cut-through, and the off-axis response is wider and more sensitive.

With both mics, Austrian Audio have engineered a gentle roll off starting just below 200Hz and a boost at 4-5Khz, and if you decide

to exploit the proximity effect, you get a boost at 100Hz. It's taking the design approach that 'you were going to EQ it this way anyway.' It's not a bad way to go, as I was happy with my vocal tone on a completely flat channel strip. One less thing to have to fiddle with on a gig is always a good thing.

I then put in the high pass and was blown away. On other mics when I have done this, I got exactly what I expected – a roll-off. On the OD505, I got the roll-off, but what felt like an additional 3dB of gain upstream of the filter. It went from cutting through very nicely to absolutely blowing a hole through the mix. If I was mixing a slightly quiet or nervous singer trying to cut through a loud band, this is the mic I'd deploy.

Again, comparing it to something we all know, in this case the 'world's most well-known dynamic mic – late 80s redux', the OD505 comes across as brighter, more forgiving of off-axis shenanigans, more present in the mix without any EQ adjustments, and with the HPF in, a flaming sword cutting through your mix butter.

THE SPECS OD505

Directional characteristic: Supercardioid

Frequency range: 35 Hz – 16 kHz

Sensitivity: 4.4 mV/Pa

Max. SPL: 154 dB SPL

Low cut filter: 120 Hz (2nd order)

Impedance: 275 Ω (symmetrical)

Load impedance: > 1 k Ω

Supply voltage: 48 V (< 1 mA)

Main Connector: XLR 3 pin

Dimensions: 194 x 53 x 53





MAKING PASSION HEARD

Austrian Audio's studio-oriented series of microphones immediately put the Vienna-based manufacturer on the radar for many pro audio professionals around the world. Now turning their attention to live sound, Austrian Audio have once again found ways to innovate, bringing studio-quality audio onto the stage.

Featuring proprietary Open-Acoustics-Technology, Austrian Audio's live mics deliver best-in-class handling and noise suppression, with superb feedback rejection. Designed, engineered and manufactured in Austria, the OD303, OD505 and OC707 are the perfect choice for capturing crisp, clear vocals in a range of live applications.

OD303 DYNAMIC VOCAL MICROPHONE

Maximum performance, entirely unparalleled at its price point.

OD505 ACTIVE DYNAMIC VOCAL MICROPHONE

All the advantages of a dynamic mic with the tonal finesse of a condenser.

OC707 TRUE CONDENSER VOCAL MICROPHONE

All the important characteristics of a studio mic, in a rugged body.

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sales@grouptechnologies.com.au



OC707 - The True Condenser

This is no less than a handheld vocal mic that can more than hold its own in the studio. Rugged enough for the stage and detailed enough for the vocal booth, this is a premium mic for capturing great performances.



Another leap up in sensitivity from the OD505, the OC707 would be perfect for outstanding female vocalists across genres, though my first thought was jazz. As we go up the range, the mics made my voice sound more workable (OD303), better (OD505), then naked and what it's actually like (OC707).

It has a cardioid pattern, though the off-axis sensitivity made it feel wider. A proper condenser mic, it can handle a surprising 150dB, so if you're having a weird day, you can in fact put it on a kick drum. The frequency plot is a more gentle peak at 5kHz than the ODs, and a little 'air' boost at 10kHz. The roll-off from 200Hz down is slightly more gentle than its two siblings.

Compared to the 'premium handheld condenser made by the same company as the other two mics', the OC707 was brighter, more sensitive, and more in keeping of the style of vocal mic technique you'd find with an experienced jazz vocalist or old-school diva. It of course has the same Open Acoustics technology as the OD303 or OD505, but we're way outside of cupping territory here.

THE SPECS OD707

Directional characteristic: Cardioid
 Frequency range: 35 Hz – 20 kHz
 Sensitivity: 10 mV/Pa
 Equivalent noise level: 19 dB SPL (A)
 Max SPL: 150 dB SPL
 Low cut filter: 120 Hz (2nd order)
 Impedance: 275 Ω (symmetrical)
 Load impedance: > 1 k Ω
 Supply voltage: 48 V (< 2.2 mA)
 Main Connector: XLR 3 pin
 Dimensions: 194 x 53 x 53 mm

The Verdict

Austrian Audio have gone from zero to a range of eleven microphones for almost every application within five years. Their entry into the crowded live vocal mic space offers a convincing, and in some cases preferable, product to the existing dominant players in the market. If you find yourself auditioning vocal mics for a vocalist you regularly work live with, the three models in this review should definitely be on the list to try.

Product Info: austrian.audio
 Distributor Australia: Group Technologies grouptechnologies.com.au
 Distributor New Zealand: Jansen jansen.nz



NEUMANN

NDH 30

Open-Back Headphones

Neumann has a new pair of open-back headphones, only its second pair ever released. But while the new NDH 30s follow hot on the heels of the company's inaugural headphone release, the closed-back NDH 20s, Neumann's parent company, Sennheiser, are hardly strangers to headphone design and manufacture. From this perspective, Neumann's headphone pedigree runs deep... very deep.

When Neumann contacted me recently about a potential review of its new open-back headphones, the NDH 30s, my curiosity was immediately piqued. The Neumann brand has been a cornerstone of the professional audio industry for almost as long as there's been an audio industry!

But I haven't always known this. In the mid '80s, when I was a young teenage musician, I was caught by an in-house engineer flipping

a Neumann U87 in my hand like a drumstick. When the engineer saw what I was up to, he freaked right out! Looking back on the incident today, I can understand why. I was clearly clueless about the value of such things... a Neumann U87 was just a funny-shaped mic.

How times have changed. If I were to witness a 16-year-old kid doing that sort of thing here at The Mill... well, let's just say it wouldn't go down too well.

Anyway, a few weeks ago (and 37 years after that initial interaction with a Neumann) the NDH 30s arrived, and I've been basically wearing them every day since, sometimes for hours at a stretch.

Open-backed, built beautifully to traditionally exacting Neumann standards (albeit in China), and resolutely neutral sounding, the NDH 30s are comfortable on the head and very impressive, both physically and aurally.

“They produce a deep, wide and vivid soundstage that provides for exceptional levels of detail.”



They are large headphones overall, with a smooth-edged, brushed-metal exterior, and wide pivoting earcups that allow the dynamic 38mm neodymium transducers to float slightly off your ears, thus minimising fatigue. They also fold flat for storage and transport.

The NDH 30s are ‘classically’ Neumann in many respects, not least of which is their appearance. If the ubiquitous (and eminently

flappable) U87 microphone could morph into the shape of a pair of headphones, this would be the form they’d adopt.

They’re not the most inconspicuous headphones I’ve ever worn, so if you like to make a statement with your audio attire these will certainly do that for you, although what that statement is exactly, I’m not sure. Just be aware that being open-back, they both allow

environmental noise in, and spill your audio back out. Not good for public transport.

If, however, you’re intending to stay indoors and in the market for open-back, circumaural headphones primarily suited for mixing and mastering, or frankly, any situation where sonic accuracy is important (but live microphones are absent), the NDH 30s are a compelling option. In a nutshell, they are among the most



THE SPECS

Frequency Range: 12-34,000 Hz

Acoustic principle: Dynamic open

Ear coupling: Circumaural

Transducer diameter: 38 mm

Transducer magnet: Neodymium

Transducer protection:
Cloth covered grille

Nominal Impedance: 120 Ohms

Sensitivity at 1 kHz/1 Vrms: 104 dB SPL

Max input power handling: 1000 mW

Continuous input power handling:
200 mW

THD at 1 kHz and 100 dB SPL: <0.03%



well-balanced headphones I've ever had the pleasure of listening to.

They produce a deep, wide and vivid soundstage that provides for exceptional levels of detail. Everything from the early reflections in your reverbs (which are voiced with such clarity that they almost sound real when you get them right), to the minutest panning detail, are effortlessly replayed by the NDH 30s. Nothing about the soundstage is vague, or hyped, or exaggerated. The spatial resolution is razor-accurate and impressively deep right out to the far horizon of your mix, making them an almost visual experience, which I love.

But not only is the soundstage accurate into the distance, the NDH 30s also provide a microscope for your audio, revealing sounds like clicks and noises, transients, modulation and movement of every description with almost unnerving clarity. Tonal shifts become obvious where once they might have been vague, phase issues become clearly apparent and bottom-end runs down to a published 12Hz only when your audio demands it. Consequently, they never feel gratuitously 'full of bass'.

Unlike many headphones, the detail down low is impressive. Where other headphones might only provide a weighty 'lump' down low, the NDH 30s provide detail below 100Hz that's easily defined and manicured. They're indeed a great tool for learning to judge the difference between a 60, 50, or 30Hz signal.

For mixing, the NDH 30s are an extremely potent tool, although one caveat to belatedly mention here is that headphones are generally one of the most subjective tools in your audio arsenal. Very few other aspects of audio are literally worn on your head, so like a hat, the first thing you need to do is test to see if they fit you. If you're keen to try a pair out (and you're prepared to pay \$1200-odd dollars for a pair – RRP is \$1229) test them on your own noggin first!

There's no denying these are expensive headphones, and I'm not going to debate the pros and cons of their cost here. You know if you can afford them or not. All I can judge is that they are impressive sounding and would augment any mix engineer's setup with a detailed and accurate over-the-ear perspective. In a world where literally millions of people are listening in headphones every day, it's basically mandatory nowadays for any decent mix room to own a high-end headphone monitoring setup. These represent that facility.

More to this point: headphones are central to the vast expansion of consumer numbers listening to VR, gaming and Atmos audio. These environments represent whole worlds of audio that literally didn't exist before, and their impact and influence on the way we all work is set to increase rapidly.

When I hear people say things like, "Oh yeah, listening to mixes in headphones is inaccurate," or "monitoring in cans gives you a false impression of X, Y and Z," my reaction is to wonder what century they're working in. For me, it's a dead argument, an entirely moot point. If consumers listen to sound in headphones, so should we.

Like headphones generally, the Neumann NDH 30s replay audio in a way that no speaker system could ever hope to replicate. There's no doubting it's a different way of listening to sound, but the NDH 30s do it very well indeed. If they seem intriguing to you, try them on for size. Literally.

Product Info: en-de.neumann.com

Distributor Australia: en-au.sennheiser.com

Distributor New Zealand:
en-nz.sennheiser.com





BOSE VIDEOBAR VB-S

The Bose Videobar VB-S is a compact all-in-one USB conferencing device, boasting the equivalent premium video and audio quality as Bose Professional's larger videobar, the Bose VB1. The Bose VB-S is smaller than you'd expect, smaller than most of its competitors, but, like anything Bose, it packs more of a punch in a smaller form factor.

I've been involved in testing quite a few products for Bose Professional over the years, providing feedback on how they work from a very technical perspective, but also a usability and quality perspective. Bose Professional

reached out and asked if I could test the Bose VB-S and put it through its paces.

Out of the Box

Opening the box, it has everything required to perform an install into most scenarios; screws, brackets, mounting bars – it was like an IKEA kit. It felt like it had everything you need to perform any install.

It is an easy mistake to make installing devices for the first time to find an extra bracket or cable is required. Couple that with the current lead times, and that can quickly result in an unfinished install. It was refreshing to see that Bose Professional had put thought into this.

The kit came with a USB-C to USB-A 2.0 cable with a handy, tetherable USB A to C adaptor, getting you around most short-range cable installs and differing user devices. The connections on the back of the device allow for above and below display installation, with the

ability to hide the cable behind the included cord cover or in the wall if required.

As for the actual Bose VB-S device, the build quality was great and feels like a solid, quality bit of kit.

Camera

The Bose Videobar VB-S boasts a 4K Ultra-HD Camera with two types of tracking; Group Mode, designed for keeping group participants in view, and Individual mode, designed to best frame and follow when a single person is in the room.

Bose Professional has developed their own camera for their videobar devices, which provides the same crisp, clear video as found in the Bose VB1. They are purpose built and the image is crystal clear. I thought the quality of this camera was great and compared better than most, if not all, I have tested recently.








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Using this on my personal workstation, I utilised the Bose Work Configuration software to test before meetings and make some adjustments, such as the frame I use in my conference calls.

Audio

The four beam steering microphones in the Bose VB-S produce excellent quality audio for the far end. We test-drove this in a meeting room with about a two metre deep table on both Teams and Zoom calls. There were no complaints from attendees and no issues with background noise in a noisy office.

Of course, we couldn't go without checking the Bluetooth capability. It was simple; connect to your phone, and our Friday afternoon office tunes were sorted. For its size, typical Bose – it definitely pumped.

Software

The Bose Work Configuration software runs on PC and Mac and was simple to connect and navigate. Once the app is open and USB connected, you can see where the microphone arrays are pointing in the room and can adjust as needed. From our experiences with the Bose VB-S, it was extremely straightforward to adjust any settings, however in most cases no adjustments were required.

All-In-One USB Connection

There are a lot of good things I can say about this product. But unexpectedly, a standout feature was the robustness of the USB connection. I tested this device with quite a

few extension kits, and both passive and active cables, and it held up very well.

With the Bose VB-S, I used the cable it came with and a couple of other extenders with no issue. I used a no-name, 5m USB cable for an entire month whilst testing the product and had no issues. It didn't miss a beat, with consistency through each use.

Integration and Management

Many of our clients are national with small IT teams based remotely, so the remote management for a fleet of devices like this is a huge bonus. The Bose Work Management covers this requirement, allowing remote support for connected Bose Videobar devices.

As these units have an available API we are able to integrate these devices into the various control systems we use. Providing our clients consistent, quality experiences in meeting rooms every time is key. The ability to start a meeting, reset pre-sets, and perform many other functions from a control system is rare from a USB device like this. Also feeding information back via the control system to management platforms is a real positive.

Conclusion

Being a technology integration company often working on large project rollouts, a challenge for us was finding devices that would complement the Bose VB1 in smaller spaces. With the addition of the Bose VB-S, this allows us to provide consistency for the end user and provide the right device for the room size. With the addition of the Bose VB-S, it is now

applicable in more spaces, providing seamless continuity between small and larger rooms.

It's a videobar that just works. It has my tick of approval, and I didn't want to give it back!

Product Info: pro.bose.com
 Distributor Australia and New Zealand: pro.bose.com

THE SPECS

Loudspeaker Array

Mono loudspeaker, ported enclosure

Amplifier Power 15 W per channel, < 0.3% distortion over frequency range

Frequency Response (-10 dB) 90 – 20,000 Hz

Maximum SPL @ 1 m 86 dB (IEC 60268-5, mono input, wall-mounted)

Microphone Array

Configuration: 4 microphones

Frequency Response (±3 dB) 20 – 15,000 Hz

Pickup Range 4.0 m

Technology: Static and adaptive dynamic beam-forming, 3 exclusion zones, stereo acoustic echo cancellation (AEC), digital noise suppression

Camera And Video

Field of View (FOV) 123° diagonal × 115° horizontal × 81° vertical

Image Sensor: 8 MP

Focus Distance 0.5 m to ∞

Lens: Up to 5x digital zoom, integrated camera privacy cover

Positioning: 2 autoframing modes (Group or Individual) or manual pan-tilt-zoom (PTZ) with 3 configurable presets (Home, 1, 2)

Processing: Automatic white balance, automatic brightness, digital noise reduction

USB Device Video Class (UVC) v1.1

Supported Video Resolutions: UHD 2160p (4K), 1080p, 720p, 960×480, 848×480, 640×480, 640×360, 432×240 (30 fps)

Video Encoding H.264, M-JPEG

Connections

USB Type-C to host computer (USB 2.0 and 3.0 UAC, UVC, HID)

Network Wi-Fi 802.11ac (wireless)

Bluetooth B4.2 HSP, A2DP, AVRCP, BLE

Power: Via external power supply with localised power cord (included)



VB-S with stand



VB-S without stand

Gareth Sheard is the National Technology Systems Commissioner for Programmed Electrical Technologies. Gareth's knowledge of and experience with AV integration systems lends itself to performing extensive AV product testing. Programmed utilises Gareth's feedback and expertise to help guide which products and technologies best suit each application.



NATURE

The Ultimate Disruptor

"There you are, quietly going about your day, minding your own business and, BAM, something happens. It might be small, it might be dire, but you've been disrupted."

This was the first paragraph of my column, ready for edit. I had some pithy anecdotes and was feeling smug about clever insights into man-made, social, and technical upheavals. Then, the storms hit Victoria, and I got well and truly disrupted.

That draft is binned. Following is how Thursday 13th October 2022 unfolded for me.

Serious weather was forecast for later in the day, but I was sure I had plenty of time to whip down the hill for a routine doctor's appointment and pharmacy visit. Left home at 9 am and got to the clinic fine by 10. They were already 45 minutes behind but that's normal. Delay number one.

I took my usual scenic route from the docs and soon found water on the road. It was standing and not flowing, so forded the first

one easy, and got through the second but only just. Looked at what was ahead, saw the flood marker at 0.9m and flowing steadily across what is normally a road - not a good idea to try going through that! Lock the hubs in, do a 27-point turn between the rising rivers either side of the diminishing track and head back the way I came. Except, by then, the way in was rapidly going underwater. Slowly does it, heavy 4x4, I'm in the lap of the gods now.

Got out to dry ground ok, took a deep breath, and headed for the chemist. Did that quickly and turned towards home. Two short waits for council crews to clear trees but got lucky with timing. Get to our township - nearly there. Wild weather now coming in and one of the routes to safety is already 1m under water. Headed for the other path in on that side of the mountain to find a massive horizontal gum blocking the way. I'm less than 4km from home - so close, yet so far. Crap.

Turn around to head back down the way I came up, but huge trees dropping like dominoes. It's carnage on the mountain now.

Detached limbs flying about as if they were frisbees. 100+kph gusts throwing the car around. Down to 2nd gear into the wind. Slowly fording through long sheets of water, the bow wave coming up over the windscreen, gritted teeth, silently praying that the road surface below was holding. No time to become a statistic. 4x4 bravado rules.

Blocked from one end, go back to be blocked at the other. Council crews doing their best, pulled from one near disaster to another. Locals grabbing their chainsaws and heading out into the chaos, doing whatever they can to let stranded people through.

Could cut my losses and camp out now but increasingly desperate to be in my sanctuary. I opt for the long way around to home. Back down the hill I proceed. But no. Blockage again. Another tree down, another hope dashed. A local mate turns up and we start clearing. His little battery saw is all we have and woefully underpowered for the job. I clear debris and keep a lookout for any branches or trees heading our way in the swirling, teeming rain.

Creeaaaak, groan, whoa, "Heads UP" in my loudest yell as the other half of the tree we are clearing heads for the earth.

The sound of 60+ tonnes of timber hitting the ground mere metres away is impressive. We are most definitely awake. Back to it. Soon enough, another local comes through, Stihl a-blazing, and helps carve a path.

A frantic phone call from a neighbour's grandmother - her grandson stuck in a river coming down the road. We knew where he was but could not get there without removing multiple trees. Cut through one and then the saw died. Council crew trying to get home themselves purge a way through. The young fella gets home safe.

I head back out through the water to try the long way around. No go there either. Another tree on another road and VicRoads crew report several blockages and road closures ahead.

Stay on the flats, or risk getting back up the mountain? From texts and calls, neither a great option. Many flat-lander friends with water at the doors and rising. Higher ground it is. Once more back through the long sheets, more resembling lakes than paddocks or carriageways. Dumb again, but sustained adrenalin now getting the better of common sense.

Slowly back up the hill. A tree falls behind me - that one would have squashed the car for sure. Onwards the only option. Have secured a bed for the night - just need to get there.

Phoning in to home, only to hear an audible crash at that end as a massive bough hits the deck, 40m from our house. While confident our well-built castle is sturdy and safe, I still couldn't be there for mutually comforting hugs.

Towards my temporary refuge, but one more tree to clear off the road before a warm fire and bowl of soup awaits. Phew, safe and sound. What a ride. The storm abates while we eat and talk, debriefing as we come down from the excitement of the day. The power goes out. Rain falls all night during an edgy sleep.

Next morning, I caffeinate and tentatively pick a path home. Most options still cut but one might be a go-er. I choose that. Get to within 2km of the house before yet another tree blockage. I'd just yacked to neighbours rescuing stock

and they came down to help clear a bare minimum for me to squeeze the ute through in sill deep mud. That alone would have been an adventure on a normal day!

Looking at the minimal debris over the last km or so, I reckon our little hamlet fared better than everywhere else I'd been over the previous 25 hours. That's how long it took to do a regular trip to town, normally a tenth of that time. Never as exciting.

Ironically, since home safe, I completed my regular Tree Hazard Awareness course for CFA personnel. It hammers home situational awareness and dynamic risk assessment (DRA). Both these skills came to the fore as I was trekking through the stormy madness. Not all my choices were optimal, some perhaps poor, but I unconsciously followed DRA principles all day. Identifying hazards, assessing risk, constantly reviewing, staying hyper-aware. More than once, I presaged tree and branch falls before they became life threatening.

Disruptions come in all manners. This was not war, famine or pestilence. Nor a printing press, steam engine or iThing. Not even the first world annoyances of a tradie not turning up yet again or an untimely phone call. But it did highlight our puny powerlessness in the face of Mother Nature unleashing some of her worst. Urgent, primal turmoil. A true disruption.

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SOUL NIGHT

Snippets from the archives of a bygone era



Soul Night was my spiritual redemption after a previous disastrous nightclub promotion that failed to attract a single patron somewhat tarnished my credentials as an entertainment manager

The previous fizzer, which was entitled Saturday Date (a name I borrowed from a 60s Australian TV show) was supposed to attract teenagers to an alcohol-free Saturday afternoon disco at the Third Eye nightclub located just off the US Air Force base in the Philippines.

For the event I had special alcohol-free drinks designed, which were copies of existing cocktails with the names changed: Virgin Daiquiri became a Madonna, named after the

singer's hit record 'Like a Virgin'. The alcohol-free coconut cream Piña Colada was renamed White Wedding after Billy Idol's hit, and there was also a non-alcoholic Bloody Mary, which I named Thriller after Michael Jackson's hit album.

The Third Eye nightclub had a Promotions Manager who didn't like my intrusion into his area of expertise. He had successful sexualised promotions with a Wet T-shirt competition, Foxy Boxing, and Oil Wrestling.

Ferdinand and Imelda Marcos had banned mud wrestling, citing it as distasteful to have scantily clad girls wrestling in mud, so the Promotions Manager used the workaround of having the girls wrestle in Baguio Oil, which was the country's premier cooking oil.

After my failed Saturday Date promotion, it was explained to me that parents of both Filipino and US 'base brats' did everything humanly possible to keep their kids away from the club mainly because it was patronised by hard-

drinking GIs who ogled the bikini-clad dancing girls and attended the sordid promotions. How could I have misjudged that one?

In spite of the Promotions Manager's successful promotions, he also had a fizzer on his hands. This was Rock and Soul Night, a counterintuitive endeavour aimed at attracting a contingent of black Americans, who made up some 20 percent of US forces. But it was a farce: GIs were told they could bring their own music, but the white guys who attended tried to turn it into some sort of competition, and the black GI community shunned the event.

My first engagement working in a nightclub patronised by US servicemen was two years earlier at Rosie O' Grady's in 1983. We closely followed the Billboard charts to keep the music up to date. Billboard shuffled most black music into its Billboard R&B Top 40, which was kept separate from the regular Billboard Top 40. Coming from a more homogenised music scene in Australia, I was taken aback how the US segregated its music in this way.

I was given a salary package, which included hotel accommodation and free food at a soul food cafe called D'Bus Stop. I was told to go

and introduce myself to Porkchops Johnson, who was the owner.

"What do I call him? I can't just call him Porkchops."

"That's what everybody calls him," I was told.

Porkchops Johnson was a huge black man who taught me all about soul food. I'd only heard about grits and chitlins from the Beverly Hillbillies, and they were white. Grits is porridge made from boiled cornmeal, and chitlins are the large intestines of swine (hogs) usually fried. Whilst I tried grits and chitlins a few times I mostly dined on spare ribs, fried chicken, and collar greens. Porkchops had a jukebox filled with soul and a big chunk of the black music that I loved. Porkchop's beautiful little 5-year-old daughter would sometimes come out and dance to the tunes on the jukebox.

I soon had an axe to grind at Rosie O' Grady's when I questioned why the black community didn't come into the venue.

"Oh it's not their kind of music," I was told. But I regulated the music at the venue.

I had grown up loving the Tamla Motown sounds of The Supremes, Marvin Gaye,

and Billy Preston et cetera, along with other non-Motown artists like Sam Cooke, James Brown, Otis Redding, and Aretha Franklin. So the comment stuck in my craw. There were venues around town dedicated to the black community that played soul music, but most of these places were dingy dives poorly run by expatriate US retired military personnel.

At the Third Eye I saw an opportunity to present black music the way I remembered it, and I wanted to take over the failed Rock and Soul promotion. The Promotions Manager lobbied that I should stick to my existing duties, which were more aimed at the sound and lighting installation, booking the bands, mixing audio, training the audio engineers, and liaising with the DJs. But much to his chagrin the failing Rock and Soul Night was given over to me, which I changed to Soul Night. Initially, I also rolled in reggae music adding a splashing of Bob Marley and Peter Tosh, but I was soon to learn that Americans knew little about reggae, and this was phased out.

We head-hunted Fast Eddie, a black DJ who was pulling big numbers at the Clark Air Base disco, and we paid him handsomely to host our Soul Night. He was enamoured to be given full reign in our nightclub, which was the number one nightclub in town. So he promoted the event to the hilt, so much so that on opening night an outstanding black USO touring band turned up to play live on our stage, and I had the privilege of mixing them. It was one of the highlights of my entire career.

Fast Eddy worked in with our existing DJs whom he gave street names to like Cast-a-Spell-Joel and DJ Danny. Few people are aware today that rap was breaking in the mid 80s, so Fast Eddy also introduced a slice of rap into the repertoire.

Soul Night was always packed to the rafters, and a real eye-opener as patrons would come in dressed to the nines with a big contingent of the men in three-piece suits and accessorised with everything from ostentatious jewellery to sunglasses. And it was common for women to be garbed in classy evening gowns, which added a touch of elegance to the venue. Soul Night became one of the most successful events on the club's calendar, with the exception of the tacky Wet T-shirt promotion.

The guys largely drank rum and coke, so we featured this drink very inexpensively; it was a kind of loss leader that helped bring in the huge crowds. Most of my invented teen drinks faded into obscurity except for the Madonna, which was a big hit with the girls on Soul Night.

Ironically, you could say that I also contributed to a kind of segregated event, but the event was open to everyone and more a tribute to black music and artists, and not meant to divide communities. However, I realised that I wasn't going to change years of prejudice that unfortunately was instilled in American culture overnight.



The Third Eye Nightclub



F4 Phantom Fighter Jets at Clark Air Force Base, Philippines



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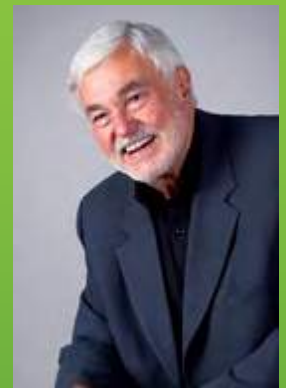
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