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DECEMBER 2023

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A recent news report highlights that India currently is the fastest growing economy in the world, despite various challenges the country is facing. Parallel to this economic spectacle, the event industry in India defies the daunting shadows cast by the COVID-19 pandemic, showcasing a remarkable tenacity. A remarkable highlight during the upcoming period from November 25 to December 31 is the anticipated

contribution of a staggering USD 72 billion to the nation's coffers, courtesy of the opulent grandeur of wedding ceremonies alone. However, this is merely the tip of the iceberg. The cultural landscape of India is set ablaze with a myriad of entertainment events, including music concerts and festivals, each an extravaganza in its own right. Notably, these events have undergone a metamorphosis, transcending previous boundaries to attain unprecedented levels of quality and scale in production. What's even more intriguing is the lavish spending spree undertaken by India's event companies, reflecting an unapologetic pursuit of excellence. Our meticulously curated Feature Report delves into the heart of the industry, providing a panoramic view of the happenings in 2023 while offering tantalizing glimpses of the exhilarating prospects that await in 2024.

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Rightway Audio Consultants Provide Technical Support for Jacky Cheung's L-Acoustics K2 System



CHINA: Jacky Cheung, the iconic singer, actor, and musician, embarked on the 60+ Tour, so titled in celebration of his first performance after turning 60 in June. Dubbed one of the 'Four Heavenly Kings' of Hong Kong's entertainment industry, the Chinese pop icon rose to stardom by being the best-selling artist of all time in Taiwan and Hong Kong, winning the Billboard Music Award for Most Popular Asian Singer in 1994.

The international star, who performs in Cantonese, Mandarin, Japanese, Korean, and English, also holds the Guinness World Record for the largest combined audience for a live act in 12 months with 2,048,553 audience members.

Cheung's 60+ Tour commenced at the 15,000-capacity Cotai Arena in The Venetian Macao, the largest event venue in South Asia. Cheung performed 12 dates, delighting 109,000 fans over four weekend evenings throughout June.

A thrust stage was designed for the performances to offer unobstructed views of Cheung and the live 53-piece orchestra, showcased on a four-story platform. The deployment of a K Series system, leaning on K2 and the flexible horizontal directivity of Panflex would allow for wide coverage for the vast audience area and keep sightlines of the stunning stage design as clear as

possible. The K2 system would deliver consistent sound coverage in the large arena, where the far corners of the arena needed to be reached. All teams involved in the production would also benefit from the swift loading times of the K2 concert sound system, with its excellent performance-to-weight ratio.

Teams of experienced engineers deployed 15 x L-Acoustics K2 per side in a left-right configuration, with 15 further K2 per side as side-fill. Front-fill was delivered by 12 x Kara boxes evenly distributed across the stage lip. 24 x KS28 subwoofers stacked across the front of the stage provided low-end definition. Onstage, Jacky heard every note with pristine clarity from 8 x L-Acoustics X15 HiQ monitors.

Rightway Audio Consultants (RAC), provided technical support for the operation of the system to ensure stability. L-Acoustics' signature sound clarity and high SPL power certainly dazzled fans in the Cotai Arena as they were mesmerised by Jacky Cheung's dynamic vocals while getting an unobstructed view of their favourite star and the backdrop of the live orchestra on stage. With more dates in Singapore and multiple cities across China later in the year, Jacky Cheung's 60+ Tour undoubtedly started on the right note and tone.

[L-Acoustics](#)

VMT Strengthens Position in Industry as Exclusive Distributor of Elation



L-R: Dinesh Mandot (VMT, Managing Director), Jonas Stenvinkel (Elation), Jeff Mandot (VMT, Director of Sales).

INDIA: Elation has welcomed VMT (Vardhaman Megatech) as the exclusive distributor for Elation and [Obsidian Control Systems](#) products in India, effective immediately.

VMT is a leading professional audio and lighting distribution company with a strong distribution network and a rich history that goes back to 1958 (parent company Vardhaman was established in 1807.) Based in Mumbai, the family-run business serves a diverse range of customers through retail, installation and distribution divisions, the latter working closely with a network of B2B dealers, retailers, and large touring companies across the country.

VMT director of Sales, Jeff Mandot, expressed satisfaction in adding the Elation and Obsidian brands to their large catalogue of leading AV brands. "We chose to partner with Elation because of their reputation as a leading manufacturer of high-quality automated lighting solutions," he stated.

"Elation's commitment to innovation and their impressive product portfolio aligns perfectly with our mission to provide the best audio and lighting solutions to our customers. By teaming up with Elation and Obsidian, we can expand our product offerings and provide even

more cutting-edge lighting and lighting control options to our clients."

Jonas Stenvinkel, international sales manager at Elation, expressed his enthusiasm about VMT representing Elation and Obsidian in such a significant market. "Having a dedicated distributor in India is an important step in ensuring growth and success in this expanding market and we are very excited for the opportunity it represents. VMT will carry and represent our full portfolio and we are excited for the future expansion into India."

VMT is committed to providing exceptional service and expertise through a dedicated team of product experts, engineers, and sales and support staff. The company conducts training seminars and roadshows across the country and actively participates in regional and national exhibitions. To ensure the success of the partnership, VMT is preparing and investing in several key areas including training of sales and technical support teams to ensure that customers receive the best guidance and support, as well as a dedicated marketing and promotional push to raise awareness of Elation in the Indian market.

"We are excited about this partnership with Elation and the opportunities it presents for both companies and, most importantly, our customers," Mandot stated. "With Elation's industry-leading reputation and commitment to innovation and high quality, and Obsidian's growing reputation as an innovative lighting control brand, the partnership will have a great benefit to customers in India."

For VMT, the partnership allows us to strengthen our position in the industry while enhancing our reputation as a trusted provider of professional lighting in the country. Together, we aim to elevate the lighting experience in India's entertainment and corporate sectors and look forward to a successful and mutually beneficial collaboration."

[Elation](#)

DiGiCo and Fourier Audio Aim to Transform Live Sound



GLOBAL: After joining forces with DiGiCo, Fourier Audio has revealed the **transform.engine**, previously codenamed “Project Core.” Housed in a 2U touring-grade chassis with dual redundant power supplies, the new **transform.engine** is a Dante-connected server designed to run all VST3-native software plugins in a live environment, bringing premium studio software to live sound and broadcast applications. Fully compatible with any VST3 plugin that can run on Windows, the new device gives engineers and creatives access to the very best studio-grade processing on a robust platform that is specifically designed for the rigours and complexities of live productions.

Designed as a turnkey solution for plugin hosting, the **transform.engine** is easily controlled by a remote Windows or macOS client application, reducing the need for complex setups. Users can simply connect to the engine via a standard Ethernet cable, install their plugins, and get directly to processing. For paramount reliability, Fourier Audio’s patent-pending audio software engine provides a rock-solid sandbox with plugins ring-fenced from each other. Should a plugin crash, the rest of the system will not only be unaffected, but the **transform.engine** will immediately restart that plugin, quickly restoring the original integrity of the mix.

Designed to be integrated directly into live audio workflows, **transform.engine** will soon put control of plugins directly under the fingers of engineers on their worksurfaces, starting with **DiGiCo** consoles.

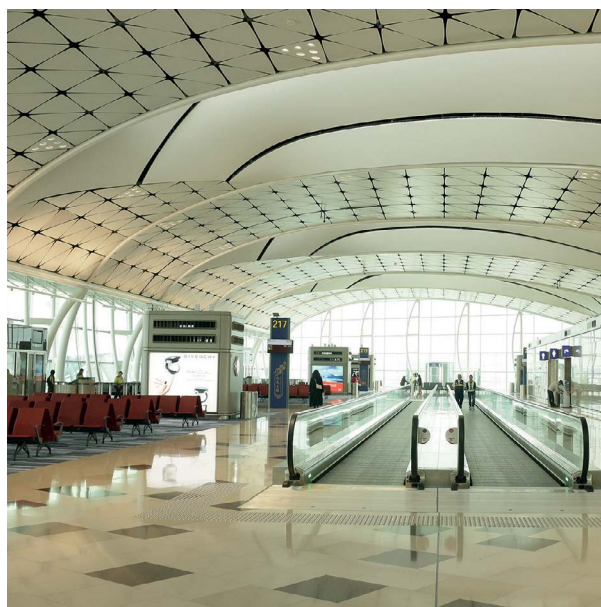
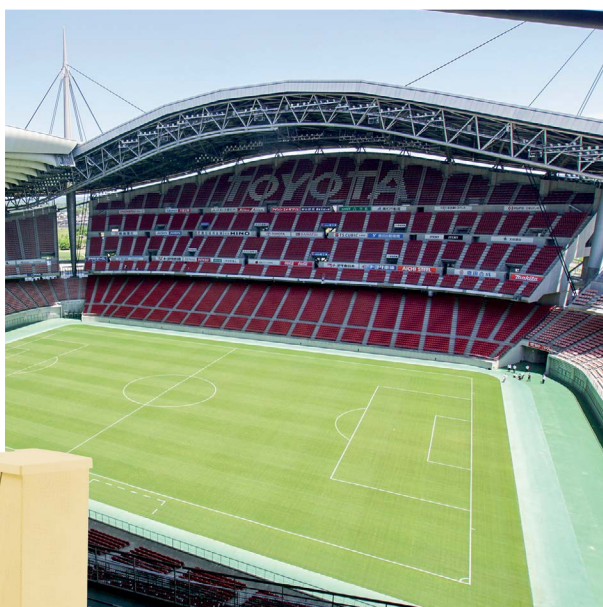
However, similar to products from sibling brand KLANG:technologies, the new Fourier Audio device is fully capable of operating in conjunction with virtually any professional digital console on the market via Dante, using the Windows/macOS application to control the engine. The **transform.engine** can also process audio standalone with no computer required. Controlled remotely by a Windows/macOS application, with plugin user interfaces “teleported” and controlled in ultra-low-latency over the network, the product has been tuned to deliver the lowest-latency solution on the market for hosting VST3 plugins, while preserving the reliability and performance of the server.

Scheduled to ship in the first quarter of 2024, the **transform.engine** will feature an optional software subscription bundle. “In the meantime, we’re inviting studio software manufacturers to contact us about potentially offering their plugins as part of **transform.engine**’s ever-expanding open ecosystem of live tools,” stated Fourier Audio CEO Henry Harrod. “We want to introduce them to a whole new market segment that they’ve not previously had access to. At the same time, we want to offer live sound engineers not just ‘good’ emulations of various studio plugins, but the absolute best-sounding authentic versions of every plugin they might possibly want from the professional recording world. It’s a ‘win-win’ situation for everyone.”

Fourier Audio CCO Gareth Owen pointed out that **transform.engine**’s reliability will be one of its greatest hallmarks. “There are a lot of other VST hosting approaches out there, but when you have a theatre, arena, or stadium full of people listening to your show, there’s no margin for error,” he affirmed. “With the backing and support of DiGiCo, which is celebrated for its decades of designing tourable, reliable, and long-lasting hardware, we are building the ultimate plugin solution.”

[Fourier Audio](#)

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New CHAUVET Headquarters was “Purpose Designed” by CHAUVET Team and Partners



GLOBAL: CHAUVET's new headquarters is over 175,000 square feet and houses dedicated, state-of-the-art centres for its product development, quality control, customer service, and global supply chain teams. Company founder and CEO, Albert Chauvet is quick to point out that the move to a new, expanded, green-thinking facility is about much more than having the size to handle a rapidly growing business that designs products for productions in over 100 nations globally.

Purpose designed by the CHAUVET team and its architect partners, the new facility was built around the vision of enhancing the company's delivery of service and customer engagement at every level and supporting R&D efforts behind its growing family of brands: CHAUVET Professional, CHAUVET DJ, Kino Flo, ChamSys, LynTec, Iluminarc and Trusst.

The new facility serves as the Global HQ for CHAUVET, with 10 subsidiary offices around the world including the US, Belgium, the United Kingdom, France, Germany, Mexico, and Singapore. Two of the three locations within the US and one of the seven overseas are also dedicated to the company's acquired ChamSys, Kino Flo and LynTec brands.

The extensive R&D centre is a highlight of the company's new headquarters as it features advanced measuring

and testing equipment that will allow the CHAUVET team of developers, that has engineered multiple award-winning products, to take their efforts to new heights.

In terms of expediting customer service, the new warehouse has been re-imagined in terms of its state-of-the-art equipment and innovative processes. As a result, shipments can now be received and shipped faster than ever before.

CHAUVET has also enhanced its already high standards of product excellence and reliability with the expanded quality control centre in its new building, which features advanced testing equipment. The company's repair centre has also been boosted with more space and technology.

While the service and repair centres will operate largely “behind the scenes,” what is certain to attract immediate attention among visitors is the new Flagship Experience Center, which will provide customers and guests with an opportunity to immerse themselves in the latest lighting and control technology. The thoughtfully designed centre provides a comfortable setting for product demonstrations, seminars, and hands-on learning.

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Brisbane's Newest Lifestyle Vessel Gets a NEXO Upgrade



AUSTRALIA: If one were to look out from the banks of the Brisbane River this year, one might see a new feature on the water: Oasis Cruising's new entertainment riverboat. Dubbed 'Brisbane's newest lifestyle vessel', Oasis is a unique water-bound events venue. With a permanent residency on the Brisbane River, the three-level events boat offers voyages with sweeping views of the city skyline, while talented international and local DJs ignite each custom-designed space with high-quality audio. Integral to this experience is an onboard PA system enabling extensive control, coverage and fidelity, courtesy of NEXO.

NEXO's flagship point source system, the P+ Series, in combination with the compact full-range ID24 Series, was selected to supply audio to the dance floors and all covered areas aboard Oasis. NEXO's optional contemporary white colour schemes were chosen for each system, allowing the modules to blend seamlessly into Oasis' sweeping bright white palette. Presenting partygoers with immersive collisions of colour, décor, lighting and sound, each of the three deck spaces within Oasis exudes its own personality through individually tailored interior designs. Expertly crafted, every

component aboard Oasis has been through a meticulous selection process, with the ship's sound systems being no exception. Chief operating officer of Oasis, Michael Watt, explained:

"Too many times you find that sound has been an afterthought in the development of a space, but it is so essential in delivering a complete experience that will be remembered. We needed a system that could handle background music and corporate presentations through to acoustic musicians and international DJ headliners. It had to have a small footprint but be able to offer uniform coverage. It also needed to be able to handle the elements, as after all, it was going to be installed on a floating river venue."

To help meet these requirements, Michael and the crew behind Oasis set course for Showtime Production Services, one of Sydney's leading audio-visual production and integration teams. Showtime assembled a selection of NEXO loudspeakers that would both comprehensively cover the entire vessel, and offer detailed control over directivity to aid in minimizing noise pollution. Asher Daoud, director of Showtime Production Services, expanded on the technology installed:

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“For Oasis, we needed something functional and aesthetically discreet, so we opted for white speakers throughout. NEXO is a tier-one brand, renowned for its high quality and high output, with good distribution; knowing this, we chose a suite consisting of 2 x P15, 4 x P10, 12 x ID24, 6 x L18 subs, 2 x IDS210 subs, 2 x IDS108 subs and a mix of 4x1 and 4x2 NXAMPMK2 amps. The compact ID24s have a small footprint which was perfect, and the P+ Series offers exceptional control.”

Impressed with the effectiveness of Showtime’s finalized system, Michael noted how solutions from NEXO help anchor the Oasis experience: “On paper, all the speaker specs looked good- and of course reputation helps- but once we heard them in action and those first guest experiences were extremely encouraging, we knew we had achieved the perfect combination. When you are surrounded by 360° views in the comfort of your own private booth, the last thing you want is a giant stack of speakers getting in the way, so the look was important.

The flexibility of the ID24 was fantastic: able to be mounted horizontally in the lower decks and then vertically for the VIP booth areas on the top decks allowing them to almost disappear into the background. Guests through to DJs have been really impressed

by the unassuming appearance of the ID24s and the sound they can produce. We are very happy with all the modules, as they have exceeded our needs and expectations. They pack a punch and deliver every time.”

A joy for patrons and ostensibly for the integration technicians in equal measure, Asher shared that working on Oasis was an exceedingly positive experience. Reflecting on the achievement, Asher summarized: “Oasis has been an amazing result all round. We met all the challenging demands in terms of audio quality and output, whilst complimenting the finish and colours of the vessel’s bespoke interior. The physical design of the boxes and their accessories- rigging points, size, brackets, etc- made working in a tricky marine space easier for myself and the install team. Our client absolutely loved it, and they now own the best-sounding boat in Brisbane by miles!”

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Electrocraft Welcomes Home the New DiGiCo Quantum 338 System



INDIA: Electrocraft – one of India's oldest and most respected and celebrated rental solutions provider based out of Mumbai, India – has built a steadfast reputation for providing top-notch audio solutions for events of all scales and applications across the country. The company has been revered as a technological trend-setter of sorts – as its sprawling inventory houses some of the world's leading technologies and systems in live sound and professional AV. And the company's latest addition to their ever-expanding technological umbrella is none other than the industry favourite Quantum 338 digital mixing system from DiGiCo.

Making sense of the purchase from a business perspective, the iconic Roger Drego of Electrocraft notes that almost every musical and large show, and almost every renowned artist and performer over the past few years have specified DiGiCo consoles on their tech - rider; which could be attributed to the host of capabilities that they're known to offer. According to Roger, the Quantum 338 scores high on factors like being ergonomically stylish, functional and powerful; with the interface being smooth, friendly, familiar, and adaptive – while also sporting unique capabilities like True

Solo, Spice Rack plugin style native FPGA processing options, and of course, the Mustard and Nodal processing options – all of which had a positive impact on Electrocraft's purchase decision. He further reveals that since the Quantum 338 supports DMI Cards and therefore Dante, it would enable the crew at Electrocraft to provide a network enabled solution for intricately complex events and all types of major productions – from tours to festivals to high-end corporate events – with complete control made possible through the console and Dante-enabled DQ-Racks.

In terms of the actual investment itself, Electrocraft have purchased a comprehensive Quantum 338 along with the ever-reliable SD Racks, and a few I/O cards; with the entire purchase process facilitated through Delhi-based Hi-Tech AVL who are the official distribution partners for DiGiCo in India.

[Electrocraft](#)

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Provision AVL Helms Distribution of GLP Throughout the Middle East



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MIDDLE EAST: GLP is once again expanding its international distribution network and appointing Dubai-based Provision AVL as its distributor for the entire Middle East region.

Provision AVL is a leading provider of professional audio, lighting, video, rigging and staging solutions in the Middle East. High-quality products are just as much a part of the company philosophy as exceptionally good customer service. A team of experienced professionals advises customers from the region on optimal solutions for events, theatres and installation applications to always be one step ahead in a dynamic market.

Kevin Boujikian, general manager of Provision AVL noted that the team are “pleased to add GLP’s world-class product range to our portfolio and offer it to our customers. As one of the leading brands in the industry, GLP’s products are recognised by professionals for their technology and quality. We are confident that this partnership will be a great success. Our customers look forward to having access to the latest lighting solutions from GLP at all times. We look forward to working closely together and building a strong and fruitful relationship.”

Thanks to the partnership with Provision AVL, GLP customers in the Middle East will now have access to the entire portfolio of innovative solutions, coupled with outstanding local service and support.

Stefan Wagner, GLP sales director EMEA, concluded: “The Middle East is a market with enormous potential. The need for outstanding lighting solutions is great. Time and again, major premium events from the region cause a stir worldwide. Our partnership with Provision AVL’s well-connected team will significantly increase the presence of GLP products in this important market and contribute to the global growth of the GLP brand. We are also very much looking forward to working together!”

GLP

d&b audiotechnik APAC Strengthens Education Initiatives with University Partnership



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THAILAND: d&b audiotechnik has partnered with Bangkok's renowned Mahidol University College of Music to strengthen pro-audio educational initiatives in the region. The collaboration marks d&b audiotechnik APAC's inaugural collaboration with a non-Singaporean educational institution in Southeast Asia and underscores the company's unwavering commitment to nurturing the next generation of pro-audio talents.

In early 2023, one of Thailand's renowned AV consultants, Sarawut Sonamit of Maple Integration Co., Ltd, specified a d&b audiotechnik sound system for the college's Black Box theatre. Vichai Trading, a local d&b audiotechnik partner, was responsible for the installation of d&b T10 loudspeakers, Y-SUB subwoofers, and 30D amplifiers. The "exceptional results" and d&b audiotechnik's strong commitment to training and education led to the signing of a Memorandum of Understanding (MOU) between the institution and d&b audiotechnik, with a specific focus on enhancing student-centred audio education.

This new MOU paves the way for d&b audiotechnik-designed courses, certification programs, and 'train the trainer' initiatives, with an emphasis on system design optimization and software enhancements. It also opens up opportunities for students and instructors

to immerse themselves in d&b innovations such as ArrayCalc, NoizCalc, and the d&b Soundscape system, experiencing their real-world applications and benefits.

Dean of Mahidol University College of Music, Narong Prangcharoen, shared: "We aim to enhance education quality in audio technology and sound engineering through this partnership, and via workshops and courses, equip students with the knowledge to be more competitive in the employment market. Supporting education in any country can lead to the development of more proficient audio professionals, a growing demand for advanced audio equipment, and more creative work on a global scale."

Gareth Kelbrick, director of Education & Application Support at d&b APAC, added: "d&b remains dedicated to reaching out to educational institutions that are supporting the next generation of pro-audio experts."

Mahidol University College of Music boasts an enrolment of over 1,300 students across pre-college, undergraduate, and graduate programs, with the majority hailing from Thailand. The partnership officially commenced in October 2023, marking the beginning of a transformative journey in pro audio education.

[d&b audiotechnik](#)

Nick Ho's Dynamic CHAUVET Professional Lighting Design Brings Trolls to Life at Universal Studios



SINGAPORE: The world of imagination is indeed “boundless,” as the philosopher Rousseau observed. It is also a very happy place to be. Just ask the thousands of children of all ages, who are journeying into that world every day at Universal Studios' Pantages Theatre in Singapore to see “Trolls: Hug Time Jubilee”.

Inspired by the Trolls film series, the new live theatrical productions feature Queen Poppy, Branch, Guy Diamond, Cloud Guy and all the other refreshingly original characters that have made Trolls movies a favourite of parents and children across the world.

Helping the Trolls cast of characters come to life at Pantages is a dynamic and colourful lighting design by Nick Ho that features 44 x CHAUVET Professional fixtures, including 32 x Rogue R3X Washes.

Working with programmer Justin Poh, Ho deftly uses intense, focused light to enhance the vivid quality of the cast members (all of whom are dressed in character costumes), as well as the inflatable timecode-triggered flowers that were positioned at the end of the stage.

Ho hits the costumed characters and scenic elements with light from all angles with his Rogue R3X Wash fixtures. He uses 18 of the RGBW washes as top lights,

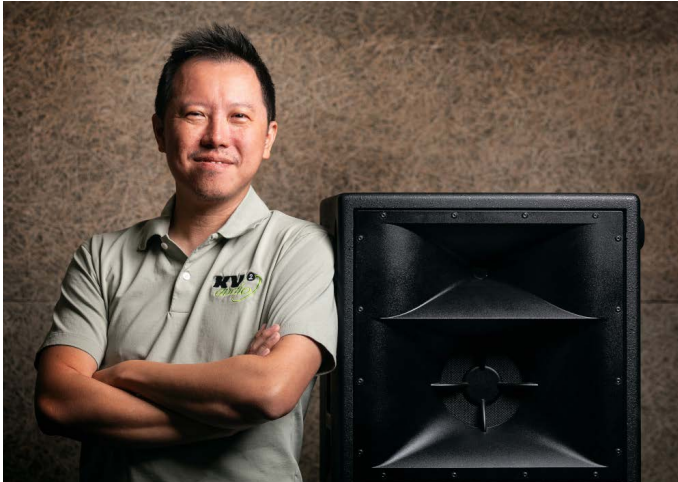
positioning four on the first truss, four on LX2, six on LX3 and four on LX4. For front washing, he relies on four of the Rogue R3X units. To create a completely immersive colour-scape on the stage, he has four of the Rogue fixtures on T3 for floor washing. Included in this group are two units on back ring trusses.

The wide 12-39° zoom range of the Rogue R3X Wash has helped Ho create varied looks while adding to the dramatic effect of the production by changing coverage areas. Also, increasing the impact of the lighting was the fixture's smooth 16-bit dimming, which resulted in smooth fades. Another element of the production is the colourful backdrop made of PVC fabrications, featuring a forest garden scene. Ho added extra life to the beautiful panorama by uplighting scenic elements with 12 x COLORdash Quad H12X IP units.

Drawing on the extensive colour mixing prowess of this RGBAW + UV wash, he has been able to cover the forest backdrop in a range of soft hues, giving it a dreamy magical quality that reflects the spirit of a show that in itself is driven by imagination.

CHAUVET Professional

Leo Tanzil Joins KV2 Audio's APAC Team with Hopes of "Perfect Sound"



APAC: KV2 Audio has announced the appointment of Leo Tanzil to the role of technical support director & product specialist for the APAC region. He will be providing valuable support to KV2's APAC sales director, Robert Adrian Tan.

With over twenty years of experience in pro audio, both as head of engineering for Kairos Multi Jaya, one of Indonesia's largest audio distributors and integrators, and most recently as an independent audio consultant, Tanzil is an important addition to the team.

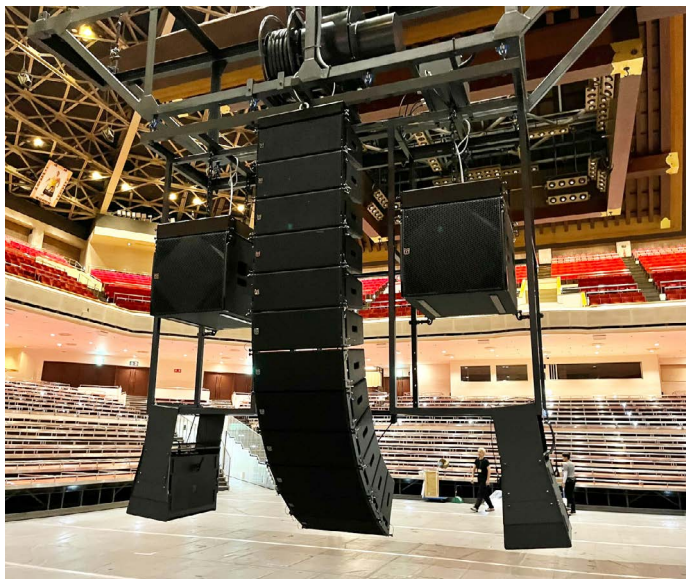
"We're thrilled to welcome Leo to the KV2 family," said CEO, George Krampera Jr. "His technical expertise coupled with his passion for high-fidelity sound make him an ideal choice for the role. As technical support director and product specialist, Leo will be supporting specifiers and integrators in system design and commissioning, in addition to running training courses and providing technical support where it's needed. We set great store by our ability and commitment to providing top-notch technical support and education, so we're delighted to welcome Leo aboard."

Tanzil is equally pleased to be joining the KV2 team. "Pursuing perfect sound has been my lifelong passion," he declared. "That passion has been my driving force for over 20 years, and I firmly believe that science and engineering can fulfil the quest for perfect high-fidelity audio. At KV2 I have found a group of like-minded people who are as passionate about good sound as me and have the engineering skills to back it up."

I hope that my experience across a wide range of applications, from houses of worship to hospitality and the performing arts will help build KV2's business across the APAC region, all the while enabling me to pursue my goals of continued learning and perfect sound!"

[KV2 Audio](#)

Ryōgoku Kokugikan Audio Design Caters to Multipurpose Requirements with Martin Audio



JAPAN: Ryōgoku Kokugikan, also known as Ryōgoku Sumo Hall or Kokugikan Arena, is the only building dedicated to Sumo, Japan's national sport, and has been home to many historic initiatives.

The origins of Sumo began some 2000 years ago but in its modern form, it only took hold around 300 years ago. Once established in Japan, it has been passed down from generation to generation.

Due to its iconic status, everyone in Japan has heard of the Tokyo-based Ryōgoku Kokugikan. Sumo wrestlers practice here daily, dreaming of winning the Gift Cup, and since Sumo is Japan's national sport, His Majesty The Emperor sometimes comes to watch and has seats reserved for him.

But Ryōgoku Kokugikan also hosts various other events during periods when Sumo is not being held, including wrestling, concerts and corporate events.

Sumio Akashio, sound engineer at the Ryōgoku Kokugikan, said the arena therefore required a PA that could reproduce, intelligibly, everything from quiet to loud sound reproduction for wrestling in the ring. It also needed to be heard right up to the last row of seats on the second-level balcony. "In such a way we can create a realistic atmosphere and overcome all the challenges."

In planning the system upgrade Takahisa Ota from Audiobrain conducted a simulation, using Martin Audio's proprietary DISPLAY 3 modelling software, and found that the manufacturer's WPS line array, in the correct configuration, would be best suited to accommodate the various events hosted in Kokugikan—in terms of size, weight, clarity, and SPL. In addition to WPS, they added an SXCF118 cardioid subwoofer to provide the deep bass that had been requested. Some 80 x WPS cabinets and 8 x SXCF118 subs were deployed in total.

Martin Audio's TORUS also features the shape of 8 x T1215 (four pairs per side) for nearfill. By being directed downwards they can deliver sound without reflections to the VIP areas, where it had previously been difficult to achieve clarity due to the influence of the roof, suspended above the ring. No other satellite speakers are now required, and each pair can be used to control the SPL within its specific area as required.

Takahisa Ota, who carried out the installation, made the necessary system adjustments to ensure coverage, consistency and control throughout the stadium. "In the vertical pattern, I managed to maintain clarity at the rear while at the same time suppressing any reflections."

Martin Audio

LED CHINA 2024 Lights up for LED and AV Industries



CHINA: LED displays are on the cusp of a 3D video revolution. Various application markets have ventured into this exciting terrain, and numerous technologies have emerged to propel this transformation, such as XR solutions for filming, broadcasting, naked-eye 3D for advertising media and staging, LED cinema, giant sphere LED ball for architecture, etc. A recent example of this transformative potential can be seen in the unveiling of 'the Sphere' in Las Vegas.

Embrace the 3D era with LED CHINA 2024

In 2024, LED CHINA will introduce a new exhibition theme: "Embracing 3D Conversion and Exploring the World of LED Displays and Their Verticals." The event is scheduled to take place at the Shenzhen (Futian) Exhibition & Convention Center from February 26th to 28th. Co-located with Pals Asia 2024 (Professional Audio and Lighting Show, Asia 2024) and Meta Esports Show 2024, it offers a comprehensive platform that will encompass video, sound, and light, while featuring the latest gear and technology trends. The exhibition profile includes LED displays, XR solutions, naked-eye 3D displays, mini/micro LED technology, digital signage, laser projection, LED lighting and signage, stage lighting, audio-visual systems integration, VR/AR/MR, and esports equipment.

Explore the world's Largest LED manufacturing hub

For those seeking reliable hardware solutions for LED displays, look no further than the world's largest LED manufacturing hub: Shenzhen, China. LED CHINA takes place in Shenzhen, offering visitors a unique opportunity to arrange factory tours right within the city

after exploring the exhibition. Supported by China's top associations in the industry, including the Mini/Micro LED Display Industry Branch of the China Video Industry Association, the China Entertainment Technology Association, and Esport Entertainment Asia, the event will unite industry leaders under one roof. In 2023, we welcomed industry giants like LEYARD, BOE, HIKVISION, TCL, SKYWORTH, Hisense, bako, Lightlink, Onumen LED, Novastar, Yajiang Lighting, Soundking, and more. More brands are expected to be added to the list in 2024.

Convenient Access with more direct flights

LED CHINA offers excellent connectivity to Hong Kong, ensuring a hassle-free experience for visitors. Located just a 14-minute train ride away from Hong Kong at the "Futian Station," it's a convenient 10-minute walk to the exhibition centre. Being one of China's prominent gateways, Hong Kong offers visitors a seamless experience, thanks to its extensive network of over 1000 international flights.

Experience LED CHINA 2024 as a VIP

Reserve your exclusive spot on our Hidden VIP Visitor Registration Page (<https://www.ledchina.com/en/register-vip/>) and unlock special benefits.

For more information, contact the team at info@ledchina.com or visit the website by clicking the link below.

[LED China](#)

TSTU Stage Craft Commissions an Impressive Inventory Expansion, Complete with the Acquisition of India's First Midas Heritage HD96



INDIA: Ahmedabad based TSTU Stage Craft, also known as Tathastu Sound, is one of the fastest growing technical service rental companies in India; with its impressive tech arsenal and adept team of tech professionals allowing the company to steadily grow its repertoire as a go-to solutions provider for several top acts and performing artists.

In recent times, the company took a bold decision to infuse a sizeable investment into boosting its pro audio capabilities; as they expanded their existing loudspeaker inventory with the addition of a comprehensive HDL 50-A 4k line array system from RCF and an equally imposing AERO line array system from D.A.S Audio. The icing on the cake, however, was the company's maverick choice of bolstering their live mixing potential; as TSTU Stage Craft now stand tall as true trend-setter and proud owners of India's first Heritage HD96-24-CC-TP digital mixing console from MIDAS.

"TSTU Stage Craft has grown into a top-tier rental solution company; and in response to the growth in the number of live events happening in our region, we made a strategic decision to expand our technical capabilities with the addition of world-class technologies like the RCF HDL 50-A 4Ksystem, the D.A.S Audio AERO system and of course, the beautifully elegant and powerful Heritage

HD96 mixing console from MIDAS, so that we could further consolidate our commitment to providing great event experiences through our unmatched technical prowess," stated TSTU Stage Craft director, Nikhil Patel.

The ace rental solutions provider's recent purchase includes the addition of 24 units of the HDL 50-A 4K active three-way line array modules along with 16 units of the SUB 9007-AS active high-power subwoofers from RCF, and 24 units of the AERO-40A three-way powered line array modules along with 16 units of the UX-218A powered high-performance subwoofers from D.A.S Audio; with both line array systems acquired along with associated rigging accessories, cables, and the works.

Nikhil affirms that he and his team were always set on expanding TSTU Stage Craft's loudspeaker inventory with line array systems that not just offered outstanding performance value, but also excelled across other crucial metrics like logistical efficiency, rigging and tuning agility, and ease of maintenance. He elaborates, "We were truly impressed and blown-away with the on-field performance value of the HDL and AERO systems respectively. Both systems sport their own distinct tonal characteristics while exceeding all performance expectations that one may have from them – be it in terms of power output, coverage, ease of setup and



The HDL 50-A 4K Line array system from RCF.

calibration, and of course logistics and maintenance. As a rental service company when you're busy on the road with back-to-back events, you need to be equipped with technologies and systems that offer all of the conveniences that I mentioned earlier – and I'm happy to say that we found all that we were looking for in the line array systems from RCF and D.A.S respectively. Plus, these line array systems are consistently making a spot for themselves on the riders of reputed artists and performers. So, there's absolutely no doubt in my mind that we're spot-on with our decision to invest in RCF and D.A.S Audio."

Speaking about the acquisition of India's first ever Heritage HD96-24-CC-TP digital mixing console from MIDAS, Nikhil explains that the addition has put TSTU Stage Craft in the unique position of being the first rental services company in the country to offer touring engineers a truly bespoke mixing experience, complete with state-of-the-art world-class features and mix capabilities. "With 144 Input-Channels, 120 Flexible Mix Buses, 96 kHz Sample Rate, 21" Advanced Multi-Gesture Touch Screen, an ultra-modern Graphic User Interface, and Touring Grade features and performance, the Heritage HD96 is a truly marvel of technology. The console is packed with next-gen capabilities like Channel AI which makes the entire mix experience extremely responsive and highly intuitive; while the Flexi-Aux system gives the ability to send aux to aux for group or stem style. Plus, the new 64-bit Graviton summing mix engine with increased dynamic range offers an ultra-smooth operation experience with extreme flexibility while still being delay compensated. In addition

to these, MIDAS has also packed the console with a slew of networking options that makes the system even more solid and reliable. The fact that the Heritage HD96 offers all of these advanced capabilities and more, all whilst maintaining MIDAS's legendary sound quality and impressive effects processing options, has now empowered us at TSTU with the ability to provide mix engineers with a technological masterpiece that will allow them to raise the bar on what they can achieve through their mixes! We're extremely happy with our purchase decision, and we're really proud to be the owners of India's first MIDAS Heritage HD96 console!" he exclaims.

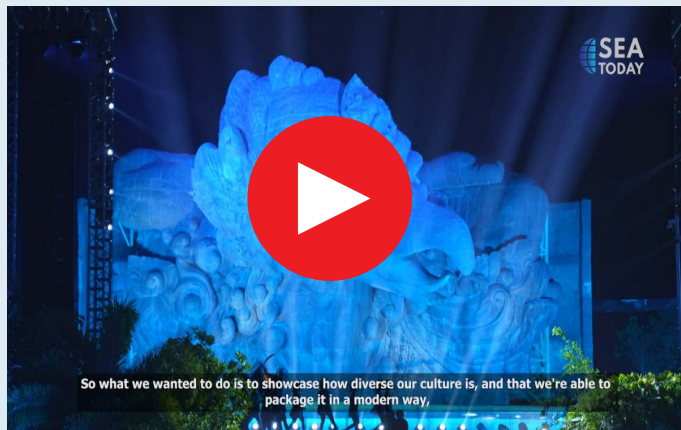
Clearly confident with TSTU's inventory upgrades; Nikhil shares his excitement of a bright future as he asserts that these technological additions will play a vital role in future growth and success of the company. An ecstatic Nikhil concludes, "The addition of the HDL 50-A 4K line array system, AERO line array system and the Heritage HD96 console has not just helped to strengthen our inventory, but has also allowed us the capacity to offer an enhanced level of service to a varying range of clients and markets – from corporate, to touring, to theatrical and much more. I am confident that these technological upgrades will make a significant difference to our business, and offer plenty of opportunities for us to deliver the kind of enhanced event experiences that only we at TSTU Stage Craft can bring together."

TSTU Stage Craft

Hi-Tech AVL

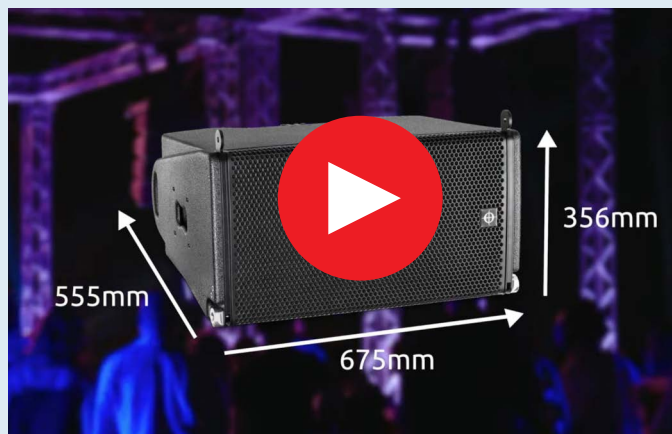
Alphatec

Watch Brompton Technology in Action During G20 Summit



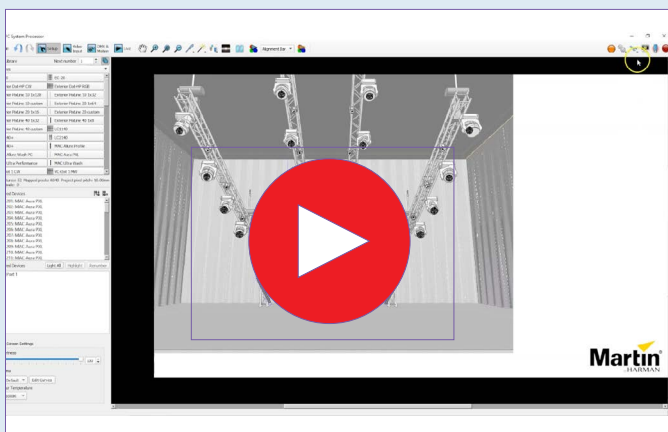
Argo Visual has relied on Brompton LED Processing Technology to provide unparalleled image quality ever since they increased their inventory of LED screens. This was displayed at one of Argo's largest LED projects to date, where they supplied the G20 Presidency Gala Dinner with LED, projection, and video playback equipment.

Learn more about CODA Audio's New Addition to the VCA Family



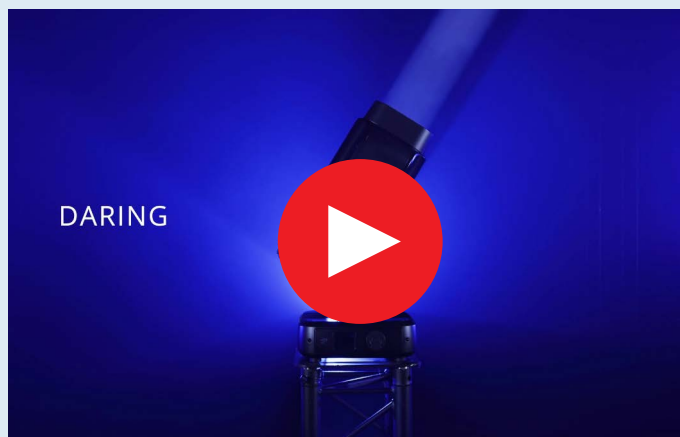
To provide rental companies more freedom and an entirely flexible range of line arrays, CODA Audio's CiRAY offers horizontal dispersion control down to 200 Hz using the same exclusive Coupler technology as the rest of the VCA family.

Tech Tips from Martin Lighting



Professionals from Martin demonstrate some of their most distinctive features in this playlist, which also helps you learn new techniques for utilising their technology. Though we've hand-picked the Background Image Opacity Tip, take some time to browse the playlist; you may discover something interesting!

Ayrton's Rivale Profile Dares to be Different



A highly efficient 450W sealed mono-block LED module with perfect light neutrality, the Rivale Profile is calibrated at 6500K and, regardless of colour combination, its high-definition progressive CMY colour-mixing mechanism produces flawless colour reproduction as soon as the filter is attached.

State of the Industry



I have quite a few exciting topics lined up for the column, but it is the last issue of this year, and I want to take stock of where we are at since I feel it is essential to monitor this and not just run back to a hard desired normalcy. Our industry is back and still trying to reclaim the lost

ground of the pandemic. We are finishing our first full post-pandemic year in this industry in Asia Pacific, and even the last countries to re-open are now fully back on with regular events and shows. I have spoken to a few people from within the industry over the past few months to get their opinions and impressions of the status quo. The consensus is that people feel busier, and colleagues feel they have more and better job opportunities. Part of this situation is based on the fact that a substantial portion of the talent from within this industry has packed their stuff and said goodbye to this industry for good during or after the pandemic. Then, there are real new opportunities simply because of new technological developments.

I have only attended a few trade shows this year, much less than in the years before the pandemic. From the visits this year, those events do not do justice to the live sound sector. The ISE in Barcelona was very good, well attended and quite busy; however, the clientele served there are the AV system integrators, and their business has not suffered as much during the pandemic since many projects moved forward once governments lifted the strict restrictions on the workplace areas. During ISE, I recognized the pitch by more and more life sound companies to shave off some of that market share in the commercial audio domain.

Then next for me, September saw the IBC and the broadcasting market was again very well attended and very busy, and the overall vibe and mood were very positive. However, the broadcasting market never stopped as the life sound sector did, since most broadcasts were still happening, just without audiences

and not much coverage of live sound events, which no longer took place. I have also noticed that companies from within the industry have been more honest and open about their troubles during the pandemic in the first year after the pandemic. This is both good and sad because it means that many have not been honest about this all along.

I am taking stock today in this column because we cannot and should not just try to run back to pre-pandemic normalcy since this does not and will not exist as it was. Now, it is not even enough to know all the technical stuff you have to learn and then maybe learn how to lead a crew and take care of them and how to manage logistics, rigging and sound system tuning, but you also need to learn and prepare if ever something like this will happen again. Over the past twelve months, I have seen little effort in this aspect since most people are happy to be able to work again and to make a living from their profession.

I hope we have a collective learning curve since ignoring the realities will not work in the long run. If you have a severe back injury, like so many of us have had over the years, ignoring it will not make it go away. You need to treat it and fully recover and then change your habits and way of working to accommodate the changes you are facing. On the bright side, if and when you do this, everything becomes more manageable and healthier afterwards.

I have said this too many times already: be aware of marketing and sales talk. Refrain from falling into the trap of ignoring all the signs you are given. Everyone is an integral part of this small industry, and you don't have to follow those who talk the loudest. Do your thing, make up your mind and then follow your path. There is great talent out there, and I have had the privilege of meeting so many of you in the past years. Please do keep up the excellent work, but don't forget to look after yourself very well, since many times, no one else will. All the best.

Join the conversation and share your thoughts with Alex. Alex can be reached at alex@asaudio.de

Martin All-in-One P3 System Optimizes Fixture Performance and Simplifies Workflow



Martin's **P3-175** and P3-275 System Controllers and P3 Software Update 6.0.0. are the latest generation of P3 tools tuned specifically for Martin fixtures.

P3 System Controllers offer tight, accurate and full control over P3-enabled fixtures from one central location. Automated mapping, scaling, configuring, and addressing of fixtures saves time and eliminates the need to address fixtures locally.

The new Martin P3-175 and **P3-275** System Controllers support video input up to 4K over HDMI and NDI with significantly increased output capacity. Real-time previews illustrate how DMX controls and video will be rendered on the fixtures even when using a mix of control methods. The new hardware is also fitted with the latest processors to deliver a smooth and responsive user experience.

Integrating with third-party software via the MVR standard, P3 System Controllers can import and export industry-standard files eliminating duplicate actions, and enabling designs (and patches) to be shared between lighting consoles, CAD programs, visualizers and the Martin P3 ecosystem.

Undergoing major upgrades, the new **P3 Software Update 6.0.0** presents an all-new, redesigned, modern interface which is ergonomic, smooth, and responsive with better support for darkened front of house and other performance-monitoring environments. P3 System

Controller Software 6.0.0 enables real-time feedback and remote system monitoring empowering system integrators to diagnose problems before they occur.

Featured Highlights Include:

- Mix DMX and Video Control – Allows LDs to create unique looks by entering parameters or by sending content to fixtures.
- Time-Saving MVR Integration – Mapping and patches can be exported to third-party lighting consoles, visualizers, and CAD programs. There is no need to re-create a system repeatedly using different software packages.
- Remote Addressing and Setting – Eliminates the need to physically access fixtures to address and configure each one locally via the display.
- Real-Time Monitoring – Offers a complete view of your entire system to diagnose any issues.
- System-wide Synchronization – Delivers “perfect” performance across the entire system, without visible lag and latency issues.
- Live Preview – Visualize results during pre-programming without connecting actual fixtures.

Version 6.0.0 of Martin P3 System Controller software is available for the brand new P3-175 and P3-275 System Controllers, but also for the legacy P3-050, P3-150 and P3-300 models, extending those units with all the new features and enhancements.

Version 6.0.0 is also available for the P3-PC version, running on any Windows computer and allowing lighting designers to get started easily and for free. It can be used as a basic mapping tool; addressing tool; Art-Net / sACN to P3 bridge; or as a full P3 control solution – mixing lighting controls and video content into fixtures. **P3-PC System Controller Software 6.0.0** is now also compatible with Windows 11.

Martin/P3 System Controller Family

Version 13.1 of Clear-Com Eclipse HX Digital Matrix Now Available



Clear-Com's Eclipse HX Digital Matrix Version 13.1 delivers important compatibility with NMOS4 and NMOS5 standards, ensuring interoperability and discovery across networks, as well as support for Clear-Com's [2X10 Touch Desktop Panel](#), a 20-key, IP-based panel that provides a compact, intuitive desktop option for users of [Eclipse HX](#), supported by EHX 13.1.

In EHX 13.1, Clear-Com delivers unique role-based logins, streamlining configuration and allowing users to quickly move from device to device without missing a beat. System administrators can set a single key to contact a user regardless of the device they are logged on – saving the effort of having to configure several keys in the instance that a user moves between several devices during production. On top of this, the user

experience is greatly improved, with a simplified login to whichever endpoint device is closest at hand, with keys that autofill their specific configuration allowing a “follow-me” operation.

Clear-Com continues development around the ST2110-30 standard as NMOS (Networked Media Open Specification) IS-04 and IS-05 are being added to EHX 13.1. IS-04 relates to the Discovery and Registration of devices on a network and IS-05 handles the device connection and management. The addition of these specifications will make it simpler and much faster when setting up an audio network of IP-capable devices.

[Clear-Com/EHX 13.1](#)

CODA Audio CiRAY Provides Horizontal Dispersion Control Down to 200Hz



As the third element of **CODA's VCA 'family'**, alongside ViRAY (dual 8") and the flagship AiRAY (dual 12"), CODA Audio's CiRAY compact full-range, dual 10" line array system has been developed to deliver flexibility for rental companies and complete a full spectrum of line array products for installation.

As well as building further upon CODA's revolutionary patented technologies to offer an ultra-light, ultra-compact standalone system, CiRAY can also work seamlessly with its 'siblings' for optimum mix-and-match configurations to obtain the best sonic and logistical outcomes for a host of live and installed applications.

The VCA range shares CODA Audio's unique technologies, including the patented Dual Diaphragm Planar Wave Driver (DDP), Coupler technology and FS-FIR Filters, with CiRAY also benefitting from the addition of CODA's very latest Dynamic Airflow Cooling (DAC).

From a setup point of view, CiRAY is "one of the quickest and most efficient systems now available". The ultra-light, ultra-compact loudspeakers are transportable as a 6-pack on a specially designed dolly with covers and LID technology for efficient truck storage. An overall hang of 12 loudspeakers (2 x 6) can be set up in minutes by just a single operator, with all cabinets set for their relative angles to drop into place once lifted. Three cabinets can be powered from just one channel of

CODA's LINUS14 DSP amplifier – thus only one amplifier is required for a full hang of 12 using an industry-standard power amp cable.

CiRAY utilises the same unique Coupler technology as the rest of the VCA family, giving horizontal dispersion control down to 200 Hz with coverage options of 60°, 90°, and 120°. CiRAY comes with the added advantage of easy access, using CODA's Quick Release grille and the ability to change horizontal dispersion instantly using CODA's proprietary Instafit Magnetic Couplers.

Compatible with the VCA family, both acoustically and mechanically, the SC2-F dual 15" sensor-controlled low-frequency extension overlaps the VCA line arrays in the 35-200Hz range. The SC2-F can be strategically deployed in one of many ways – either to seriously increase the low-frequency impact and headroom of the system in a long-throw configuration or to provide an accurate cardioid dispersion pattern over the entire frequency range when flown behind the line array. Additionally, the SC2-F could be utilised in a beam split configuration, making the system adaptable to almost any application.

Completing the VCA range with CiRAY reflects CODA's recognition of its customers' need for flexibility, longevity and return on investment. Instead of the traditional (and expensive) route of creating separate systems for designated applications, CODA Audio seeks to embed compatibility in its ranges, allowing in this case one family of loudspeakers to comfortably cater for audiences of a few hundred to tens of thousands.

Typically, ViRAY works for venues up to 5000 capacity, CiRAY handles up to 20,000 and the long-throw AiRAY handles events up to and over 50,000. However, the compatibility of the VCA range allows the configuration of bespoke systems by mixing and matching the three elements for optimum performance.

CODA Audio/CiRAY

Ayrton Rivale Profile Comes with Unique Visual Signature for Indoor/Outdoor Use



Ayrton has officially launched its new IP65-rated Rivale Profile, the next in its Classical IP65 3 Series, which includes the Karif LT, and the first ultra-equipped luminaire in Ayrton's brand new 'ULTIMATE' series. Developed for use mixed-use, indoors and outdoors, and in all conditions, the Rivale Profile weighs only 28kg and with continuous rotation of the pan and tilt movement, it allows you more creativity and freedom in your lighting design.

Rivale Profile is fitted with a brand new high-efficiency 450W sealed mono-block LED module, calibrated at 6500K, that offers a luminous flux of 30,000 lumens with optimal positioning on a black body to obtain perfect light neutrality. The proprietary optical system has 13 lenses, delivering a 13-to-1 zoom ratio and zoom range of 4 to 52°. Equipped with a 160mm frontal lens, Rivale Profile can produce an ultra-intensive beam of 4°, close to that of Ayrton's famous "LT" range.

Rivale Profile has adopted a progressive CMY colour-mixing system that delivers perfect colour reproduction as soon as the filter is inserted, regardless of the colour combination selected. An extended progressive CTO lets you fine-tune the colour temperature from 2700K to 6500K, and a seven-position colour wheel completes the palette of tools dedicated to creating colour.

For greater flexibility of use, Rivale Profile allows subtle adjustment of the colour rendering index from 70 to 86. The framing section permits accurate positioning of each shutter blade on a 100% surface area with a rotation of plus-or-minus 90°. A fast 15-blade iris diaphragm with an aperture range from 15-100% enables beam optimisation in Beam mode.

The image section of Rivale Profile includes 15 interchangeable high-definition glass gobos on two wheels: one rotating wheel with seven positions and one fixed wheel with eight positions. The effect section is fitted with a monochromatic animation wheel, two combinable rotating prisms and two frost filters. Its ergonomics have been completely redesigned with four highly integrated handles that make installation easy. In the ULTIMATE series, every detail counts.

[Ayrton/Rivale Profile](#)

Beyond The Stage

Exploring India's dynamic event landscape In 2023, it's resounding impact on the adoption of world-class technologies, and what lies in wait for 2024

by Elton Noronha



Weddings in India contribute significantly to the event and entertainment sector. A total of 3.5 million weddings ceremonies have been confirmed to take place between 25th November and 31st December 2023 alone; contributing over INR 4.2 Lakh Crore (roughly USD 72 Billion) to the nation's economy.

Global economists affirm that India currently stands as the 5th largest economy in the world; with the nation poised to capture the #3 spot by the year 2030. And while large-cap sectors such as manufacturing, IT and oil refineries have been pivotal in propelling this transformative growth; the government in recent times has also acknowledged the invaluable contributions of the event and entertainment sector in reinforcing this upward trajectory. In fact, recent surveys conducted by government recognised organisations suggest that a total of 3.5 million weddings ceremonies have been confirmed to take place between 25th November 2023 and 31st December 2023 alone; contributing over INR 4.2 Lakh Crore (roughly USD 72 Billion) to the nation's economy. Added to this is the plethora of entertainment

events like music concerts, festivals and the likes; almost all of which have seen a stark improvement in quality and scale of the overall production value.

These numbers stand as a fantastic indicator of the nation's unrivalled potential and capacity for growth within this sector, which make it a prime market for manufacturers of live event technologies across product segments such as sound, lighting, LED screens, projection mapping, staging, and rigging. And the proof of this can be found in the market's performance over 2023.

The Backdrop

In a nation where diversity echoes in every corner, India's live event landscape is not merely an audio-

visual spectacle but a living and dynamic canvas for storytelling that keeps evolving in sync with the zeitgeist of creativity. Event producers, production experts, technical directors and the likes have managed to find a synchronous collusion that allows them to come together as the architects of breath-taking narratives that transcend the ordinary; with the year 2023 beating to the rhythm of uniqueness and bespoke experiences that have left indelible imprints on the audience's collective memory. And the impact of this evolution has resonated profoundly with event equipment rental service providers; as the demand for unparalleled experiences prescribed the need for state-of-the-art technologies across sound, lighting, LED screens, projection mapping, staging, and rigging to be at the epicentre of this transformative pave.

With cutting-edge technology no longer being viewed as a luxury but an imperative for those who seek to carve their niche in this ever-expanding market; equipment rental companies, irrespective of their scale, were not merely observers but active participants in the technological renaissance. The industry has witnessed a seismic shift, as these companies – ranging from behemoths to nimble innovators – have embraced the latest in world-class technologies with open arms. The allure of being at the vanguard urged not only the giants but also mid and small-scale rental companies to invest in state-of-the-art equipment. With the trend in 2023 leaning towards precision and dynamism to foster interactivity and enhance engagement; several rental companies expanded their respective inventories with cutting-edge technologies and systems across sound, light, LED, projection, staging and rigging, that not only afford better features and enhanced capabilities; but also transcend conventional boundaries to create wholesome event experiences that enrapture audiences. And the common feedback from such users is that this collective pursuit of cutting-edge technology is not just a race; it's a shared commitment to elevate the entire industry and redefine the benchmarks of excellence.

The Sonic Revolution

Challenged to keep pace with ever-evolving demands of artists and their personal engineers; 2023 saw several rental service providers upgrading their live sound inventory with state-of-the-art systems capable of delivering transformative experiences through



Bhopal based Phoenix Networks acquired Central India's first DiGiCo Quantum 228.

captivating atmospheres. The demand for state-of-the-art audio systems contributes to a notable increase, with figures showing an approximate 18% rise compared to 2022.



TSTU StageCraft acquired India's first Midas Heritage HD96 console.

Digital mixing consoles like the **Quantum 338 from DiGiCo** and the **S6L from AVID** witnessed a tremendous surge in demand, with sales figures indicating an approximate 24% increase compared to 2022; thereby underscoring a significant industry shift towards advanced, feature-rich consoles that cater to the evolving needs of live sound professionals. For example, the list of proud new owners of the Quantum 338 system alone comprises industry heavy-weights like **Electrocraft, Phoenix Networks, J Davis Prosound & Lighting, Sound.Com**, and several others; while the S6L list includes the likes of noteworthy companies such as **NJSM Pro, GSL Pro, J Live, Pro Sound**, among others. Alongside, the year also saw the **India's first Midas Heritage HD96 console** being acquired by Ahmedabad based rental service provider **TSTU Stage Craft** (also known as Tathasthu Sound); while consoles like **SSL's L200+** also witnessed a fair amount of success within

the market. Some key purchase considerations included assessing consoles on parameters such as cutting-edge signal processing capabilities (including high-resolution audio processing and sophisticated DSP algorithms), intuitive and user-friendly Interfaces, extensive and flexible routing options, modularity with expandable input/output options, remote control capabilities with robust networking capacities, seamless integration with recording softwares and DAWs, compatibility with a wide range of audio equipment and protocols, high quality pre-amps and converters, comprehensive live monitoring and metering capabilities and capacity for advanced automated mixing and scene recalls.



Ahmedabad based rental solutions provider J Live holds the largest inventory of L-Acoustics K2 in India.

On the other hand, line array systems, ranging from large-format setups like the **Panther system from Meyer Sound, KSL system from d&b Audiotechnik, VTX A12 system from JBL by Harman Professional, and the K2 system from L-Acoustics**; to smaller-format systems like the **Aero and Event series from DAS**

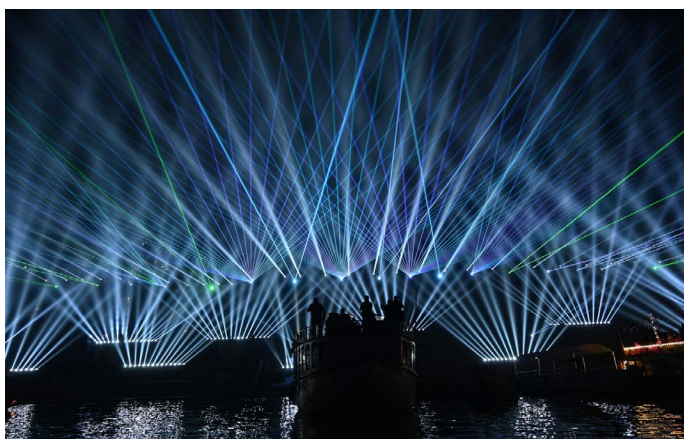
Audio, and the **KARA II system from L-Acoustics** – too have experienced resonating growth; with sales figures hinting at a minimum approximate of 15% increase in 2023 compared to the previous year. A good example of how rental companies have directed their focus on reinforcing their inventory with world-class line array systems is that of Ahmedabad based ace rental solutions company **J Live**, who now hold the distinction of having the largest inventory of K2 line arrays in the country after an additional round of investment that culminated in 2023. Reflecting a robust demand for versatile and scalable audio solutions, both in large-scale productions and more intimate settings; purchase decisions were noted to be influenced by metrics such as precision engineering of the speaker arrays, capacity for scalability and modular designs, directivity precision complete with adjustable dispersion patterns, sophisticated array processing capabilities, seamless integration with software control platforms, intelligent system control and monitoring features that provide real-time feedback on system health, advanced low-frequency management capabilities, innovative rigging and flying options for easy and secure installation, ease of logistics and maintenance, and of course, high power handling capabilities and impressive SPL delivery.

In tow, wireless systems that encompass wireless microphone systems such as the **Axient Digital from Shure and Digital 6000 from Sennheiser**, along with in-ear monitoring systems like the **2000 IEM series from Sennheiser and PSM series from Shure** – also witnessed a very encouraging spike in sales, with a reported approximate of 15% increase in 2023 compared to 2022 unleashing a new era of connectivity in live sound. Features like advanced frequency diversity and coordination, spectrum efficiency, advanced encryption and security, intelligent interference-free operation, high-fidelity transmission, low latency, reliable connectivity and range, etc collectively positioned wireless systems as indispensable tools for live sound professionals and performers; as they offer a combination of cutting-edge technology, reliability, and customization capabilities.

Dynamic Illumination Takes Centre Stage

Moving beyond traditional static lighting setups, intelligent lighting systems found themselves to be a

staple for a vast majority of events that took place in 2023; thanks to an enhanced level of programmability that they offer, coupled with better value in terms of controllability and responsiveness. LED-based fixtures, with their energy efficiency and versatility, were noted to be the cornerstone of lighting setups; with the demand for intelligent lighting solutions spurring investments in fixtures that offer not just brightness but a spectrum of creative possibilities.



Chawla Movies deploying their inventory of Martin RUSH MH7s for a premium event.

Among the international brands, **Martin Professional's MAC and RUSH series** of products witnessed an encouraging upswing in adoption across the country, whereas **Clay Paky's B-Eye series of moving lights, Sharpy series of moving heads, Xtylos series of Lazer source moving heads, and Tambora series of LED Battens** showcased a confident upsurge. With cost being a key factor; it was quite obvious that investment in such systems were mainly noted from large-scale rental outfits like **Reynold Sound & Lighting, Chawala Movies, Rajan Amplifiers** and the likes. That being said, it must be noted that Indian manufacturers like **LBT and Kadence** have also contributed significantly to the surge in sales of professional lighting in the country; with an expanded range of intelligent lighting product offerings affording rental companies across the board a chance to adopt world-class technologies without having to break the bank. It may also be important to note that 2023 is reported to have witnessed the largest sales of **Kinetic Lighting** systems, with several companies across the country investing in such systems from an assortment of Chinese manufacturers in their attempt to add a new dimension of technological offerings within their portfolio. When looked at from a macro perspective, in total, the

sales figures for intelligent lighting categories indicate an approximate 27% increase in 2023 compared to the previous year.



Chennai based veteran solutions provider Picture Productions with their grandMA3 console.

Another noteworthy point is that of the widespread adoption of the **grandMA 3 series of consoles from MA Lighting** – with 2023 being noted as the most pivotal year for the series product line as well as the brand in the country. Sales figures hint at a whopping 30% increase in numbers as compared to 2022; bearing testament to the consoles' remarkable operational value and sophisticated capabilities that has made it a huge hit with lighting designers across the country.



Spectrum AV deployed their new lineup of fine-pitch LED screens for Amazon Web Services Summit event.

Screening Opulence

Catering to the growing appetite for visually stunning and dynamic events, 2023 saw the power of LED screens

being harnessed to its greatest potential yet; as state-of-the-art LED display technologies capably reinforced not just the visual grandeur of events, but instead played an integral role in the entire process of immersive storytelling.

From ultra-fine pitched LED displays for outdoor use to curved LED displays that wrap around stages to transparent LED screens that create surreal overlays, the quest for uniqueness redefined how audiences perceived and interacted with visuals; with such screens not just being a mere backdrop, but dynamic canvases that transformed events into multisensory experiences.

For rental service providers, this trend translated into a demand for a diverse range of LED screens that go beyond the conventional; the likes of which included flexible LED panels, ultra-high-resolution displays for outdoor applications, and screens with interactive capabilities – all of which became must-haves in the inventory. This is perhaps a key reason why leading service providers like Surya LED Productions, Videowaves, LED Vision and several more directed a sizeable amount of investment into acquiring an assortment of the latest in high-performance LED display technologies.

Sales and revenue figures for 2023 showcase an approximate 33% increase compared to the previous year; with brands like **Liantronics/Esdlumen, Atenti, Delta, Unilumin**, reigning as the preferred investment choice for most buyers in 2023.

Seamlessly Blending Art & Technology

This year was also unique in the fact that event managers leveraged projection mapping to blur the lines between reality and illusion and created awe-inspiring moments that linger in the minds of attendees. Earlier reserved only for large-scale productions; 2023 witnessed projection mapping technologies being deployed extensively for corporate gatherings and private functions like weddings, etc. The year saw a surge in creative collaborations between artists, technologists, and event managers to explore the full potential of this immersive visual technique was definitely a high-point; while on the other hand, it is also important to note that the exponential increase in the

number of government-backed events such as venue inaugurations, monument tributes and grand-scale celebration of national festivals contributed heavily to projection mapping technologies being deployed on a wider and more frequent basis this year.



Synergy Technologies Christie 20k laser projectors at the re-opening of the David Sassoon Library, Mumbai.

Needless to say; the impact of these developments on event equipment rental service providers was profound. With advanced projection mapping requiring state-of-the-art projectors that deliver high brightness, impeccable resolution, accurate colour mixing & representation, and of course, dexterous mapping capabilities; the demand for these specialized projectors, capable of transforming any surface into a canvas for dynamic visuals, was notably on the rise. Sales figures note that high-performance laser projectors like those from **Christie's Griffyn series + M4K RGB series, Barco's UDX series, and Epson's 3LCD range** comprised the favourite picks for buyers in 2023; depicting a transformative increase of approximately 15% compared to 2022 – with key industry players like **Spectrum AV, Synergy Technologies, National Graphics, Modern Stage Services** and more updating their respective inventories with the latest in world-class projection mapping capabilities. Added to this is the increase in adoption of platforms like **Dataton WatchOut** and **Pixera** which are crucial for stable and reliable high-performance projection mapping setups.

The Rise of Smart Stages

The growing importance of dynamic and technologically advanced stage setups to satiate the appetite for more immersive and visually stunning live events has driven the demand for stage automation technologies that not only allow for intricate and dynamic stage designs, but also offer reliable and accurate control – further underscoring the industry's emphasis on safety and precision. Automated rigging systems, robotic stage elements, and sensor-driven automation have now become standard capabilities that producers look for when planning for 'spectacular and breathtaking' event extravaganzas.

While the versatility of stage automation technologies – ranging from turntables for elaborate set changes to stair effects for dramatic entrances – has broadened their applications across different types of events and contributed to increased sales; the introduction of advanced features and technologies in electric chain hoists, stage lifts, and other automation systems has attracted investments from companies looking to stay at the forefront of technological innovation and safety. Brands like **ChainMaster**, **Broadweigh**, **Stagemaker**, and **MoveCat** have managed to make their presence felt within the region, with other prominent brands such as **Tait Towers** and **Kinesys** looking to actively expand horizons within the country.

It is reported that in total, the realm of stage automation witnessed a notable uptick in sales and revenue figures in 2023, recording an approximate 12% increase when compared to 2022. Not only does this signify the industry's recognition of the transformative power of automated stage setups, but it is also indicative of a shift towards more dynamic and technologically advanced stage productions, and the willingness of industry trend-setters to actively engage investments in automation technologies.

A Positive Prelude to 2024?

When amalgamated, the sales and revenue figures from live sound, lighting, LED screens, projection mapping, stage automation, and other pertinent categories portray a robust overall industry growth of 19% in 2023 compared to 2022, which speaks volumes about the resilience and adaptability of the live event

technology sector in India. This growth signifies not only a quantitative expansion but also a qualitative evolution, with the industry embracing cutting-edge technologies to redefine the very essence of live events.

When it comes to the technologies that we can expect in the year to follow; some experts believe that bespoke offerings like spatial audio could make its entry within the live event domain, especially within the realm of mid-size indoor events. Moreover, dynamic lighting setups with intelligent fixtures and the fusion of lighting with other sensory elements will likely continue to keep pace with new technological offerings from brands, while the realm of visual technologies is touted to witness an increased adoption of anamorphic displays, holographic screens and the likes. Furthermore, there is a strong belief that stage automation will continue to grow within the country, as the need for automated rigging systems and sensor-driven automation is believed to become a standard prerequisite for a wide variety of events; with 'truly dynamic and responsive intelligent stages' being the next logical step within this evolutionary path.

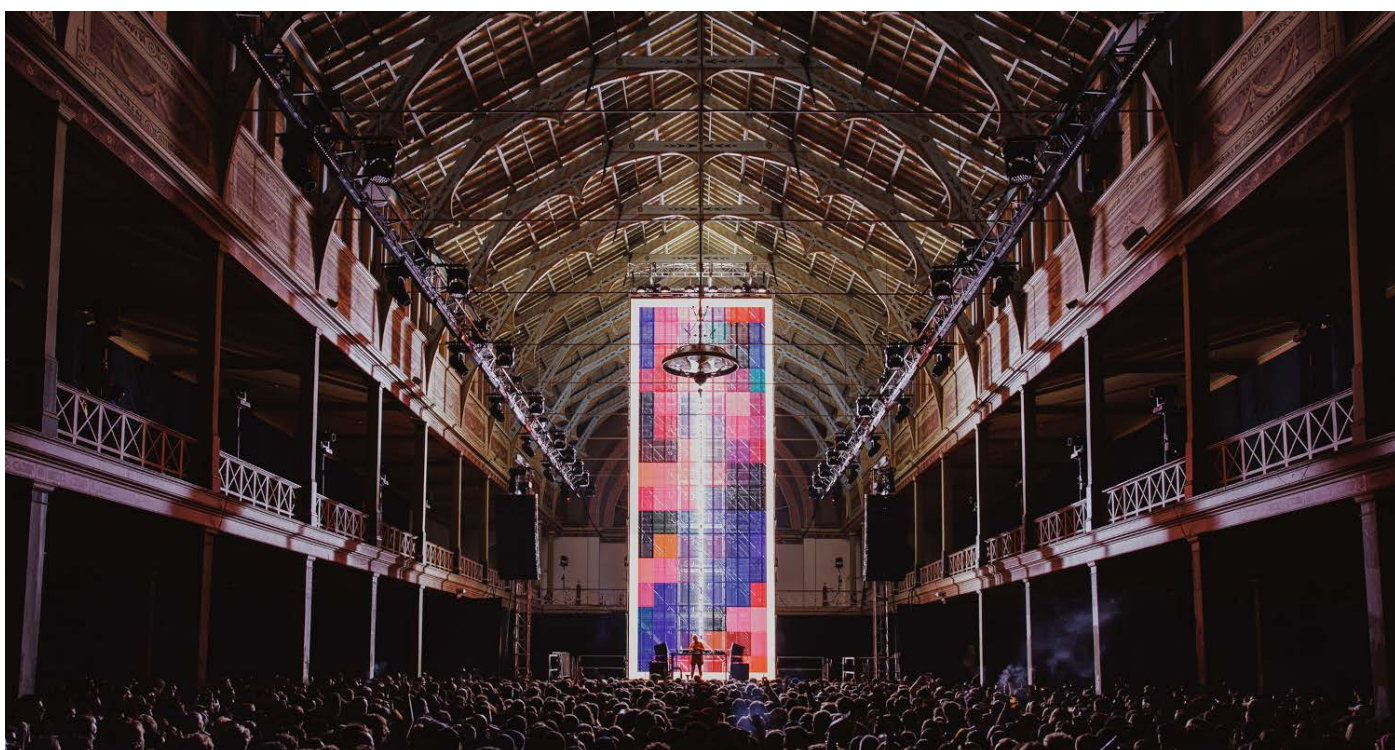
The ever-evolving live event landscape, marked by these key trends, presents both challenges and opportunities for event equipment rental service providers. The challenge is not only to keep abreast of current trends but to anticipate the next wave of innovation; and for rental service providers in particular – flexibility and adaptability will be key as they navigate the technological symphony shaping the live event landscape in India.

All-in-all, the developments of 2023 are expected to foster a culture of integration and synergy in the live event technology industry in India. The convergence of audio, visual, and automation technologies will become more pronounced; with the industry in 2024 looking poised to be a playground for interdisciplinary collaborations, resulting in events that seamlessly blend technology, artistry, and audience engagement. And in a world where uniqueness is the currency of attention, the live event technology industry in India stands as a beacon, illuminating the path to unparalleled experiences.

AUSTRALIA

Iconic Royal Exhibition Building Transformed with GLP for Inaugural Now or Never Festival

GLP JDC1s helped bring the festival's large LED structure to life during the four-day event



©Duncan Jacob (Duncographic).

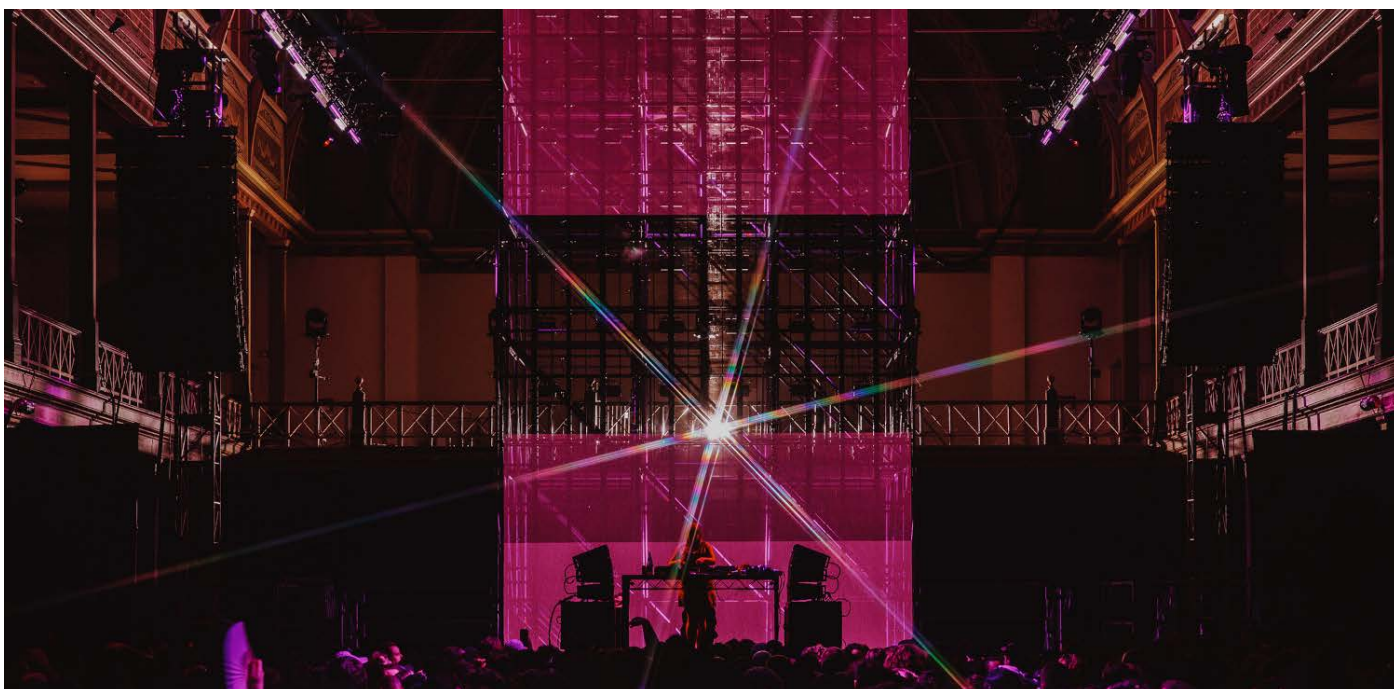
The new Melbourne-born Now or Never festival was recently held across the city and involved several events at the iconic Royal Exhibition Building which Gig Control Australia transformed into an amazing audio, visual, and lighting system.

The creative company once again partnered with Novatech Creative Event Technology, which was contracted to take care of technical supplies for the five separate events held over four days. This was to ensure continuity and close integration, due to the challenging nature of the venue itself.

Aside from the entrance, the visual highlight was the main zone where a 16m-high LED structure backed

the main stage. This was brought to life by 39 x GLP JDC1 hybrid strobes, set in one continuous vertical 16m line to create a 'spine' behind the 6m-wide, 16m-high transparent LED wall. These strobes formed part of a larger GLP inventory specified by LD Nathan Aveling from Gig Control Australia.

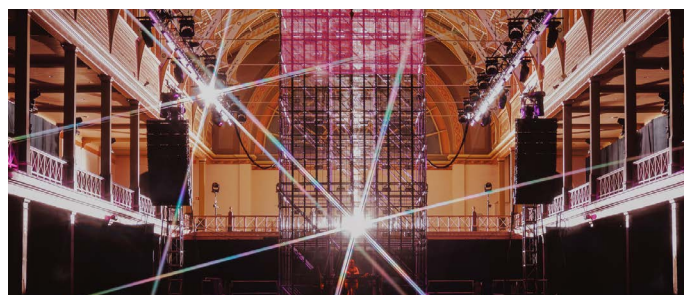
According to Novatech managing director Leko Novakovic, this design concept enabled a backdrop offering either full vision, partial vision and various lighting effects, including the JDC1s, to shine through the LED screen at various times. "They were pixel mapped and complemented the content on-screen and often stood alone as an effect in the centre, or alternatively combined with the other 96 blinders behind



the LED screen,” he said. “The three layers – screen, blinders and JDC1s – were used to give depth to the looks achievable on the stage.” All fixtures were configured in single-pixel mode to give smooth fades and flexibility of effects for programming by Aveling.

In addition, down each side of the room – and set out from the stage – was a 33m-long truss that was covered, end to end, with 33 x GLP impression Bar 20s in a continuous line on each side. “These truss lines also supported other lighting fixtures, with the X4 Bar 20s suspended from the bottom of the truss for spectacular effects, both front-to-back and side-to-side,” continued Novakovic, “thanks to the moving yoke.”

The festival marked the first large-scale live music performance to take place in the historic Royal Exhibition Building in more than two decades. Highlights from the Now or Never music programme under the spectacular cathedral ceilings included an Australian exclusive by American singer, songwriter and producer Kelela, supported by genre-bending avant/R&B musician, serpentwithfeet; a club night “like never before”, co-hosted by Untitled Group, headlined by a live set from German house and techno producer Âme; a unique sensory experience by British electronic duo Autechre, who headlined a night of live electronic music in complete darkness (enhanced with a psychedelic 3D audio-visual experience by Max Cooper); a hypnotising



electronic show from Bristol duo Giant Swan; and a thumping live set by UK-based artist Actress.

Finally, Orchestra Victoria’s take on US composer Steve Reich’s iconic Music for 18 Musicians was accompanied by a 16m-high commissioned video work by multimedia artist Jesse Woolston.

Novatech is a long-term supplier of a wide range of GLP solutions, and the fixtures deployed acquitted themselves flawlessly throughout the four days, confirmed Leko Novakovic. “It was an absolute success,” he determined. “It was monumental to witness Melbourne’s iconic building filled with the sounds of live music for the first time in over two decades. Across all the incredible shows, the familiar walls transformed into a theatre of audio and visual sensations. It enabled stunning visuals, delivering many different looks for each of the artists.”

GLP

INDONESIA

Argo Visual Trusts Brompton LED Processing Technology to Deliver on Large-Scale Projects

Long-time user Argo Visual relies on Brompton's Technology's Tessera SX40 4K LED processors in combination with AOTO LED video walls for high-profile events

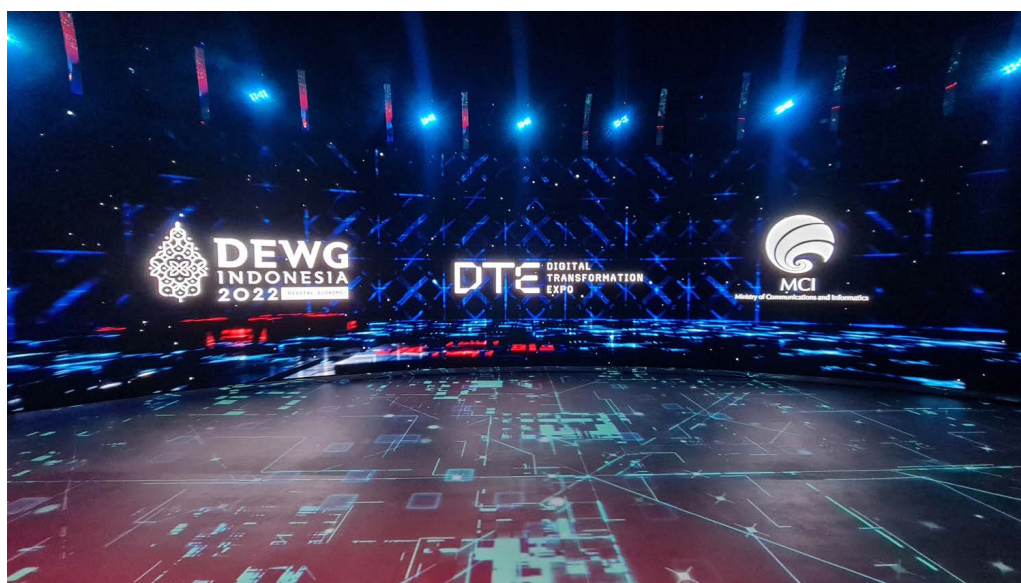


Since its inception in 2007, multimedia rental equipment company Argo Visual has achieved many milestones, including adding LED screens to its inventory in 2012. A significant breakthrough in 2018 saw it also take on big video mapping projects, including the Asian Para Games Opening Ceremony and 2022 G20 Gala Dinner.

Argo Visual's trusted combination is the 'gold standard' of **Tessera SX40 4K LED processors** powering its **AOTO LED video wall**, which delivers unparalleled image quality and stability required for the company's high-profile clients. "Many of the projects we work on are seen on the world stage, so it's absolutely vital that we provide the highest quality equipment," explained Alvin Antono,

the company's owner. As a company, Argo Visual works directly and very closely with other Gold Standard manufacturers in the industry such as Panasonic, Christie Digital, and disguise.

A prime example of this was the G20 Presidency Gala Dinner and the Digital Transformation Expo (DTE), one of the side events of last year's G20 Leader's Summit in Bali. This was one of Argo Visual's biggest LED projects to date where they collaborated with event organisers, Kantara Creative, to provide the LED, projection, and video playback equipment, along with a technical crew to manage the installation and ensure the smooth running of the events.



For DTE, Argo Visual supplied a large video wall comprising AOTO CLDRS Series 1.5mm LED panels, specially tailored for the high-end rental market. "The screen was installed with a slight curve, to show around 8 to 10 minutes of video about the digital transformation of Indonesia," continues Antono. "For the LED video processing, we used 3 x Brompton Tessera SX40 LED processors together with 6 x Tessera XD 10G data distribution units, which offered perfect stability and ultra-realistic image quality throughout the five days of the event."

Antono points out that the AOTO LED panels used on the project were newly manufactured and were calibrated using Brompton's Hydra advanced measurement system, custom-designed for LED panels fitted with a [Tessera R2 receiver card](#) to enable Dynamic Calibration and make them Brompton HDR-ready.

According to Antono, a significant benefit of using Tessera processors and software is the ThermaCal feature that helps to maintain colour accuracy, even when the screen gets hot. Additionally, Tessera software features like OSCA allow for precise adjustments of bright and dark lines to be made between adjacent panels, ensuring a consistent and seamless viewing experience which is especially noticeable with the LED installed in a curved formation.

"Last but not least is the exceptional technical support provided by the Brompton team which has been a valuable resource for our team at Argo Visual, enabling

us to resolve any issues quickly and efficiently," he added.

Organised by the Ministry of Communication and Informatics of the Republic of Indonesia (MCI), last year's DTE was a perfect platform to showcase the progress, innovation, and digital technology utilisation initiated by various stakeholders across the private and public sectors to accelerate a strong post-

COVID-19 economic recovery. One of the contributing factors to the event's success was the effective use of technology, including AOTO screens and Brompton LED processing, which allowed for the beautiful presentation of video material while providing a visually stunning and immersive experience that captivated attendees and helped to communicate the event's message effectively.

"It was truly rewarding to see the public's enthusiastic response to the LED setup we provided for DTE," Antono enthused. "The main screen, which was powered by Brompton LED processing, was unparalleled in its visual quality and left a lasting impression on the audience. Even now, months after the show, we still get positive feedback from the event attendees. This is a testament to the effectiveness of utilising cutting-edge LED processing technology to enhance the overall experience of an event and why we will continue with the trusted combination of Brompton processing and AOTO LED screens."

"It is always exciting to see Brompton's Tessera processors being used at high-profile events, where performance needs to be perfect," concluded Elijah Ebo, director of APAC Operations at Brompton. "We are grateful to Argo Visual for placing their trust in our LED processing equipment. In return, we work hard to provide unwavering support to our partners, offering them Brompton's renowned 24/7 customer service, regular product update sessions and trainings, as well as other resources to ensure their success."

[Brompton Technology](#)

INDIA

Navratri Celebrations Ascends to New Heights with Phoenix Networks & Meyer Sound Panther

This event in particular marked a historic moment for Phoenix Networks, as it became the first-ever open-to-public event where the company deployed their prized PANTHERs

by Elton Noronha



Gujarat's Premier Navratri Celebrations organized by the Rotary Club of Bhuj reaches new heights, as Phoenix Networks deploys their formidable PANTHER Line Array System for the very first time for a public event, and receives heaps of praise for their ingenious and meticulous approach to achieving sonic excellence.

The vibrant tapestry of Hindu culture is woven with a myriad of festivals, each celebrating different facets of life and spirituality. Among these, Navratri stands out as a radiant and joyous occasion, marking the triumph of good over evil; with the festival spanning nine nights dedicated to the divine feminine in various forms – each representing strength, wisdom, and prosperity.

This year's Navratri celebrations reached new heights, both metaphorically and literally, as the Rotary Club of Bhuj in Gujarat orchestrated a 10-day cultural extravaganza at the iconic Sandalwood Villa & Clubhouse Grounds in Mirjapur. Nestled in the heart of Gujarat, this sprawling venue, measuring a colossal 550 feet in length and 260 feet in breadth, set the stage for a celebration of music, dance, and devotion.

The cultural confluence witnessed performances by renowned artists, including the mesmerizing dhol virtuoso Aslam Dafrani of Hanif-Aslam fame, and soul-stirring singers Firoz Ladka, Amber Desai, Yasita Sharma, and Pallavi Dabholkar. The musical ensemble accompanying these greats was nothing short of



spectacular, featuring an eclectic mix of instruments that included the likes of a complete Pearl Reference Pure drum kit, numerous keyboards, a Kittar, bass guitar, trumpet, banjo, saxophone, and a captivating array of wireless dhols and 'puneri' dhols.

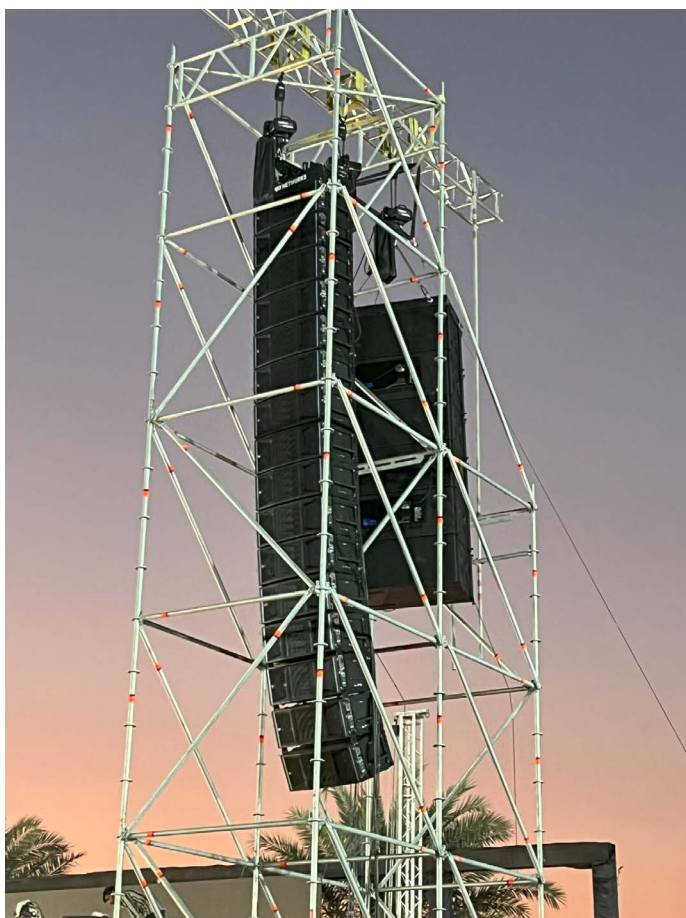
High-energy performances notwithstanding; the undoubted unsung hero of this grand celebration was the meticulous and ingenious technical production of the event, which was expertly planned and executed by Phoenix Networks – a top-tier professional rental services company synonymous with providing world-class equipment and technical expertise. And while Phoenix Networks holds several distinctions, among which is the fact that they were the first company in India to acquire Meyer Sound's esteemed PANTHER line array system; this event in particular marked a historic moment for the company, as it became the first-ever open-to-public event that the company deployed their prized PANTHERs in spectacular fashion that did absolute justice to the unbridled potential and power of the system.

"This was the perfect platform for us to showcase the true potential of the PANTHERs as the Navratri Celebrations organized by the Rotary Club Of Bhuj is

by far one of the most prestigious and grand events to take place in the entire region. The sheer expanse and scale of the event was so magnanimous, that it not just presented us with the opportunity to demonstrate what the PANTHERs are capable of achieving, but also set the stage for our team of wonderfully talented and astute crew members at Phoenix Networks to shine bright with their impressive technical expertise and skill" co

The planning and execution of the sound reinforcement solution at the heart of this 10-day long celebratory event were nothing short of novel and out-of-the-box; as the team of experts at Phoenix Networks embarked on a journey to create an immersive auditory experience that would envelope the massive audience space without the need for additional delay sound reinforcement systems. Starting off with Meyer Sound's advanced MAPP3D software, the team meticulously crafted a map file, laying the groundwork for the perfect sound reinforcement solution that eventually saw no delay reinforcement solution being deployed whatsoever, despite the massive expanse of the ground.

The team then referenced the extensive MAPP3D analysis, and subsequently decided to fly the PANTHER line array system in all its glory at an impressive height of



42 feet; with 16 units of the PANTHER line array modules suspended on each side of the stage. The decision to do so not only helped team Phoenix Networks to guarantee remarkable projection, coverage, and linearity but also ensured that a substantial amount of headroom was left for mix engineers to elevate volume levels without compromising on clarity.

Furthermore, to enhance the low-frequency fidelity, Phoenix Networks adopted a truly ingenious and unique approach, as they decided to 'fly' six units of the compact yet powerful 1100 LFC subwoofers per side in a cardioid pattern; with this strategic move not only ensuring true linearity but also assertively ensuring that every beat resonated powerfully reached even the farthest corners of the vast ground with consistent projection and impact. This was the first time in known history that the 1100 LFC subwoofers were ever flown for an event of this size and magnitude; and this calculated move created an atmosphere that was not just sonically enchanting but also visually breath-taking.

Providing some much necessary insight on the reasoning behind this novel approach, Animesh explains, "Considering the sheer expanse of the ground and taking into account that we aimed to have no delay reinforcement solution whatsoever, we tested out quite a few configurations for the subwoofer placements and found that there was cancellation of the subs along centre-line of the audience space, while also noting a considerably high level of back rejection. We therefore tried configuring the subs in a cardioid pattern and also angling them to fire slightly outward. It was first time ever that we had tried this out, and the pressure projection readings turned out to be much better. Hence, we decided that we would fly the 12 subs in the same configuration but at a height of 39 feet, which allowed for better projection and coverage, while opting to also have 6 subs on the ground in front of the stage to further enhance the overall low-frequency experience for the audience."

While the addition of six ground-stacked 1100 LFC subwoofers did bring together a magnificently impactful and 'tight' low-frequency fidelity experience; the auditory landscape was further enriched by eight supremely compact LINA line array modules from Meyer Sound, which were strategically placed as the center-fill reinforcement. The result was a breathtaking symphony of sound that resonated with unparalleled clarity, power, and intelligibility, captivating the audience from every angle.

Furthermore, to perfectly complement this cutting-edge loudspeaker solution, Phoenix Networks selected DiGiCo's flagship Quantum 338 digital mixing console and the renowned SD10 digital mixing console for the FOH and Monitoring stations, respectively, complete with 2 units of the SD Racks matched parallel with Optocore connectivity.

The commitment to excellence didn't stop with the audience; as the artists and performers on-stage received equal attention. Team Phoenix Networks equipped the stage with an almost un-ending array of world-class microphones, including the Shure Beta 52A and Beta 56A, Audix DP7, Sennheiser Neuman's clip-on microphones, Sennheiser 6000 wireless solution, and Shure's Axient Digital system. A total of 32 channels of Sennheiser 2000 In-Ear Monitors provided artists with a personalized monitoring experience, while eight MJF



210 wedges from Meyer Sound served as the primary floor-monitoring solution for the main artists to provide them with an extremely precise and nuanced feel of their performance. Alongside, 16 units of JBL's VRX 915M two-way stage monitors acted as the floor-monitoring solution for the band members, which allowed them to partake in a truly immersive performance experience.

Needless to say; the 10-day long Navratri celebratory extravaganza at the Sandalwood Villa & Clubhouse grounds were nothing short of spectacular, as the audience and performers alike, found themselves immersed in an enchanting sonic tapestry that is sure to remain etched in their hearts and minds for years to come. Senior members of the event's organizing committee at the Rotary Club of Bhuj seem to resonate in agreement, as one of the distinguished members commented, "The meticulous planning, innovative solutions, and unwavering commitment to delivering a sonic spectacle by Phoenix Networks has undoubtedly transformed the Rotary Club of Bhuj's Navratri celebrations into a true auditory masterpiece. The fusion of traditional cultural celebrations with cutting-edge audio technology created an experience that that we've



never had before, and we were so pleased to see all our club members, guests, and performers enjoying the true spirit of Navratri. Kudos to team Phoenix Networks for their exemplary passion and commitment!"

At the end of it all as the echoes of the celebration faded, it's safe to say that the impact of this harmonious extravaganza will resonate far beyond the grounds of Sandalwood Villa, as it leaves an indelible mark on the landscape of live sound production.

Phoenix Networks

SINGAPORE

L-ISA Loudspeakers Complement Gamer Experiences during Inaugural Olympic Esports Week

J5 Productions deployed L-Acoustics' A Series in an immersive hyperreal sound configuration designed and mixed by sound designer Jeffrey Yue



Created by the International Olympic Committee (IOC) in collaboration with various international sports federations and video game publishers, the first-ever Olympic Esports Week was hosted in Singapore's 12,000 sqm Suntec Convention & Exhibition Centre.

The culmination of global qualifying rounds over the previous months involved a four-day event of rounds of console, mobile, and PC games as well as VR sports such as Taekwondo, cycling, and archery. Esports gamers and VR athletes from around the world competed live to an audience of 20,000 attendees.

With varying content throughout the program, the

Olympic Esports Week posed a challenge to the audio team. As is traditional in any Olympic event, the competition was bookended by opening and closing ceremonies. Yet, unlike most Olympic events, these ceremonies were presented in L-ISA Immersive Hyperreal Sound.

With a festival-like atmosphere, the entertainment that transpired between the main competitions included live DJ sessions and booths hosted by developers and publishers containing interactive gaming stations where gamers and esports fans could partake in their competitions. Everything was also streamed live to the [IOC's YouTube channels](#).



Presplay, Singapore's live event and theatre company, known for producing notable local events like the Singapore Bicentennial and the WTA Finals, led the creative production for the week-long Olympic event. Presplay turned to sound designer Jeffrey Yue of **Ctrl Fre@k** to create the sonic atmosphere. A technical brief from Presplay creative director Beatrice Chia-Richmond showed Yue that the event would challenge optimum sound design. "The stage design included three massive LED screens stretching across the entire width of the main stage. My sound system design needed to complement these elements without interfering with audience sightline," he explained.

Yue knew that lengthy arrays of loudspeakers in a left/right configuration would not provide optimal coverage to the wide audience seating area. He also needed to contend with height limitations in the hall. These challenges sparked an opportunity for Yue to design an L-ISA immersive loudspeaker configuration, using smaller hangs spread above the wide screens, giving the opening and closing ceremonies the full benefit of spatial sound and creating an immersive atmosphere worthy of the best gaming experience.

The ceremonies featured in-person and virtual speeches from the IOC and Singaporean dignitaries, alongside dance performances and sets from Shigga Shay and



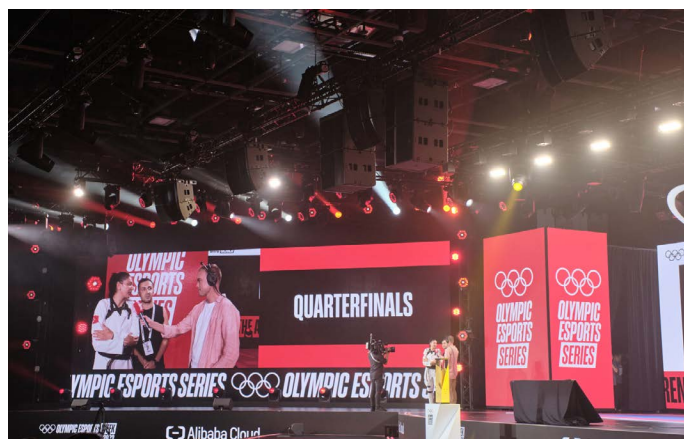
Aisyah Aziz. The multi-media spectacle needed to be a visual feast. Yue knew that L-ISA spatial technology would deliver an equally impressive audio fit for an audience accustomed to the latest audio and visual technology. "If we think about audio in gaming today, it's immersive. All gamers, even at home, rely on a combination of music and sound effects that fly around them in their headsets throughout the game. That is the standard. So, it's only natural to present immersive audio to a live gaming audience," stated Yue.



Yue proposed a system design that featured a main scene system of 5 hangs of 1 x LAcoustics A15 Focus and Wide each, with 4 x KS21 subwoofers flown in the centre. 9 x L-Acoustics X12 boxes surrounded the audience seating area for a 360° immersive audio experience. J5 Productions provided and implemented the entire system.

Yue needed to be ready for a narrow window of rehearsal time on site, so he worked closely with the creative team, preparing content using L-ISA Studio on his laptop, then brought his mixes to the L-ISA Auditoria at Concept Systems, an L-Acoustics Certified Provider Distributor in Singapore. Working with Daniel Lee, application project engineer for L-ISA at L-Acoustics, and Gerald Fong of Concept Systems, Yue began crafting the immersive mix while the main stage was in construction. He then completely finalised the mix at the venue on the L-Acoustics A Series-based L-ISA configuration.

The ceremony hit the mark with attendees for being an immersive, cinematic multi-media experience. “I was confident that the system would deliver dynamic sound for the different content needs of both esports and the event programs,” reflected Yue. “Without the technological infrastructure and product knowledge from Concept Systems and the LAcoustics APAC technical



team based in Singapore, I wouldn't have been able to tap into invaluable resources to pull off this complex project.”

“Jeffrey's technical expertise in crafting creative audio solutions for this inaugural global esportsing event allowed us to fulfil the requirements of the IOC and wow audiences,” concluded Chia-Richmond. “Having the L-ISA immersive experience for the opening ceremony allowed our audience to sit back, relax, and enjoy all the gaming action and more!”

L-Acoustics

2024 EVENTS CALENDAR

The NAMM Show

Anaheim Convention
Centre 800 W Katella
Ave, Anaheim,
United States

JAN
25-28

INTEGRATE MIDDLE EAST

Dubai World Trade
Centre , United Arab
Emirates

MAY
21-23

Live Entertainment Expo

Tokyo Big Sight
Tokyo, Japan

JULY
03-05

Integrated Systems Europe (ISE)

Fira de Barcelona,
Gran Via, Barcelona,
Spain , Spain

JAN-FEB
30-02

KOBA

COEX (Convention &
Exhibition Center)
524, Bongeunsa-ro,
Hall Gangnam-gu,
Seoul, Korea,

MAY
21-24

InfoComm Asia

Queen Sirikit National
Convention Centre
Bangkok, Thailand

JULY
17-19

LED CHINA 2024

Shenzhen Convention
& Exhibition Center
Shenzhen, China

FEB
26-28

Prolight + Sound Guangzhou

China Import and Export Fair
Complex 382 Yuejiang
Middle Rd, Haizhu Qu,
Guangzhou Shi,
Guangzhou, China

MAY
23-26

Integrate

ICC Sydney,
Darling Harbour

AUG
21-23

Guangzhou Entertainment Technology (GET) Show

Poly World Trade Centre Expo,
Guangzhou, China Poly World Trade
Centre Expo, Guangzhou, China

MAR
03-06

Broadcast Asia 2024

Singapore Expo 1
Expo Dr, Singapore

MAY
29-31

InfoComm India 2024

Jio World Convention
Centre Mumbai,
Goregaon East, India

SEPT
03-04

Prolight + Sound Frankfurt

Messe Frankfurt Messe
Frankfurt, Frankfurt,
Frankfurt, Germany

MAR
19-22

PALM EXPO

Bombay Exhibition
Centre Bombay

MAY-JUN
30-01

IBC Show 2024

Amsterdam RAI
Exhibition and
Convention Centre ,
Netherlands

SEPT
13-16

NAB SHOW

Las Vegas Convention
Center, NV, USA Las
Vegas Convention
Center, NV, USA

APR
14-17

AV-ICNx Expo

Bombay Exhibition
Centre Bombay

MAY-JUN
30-01

Pro Integration Future Asia (PIFA)

Marina Bay Sands ,
Singapore

SEPT
25-27

Beijing InfoComm China 2024

China National Convention
Center (CNCC) Building No
1 Court 8 Beichen West
Road, Beijing, China

APR
17-19

InfoComm 2024

Las Vegas Convention
Center, NV, USA Las
Vegas Convention
Center, NV, USA

JUN
12-14

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