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70  MARKET PLACE
Projection Mapping is seeing growth in leaps and bounds. This is indeed good news for the projector brands in the above 20,000 lumens category. In this issue, we are pleased to share our interview with Master Projection Designer Bart Kresa. Bart and his Sviatovid sculpture projection made their presence at Integrated Systems Europe earlier this year and have since been present at InfoComm International and most recently at InfoComm India.

Bart highlights that we are entering into the “experience economy”, and video projections are the perfect tool for creating unique, immersive experiences. His outlook is that we are beginning a golden age of projection.

There has also been a rise in projection mapping, becoming a permanent install. As Bart puts it, the medium as a whole transforms existing spaces to create new and impactful experiences.

There is so much scope for projection mapping, including creating interactive spaces as highlighted in one of our LIVE column articles, in this issue. Hexogon Singapore well known for its projection mapping expertise has transformed a floor space in a shopping mall into an interactive space that allows visitors to play games and interact with visual effects by merely moving around the projection area.

Enjoy the read!

Thomas Richard Prakasam
Publisher / Editorial Director
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KLANG Launches Innovative Education Programme

German in-ear monitor mixing experts, KLANG:technologies, has launched a new-style of education programme, which encompasses typical in-depth product training, but augmented with user-friendly binaural academic theory, tailored and interactive content for different market sectors, and contributions from expert guest speakers.

“We try to make our training events educational, not just linear product presentations,” explains KLANG’s head of sales, Phil Kamp. “The opening section of the session doesn’t mention our system, it’s about the psychology of hearing, how our hearing works, how our brain deals with audio signals, and ultimately, how to provide an immersive and natural in-ear mix. Many of our attendees are seasoned audio pros who are very educated about how to operate a mixing board but haven’t necessarily drilled down to the theory about how our hearing works.”

Dates have already been successfully completed across Europe and Asia. Some of the sessions covering rock and festival sound have included guest pro users, such as System of a Down, Linkin Park and Anastacia’s engineers, who all shared how they use the KLANG system and their creative tips.

“I really enjoyed being part of KLANG’s Immersive mixing programme,” says Anastacia’s monitor engineer, Becky Pell, who presented at one of the sessions. “KLANG excites me for two reasons - it allows me to create incredibly spacious and natural sounding IEM mixes even when I have a huge number of inputs; and, it greatly reduces ear fatigue and the need for high sound levels, which means healthy hearing for life.”

The objective of KLANG’s training programme is to enable attendees to learn about successfully providing an immersive sound experience that mirrors normal aural activity. The sessions explore the company’s design ethos, explaining why certain features are included, and how the R&D team analyses a huge spectrum of pro audio equipment and instruments to discover and tackle the biggest challenges for musicians and engineers.

“Each training session is tailored according to who’s attending,” continues Kamp. “This means we can look at the appropriate ways the system can be used, be it a rock ’n roll environment or house of worship, and make it an interactive experience for the delegate.”

Headquartered in Aachen, Germany, KLANG:technologies is the world’s first manufacturer of truly immersive in-ear monitor (IEM) mixing technologies. Its mixing engine is specifically designed to be used with IEMs and provides musicians with individual, natural and three-dimensional sound. It enables the brain’s natural capability to sort and prioritize audio within the mix, not only providing transparency, but also lowering levels as sounds merge rather than conflict.

“The product itself is incredibly user-friendly, and the training programme is fun and interesting,” concludes Pell. “KLANG is the evolution of IEM mixing. Goodbye stereo; it’s been a blast, but this is the future!”

For details of future events, please visit www.klang.com/training
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**UNITED KINGDOM**

**ChamSys Grand Opening Draws Crowd**

Good times mixed with valuable insights at the Grand Opening of the ChamSys UK Head Office on September 2, as over 150 lighting programmers and designers from throughout Europe helped the company inaugurate its new office, training facility, and product development center. In addition to mixing and mingling while enjoying food, drink and entertainment, visitors participated in informative classes, think tanks, and training sessions focused on the new MagicQ and QuickQ software from ChamSys.

Adding a lighthearted touch of drama to the proceedings was a short skit presented by company team members on the history of ChamSys. The skit recounted how company co-founder Chris Kennedy developed his first console at the age of 10. Telling the story of a young man with big dreams, the skit showed how Kennedy achieved something beyond even his wildest imagination years later when an award-winning ChamSys console was used by Art & Yes to control a record-breaking 64,000 parameters over 186 universes directly without processing nodes.

Also starring in the drama was the MagicQ MQ500 Stadium Console, which was featured in live demonstrations that highlighted its wide range of impressive features, including Focus Hold and Focus Line.

Following his “acting performance,” Kennedy treated guests to a preview of the new MagicQ MQ70, an extremely compact and aerodynamic console with big-time scalability. Animated light shows controlled by the MagicQ MQ500 followed this introduction.

At the conclusion of the evening, Kennedy invited guests to return to the new ChamSys facility, reminding them that it would be holding multiple training sessions every month. Based on the enthusiastic response to the innovations on display at the grand opening, it’s safe to assume that they will be taking him up on this offer.

www.chamsyslighting.com

**DUBAI**

**disguise EMEA Open House Tour to Soon Hit Dubai**

**disguise** is the ultimate solution to imagine, create and deliver spectacular live visual experiences. After kicking off the EMEA Open House tour in Poland earlier in September, the roadshow will head to eight more locations across Europe and the Middle East over the next six weeks, including stops in London, Amsterdam, Madrid, Barcelona, Dubai, Berlin, Oslo and Gothenburg.

An open invitation is extended to join industry experts and become immersed in real stories and case studies from the disguise creative and technical community. Learn how disguise has powered and helped create industry-leading live productions, with disguise sitting at the heart of some of the most iconic visual performances across the world.

In addition, on site demos will include the latest software update, r16, which features support for 10-bit and HDR to create the highest quality video playback, and improved workflows for their projection toolkit and new workflows for Augmented Reality.

**disguise** will also be showing the latest high performance hardware, including the award-winning vx 4, which has been engineered to play back video at the highest quality and resolution possible; the gx 2c which combines unparalleled output and processing power, allowing creatives to build environments with more particles, effects and richer scenes at higher resolutions and smoother frame rates.

The **disguise Open House tour** will be conducted in Dubai on 15 October 2019

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The House of Dancing Water @ City of Dreams, Macao, China.
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SINGAPORE

MA Lighting Welcomes Vijay to the Singapore Team

MA Lighting International, has welcomed Vijay Thaygarajoo as a new member of their MA family. Vijay will be joining the team as Regional Sales Manager SEA (Southeast Asia) and will be based in Singapore working from their local Hub.

His profound market and customer knowledge is based on his previous work for Robe Lighting as Regional Account Manager, for SGM Lighting A/S as Senior Area Sales Manager and for Total Solution Marketing Pte Ltd as Business Development Manager.

Franco Zaghini, Director of Business Development, comments, “I am confident that Vijay will put all his experience and dedication to develop together an even stronger relationship between us and our partners as well as continue to strengthen our position in Southeast Asia.

www.malighting.com

INDIA

LED Solutions Joins Adamson Network with Significant E-Series Investment

Ahmedabad’s LED Solutions recently bolstered its inventory with an investment in Adamson Systems Engineering’s E-Series and S-Series loudspeakers. The systems were supplied by Adamson’s Indian distributor Sonotone and LBT Lighting. LED Solution’s new Adamson package is comprised of 24 E12 line array enclosures, 16 E219 and 4 E119 subwoofers, 12 S10 compact two-way full range enclosures, and 8 M212 monitors along with 6 E-Racks each with 3 Lab.gruppen PLM20K44 amplifiers.

sound, naturally we were blown away by their performance.” Dixit Ghoda adds, “We’re thrilled to offer Adamson systems to our clients. These boxes are lightweight, compact and sound incredible at any volume.” Ashish Sharma also notes that the service and care received from Sonotone, LBT and Adamson has been impressive and only goes to prove they made the right decision in choosing Adamson.

“We are happy to welcome LED Solutions Ahmedabad to the Adamson network,” says Karan Nagpal, Director of Sonotone. “They have made a reputation as a rental company that consistently invests in new innovative gear, and we look forward to supporting them in their mission of providing premier systems to their customers.”

Eshdeep Bhasin, Director of LBT Lighting shares, “After receiving delivery of their Adamson systems – the LED Solutions team were quick to put the system into action. I am glad that it has made a positive difference in their sound and would like to thank Nitesh Narayan for training and ground support.”

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EK Color Ranger at The National Stadium (Bird's Nest), Beijing Olympic Park
SLS, one of the major rental and technical production companies in the UAE, has recently made a substantial investment in Robe – an initial purchase of 50 x MegaPointes last year was followed by 86 Spiider LED wash beams earlier this year, then 24 x regular Pointes and a pair of DL4S Profiles for a specific job … and they expect this business to continue!

Martin Luiz started the company 22 years ago in Dubai to provide full technical production management and design services – combined or individually as required – to a range of different events.

Luiz is a shrewd operator and has built his business steadily based on being imaginative and delivering high quality results with outstanding technical expertise. SLS provides equipment for all major disciplines – lighting, sound, video rigging and staging – and there are currently around 130 full-time employees, all dedicated to working, mainly on a mix of corporate and industrial shows across the UAE and in neighbouring GCC countries like KSA, Oman, Kuwait and others.

Serious expansion in the last couple of years has led to an imminent major relocation of all the current warehouse facilities and the main office into one central hub, a brand-new all-encompassing business premises in the DIP (Dubai Investments Park) area.

The Robe investment was triggered by the frequency of Robe now being requested on artists and band riders and / or LD’s specifications. “There is a clear trend for using a range of Robe moving lights and we need to be on top of this,” stated Martin. In addition to the demand for Robe, he has always enjoyed a good relationship with Robe Middle East’s GM Elie Battah – well before he was even thinking about buying Robe!

“The Spiders are a fantastic day-to-day fixture for any event, large or small,” enthuses Luiz, and talking more generally about Robe he and his colleagues commented that they felt Robe was definitely a “market leading” moving light brand that currently stands out.

Ed Jarman, the company’s sales Director, emphasised having the latest ‘hot’ technologies on board was essential to impress clients and offer the best service for events and artists coming from the US, Europe and other parts of the world. “We have a reputation for producing world-class events here in Dubai, so we need to offer the kit that everyone is specifying!”

The UAE and Middle East generally are growing markets for Robe. Looking ahead, apart from the 2020 Expo in Dubai which is causing plenty of chatter and excitement, the SLS team reckon KSA is opening up - having recently completed 15 shows, mostly international concerts - there during a normally quiet period. There are also many other potential ‘horizon’ opportunities.

SLS’s fixtures have been used on numerous shows including concerts by international artists in Saudi Arabia – Mariah Carey, Tiesto, Sean Paul, Back Street Boys and more – and for the Gov (Government) Games Opening Ceremony at the NAS Sports Complex, and events for Dubai Fitness and Huawei in Burj Park, commented Edwin Cheeran, SLS’s Managing Director.

“Efficient and personable service with attention to detail is really important,” he emphasises, “but more than that, to be able to commit to long term commercial relationships you have to like and respect the people involved, and I feel very comfortable dealing with Elie.”

There were a few other influencers in the Robe decision as well.

Darion Garisch is SLS’s head of lighting. When he arrived from South Africa to take up the post in January 2018, he immediately mentioned Robe as having an excellent product range, being great value for money as well as innovative and reliable! Since then, Darion and Praveen Jayakumar (Lighting HOD Operations) have specified Robe onto many Expo 2020 projects on which they are involved. As well as the lighting designers, SLS’s technicians and crew love having the Robes onboard, confirms senior lighting operator George Gilfillan, who is also from South Africa. All of this has helped underline Martin’s decision to switch to Robe as the right move to make!
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Singapore’s ITE Central Establishes Seamless Comms Coverage with Riedel’s Bolero

Riedel’s Bolero wireless intercom and RiFace universal radio interface have been deployed by the Institute of Technical Education (ITE Central) in Singapore to support theater production communications over a broad coverage area with a minimum number of antennas. The versatile Riedel systems allowed for plug-and-play integration with the institute’s legacy 2-wire systems and were commissioned with ease, facilitating seamless roaming and exceptional audio quality.

“Our theater production space is expansive, so we needed a communications solution that could provide coverage over a large area with fewer antennas and greater beltpack functionality,” said Joshua Chong, Technical Officer at ITE Headquarters. “Riedel’s Bolero and RiFace integrated seamlessly with existing legacy communications gear, including radio systems, and addressed all of our requirements, providing reliable, low-latency communications that sound great.”

ITE Central is a public vocational school in Singapore that provides pre-employment training to secondary school graduates and continuing education and training to working adults. The institute is using Riedel’s Bolero and RiFace to support a variety of theater productions. The gear recently enabled flawless, theater-wide communications during ITE Dance Emblazon, a dance concert featuring more than 200 dance talents and five dance genres.

The Bolero wireless intercom system supports up to 10 beltpacks per antenna, thereby requiring a small number of antennas to cover the gamut of production areas. The beltpacks themselves can be used as wireless beltpacks, wireless keypanels, or walkie-talkies. Moreover, Riedel’s RiFace universal radio interface made it simple to link the facility’s wired communication systems with two-way radio systems.

“This installation of Bolero and RiFace at ITE Central demonstrates not just the versatility of Bolero but our ability to provide world-class communications solutions in a diverse range of applications,” said Rajveer Singh, General Manager, ASEAN and South Asia, Riedel Communications. “The simplicity of setup and extensive coverage capabilities are increasingly making our Bolero the primary choice for organizations looking for flexible, high-quality communications across a facility, campus, or other venue.”

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DUBAI

Unusual Rigging & Engineering LLC Supports Westlife at Dubai’s Coca Cola Arena

The new Coca Cola Arena in Dubai was packed out last month as thousands of Westlife fans relived their youth at the band’s “Twenty Tour.” Taking a walk down memory lane, the boy band performed hits from the past twenty years to the 17,000-capacity venue, with Unusual Rigging and Engineering LLC providing the house rigging points for the production.

Unusual Rigging are sole house rigging service supplier for the installation of all rigging points at the Coca-Cola Arena. One of the main talking points of the venue is its rigging system and unique roof structure. All rigging is done from a raised catwalk – it has shallow braids and is easy to access. With a distance of 24m from the catwalk to the floor and 26m to the I-beam, this covers most height requirements of touring shows. The arena also boasts 90 tonnes over the stage, 60 tonnes for the middle and 40 at the far end – all of which can be hung individually, giving the roof a total weight load of 190 tonnes.

Unusual Rigging’s Alex Taylor worked closely with the production manager on the Westlife gig and explained: “The brief from the client was to install a total of 68 rigging points with the rigging plot broken down into 12 x points for PA, 12 x points for Video, 34 x points for LX and 10 x points for drape truss. There was a large video screen up stage centre with two smaller screens down stage left and right, as well as two LX towers stage left and stage right of the main screen. We also needed to install six runs of LX truss to light up the stage and the audience.”

Alex and the Unusual Rigging team installed a total of 68 motors. He continued: “Because of the versatility of the CCA roof rigging beams, you can put a rigging point more or less anywhere for each different show. We ended up installing 25 dead hangs and 43 bridles, with the majority of the bridles being installed under the catwalks.”

While the Coca Cola Arena is a brand new venue with a state-of-the-art rigging system, the production still managed to throw some challenges at the rigging team. “We had to make sure that all of the video points were in line with each other, explained Alex. “we did this by putting some of the bridles on a slight angle to one another in the roof, but at the same time keeping the motor in its correct position. Ensuring that the PA points were in the correct position to avoid delays when it came to hanging the PA was also vital.”

Unusual Rigging has already been involved with The 1975 and Maroon 5 gigs which have marked the opening of the new arena. Alex concluded: “The design for the rigging elements in the CCA has been thought about in the design process. It has six main catwalks running down the full length of the building with interconnecting smaller catwalks between them. This makes accessing the rigging beams simple and therefore installing the equipment needed for each show is easy. All the equipment is brand new and a pleasure to use and we look forward to the line up of shows we’ll be working on at the arena.”

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Sound Innovations Adds Robe BMFLs to its Inventory

Kuala Lumpur based Sound Innovations Sdn Bhd has added Robe BMFLs to its inventory, becoming the first rental and staging company in Malaysia to have the lighting fixtures in its arsenal.

Stanley Edward of Sound Innovations comments, “The BMFLs were not available through the rental and staging companies in Malaysia. With many international touring acts visiting Malaysia more frequently, it made sense for us to invest in the lighting fixtures as Robe’s are normally included in the riders and now we are able to provide them.”

“In addition, the BMFLs are hybrid thus making the whole process simpler. The large beam produced is just something that we need in today’s current event needs,” added Stanley.

The BMFLs add to the already fairly extensive lighting inventory at Sound Solutions that includes washes, beams, spots, blinders, fresnels and more.

The BMFLs were put to action immediately upon delivery at the T2 Diamond Table Tennis League tournament that was hosted in the state of Johor Bahru, Malaysia, in July 2019. The prestigious T2 Diamond, organised in collaboration with the International Table Tennis Federation (ITTF), features 32 of the world’s best men’s and women’s players, a total prize purse of USD 1.5 million, and a progressive competition format that aims to amplify the appeal of table tennis across regions.

The Robe BMFLs were deployed for main ambience lighting and effect for the four days tournament. The set-up featured one show-court competition table tennis table in the middle with a runway and stage which is used for the players entrance and exit. Two units of circular truss in the middle right above the table and 8 units 60’ trusses were used in the arena.

The lighting design for the space was done by Mark Kishbaugh from Kishbaugh and Partners.

“During the tournament, the wash beam was used to remove fresnels from the equation. We didn’t need dimmer packs and manual focusing...
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of individual fixtures which saved us a lot of time. The effects and colour sequences was used when a player is welcomed into the match. During the match, only static lighting is used and the number of fixtures helped in creating a soft but at the same time bright ambience feel for each match. The colour mixing capabilities and the large beams generated by the fixture made the ambience and effects required easy to achieve.” said Stanley.

Stanley reiterates, “The BMFL fixture is bright and easy to use. You can cut down the various different types of fixtures with this one fixture and work becomes so much more easier and faster.”

The Robe BMFLs was supplied to Sound Innovations by local distributor Tegas Broadcast & Multimedia Sdn Bhd.

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www.tegasbroadcast.com.my
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Perseo is Ayrton’s first multi-function, compact, powerful, IP65-rated fixture developed for intensive outdoor use. Feature rich from the factory (including 100% framing shutters), Perseo produces 27,000lm from its 500W LED source, and sports a fully weather-proof housing with a new water-resistant menu navigation system to handle whatever the weather can throw at it!

Hexogon with Lightact: Funan Interactive Installation

In 2019, Hexogon Solution chose Lightact as the media server for 2 interactive installations in an iconic IT shopping mall in Singapore, called Funan. The installation consists of 2 parts, an 11 by 12-meter projection area on the floor where visitors can play fun games and a long bicycle lane leading through the entire mall where embedded DMX lights follow the cyclists.

Robe: Esprite LED Moving Light

This very bright and precise moving light is the first to use Robe’s ground-breaking new generation 650W WTE (White Transferrable Engine) light source. It has been fully designed, developed, patented and manufactured by Robe in its factory in the Czech Republic ... to ensure optimum performance.

ESPRITE is the first in a new series of Robe luminaires to feature a fully replaceable / transferable white source LED engines!

Area Four Industries: Xstage S10 Advanced Design Stage Deck

The Xstage S10 weighs only 33kg, but without any reduction in loading capacity (750 kg/m2) or stability. Discover the advanced design and leading features of the S10 in this video.
Alcons Starts Delivery of the LR18/120, Wide Dispersion Pro-ribbon Line-array

The LR18/120 is a 3-way, “compact-mid-size” format line-source sound system, combining a 120-degree wide dispersion high sound quality with high dynamic SPL capabilities and throw.

By implementing Alcons’ pro-ribbon technology for mid and high frequencies, a very fast impulse response with up-to-90% less distortion is achieved. This enables the LR18/120 to offer an intuitive linear response, with optimal intelligibility and non-compressed identical tonal balance at any SPL, under a remarkable gain-before-feedback performance.

The all-natural cylindrical wavefront of the multiple-patented, purpose-designed Alcons RBN702rs 7” pro-ribbon transducer and the acoustically and electronically symmetrical component configuration cater for a very coherent pattern control in both the vertical as well as the horizontal plane, without any distortion-inducing horn constructions.

The pro-ribbon’s power handling of 1500W (200 milliseconds, which is 10x the industry standard) and RMS-to-peak power handling ratio of 1:15 (common industry ratio is 1:2) are another asset to the system’s category-leading throw and dynamic headroom reserve.

Completing the 3-way configuration for mid-frequencies, is a high-efficiency, horn-loaded 6.5” midrange transducer, coaxially mounted behind the HF driver; The LF section consists of 2 reflex-loaded 8” woofers with oversized 3” voice-coil Neodymium motor-structure; These surpass the output of even larger drivers, while maintaining a smaller face print.

System drive is taken care of by 2 channels (bi-amp) of the Sentinel amplified loudspeaker controller, with LR18-specific drive processing and feedback for each array configuration; The presets now also include Alcons’ “VHIR processing” with phase-matching with any Alcons system.

The Signal Integrity Sensing pre-wiring ensures dynamic cable/connector compensation between the LR18/120 and ALC; This offers a 1:1, undistorted natural sound reproduction, regardless of cable length and amplifier impedance load (system damping factor 10.000).

The rigging system enables angle-setting on the cabinets without lifting the array, resulting in safer and faster set-up with minimal handling and a Working Load Limit of 24 cabinets under 10:1 safety.

The LR18/120 is an addition to the LR18 line-array system family; This series consists of the LR18 line-array module in 90-degree horizontal dispersion; the LB18, the double 8” low-mid array extension of the LR18; and the LR18B, the accompanying flying / stacking subwoofer with new generation 18” woofer.

Array configurations with these components can be simulated in the Alcons Ribbon Calculator (ARC), Alcons’ high-resolution 3D simulation program.

www.alconsaudio.com/product/lr18-120/
Obsidian Control Systems Releases the new NX 4 Lighting Console with DYLOS Pixel Composition Engine

Equipped with a range of professional features and using the latest in industrial components, the NX 4 is designed to handle even the largest show with ease. With a well-arranged combination of motorized and manual faders, along with an array of playback buttons, the NX 4 offers 44 total playbacks in a compact yet extremely powerful package.

Fast boot times, instant operation and the ability to process 64 Universes right inside the console without the need for costly external processing networks results in unprecedented power in this form factor.

DYLOS aims to provide new and innovative ways that far exceed the capabilities of regular pixel-mapping systems and is the first of many exciting steps for the ONYX platform to provide a comprehensive toolset of dynamic fixture animation, exciting content generators and powerful media playback. Based on a full 3D environment and powerful DirectX graphics processing, the DYLOS engine has been designed from the ground up for power and performance to manage thousands of fixtures and parameters with ease.

ONYX is a powerful yet easy-to-learn lighting control platform designed for both hardware consoles and PC systems. It is a re-branding of the well-established M-Series control platform and is designed for use with all new ONYX and existing M-Series hardware. Obsidian Control Systems products are distributed exclusively by Elation Professional worldwide and are available in various sizes to accommodate any scale and budget.

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This very bright and precise moving light is the first to use Robe’s ground-breaking new generation 650W WTE (White Transferrable Engine) light source.

It has been fully designed, developed, patented and manufactured by Robe in its factory in the Czech Republic ... to ensure optimum performance.

ESPRITE is the first in a new series of Robe luminaires to feature a fully replaceable / transferable white source LED engines! This high-performance luminaire can potentially replace old and entire fleets of workhorse discharge fixtures.

Offering a cost-effective and easily changeable LED engine, Robe has eliminated the white source problems of unpredictable life and performance inconsistency. The LED module holds a host of useful data in addition to the date, serial number and usage ... which can be accessed via a free mobile App. The crystal-clear, extremely bright and hugely economic WTE LED engine signals another wave of true lighting evolution!

Thanks to this powerful LED light source and a highly efficient optical system, the fixture is outputting 27,000 Lumens. With this amazing power and a way-cool set of features, the ESPRITE will stun and impress users working across all lighting disciplines.

Other design innovations include a new cooling system that removes any airflow over the optics, resulting in reduced residue deposits and vastly extending the periods needed between cleaning sessions.

A 5.5 – 50° zoom range provides a high-quality flat-field beam, combined with fabulously smooth CMY colour mixing, extremely fast bumping colour wheels and a unique coloured prism for producing a new level of effects and animations.

Versatility can be maximised with effects like the animation wheel, variable CTO, two colour wheels, rotating and static gobos, a 6-facet rotating prism and a selection of 1° and 5° frosts.

Together with a set of accurate framing shutters, and invaluable LED ‘adjuster tools’ like C-Pulse flicker-free management for optimisation with the latest HD and UHD cameras, the unit also has L3 (low light linearity) dimming for perfect results in the most demanding of performance conditions.

All these factors ensure that ESPRITE will enjoy great longevity and provide the excellent maximum short, long and extended ROI that’s synonymous with Robe products.

www.robocz

High End Launches SolaWash 1000

High End Systems introduces the newest member of the Sola Series, the SolaWash 1000 automated luminaire. SolaWash 1000 is available in two versions; either with an Ultra-Bright engine producing 20,000 field lumens or a High CRI Engine featuring incredibly accurate colour rendering.

The fixture includes a full framing shutter system, CMY/CTO linear colour mixing system, a seven plus open position replaceable colour wheel, iris and dual Linear Frost systems for medium and heavy frost. Sharp edge focus performs throughout the entire 12° - 55° zoom range. A TM-30 Filter boosts the Ultra-Bright engine to 85+ CRI.

The SolaWash 1000 is designed to give designers a great light, a wide gamut of pure and even colours, and a beautifully simple feature set. From a feature perspective, the SolaWash 1000 is a wash light with the best of the basics: fantastic colour mixing possibilities, great output and near-silent operation. The fixture is designed with fast serviceability in mind, and is of course equipped with High End Systems’ patented lens defogger.

www.highend.com
More than just a pretty face

For more information on TurboRay, visit highend.com/turboray
Clear-Com Unveils Freespeak Edge: The Next Generation of Digital Wireless Intercom

FreeSpeak Edge from Clear-Com is an advanced wireless intercom system, delivering the best audio quality and enhanced performance in some of the most complex live performance environments. The system also gives the user more control and customization options, thanks to advanced frequency coordination capabilities and intuitive design features in the system’s transceivers and beltpacks.

Built from the ground up, FreeSpeak Edge is the result of extensive feedback from existing FreeSpeak II power users, incorporating recent advances in the fundamental technology, leading to an all-new 5GHz chipset that features an exclusive radio stack development which has been optimized for intercom. FreeSpeak Edge also leverages state of the art audio-over-IP developments in its architecture, utilizing AES67 connections between the transceivers and the host intercom frame for exceptional flexibility in deployment.

The 5GHz band is an ideal choice for large scale communications, as it can be managed with frequency coordination for reduced interference and offers the widest range of RF channels available for exceptional scalability. Its higher frequencies mean there’s more bandwidth for data which allows for finer control, additional audio channels, more robustness, lower latency and better audio quality.

FreeSpeak Edge leverages all the power of 5GHz technology to perform flawlessly in even the most challenging venues and high multipath environments. The system takes advantage of Clear-Com’s exclusive RF technology which uses OFDM to provide a robust transport layer that is immune to most forms of interference. FreeSpeak Edge delivers the clearest 12kHz audio quality with ultra-low latency and is highly scalable with the technology and bandwidth to support over 100 beltpacks and 64 transceivers to accommodate the largest productions. It can be combined seamlessly with FreeSpeak II 1.9GHz and 2.4GHz systems, providing three bandwidths across a single unified communications system.

FreeSpeak Edge transceivers and beltpacks offer more customization and control than ever before to accommodate increasingly complex communication needs. The beltpack’s ergonomic design includes asymmetrical concave/convex top buttons for identification at a glance and touch operation; eight programmable buttons; rotary controls on both sides; and a master volume control and flashlight on the bottom. With a mic and speaker for headset-free or desktop operation, the beltpack was designed with today’s production needs in mind. Each ruggedized transceiver supports 10 beltpacks and includes attenuation and external antennas for custom RF zones as well as wall and mic stand mounting options. The system delivers the robustness and reliability that customers have come to expect from the award-winning FreeSpeak range.

FreeSpeak Edge is scheduled to ship in January 2020.

www.clearcom.com
XTYLOS

THE FIRST BEAM EFFECT POWERED BY LASER

Watch the video teaser

www.claypaky.com
Ayrton Presents Huracán-X

Huracán-X produces a record output of 50,000 lm from its 1000W LED source, at a colour temperature of 6500K. A triple variable colour temperature corrector allows subtle adjustment from 2700 K to 15000 K and offers noticeable CRI improvement. Specifically developed optics deliver an extremely uniform flat beam with no hot spot for the reproduction of high-definition images, and a zoom range of 6.2° to 62°. Huracán-X also offers Ayrton’s advanced framing shutters for accurate positioning across 100% of the surface area in any position.

It is the new advanced colour mixing system (patent pending) that really makes Huracán-X stand out in the crowd. A CMY, CTO, CTP, CTB subtractive system gives the user complete control over the colour palette. Designers no longer have to use different fixtures to achieve perfect pastels or optimum saturated colours. Both can now be obtained within a single fixture with Huracán-X.

www.ayrton.eu

Gravity Touring Series Now Available

The Adam Hall Group has announced immediate availability of the new Gravity Touring Series – the first ever stand series specifically developed for the professional rental market. The robust, fully metal stands impress with durable designs that withstand the toughest conditions. The Gravity Touring Series also features captive metal adjustment knobs and other functional details that make “on the road” touring life significantly more efficient.

The Touring Series by Gravity is built to last and is aimed at professional customers from the rental and touring sector who naturally have high demands for their stands every day. Therefore, Gravity has focused on maximum stability, well thought-out functionality, and innovative details for the Touring Series. Features such as captive full-metal adjustment knobs and effective boom attachment with just a ¼ turn allows the designs to stand out from comparable models. All the detailed solutions are based on countless hands-on experiences and feedback from professionals in the rental and touring sector – from stage hands to warehouse staff and technical directors of large productions.

The new Gravity Touring Series is available now. Available at series’ launch are the TMS 4321 B Touring Series Tripod Mic Stand with standard boom, the TMS 4322 B Touring Series Tripod Mic Stand with telescopic boom and the TSP 5212 LB Touring Series Speaker Stand with auto lockpin.

www.gravitystands.com
HIGH PERFORMANCE
with M-F3A PRO line array

M-F3A PRO is part of the M-line series

PLUG & PLAY
600W DSP amplification built in

SMALL & LIGHT
A4 size / only 8 kg

EXTREMELY FLEXIBLE
for small to larger venues

EASILY SCALEABLE
built in line length adjustment

HORNLESS DESIGN
promotes full fidelity

Available in black & white
Vari-Lite’s New VL800 Series of Event Fixtures Now Shipping

Vari-Lite, the originator of the modern moving head lighting fixture and a Signify (Euronext: LIGHT) entertainment lighting brand, has announced that its new Vari-Lite VL800 Series of fixed and moving head LED fixtures is now shipping.

Comprising three exciting new fixtures designed to work seamlessly in combination, the VL800 Series are color-matched to be visually consistent. What’s more, the user experience and DMX mapping are consistent as well, allowing lighting designers and programmers to easily use multiple fixtures together in a single application.

The VL800 Series includes:

- **VARI-LITE VL800 PROPAR** - an advanced, high output LED event PAR fixture that includes a quiet running motorized zoom. The fixture offers full RGBW colour mixing and has gel-matched colour presets to deliver the same visual results customers are accustomed to, with multi-mode fan control for use in quiet environments.

- **VARI-LITE VL800 EVENTPAR** - an LED retro-style event PAR perfect for a modern replacement of classic tungsten PAR fixtures. Designed to bring back the vintage stylings of the original lamps and PAR cans, the VL800 EVENTPAR is available in both RGBA and warm white (WW) varieties, with output and colour reminiscent of tungsten PAR 64 lamps. With an outdoor rating of IP24 for protection against water spray from any direction, the fixture can withstand rainy conditions at an outdoor event or installation.

- **VARI-LITE VL800 EVENTWASH** - a mid-sized LED wash moving head fixture that’s extremely powerful and compact. This fast-moving wash offers full RGBW colour mixing and seven individually controllable LEDs for easy split colours or pixel mapping applications. With controllable dimming and motorized zoom, this fixture moves and feels as you would expect from a Vari-Lite, providing valuable features in a cost-effective mid-sized moving head.

www.vari-lite.com

Zero 88 Launches RigSwitch

RigSwitch is a fully customizable range of switching cabinets from 12 to 96 relays per cabinet, with four pre-designed options to cover the most regularly requested combinations.

All relays feature staggered power-on, DMX control and remote switching, using anything from a simple contact to a network of engraved keypads and touchscreens. Each channel has an MCB as standard, with additional options of RCBO, ELCB and AFP (Arc Fault Protection) for installations requiring further protection.

The product is designed for anything from entry level installations right up to the most complex multi-level projects and is affordable and cost-effective for all.

RigSwitch is manufactured in Europe harnessing the convenience and accessibility of Eaton’s extensive breaker production businesses.

www.zero88.com
Entertainment Design Expo

Lighting | Audio | Visual

Shenzhen China

24-26 February 2020
Shenzhen Convention & Exhibition Centre

Global Flagship Event For Lighting, Audio-visual And Live Production Professionals

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## EVENTS CALENDAR 2019 / 2020

### 2019

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<td>Broadcast India Show</td>
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<td>Prolight + Sound Shanghai 2019</td>
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### 2020

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<tr>
<td>Guangzhou Entertainment Technology (GET) Show</td>
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<td>Poly World Trade Centre Expo, Guangzhou, China</td>
</tr>
<tr>
<td>Prolight + Sound Frankfurt 2020</td>
<td>Mar 31 – April 03</td>
<td>Frankfurt am Main</td>
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Please Click on Event Name to View Site
I guess that you have all been hearing about the two major accidents from within our industry over in Europe in the last weeks. If you have not, then here is the gist for you in just a few words: at one concert the artist was killed on stage by a pyrotechnical element going off during the performance and at another outdoor event, wind forces tipped over a large scale LED wall, injuring a large number of people, who where buried under the crashing screen. I don’t think it helps to identify, where this has happened other than it has happened in western Europe of all places. There is a lot to be said about this, but this has become big news in particular because in the western hemisphere those things are supposed to be safe and the operators will put any gear up with safety concerns in mind and have them checked and verified for safety.

It is needless to say that there should be no difference globally in how safety concerns for Audience, Artists and Crew are being approached, but sadly there is still a large gap between what you see in Asia Pacific and what you see in Europe and the USA. I have been shown videos in China where an LED screen on a nopen air stage collapsed on a girl singer, who stood right in front of the screen and supposedly the LED wall killed her when it came crashing down. The common opinion of any professional that I had a chance to speak to was, that since there is no complete and good education on Safety and no real set of regulations in many places, which are properly enforced, those things are expected to happen. I think this is where we have a rather urgent need to step up our awareness.

Safety is everybody’s concern and it always starts with you. Once you have taken care of yourself, it should be everybody’s responsibility to also reach out for others who might not be that aware and conscious about safety matters. I remember that a German workplace health agency representative told me some 15 years back, that they are aware, that accidents will happen, but it is how you prepare and what you have done to avoid them, which will determine how bad the accidents and the outcome might be. I thought that this was a decent approach, being aware about the risk and the chances, but preparing for them as best as you can. From this point, the health and safety agency developed programs and rules for workplace health environment, which drive the awareness of the employer and the crew.

You will understand that we all have a million things on our minds with the core job requirements and the health and safety even comes on top of this, but if we do not care about this properly, then there might be a point in the future where events are either completely forbidden or get regulated by extremely strong laws and rules before they can take place. I think we have a very good chance to develop guiding rules from within the industry and it should be the industry, which is driving the health and safety for Audience, Artists and Crew. I strongly encourage us all to have this discourse and to follow through, before more of our own people get hurt and possibly killed along the way. I know all this is tough and it becomes another extra burden in our every day life, but not doing this and not caring about this puts our entire industry at risk and no one can have this in their interest. If ever you feel the need for help and advice, I hope you will find the contact details of someone that you can trust to give good and responsible advice and if you don’t, you know how to find me. In this regard, please stay safe out there and have a good show!

Join the conversation and share your thoughts with Alex. Alex can be reached at alex@asaudio.de
**Bart Kresa: Video Projections are the Perfect Tool for Creating Unique, Immersive Experiences**

*Bart Kresa, master projection designer and founder of BARTKRESA Studio, has worked with clients including Universal Studios Japan, Disney, ABC, HBO, Fox, General Motors, Warner Bros, The Grammy Awards, Playboy, Bulgari, and T-Mobile. Bart and his expert team specialise in the art of projection now and in the future. Recently, Bart Kresa presented the keynote address “The Future of Immersive Experiences” at the opening of the AV Leaders Forum, InfoComm India on 18 September 2019.*

How would you characterise the overall state of the events market from a creative / business / economic stand point? And how is this likely to change going forward?

BK: We are in a great period for projections. The emerging demand for environments and experiences in everything from entertainment, to retail is a daily discussion in my studio.

Clients are so imaginative in how they incorporate video technology into experiences, and are coming up with unique ways to use projections to create permanent immersive installations. Going forward, the technology will continue to improve in quality, durability, and accessibility. This will encourage our clients to explore ways in which projections can become a part of their new experiences.

How do you push the boundaries of technical design? Can you give an example?

BK: Our goal is to create a high-end transformative experience, and we never want to settle for anything less. As a philosophy, we challenge ourselves to make every project original. We never want to do the same thing twice. I also challenge myself and my studio to stay on the edge, learn new things, and explore new ideas. For the last few years, we have been exploring 360-degree projection-mapped sculptures. Our newest piece, Sviatovid, is a 15-foot-tall sculpture that we designed, and we built a library of amazing, musically driven animation.

Do you have good support from suppliers? Can you give an example?

BK: AVIXA and Panasonic represent two examples of our successful industry partnerships. Both organizations supported the premiere of Sviatovid at ISE in February 2019.

After the successful premiere, AVIXA approached us about establishing a partnership between our design studio and AVIXA’s educational foundation with the goal of using our work to expose high school-aged students to audio-visual fields as part of STEM programs. AVIXA has committed to presenting Sviatovid at other global events, and I will present case studies and workshops for their foundation.

In addition, Panasonic dedicated a task team to work with us on Sviatovid as part of an effort to better understand and advance the connection between the quality of the projector and the projections. A collaboration between a manufacturer and a design studio on a fine art project is a new approach to the growth of the projection medium.

What are the opportunities and what are the challenges in doing business?

BK: Every project is an opportunity for us to create a one-of-a-kind experience. That promise genuinely excites me. With every custom project comes the challenges of creating new solutions for new spaces. We have certain power, internet, and time requirements for our
installations that do not always match the resources present, or the schedule that the client has in mind. As a result, I have developed two production trailers that we take on site with us. We still need power and internet on site, but we try to bring everything else that we need to install and adjust the projections in as efficient and minimally invasive a way as possible. This allows us to work with the constraints of the location, and to be as flexible as possible.

What forthcoming events might provide an opportunity for business?

BK: Industry events are a great opportunity for me to meet other people in the AV industry. I appreciate the opportunity to share the artform that I love with my peers, and find that I build great relationships through these kinds of events. InfoComm India is one opportunity.

What is the biggest challenge for your business and what key advice might you give to overcome this?

BK: More than a decade ago, I had a dream of having an online studio. I know wonderful artists around the world—in Poland, Japan, France, the US—but finding a way to work with them, at that time, was difficult. It took years to make a structure to connect the studios, but today, we have a well-engineered system that combines existing and custom software, allowing us to work together in a very collaborative way. My advice would be to find ways to work with interesting, skilled people. I have found ways to do this regardless of my physical location.

What is driving demand for video projection?

BK: We are entering into the “experience economy”, and video projections are the perfect tool for creating unique, immersive experiences. My outlook on our industry is that we are beginning a golden age of projection.

What can we expect to see in the future?

BK: During the last year, our studio has seen a rise in inquiries about permanent projection mapping installations. The recent developments are laser projectors, which eliminate the need for bulbs, and can run for 20,000 hours, making permanent installations more accessible.

Our clients choose projection mapping because our work, and the medium as a whole, transforms existing spaces to create new and impactful experiences. When we do our work well, the audience does not see projection, they see something brilliant and tactile that can evolve over time with their installation.

www.bartkresa.com
Lightact and Hexogon Complete Interactive Games in Funan

Real-time content generation makes interactivity a fun experience

Hexagon Solution chose Lightact as the media server for Interactive Games – an interactive projection in Funan, an iconic IT shopping mall in Singapore that has recently undergone a major transformation.

Interactive Games is an 11m by 12m large interactive projection area on the floor of Funan Shopping. It features several interactive games and interactive visual effects based on the corporate identity of the mall. Visitors can play games and interact with visual effects simply by moving around the projection area.

The system uses one Lightact Pro XL server and one Lightact StereoView stereo camera to track people in the projection area. All the content is generated in real-time with Unreal Engine game running on the same server.

Unreal Engine content is passed to Lightact which splits, warps, and blends it and outputs it to four Christie Crimson projectors.

The commissioning lasted for 6 days during which Gerard Henson, System Manager at Hexogon, was pleasantly surprised at the reliability of Lightact. “Lightact is an incredibly stable software. Even after several days of heavy use, we did not experience a single crash or system error. I was also pleasantly surprised by the reliability of tracking provided by StereoView camera.”

StereoView is a new product introduced in early 2019 which enables the user to get reliable depth information in dynamic lighting and long ranges.

David Žalik, Technical Director at Lightact who took care of the StereoView programming in Lightact said, “With the introduction of StereoView into our product portfolio we can track objects in dynamic projected lighting and with an almost infinite range. That’s a game-changer for us.”

In every frame, Lightact finds locations of every person in StereoView’s depth feed and passes it on to Unreal Engine.

Vladyslav Fomenko, an Unreal Engine Programmer who created the game for this project, was amazed by the freedom Unreal Engine and
Lightact combination gives to any UE4 programmer: “What Lightact bring to Unreal Engine is an ability to extend UE4 environment into the real world. The biggest upside is that you can just program your game in UE4 as you would otherwise, knowing that Lightact will take care of projection mapping and all the inputs and outputs with 3rd party devices.”

To give the client an intuitive user interface to control the installation, the project team created a WebUI with a few simple buttons and sliders. The client can access this WebUI with a browser on any device on the network.

Additionally, to eliminate the need for user interaction after a power outage, the team set up Lightact Manager. It makes sure the installation runs as it should at all times by automatically starting up the projection whenever the server boots up. For an extra level of reliability it also restarts the system once per day.

To give Hexogon an additional feeling of safety and security, the team created an account on Lightact Cloud where they can monitor the installation over the internet or receive an e-mail notification in case something is amiss.

Adrian Goh, Group Manager of Hexogon said after the completion of the project: “We are very happy with Lightact system. Due to its versatility, reliability and excellent support, it has become our go-to solution for all multi-media interactive installations.”

Credits
System Integrator: Hexogon Solution
Media Server: Lightact
Media Server Programming: VISIBLE

lightact-systems.com
www.hexgonsol.com
www.unrealengine.com
Clair Cohesion Series Debuts at Muriel’s Wedding

Sound designer Michael Waters mixes it up with Clair and L’Acoustics speakers to fill the space with clear vocals and punchy songs

After a first sold-out season at the Roslyn Packer Theatre, Muriel’s Wedding has returned with a Melbourne run finished and Sydney currently packing in the audiences. Next stop is Brisbane for the highly rated production that has grown and changed a little since the 2017 premiere.

Again JPJ Audio are supplying the audio equipment with Michael Waters once again in charge of the sound design, which is quite distinct this time around. Michael won the 2018 Helpmann Best Sound Design for the original production of Muriel’s Wedding.

“Conceptually it’s similar but in terms of delivering the audio, it’s quite different,” Michael clarified. “We have a Clair PA and I believe it is the first time in the world that a Clair Cohesion CO-8 system has been used for theatre.”

Designed for a variety of uses, CO-8 combines very high output, flexible coverage, and premium sound quality into an extremely compact package. The CO-8’s diminutive size allows for a high degree of flexibility when integrating into virtually any application. Sydney’s Lyric Theatre saw 36 x CO-8 line array speakers utilized, along with four CP-218 subs, and Michael was thrilled by their performance.

“The CO-8 is such a punchy little box, slightly smaller than an L-Acoustics KARA or dV-DOSC, but they’ve got a really good bottom-end and low mid-section,” he added. “In fact it’s so good, I don’t need additional subs! The CP-218 subs are just so powerful I only need four of them; two on the floor and two in the air and the result is phenomenal. It’s a small yet beefy PA that is extremely efficient.”

This show has a wide dynamic range, ranging from ballads to pop/rock songs with a little rap here and there with severe bass drops, and Michael commented that the CO-8 system lends itself well to Kate Miller-Heidke’s and Keir Nuttall’s pop music. Having said that, Michael confirmed that he would be happy to use the CO-8 for most styles of musical theatre.

“The Cohesion Series has interchangeable Hornserts which allow a range of different dispersion flares for the horns,” explained Michael. “So within the arrays (left, right and centre cluster) there’s a range between 80° to 160° which allows incredible coverage right across the
room. More to the point, it delivers better localization to the cast so that your ears aren’t leaping from one cluster to another. The CO-8 really does deliver seamless coverage.”

Delay speakers in the Lyric included 50 x L-Acoustics 5XT with eight more for front fill and a further 32 for surrounds. A couple of Cohesion Series CP-6 self-powered point source loudspeakers and CP-118 subwoofers are used as SFX speakers. L’Acoustics 108P’s are used for Outfills and Michael describes them as the best sounding and most versatile loudspeakers on the market.

Out front, Brendon Gardner runs a DiGiCo SD7T with Michael commenting that they have added more instrument channels, mainly in the keyboard department resulting in eight stereo pairs of keyboard alone across three players and synth bass, played by the bass guitarist. In fact, Keyboard #3 is played by Guitarist #2 ... not confusing for anyone!

“It’s a large show in terms of input tallies with 105 inputs for a cast of 28 and a nine-piece band, indeed up to nearly 150 channels including the Roland M48 mix returns,” he confirmed. “The only outboard device is the TC Electronics Reverb 4000 on the principal vocals with all other effects onboard. The dynamics and equalisers on the DiGiCo range are great. All matrixing is done onboard also, eliminating external matrix devices. Armed with an iPad I can tweak the mixes within snapshots, and system settings all over the theatre easily.”

The cast utilised DPA d:screet 4061 miniature microphones with one DPA d:Fine 4066 omnidirectional headset mic for one scene where it’s rather loud and Michael needs to get the capsule closer to the mouth for gain reasons.

The band have the usual suspects as well as some interesting choices; Shure Beta 52, Beta 91 and Beta 57 for kick drum, Sennheiser e904s for toms, Earthworks SR30s on the overheads, AKG414s, KM84s, Beta 52a on percussion and Shure KSM313 dual-voice ribbon mics on the vibes. Added to that are Neumann KM184 over the strings and a Schertler P-Dyn48 on the double bass.

“I have the DPA 4099 for the acoustic guitars which sound beautiful,” said Michael. “The guitar players have the Helix Amp Modelers and when the 4099 ran through them, I was amazed at how warm and lovely they actually sound through the Helix. The guitarists control their own patches, so they control the muting of the mic, as a result we don’t have to fiddle around on the console’s snapshots or have external mute switches.”

The Lyric Theatre is a big house for any story, but Muriel’s Wedding fills the space with clear vocals and punchy songs, thanks to Michael Waters and JPJ Audio.

www.jpjaudio.com.au
Christie HS Series Laser Projectors Light Up Façade of Dandi Kutir

The light and sound musical, which celebrates the life and works of Mahatma Gandhi, is the second largest permanent projection installation in India.

Christie HS Series 1DLP laser projectors deployed for a 3D projection mapping show on the façade of Dandi Kutir are mesmerizing visitors with vivid and lifelike visuals that celebrate the life and works of Indian independence and civil rights leader, Mahatma Gandhi.

The 30-minute show, which features stunning projections using 16 Christie D20WU-HS laser projectors on the surface of the salt-mound-shaped museum, is the second largest permanent projection installation in India after the Statue of Unity (the tallest statue in the world, which also employs Christie projection technology for its nightly projection mapping show). It has been described as a fascinating showcase that pays tribute to the life, ideology and works of the late Indian leader dubbed “the father of the nation”.

Since its inauguration by Indian Prime Minister Narendra Modi earlier this year, the show has become a huge attraction that draws thousands of visitors to the museum on a daily basis. The installation and commissioning of the show was jointly undertaken by Christie’s trusted Indian partners, Bombay Electrical and Nolabel Immersive.

“We are very pleased and honoured to be involved in the creation and execution of this major 3D projection mapping show, which highlights Gandhi’s principles of cleanliness leading to self-empowerment and therefore creating a base for a decentralized, self-administered society and nation,” said Amit Gupta, Managing Director, Nolabel Immersive.

“Having used Christie visual solutions for various multimedia exhibits in the Dandi Kutir museum to great success, the museum decided that Christie’s high-brightness laser projectors are best-suited to deliver the visuals required for this new light and sound musical.”

The D20WU-HS was ultimately chosen as it has the best lumen-to-weight ratio – able to achieve the brightness needed for bold and colorful visuals with 20,600 ISO lumens, and yet weighing less than 100 lbs. (42 kg) for easy access and maintenance. And thanks to the
enhanced colour accuracy of Christie’s patented BoldColor Technology, the powerhouse performance of the D20WU-HS makes it a viable alternative to similarly bright 3DLP projectors.

Gupta noted that after a detailed site survey of the surrounding areas, the team decided that the projectors had to be installed within two structures overlooking the left and right side of Dandi Kutir’s façade. The D20WU-HS were then fitted in stacks of eight on each side to provide full coverage on the museum’s wall.

“Once we had identified the appropriate positions for the placement of all 16 projectors, the rest of the installation went ahead smoothly as planned. Due to its light weight and omnidirectional capabilities, we were able to easily lift and set up the projectors without the difficulties associated with larger projection systems. I’m glad to note that the D20WU-HS projectors performed superbly as expected, delivering amazing, true-to-life visuals that impressed all visitors since the show made its debut earlier this year,” Gupta added.

Michael Bossworth, Executive Director, Head of Enterprise for Asia Pacific, Christie, commented, “We are delighted that Dandi Kutir museum has chosen our high-performance and robust D20WU-HS laser projectors for this new 3D projection mapping show on its iconic façade. Congratulations must go to Amit and his highly proficient team for completing a remarkable installation.”

Located in Gandhinagar, the capital of India’s state of Gujarat, Dandi Kutir is the biggest permanent museum in the world based on the life and teachings of one man – Mahatma Gandhi. The museum takes the shape of a giant cone resembling a salt mound, which is a symbol of Gandhi’s historic Dandi March in 1930. Measuring 90 meters in diameter and 41 meters in height, the three-story museum creatively utilizes sophisticated technologies such as 3D mapping, holography, 360 projection, and transparent LED screens to provide a rich, multi-layered experience for visitors.

www.christiedigital.com
AGB Events Helps Light Up Cairns Festival
“Migratory Patterns” reflects Cairns’ historic status as a destination

For the third year in a row, Sydney-based creators, curators and producers of iconic celebrations AGB Events have staged a projection mapping show - “Migratory Patterns” - onto the iconic Cairns City Library for the Cairns Festival, for whom the company acted as creative consultant.

The Cairns Festival was founded by the Cairns Regional Council in 1961. Since then, the overriding vision has been to deliver a bright, bold and challenging program spanning visual and performing arts, culture and entertainment while showcasing the city’s key cultural precincts, nurturing local talent and driving tourism. Regional Queensland’s most significant and fastest-growing community event, Cairns Festival has come a long way and now takes advantage of state-of-the-art lighting, automation and audiovisual technologies.

Since 2015, the Cairns City Library has been transformed with projection artworks that speak to the culture, history and tropical lifestyle of North Queensland. As ever, AGB Events worked with a celebrated local artist – on this occasion, Hayley Gillespie. Born in London in 1972, Hayley relocated to Cairns in 1996. She has been a professional artist since 1989, in a variety of guises, and has drawn inspiration from Australia’s colours and lifestyle.

For this year’s festival, AGB Events developed a collaborative projection artwork titled “Migratory Patterns”, transforming Hayley’s remarkable
paintings into an animated story, projected onto the facade of Cairns City Library. The theme covers the rich cultural gifts brought to the region, as people from all over the world have called Cairns home. The story of Cairns is one of union; a place of meeting, sharing of cultural knowledge and arrival.

“It was a thrill and an honour to be asked back for the third time to help bring the Cairns Festival to life, and to be able to contribute to it being one of the foremost such events in the country,” said Anthony Bastic, Founder and CEO of AGB Events.

“It’s a joy to work with talented artists like Hayley, and help give their work new dimensions and a new dynamism by combining it with cutting edge technology, pushing boundaries to deliver something that is completely compelling.”

“Migratory Patterns” – part of the City Lights program, which engages local and national artists to create large scale projections to transform Cairns through projection mapping and soundscapes - was shown nightly between 7:00pm - 11:00pm from August 30 to September 21.

AGB Events has also made a significant contribution to many other high-profile cultural celebrations, including delivering the Vivid Sydney light show for the past 10 years, and the Parrtjima light festival at Alice Springs.

www.agb.events
SAUDI ARABIA

Vari-Lite Provides a Winning Team for Saudi Cup Final Celebrations
350 Vari-Lite fixtures including the new VL10 BeamWash and LED-based LVZ range light up the stadium

Called upon by event producer Maestro Group to light the prestigious King Cup Final in Riyadh, lighting designer Koert Vermeulen used the versatility of a rig exclusively from Vari-Lite, a Signify (Euronext: LIGHT) entertainment lighting brand, to deliver his spectacular, stadium-scale design. His creation utilized 350 Vari-Lite fixtures from the pioneering moving light brand, including 100 of the powerful, feature-packed new VL10 BeamWash and 100 fixtures from the LED-based VLZ range.

The King Cup, the highlight of the Saudi soccer season, was held in May at Riyadh's King Fahd International Stadium. The event included three separate shows - a five-minute pre-match entertainment, a 17-minute half-time show, and a post-show entertainment featuring an hour-long set by Saudi popstar, Rabeh Sager.

Vermeulen, of Belgium-based consultancy ACTLD, is no stranger to the challenges of designing on a stadium scale, and the variety of demands it makes of a lighting rig. Using six different Vari-Lite models, Vermeulen created a dynamic and flexible show lighting environment with depth and texture, for both live audience and television cameras, encompassing the pitch and performance area, the audience seating and the stadium structure.

Discussing his approach to the design, he says, “We are collaborating with the artistic director, Haitham Dghaili. It’s his vision we interpret. We deliver what is possible and then maybe add a few sparkles of our own on top.”

The powerful effects capabilities of the VL10 BeamWash offered sparkles aplenty. Vermeulen positioned these around the outermost...
audience perimeter to serve “as beam lights and eye candy” and to illuminate the stadium’s roof structure and canopies. This was his first experience using the fixture. “The VL10 was a big surprise - a real contender among the other fixtures on the market,” he says. “It compares very well with them.”

His extensive Vari-Lite toolkit also included the company’s latest LED-based lighting fixtures. In all, 30 VLZ Washes were provided a low backlight wash for the audience and effects during the presentation ceremonies, while 70 VLZ Spots were positioned around the stadium, in groups of six and eight, to cover the pitch area. “The VLZs met my expectations,” said Vermeulen. “They performed very well.”

Delivering impactful beam looks from high on the stadium’s supporting columns were 50 of the popular large-format ‘searchlight’-style VL6000 Beams, while 50 VL800 BeamLines added to the audience wash. Vermeulen also placed 50 VL4000 Spot fixtures on the stadium floor, making use of the internal shutter system to avoid interfering with the on-pitch projections.

Vermeulen concludes, “This was the first time in a long time that I had a full Vari-Lite rig, and they delivered - even above my expectations. I have experienced now, first-hand, that Vari-Lite is back with some quality products.”

www.signify.com
VUE Headlines Rye Music Festival

Systems’ range, reliability and reputation continues to amaze VUE China partner, S.A.G.

VUE China partnered with Beijing-based production company, S.A.G., to deliver audio services for the second-annual RYE Music Festival in Beijing on May 25th and 26th. The Capital’s first outdoor music event of the season, and one of just a handful of sanctioned events given the PRC’s 70th Anniversary security measures, the festival was held in Changyang Music Park and boasted Scottish headline act The Jesus & Mary Chain and Taiwanese pop stars Jolin Tsai and Jay Chou.

With three stages, more than 40 acts ranging from electronic to folk, and a 300-foot-deep audience field, the festival presented a number of unique challenges which included functioning in 100-degree temperatures and spring-time dust storms.

According to Mr. Zhang, owner of S.A.G. and long-time VUE China partner, VUE’s al-Class was the obvious choice for the festival given the brand’s worldwide touring notoriety and renowned sonic performance. “Since first using VUE in China, my team and I continue to be amazed...
by the system’s range, reliability and reputation,” said Zhang. “It’s an honour to bring this world-class system to China and exciting to see it becoming more and more in demand with each and every event.”

To accommodate the range of music genres and audience coverage, VUE China designed an al-Class system consisting of two groups of 16x al-12s, and 28x ground-stacked hs-221 subwoofers arranged in a cardioid end-fire configuration. In addition, 12x al-8s were divided into four groups and evenly stacked on the subwoofers for front fills, while 8 x al-8s and 2 x hs-221s on the front edge of both sides of the stage provided side fill. 2x h-12s and 1x hs-28 were used as monitors, while 16 x VUE V3s and 5 x V6s provided power for all arrays.

Over the course of the two-day event, temperatures hovered around 100F - 110F. In spite of the extreme temperatures, the VUE rig performed flawlessly meeting the needs of the wide range of musical performances. Several visiting engineers raved about the system’s wide bandwidth and how effortlessly it delivered everything from hip hop to acoustic sets with very little adjustments. In the words of a visiting hip-hop act’s engineer, “the VUE system delivers the sound we want without breaking a sweat.”

More importantly, event organizers and concert goers alike were amazed by the consistency and clarity of coverage throughout the field. Another engineer commented: “. . .At FOH almost 70 meters (230 feet) from the stage, it’s almost unimaginable how excellent the high frequency output is. The VUE system is truly incredible!”

www.vueaudio.com
JAPAN

Wavefront Precision Longbow Debuts at 20th Anniversary of Rock In Japan

The WPLs are designed as a complete system with multi-channel amps, automated DISPLAY optimisation software and VU-NET control platform.

Celebrating its 20th anniversary year, and extended to five days for the 2019 edition, the mighty Rock In Japan festival also marked the Japanese debut of Martin Audio’s flagship Wavefront Precision Longbow (WPL).

Running on seven stages over two weekends at Hitachi Seaside Park, music lovers from all across Japan congregated at the location. Unlike other large-scale festivals, this specialises in home grown talent and featured some of Japan’s biggest acts.

Martin Audio premium systems are now regular fixtures at this event, with the award-winning MLA adopted for the largest, 70,000 capacity Grass Stage. “It was back in 2011 when we first introduced MLA on the Lake Stage,” reports Shuzo Fujii, President of MSI Japan. “This is now the ninth year that the system has been adopted, and its high degree of control has become essential for the festival. Grass Stage has more than 200m depth, and without the need to use many delay towers, MLA can easily achieve the area coverage. At the same time, we can mitigate the noise pollution offsite — few systems can do that.”

Here, 20 elements each side formed the main arrays supported by a further 16 cabinets per side as outfills. In addition, a mighty 48 MLX subwoofers provided low frequency extension.

Proving how effective multicellular technology is for a festival of this size, MLA was also adopted for other stages such as the Park Stage (10,000 cap), Lake Stage (10,000 cap) and Sound of Forest (8,000 cap) with the control offered by MLA also helping to prevent unnecessary sound bleed between stages.

But it was at the aptly named new Buzz Stage (4,500 cap) that visiting production teams showed most interest, as it was here that WPL was making its debut. Martin Audio’s WPL is the largest format in the new Wavefront Precision line up of optimised passive arrays bringing high performance, optimisation, and control but with greater flexibility and cost efficiency to large-scale touring and installation applications.

Designed as a complete system with external iKON iK42 multi-channel amplifiers, automated DISPLAY optimisation software and VU-NET.
control platform, the more WPL enclosures with dedicated amplifier channels the greater levels of optimisation resolution is afforded the user. WPL offers two levels of resolution with ‘One Box’ (to one-amp channel) and ‘Two Box’ (to one-amp channel) available.

WPL incorporates 2 x 12” drivers with Hybrid horn/reflex loading, 2 x 6.5” cone drivers on a midrange horn which covers the vocal frequency range from 300Hz to 4kHz, and 3 x 1” exit HF drivers operating from 4kHz upwards. Each section features innovative horn-loading techniques and refinements which raise the acoustic performance of WPL both in terms of output and smooth 90° horizontal coverage patterns of the mid and HF horns. Sonically, WPL’s horizontal dispersion pattern translates to a consistent frequency response off-axis, with minimal variation from the on-axis response.

Six WPL elements had been flown per side, driven by three iK42 in 1-box resolution. In addition, two WPC enclosures were stacked as outfills, along with WPM as lipfill—all driven by iK42 amplifiers. The four iK42s were set up at the side of the stage, connected via a Dante audio network. Thanks to the Lumix Gigacore switch which has V-LAN settings, Dante primary and secondary as well as the control signals of VU-Net and APEX Intelli-X3 processor were combined into a single optical cable.

Meanwhile, 10 MLX subwoofers were set under the stage to meet the demand of DJs and provide plenty of low frequency headroom.

One of the sound engineers on duty—Ryuta Ishizaki from rental company MSI Japan—described the system thus: “The smoothness and transition from low to high frequencies was excellent and easy to control. I liked its punchy low end very much, as thick bass is my favourite. The high end was good as always. “The roof of Buzz Stage was made of vinyl and there were concerns about possible sound reflections. But the controllability was such that this wasn’t an issue and I had no difficulty operating the system.”

A total combined audience of 337,421 enjoyed wall to wall music across the stages over the five days.

martin-audio.com
Adamson and Sound.com Support A.R. Rahman’s Huge Homecoming Show

Power and clarity of the Adamson speakers negated additional reinforcement for the unorthodox venue configuration

Grammy- and Oscar-winner A.R. Rahman drew a massive crowd in mid-August 2019 for a special concert in his home city of Chennai, India. Once again, the artist — widely known as the Mozart of Madras — relied on Mumbai’s Sound.com to supply and support the live audio system for the show, which this year was built around Adamson Systems Engineering’s heralded E-Series.

“A.R. Rahman has been a client of Sound.com for the past eight years,” begins Sound.com Founder and Managing Director Warren D’Souza. “When we completely replaced all of our tour sound products with Adamson systems earlier this year, we knew we could offer the best possible solution to our high-end clients like Mr. Rahman. This was our first major outing with our new inventory and I think it proved beyond doubt that we made a wise investment.”

The system deployed at the YMCA College of Physical Education grounds for the show included main left and right arrays of 15 E15 three-way, true line source enclosures over three E12 three-way, full-range enclosures per side in front of nine flown E119 subwoofers in FBF cardioid configurations. An additional 15 E119s were ground-stacked on each side of the stage for more low-frequency support while eight S10 two-way, full-range cabinets handled front-fill duties.

The single delay ring included left, centre, and right arrays, with nine standard S10s on the left hang, 12 on the right, and a complement of 16 narrow-dispersion S10ns for the centre. D’Souza notes the unorthodox configuration was due to the uneven and asymmetrical layout of the audience area, and adds that in previous years, they required an additional delay ring to properly cover the site; however,
the power and clarity of the Adamson solution negated the additional reinforcement.

“I’ve been a fan of Adamson systems since mixing on the E15s a few years back in Canada. Ever since then, I’ve been waiting to get to work with an E-Series PA in India,” shares Fali Damania, A.R. Rahman’s FOH engineer. “The deployment for this show was excellent. My mixes translated exactly as I prepped them in the studio and in production rehearsals. I was amazed by the power, clarity, and representation of the entire spectrum, and not once did I feel like I was running out of headroom.”

Sound.com also had Adamson products covering the stage. While Rahman and his band are all on in-ear monitors, some like to split the mix at certain parts of the show. As such, two flown arrays comprised of five ultra-compact S7 two-way, full-range cabinets under a single S118 subwoofer were deployed as stage fills, with an additional S118 serving as a drum sub. As well, 14 M15 stage monitors were strewn across the deck – including two specifically for A.R. Rahman himself.

The decorated Indian film composer, record producer, musician, and singer has sold hundreds of millions of records worldwide, making him one of the world’s best-selling artists of all time. He has won 25 Filmfare awards, four National Film Awards, a BAFTA Award, a Golden Globe, two Grammys, and two Academy Awards over the course of his decades-long career.

Since its inception, Sound.com has evolved from being just a sound rental company to re-defining the idea of delivering an experience of “great sound.” With a combination of the best technologies, processes, and a professional approach, the company is committed to serving clients and audiences with incredible experiences on major tours, festivals, and more.

The company sourced its new Adamson inventory from the Canadian manufacturer’s Indian distributor, Sonotone, in January 2019.

“Investing in Adamson has been a game-changer across the board for Sound.com, from its outstanding acoustic capabilities and amazing sound quality to ease of rigging and the sheer ability to put a lot of boxes in the air to achieve the long throw we need,” says D’souza in closing.

“Everyone who hears the system becomes an instant fan – engineers, production teams, promoters, artists, and of course, the fans on the ground, as we learned getting to support the legendary A.R. Rahman in his hometown of Chennai.”

www.adamsons.com
CODA Audio Chosen for Lavish Chinese Stage Spectacular

The comparatively small size of the CODA Audio boxes was a big bonus in this challenging setting.

The Qing show is a hi-tech, permanently installed stage show produced by the Sunac Group in a purpose-built, 1600-capacity venue at the Oriental Movie Metropolis complex at Qingdao in the Shandong province of China. The venue’s architecture has a number of marine elements and is designed to represent a conch, giving it a truly unique appearance. Based on the Chinese legend of ‘Eight Immortals Crossing the Sea’, the show was conceived, designed and created by Artistic Director Luke Petit through Art Team Group Asia, his world-class international team with members from China, the USA, Canada, Switzerland and Belgium. Petit and his team are responsible for developing some of the most stunning, extravagant shows on the planet and this is no exception.

Four years in the making, the show, which covers a floor area of 21,500 square metres, has a cast of 63 performers, features a lifting stage, acrobatics, dance, classic Kung Fu moves, 3D holographic projections and a water curtain fountain to create the perfect fusion of traditional culture and modern stage art. The cast which features 12 main roles, was selected from more than 10,000 dance and drama actors across China and took two years to assemble. The scene fluctuates between land and sea throughout the performance and delivers a rich and vivid background to a spellbinding story. Rave reviews greeted the opening night which took place in April 2019.

Production Director Philip Alexi engaged experienced Belgian sound designer Erik Loots for the show and he in turn recommended a CODA Audio sound system for the project. The technology required to support a performance on this scale must meet the highest standards of quality and reliability and meet stringent criteria. Leading Chinese integrator (and CODA distributor) Tempo, was tasked with installing an expertly designed system.
Erik Loots takes up the story, “I became familiar with CODA when my old friend Hans Engelen at Viladco became a distributor. We go way back and he’s always been someone I’ve held in high regard. He introduced me to the brand and I quickly became a fan, both as a front of house engineer and from the design perspective. When this project was in its early stages I consulted with Hans and he offered invaluable assistance throughout, including introducing me to the CODA team in Hannover from whom I also received fantastic technical support.”

The CODA Audio system was chosen first and foremost for its excellent sonic qualities and huge dynamic range but its compact size added significant further value to the project. The spectacular aerial displays and video projections required the sound system to be as unobtrusive as possible - the positioning of the speakers was a challenge in itself - so the comparatively small size of the CODA Audio boxes was a big bonus in this setting.

The main flown system comprises a total of 48 x AiRay cabinets in a 4-hang/12 element-deep configuration. This setup enables the creation of 3 different audio images, ranging from a narrow L/R configuration, using mainly the centre-L/R arrays, over a wide-L/R image, by using mainly the outer-L/R arrays, to a complete wall of sound using all 4 arrays at the same time. 12 x SC2F in 2 arrays of 6 cabinets deep were flown behind the centre Main-L/R arrays as a spectral lo-frequency extension of the main L and R arrays, while a central flown array of 16 x SC8 subwoofers, 2 hangs of 8 cabinets deep, flown side by side in a cardioid configuration, served as the LFE channel of the system.

12 more ViRay cabinets, 2 arrays of 6 cabinets, were built into the scenic assets and served the dual purpose of infill arrays for the main
flown AiRAY system and bringing down the audio image from the high-flown main arrays. To achieve the cinematic soundscape desired by the show’s director, the system was completed by the addition of 48 x wall-mounted G715-96 cabinets in an Auro-3D immersive layout, using 3 layers of sound, namely ear-surround, height surround and a ‘voice of god’ layer. The system is driven by 24 x LINUS14 amplifiers, 24 x LINUS10C amplifiers and 6 x LINUS CON management system units and controlled via CODA Audio LINUS software.

Erik Loots reflects on the challenges, “The main issue with the installation was finding speaker positions that enabled complete coverage of the audience area and allowed for realistic audio-imaging, without interfering with the visual aspects of the show - the flight paths of 2D and 3D flights and video projection. The main system had to be flown very high above the performance area with the result that the bottom of the arrays is 19m from the floor. Through Tempo’s hard work and the support I received from Hans and the CODA Audio team, we achieved great success. Now that the show is up and running, everyone involved with the project is very happy with the system and its performance. Pierre Mush, the music composer for the project told me how impressed he was with the clarity and punch that the system delivers. I certainly agree - you can hear every detail of the music and sound effects.”

This major installation of CODA Audio by Tempo is further evidence to the Chinese market of how the quality, power and flexibility available from such compact enclosures can be harnessed to great advantage on the most demanding of projects. The ambitious aims of the Qing Show have been entirely fulfilled and CODA Audio has played a significant part in delivering its success.

codaudio.com
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