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Our contributor Alex Schloesser is not pleased. And what is getting him annoyed? Immersive Audio. "I am seeing this whole topic promoted at various ends. From practical experience, I know the limitations and everyone, and I mean everyone, who has tried this in a large-scale concert environment, has the same experience. There are obvious limitations, but no one promoting those products will ever tell you about those limitations." Alex wants genuine discussions about the limitations. Read his column in this issue to get the complete picture and if you agree, send us an email with your views and experience. On another topic, our feature column touches on the art of lighting design and the technologies that enable spectacular event productions. I hope you enjoy reading it.

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disguise launches Metaverse Solutions Division Enabling Next-level Extended Reality Experiences

LONDON: disguise, the visual storytelling platform and market leader for extended reality (xR) solutions has launched its Metaverse Solutions division to enable the next generation of extraordinary live, virtual production and audiovisual location-based experiences for the metaverse.

The recent rise of real-time 3D graphics rendering capabilities in gaming platforms means that today's audiences are craving richer, more immersive experiences that are delivered via the metaverse. While the metaverse is already defined as an $8 trillion dollar opportunity by Goldman Sachs, companies are still finding it challenging to navigate the technical elements needed to start building metaverse experiences.

disguise Metaverse Solutions will build on already existing disguise solutions that empower live events, audiovisual, location-based experiences and virtual production content in order to allow businesses to start taking advantage of the unique opportunities the metaverse has to offer.

Launched within the past two years, disguise's market-leading extended reality (xR) workflow has powered over 600 productions in over 50 countries. These include the delivery of live events in the metaverse, such as Kaskade's in Fortnite and Rocket League as part of its Llama-Rama event series as well as supporting launches for major brands like Gucci and Ferrari.

disguise will further leverage their extended reality solution together with their partnerships with metaverse event enablers Surreal and advanced content creators Zoan while also combining their workflows and expertise with Epic Games' suite of applications, such as architectural visualisation tool Twinmotion, web 3D viewer Sketchfab and 3D photogrammetry software Capturing Reality. With this, disguise will build capability to offer virtual production workflows custom-designed for the metaverse.

In the metaverse, live concerts hold more appeal than any other experience, with 45% of all adults eager to listen to live music in a virtual world. According to Rolling

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Stone, we are on the brink of a virtual artist revolution with Ariana Grande, J.Balvin and DJ Marshmello being the early adopters.

For over twenty years, disguise has powered spectacular experiences including music performances for the biggest artists in the world: Billie Eilish, Ed Sheeran, Camilla Cabello, Katy Perry, DJ Kaskade and J.Balvin, as well as for major shows like Coachella and Glastonbury to name a few. Their solution has been used by brands like Nike, Underarmour, Volvo, Siemens and Walmart as well as to power spectacular augmented reality and projection mapping experiences in the 2020 Expo Al Wasl Plaza dome, the BTS 'Love Yourself, Speak Yourself' Tour and rapper Dave's Brit Awards performance.

disguise's ability to enable infinitely scalable content has been used extensively in entertainment venues such as the newly-opened Nashville-based Nightscape venue and the Atlanta and Vegas-based Illuminariums which, through cinematic scenes generated in real-time at a 240-degree native field of view, allow visitors to experience being in another world, without using any VR devices.

This rich history will allow the new division to work with major and emerging Metaverse platforms, such as Fortnite, Roblox, Sandbox, Niantic and others, to deliver integrated solutions so brands and performers can create metaverse experiences that resonate with their audiences.

"Our mission is to help create experiences that challenge expectations. We believe in connecting the physical with the virtual worlds, to create Gateways to the Metaverse. Through this we will enable a world that fulfils essential human needs: to connect, to collaborate and to be included. The promise of the Metaverse is to unleash a new wave of opportunities for every kind of creator, including partners, brands, and performers alike. We have always focused on simplifying complex technology to unlock creativity that empowers our users to create the most amazing experiences. The creation of our Metaverse Solutions division and the launch of disguise Labs, are a key part of this strategy", says disguise CEO Fernando Küfer.

Led by disguise chief experience officer, Alex Wills, the Metaverse Solutions division will be fuelled by the creativity, technical consultancy and innovation from disguise's newly-formed exploration unit named disguise Labs that is led by disguise's Chief of Staff, Abi Bowman.

disguise Labs will be a global initiative, creating unique spaces for brands, creatives and technologists to test and experiment metaverse workflows. First established in New Zealand by Sam Folkard, Head of Labs New Zealand, Labs will now expand - bringing together local partners in key locations such as Los Angeles, New York, South Korea, London and Montreal. disguise's Global Head of Labs, Lara Bowen will be leading Labs' global expansion.

Built in partnership with experts in virtual production, live shows, broadcast and corporate communication, these Metaverse Experimentation Spaces will ignite innovation for future metaverse experiences. Brands or creatives wanting to explore the metaverse are invited to make use of the unique workflows, technology and expertise these spaces have to offer.

"There is a huge amount of interest and investment in this space right now and, what is most exciting about launching this new division is that we offer a tangible solution to help brands and creators develop the next generation of experiences. Our xR technology combines key metaverse building blocks including real-time 3D graphics, spatial technologies and advanced display interfaces – all to deliver a one-of-a-kind gateway to the metaverse," says disguise CXO and Head of Metaverse Solutions Alex Wills.

If you would like to learn more, join disguise at their next webinar, 'Opening the Gateway to the Metaverse', taking place on 15 June2022 in the Metaverse via the Surreal Platform and featuring key thought leaders from Epic Games, Amazon AWS, and disguise.

Sign up here

disguise

Sound Effects by Uday Shah Adds Comprehensive Allen & Heath dLive Mixing Solution to its Rental Inventory

INDIA: Pune's premier sound rental services company – Sound Effects by Uday Shah – has recently invested into adding an Allen & Heath dLive digital mixing system to its existing hire stock. The company currently holds a number of digital mixing consoles, but an increase in inquiries and requirements of larger events prompted the necessity for a more expandable solution; with enhanced capabilities of broadcast integration and redundancy being some of the key factors that influenced Uday Shah's decision-making process.

"The Allen & Heath dLive mixing system was something we needed in our rental inventory. In my personal opinion, the S5000 as a pure mixing control surface is really impressive, in terms of its capabilities as well as its look and stature. The new console has 128 inputs, 128 outputs with Dante integration. This combined with massive on-board processing means the system is an ideal addition to the hire fleet. Additional Dante components have also been added to inventory allowing

a more flexible, resilient and responsive approach to system design. It's a rock-solid mixer with simple drag-n-drop setup and extensive DSP and things our rental customers demand like redundant networking capabilities and hot-swappable power supplies. It for sure ticked all of the boxes with the added benefit of being rider friendly," explains Uday Shah, founder and director of Sound Effects.

As part of the rather comprehensive system purchase, Sound Effects bagged the dLive S5000 control surface with DM48 MixRack 48-input digital stagebox and DX168 AudioRack 16 x 8 portable DX I/O expander for dLive systems. And the Sound Effects' team wasted no time in deploying their newly acquired Allen & Heath dLive S5000 digital mixing console, DM48 MixRack and DX168 AudioRack for a grand corporate show that featured a rather elaborate theatrical unveiling along with several musical acts performing on stage.

Speaking about the experience and representing the Sound Effects team's views about the Allen & Heath dLive system in action, Uday shares candidly, "We purchased the system just a few days before the show, and so it gave us the opportunity to test it out in pre-production virtual soundchecks. This was a great way for our team of ace engineers to get familiar with the desk. We used multi-track recordings from a previous gig on a Dante playback. On the day of the show itself, by the time we arrived at the venue, we'd built up a reasonable mix and good confidence with the desk. 32 input channels were used, including playback at FOH. Six monitor mixes were also controlled from FOH, with all the vocal channels being 'digitally split' onto separate inputs for monitors. This allowed us to use the desired level of compression on the main mix vocals without affecting monitors, and thereby helping us avoid issues of feedback etc. Needless to say, the show proceeded in a super smooth manner, and at the end of it all, the entire Sound Effects team – especially our mix engineers – were extremely impressed with the capabilities of the console. We can't wait to work on this magnificent dLive system on the next show!"

Sound Effects by Uday Shah

L-Acoustics Pumps Up Spectators at Inaugural PIST6 Races

The inaugural PIST6 track cycling tournament kicked off with a dynamic entertainment program in the Tipstar Dome in Chiba, Japan.

JAPAN: Newly built on the site of the former Chiba Velodrome, the Tipstar Dome is one of the few velodromes in Japan to possess an international standard, 250-metre wooden track. The venue hosted the first annual PIST6 Championship, an event that combines art, food, and fashion while pitting top cyclists from Japan and abroad against each other in a competition to determine the world's fastest cyclists. A hybrid sport-and-entertainment event sets the bar high, and Japan's One Love Project was brought in to provide a show that would wow spectators.

No stranger to the challenge, One Love Project has produced interval shows for the Chiba Jets Funabashi professional basketball team and Japan's Nike Zoom Speed Race for years. One Love project director Jun'ichiro Takanashi created audio, visual, and lighting content to be played during race intervals and lead-ups to enhance the audience experience for the unique sporting event. Mr. Takanashi partnered with sound system designer and engineer Kotaro Matsuura of Wiz Inc. to design an arena sound system that would ensure dynamic music and reinforce intelligibility to keep fans engaged throughout the event.

"The most vital aspect for any One Love Project production is to have a system with a high degree of flexibility, as we often perform a variety of music genres," says Mr. Takanashi. "For the PIST6 launch event, a dynamic selection of originally produced, energetic 'street music' was part of the brief. I needed the power of a system with a strong low-end that also provides excellent vocal clarity for spectators in the velodrome."

Mr. Matsuura of Wiz Inc. explains further, "We needed to create a system that would clearly communicate the results of the sporting events, but would also be lively and dynamic, with sufficient SPL for the music

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One Love project director Jun'ichiro Takanashi.
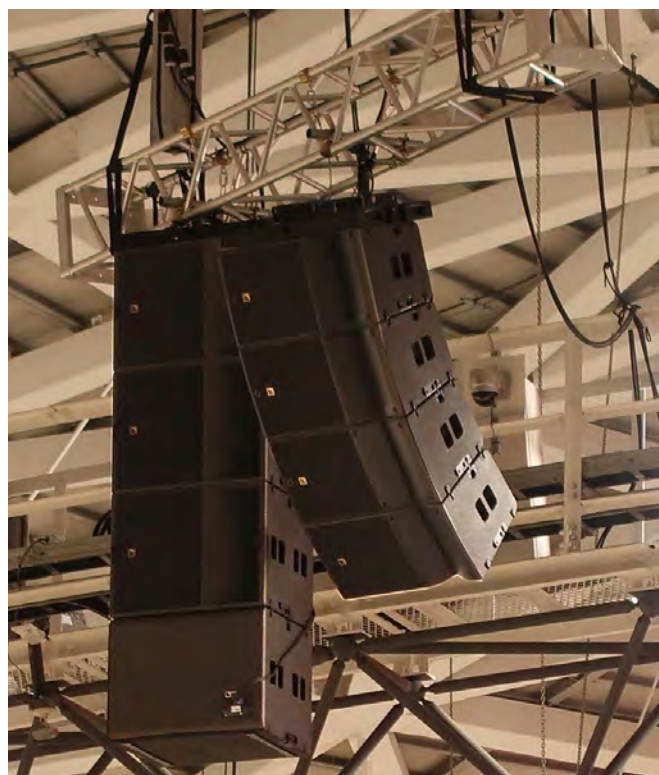
content. Our goal was to provide an environment where conversations could be held normally, even when the sound system would be pushed to high sound volumes. I felt that the power of an L-Acoustics system with low-end supplied by KS21 subwoofers would match Mr. Takanashi's sound production sensibilities, so I arranged a demo of an L-Acoustics system for him."

"The L-Acoustics system ticked all the boxes of my production pre-requisites," says Mr. Takanashi. "It was well-rounded, and in terms of SPL, it could accommodate this arena's size. I was sure that it would be able to deliver high-quality performance."

With low trim height and strict weight restrictions at the venue, the duo chose an A15 system to provide optimal coverage and power with a lower box count. Panflex adjustable horizontal directivity helped reduce reflections and achieve consistent sound coverage for up to 2,000 spectators in the arena.

The event system consisted of four arrays of four L-Acoustics A15 Focus flown alongside four KS21 subwoofers in a cardioid configuration which supplied low-end. Two of these array and subwoofer groups faced each of the longer sides of the oval-shaped velodrome.

An array of four A15 Focus flown in the centre on each side ensured that the middle columns of spectators in both wide stands received ample coverage. Eight LA12X amplified controllers drove the system.

At the centre, sofas were reserved for lucky spectators to enjoy the event and watch cyclists race around them on the track. Four pole mounted A10 Focus atop four KS21 subwoofers and six X8 coaxial boxes on floor stands delivered coverage to this centre lounging area. Further out, around a food truck, a pair of L-Acoustics X8 enclosures were mounted on a pair of SB15m subwoofers. Five LA4X amplified controllers drove the sofa-seating area and food truck sound systems.

Mr. Takanashi was pleased with the A Series performance. "A Series made it easy for me to express myself through my production. It responded smoothly between the quieter moments of sound effects as well as the louder, more energetic musical moments. I was thrilled that the system provided sufficient power with excellent quality throughout the arena. Precisely what a cutting-edge and entertaining sporting event like this requires."

L-Acoustics

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PP Sound Light Productions Expands Inventory with World-class systems from d&b Audiotechnik and Sennheiser

(L-R) Prem Bhoir and Prasad Parkar .

INDIA: Mumbai based sound, light and event technical solutions provider PP Sound Light Productions Pvt Ltd has recently expanded their inventory with the inclusion of world-class gear from industry leaders Sennheiser and d&b Audiotechnik. The new purchases join the company's existing cache of impressive technologies which includes a comprehensive loudspeaker reserve featuring the T series line array system and Max 2 stage monitors from d&b Audiotechnik, a full-format Venue S6L mixing console system from AVID, a comprehensive Axient digital wireless microphone system from Shure, and a plethora of microphones and wireless technologies from Shure as well as Sennheiser. These new purchases, according to the company, now puts them in a formidable position to capably commission a more diverse profile of events.

A whole new line-up of the V Series line array modules along with the B22 high-performance subwoofers from d&b Audiotechnik joins PP Sound Light Productions' existing loudspeaker inventory; with this purchase coming in as a direct response to the need for the company to reinforce their catalogue with gear that's not only flexible and adaptable but also seamlessly compatible with their existing rig, thereby allowing for enhanced scalability value of their services.

Prasad Parkar, director of PP Sound Light Productions Pvt Ltd, informs, "From the day we started this company, we were clear that we would stock only world-class equipment in our inventory. Our no-compromise attitude is perhaps the key reason that prompted us to initially invest into a formidable setup of the T-series line array system with B22 subs and Max2 stage monitors from d&b Audiotechnik", explaining that this initial investment

turned out to be extremely effective as it had a direct positive impact on the shows that the company commissioned, which in-turn resulted in us winning over a more diverse profile of events and clientele. "With the steady increase of work since the relaxation of COVID restrictions, we kicked off the event season with all guns blazing, and eventually found ourselves swarmed with multiple inquiries. Our decision to purchase the d&b V series and additional units of the B22 subs was purely to help us ensure that we could meet the demand of the various different clients that insist on their events being commissioned only by our company!" he emphasizes.

Speaking about the technical capabilities and features of the d&b V series and B22 subwoofers that further reinforced Prasad's purchase decision, he explains that the sophisticated design of the system coupled with its impressive power optimization and loudspeaker management capabilities proved to be the key deciding factors. "The V series line arrays and the B22 subwoofers have all of d&b Audiotechnik's trademark qualities – they are light weight, with extraordinary dynamic range and sonic performance; they offer impressive power capability and headroom exclusively to where it is targeted; and allow us to maximize all the benefits of the d&b suite of applied software technologies. Plus, the ability to leverage its constant directivity control down to low frequencies, coupled with cardioid subwoofer technology and integrated flying equipment makes it extremely easy to deploy while on-field, irrespective of the kind of event we're commissioning."

The purchase of the d&b Audiotechnik gear is complemented with the addition of a comprehensive infrastructure of the state-of-the-art Digital 6000 wireless system from Sennheiser (which includes multiple wireless handheld transmitters, bodypacks, and Dante enabled digital wireless receivers) which joins the company's existing microphone and wireless technologies inventory; plus a sparkling new 2000 series IEM system from Sennheiser (complete with variable output IEM transmitters and Adaptive Diversity Technology enabled receiver sets) which adds to the company's existing onstage / artist monitoring service capabilities. According to Prem Bhoir, CEO of PP Sound Lights Productions, the inclusion of the Sennheiser Digital 6000 wireless system and the 2000 series IEM system has now empowered the company to efficiently reinforce multiple music gigs simultaneously – a facet

that's become more of a necessity for the company since the past few months. "Since the event market opened up in late 2021, we've been fortunate to commission several events that have hosted some of the most reputed names in music like Sonu Nigam, Shankar Mahadevan, KK, Stebin Ben, Jasleen Royal, and many more. These are world-class performers who demand and deserve nothing less than the very best – and for such events, it becomes extremely crucial for us to deploy nothing less than world-class wireless microphone and IEM systems. We are extremely proud that these notable artists have praised us for not just the quality of our technical service but also the equipment that we provide – with several of the artists emphasizing that they look forward to working the next gig with us. With the inclusion of the Sennheiser Digital 6000 system and the 2000 series IEM system, we're now in a strong position to efficiently serve the needs of such world class artists across multiple events at the same time."

These purchases, however, aren't the end of the line for PP Sound Light Productions' plans for further investment and subsequent expansion, as both Prasad and Prem affirm their intent to add more world-class gear to their sound inventory with the addition of a few more mixing consoles etc, while also enhancing their existing holding of lighting equipment. Prem informs, "With this year showing a steady increase in the number of live events across weddings, corporate, and music & entertainment applications; we intend to fortify our inventory with more world-class gear that will help us to create bespoke experiences for our clients. We anticipate for there to be a steady increase in the demand for gigs like music festivals and large concerts in the months to come; and we are extremely keen to be a part of all that action. And to make sure this happens, we intend to further invest in key pieces of technologies like mixing consoles, wireless technologies, loudspeakers, and stage backline gear. Also crucial to our plan is further expanding on our lighting inventory, which already comprises multiple units of fixtures like washes, profiles, spots, strobes, blinders, LED par-cans, LED battens, Pointy 17Rs etc. The idea is to add products and technologies that can work with our existing inventory in a variety of different permutations and combinations, and allow us to offer the same level of high-quality service for events of all scales and types."

PP Sound Lights Productions

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Outline Appoints Daniele Tebaldi as Chief Technology Officer

Daniele Tebaldi - Outline's new Chief Technology Officer

ITALY: Outline S.r.l., leading European manufacturer of professional loudspeaker systems and FPGA-based signal processing solutions, has extended its organisation with the addition of a strategic new role: appointed as Outline's new CTO, Chief Technology Officer, Daniele Tebaldi will liaise with the company's R&D team, Sales and Tech Support crew and Board of Directors.

After embarking in the mid-80's on a successful career in Italy and Germany as a concert sound engineer with a keen ear for jazz, classical and contemporary music, ten years later Daniele conceived and directed Live Sound Education, one of the earliest and longest-running audio courses in Italy, hosted by the City of Modena – while continuing to work as a freelance copywriter, publicist and translator for the pro audio industry. This landed him a key role in the incorporation of a (now well-known) German professional loudspeaker manufacturer's Italian subsidiary, which he subsequently directed for 25 years.

"In 1997 I attended Daniele's education program in Modena, on the advice of my late father Guido Noselli, founder and technical guru of Outline," says Outline's marketing and communication manager Michele Noselli, a member of the Board of Directors; "Even 25 years later, I can still clearly see the reasons for which my father had vouched so strongly for Daniele's teaching in my education - back then he had indeed found common ground to his vision there."

"We're genuinely committed to keeping Outline at the forefront of audio technology, which is where it's been since its inception," says Outline's chief operating officer Stefano Noselli, also a member of the Board of Directors; "Daniele's contribution as Outline's CTO can greatly increase our capacity to take on the challenge of the most recent and profound changes in our industry, and build a technology roadmap that will turn tech trends into our source of inspiration and main enabler."

"The world we used to know is in our rear-view mirror", adds Giorgio Biffi, Outline's CEO, chief sales officer and member of the Board of Directors. "We want to transition into new sales segments, and reach out to more markets, adding vision to the expertise we gained from our core competences. Daniele grew in a Company that he joined when it was not unlike Outline in terms of size and understands how technology can help to change the way a brand is perceived – it's this expertise of his that we value most."

"Outline is a stronghold of solid audio engineering, sparked by a degree of passion that is often lost in the big corporate world," says Daniele Tebaldi of his new appointment. "I've found a most talented crew in each of Outline's units and departments, members of which may have been with the Company for well over thirty years, but still fearlessly use change as a highly powerful tool for crafting new products... I know this spirit, I've been there before – and I'm glad to be part of the game here and call it my home today."

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grandMA3 for Special Beijing Production

CHINA: The Beijing People's Art Theatre used their new grandMA3 lighting control system for a special revival of acclaimed historical drama Cai Wenji directed by Tang Ye, which was part of the venue's 70th anniversary season.

The work details the life story of Cai Yan, also known as 'Wenji', a female literary icon during the late Eastern Han Dynasty (25-220). The original production by renowned playwright Guo Moruo (1892-1978) was first staged at the venue in 1959 and is known for its poetic style and traditional Chinese aesthetics.

The original lighting design by Song Yin was reworked for this contemporary version of the show by Meng Bin, who retained all the essence and mood of more classical lighting and infused this with some modern creative twists. Lighting was programmed by Zheng Pengfei, and the stage design was by Chen Yongxiang.

Working closely with the design team was Lux Li, product promotion manager from MA Lighting's Chinese distributor, ACE. The consoles used on this production were two grandMA3 full-sizes (live and backup) plus some new grandMA3 nodes.

The theatre's lighting department has been running on grandMA for some years embracing all three generations of grandMA to date. Most recently, they have invested in three new grandMA3 consoles, two full-sizes and one light to replace the older desks.

Lux explained that they wanted to keep abreast of the latest technologies and having a very successful history with the brand, naturally looked at grandMA3 as a solution. They liked many features of the OS, including the power and scope of the Macro commands and the fact that the console is relatively straightforward, especially if familiar with MA architecture.

Cai Wenji"s lighting was a mix of moving lights – Vari*Lite VL3500s, VL1100s, Martin MAC 2000 washes, Fine1519 Pixies and Martin Rush MH1 Profiles – plus a substantial amount of conventionals, all of it consuming 5 universes of DMX.

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Zheng Pengfei liked several grandMA3 features of the console including Selection Grid which is a neat way to organize the fixtures in relation to each other, and the Phaser Editor which allows flexible operation of the fixture's parameters or can be utilised to dynamically create Phasers with multiple steps as well as a simple trackpad to move fixtures. "These and many more tools make programming and modification streamlined," he commented.

He finds Scribble useful, and the fact that the current cue setting fade can be directly clicked on the time and a number added and also likes Gel Pool noting that the colour is mixed very accurately, which can save serious time in colour adjustment and tweaking. The new Programmer can copy saved effects that can be modified and re-saved which is very convenient.

Overall, his impression of grandMA3 is that the console is "very easy to use".

The biggest challenges of lighting this show included being extremely careful with the use of colour and paying attention to the general control and accuracy needed along with the detail demanded over the production's narrative timeline.

The theatre's head of lighting, Fang Yi underlined the importance of a good relationship with the distributor when making a major new equipment investment like this one in grandMA3 as well as for feedback, consultation and swift and efficient support when needed, and comments that ACE provide "excellent and invaluable" technical support and training.

Photos: © Meng Bin

MA Lighting

SIXTY82 Arena Frame

This new concept is intended for venues that appreciate the convenience of a quick and simple stage setup. The simple design enables large stages to be created in the blink of an eye. With a staff of four and a forklift, a 200 square metre stage can be created in 90 minutes. All configurations can be made with the same set of frames.

Ayrton Cobra

Cobra pushes all the limits when it comes to beam definition with an incredible beam angle of 0.6°, and an extreme range of focus which permits the beam shape to be adjusted according to the operating distance. The Cobra is capable of illuminating an object several kilometres away with an output of 386,000 lux at 20m, 38x zoom ratio, and 0.6° to 23° zoom range.

PROLIGHTS Jet Family

The PROLIGHTS Jet family welcomes two new wash moving lights, the Jet Wash 7 and the Jet Wash 19. Their unique colour mixing mechanism allows for accurate and advanced control, as well as exceptional white temperatures and rich tones. The internal colour system includes +/- green correction, tungsten emulation, and a virtual colour wheel with macros, with white CCT presets ranging from 2,800K to 10,000K.

JBL Professional SRX900 Series

All SRX900 models work seamlessly with other JBL touring PA systems. Whether you're expanding your inventory or building a new system from the ground up, count on JBL SRX900 Series powered line arrays to deliver the power and performance you expect from the leader in professional sound-reinforcement technology. Because these systems are scalable, users can start with a small investment and expand over time.

Immersive in the Live Sound Arena

And you will say, I thought we had heard everything about this during the other four columns. However, this topic is so omnipresent that I cannot ignore this and I would like to offer my two cents again on this, especially so, because I happen to have a very critical view of this and for many reasons too. A lot of the arguments and statements out there do grind my gears, so I will vent for a bit. Please bear with me and I very much welcome our discussion about this.

We see the companies, who make DSP or Software solutions for Immersive applications promoting their tools and products and the amount of news that they generate, makes all of us feel that if we don't use and buy those products, we are yesterday's news. Loudspeaker brands like L'Acoustics and d&b are getting their in house solution integrated in digital mixing console setups, so that you can use their offering within the console setup and despite those offerings most likely being free of charge, you will have to use their loudspeaker systems, so this is where the dollar comes full circle.

While I was working with Allen & Heath, we had an immersive product already available in 2013. This was in the old iLive console, which was discontinued in 2015 I think. Part of the internal plug in offering was a plug-in called "LOUDSPEAKER MATRIX". This was nothing but a GERZON Matrix calculation where you feed in a stereo signal and the plug in distributes the stereo signal across five loudspeaker arrays according to the Gerzon algorithm. This is the Michael Gerzon, who invented AMBISONICS. I had a chance to use the plug in very successfully for a few years in the Vienna Arts and Music festival grand opening, where we had a Gerzon matrix system installed on top, across the stage and also below the stage for a more realistic stereo reproduction of orchestral pieces in an open air live sound environment. This worked amazingly well for our application The plug in was for free and from about a thousand

iLive users that I was able to meet over my tenure at Allen & Heath, less than ten even knew what this was about, least of all, how it could be used successfully in a live sound environment. The tool was available, but the applications were rare and rather limited and as a result this plug in disappeared when dLive was released and to the best of my knowledge it has not come back at all yet.

So why does all this grind my gears, you might ask. I am seeing this whole topic promoted at various ends and from practical experience I know the limitations and everyone and I mean everyone, who has tried this in large scale concert environment, has the same experience. There are very clear limitations, but no one promoting those products will ever tell you about those limitations. As an engineer interested in this you will have to study for weeks to learn and understand, only to find that the practical value in large scale concert sound is quite limited. Don't get me wrong, the immersive topic is super exciting and it has a huge playing field for audio engineers and there are great jobs to be had, but just not in large scale live sound concert reproduction, at least not with Loudspeaker systems in a conventional way.

The reason is physics and not that I don't like it and luckily the laws of physics are valid for all of us the same way, even for those claiming they have invented the perpetuum mobile already. The problem here is the sweetspot and localization question. The better your localization becomes, the smaller the sweetspot becomes. However immersion is all about localization and so we are in fact in a not solvable dilemma. In all research this was confirmed and is clearly communicated and it is even noted that this will become critical, if the sweetspot becomes smaller than one listener position, meaning not even one person could enjoy this properly. Go ahead, learn all about this and play with this as much as you can. Let's discuss what makes sense and what does not and please do build an informed opinion. Don't be swayed by the amount of noise that is being created about all this. This is definitely not the holy grail that it is portrayed to be. Next month back to basics….

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

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Sennheiser Launches XS Wireless IEM in-ear Monitoring System

Sennheiser, manufacturer of the acclaimed Evolution Wireless IEM systems, has now launched XS Wireless IEM for musicians seeking to professionalize their shows by switching from floor wedges to wireless IEMs.

XS Wireless IEM (or XSW IEM for short) is a complete starter set for personal monitoring and has been designed to set a new standard for simple, flexible, and reliable wireless in-ear monitoring. The system enables users to quickly establish an easy-to-manage wireless connection in the professional UHF range.

"No matter what your musical genre, whether you are rehearsing or performing live, XSW IEM will level up your sound and give you total freedom of movement," says Bertram Zimmermann, product manager at Sennheiser. "Being able to hear yourself with clarity is a pre-requisite for a great performance. XSW IEM will give you consistency, reliability, and quality audio, and will let you focus on playing and singing your best."

Regardless of tech experience, XS Wireless IEM systems are easy and fast to set up. They will put an end to stage clutter – and give musicians back more space in their rehearsal room.

XSW IEM uses the UHF band to provide a professional-level wireless connection. Aligned and pre-calculated frequency presets get musicians started with ease and in a snap. If desired, transmission frequencies can also be selected manually.

Backlit displays on both the receiver bodypack and the rack-mount transmitter help to clearly see settings even in poor lighting conditions. In addition, the system offers a limiter to protect user's hearing and a high-frequency boost to increase detail and intelligibility.

For their monitor sound, users can opt for a mono mix (one mix, and the pan control adjusts the volume for the left and right ear) or a stereo mix. The latter provides two options: With Focus mode switched off, the pan control will change the left/right volume; with Focus mode switched on, it will determine which of the two input signals will be heard louder, creating a personal mono mix tailored to the musician's needs.

An infrared sensor helps to easily sync multiple bodypack receivers to one transmitter.

XS Wireless IEM features reliable UHF transmission and a special Focus mode to tailor monitor sound to the musician's needs. An infrared sensor helps to sync multiple bodypack receivers to one transmitter

What's in the box?
XSW IEM includes a stereo bodypack receiver complete with in-ears and batteries and a stereo transmitter with antenna, rack-mount kit and a power supply with various country adapters.

XSW IEM is available in five UHF frequency ranges which are aligned with the XSW family of wireless microphones and instrument transmitters.

Sennheiser

Martin Professional Offers Lighting Designers Class-Leading Brightness and Unprecedented Versatility

The Martin ERA 150 Wash moving-head and Martin ELP PAR static LED wash are next-generation fixtures that produce class-leading lumen outputs with high-intensity zoom, full-gamut colour calibration and smart rigging and control functions, making them versatile workhorse lighting solutions for rentals, installs and touring. With a wide zoom range of 4.2–58 degrees, the ERA 150 Wash and ELP PAR excel at producing broad washes and high-intensity mid-air effects.

Both fixtures feature full-gamut colour-calibration systems, which allow consistent colour reproduction from fixture to fixture and support a dedicated colour temperature control channel for adjusting the colour space from the desired colour temperature.

The Martin ERA 150 Wash, the successor to the iconic Martin RUSH MH 6 moving-head LED, delivers a stunning 3,900 lumens—twice the brightness of its predecessor—thanks to its newly engineered 7 x 40W RGBW light engine and optical system. It's ideal for covering larger stages that require long throw distances.

Martin ELP PAR static LED wash is a successor to the best-selling RUSH PAR 2 static LED and outputs 3,500 lumens, twice the output of the previous model, thanks to the same powerful new light engine and optical system. Streamline setup with the ELP PAR's smart rigging and control features, including omega-bracket-connectivity and clear angle-projection indicators that allow for quick and repeatable installation. With the push of a button, the fixture temporarily switches to full-power/open-white/adjustable-zoom settings to instantly confirm projection and focus.

The ELP PAR IP variant (available later this year) is IP65 rated for outdoor use, providing protection from water and dust. And, its sealed design supports fewer maintenance cycles. Both lights feature a low-noise Theatre mode, which operates at a whisper-quiet 33 dB. Fixtures are ready for the road, thanks to their tough, lightweight yet durable design that has been verified through Martin's extensive test program.

Martin Professional/Martin ELP PAR static LED wash

JBL Professional Debuts Pro Sound-Reinforcement Technologies In Affordable, Scalable, Easy-To-Use Systems

The JBL SRX900 Series of powered line arrays includes dual 6.5-inch and dual 10-inch powered line array elements and 18-inch and dual 18-inch powered subwoofers. The family is ideal for rental companies, fixed installations and musicians seeking the ultimate combination of performance and portability.

The SRX900 Series' outstanding performance is based on time-tested JBL technologies: Custom-engineered and manufactured, high-power-handling transducers deliver superior fidelity and class-leading output. Precision waveguides provide accurate pattern control for intelligibility and definition that are unmatched in this category. User-configurable DSP and design-and-management software tools provide hands-on control from a computer or mobile device, making design, deployment and control a breeze. SRX900's cabinet architecture is thoughtfully engineered for easy handling, fast rigging, minimal space displacement and streamlined transport.

SBX900 Series speakers showcase acoustic innovations like JBL's patented Radiation Boundary Integrator (RBI), which mounts both the high and low-frequency transducers on a single horn, improving horizontal dispersion while minimizing cabinet size. A proprietary waveguide provides perfect cabinet-to-cabinet summation for seamless front-to-back coverage, and a large horn extends low-frequency control and reduces unwanted energy behind the array.

The SRX900's next-gen 2432H-3 compression driver features a neodymium magnet structure, 3-inch titanium diaphragm and a 1.5-inch exit, for crisp transients, superior dynamic range and extended sensitivity beyond 10 kHz. Woofers are based on JBL's Differential Drive dual-voicecoil, dual-gap design, which delivers better heat dissipation, lower power compression, and wider dynamic range than conventional single-coil designs. It all adds up to extended frequency response, high power capacity and low distortion in an incredibly lightweight driver assembly.

SRX900 models feature built-in DSP that provides everything users need to optimize and tune their systems, including 24-band parametric EQ, 2,000 ms of delay and gain control. JBL's proprietary Array Size Compensation (ASC) filter corrects for different array sizes, while the FIR-based Throw Distance

Compensation (TDC) filter compensates for air-imposed sound loss, for more uniform sound distribution. A rear-panel LCD provides access to key control features.

A suite of software tools simplify system design and management: Use the Windows-based LAC-3 simulation software to predict acoustical performance and the Array Link iOS/Android companion app to share rigging and mechanical information from LAC-3 to mobile devices. The SRX900 Series' dedicated CloudworX Performance Wi-Fi-capable system-management software integrates configuration and control functions in a single application.

The SRX900 Series supports HARMAN's new HControl Ethernet protocol, which brings advances in stability, reduces network traffic load and removes the need for complex IP addresses. Users can simply set a numerical value to each device for easy identification. Two switched network ports offer simplified networking for daisy-chaining. SRX900 products are equipped with dual Ethernet ports to facilitate monitoring and configuring the system over the network. Because SRX products use standard Ethernet protocols, customers can take advantage of inexpensive networking products such as Ethernet switches and Wi-Fi access points.

The SRX900 Series' LevelMax limiter suite, co-developed by JBL and Crown engineers, uses sophisticated excursion-control algorithms to protect transducers

from mechanical damage. Long-term thermal protection keeps transducer temperatures under control, ensuring reliable operation under any conditions.

The SRX900 Series offers a complete system solution, including speakers, subwoofers and accessories that support a range of configurations and simplify storage, transport and rigging. SRX900 systems can be deployed in a variety of ways, from pole-mounted to ground-stacked to flown arrays of up to 16 cabinets. A three-point rigging system makes suspending systems safe and easy, regardless of system size or user experience level: Pre-set splay angles on the ground; cabinets lock into place once the system is lifted. SRX900 products are designed to work seamlessly with other JBL touring sound products, thanks to common voicing targets and phase characteristics.

Because the SRX900 Series is self-powered, users never have to worry about matching components or lugging amp racks. Custom Class D amplifiers are passively cooled, with no open holes that could allow water or dust to enter the electronics. A universal switching mode power supply works on any voltage between 100 and 250V, and a low power mode conserves energy when no audio is detected, saving energy. Up to eight SRX906 speakers and four SRX910 speakers can be connected to the same power circuit (depending on region), minimizing cable complexities and cutting costs.

Reinforced plywood and composite enclosures are acoustically optimized for superior bass extension and designed for a clean, modern look, with enclosed side panels and integrated handles. Cabinets feature four large double-flared low-frequency ports, which allow airflow even when driving the system to the limit.

Like every JBL product, SRX900 Series models undergo 100 hours of rigorous stress testing to ensure they will perform flawlessly and reliably in real-world conditions. Available accessories include array frames, pole-mount and truss-clamp adapters, cases, carts and covers.

JBL Professional/SRX900 Series

Prolight + Sound Frankfurt Round-up

Adam Hall Cameos with New Product Highlights

The Adam Hall Group was present at the Messe Frankfurt exhibition centre with a separate booth for its Cameo brand where visitors were treated to Cameo fixtures for stage, theatre, architecture, and broadcast.

Cameo OTOS H5

With the new OTOS H5, Cameo is directly addressing the needs of professional lighting designers and rental companies who require a fully road and rider ready beam spot wash hybrid moving head in their portfolio. In addition to its use in venues with large capacities, the OTOS H5 – with its high light output (19,000 lm) and IP65 certification – is particularly useful in outdoor applications such as open-air concerts and festivals. This extremely flexible 3-in-1 spotlight combines a powerful light and effect output with a low weight of only 33 kg, making the OTOS H5 currently the lightest product in its performance class.

Cameo P2

With the P2 Series, Cameo presents its first profilers for professional theatre, TV and event applications. The series includes LED profile spotlights in Tungsten, Daylight and Full-Colour (RGBAL) versions, with extremely high CRI (96) and TLCI values for true-to-life colour rendering. With a light output of 15,000 lumens, the P2 models are a perfect replacement for conventional 1kW profile spotlights. In addition to their selectable pulse width modulation (up to 25 kHz) for flicker-free operation, the RDM-capable profilers can be flexibly adjusted in their beam angle (15-50°) via optional interchangeable lenses. For wireless control via W-DMX, the P2 profilers can be equipped with a Cameo iDMX STICK.

Cameo LUXIS

The new Cameo LUXIS FC is equipped with a 200W RGBALC 6-in-1 COB LED and offers excellent colour rendering (CRI > 92) combined with high light output (7750 lumens) and is suitable for the rental market as well as for use in theatres and at trade shows. Thanks to the innovative QuickChange mechanism for quick and easy lens changes, the beam angle of the LED spotlight can be adjusted without separate tools. For wireless DMX control, the LUXIS FC can also be equipped with the optional Cameo iDMX STICK. In addition, the patented SPIN16 technology enables fast and flexible mounting based on the 16 mm TV spigot integrated into the mounting bracket.

Cameo STUDIO PAR G2

Cameo also presented the new generation of the STUDIO PAR Series for the first time. This included the STUDIO PAR 4 G2, STUDIO PAR 6 G2 and STUDIO PAR TW G2 models, and is aimed at rental companies, smaller theatres and DJs looking for a versatile all-around LED PAR fixture at the cutting edge of lighting technology. Even in the smallest version (STUDIO PAR 4 G2), the G2 Series impresses with integrated full-colour mixing, while the STUDIO PAR 6 G2 extends the possibilities even further with the colour and light variants Amber and UV. The new STUDIO PAR G2 Series is rounded off by the STUDIO PAR TW G2 tunable white variant, which features 12 white light LEDs. In addition to optional wireless DMX control via the Cameo iDMX STICK, the new G2 Series is compatible with the patented SPIN16 technology.

Cameo/STUDIO PAR G2

Obsidian Control Systems Showcases New Portable Lighting Controls

Obsidian Control Systems was excited to return to PL+S Frankfurt and invited designers, programmers and operators to sample its host of new releases that included several new lighting control products under the ONYX lighting control platform.

NX1 Portable yet Full-Featured Lighting Console
Running Obsidian's powerful ONYX platform, the NX1 utilizes the full ONYX Operating System and offers a slate of professional features like a high-brightness 10.1" HD multi-touch screen; 4 assignable parameter encoders; 10 full motorized playbacks with four freely assignable buttons plus an extra playback and function key hybrid array. A dedicated Master Go section rounds out the efficient front panel design.

The latest in industrial components allows for fast boot times, instant operation and the ability to process 8 Universes right inside the console. With four DMX ports, a Gigabit network port for up to 8 Universes of Art-Net, sACN plus the ONYX X-Net protocol, the NX 1 has ample connectivity and power for a wide variety of shows and applications. One additional touch monitor is supported for even more direct access at any time. The NX1 is

expandable with the dedicated NX K keypad and the NX P motorized playback wing. A simple magnetic alignment system allows attachment on any side of the NX1.

NX P Compact, Motorized Fader Wing for the ONYX platform The ideal expansion for any ONYX 1 console and ONYX PC systems, the NX P replicates the full playback section of the NX1. Four integrated DMX ports provide instant connectivity to the lighting system. Multiple NX P wings can be connected to any ONYX console or PC system, expanding direct access with 20 playbacks at a time. The flexible button array can be mapped to playback control or powerful function keys. The NX P replicates the layout and all functionality of the NX1 and NX4 console surfaces so all operation is seamless and intuitive. A simple magnetic alignment system allows attachment on any side of the NX1 console or NX K command pad.

NX K Small USB-powered Control Surface for ONYX
The ideal companion for the NX1 console and ONYX PC systems, the NX K replicates the full keypad and command section of larger consoles. Four encoders

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complete the programming experience for fast and direct parameter access. A simple magnetic alignment system allows attachment on any side of the NX1 console or NX P motorized fader wing.

NETRON EP2 EtherDMX Node
A no-nonsense, no compromise Ethernet to DMX gateway solution for the professional lighting and AV markets. Part of the NETRON family of easy-to-use EtherDMX nodes, the NETRON EP2 offers a high-value solution for any type of system that requires rugged hardware, flexible configuration and a reliable Ethernet to DMX gateway solution at an affordable price.

NETRON DMX 10 flexible, rackmount, 10-port DMX splitter With dual inputs and freely assignable XLR DMX outputs, the NETRON DMX 10 is available with 5-pin XLR connectors or as a 3-pin unit. It is easy to configure and is ideally suited for installations and live event applications that do not require RDM communication. It is a high-value solution for simpler systems that require rugged hardware, flexible configuration and reliable DMX traffic management at an affordable price point.

Obsidian Control/NETRON EP2 EtherDMX Node

Vari-Lite Brings The Beauty Of Natural Light To Theatre
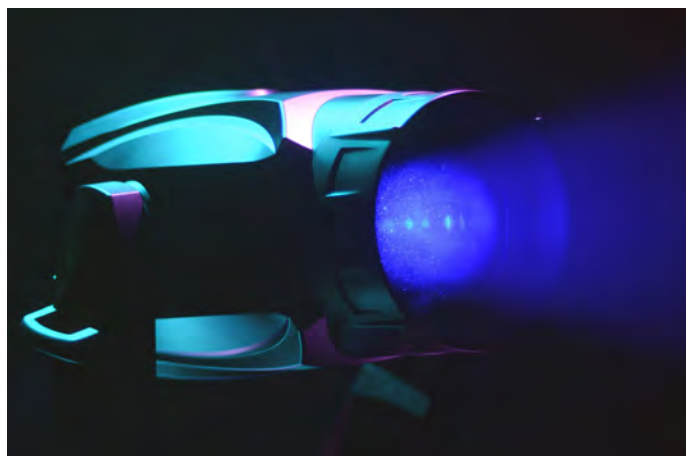
The VL1600 Profile is an advanced moving head profile luminaire designed for key theatrical lighting applications. It brings a high CRI tunable white source and the same CMY colour mixing system found in the

VL2600 PROFILE, along with a feature set targeting theatrical productions, TV studios, opera houses, music halls and performing arts centres.

One of the key features in the VL1600 PROFILE is the Vari*frost adjustable frost system. Vari*frost provides designers with a truly seamless graduated frost that diffuses the entire aperture at once, allowing for the lightest of image and edge softening to the heaviest wash diffusion, while always maintaining an even frost across the entire beam.

The VL1600 PROFILE also brings several other features that open creative possibilities for theatrical lighting designers. The exclusive VL*FX wheel, first seen on the popular VL10 BEAMWASH, has been updated on the VL1600 with animations designed to replicate natural lighting effects such as fire, water and earth tones. To simplify startup and minimize movement, the patented V*Track Calibration system calibrates pan and tilt on the fixture in less time and with less potential for damage to the rig or hanging scenery.

The VL1600 is now shipping.

Vari-Lite/VL1600 Profile

ArKaos Launches New VS1 Media Server

The slickly designed, portable and powerful VS1 is the first in the next generation of creative visual control products from ArKaos and is a feature-packed, intuitive, fun to use and cost-efficient solution. VS1 runs 4K video sources – with 2x HDMI and USB-C outs on the back of the device – giving the best and most vibrant results in a

hugely flexible and user-friendly control package.

Its compact dimensions of 143.2mm x 195mm x 43mm and triple unit in a 1U footprint means that several VS1 devices can be rigged in the same rack housing if desired, and the lightweight of just 1.2kg plus its robust, quality-engineering make it perfect for touring lighting operators, VJs and DJs. It is a low noise product, ideal for potentially acoustically sensitive environments like churches, museums and heritage sites and visitor centres, concert halls, etc. as well as for digital signage applications.

VS1 uses ArKaos' streamlined proprietary SAGA codec guaranteeing the best performance, the maximum number of visual playback channels and ultimate visual quality with 10-bit definition per colour and an Alpha Channel. The VS1 provides a 2.5Gb/s network connection for lighting fast file transfer and updates and will run MediaMaster 6, and a licence for this software platform is included in the price.

It is designed as an all-around rock-solid and reliable product with the touring market in mind. A product that visual designers/operators can travel safely and practically in a back-pack or a small case whilst working on a project where they would typically be hooking into different house LED and visual surfaces each day to run the tour's production visuals.

ArKaos/VS1 Media Server

Ayrton Celebrates 20th Anniversary with First All-Terrain LED Luminaire

Ayrton was excited to celebrate its 20th Anniversary in 2022 and had a VIP stand on its welcome return to the exhibition. Founded in 2001 by Yvan Péard, Ayrton has become a pioneer of LED lighting with a unique range of products and a reputation for award-winning attention to detail, quality and originality.

Introducing Domino LT
Domino LT is the first all-terrain LED luminaire in Ayrton's 'LT' (Long Throw) range, and is designed for intensive

outdoor use in long-distance applications that require high precision. It combines the minimalist design of Domino Profile with the colour mixing capabilities of Huracán Profile and the IP65 weather-proofing of Perseo. Domino LT's 225mm diameter frontal lens produces an ultra-intensive beam with a 15:1 zoom ratio and a zoom range of 3.5° to 53°.

Equipped with an all-new high-efficiency 1,000W LED module, Domino LT delivers a record luminous flux of 51,000 lumens at a colour temperature of 6700K. Domino LT's complex colour mixing system offers a double level of CMY saturation that can obtain 281 trillion colours (patent pending) and a triple corrector for variable colour temperature that allows subtle adjustment from 2700K to 15000K and significant CRI improvement.

Fitted with multiple optical tools for shaping light, Domino LT is factory-equipped with a linear progressive frost system, a lightweight frost filter, and two image-multiplying rotating prisms: one is linear with four facets and the other is circular with five facets. The framing section enables the precise positioning of each shutter blade on a 100% surface area. The effects section includes two superimposed rotating gobo wheels each with seven gobos, a 15-blade iris diaphragm, a monochromatic multi-position effects wheel, and an RGB and CMY effects wheel for unique multicolour effects.

Its full weather-proofing features are no barrier to maintenance as Domino LT's design still ensures total accessibility to the luminaire's internal functions. Domino LT is a unique luminaire designed to face the most extreme conditions. It is the ultimate tool for stadiums and large arenas

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Groundbreaking new product releases

Alongside Domino LT, Ayrton revealed two ground-breaking products, Cobra and Zonda made their débuts in Frankfurt as part of the now-famous Ayrton light show.

Cobra delivers astonishing beams of light with unprecedented power and contrast ratio in a compact, stylish and IP65 enclosure. 42 times zoom, continuous pan and tilt rotation and the most comprehensive effects package of any moving light ever created complete Cobra.

Zonda allows designers a whole new dimension of creativity, backed by unique optics resulting in performance not possible until now. The first in a family of sleek, powerful and uncompromising wash fixtures.

Ayrton/Domino LT

Kinesys and TAIT Explore the World of Opportunities for Live Experience Automation Technologies

Kinesys and TAIT Explore the World of Opportunities for Live Experience Automation Technologies
TAIT revealed three adaptable winches: ideal for scenic movement, and with the requisite SIL3-rated safety features now mandated for performer flying. The team also introduced new drives optimised for installation requirements that provide an impressive powerhouse for precision position control.

Visitors to the stand enjoyed a hands-on experience with TAIT's latest automation console, epiQ, to understand why it has become the control surface of choice for theatres producing a repertory schedule, or for spectacular shows that require tight integration between show elements including those using Navigator features such as timecode sync. or live 3D real-time positioning data.

Joining the new machines on the stand were the tour-proven Kinesys Apex hoist system, the Kinesys Vector control console, and the Kinesys Libra range of load monitoring safety tools that ensure all static and dynamic loads are continually and precisely measured in real-time.

The Kinesys DigiHoist fixed speed chain motor controller and the industry-standard Kinesys Elevation drive for hoists and trollies were also featured on the stand.

TAIT/epiQ Console

Kinesys/Apex Hoist

ADJ Unveils Host of New Lighting Products

Hydro Beam X12

Expanding ADJ's popular Hydro Series of IP65-rated moving heads, the new Hydro Beam X12 has been designed to create stunning aerial effects, both inside and outdoors by harnessing the power of the latest Philips Platinum 12R LL MSD Discharge Lamp technology. The light from this extremely efficient source is focused through high-quality optics to create a piercing output with a tight 2-degree beam angle. This can then be manipulated by a variety of beam-shaping tools to generate a myriad of impressive effects. These

features include 14 colours + white, 16 GOBOs + open, motorized focus, two rotating prisms and a frost filter.

Focus Flex

Also on display for the first time will be the new Focus Flex. This compact yet potent moving head offers lighting designers the creative flexibility of generating vibrant washes, punchy beams, and eye-catching pixel effects from one compact and quick automated luminaire. It features an array of seven powerful 40W 4-in-1 RGBW colour mixing LEDs, each of which can be controlled independently, together with a motorized zoom function which delivers a variable beam angle of between 4 and 32°.

Encore Lime Par Series Expansion

Encore Lime Par series of IP65-rated LED wash fixtures utilizing high output 4-in-1 colour mixing LEDs that include individually controllable red, green, blue and lime elements. The inclusion of the lime LED primary colour boosts both CRI and perceived brightness as well as fills in gaps in the colour spectrum. Each LED is rated at 20-Watts and in addition to a huge gamut of colours is capable of delivering white light with colour temperatures varying between 2700K and 7000K.

A multifunction fixture, designed to be used interchangeably as a wash, strobe or blinder, the Encore LP32IP features 32 LEDs arranged in a 4 x 8 matrix and divided into 8 independently controllable zones. The complementary Encore LB15IP is a linear fixture featuring 15 LEDs, which can each be controlled independently. Meanwhile, the Encore Z7LP is a par fixture which combines 7 LEDs with a motorized zoom function offering a variable beam angle of between 5 and 50-degrees. Finally, the Encore LP5IP is the smallest fixture in the range, packing 5 LEDs into an extremely compact par fixture.

Ultra LB18

The Ultra LB18 is a powerful and versatile linear LED wash, designed for permanent installation or temporary event use at indoor locations. It features 18 x 10W 5-in-1 colour mixing LEDs (red, green, blue, amber & lime) and has a beam angle of 17 x 40°. The fixture is supplied with brackets that can be used to set it directly on the ground or to attach a clamp for truss mounting and the ends are also magnetic to allow adjacent fixtures to be quickly and easily aligned.

COB Cannon LP200ST

Expanding ADJ's popular COB Cannon series of LED-powered wide-angle wash lights, the new COB Cannon LP200ST features a high output 200W COB (Chip On Board) 5-in-1 LED engine. It combines, in varying intensities, the independent red, green, blue, amber and lime LED elements that make up its light source to allow the creation of a huge spectrum of colours. A compact and versatile fixture with a high CRI, it offers a wide 80-degree native beam angle but is also supplied with both 40-degree and 50-degree lens options.

Encore FR Pro WW

Finally, following the initial success of ADJ's Encore FR Pro Color Fresnel, the new Encore FR Pro WW model offers the same 7" Fresnel lens as its sister product, but is powered by a potent 200W warm white LED engine which delivers an impressive maximum output of 7,690 lumens. ADJ's most potent LED-powered Fresnel to date, it offers a manual zoom range of 10.8 to 32.7° and is supplied with a gel frame, while a set of Barn Doors is available as an optional extra.

ADJ/Hydro Beam X12

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Voice-Acoustic Presents Exciting Developments and Significant Hardware Update

Ikarray-6

The new Voice-Acoustic Ikarray-6 is a symmetrical, ultra-compact 2-way Line-Array loudspeaker equipped with 2 x 6.5" neodymium drivers and a slightly pre-curved vertical array of 8 x 1" dome tweeters with 100° horizontal dispersion. Thanks to the newly developed and innovative 1-point rigging hardware and the beautifully rounded front grille, the Ikarray-6 offers a very elegant appearance for environment aesthetics.

HDSP-DA Amplifier

The Voice-Acoustic HDSP-Amplifier series is designed for the highest demands on audio quality and reliability. To be prepared for future requirements, the HDSP-A amplifiers series is extended by a digital input (AES/EBU) and an integrated network switch. The new HDSP-DA amplifier series features the same Digital Signal Processing (DSP) platform and capabilities as the HDSP-DDA amplifiers. As a special feature, a later upgrade to Dante is also possible without any problems. With this innovation, Voice-Acoustic responds to the increasing demands of users for digital connectivity and enables growth in line with their needs. To ensure seamless integration, the new HDSP-DA and HDSP-DDA amplifiers are of course compatible with all HDSP-A models, which are being discontinued immediately.

Alea-5

As an expansion of the Voice-Acoustic Alea-Series, the new Alea-5 is a 2-way coaxial loudspeaker with a 1 x 5" / 1" driver that impresses with a low cut-off frequency and a wide, smooth sound distribution. With its aesthetic design, compact appearance and 100° radial coverage, the Alea-5 loudspeaker is the ideal solution for a wide range of sound reinforcement applications.

Voice Acoustic

Robe Hits the Ground Running with Five New Products

PAINTE Moving Light

PAINTE

PAINTE is a compact moving light that delivers a quiet, quality profile solution for short to medium throw scenarios in theatrical, television, installation, live or corporate settings. The impressive 12,000-lumen fixture output has a sparkling, clear white light, with boundless colours via the advanced CMY colour mixing system.

Designed for noise-sensitive environments, PAINTE features a TE 310W HP White LED engine from Robe's TRANSFERABLE ENGINE technology range, a motorised 8°- 48° zoom which is ideal for a wide range of short to medium throw applications and many more.

iBeam 250

Festival fever will soon be here … and the **iBeam 250** is the latest in Robe's constantly growing iSeries which are

Spikie+ can be rigged at any angle

fully IP65 rated. This offers everyone's favourite wash-beam attributes – speed, colour and zoom range, etc – in a package to handle all the challenges of outdoor use and work. Ideal for festivals, concerts, theatre, and any outdoor events or unpredictable weather scenarios, the iBeam 250 also has all the favourite features of its massively popular indoor relative, the LEDBeam 150. Ingenious ingress protection is specifically designed and developed to ensure the fixture is completely sealed and IP65 compliant. An aluminium housing provides a dust-free environment for the optics, eliminating the need for frequent cleaning, routine maintenance, and UV damage to plastic parts. NFC (Near-Field Communication) technology, setup, diagnostic and performance features can be accessed directly from a mobile device even when the fixture is not powered via the Robe Com app.

TetraX
This has been developed after the huge success of the Tetra1 and Tetra2TM products. Added to the TetraX is a dynamic pan movement with extremely high-speed continuous rotation, dramatically increasing the sweep-effect possibilities of the fixture. Each of the 9 evenly spaced pixels generates an ultra-tight 4° beam and these combine to produce a bright, defined "sheet" of light. The homogenised beams and smooth 11:1 motorised zoom provide ultra-smooth washes out to 45°.

TetraX excels with three patented MCFE – Multi-Coloured Flower Effects – emitting sharp, multi-coloured spikes of light, with variable speed and rotation direction control, which further boost the impact of in-air animations.

Spikie+
Retaining the fast-moving, compact design of the original, the new Spikie+ generates 25% more lumens from its single 60W RGBW source. The fixture has a specifically designed 110mm front lens and a rapidly moving zoom that produces beams from a super-tight 4-degrees to a soft and wide 28-degree wash. Once again, Robe's MCFE - Multi-Coloured Flower Effects create sharp multicoloured spikes of light, rotating bi-directionally with variable speed.

The unique Beam Effects Engine transforms the output into three piercing rays of narrow beams, while continuous pan and tilt movement adds a further layer of dynamism. Colour management includes CMY or RGBW mixing modes. Small and compact, weighing just 7.3kg, Spikie+ can be rigged at any angle.

Anolis Calumma
The Anolis Calumma Series has been designed as a new industry-standard range to continue the success of the Anolis ArcSource family. The floodlights are powerful, efficient and well-rounded to provide great light output for many applications. Calumma luminaires have proper durability for harsh outdoor environments as well as a beautiful design to complement indoor applications. A wide range of options makes the Calumma valuable to any lighting designer.

ROBE/Spikie+

DAS Audio Introduces LARA Powered Cardioid Line Array

A powered, cardioid, 4-way line array system with a symmetrical design, LARA offers 146 dB linear MAX SPL and a wide dynamic range, making it an ideal system for large events. The cardioid design provides a remarkable attenuation at the back, behind the system, of 15dB in the 63 Hz - 200 Hz range. Not only does it help the artists on stage, but also reduces the noise pollution generated by any live event.

Power efficiency is yet another highlight of the LARA systems. The Powersoft S.p.A. class D amplifiers

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The 3-point rigging system is another great feature used in both LARA and LARA SUB, allowing users to fly arrays of up to 24 x LARA units and 16 x LARA SUB units. The FSSTM (Fast Set Splay) system allows the angles to be adjusted in 1° steps, from 0° to 7°, from the ground-stack position, reducing assembly time significantly.

DAS Audio/LARA

ETC Brings Out Its Talen

integrate a switch-mode power supply with power factor correction (PFC), ensuring maximum performance and efficiency regardless of the mains voltage. Each set provides a total of 6000Wrms of power, divided into 8 channels, to feed the 2 x 12" and the 2 compression drivers, the 2 x front-facing 8" and the 2 x rear-facing 8".

All LARA components have been custom designed and manufactured to maximize system efficiency. The system incorporates two 12" bass loudspeakers with 4" voice coils, plus two 8" speakers in cardioid configuration. To cover the mid-frequency range, two 8" speakers with 2.5" voice coils are used. The high-frequency section consists of two DAS M-78N compression drivers with 3" voice coils and a waveguide with a horizontal coverage of 100º.

On top of what can be expected from a line array of this category, the brand has also included some very outstanding features, which constitute a major improvement for the sound engineer; Control and monitoring for each frequency section, self-positioning and arrangement of the systems in an array, EQ for groups or single speakers, integration of the DASaim optimization tool (FIR), creation of ONline and OFFline projects, etc.

Talen, an automated luminaire, adds visual excitement and big looks to any show with its punchy, rig-defining aerials. The fixture's high-intensity beams are created with full additive colour RGBW emitters and a large front aperture, resulting in an extremely narrow 3° beam with high centre beam candlepower.

With infinite pan and tilt movement, Talen moves beyond the positioning limitations of other luminaires. ETC Whisper Home technology ensures that fixtures always return to their original position when asked. Regardless of fixture rotation, this proprietary technique uses absolute encoding to offer precision and consistency.

Talen's footprint is small enough to fit anywhere in a lighting rig, and it can also be rigged in creative hanging positions. Talen aims to be a compliment to any show, with intriguing features like an eye-catching TIR lens producing a narrow beam of light, and fixture setting can be remotely managed through mobile devices using ETC's Set Light App. The Talen Array Hinge facilitates

hanging groups of Talen fixtures in tight clusters for unique design elements.

ETC/Talen

ClayPaky Focuses on World Premiers Plus New Sharpy

VOLERO BATTEN AQUA

VOLERO BATTEN AQUA is the new Claypaky high-performance LED moving batten. The light source is made up of 10 x 60W Osram RGBW LEDs, adopting extra-wide 80x80mm lenses and some important features like the separate control of the Zoom in 2 groups from 5 adjacent lenses. With its IP66 protection rating, standard Wireless DMX control, a large number of effects and built-in macros it is the perfect lighting effect for the touring, event, television and installation market, and works equally well for both indoor and outdoor applications.

TAMBORA LINEAR is an advanced line of static LED Pixel mapping bars designed for versatile lighting effects and artistic set decoration. These are hybrid bars, which incorporate two complementary effects into one fixture: the first is driven by a system of 400 RGB pixel LEDs, which offer a background light very similar to that of a high definition LED wall in appearance. The second effect is created by a central line of 200 extremely powerful white LEDs for an overwhelming strobe effect.

TAMBORA FLASH is the only hybrid fixture on the market that can act simultaneously as a strobe, wash

and blinder, specifically designed with a modular approach for use in a linear array, to offer new creative opportunities to lighting designers. Tambora Flash features an IP66 degree of protection, which guarantees its ideal use in outdoor applications.

Adding to the family of the award-winning SHARPY fixtures, Claypaky introduces the **SHARPY X FRAME** multifunction luminaire. It takes the best features of the Sharpy line and integrates a four-focal plane shutter system in a lightweight, compact unit. As a completely hybrid, multifunction fixture, the SHARPY X FRAME is not limited to beam effects, it can also be a spot, profile, or wash unit.

ClayPaky/VOLERO BATTEN AQUA

Elation Grows Key Light Series with Broadcast Optimized KL Fresnel 6 FC

Elation Professional has expanded its KL "Key Light" Series of LED Fresnel luminaires with the full-colour KL Fresnel 6 FC. The new KL Fresnel 6 FC projects gorgeous shades across the full colour spectrum and meets the strict standards of performance venues that are light critical and noise-sensitive like broadcast studios and theatres.

Designed for any application requiring high output soft light with precise colour reproduction and adjustable colour temperature, the KL Fresnel 6 FC excels at highlighting performers or scenery on stage in a uniform wash of soft field light. Offering a wide array of colours from rich saturates to subtle pastels and dynamic white light, it is an ideal key and fill light source for situations

requiring outstanding colour quality and is a perfect match with Elation's KL Fresnel 8 FC.

The KL Fresnel 6 FC produces the finest quality of light with dynamic colour temperature adjustment and full colour control. It houses a highly efficient 220W RGBMA LED engine calibrated at 6500 Kelvin for a beautifully diffused wash of light. It produces up to 8,000 field lumens with a motorized zoom range of 10° to 32° for easy adjustment of beam size. For illumination that is more precise with less light spill, adjustable and removable 8-leaf barn doors allow for customized shaping of the beam.

Colour rendering is of the highest quality with high CRI (92), TM30 (88) and TLCI (95) values, meaning that colour re-creation is extremely accurate both to the eye and to the camera. As a flexible complement to any professional lighting system with customizable effects to accommodate a variety of aesthetic design requirements, the KL Fresnel 6 FC has also been designed with respect to the whisper-quiet requirements of the professional stage and studio.

Optimized for the specific requirements of broadcast, the KL Fresnel 6 FC can adjust for light that shifts away from pure white towards green or magenta through a green-magenta shift adjustment and a virtual gel library. Capable of matching the white balance for the camera, users can easily shift the colour temperature without the use of plus/minus green gels and filters. Additionally, the LED refresh rate can adjust up to 25 kHz so there is no flickering when used with high-speed cameras. DMX controllable with full RDM support, it offers

intuitive manual control for standalone operation when desired for instant control of zoom, intensity, colour temperature, green shift and other important settings. Display and dedicated dimming and control encoders are conveniently positioned on the bottom of the unit for easy, unobstructed access. The KL Fresnel 6 FC is also available in a pole operated model for easy pan, tilt and zoom manoeuvrability while avoiding having to access the fixture by climbing on a ladder.

The KL Fresnel 6 FC is portable yet rugged enough to withstand rough handling on today's fast-paced sets. It can be mounted on a stand or suspended using any standard clamp or the included Junior pin adapter. It is fully self-contained without the need for an external power supply and offers locking power pass-through for easy linking of multiple units.

Exceptional colour rendering quality, precise CCT presets and remotely adjustable LED refresh frequency make the KL Fresnel 6 FC an excellent choice for any professional production environment. Elation's KL Series also encompasses warm-white and cold-white models, as well as full-colour-spectrum LED soft Panel lights, and full colour LED Par lights.

Elation Professional/KL Fresnel 6 FC

GLP Makes an Impression with Next Generation LED Wash Light

The impression X5 is a "next-generation LED wash light" that brings all the benefits of the iconic X4 series with cutting-edge technology and much anticipated new features. The fixture weighs only 13.3 kg and is equipped with 19 powerful 40W RGBL LEDs that provide an incredible light output and an expanded colour gamut. GLP's new iQ.Gamut colour algorithm, for example, ensures that the impression X5 produces a clean white point at 6,500 K with high colour rendering (CRI 90 / TLCI 90) as standard, plus the option to switch to other fixed and precisely calibrated white points. With the new super-fast zoom mechanism, the impression X5 offers a 16:1 zoom from 3.5° to 60° with homogeneous light distribution across the entire range.

Astera Uses Exhibition to Showcase New Technology Launched Last Year

The new design gives this LED wash light a fresh, modern look. The round-shaped design allows for a variety of geometric patterns for great pixel mapping effects. The impression X5 also features a comprehensive effects package, including a virtual colour wheel with 64 colours from the LEE filter palette, tungsten emulations, magenta/green correction, a new colour quality control and effects channel, and double-layer effects. GLP's advanced technology enables near-silent operation as well as breakneck speeds at over 540° pan and 200° tilt.

Another show premier was the GLP XDC1 IP Hybrid fixture, an impressive fusion of X5 wash qualities and raw JDC1 strobe power. In fact, a large number of these fixtures are already proving their versatility and performance characteristics on Ed Sheeran's current world tour.

The XDC1 was developed in collaboration with a top star of the UK lighting design scene. The innovative hybrid combines the impressive wash characteristics and powerful colours of the impression X5, with a narrow beam angle of just 9°, with two extremely bright strobe lines borrowed from the JDC1, all in an IP65-certified housing. The GLP XDC1 IP Hybrid can be aligned horizontally and vertically and effortlessly combined with other units to create seamless columns or lines.

GLP/impression X5

Astera's PixelBrick is a highly flexible luminaire and truly multi-functional light source with the power and finesse of Astera's famous Titan LED engine coupled with the practicality of its popular AX3 LightDrop product, all in a completely new and fully adaptable housing.

Perfect for concerts, events, filming, or broadcast scenarios, PixelBrick is compact, light (1.1kg) and exceptionally handy as an up-lighter – like an AX3 – or it can be hung anywhere and become a universal light for accenting and texturing buildings or facades. For exterior use, it is IP65 rated and therefore resistant to rain and other elements. The PixelBrick has 450 Lumens and 1200 Lux at 2 metres – both at 3200K and can also be used like a PAR as a general-purpose fixture complete with a bracket.

It has already won several awards for being fabulous!!

The AX9 PowerPAR is a high-intensity, rock-solid, The company also showcased the AX9 PowerPAR, AX2 PixelBar and the NYX Bulb.

Astera

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In Control Of Light

The art of Lighting Design and the technologies that enable spectacular event productions

by Elton Noronha

Renowned lighting designers and executives from acclaimed lighting equipment manufacturers share their take on the ever-evolving artform of lighting design and the various technological advancements that aim to reshape the present and future of event productions.

Art, as we all know it to be, is considered to be the ultimate form of creative and emotional expression. This is probably why 'categorizing' a piece of art as 'good' or 'bad' could, at best, be described as an extremely tricky and subjective task. In the world of events and entertainment, the one technical forte that most closely resembles 'art' in its purest form is lighting design. Here' the lighting designer ascends light and colours in all its glory to reinforce the on-stage performances and create a spectacle of magic and wonder.

Lighting Design 1-0-1

In the pursuit of creating the perfect lighting design, the lighting designer aims to completely fulfil the 6 main functions of Lighting Design, which includes visibility, selective focus, create modelling, creating the mood, revealing the space, and finally (and most important) supporting the story.

To explain these facets in a bit of detail;

Visibility is all about how "clearly" the audience can see something, in that good visibility is comfortable on the eyes, and is enhanced by all the qualities of light.

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Selective focus means that objects and people are highlighted or darkened to control the audience's attention (or focus). The intention here is to guide the audience's focus on the more important aspects of what's happening on stage. That being said, a truly gifted lighting designer understands that sometimes it is more interesting to have an individual / prop in the shadows, than in the light; especially when multiple elements are on stage.

Modelling creates space and depth on stage, and helps emphasize the three-dimensionality of an object or person. The contrast of light and shadows creates visual interest and actually allows the audience to see things more clearly, especially the human face. And this is also true for three-dimensional objects and textures used on stage.

Creating the mood is when the designer brings to life lighting atmospheres that evoke emotional moods in the audience; using all the qualities of light, but more precisely the most effective are colour, angle and movement. Colour changes will affect the audience subliminally, while sharp angles of light can be exciting and intriguing. The rhythm of the light moving from cue to cue is also a powerful tool in creating mood in the atmosphere.

Spatial manipulation is key aspect in the art of design; wherein revealing the space means how much of the theatrical space appears to the audience. This, of course, can change depending on which lights are used in a particular atmosphere.

And finally, with 'supporting the story' lying at the heart of performing arts -the lighting designer must support what the performers are saying and the story they are telling through a clever amalgamation of all of the aforementioned points. And the key to doing so lies in instituting a unified production that integrates all the areas of theatrical art, from acting to lighting design.

Although somewhat general in description, and sometimes difficult to measure, these functions are there to serve as the basic requirements for any 'good' lighting design. And when these functions are accounted for precisely, one would probably assess that a generally accepted 'good lighting design' is always found to be

nuanced and subtle; ensuring that it does not draw attention to itself.

However, if for whatever reason, the lighting design does not accomplish all these functions, then you could subjectively say that the design is not 'good'. However, the key word here is 'subjectively'.

Challenges Deeper Than Apparent …

The challenges that a lighting designer faces in his daily endeavours to 'create magic on stage', however, isn't limited to ensuring that they suffice the aforementioned key functions of lighting design.

When asked about the most challenging aspect of being a lighting designer, with respect to skill (i.e. the art of creating lighting designs), and technology (the various equipment used to make your design ideas come to life), **Guru Somayaji, a reputed independent lighting designer and live music consultan**t from India notes, "Lighting Design as a concept in India is at a curious phase of moving from being nascent to becoming a recognised industry. Until a few years ago, artistes and events relied on 'Lighting Operators,' and not designers per se. Today, the industry has to recognise the difference between a 'Lighting Designer', 'Lighting Programmer' and a 'Lighting Operator'. This I believe is the biggest challenge at the moment. Until this recognition happens, it doesn't matter if we have access to the best equipment and crew. The skillsets applied when a human being is made to juggle these three roles means the final creative output remains a bit of a pot-pourri. That being said, I must say that all is not lost yet. The recognition that Stage lighting is a crucial aspect of any event or a show is slowly beginning to dawn on promoters; and with baby steps, we as lighting professionals are beginning to get some budgets towards rental of equipment to be able to do these. Of course, technology comes to the rescue by way of being

able to demand access to newer consoles and various pre visualisation softwares also come to the rescue. However, where there needs to be a steep curve that the industry needs to adapt to is being able to provide standard name brand fixtures as opposed to cheap knock-offs".

Adrian Ngieng, lighting designer & programmer, Light Plus Design, based in Singapore, seems to agree with Guru on the aspect of the need for show producers and promoters to pay greater heed to increasing budgets for lighting design; as he offers his point of view in response to the same question, by asserting, "After so many years as a lighting designer, the most challenging aspect is the quality of the show. We have the latest technology, and the latest lighting equipment but when it comes to the concept and ideas of the project, it is always the lighting budget that is kept to the minimum. With that amount of lighting budget that is thrown to you, you have to use what you have and come out with a great lighting design."

Of 'Artists' And Their 'Palettes'

When thrown into difficult situations like the ones listed earlier by Guru and Adrian, professional lighting designers often have to rely on their experience, expertise and the various equipment that they have at hand to pull off a visually enchanting spectacle for the audience. And just like any artist, say for example a painter; a professional lighting designer relies on the various tools that are at his disposal, to bring together a lighting design that is pleasing to the eyes.

For a painter, perhaps the most crucial yet understated tool in his/her arsenal is the palette. And when you view the role of an ace lighting designer akin to that of a master painter, it becomes easy to understand how a lighting console perfectly correlates to a colour palette by means of role and function. And just like every thorough professional in their respective field, lighting designers too have their quirks when it comes to choosing the 'perfect' console to suit their 'vibe'.

Speaking about their personal idea of the ideal lighting console, both Guru and Adrian have extremely interesting points to share, with Adrian going in first as he infuses a bit of wit and humour in his response, mentioning, "Lighting Console... Huh... I'm a HOG lighting programmer!! Different consoles have their pro and con... it is the lighting programmer that decides or prefers which console they want to use for their events. As for me, since I started in this industry with FLYING PIG (WHOLE HOG II), I have been using their console till today which is the HOG 4 console. So it is entirely up to the programmer."

Guru on the other hand lays down the facts from his perspective as he affirms, "I would say each console is unique to the user. Every console is as advanced as they can get. However, it is up to the user and what he has understood of the console that makes the difference. A LD's advantage when approaching any event, is to clearly know the kind of look you want to achieve (in terms of the lighting design) and the cues that you'll need to do so. Having this clarity will define how any console would work for you. In your head, you've got to figure out a process and workflow of how you programme your lights and to understand the flow of the console itself can help you achieve your objective. I believe that's the first step to figuring out how to derive the best out of any console. I have had the good fortune of owning MA products which gave me ample time to explore it. Previously having entered the world of lighting with Martin M series (now Elation Onyx) and Avolites console; today I personally prefer MA consoles for the kind of functionality and dexterity that they offer. I love working with the MA brand so much so that it has been one of the key reasons why I travel with my own rig consisting of a Grand MA2on PC Command Wing + Grand MA3on PC Node + Akai APC 40; to design and operate shows. Travelling with my own console means I am in complete control of my workflow."

Options Galore

With lighting design essentially sitting at the heart of an event production, it comes as no surprise that several equipment manufacturers across the globe look to offer a host of solutions with features that vie for attention and acceptance to be counted as leaders of the pack.

With the grandMA series of consoles being a popular option among lighting designers around the world, **Daniel Kannenberg, brand manager of MA Lighting** informs about the developments offered by the brand, as he comments "The flagship is our whole grandMA3 system! Starting from the smallest devices up to the biggest consoles we offer one software, one layout, one system. No matter if the user is working on an onPC connected to a grandMA3 Node or in a multi-user session with grandMA3 full-size consoles – the features and functionalities in the software are absolutely the same. The basis of that is an efficient parameter calculation which helps us to provide reliable backup scenarios, the possibility of real multi-user environments and synchronous DMX output in real-time. And all of this with the biggest flexibility for the user. Providing standard views, predefined objects, simple layouts up to a complete pre-programmed startshow, takes down the hurdle for a user to dive into the grandMA3 system. This is extremely important due to the fact that show requirements on the other hand get more and more complex, while also observing that there is less and less time to pre-program and to adjust the shows on tours, festivals but also less time on stage in theatres, studios or houses of worship. 'The MA Recipes' as we call it, are capable of storing all the different components and ingredients you need, to create a look. In a show which is based on Recipes, you can change all these different components separately, by simply exchanging a particular group and your showfile can be adjusted by one command. So, a procedure of some hours or even days can be shrinked to a short moment! Another aspect is that of collaboration; wherein together with Vectorworks and Robe we worked on the GDTF standard, for a more seamless experience in the exchange of data between different platforms and for a fast production workflow. Another thing we are definitely aiming for is the integration of video elements to our software, considering the fact that lighting and video goes hand in hand. And finally, considering the potential in the connection and integration of different systems, in the grandMA3 system, we put lots of efforts to provide

grandMA

different interfaces, protocols and features to realize this, with OSC and NDI being some of the protocols which give us many possibilities".

ChamSys – a popular global manufacturer of professional lighting equipment – introduced three key product developments during COVID times in the form of the MQ500M, MQ250M, Stadium Connect. Speaking in detail about these developments and the kind of possibilities these products offer, **Aziz Adilkhodjaev, international business development manager, ChamSys** shares, "We're proud that ChamSys kept its focus on developing quality products during this challenging period and now we're excited to see them now used on mass during festivals and event over this summer. Our Stadium Series offers great potential to lighting programmers, directors and designers at all levels in every market, and we are particularly very proud of the ChamSys MQ500M Stadium Console for many good reasons, starting with its capacity to handle 256 Universes direct from the console (ArtNet / sACN). It is also a very user-friendly intuitive console that is loaded with performance features, such as 15 fully motorised fader playbacks, 15 encoder playback with RGB indicators. 12 multi-purpose Macro/Executes/Playbacks keys, backlit buttons and RGB illumination of playbacks and more. On the other hand, MagicQ's (the software that runs on ChamSys consoles) philosophy

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ChamSys MQ500M Stadium Console

is to provide powerful features right at the operator's fingertips, without the need to complicated macros' to achieve functions. One of MagicQ's latest features is 'Group Based Cues' coupled with Group FX and Default Palettes. This makes adapting the show effortless, when things change in the rig e.g. different brand fixtures or quantities change simply update the groups! When a number of fixtures change e.g. 8 spots on a truss one day, then 12 the next day; using Group Cues with Group FX means FX are automatically adjusted and included into the FX based on the order the heads are stored into the group. In the same vein, our R&D team is always looking at features that will increase the power and enhance the performance of our consoles; but for obvious reasons, this is classified."

On to more recent times – Obsidian Control Systems (distributed by Elation Professional Lighting) launched the new NX1 full-feature compact console at Prolight + Sound in Germany a few weeks ago; that is intended for smaller to medium projects where a simple console is needed without a PC, but can also be used by rental companies or the mobile lighting programmer. The brand, however, hails the NX4™ as their flagship console. Running the ONYX lighting control platform, the NX4 is a combination of the original M6 + M1HD, which features 64 universe console; 4 XLR outputs, 10 motorized playbacks, display readouts over playbacks, 12 submasters, 9 push encoders, 22 executers + dual go buttons, 15.6" full HD touch monitor x 2 external ports, and some more.

Speaking about the capabilities offered by the brand's NX range of consoles, **John Lopez, channel sales manager, Obsidian Control Systems** distributed by Elation Professional Lighting, comments "I believe the most crucial feature would be the effects engine. How easy or fast can one create a dynamic look? We believe we have answered this call with the introduction of the DYLOS Media FX Engine. It is the first of its class to be implemented into a lighting desk for both light and movement effects. That being said, the DYLOS Media FX Engine is incorporated into the Onyx software but doesn't need to be used; which means that old school programmers can do what they have always done, while also offering the potential to open up an entire new world for the new age of programmers. The advantage of Onyx is that it is a Cue Stacking console with command lines so it is a method of programming that is comfortable to many. DYLOS is much more advanced but is incorporated into the cue stacking programming. Also, we are constantly developing at ONYX so it is a great benefit to programmers to stay connected with us to see what's

Obsidian Control Systems NX 4 console

new. Our new NX1 system also features the full version Onyx software, which allows the programmer to record shows on the smaller desk and then transfer them to the larger desks and vice versa. The NX1 also features an expandable fader wing with motorized faders along with a 10-digit keypad that on their own can operate as a PC wing. Combined with the NX1, they create a very powerful large-size console".

In the same stride, the newly launched Eos Apex is ETC's flagship lighting control desk that promises powerful and elegant features across the variants that it comes in, i.e. the Eos Apex 5, 10, and 20. Large multitouch displays with 'eye-strain-reducing 4K resolution' offer access to Magic Sheets, Direct Selects, Augment3d models etc, and articulate on a dual-axis featuring a 160-degree viewing angle. Plus, the 5, 10 and 20 motorized Playbacks on each Apex console (respectively) boast an additional, separately-mappable scroll wheel for on-the-fly programming. These of course, are in addition to a slew of other functional features that look to ease workflows and processes for lighting designers on the field.

"Eos Apex was designed by listening to our users, and was engineered from the beginning for future readiness. Their feedback and our observations have shaped the new technology that the Eos Apex hardware encompasses, including some technology that we customized to better meet our users' needs. The haptic programming touchscreen and the Target Keys are examples of hardware that we co-developed with our vendors, to make their experience perfect for how lighting teams actually work. Plus, our advances


in timing control, data management tools for editing, color control, marking, and custom user interfaces are in every Eos Family product. Eos Apex gives new touch-points for these tools, allowing the design team to work even faster and in greater detail. Adding connectivity through 1Gb and 10Gb network interfaces gives us speed for larger shows. Wifi and Bluetooth radios allow us to connect accessories and remotes. Even our output garage has modular components, so new protocols and connectors can be added to the desk by dropping in a new module. We expect these consoles to be in operation for ten years or more, and we wanted to add tools that would remain relevant for the lifetime of the desk. We are also in constant development with our software, and new features to expand Eos' toolset, and take greater advantage of our newest hardware in Apex, will continue to roll out for many years. And alongside, we have started work on Eos Expansion Processing, which will allow users to add processors to their network to scale up output to support ever-growing shows. It is a large task, and we are hopeful to release those features early next year. Concurrently, we are working on expanding features in our new Augment3d 3D programming environment" informs **Nick Gonsman, product manager (EOS Family of products), ETC.**

ETC Eos Apex console

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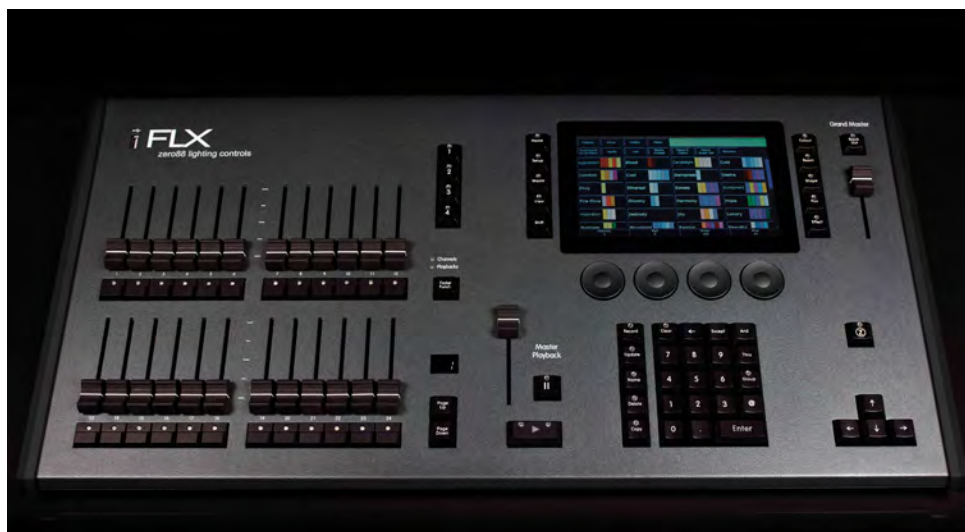
Zero 88 FLX console

And finally, offering a slightly different perspective of the business approach; **Jon Hole, global product manager, Systems and Control, Strand & Zero 88, Entertainment Lighting**, explains about the various advancements that the brand has been working on with the view to have a more positive impact on present and future scenarios, as he notes, "Our flagship Zero 88 console is FLX, which supports up to 16 universes with no fixture limitations. FLX runs "ZerOS" – our software which is focused on saving the designer time and maximising their creativity. With FLX (and the ZerOS software), our priority has been to decrease setup and programming time and to increase design time. The FLX design prioritised flexibility – reducing hardware-specific features and instead allowing for configurability through software. For example, legacy Zero 88 consoles had dedicated 'Channel Faders', 'Submasters' and 'Cue Stacks'. Some even had a dedicated 'Chase' section. On FLX, we combined all of these into 'Playbacks' – a single place where everything lives. And if tomorrow we think of a fourth type of fader, we don't need new hardware to achieve that. We're also proud to have been commended for our approach towards business, awarded several patents and won Innovation Awards around our interfaces and automation tools for achieving this. For example, our RigSync technology

which automatically patches and manages your lighting rig, meaning you don't need to worry, or even understand, about DMX. Tools such as Auto Palettes and RigSync do all the prep work, getting you ready to operate quicker than ever before. Programming time is reduced with a simple three step programming method for moving lights, colour changing and conventional - what you want, how you want it, where you want it. And for all those really important features you need over and over again – you always have direct instant access via the 'Z' button. Another example that spotlights our commitment to building a better a better future for not just our users, but for the entire global community at large is the fact that at Signify, one of our '5 Frontiers Strategy' is to 'Drive growth for sustainability', and this has been the driving force behind Signify's Global operations being 100% Carbon Neutral".

Tools and Expertise to Create an Enhanced Audience Experience

If lighting consoles can be considered akin to colour palette, then crucial aspects like the various softwares that lighting designers use to further enhance the output of their skill and creativity, can be considered as brushstrokes (achieved in varying degrees of fineness depending on the kind of brush tip used).

"I would say – visualizer, 3D SketchUp, and Vectorworks. Now-a-days, designers all over the world are using visualizer software to build their show no matter how big or small an event may be. Other softwares such as Unreal Engine, are also noteworthy in their contributions. I personally use (L8) software to do my pre-programming and presentation!" exclaims Adrian, while Guru adds "From a lighting world point of view, pre-visualisation and design softwares like LX, MA3D, WYSIWYG has made a massive difference", while also emphasizing the need to build knowledge and expertise about the nuances of lighting design within the event community

by teaching all concerned technical professionals how to read lighting plots. "I am of the opinion that having the best knowledge of software and design skill does not really translate to understanding ground realities. For example, understanding truss joints in real life will help you design a rig keeping this mind. If you don't, you can plot the most complex design, but they will invariably end up being asymmetrical as lighting fixtures cannot be rigged where two truss sections join. With a semi-formal sector of riggers and technicians in the thick of the entire process of bringing a production together, I think we are still a little way away from being able to achieve perfection in the craft" he concludes.

Lighting Design vs LED Screens

On the topic of achieving perfection, it should come as no surprise that the lighting design for any event must be devised in a manner that flows in harmony with other key technical aspects of the event. Considered most crucial of them all is LED technologies.

With LED screens and videowalls becoming a staple fixture on stage, and with products within the LED technologies space vying for superiority in terms of 'who can offer the brightest screen with the most vivid colours and resolution' … lighting designers these days need to be far more adept at ensuring that these two seemingly distinct yet unmistakably similar technological capabilities work in harmony with each other to ensure a truly immersive visual experience for the audience.

Guru explains, "As of now, the biggest battle is for LED technicians and Visual Jockeys to understand that LED screens are way brighter than a typical lighting fixtures. I have seen tonnes of excellent set designs being killed by irresponsible video wall technicians who refuse to reduce the brightness of their screens. The very first thing any LD / VJ needs to look at is how does the intensity of their equipment work on cameras, even a simple phone camera. If it looks super out of focus and blurry, it means the intensity is a lot. If an electronic device cannot handle the intensity, then how could the human eye? When I work with VJ's, I always offer them a sense of what my design and operation direction is like. If I am working with bands, I prefer taking the lead on cue-calling. For electronic music, I prefer if the VJ took calls on what cue's I should fire. At the end of it, the

focus is not on delivery of a great light show by ignoring the visual content; but on delivery of a great show where all departments – sound, light, visuals, SFX etc all sync as one"

Adrian adds by stating, "Speaking about LED screens – this is a system that modern-day events cannot leave without. Lighting designers like me work a lot with graphic content and merging with lighting cues. LED screens, stage, and lighting need to be designed as a full concept. The console these days plays a key role in controlling the media server, and content that is projected on the screen needs to pair with lighting effects to highlight one uniform visual effect to the audience. This is basically dependent on the creativity of the lighting designer and visual operator".

Thoughts For The Future

While the current day scenario for lighting designers in the field could be viewed as 'bitter-sweet' to say the least – with easier access to state-of-the-art technologies being viewed as one of the biggest positives amid the seemingly outnumbering negatives in the form of inadequate event budgets, lack of pertinent knowledge about the subject matter among peers and support crew, etc – Guru and Adrian choose to form their views and thoughts about the future based on technologies advancing at a rapid rate, and the kind of positive impact this could have on the artform of lighting design.

When probed about the kind of features and capabilities that lighting designers would like to enjoy from equipment of the future, Guru quips, "For sure it would be the ability to remotely handle setup of the showfile at least. I believe we will slowly get there; and the first step in doing so would be for equipment providers to upgrade their equipment. It's really time for the millions of fake Avolite Pearls to be sent into the scrapyard!

Adrian, on the other hand, aspires for a more 'zen-like' scenario for lighting designers in the future as he wittily responds to the same question, asserting, "All I'd like to see is 1 desk that can switch and configure to different manufacturer's consoles!"

AUSTRALIA

TDC Kicks Off the Technology That Powers Vivid Sydney 2022

Walking along the 8-kilometre Vivid Sydney Light Walk and taking in the cultural and artistic show is a lot of fun. Read on to understand what it's like to labour behind the scenes to bring these incredible animations to life.

IMAGE Credit: © TDC – Technical Direction Company
TDC1 Caption: Pictured (Left to Right): Gill Minervini, Festival Director, Vivid Sydney; Karl Johnstone, Technical Project Manager, TDC; Brad Gander, Project Manager, Vivid Sydney; and, Michael Hassett, Founder and Managing Director.

From Friday, May 27 to Saturday, June 18, Vivid Sydney, now in its 12th year, transforms Sydney into an illuminating fusion of creativity, innovation, and technology. The "Light, Music and Ideas" festival is holding more than 200+ events to celebrate the essence of Sydney's soul including its diversity, beauty, resilience, First Nations culture, and vibrant creative community.

TDC - Technical Direction Company, a well-established team of project managers, creative technologists, designers, and engineers, provides comprehensive

access into what precisely goes on behind the scenes. Technology preparation began in April at the TDC warehouse where projection equipment was checked and allocated for each location. The first on-site technical tests and projection lineup started on 16 May 2022.

"After 12 months of planning, our team are so excited to be back working on Vivid Sydney again. The project is a huge logistical and technical rollout for us. It is going to be bigger and brighter than ever. Vivid Sydney will showcase the largest projection mapping display at any single event ever in Australia," enthused Alex Rendell,

technical project manager at TDC. A total of 200 hours of projection was spent testing and lining up the projectors to be used with over 2.5 million lumens of light produced each evening.

TDC is using the latest technological advances in LED and projection design and mapping to illuminate buildings and performance stages. They are also responsible for providing the backbone technology for signage systems, presenting new immersive experiences on the Vivid Sydney Light Walk.

With over 110 HD projectors placed across 27 sites for 23 nights, this was the team's largest-ever projector deployment. All 27 stations are monitored remotely with real-time "TDC Live View" remote reporting available around the clock. TDC LiveView technology is in use with over 72 real-time digital way finders to lead the audience through the Vivid Sydney Light Walk based on real-time traffic management, police, and emergency services information to ensure a wonderful audience experience.

Newly appointed Vivid Sydney Festival Director, Gill Minervini officially kicked off the technology delivery for Sydney's signature cultural event when the first trucks arrived. He said, "Each year we are working to revitalize and give Vivid Sydney a new energy, made possible with the world's best technology and innovation. We rely on the most experienced technical collaborators such as TDC to make Vivid Sydney a unique visual spectacular. We can't wait to show everyone the results of all the hard work from our entire team working behind the scenes."

For the first time this year, custom-built media servers are also being deployed. These enable the team to create a variety of aesthetics and interactive elements with unique functions.

"The Australian events industry, in particular, was hard hit by Covid and it's great to see it start up again with new exciting technical achievements only to be seen at this year's Vivid Sydney. We are now seeing a trend where technology is shaping the future of Festivals [by] using brighter, extreme-scale visuals, combined with mind-blowing content. This is pushing artists and content creators to think beyond the traditional canvas to communicate, imagine and share experiences," said Michael Hassett, founder and managing director at TDC.

TDC - Technical Direction Company

DUBAI

Elation Proteus Maximus Fulfills Key Visual Role at Expo 2020

Woodroffe Bassett Design creates breathtaking visuals at Al Wasl Plaza and other Expo entertainment venues.


IMAGE Credit: Ptarmigan Integration, @Ptarmiganlight

Since its premiere in 2019, Elation's **Proteus Maximus** has been used on several high-profile performances and events, but none more impressive than Expo 2020. In September 2021, Dubai saw the beautiful opening ceremony of Expo 2020, the kick-off to the international exhibition event that ran till March 2022. With 192 participating countries a part of the journey, Expo focused on 'Connecting Minds and Creating the Future' explored through the themes of Sustainability, Mobility and Opportunity.

Woodroffe Bassett Design (WBD) served as lighting design consultants for the Expo with, WBD founding partner, Adam Bassett leading the charge. The principal consultant team for the Expo also included Simon Fraser

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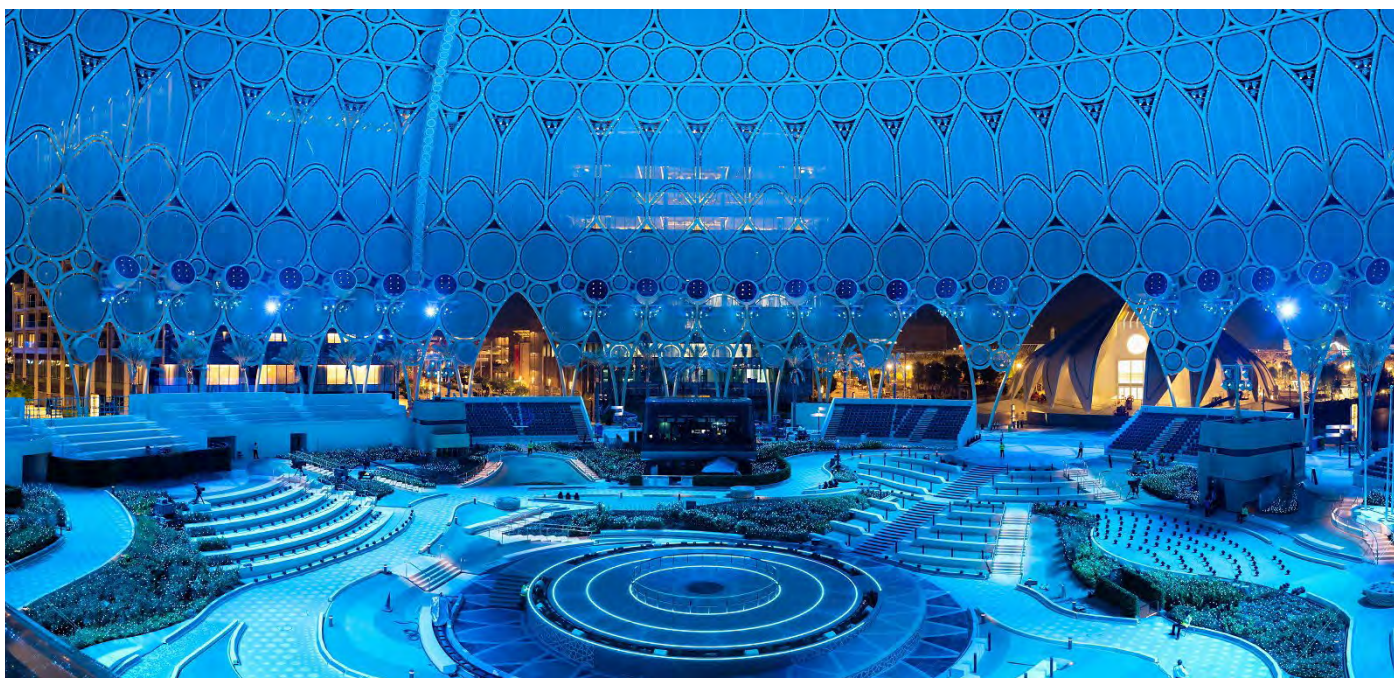
of WBD, Piers Shepperd of Wonder Works and Scott Willsallen of Auditoria.

The initial brief was to transform Al Wasl Plaza, a 67-meter-high, 130-meter-wide structure with 252 video projectors and an immersive sound system, from a spectacular garden into a live event venue. Throughout the Expo's six-month run, Al Wasl Plaza presented an ambitious daily programme of events, concerts, and ceremonies that changed nightly. WBD designed a house lighting rig that integrated into the structure with a clear direction not to detract from the beauty of the architecture.

While the Expo was open to the public during the winter months, the outside dome rehearsals and programming took place at the peak of the Dubai summer. It was clear from the start that the harsh summer environment would

put a lot of strain on all aspects of the lighting system, thus all fixtures needed to be outdoor rated wherever possible.

"One of the driving factors behind our fixture choices was their proven ability to withstand harsh environments," Adam Bassett commented. "We needed not only for the fixtures to operate in extreme heat but also withstand sandstorms and torrential rain over an extended period, operating 24 hours a day without the need for regular heavy maintenance. The Proteus Maximus was one of the fixtures that confidently matched up to the challenge and we were delighted to see the units live up to the promise!"

Two-thirds of the way up the dome were mounted 159 x Elation Proteus Maximus LED moving heads that sat outside with a custom shade to protect them from direct sunlight. Around the perimeter of the trellis were 42 x projection pods, below which a further 82 x Proteus Maximus hung along with other lighting fixtures. WBD worked closely with Agora, the lighting supplier for Al Wasl Plaza, who in turn worked with Elation distributor Audio Effetti.

WBD produced 40 ambitious shows at the Al Wasl Plaza by the end of March, including Al Adiyat: The Story of a Boy and His Horse, Diwali, and the breathtaking Sami Yusuf performances of 'Beyond the Stars.' In addition to

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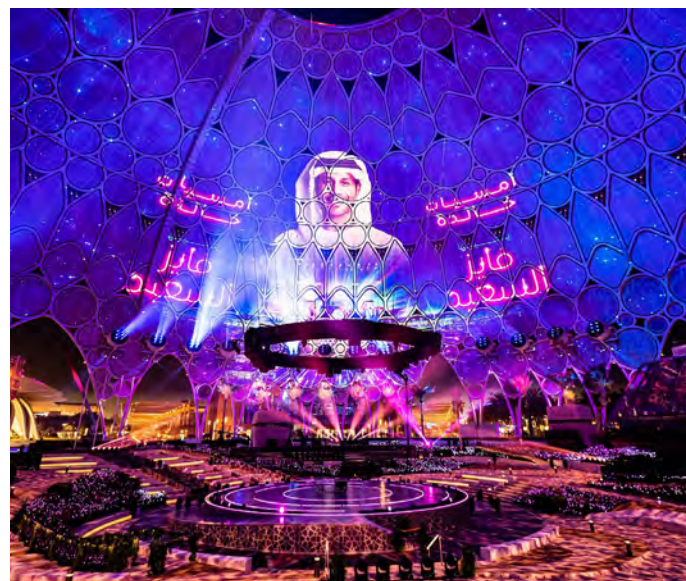TECHNOLOGY
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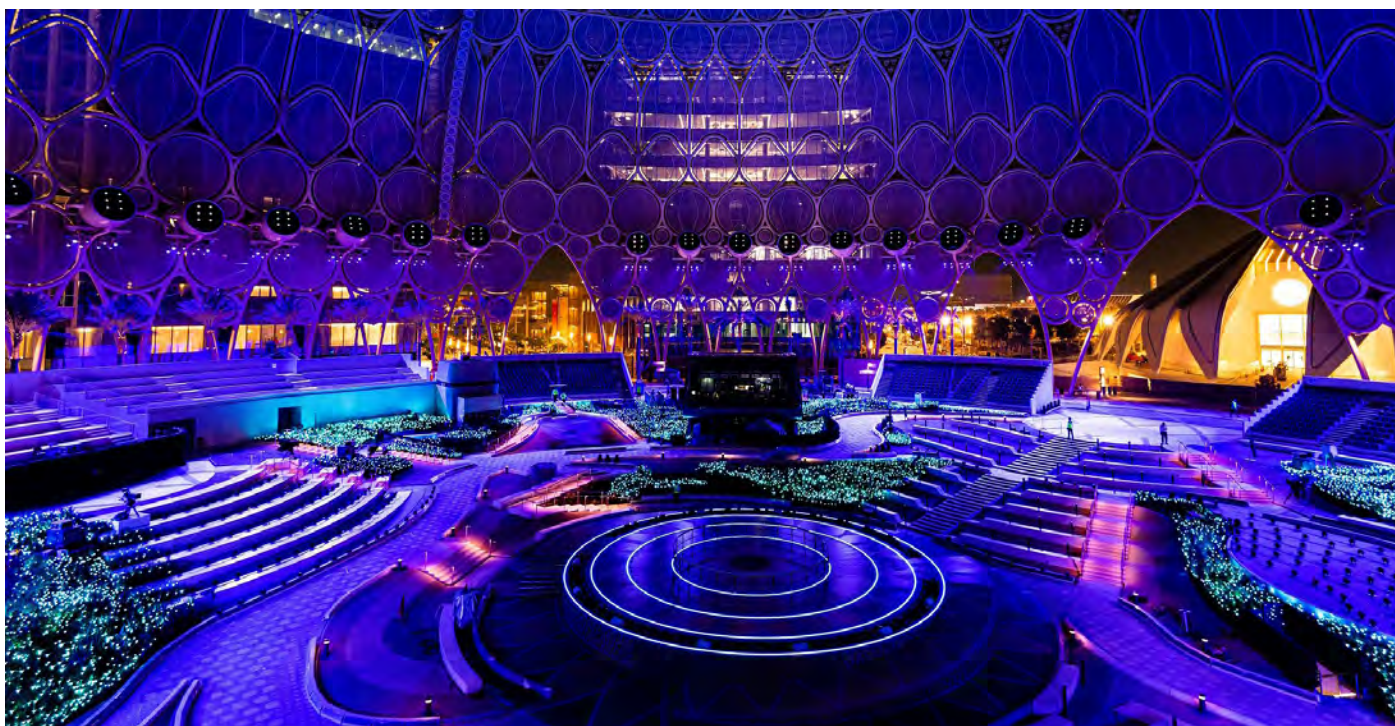
the house performances delivered during the exhibition, the venue hosted a variety of external lighting teams who brought in concerts and special events as well. WBD was asked to provide the lighting design for the Expo Daily Productions in Al Wasl Plaza, led by Principal Designer Terry Cook.

Eight other entertainment venues fell under WBD's scope, among them the Jubilee Stage lighting design. Inspired by a contemporary music festival main stage, music acts, spoken word, dance and comedy acts performed beneath 200+ moving fixtures including Proteus Maximus. Also, the Dubai Millennium Amphitheatre, a more intimate multi-purpose venue with an emphasis on theatrical events, featured 180+ moving fixtures consisting of Proteus Maximus and other lights. Neuman and Muller supplied lighting for both the Jubilee and DMA stages.

Several of the country pavilions offering immersive cultural experiences utilized Elation lights as well, including 29 x **Proteus Hybrid LED moving heads** by Novelty Group for the French Pavilion, and Elation luminaires from Intersonic Oy for the Finnish Pavilion, amongst others.

Throughout the years that WBD spent supporting this extraordinary project, they had the pleasure to work with an extremely talented and diverse team both locally and across the globe. Specific mention goes out to five individuals who led and supported WBD's journey at every turn: Tareq Ghosheh, Chief Events and Entertainment Officer; Amna Abulhoul, executive creative director; Kylie McOmish, vice president - production & operations; Kate Randall, vice president- ceremonies & programming; William Ainley, vice president technical.

Elation Professional

UAE

Communications is Key for UAE 50th National Day

The P.A. People Event Communications team worked around coverage challenges and severe weather to provide reliable networked communications for the UAE 50th National Day Celebrations in Dubai.

While Sydney was experiencing extended lockdowns due to the COVID-19 pandemic in 2021, The P.A. People's Event Communications team sought the Australian government's approval for a travel exemption to send a team overseas for the UAE 50th National Day Celebrations in the Emirate of Dubai.

Following the approval, The P.A. People sent an experienced crew to Dubai, including senior full-time Australian personnel and many familiar faces from abroad, as well as 12 tonnes of communications equipment. As a result, The P.A. People were part of a vast international team tasked with putting on a stunning performance at Hatta Dam in the country's mountainous east.

Specified by Scott Willsallen from Auditoria, the communications system consisted of a large two-way radio system integrated with an extensive matrix intercom and full duplex requirement, CCTV cameras and displays and associated systems.

Hybrid solution increases coverage

The original brief was for a typical analogue system, however, the production team's channel requirements were always under pressure. Rather than just adding more channels, which would have obvious costs and limited spectrums, The P.A. People proposed the use of Motorola MotoTrbo technology to create a hybrid system.

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The team also suggested that a number of the less critical analogue channels be converted to digital slots to meet the demand for extra channels. This not only doubles the channel count because digital channels utilise only half the RF capacity, but it also opens up the potential of delivering a trunked solution (the use of a number of frequency and time slots to provide shared channels) or even a multi-site solution for better coverage. From the central site, the system was able to deliver 20 analogue channels and 16 time slots of digital trunking. Although the job was ultimately completed as a single site solution, two more mini-sites with eight timeslots each were planned. Each channel was interfaced to the Clear-Com matrix intercom system.

Agile interface
Handheld portable radios were Motorola DP4601 and DP4801 Mototrbo units with a variety of accessories including The P.A. People's unique 4pin XLR Push to Talk interface allowing any of the headsets used for the remainder of the communications system to be added to a two-way radio.

The intercom components included Clear-Com Eclipse Matrix frames and panels, HelixNet digital party line

and a large Free Speak II full duplex communications system. The main wired intercom system comprised an Eclipse HX Omega frame fitted with 4 x IPA cards each loaded with 64 channels, a MADI card, a Dante card, and numerous IVC and analogue cards to fill out the frame. The team also carried a spare Median frame with additional cards as a backup system. The production team were predominantly provided with Clear-Com lever Key Stations along with Clear-Com CC300 and CC400 headsets. Key Stations were augmented with HelixNet Partyline beltpacks in stage management positions under the stage.

Real-time engineering
The specification also called for some 60 x Full Duplex beltpacks. "During the project build phase, we were asked to see if we could increase the scale of the full duplex component past what had previously been the upper limit on pack numbers" commented Chris Dodds, managing director of The P.A. People. "We opened up a dialogue with the Clear-Com engineering team, who were able to reveal that the previous hard limit had been overcome but that the solution needed further testing. We were able to emulate the scale of the required system in our workshop in Sydney with excellent results and decided that it was ready to deploy."

Signal management

"The FreeSpeak system performed brilliantly on-site," reported Dom Jones, Project Manager for the ND50 event. "We were able to accommodate 120 x wireless beltpacks across 40 IPT transceivers deployed over the extremely large site without any reported drop-outs or issues." Concluding, "This is a game-changer - we are now able to deploy FreeSpeak II systems of significant scale ranging into the hundreds of belt packs, confirming Clear-Com as the vendor of choice for fully integrated matrix, Partyline, and full duplex wireless systems."

Malestrom, The P.A. People's new cloud-based asset management software kept track of all the 'user assigned' radios and beltpacks over the project including the daily sign-in and outs.

Network is key

All of this was supported by a very significant 10Gb ethernet IP network over a fibre backbone, designed by The P.A. People to not only manage the AES67 requirements of the FreeSpeak system and Dante audio but also distribute timecode to their IP timecode displays along with 28 x CCTV cameras and some 40 x CCTV displays, 24 of which were 43" and 4K capable. Extensive use of CWDM technology was used to minimise the number of fibre cores required and to create a virtual star topology for the network. The P.A. People also created a dedicated network backbone for the considerable 'water' component of the show consisting of programmable fountains across the stage and set.

"Everything we deliver for these shows relies on the network" noted Jones. "We have invested heavily in new network hardware over the past few years, but we also took advantage of the downtime during the early stages of the pandemic to train all our guys in network theory, particularly as it is applied in our industry. All our guys are comfortable with using networks, whether it be designing a layout or configuring a switch."

The P.A. People congratulated LarMac Projects, the official producer of the 50th UAE National Day Celebration, for a great result and thanked the entire team involved in the project.

Photos Credit: Nicolas Chavance

The P.A. People

CAMILLE POLYCARP

APPLICATIONS ENGINEER
SOUND ENGINEER
RE-RECORDING ENGINEER
LIVE SOUND ENGINEER

ETA SPOTLIGHT is a heart-to-heart with industry professionals from across Asia, as they discuss their foray into the business and their journey thus far, while sharing their honest opinions about key aspects like market trends, technology, upskilling and more…

Please provide a brief about yourself

My name is Camille, aka Camz. I am an independent Sound Engineer, have been a Live sound engineer for over 4500++ live acts & musicals, alongside that a re-recording engineer at studios in almost every genre of music. The joy of capturing the emotion of a performance is priceless. I've been the festival & mix engineer for the Uzbekistan Jazz festival 2019(Guest Engineer), Supersonic Pune 2019 edition (Technical), Festival Engineer for Jodhpur Riff, Paddy-fields 2018-19, Hridhay Drishyam 2017/18/19/20 & 2022, Good Vibes Festival 2018{Mumbai Edition}, Frog Fest August 2016, Head Of Department [AVL] blueFROG. Ultra-Special private events, alongside recording and mixes. A few projects in the time gone by are the likes of Kal Ho Na Ho, Munnabhai, Kabhi Alvida na Kehna, Friendship

Unlimited, Mom & many more, songs like Band of boys, a blast from the past one of my faves being the song Loca Loca from not too long ago, just to name a couple.

I had the privilege to join the industry in the mid of 1993 as a trainee live sound engineer for a rental company which was Satwant Sound & Lights.

What got you interested in getting into the industry?

Interested is probably a cliche.. Don't get me wrong, but the sheer passion to listen to music and get it to sound better got me hooked first. I started with locally conducted new experiments related to audio and audio systems, recordings and the results thereafter as a record master. Remember this was 1989 odd or so and availability on tech was challenging. The experience

over 3-6 months got me intrigued and excited into the process of capturing audio as a one time experience or a record to keep going back to listen to.

I decided to try my luck, picked up the newspaper and I found a mini clipping which read something like this "Looking to be a sound engineer and more, call us at ****(!!" I don't remember the exact words) that was my interview ticket to entering the live-sound industry, and so began my journey.

In the field of re-recording, in the 2nd quarter of 1997 I called the legendary Nikhil Kapoor (whom I had worked with in my Ad-film Production Assistant days) saying I was looking at working at his studios, to my surprise he asked me to meet him & Joe Cordo the following day which I promptly did and an even bigger surprise for me, I was hired as an assistant engineer the very same day. The rest has been a wonderful journey scaling up from one project to the next, there was no turning back.

What do you feel about the industry?

Feel!! Hmmm… to me it's a never ending curve of new learnings and new experience enriching myself along the way. Challenges are the fun part, always. It's surely not for the ones that may be weak at heart.

Each day is an experience.

What is your most memorable experience and why?

Hah… This is a difficult one to answer, so many memorable and unforgettable ones.
If I have to pick one, hmmm .. I would say, two actually from my live-sound experiences, #1 was mixing for the legend John Mclaughlin and his insane line up and equally at #1 again was Rupa & The April Fishes at the blueFROG.

For John Mclaughlin's show, I was told back then, that the H.Sridhar [sadly no more in our midst] would be there on the Gig day and rehearsals on Gig day which in itself was a huge inspiration to have him in the house. The gentleman that he was, told me that he will be with me through the concert, but that I will continue to run point as the mix engineer for the evening. I was speechless then and dumb-founded all at the same time.

But that night was a memorable one till this day. As for with Rupa and the band, their production was super tight and extremely insane, but they created a lasting impression with the experience doled out that evening with their stellar performance. I simply can't express in words here, it will be like scenes from a movie. Sure can elaborate over a cup of coffee :-) Yes, the closing of the club blueFROG, The blueFROG Festival 2016" will stick on forever.

What was your worst experience and why?

IMHO, it was just one, power failure. Phew!!!!! It's worse than any nightmare one would have.But one such instance turned into golden memories. I'll tell you some of the musicians who could at that point, acoustically continued to enthral the audiences, till the power was back up an hour later. It was an enriching experience to live the interactions with the musicians and the audiences too. Memorable in a darn good way.

How exactly has the evolution in technologies impacted your line of work?

Evolution is the only welcome constant. It definitely has made working the live and re-recording worlds more flexible and coherent to optimise time without compromising quality. Being able to put technology to ones best use without hampering creativity is of prime importance. With onset of a whole lot of AI, it's yet left to see how AI & human workflows merge to up-scale productivity and enhance experiences.

Having said so, Technology by itself is ever-evolving so it is important to keep ourselves updated on a regular basis to stay in , if not ahead of the game.

What are the products / technologies that are absolutely crucial to your workflow? Do you have a personal favourite among them? If so, please let us know why.

Brands and their products are imperative to each and every stage of audio production and experiences we create therein. The heart is the CONSOLE, both in the studio and a live sound event too. There are so many factors that help decide, lets say mic's and mic-preamps. The question then is what is the style of music,

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result raises the bar to cruise into the future for the current breed and the breed to follow. Like the use of wireless technologies, can be challenging but very fruitful in the complete packaging. Simply lesser wiring chaos on stage that sometimes can be unnerving if not cared for and dressed neatly and keeping safety in mind too.

The integration of AI, Holographic imaging into live events will be the next level into propelling the experience onto the next level, opening up to new ventures with insane possibilities revolutionizing the future.

then again impacts the choice of mics accessories therein. It's such a vast topic and inter-related that even a 3 day masterclass on choices might not complete all aspects, but will shed light on how crucial the right choice is.

My mantra is, if I don't have the equipment of choice as requested in my rider, then at least gimme the next best replacement, but it damn well be in perfect working condition, no excuses are accepted then. Mediocre is never tolerated.

In your line of work (specialization), have you noticed any new trends in terms of workflow / technologies etc that you feel could revolutionize the future for specialists like yourself? If so, please us know.

The trend especially in the live world has taken a new turn, known as hybrid events, with events that happen on-ground are also being streamed out live to audiences that cannot be at the venue. One can even choose to setup and just broadcast from the venue of one's choice.

The gaming industry has been doing hybrid live events for a little while and in the covid times proved to be an avenue to consider as they host concerts infused with games on their servers which can and have been beamed out to millions of players at a time.

As an individual and a professional I am expected to know the job flawlessly, that projects delivery and its

Do you have any Hobbies outside of work and what is it?

Hobbies, yes Photography, Long rides and drives along the country side. It's most rejuvenating to enjoy nature in its truest form.

Highlight any professional training or certificates.

Dante level 2,
Avid Operator

Some basics from Shure / Harman

What did you do during the COVID-19 period?

It was a very Challenging time.

To sit at home for days and not do any of the usual work took some work..ha..ha..ha.

I was however involved in some audio clean up jobs for various broadcast platforms. Among other audio work and stuff, mixed an EP for "Carlton & The Saints', a song which they released on World Music Day. Also mixed a Ladino album for "Nani Noam Vazana" which premiered at the London Jazz Festival, among the occasional broadcast from home/studio in a couple of ones I was involved with.

It was a lotta fun.