

CX

MONTHLY TECH NEWS

CX131 NOVEMBER 2017
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Tree of Codes

All done with Mirrors



Opera on the Beach:

Opera goes to the Gold Coast



Building a pyramid for Elton:

"Hello Wollongong!"



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- AES Convention
- Vale George Young
- Jands Launch Robe
- ENTECH returns in Feb
- Rumours, Bits and Bytes

ROADSKILLS:

- Midnight Oil
- Tina Arena
- 20 Questions

REGULARS:

- History
- Listen Here
- Biz Talk
- Tech Tools
- Duncan Fry

GEARBOX:

- EV Evolve 50
- Radial SW4
- Spotlight Cyc LED
- Sennheiser Handmic Digital

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AUDIO ENGINEERING SOCIETY 143RD CONVENTION

Forever (since Moses it seems), the AES have come together for an intense week of educational sessions in New York this past October at their 143rd convention.

The Jacob K. Javits Convention Center once again hosted the event, comprising dozens of sessions, demo rooms and a large trade show. CX found the mix of exhibits skewed towards record production, and light on sound reinforcement.

Many manufacturers have subordinated their presence

in favour of distributors and retailers, with Sweetwater Sound (for example) having a major presence. The bête noir of some, and fan of many who buy online is B&H Photo Video – an enormous online reseller. Despite having one large NY flagship store they were at AES.

The only frisson was a demo by d&b audioteknik, which was known as The d&b Soundscape. People were talking about it, as ‘ground breaking’. We hear L-Acoustics have one similar called L-ISA. (See Bytes, Bits and Rumours for more on this).



ENTECH Roadshow has cemented its place on the industry calendar, with growing attendance each summer for the one day – in five cities – event.

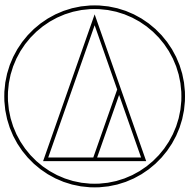
For 2017 the event moves down a little, starting this time in Brisbane on Tuesday 20th, then moving through *Melbourne (Thursday 22), *Sydney (Tuesday 27), then Adelaide on Thursday March 1st.

Perth comes last on Wednesday March 7th, that date chosen since Monday March 5th is a holiday there.

ENTECH RETURNS IN FEBRUARY CITY RUN *RESCHEDULED

Most venues are repeated from previously, but Melbourne moves to the Crown Convention Centre for the first time. Previous shows at Melbourne Park Function Centre were complicated by building projects nearby.

While the Australian tour happens every year, the New Zealand version of ENTECH is run each other year. It returns in July, and shows in Christchurch, Wellington then Auckland.



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Jands launch Robe Keynote event in Sydney

Robe CEO Josef Valcher says his firm is well placed with a new factory in Kavina (Czech Republic) for expansion. With 700 staff the Czech Republic company are poised to step up.

Josef detailed the history of Robe, commenting that the brand has done very well in Australia. He said the manufacturing culture in the Czech Republic is strong, with wages one-third that of Germany. But he cautioned the wages gap is shrinking.

The Jands launch heard CEO Paul Mulholland explain their history with moving lights – as the first Australian importers of Vari*Lite in 1989. They went on to distribute, rent, and support that seminal brand until very recently.

Paul said they went looking for other brands, and centered on Robe, which had considerable recent successes. With the distribution in hand, Jands moved

to launch and thus hosted this event at Fox Studios in Sydney which attracted almost all major production suppliers.

The industry crew sat and ate at tables for eight, with a Czech flavored menu of drinks and food but not before the launch of the new Mega Pointe which drew a few gasps. This Osram Sirius HRI 470 W powered device does more things for more people.

A choreographed lightshow by Mark Hammer (who was up the previous night programming until 7am) showed the Robe range in the best light, pun intended.

Paul made a point that was repeated several times – he prefers to deal one on one with private company owners. Jands have strong bonds with companies such as ETC and Shure, which (like Robe) are privately owned.

It was a powerful statement, and signals a new era for Jands and Robe.

Vale George Young

By Grahame Harrison
Photo by Bob King

The lone guitar played the intro chords before the blisteringly tortured scream tore the speakers nearly to shreds.

Less than 20 seconds later, my mother roared into my bedroom, plucked the needle from the turntable and explicitly instructed me to take the pagan noise back to the store. NOW! "She's So Fine" was back in its cage.

The Easybeats were on the loose, about to terrorise parents and dominate the record industry. It was my first 'meeting' with George Young & his gang of imported rock warriors. The Easybeats are my all-time favourite Australian band & I was totally stunned many years later when I sat in Alberts Studios with George Young and Harry Vanda. Today, I am stunned again because George Young has gone to run a studio called



Heaven. The first act he'll record will probably be Bon Scott, if he can get him a day pass from Hell!

Many others have documented the Easybeats and their path to glory. George is an iconic individual and

will be forever remembered. I got to know him through my time with Rose Tattoo. He was a gentleman who got the best out of those around him. Harry would record the 'bed' tracks & then George would get thoroughly involved. Their teamwork created music that will last forever.

Those of us who were fortunate to cross his path, we definitely deeply mourn the loss of the 'Boss', the one who took us way further than Frank Ifield or the Seekers. George Young came all the way from Scotland to show us the way to go back there and be conquering heroes. AC/DC know this truth.

Thank you, George, for taking the time to teach us how to believe in ourselves. From those about to rock, we salute you!

BYTES, BITS & RUMOURS

- **Immersive Sound** is what people said at AES in New York in relation to The d&b Soundscape demo - the one that CX missed. Word around the place is that L-Acoustics did their debut demo at InfoComm in June and it is called L-ISA. Comments we heard: 'Stereo is obsolete'. 'This is real 3D sound'. 'They are going to sell a lot more speakers because of this'. At presstime Julius was in France and Germany, tracking this story down.
- **Private equity firm Transom Capital Group** has bought Loud Technologies' brands, Ampeg, EAW, Mackie and Martin Audio. The media release promises that the leadership team will remain. They always say that, don't they? When Behringer bought Tannoy, he shut their factory.
- **Vale Bob Longwood**, Perth lighting guru and all round nice guy. Much loved son of Charles and Kathleen (both dec), devoted husband of Vicki, adored father of Lee, big brother of Margo and Sharron and uncle of Jason. Passed away on the 14th of October, 2017 unexpectedly in his sleep at home.
- **Cheeky Behringer:** That Uli guy is at it again, this time trying to recruit any of the 600 people fired by Harman Professional. Harman seem more interested in auto software these days, after Samsung (the inflammables) took over.
- **Heard of Zoxx?** Headed by a Melbournian tech head, it's a secret multi-billion company in the USA that is ahead of Google, Apple, Tesla and Uber in developing the robot that comes after the car. It is said to be on track for release in 2020!
- **Or this one: Zedge.** They are a content platform for smartphone personalization but plan to roll out a marketplace where artists can monetize their creations later this year. The buzz is that a muso can build their own App hosting their own stuff and get 33c a play (compared to a fraction of one cent on Spotify).
- **Shure rolled out a product** to media



(including CX) in Chicago recently with a non disclosure agreement preventing us saying anything. Then they extended the release so the product remains an enigma. Indefinitely.

- **This would not be cheap.** Icehouse played at a house party in Sydney recently, pictured (above) on a stage built over the pool. The party band prize came from a radio station. Madzin Productions supplied the gear – but not the stage, which was built by the owner.
- **Julius had a goose moment** in New York last month, rolling up to Carnegie Hall to see Michael McDonald. Not. The show had been cancelled sometime previously, with funds refunded. But no (apparent) email or if there were, it was missed. Doh. Anyway upon complaining to Carnegie, he got this response: "Please accept our sincerest apologies for the lack of communication regarding the cancellation of last night's Michael McDonald concert. If you are still in town, we would like to offer a pair of complementary tickets to a future 'Carnegie Hall Presents' concert." Pure class!
- **Infocomm has changed** its name to AVIXA. What on earth is an AVIXA and what does it mean?

EMAIL US: juliusmedia@me.com or text +61 408 498 180

ACME BL-100 WW2 STAGE PAR TUNGSTEN

The BL-100 WW2 is a Stage Par Tungsten effect fixture, powered by 1 x 125W LED module. It features a unique tungsten effect, high efficiency, low energy consumption, and good heat dissipation that gives the product a long working lifetime. It is IP65 rated, and noise is under 38dB@1m. Its double hanger design offers multiple installation options.

Australian Distributor: ULA Group
www.ulagroup.com or 1300 852 476



AYRTON MERAK

Ayrton's new MERAK features a proprietary 10:1 optical zoom system, combined with a 250 W low-etendue, RGBW multichip LED module. The 7° to 70° zoom employs light pipe technology paired with a new textured Fresnel lens design to ensure homogenous colour mixing regardless of the colour combination selected. With its single-source transmitting lens, MERAK casts crisp light and shadows. The fixture is also equipped with a de-focusable rotating beam shaping optic.

Australian Distributor:
Show Technology
www.showtech.com.au or (02) 9748 1122



CHAUVET MAVERICK MK2 PROFILE

The Maverick MK2 Profile features a 4-blade dual position rotating framing system, a bright 440W LED engine, two 6-position rotating slot and lock gobo wheels, CMY+CTO colour mixing, a 7-position + white colour wheel, variable frost, 3-facet prism, and a 14° to 36° zoom range. Control is via DMX, sACN, Art-Net, or W-DMX, and test with RDM. The Maverick MK2 Profile can also receive TCP/IP in, and send out DMX, simplifying cable runs.



CHAUVET MAVERICK MK PYXIS

The Maverick MK Pyxis produces an array of beam and wash effects. It has a wide zoom range, continuous 360° pan and tilt movement and aerial and pixel-mapping effects. This compact moving head features a ring of nine 15 W RGBW LEDs with a zoom range of 7° to 45° and a 60 W RGBW LED serving as a centre pixel with built in colour macros and gobos and a 3° beam angle. Choose from DMX, sACN, Art-Net, or W-DMX for control.



Australian Distributor: Showtools International
www.showtools.com.au or (02) 9824 2382

BARCO F80

Barco's F80 laser phosphor light source projectors are designed for fixed installation in a wide range of applications such as museums, board rooms, and auditoriums. Thanks to their 3D capability, they're also fit for theme park dark rides and interactive experiences. The F80-4K9 delivers images at 4K UHD resolution with a high level of detail, and features Barco Pulse processing that allows for sharper images and less latency thanks to its Single Step Processing (SSP).

Australian Distributor: Barco Systems
www.barco.com or (03) 9646 5833



ETC ION XE 05

With compact footprints and full-featured Eos software, Ion Xe consoles bring high-level programming power to smaller venues. Since the new consoles feature the same backlit keyboard layout as their larger Eos family siblings, your workflow can transfer seamlessly from desk to desk. Ion Xe desks support up to two external multi-touch monitors, so you can take full advantage of colour tools, Magic Sheets, Direct Selects and more.

Ion Xe consoles feature full main playback controls, fader controls, level and rate wheels, four rotary parameter encoders and support for up to five USB-connectable wings and devices. Ion Xe consoles are available in two output counts: 2K (base) and 12K (expanded), providing control for a wide variety of rigs. For extra security and flexibility, ETC has also released a new Ion Xe RPU (Remote Processing Unit), which can serve as a backup, remote programming station, or primary controller for your system.

Australian Distributor: Jands
www.jands.com.au or (02) 9582 0909



HIGH END SYSTEMS SOLAFRAME 750 06

High End Systems SolaFrame 750 is the newest and smallest framing fixture in the Sola Series family of automated tools. Featuring a compact footprint, the SolaFrame 750 is a perfect fit for smaller to medium-sized venues, outputting 11,300 lumens. With 6 - 50 degree zoom, rotating gobo wheel plus fully continuous animation and more, SolaFrame 750 offers the widest array of effects currently available in a fixture of its size.

Australian Distributor: Lexair Entertainment
info@lexair.com.au or www.lexair.com.au

ELATION ARTISTE DALI 07

The new Elation Professional Artiste Dali is a moving head with an LED / Laser Phosphor light engine that gives greater spot and beam capabilities from one fixture. The unique hybrid light engine combines a 300-watt LED source and 100-watt Laser Phosphor source for improved spot/beam functionality. The Laser Phosphor source produces a denser beam with a level of brightness not possible with LED alone. By combining the two sources, users get a spot with extra punch (15,000 lumens) in an energy-efficient solution.

Australian Distributor: Lexair Entertainment
info@lexair.com.au or www.lexair.com.au



JTS R4



08

R-4



JSS-4A



JSS-4B



R-4THA

R-4THB



EVENT LIGHTING MIS180W

The MIS180W is an 180W moving head spot. An upgrade to its predecessor, the MIS150, its pan and tilt is fast and with quiet dimming, with output noise reduced by variable speed.



09

Other features include a eight colours wheel, seven fixed gobos, seven rotating gobos, and an iris. The built in DMX recorder enables use without a controller.

Australian Distributor:
Event Lighting
www.event-lighting.com.au or (02)
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PHILIPS VARILITE VL1100 LED 10

The new Philips Varilite VL1100 LED delivers high quality light and consistent colour reproduction. A perfect 'tungsten' colour shift and an innovative hybrid cooling system smoothly optimises the balance between light output and noise. A true LED moving yoke profile spot with continuously variable zoom range. Two models are available with either framing shutters or iris.



Australian Distributor:
Philips Entertainment
lighting.philips.com/main/products/entertainment-lighting or 0419 133 342

The new JTS R4 wireless microphone system houses a four-channel receiver in a compact 1RU 19-inch chassis. The R4 receiver features a large LCD display for programming and displaying system status, as well as eight LED bar-graph displays showing RF signal strength and audio level for each of the four channels. Installation of multi-channel (multi-receiver) systems is simplified through the use of cascaded antenna and mains power inputs. Cascade jumper cables for antennas and power are supplied with each receiver.

Five transmitters are available in the R4 family and can be used in any combination. Cost-effective drop-in charging docks are available for all of the transmitter options. All the transmitters can be wirelessly synchronised with the receiver using the single-button JTS REMOSET system, simplifying system set-up.

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It's All Done With Mirrors Making festival smash *'Tree of Codes'*

'Tree of Codes' is a work that could only exist because of a visionary arts festival – take three artists from different disciplines and get them to make a show. Choreographer Wayne McGregor, visual artist Olafur Eliasson and musician Jamie xx created 'Tree of Codes' for the Manchester Festival in 2015, and Melbourne Festival 2017 has brought it to Australia. Jason Allen interviewed the tech team that made this visually and aurally stunning piece happen...

Tree of Codes' is a 70 minute long, non-stop assault of contemporary dance, light, and sound. Structured in three distinct sections, the work relies heavily on Olafur Eliasson's clever yet minimal design. Starting in total darkness, dancers whirl around the stage with LED suits mapping the movement of their limbs before an almost impossible feat of hitting a mark in pitch black while carrying Perspex kaleidoscopes. Part two brings in the first of Eliasson's giant Perspex mirrors, at first cutting the stage in half, and later revealing its ability to move its panels. The third act brings in another layer of mirror, with a dichroic coating, which also later moves in mind-bending ways.

The huge mirrors make the work almost inescapably about light. Both the dancers and the audience are reflected, making the whole auditorium and everyone in it a part of the show. This is reinforced in the sound design, which has been mixed in surround to enhance the effect. At various points in the show, a Mac Viper mounted above the proscenium arch lazily moves a beam through the crowd, making the reflection of audience members move around the mirrors. The dancers appear to perform with their own reflections, and sometimes perform with infinite copies of themselves. All effects are simple, yet incredible effective, and as always with such subtlety, very hard to get right.

>> *Mirrored dancers*



>> *Dichroic mirror effect*
(photo credit Ravi Deepres)

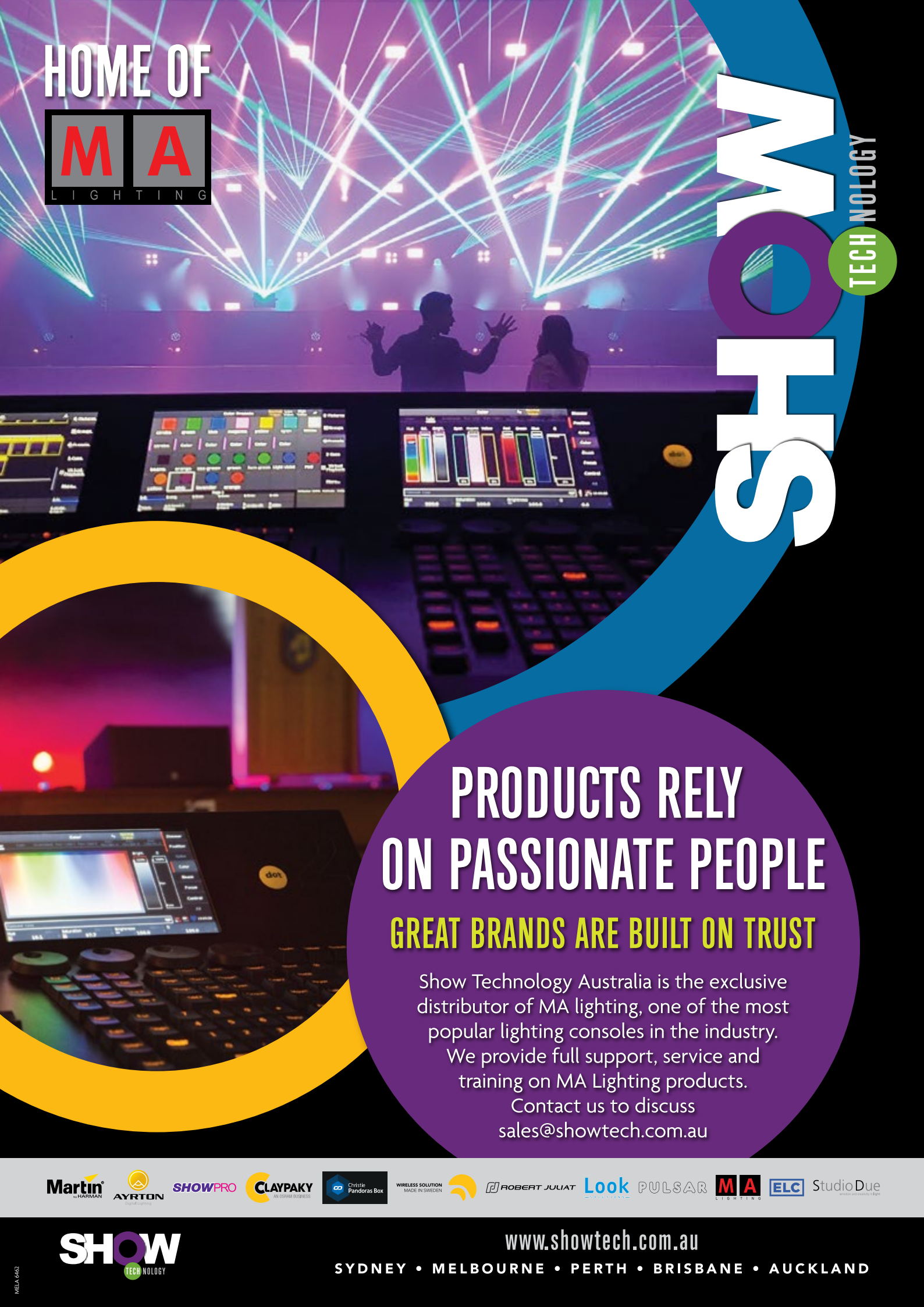


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Globe-trotting lighting designer Rob Halliday realised Eliasson's vision for the original 2015 production, and has been with the show as it's been performed in New York, Paris, London, Aarhus, and now Melbourne. As of opening night at the Festival, it was confirmed that it will also run in Sydney. Rob's no stranger to our shores, having toured here with *Les Misérables* in 1997, *Oliver!* in 1998, *Pan* in 2000, and *The Witches of Eastwick* in 2002.

"I originally got involved in the project as I'd done a lot of work for the Manchester Festival," said Rob. "Manchester's always been great at doing 'shotgun weddings'; putting interesting people together who'd you never see collaborating otherwise, and making a show. It's something they started doing with 'Monkey – Journey to The West' in 2007, where they paired Chinese actor and director Chen Shi-Zheng with musician Damon Albarn and artist Jamie Hewlett."

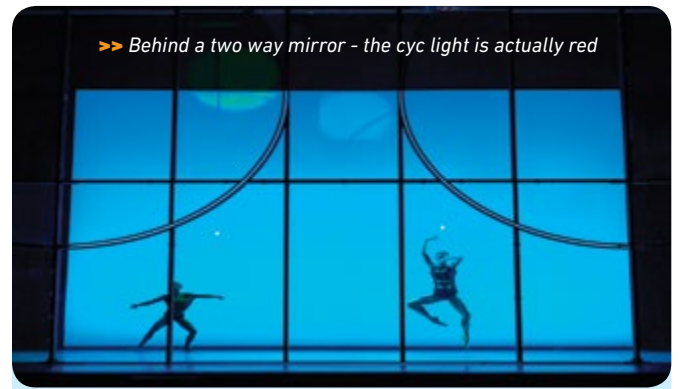


>> Rob Halliday and Production Electrician Dale Mounsey

Mixing it Up

"Visually, the show is an art installation, the music is what you'd hear at a night Jamie xx was DJing, and the dance is really a kind of a traditional dance show," continued Rob. "What happens is that when you put them all together, you get people in who might only be interested in one or two of those elements, but they get into it because it's part of the whole. They might come for the art but realise the dancers are amazing, or come from a ballet background and end up really liking Jamie's music."

"When we first started designing, Olafur gave us a model presentation, and a document outlining what each scene should look like," explained Rob. "We arrived at the final lighting design after a lot of experimentation. The difference in the artistic process for Olafur was the transitions between sections. He'd designed these big, heavy structures, and unlike an art installation where you put a thing there and the audience experiences it however they want, in a show we're presenting the work and we have to make decisions about how and when things change."



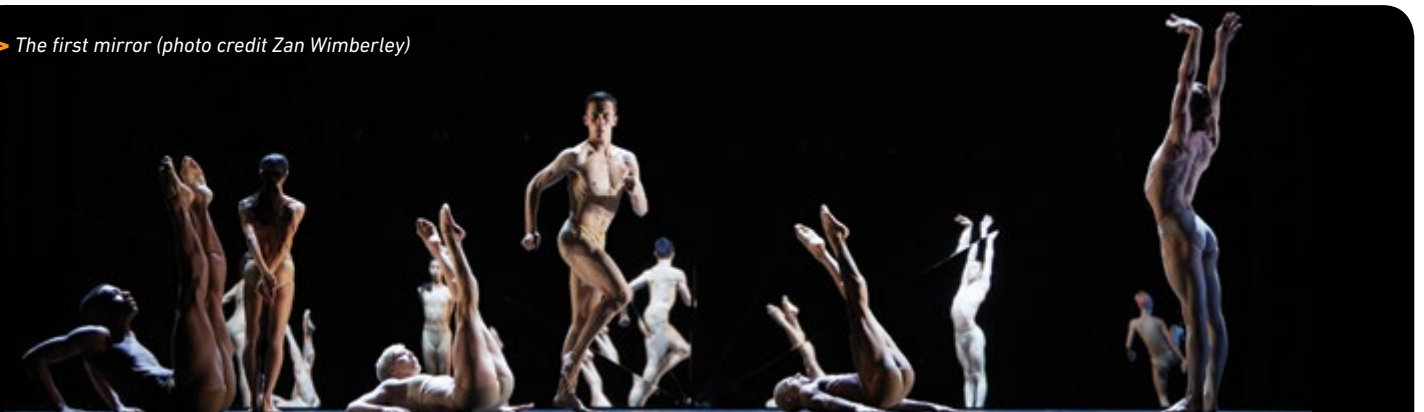
In the Rigging

The lighting rig follows the show's aesthetic of simple but big: 48 ETC Source Four LED v2s, 24 Martin MAC Vipers, 76 traditional ETC Source Fours, 70 Brother&Brother EvenLED panels for the cyc, two Clay Paky Alpha Profile 1500s, 16 pars, and 13 sodium street lights, a look Eliasson has used in other works. The show is controlled via an ETC Eos Ti, which is vital for Rob.

"When you turn the sodium street lights on, they put out an intense orangey pink," elaborated Rob. "Over 10 minutes, they change to the orange street light we're all familiar with. It looks amazing, but it's not enough to light the dancers, so we need to cheat and fill some light in without giving that away. So we made a colour that looks like sodium when you turn it on, and a colour that looks like sodium after 10 minutes, then crossfade between the two. You'd see a scroller or mover doing that, and usually when you crossfade LEDs, you can go through some weird colours, but ETC have made the light's crossfade behave properly. By using the Source Four LEDs in conjunction with the Eos, you're unaware of the crossfade happening, and no one else makes a console with that functionality."

"ETC's LED fixtures are brilliant because they have seven different colour sources in them," praised Rob. "When you turn them on you get a nice rich colour instead of a dead LED colour. Under some LEDs, you get an electric, acidic, or unnatural look, but with ETC people still feel rich, vibrant, and alive. The Source Four LED is amazing; it's better than tungsten because you can change colour, but you do need a smart control end. What ETC have done better than everyone with the Eos family is calibrate the console to their light. I can pick a standard gel colour out of the console and get that exact colour out of the light."

>> The first mirror (photo credit Zan Wimberley)





1. Part Three (photo credit Joel Chester Filde)
2. Sodium street lights
3. The mirrors open (photo credit Stephanie Berger)



Surround Sound

PA wise, the varied and occasionally very loud soundtrack is specced to play back through L-Acoustics Kara or d&b audiotechnik V Series, but with all of the Kara in Australia tied up on another job, Melbourne's run was through L-Acoustics dV-DOSC, being the closest match. The approach to the surround has changed in every venue; "The surround makes a huge difference," said sound designer Nick Sagar. "In New York, we did three box hangs of L-Acoustics Kiva all around the space, at the Paris Opera Ballet, which is a classic horseshoe, we put line arrays in back corners. Here in Melbourne, we've got EAW JF80s mounted all around the auditorium."

In its inception, the music for 'Tree of Codes' was made for stereo. "When we got the first demos from Jamie xx, it became apparent it would lend itself to surround," recalled Nick. "With the mirrors and the audience being part of the stage, the work becomes one big three-dimensional piece. We felt strongly that the audience should also be immersed in the soundscape. David Wrench, Jamie's mix engineer, hadn't done anything in surround. We set them up with a 5.1 setup in Strongroom Studios in London, and they set about reimagining it. As soon as they started, Jamie and David were like kids in a toy shop. It developed well and it's hard to imagine show without surround now."



>> Sound operator Martin Wallace and sound designer Nick Sagar



>> L to R - Rob Larsen, Akiko Saito, Andrew Marshall, Jake Jobling, Alisdair Watson, Oren McCoy, Luke Hawley, Rob Halliday, State Theatre lighting crew, Tree of Codes

Opera on the Beach



The idea of transforming the sands of Coolangatta Beach into the Egyptian shoreline for an alfresco production of *Aida* looked good on paper. Unfortunately Queensland turned on some rather unseasonable weather which resulted in a lot of sand, wind, more sand plus some rain and more sand. It also resulted in a cancelled performance.

Griffith Opera on the Beach – *Aida* was the latest in a series of Opera Australia productions which takes the story outside the confines of the opera house and direct to the masses.

This new production of *Aida* came with camels, a huge cast, surf lifesavers, a community chorus, Griffith University student musicians and fireworks. The focal points of the stage were two 7.6m pharaoh statues carved from large blocks of polystyrene. The pharaohs and the wider stage took a specialist team of sculptors, welders, carpenters and scenic artists hundreds of hours to make.



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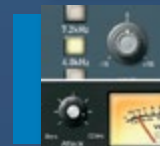
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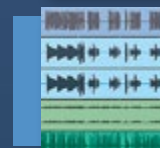
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Features

Lighting was supplied by Chameleon Touring Systems with David Walters in charge of the lighting design. It was the first time that David had worked with Opera Australia and it was also the first time he had ever lit a production on a beach, and he admits there was a lot of finding his way through the development.

"It was a rather prolonged process to actually get this show happening with a couple of years of discussions beforehand," commented David. "The initial brief I was given by Opera Australia was to 'draw what I like' and they'll sort it out from there. Of course I did that but when reality struck, it was a wildly different thing!"

Programming was done late in the night in freezing conditions where the temperature actually got down to six degrees, exacerbated by a stiff ocean breeze.

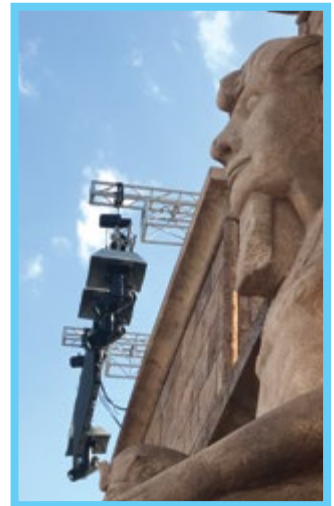
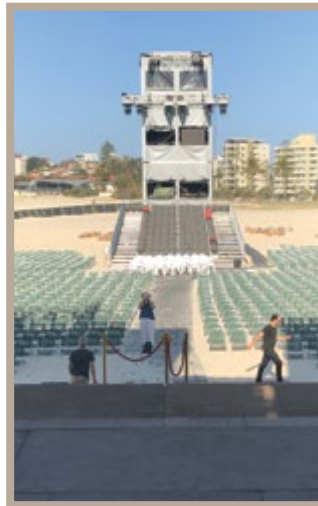
"It was a very harsh environment for the equipment as everything ended up sticky with salt," said David. "Lenses covered in salt obviously don't give you as good a result as clean lenses! Hence maintenance was a big deal."

Power was provided by a couple of generators and David remarked that Opera Australia's special projects team were extremely expert at what they did.

"All of my initial concerns were quashed, we had lovely quiet generators a long way from the stage and there were never any issues in terms of power," he said.

With David's proposed lighting extravaganza hit by budget constraints he returned to the drawing board. Director Hugh Halliday was very clear about what he wanted and David soon realized that big, bold and simple was the way to go with each act requiring a clean look.





The nature of the gig meant that there were limited places to position lighting. Two large towers were constructed either side of the stage for lighting and sound equipment plus there was a FOH tower fifty metres from the front of the stage. David pushed for the tower to go higher than originally planned to accommodate follow spots and achieve a slightly better FOH angle.

"I also pushed for some back lighting so we rigged truss along the back of the set," he added. "In my initial drawings I had a truss the entire length of the set absolutely crammed with fixtures; the end result was that I had six Martin MACIII's up there! Reality bit rather hard."

The seriously simple lighting rig still delivered the bold looks required and for what was quite a tiny rig, David reports that he actually got quite a few good looks for each of the scenes. There were six MACIII's front, back and each side with twenty ShowPro LED Par Hex 18 cans added to each of the side towers. From a distance of fifty metres, the MACIII's were pushed to their limit and so David worked on contrast rather than brightness.

"There was also a row of twenty-two Quad LED IP strips along the front and that was pretty much it," said David.

"There was some onset electrics, again LED Pars and MR16 Birdies. I was adamant that I was to have follow spots and so I had four Robert Juliat Aramis out front. We had looked at using an automated tracking system but again reality bit but I was more than happy to use follow spot operators. The follow spots were used constantly and I was often doubling up on them too."


Control was a MA Lighting grandMA2 light, with an MA2 on PC as backup, and both fed into an MA NPU which fed DMX to the system.

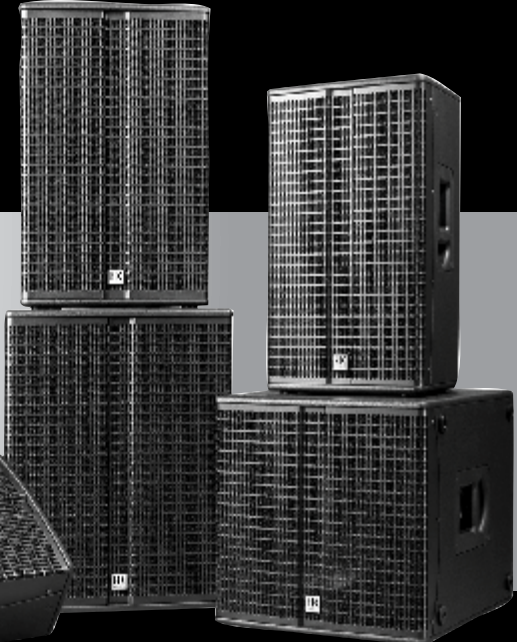
"Hugh Hamilton programmed the show for me and did a great job," commented David. "I stick to the design and nowadays I ensure I engage a programmer early in the design process. It has become such a big part of the design process now and the consoles have become so idiosyncratic, you almost need a particular programmer for a particular console."



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THE GERMAN AUDIO STANDARD >



Norwest Productions took care of the audio, drawing on their experience with Opera Australia's yearly Handa Opera on Sydney Harbour. Sound was designed by Opera Australia's Adrian Riddell and Tony David Cray, with Adrian commenting that the load in was particularly difficult.

"Obviously you can't push gear on sand and so forklifts had to be used," he said. "You had to land your case exactly in the correct position so load in was very precise. Some nights it was so windy in the FOH tower, we had to close it in as we couldn't hear. In fact there were a few nights when the wind was like a gale. We had a lot of computers and electronics to keep going on a beach, and there were problems, keeping it all working was a bit of a struggle."

Adrian and Tony took the same ethos that they had used for Handa Opera regarding the mic set up for the singers and the orchestra. All of the principal singers had two microphones, a main and a backup in case of dropouts. The Gold Coast is notorious for bad RF with a fairly small spectrum so the number of radio mics Adrian would have liked to use had to be decreased.

"The principals were double mic'ed first and then whatever was left, we gave to the chorus," he said. "We had eight principal singers and twelve chorus members. The principal singers had DPA d:fine 4066 headset microphone and a DPA d:screet 4061 lapel microphone strapped together in a main and backup scenario. We've had a lot of experience with the d:fine 4066 mic with the Handa Operas

and because it is an omni capsule, the wind seems to blow straight through it so we don't get all that wind noise in the singing microphones."

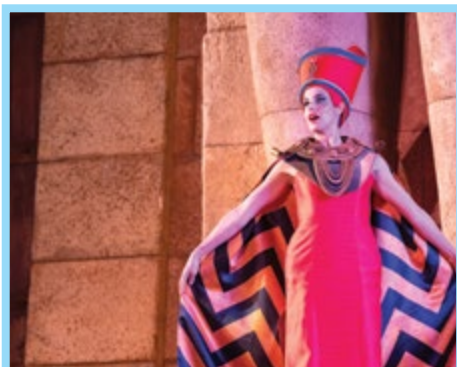
Fortunately Norwest's RF guru Steve Caldwell was on hand to deliver an RF plot for all the microphones, and two-way radios with Adrian reporting that they didn't have to change a frequency once.

The PA was an L-Acoustics V-DOSC system with six V-DOSC per side, three dV-DOSC underhung and three dV-DOSC a side as front fill. Added to that were four SB218 subs a side and six Arcs as delays.

"The V-DOSC box is fantastic," stated Adrian. "The high frequency throw, despite the high wind we experienced, covered front to back with no problems."

At FOH Tony ran a DiGiCo SD7 which also controlled monitors as the singers were just using normal wedges, unlike the Handa Opera which utilises IEMs.

Another interesting fact was the deployment of remotely triggered surtitle screens. Surtitles are the translation from the sung language of Italian into English so non Italian speakers can read what is being sung. Due to the tight budget the usual position of a dedicated surtitles operator who would flick through the slides was replaced by the use of more cues in the audio repeditors score.





Laura Clare Handsford was probably the busiest person during the show with nearly 1200 cues in her score. Each time she saw a cue point in the score she pressed the large "Red" button. This would either trigger a change in the audio consoles state or trigger a midi command to the surtitles computers moving the slides along.

Big Picture provided the two 3m x 1m 7mm outdoor LED screens located either side of stage along with all the monitors required for cast to see the conductor from out the back in his tent.

Creatives

Conductor Tahu Matheson

Director Hugh Halliday

Set Designer David Fleischer

Costume Designer Anna Cordingley

Lighting Designer David Walters / Tony David Cray

Sound Designer Adrian Riddell

Choreographer Elise May





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BUILDING A PYRAMID FOR *Elton John*

Regions get a big city concert

By Stuart Coupe



“They started the build on Tuesday, you’d better get down there soon,” says the email from Michael Chugg, co-promoter of Elton John’s regional Australian tour in October.



The build is for a concert in Wollongong that sees Elton John go onstage at around 6.30pm on the following Sunday. I look at this email and think I must be misreading something – building a stage on a Tuesday for a show six days later. Surely this is for a concert before Wollongong. Setting up a concert surely can’t take that long, can it? Yes, it can. Yes it does.

If you’re rolling your eyes at this point let me explain a few things quickly. For starters despite being around the rock’n’roll scene for more than four decades as a writer, manager, promoter and so forth I have never ever seen the build for a major international show. Like never. OK, I know a bit more than the average concert goer in that I realise a concert staging set up isn’t just plonked, fully constructed, into a venue via some almighty helicopter system. I’m not quite that naïve. But until I went to Wollongong I had absolutely no idea – absolutely none – about how much work was involved in putting together one of these setups.

The second thing you should know is why I'm actually interested in this stuff. I'm writing a book about the history of Australian road crew. It hasn't been done before and it should have been. It's a look at the real people and work that crews do. It's a celebration of the characters – those who have died, those who have left the road, and those still working – who put these shows together.

So, as is always the case with my writing, I figured you can't write a book and expect people to take it seriously without experiencing it all. Whilst I think about sitting in a truck for an all nighter from Sydney to Melbourne I figured I needed to see the build of a major concert and hang with the people who make that happen. So I head to Wollongong to watch the stage build and set up for a show that will play to 22,000 people.

Christian Pepper from Force Events who are in charge of all this sends me an email laying out what exactly is going to happen. In essence by the end of Tuesday the intention - if all goes well - is to have the stage deck built. Wednesday

will be the build of the roof on the deck and if there's no screw ups and hold ups they will start to lift the roof by the end of that day.

The following day he says they will "be lifting the roof with stage at full trim." Not for the first time I have no idea what this means but I get the general idea. Come Friday and they'll be building the front of house mix structure and finishing off the stage. Production loads in on the Saturday and the actual show is the following day. On the Monday the roof and front of house will come down, the stage deck will go out on Tuesday – a full week after they started – and Wollongong will have its football oval back again. It will be like Elton John and hundreds of crew were never there.

When I roll into the backstage area the stage is built, lights are on the stage, the PA stacks are partially assembled but not fully raised and the two video screens are still in a semi somewhere. Dozens and dozens of loaders and crew are busily doing stuff that they seem to know like the back of their hands. They're actually a gentle calm. No-one is



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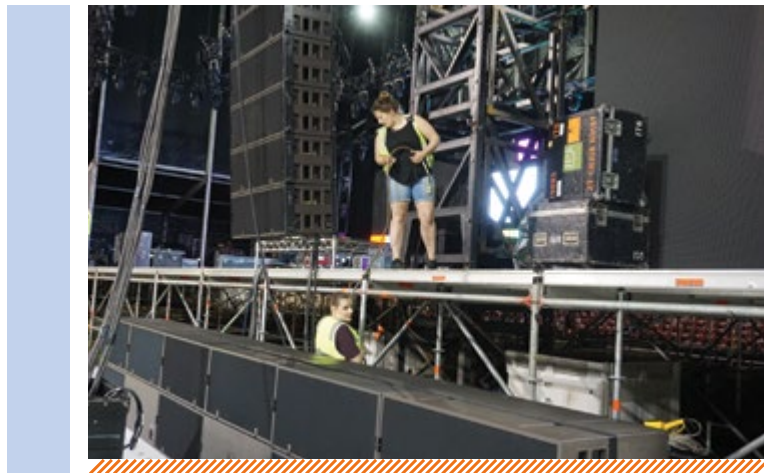
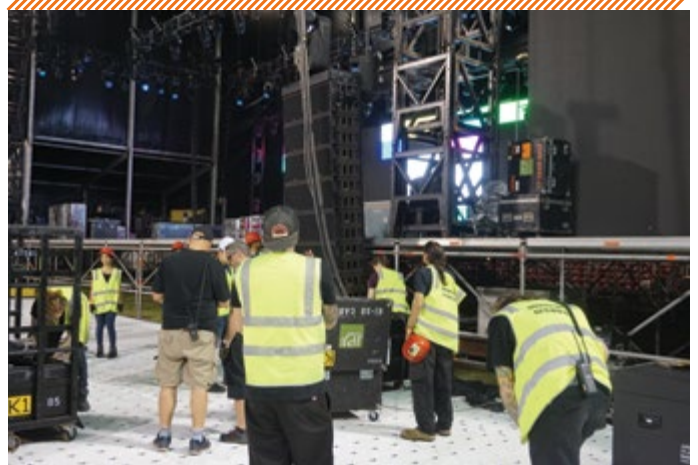


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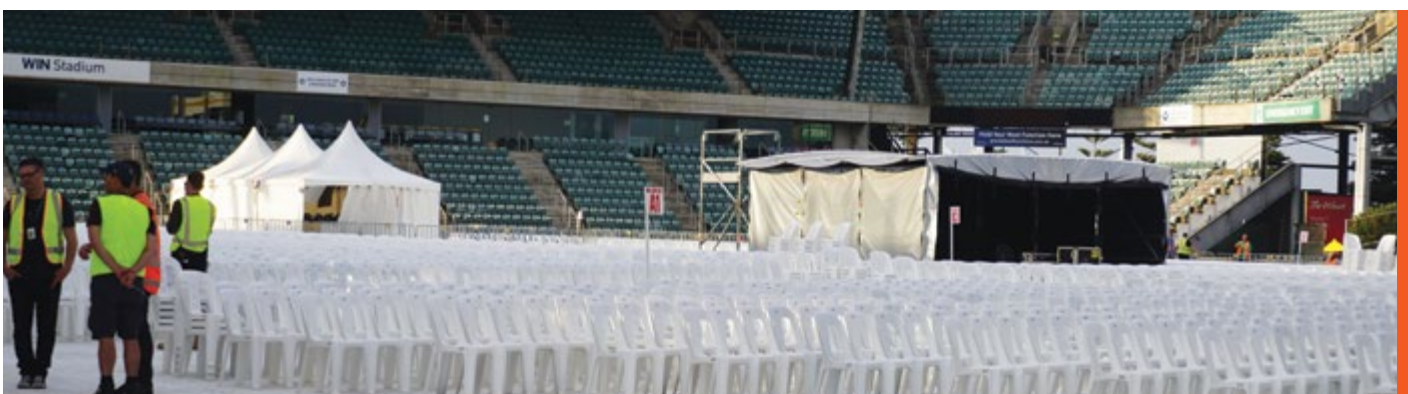
panicking. Just doing what they do. They are all directed by Tom Michael, the other partner in Force Events. Christian is in Melbourne overseeing the build for some dance extravaganza or another.

Did I mention that when I arrive the whole football field has been covered in white turf protection mats (that came in four semi-trailers) and around 12,000 plastic seats (two semi's worth) set out? No, I didn't.

By 3pm the first semi-trailers of production gear come through the gates – some have travelled from the last gig in Mackay, others from Sydney – to be greeted by around 80 loaders supplied by Showcall. They're a diverse collection of individuals (a lot more women than I expected) united

by only two things – hi vis vests and an ability to quickly and efficiently follow the surprisingly basic and direct instructions: "Those trucks are full – let's empty them."

For the next few hours I wander around marvelling at really simple things – that someone actually knows how to pack and unpack those semi's and where everything goes and in what order it comes out (and goes back) and the way the production crew onstage know precisely how to fit this myriad of cables and boxes together. I'm reminded frequently of the way a pilot once described the inner wiring and workings of a jet plane – "imagine an explosion in a spaghetti factory" he wrote, "but somehow it all fits together and planes fly."



And I'm staggered by the attention to detail, particularly in this day and age of terrorism at major events. Momo (that's what everyone calls him) from Avert Risk and I chat whilst every seat in the venue is inspected on show day just in case someone has planted something. He shows me the grassed area behind the stage where Elton's helicopter will land at 3pm on show day. When I ask what would happen if there was an 'incident' once gates had opened Momo tells me that there are various evacuation points, and that the people on the floor will be ushered to the grass area where Elton's helicopter is intended to land.

I ask Momo what will happen if Elton's helicopter is en route and close to landing. He tells me that there is a contingency plan for the chopper to put down. When I ask where he looks at it, smiles just a little and says, "I can't tell you."

Elton does land in the designated area – but a half hour early as there's concerns about the increasing winds. Meanwhile his crew soundchecks, the final touches are put on the staging and gates open at 4pm. Right on time. Everything backstage is still strangely calm. There's always a sense that a calamity of varying proportions is just seconds away. Everyone thinks it. No-one says anything.

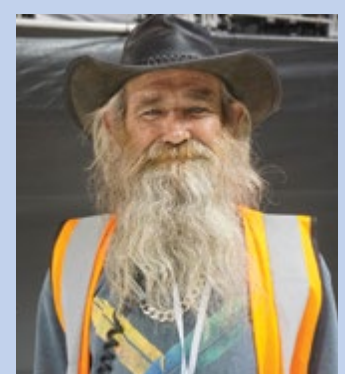
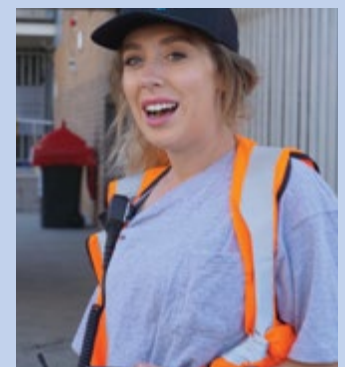
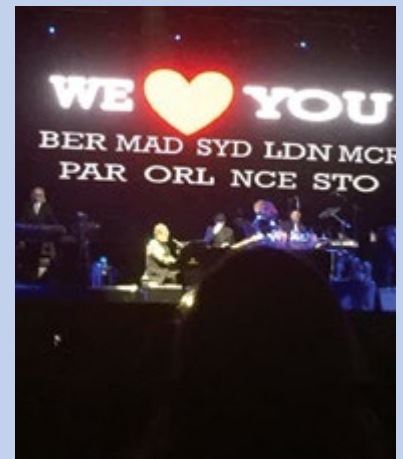
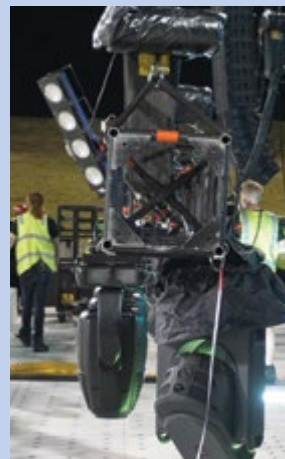
Busby Marou open the show, Elton comes on right on the stroke of 6.30pm. He plays great. Nothing goes wrong. The crowd is delirious. No-one dies. No babies are born. There appears to be no bad acid. Elton utters his best line of the night – "Two words I never imagined myself saying – 'Hello Wollongong'"

Twenty minutes before the show ends I wander backstage. The loaders are hi vised up again and ready to go. Elton comes off. He's been driven to the helicopter before the house lights go up. The band follow five minutes later and hop into a waiting van for the drive to Sydney.

Less than ten minutes after the show ends the stage gear is being loaded down ramps and into trucks. It's almost 9pm. Four of them need to be on the road tonight to overnight to Melbourne to get on the Spirit Of Tasmania for the concerts in Hobart. If they miss this boat it will not be a good look.

It's feverish till midnight. I wander back at 6am the next morning as the stage is being dismantled. The matting and chairs have already been rolled up and packed.

One of the production crew who knows what I'm doing wanders over and says quietly, "This is what we do Stuart – we build pyramids, then we take them down and move them on."



history

1991: 2016

Compiled by **Dan Cole**, who rummages through crates of back issues in our hermetically sealed, environmentally protected dungeon.

➤ Channels Magazine 1991 / 25 years ago



This month 25 years ago Channels expanded its editorial to include the growing AV contracting market - Dyalite was expanding into Asia and Total Concept Productions had just completed a \$1.4 m fit-out of Sydney's ANA hotel. A warning was sounded from Les Jones and others about shyster contractors which in one instance led to a 150k job requiring four different installers to correct its faults.

In general News, Hitachi had stopped supplying the T-03 mosfet causing headaches for power amplifier makers such as Australian Monitor and ARX, Ray Bond reviewed the San Francisco AES show, and we received

another screed about Tag and Test, as the issue moved into group counseling.

Our Studio section featured an interview with legend producer Mark Moffatt including invaluable tips on drum (and didgeridoo) recording, and in Production News we spoke with Simply Red's local tour crew comprising LD John Dipple, Mark Payne, Ian Haley, and Robbie McGraph on audio, previously in Australia with AC/DC.

Other productions covered were the Gympie Music Muster, the Blackstump Christian Arts festival (for 20k people), and Margaret Urlich on tour with a EHT processed A1 system overseen by George Gorga. In Great Mistakes we identify the likely cause of the Bathurst 1000 riots: A drummer from Drummoyne.

➤ Connections Magazine 2001 / 15 years ago

The last edition of Connections Magazine. What a milestone, but after 10 years it was time for a refresh with its replacement CX Magazine and online news platform better suited to the new reality of digital publishing, with Julius Grafton returning as Editor after overseeing the valiant efforts of John Grimshaw.

We toured some impressive installations. Robert Coia, Head of Lighting at Seven Network (Docklands) talked us through their new lighting system supplied by Coemar DiSisti Australia

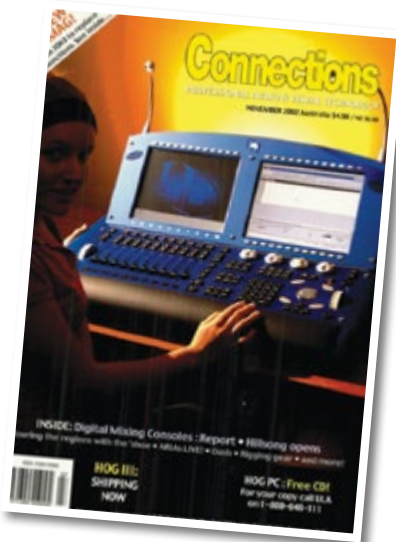
and Peter Kemp, and while in Singapore we spoke with Leon Dark about the Singapore Performing Arts Centre's S\$7 million specification (quite a few high-end items were faulty straight out of the box apparently).

Closer to home, the new Hillsong Church Convention Centre opened in Sydney with a \$4 million lighting and sound package provided by Lots of Watts.

Production round-up included Oasis who - spoiler alert - don't like in-ear monitors according to audio engineer Bruce Johnson. We also went to Hot

Shoe Shuffle (LD Gavin Swift; audio Steve Peereboom) and the 2002 Aria Awards (LD Francesco Calvi; FOH audio Michael Waters, broadcast mix George Gorga).

Market Reports featured Digital Mixing Consoles and, Rigging Solutions - everything from hook-clamps to pulleys. Finally we were impressed with McLean Audio Services after a recent hire - impeccable equipment, all console controls zero'ed or at 12 o'clock with fresh blank mark-up tape, mic cables colour coded for length, and sunblock in the traps case - sometimes its the small details that make your day.



➔ CX Mag 2011 / 5 years ago

Technology and education emerged as a theme in CX five years ago. Jimmy Den-Ouden wrote an extended story on IT and AV systems in modern educational environments, including useful installation tips and technology recommendations for different scenarios, and Julius Grafton spoke with Kym Williams at the Victorian College of the Arts about their technical production program, one of a few actually dedicated to finding gainful employment for graduates.

Others features included a profile of laser and video wall pioneer Richard Newton, and The Mill's Andy Stewart began a new regular studio column with advice on recording vocals in complex and increasingly cluttered studio environments. Performance notes included Scissor Sisters (LX - Fraser Elisha, Paul Normandae LD, Visuals Ana Matronic); Pitbull (LD Juston Gieger), and Howard Jones (Stephen Askins, audio).

General items included highlights of the new Workplace Health and Safety Act; all about mergers in The Biz; and the sad news of the passing of highly respected loudspeaker designer Neville Thiele with a vale by Frank Hinton.

In-depth Gearbox equipment reviews included the Yamaha CL5 Rio 3224-D mixing console; the EAW QX speaker series, Jands Stage CL 12/24 console for the control of LED fixtures, and Audio Technica's LP-1240 turntable.



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MIDNIGHT OIL IN TOWNSVILLE

THE GREAT CIRCLE 2017 WORLD TOUR

BY CAT STROM
PHOTOS: VIRGINIA SZARAZ

CX CAUGHT UP WITH THE OILS AT THEIR FIRST 'PROPER' GIG OF THE AUSTRALIAN TOUR HELD AT THE LAID BACK TOWNSVILLE ENTERTAINMENT CENTRE

Legendary Australian rock band Midnight Oil began their "The Great Circle 2017" World Tour with a warm up gig at Selina's (Coogee, Sydney) in mid-April and after literally circling the world, they will end with a gig in Sydney.

During the tour Midnight Oil performed over thirty gigs around the world during the northern summer, playing iconic venues from Sao Paulo's Espaço

das Americas and the Wiltern in L.A. to London's Hammersmith Apollo and The Olympia in Paris. They shared festival stages with artists like Arcade Fire, Sting and Pixies and finally returned to New Zealand after 20 years.

Given the band's deep connections with central Australia the local leg kicked off in Alice Springs and Darwin before starting to circle their homeland



with a show in the rainforest near Cairns. Over the following five weeks tour loops clockwise around the country in mainly outdoor venues.

CX caught up with The Oils in Townsville, their first 'proper' gig of the Australian tour held a day after production rehearsals. After Qudos Bank Arena and the ICC in Sydney, Townsville Entertainment Centre was an absolute treat. There was little to no security, it only held 4000 people and a glass of wine (the choice was red or white) was only \$6.00! The venue staff even kept the air conditioning low to enable a lovely haze blanket to envelope the room. The vibe was super chilled and such a contrast to the security obsessed ICC.

FOH was Colin Ellis who was running an Avid Venue S6L and thanks to Clair Global, he had had one all across the world. Colin first experienced the S6L when Richie Robinson visited his hometown of Hobart with Icehouse.

"I raced down to the casino to have a look at it and Richie gave me a quick run over," said Colin. "We actually loaded my file off the old Profile into it and it all came up brilliantly, minus the plugins. I decided then and there to use one on The Oils."

Colin described the transition as relatively easy revealing that the instructional videos online are very good and appear to have all of the answers.



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“The only real difference is that you don’t have the plugins - but you don’t need them,” added Colin. “The S6L definitely sounds better than the Profile, it runs at 96K whereas the Profile is 48K so all of the high end is better and it’s much more focused. The EQ’s are really sharp and usable, the pressure in the console is really good everything is way improved.”

With the Avid Profile Colin would have used up to 60 plugins to make it sound better whereas with the S6L he only had five plugins, commenting that he doesn’t feel that he needs more than that.

“The S6L has made me realise how much latency is going on and blurring of the sound in a Profile when it is full of plugins,” Colin remarked. “Most digital consoles have layers but the S6L has layers and lay outs. You can make up to 24 lay outs and put any channel or any VCA or group or subgroup in it. I only have three layouts; one with the groups on the surface, one with my effects returns on the surface and one for when the band goes to their acoustic section of the show.”

The main reverb used by Colin was the ReVibe II, a couple of Sansamp plugins for distorted sounds, an Avid Multiband Pro compressor and a Fairchild.



COLIN ELLIS WITH HIS VENUE S6L

Colin commented that a massive improvement with the S6L was the resolution of the screens which are now crystal clear. Even outdoors when the band played in daylight, Colin could clearly see the screen content.

Colin describes mixing for Midnight Oil as a case of refinement although Peter’s voice can be a little tricky as he sounds completely different when he talks to when he sings. Normally Colin would Snapshot every song but he soon gave up with Midnight Oil.

“I did about five Snapshots then realized that they are drawing from 160 songs and gave up as it wasn’t worthwhile!” he said. “Every night they play five or six different songs and I just run with it as a rock show although it means I have to manually change effects for each song.”

The main hang of the PA was L-Acoustics K1, twelve aside with two K2’s underneath, with twelve K2 in each of the side hangs. That will be the set hang for the tour although some of the larger outdoor shows will have extra cabinets and delays.

Colin admits that he has never been one for big fancy mics and so microphones were



PAUL 'KENNO' KENNEDY ON MONITORS



LUIS HIRD - JPJ'S MONITOR SYSTEM ENGINEER



LD STEVE GRANVILLE (SPOT THE GUITAR TECH)

stock standard old school with Shure 57 and KSM32 for guitars, AKG 414 for overheads, Shure Beta 58 for vocals plus a couple of radio microphones with Beta heads, and Sennheiser 902 for the kick drum with a 901 inside.

On monitors was Paul 'Kenno' Kennedy with a DiGiCo SD10 running twelve stereo sends of PSM1000 IEMs plus five sends of M2 wedges on stage.

"There's a wedge for each of them although we started out with side fills too, but we got rid of them because they were just confusing the issue," said Kenno. "The wedges are just there as a backup. Rob is the only band member who doesn't wear IEMs so the wedges are partly for him as there's a part of the show where he comes downstage with a cocktail drum kit and needs some sound to work off. It's as simple as that really, the rest of it is all a mind game!"

Kenno ran a wireless Workbench radio frequency coordination system that was also connected to the backline via Ethernet so they don't have to find their own frequencies. Kenno transmits the required info and all they have to do is sync their packs and they're ready to go.



JOEL PEASON -
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LIGHTING

Lighting for the tour was by Steve Granville, fresh off the Parkway Drive world tour. So fresh he hadn't been home for seven months! His design had evolved a lot since the first shows in fact by the time the band played Townsville, Steve was up to design version 60.

"This is pretty much it now for Australia although we may add to it at the larger shows such as at The Domain," he said.

During the design process a large video wall was considered as was curved trussing, lots of floor package then no floor package, towers but eventually Steve settled for four staggered trusses above the stage, which fill the void above the band, and a front truss.

"I tried to fit the old Nick Elvin look of Midnight Oil with scaffolding, offset and abstract looks," added Steve. "My main fixture is the Martin MAC Viper Profile which I use on everything as they cover multiple bases and they just keep working. I like their gobo set, they have some nice big break ups and some soft break ups in there. They also don't really lose any cut when you go heavy with colours. There's a lot of colour correction in this show to keep it warm. The PAR cans are all gelled with Lee 204 and I'll only run the blinders to 50% so I don't get that white out of them. The band like Outback colours such as oranges, yellows and reds."

Steve added Claypaky Mythos to the Australian rig for a beam look although they are also used as



a wash or for gobo effects. The main wash lights are Claypaky B-EYE K20 fixtures with a few MAC Auras for sidelight. The pixel effects of the B-EYEs are used very sparingly although Steve did use the rings a fair amount.

"I used their pixel effect a lot in the US when I just had a floor package," said Steve. "I had no spot fixture but did have eight B-EYEs on the floor that could give me a wash and a gobo look. I also have the original Martin Atomics and scrollers which has made the Chameleon crew really happy. They've been fixing scrollers most of yesterday and all of this morning. I've used Claypaky Stormys a lot and I like them but I'm not a huge fan of the LED strobes like the Nitro where you can see the LEDs. It wouldn't suit this show. When you really want something that is going to hurt, the Atomics are the best!"

Located on the floor upstage were thirteen towers of PAR cans, 68 in total with 24 more in the roof, placed in an abstract manner echoing the random PAR can look of old Midnight Oil shows.

An impressive amount of haze was achieved by four DF50 and four Unique hazers with the possibility of a couple of MDG's to be added for the large outdoor shows. Steve added that they went through a lot of haze with the band until they found one that they liked density versus being able to run around for two and a half hours!

With 160 songs rehearsed for this tour, Steve readily admits there was a fair bit of winging it when it came to programming the show. The most popular songs that are nearly always in the set are cue listed but the rest are all run live.

"This show has a lot more front light than I'm used to using and it has taken me a bit of time to adjust," commented Steve. "It's about setting scenes and letting the band work within them rather than lots of effects and movement spinning around the room. There are a couple of slow pans and sweeps but for the most part its intensities, blocks of colour and beamy looks."

Once Steve had learnt their songs, the band soon became comfortable with moving in and out of their light rather than being lit all of the time.

Steve is a long time Hog man starting with a Hog1000 years ago and now onto a Hog 4. He says he has no console rivalry but the Hog suits his programming style and basically he is used to it.

"Since the Hog 4 came out it has been solid," he added. "I always have to have a Wing as I'm punting a lot of the songs and need more faders. The Command Keys are good and I use the Rate Wheel a lot. I have ELC Nodes out front in case we have support consoles turning up. All up it's only eight universes so it's pretty simple out the front."

Two follow spots will be added to the outdoor shows, placed high to the sides to avoid 'flattening' people out.





TINA ARENA

INNOCENCE TO UNDERSTANDING TOUR

AUSTRALIAN POP ICON **TINA ARENA** TOOK TO THE ROAD TO CELEBRATE HER NEW *GREATEST HITS & INTERPRETATIONS* DOUBLE ALBUM WITH THE *INNOCENCE TO UNDERSTANDING TOUR*.

>> BY CAT STROM

>> PHOTOS BY TROY CONSTABLE
AND MIKE FLETCHER

A 40-year recording career by any singer is an extraordinary milestone, and Tina Arena is the only Australian artist to earn a gold or platinum certification for each of her original albums, in every decade since the 1970s right through to now. In fact, every album in her career has gone gold, platinum or multi-platinum. Brad Alcock, Co-Founder of BAAC Light has been Tina's lighting

designer for her last few tours, however, this is the first time that he has taken on the responsibility of having significant input into the overall creative design of the show.

Brad began the creative journey back in February with Tina's Partner Vince Mancini. Tina and Vince were very keen to let him explore the work and present a number of his own design options for consideration, which was a fantastic opportunity

for Brad to use the BAAC Lighting Visualisation Studio to conceptualise his ideas in real-time.

“The show is a lot less rock’n’roll and much more theatrical - heading in a classy direction,” remarked Brad. “Consequently, my design utilises a much smaller number of moving light fixtures than I would normally incorporate, rather, the visual emphasis is on the 22 projection panels that define the performance space and are the main design element of the show”.

In fact, the show was a masterpiece in video and lighting integration, with the show design evolving from the idea of the projection panels encompassing the whole space. There were many times when the lighting became an element of the projected surfaces which meant that when the lighting wasn’t, the projection really popped.

The configuration of the panels in the 6,000 seat ICC Theatre Sydney was arranged slightly wider than Brad’s original design which was optimized for the smaller 2,000 seat venues that the rest of the tour played at.

“This room is not ideal for us, but the design still works and most importantly, the story still comes across,” said Brad. “At the end of the day, the show is not about



lighting and projection ... it’s about Tina and as long as we can see her and the band, the design is dynamic enough to allow us to get away with a fair bit!”

One of the challenges of the tour and Brad’s design, was the need for it to change for each venue played on the tour given the wide range of stage sizes and trim heights encountered.

“It’s the first touring rock’n’roll show that I’ve done where I have placed the emphasis on projection as the core visual element of the show and this had its challenges,” commented Brad. “It required

AT THE END OF THE DAY,
THE SHOW IS NOT ABOUT
LIGHTING AND PROJECTION ...
IT’S ABOUT TINA.



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me and my team to ensure that we toured a full complement of lenses to ensure that we were able to respond to any change in the projection design at any venue.

“Traditionally, shows of this size and type would tour with LED panels, however, one of the design constraints that we had to overcome was to deliver a visual solution that was exceptionally fast to install at each venue.”

As such, efficiency became key for Brad and his team of just two touring technicians who were responsible for both the lighting and projection elements of the production. Rather than touring over 80 square meters of LED panels and an entire additional crew, the projection surfaces were constructed of lightweight aluminium frames with white

FOR MEDIA SERVERS, BRAD DECIDED TO RUN ARKAOS DUE TO ITS SPEED OF MAPPING THE PANELS IN EACH VENUE.

core-flute surfaces.

“Most of my time in the show is spent ensuring the lighting balances the projection but most importantly making sure Tina is never compromised in either light that is too strong or not flattering,” added Brad.

Brad and one of BAAC Light’s content creators Mike Fletcher created most of the content along with Tina’s partner Vince Mancini and Mike Westbrooke and using a broad team of content artists ensured the show didn’t have the same feel all the way through.

“This was very important to me as I needed the show to reflect the story behind Tina’s songs, both acknowledging her past, but also making a statement about her future,” said Brad. “Further,

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>> ICC AUDIO CREW RYAN HAZELL AND JESSICA MCCLOUGHAN



it was important to ensure that I met the brief of her creative team's desire to emphasise Tina's position as a contemporary artist."

As a Lighting Designer, Brad is in the unique position of having his own warehouse full of BAAC Light's lighting and projection equipment that is used exclusively for his designs.

"I am extremely fortunate to be able to pick and choose the fixtures

I will use for each design from my own inventory," Brad commented. "The entire lighting and projection system was supplied by BAAC Light for the tour: 3 x Panasonic Projectors, 51 x Moving Lights (a mix of spot, wash and beam), a large number of mole-fays and profiles and even a few dozen happy tubes to deliver a retro 90's look.

"Using our own lights is easier for

me as I know what each can and can't do. Again the show is a story through projection so I didn't need a huge fixture count. The majority of the rig is discharge and I never run any LED fixtures that hit Tina over 12% in order to ensure no chance of oversaturation."

For Media Servers, Brad decided to run ArKaos due to its speed of mapping the panels in each venue.

"One technician with a remotely

interfaced laptop was able to fully map the entire projection system in under fifteen minutes in each venue,” commented Brad. “Choosing the right tool for the job is important to me and one of the great things about BAAC Light’s media server fleet is that as a designer, you can just select which of the six different media server software packages we run, you want to be slotted into your main and backup servers. All servers are custom built in-house and for Tina we also fed multiple live camera feeds which were subsequently treated with real-time effects.”

Although Brad insists he is not a Console Queen, he does prefer a Hog4 Full Boar with a full tracking backup console for control. “I

don’t consider consoles to be an important part of the journey – it’s just another tool I use to deliver a design. I am fast and efficient on that console and most importantly, I don’t have to look down at it very often, thus ensuring my eyes are not distracted from the important things on stage.

“Technically, it’s not a particularly complicated show, I run a single cuelist of 390 cues for the show which include both vision and lighting. On top of that, I call follow spots and I also have a few busking faders in there as well for extra bumps and effects to respond to the audience’s reactions. The great thing with Tina is that she’ll always find the light for you and will always play to the light.”



AUDIO ∇

FOH engineer Danny Olesh was tempted onto the road away from his usual occupation designing sound consoles, and although the show was complicated with many channels and schedules were tight, he was clearly in his element.

FOH, microphones and monitors were toured and supplied by JPJ Audio, with ‘stacks and racks’

picked up locally or in house. Danny chose a Soundcraft Vi6 console for the simple reason that he enjoys the sound of the preamps and it has real hardware Lexicon processors built in which lends itself very well to the kind of vocal production the show required.

“They really add to the reverb quality that Tina’s voice

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>> DANNY OLESH

requires," he added. "I'm running close to 30 plugins which run from the Vi6 optical MADI output via Digigrad MGO into a Waves server running Soundgrid with certain processors that run on Tina's vocals. The vocals come in one channel and go directly out to a set of plugins which is a chain containing C6-Vitamin-Vocal rider (side-chained to a band subgroup) and a De-esser. This then gets returned to the console and then out again through a group that does a stereo spread on her vocal - Doubler, Vitamin, S1, De-esser."

Side chaining is happening through a plugin called F6 with the bass and the kick; when there's a kick the bass doesn't happen at the same time in the low end frequencies which cleans up the bottom end.

Drum group runs through a C6 and F6 just to contain the large variance in dynamics of the show.

Band group runs via an F6 with the midrange side-chained to Tina vocal group, this gives space in the vocal midrange area when you have twenty other instruments playing at the same time.

There are a few other little tricks to change the drum sound between songs (SSL and Transient control) with the live strings and backing string group via a C4 and Vitamin.

"We were lucky to have a few days of rehearsals where I could set up several cues on the system," said Danny. "It's a very interesting show

with a lot of light and shade in it."

Danny also chose the Soundcraft Vi6 due to the amount of faders it offered him, allowing him to get to channels quickly when he is doing 63 channels off the stage plus all the return groups, totaling around 80 channels - as well as having built in compression and 31band graphics as well as 4 band parametric already present on every output (group and matrix) without having to spend time assigning processing to them.

"It makes it easier to get to quickly when you don't have the same rig at every show plus there are a lot of changes between songs, depending on the room," he said. "I think the d&b PA here at the ICC is very good and they did a great job. It seems to be pretty equal as far as the sound goes between the bottom and top, left to right of the venue."

The in house d&b system comprised of sixteen V-Series for the main hang left and right, ten hangs of V-Series for the outfills, sixteen flown Vsubs and on the floor four Y-Series for the drum

front fill and four Vsubs on the floor for front fill. There were V-Series delays for the last four rows of the highest seating.

The venue's DiGiCo D10 was used for control getting AES feeds from the Vi6. A left and right PA matrix feeds into AES 1 and 2 goes to the DiGiCo, and that feeds the left and right hangs. Top subs, ground subs, floor fills and delays all run off matrixes into AES and through the console processors to the DA80 amplifiers. It was digital all the way through to the amps with no conversion required.

"When we first opened, a lot of acts were bringing in their own PA systems but now we're about 50/50," said Ryan Hazell of the ICC's audio department. "It takes time to build confidence in a new venue, its sounding good now. We've had a bit of time to fine tune it with the R1 software and the more shows come through here, the more we'll win the confidence of people."

JPJ's Jarrod Mitchell took care of the RF plot, travelling with 24 channels of RF and using WinRADiO to scan the area and Workbench to calculate the frequencies.

Ricky Ray used a DiGiCoSD10 for monitors (Shure PSM 1000 IEMs) with an analogue split between the SD10 rack and the Soundcraft rack, which is a nice redundant system to have so if something did go they can use either or to do the job.



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20 QUESTIONS with

Kellie McKee

Kellie McKee was born and raised in Queensland, studying at Southbank Institute of Technology where she completed a diploma of technical production. Kellie moved to Sydney in 2010 to work with JPJ Audio and she has worked full time with them ever since. Kellie has worked on a variety of different shows from tours, festivals, corporate or just one off events.

1. What are the three best things about your job?

- Getting to travel to different places
- Working with amazing artists, bands and crews
- The people I get to work with everyday

2. And the three worst things?

- Being away from loved ones
- Overnights/ lack of sleep
- Outdoor shows in the rain

3. What do you never leave home without when working?

Phone, sharpie, computer and a whole lot of Sass.



4. What was the worst nightmare you encountered on the road?

Luckily I haven't had any real nightmare situations yet.

5. What has been the strangest request from an artist?

I must not have had a really strange request, because I can't seem to think of one, I'm sure if I had I would remember it.

6. Who was hell to work with (probably best not to actually mention name but elude to it)?

Most people I've had the chance to work with have all been really nice and easy to deal with. I do get the odd occasion however where it's a lot more difficult then it needs to be, those days aren't so much fun.

7. What is the most stupid request you've had from a member of the public, artist or promoter?

I tend to get quite a few questions relating to

production instead of audio; such as can we get some towels/water onstage etc. I'm pretty sure at least once a gig I will have to say to somebody sorry I'm just doing audio you will have to check with somebody from production.

8. In your opinion, what's the best show you've worked on and why?

Bruce Springsteen tour 2015 - great run, great crew, amazing band and the boss punched out a different three hour set every show.

9. What is the most bizarre sight you have ever seen at a gig?

Nothing comes to mind for this one. I wish I had a good story about something bizarre though.

10. Who do you admire in the industry and why?

Females, we work in a male dominated industry so it's always great to see fellow females working and taking on big roles and kicking goals in the industry.

11. Which venue is your favourite and why?

I haven't been there for what seems like quite awhile but I like doing shows at Rod Laver in Melbourne. Or the Enmore - always had a good gig there and it's a great venue to go see a gig.

12. Which recent piece of production gear do you view as a game-changer?

The Shure Axient digital system.

13. What is the most outrageous thing you have ever done on tour?

I haven't really done anything too outrageous on tour.

14. What was the worst weather event you've encountered at an outdoors gig?

I can't say I've experienced any extreme weather conditions although there's been a few gigs where I've loaded in or out in the pouring rain. Load out for Mumford and Sons' Gentleman of the Road show at the Domain was definitely one of those times! Also Splendour in the Grass 2015 was a mud fest, luckily for me I wasn't there the whole time and didn't have to endure the mud all weekend but we did get very bogged attempting to leave site.

15. What would your ideal rig contain?

DiGiCo SD5 as a monitor console, Shure PSM 1000 for IEM's and coffee.

16. Which band would you most like to work for and why?

Arctic Monkeys, great musicians who put on an amazing show.

17. Do you have a favourite mantra to get you through the day?

Can coffee be classed as a mantra? Cause that's what gets me through the day.

18. What do you think of the Australian live music industry at the moment?

We've lost a few big name festivals over the past few years, but its given way for a lot of smaller festivals that are giving the upcoming musicians of Australia a chance to be heard and seen perform live. It's also giving a chance for smaller productions companies to get their name out and place them in the industry.

19. If you could invent anything to do with audio, what would it be?

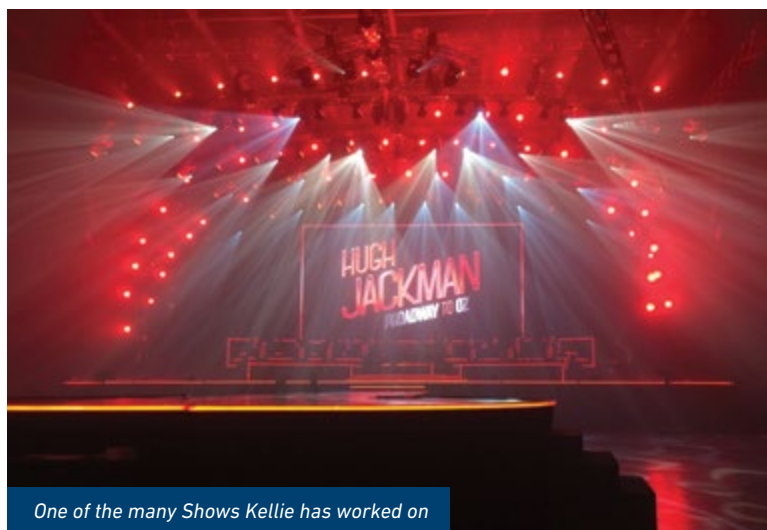
Oh that's a tough one!

20. What did you really want to be when you grew up?

A Marine Biologist



Kellie McKee contemplating work



One of the many Shows Kellie has worked on

If you're at a show and the mix is clearly up a certain creek without a paddle, are you someone who finally says "enough!" and storms the FOH position, or do you suffer in silence?

LISTEN HERE

THE BLEEDING OBVIOUS

ANDY STEWART



Last Saturday night I went to a gig straight after a solid day at the mixing console. I was a little fried I'd have to say; tired from a long day with clients and loud music. But if there's a better way to relax after a long mixing session than listening to yet more music after punching the time-clock, I'd like to hear about it.

Actually, I wouldn't. I've already paid for my mistake... and I'm already well aware how dumb I can be.

I won't name who I saw that night or where the gig took place – I don't want to run anyone down (sorry Julius) and in many ways it's irrelevant anyway.

But frankly I was upset at the performance of the engineer this night. It was supposed to be an intimate gig, albeit in a less than ideal space – a country hall. So what does the engineer do? Drowns the vocals in a shitty hall reverb. I mean, the vocalist was already off the mic a fair bit so the vocal sound was already pretty ambient and thin straight out of the PA, and from there it was projecting into a bright, splashy, wooden room. So surely it goes without saying to anyone with half a clue that this is no time for indulging in crude hall presets on the vocal with a cheap-arsed reverb unit. It was a solo blues performance for Pete's sake, not a Fleet Foxes gig.

Anyway, it pissed me off no end. All I wanted to do this night was switch off my brain and listen to some music with friends. Instead, I was forced to sit on my hands to resist the urge to confront the mix engineer with a terse statement of the bleeding obvious: "Hey mate, can't you hear or see where you are right now? Do you seriously think this is

the right time for a three second hall reverb on the vocals? Do me a favour would ya please: go get a job stocking supermarket shelves."

You're damn right I was mad. It was unforgiveable. I mean, people had paid 90 bucks or so to see this guy, and for that money they were entitled to be able to hear the singer! Instead, they got an inarticulate, resonant, reverberant mess with a dry guitar plonked on top. My mind boggled at the sheer stupidity of the mixer and his so-called mix, his blind disregard for context and his failure to recognise the adverse impact he was having on the show. Like I said, it was unforgivable.

TURNING A DEAF EAR

My question without notice to the engineering community is this: why is there a culture of silence around live engineers when they're getting it horribly wrong? Is there really no scope for making a polite enquiry or offering a solution to an obvious problem when the shit is hitting the proverbial? Studio engineers have to

deal with suggestions from others left, right and centre as a matter of course right throughout the mixing process, and while live mixing is not the same in several significant respects, there are nevertheless obvious similarities between the two.

One thing I felt certain of this night, having mixed and mastered two albums for this particular artist, was that if he'd heard the FOH mix he would have been very, very upset.

Despite this it really wasn't my place to confront the mix engineer at the gig. I've had more than my fair share of polite disagreements with people behind mixing consoles over the years, but I didn't have the energy for yet another showdown. Besides, the mixing console was in far too public a position to make discrete enquires about the sound. I could easily have disrupted the show for half the audience if I'd pulled that ripcord.

A PROFESSIONAL WORD?

But surely other people could have had a quiet word to the engineer

that night; like for instance the systems engineer. I know it's not traditionally their role either to confront an act's personal mixer mid show when things clearly aren't right, but in this particular case it might have saved the gig.

Being a mix engineer himself and having just mixed the support act (as well as dozens of others in the venue), I was disappointed that he hadn't felt the compulsion to politely suggest that maybe the reverb could be backed off a tad on the vocals – the hall is notorious and he knows this better than anyone.

I chatted to him after the show about it actually – we're acquaintances so I wanted to say g'day anyway – and politely shared with him my frustrations, only to discover that he'd had similar misgivings about the mix. I stopped short of asking him why, if he'd thought it sounded so bad he hadn't done something about it. But again I didn't feel like it was the right time or place for such a conversation. He was packing up in earnest at the time.

Anyway, as I drove home from the gig, I couldn't get the night's technical problems out of my head. It made me realise how different, in

one specific regard, a live mix can be from its studio equivalent.

In a studio situation you're often surrounded by songwriters, band members, and other producers and engineers, all of whom are invested in the mix, and depending on the circumstances, typically make polite (and sometimes impolite) suggestions about how the mix should evolve or ultimately sound. Hours and sometimes days are spent debating tones, levels, effects and so on, to produce an outcome that hopefully everyone loves. It makes things harder and slower sure, but it always improves the outcome and that's all I care about in the end.

Live, it's the polar opposite. Not only are the band at the mercy of the mix engineer's decision making process, there seems to be an almost unwritten rule that he or she is not to be disturbed once the show is up and running. There are plenty of reasons why this is fair enough too – the gig is live for starters so there's often little time for a chat.

But it seems crazy that there be silence around an engineer, even from fellow mix engineers and systems techs who may be aware of a problem that needs resolving or a

sound that needs addressing. The band certainly can't tell what things sound like, yet it's their arse on the line in the end. If they're being made to look foolish surely someone in the crew is entitled to make a polite enquiry at the very least?

There are many reasons why a culture of silence has developed around live engineers when things go wrong. No-one wants punters coming up and shouting at you while you're mixing, sure, and there's often no time to debate the merits of one tone over another, or the level of an instrument that someone thinks could go up or down. In the end the buck stops with the engineer when time is of the essence.

But there's got to be some sort of middle ground when things are so obviously skew-iff as they were the other night. A polite word from the systems tech, who already has a professional working relationship with the mix engineer, would surely be a good place to start. I know FOH engineers may not like it, but who's gig is this, the engineer's or the band on stage?



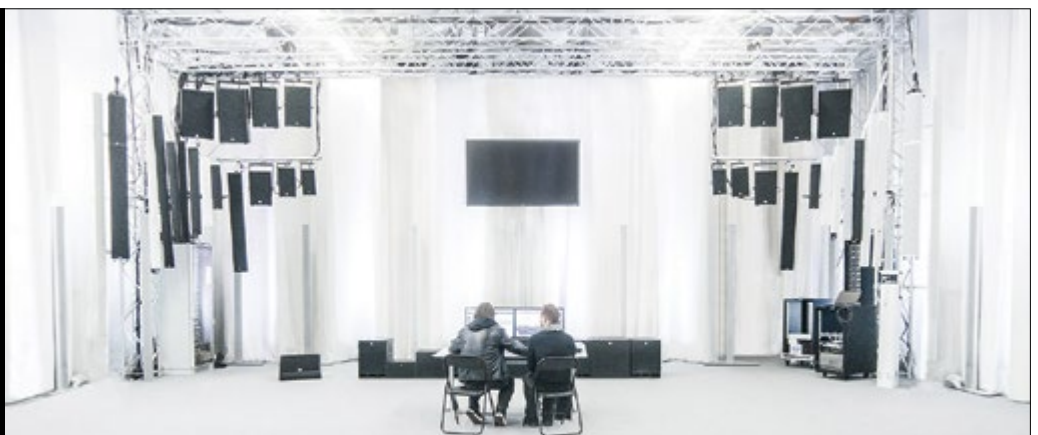
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Slow motion business crash

Julius was driving this bus



By
Julius Grafton

In November 2010, seven years ago, I had a board meeting with myself and made the hardest decision ever. I closed down my vocational college, Julius Events College.

For nine years I'd struggled, dreamed, fretted and rejoiced while surfing the turbulent waves of regulations, compliance and missing fortunes that were not mine to control. In the lovingly furnished hallways of the campus, I walked around just after dawn that Monday, soaking it all up.

Downstairs was the TV control room, with red high back chairs and LED strips under lighting the curved desks. CCU, audio and switch gear all lit up, monitors on showing an empty auditorium next door. A range of stage lights hung on trusses, dimmers and gear neatly stacked on shelves.

Newly hung stage drapes lined the walls that were previously bare. The floor was freshly painted, scaffold tower and access gear carefully parked. P.A., microphones, wedges, mixers all neatly ready for classes.

Trusses were empty and waiting, under chain blocks. The air conditioners quietly pushed out cool air against the heat from the ply lined factory roof. Dozens of downlights all lit the beautiful space, not a single one not working.

It had just been mopped, the cleaners leaving as I arrived.

Upstairs the computer room had 12 new iMacs. Two classrooms were clean and neat, more air conditioning humming, classic gig posters from my startup era (the 1970's) framed on the walls. Student desks, chairs, whiteboards and projectors were all in perfect condition. Two coffee machines were loaded, fresh milk was in the fridge, water coolers full, toilets all clean and wiped down.

We were almost at the end of semester, the students deep in projects and assessments. This batch of graduates were the first to have to chance to enter the TV Production Degree at Charles

Sturt University, with whom we'd spent countless hours mapping and matching so some of our better kids could use their Diploma as a credit against the first year of the Degree.

For the 50 young guys and girls in my college, this was the start of the rest of their lives. For my wife at home that night, it was a sudden shock as I told her my dream was shattered.

"We are going to lose the house". She walks in a circle, eyes glazed. "We are going to lose the house". A while later: "If we move from here, then you're not coming with us".

WHAT HAPPENED?

I'd hit Monday November 15 and confirmed with Monique, my college manager, that we had 15% less contracts than at the same time last year. This meant if I started the next year with a one year Diploma course, I would not have enough money to see the year through. On this simple liquidity test I had no choice other than to close. Shut down. Fold. Fail. I'd gone home and told her.

"We won't lose the house", I said. She was not listening. We never did lose the house – instead, we lost that marriage. Not right then, but eventually. Because the trust had dissolved.

We made the announcement, refunded the future students, graduated the ones we had (not all of them, some didn't have all the competencies) and wound down the whole machine. Jimmy, Steve and I then faced the heartbreaking task of dismantling EVERYTHING we'd built. Physically and psychologically.

This is a story about Business – about the planning and the execution. I had simply run out of working capital, having sunk \$1.5 million into the college. A lot of the money came from selling ENTECH the first time, the rest from me.

There was a lot of debt, owed to banks and finance companies, and all secured by my personal guarantee – but none of the loans were





on our mortgage. That was separate. The college company itself had little debt. Taxes were up to date, staff were paid up. We owed a lot of rent to Greg Kean, who owned Lots of Watts nearby, and who was our landlord. He forgave the rent once he learned how dire things were.

I got lucky in finding an honest insolvency lawyer, Ross McGlynn. He guided me through the mess, slowly and methodically helping me sort it all out. At one stage I had a debt collector turn up at our dream home in the bush at Wahroonga. A thuggish ex-footballer type, he came down the sandstone stairs that wound through the native garden. Our house was a Petit + Sevitt model home, set in four levels down the valley and overlooking a rain forest.

"I'm looking for JULIUS GRAFTON", he thundered, voice carrying down the valley. "I'm from American Express and I'm here to collect your debt". These days that is criminal intimidation, but I'm not one for intimidation. "Turn around and get off my land", I hissed. He left. My wife was by now very, very unhappy.

Ross McGlynn worked all the angles for several years. I did everything he told me to do. This included not answering my mobile phone, which lit up with debt collector calls several times an hour, most hours. He told me to get a ring tone of nothing – a silent tone. I then set that ring tone as a default. Then I set a custom tone for my family and clients. The phone would ring for them, but stay silent for all the collectors.

Eventually Ross helped it all go away. There was a lot of wheeling and dealing, not everyone got what they wanted. Not everything went as planned. It was sometimes very complex. I felt a lot of pain and now have a lousy credit rating – but no debt. I still own all of this media conglomerate.

DREAM, MARRIAGE & ROSS: THEY ALL DIE

The saddest part of all is that just as we were finalizing the final chapter in this saga, which was selling that dream home after the marriage collapsed, Ross called to say goodbye. He had terminal prostate cancer that had metastasized everywhere. He died a few days later. As well as helping me, Ross McGlynn had assisted dozens of victims of bank abuses from the GFC.

My advice? First of all, business carries the risk of failure, so plan to fail just as hard as you plan to succeed. I feared failure but I feared letting down vulnerable students and their families more. That led me to protect them from my actions. Their future payments were quarantined somewhere my creditors could not reach.

Second, if you have a choice (and this is tricky), try to ensure workers and trade creditors are looked after before banks and finance companies. I was paying high interest to the banks and financiers for many decades, with a AAA credit rating, so I had no psychological problem screwing them around.

Finally, I would never guide anyone through a messy situation like this as I am not a Ross McGlynn. I also caution that in looking around to find an insolvency advisor I met a lot of dodgy and unscrupulous bottom swimmers who prey on the desperate. I was not desperate, I reasoned that on the catastrophe scale what was happening to me was survivable, so I kept calm.

I could sleep at night. I knew things would get better. I was healthy. Driving a really old crappy car wasn't so bad. And when the marriage ended, renting wasn't so bad either. At least I was in a new suburb, with new experiences.

Seven years later, I'm a better man and a better business owner because of all this. Personally I've never been happier, having met and married my fourth wife Kate, who I sometimes call 'Katherine the fourth'. We live in our own dream home, and we pay off a mortgage that should end before I'm too ancient. Life is great!

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ALIGNMENT

Using the impulse response and phase functions, you can adjust timing of the main speakers, and say some delay speakers so that their arrival time is the same at a particular point. This is crucial for increasing intelligibility and reducing echo.

CROSSOVER

Both in frequency and timing. With FFT, you can smoothly observe transition between say the subs and the tops boxes. The subs may be forward of the main PA so they would need to be delayed. In addition, there is likely to be a build up in the low mid frequencies which can be addressed.

REFLECTIONS

You might not be able to do too much about room reflections, but at least you can see what is going on.

And frequency response - notice how I mentioned this last? Frequency response tends to be an artistic pursuit so in my view, FFT helps with the process by displaying the frequency response of the system, but you have to be careful not to be a slave to it.

Since we gained the ability to visually represent how something is set, we can pay too much attention to it and not listen to the result.

Dual channel FFT however does have a big advantage in that you can see if a dip in frequency response is due to phase problems which may or may not be able to be fixed, or due to the frequency response of the source, which usually can be fixed with equalisation. With single channel FFTs you can see the dip, but don't necessarily know if it is because of a phase problem.

Real Time Analysis - During the show, you can switch to RTA mode which gives you a quick and dirty display. This is useful for quickly identifying a feedback frequency, or monitoring overall level.

WHAT YOU NEED

You need a decent omnidirectional microphone designed for measurement purposes.

Here is a dirty little secret, most of the capsules in low to mid range microphones are the same capsule made by Panasonic. When Panasonic make a batch they test for tolerances and the bad ones are sold really cheaply and of course end up in cheap measurement microphones. The mid range capsules attract a higher price so end up in mid range microphones and so on.

But here is the thing, we are not doing laboratory grade



measurements that require the highest of quality microphones. We just need decent quality and even with the poorest of quality microphones, you can still do perfect timing adjustments as well as identify phase issues.

I've got a nice \$1,000 Earthworks M30 Measurement microphone. But rather than risk damaging or losing it on a gig, it stays at home and I bring some of my \$320 Isemcon EMX-7150's instead. They are nearly as good so I get the same results within +/- 1Db.

AUDIO INTERFACE

Pretty much anything with 2 inputs, 2 outputs and phantom power will get you started. In 2017, frequency response should be flat on most equipment so as long as you get your test signals well above the noise floor, you'll be fine.

SOFTWARE

Smaart is easily the industry standard. They offer a DI version which is the entry level product, as well as a multi channel version.

Satlive is another Windows based product which is slightly cheaper which may be worthwhile checking out. Both of the above have trial versions.

If you want to play with a free single channel FFT, download Room Eq Wizard. It is a surprisingly powerful single channel FFT analyser. Designed for home and studio use, it is still very usable in a live sound environment.

There is one BIG caveat with these tools. They are not a substitute to listening. I've seen ruler flat frequency response plots that sound terrible in the room. You are there to produce a pleasing sound, not pleasing pictures on your FFT screen so listen first, and verify.

Training is invaluable when it comes to working with these analysers. They are a complex and sophisticated tool that generates a lot of information. Without training, it is hard to fully interpret the data and make the right decisions. I have done 5 days training Smaart with Rational Acoustics in the US, and another 3 days on system optimisation with Bob McCarthy from Meyer Sound, I'm still learning. PAVT conduct training classes in Australia for Smaart.

By the way, don't take your nice pointy measurement microphones as carry one luggage when flying, airport security think they can be used as a weapon! I once was refused entry into an airport and they wanted me to surrender the microphone. Fortunately I was able to check it in with a friend's luggage.

SATLIVE

Windows Dual Channel FFT
<https://www.satlive.audio/en/>

RATIONAL ACOUSTICS - SMAART

Dual channel FFT for both Windows and Mac Os. Industry standard.
<http://www.rationalacoustics.com/smaart/about-smaart/>

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IT'S NOT ABOUT YOU - ATTITUDE

By Simon Byrne ←

RECENTLY ONE OF MY REGULAR CLIENTS MADE THE OBSERVATION THAT I SEEM TO PLACE GREAT IMPORTANCE ON THE ATTITUDE OF MY CREW. I ASKED "WHAT DO YOU MEAN?"

She responded with "you seem to hire staff with a can do, polite and friendly approach before all else. Even before technical ability".

She is spot on! I did not realise that I did this but it makes total sense.

When I put a crew together for corporate events, I think how can I create the smoothest, easiest possible experience for me, and the client/s (in that order). That means I need people who share my values first, supported by technical ability.

We are in a unique situation where we have severe time restraints, combined with high pressure and many stakeholders. As well as the client, we work with the venue, the entertainment and so on. We need to get on.

When I hear of techno's who are condescending, or rude to colleagues, clients, performers, venue staff, and the public etc, I wonder why are they doing this?

The reason I wonder is because none of this is new.

This not the first or last unorganised client, the first or last muso with strange ideas on how it should sound, the venue will put chairs in our way, and we know the DJ will

redline the desk and so on. So we should not be surprised.

If we are professionals, we take all of this in our stride. That is what professionals do.

Many entertainers are inherently insecure, especially those who are new to performing. They can feel exposed and many worry that their performance may not live up to expectations. A crew with a positive, mindful attitude creates a comfortable and "safe" environment, freeing them up to concentrate on what is important.

The crew are there to support a successful gig, especially when things go pear shaped.

About 12 years ago, I was involved in a Government Awards show at Parliament House and the production client who I'll call John, was well and truly out of his depth... he shouldn't have been there. This was a high profile gig with many VIP's and it was not going well.

Just 10 minutes in and it was obvious we were witnessing one the worst events in our careers. The wrong winner videos were being played, scripts were missing, the high profile MC was furious and looking for guidance, the end client was freaking out.

As I watched this train wreck unfold, I could see things were going from bad to worse and John did not have the skills to recover and was getting increasingly flustered.

I offered to take over running of the show. Absolutely not my gig but I figured it could not get any worse, I could settle things down and hopefully we'll get paid!


John jumped at my offer. I called a break and we regrouped, made a plan and restarted the show. It was not great, but we got through the night...just.

John was grateful that we managed to resurrect a reasonable result.

Now here is the thing. 12 years later John is now a very competent producer in a large company with some great clients and decent gigs. He is also still my client, as is the large company, probably because he has not forgotten the part we played in saving his career that night.

How you treat people now, will affect your career down the track because you never know where people end up.

Of course none of this applies to DJ's. They really piss me off and deserve everything they get!!



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ELECTRO-VOICE EVOLVE 50

THE PORTABLE COLUMN EVOLVES

There's a lot to choose from in the powered portable column system market these days. Corporate love them for their subtlety, musical duos love them for their portability, and dry-hire get to offer a simple package that fits a lot of bills. Sadly, most of them don't sound very good, and a lot of them feel quite flimsy.

Enter the EV Evolve 50. By far, it's the nicest portable column system to handle that I've yet experienced. The engineering and construction are solid and attractive while remaining easily

By Jason Allen

carried and assembled. And this is where the Evolve 50 really excels – its magnetic sub pole.

The pole handles all connections between the sub and the mid-high array. It's symmetrical, so there's no 'wrong' way to connect it, and like the rest of the rig, it feels solid and reliable. With no cabling, this gives the system a clean look.

The sub itself is a 12" driver powered by a 500W amp. The mid-high column houses eight 3.5-inch neodymium drivers powered by another 500W amp. Coverage from the top box is 120 degrees wide with 40 degree asymmetric vertical, to ensure you're throwing to the back of the room while getting everyone down the front.

Connectivity-wise, there's two combo jack inputs that can also run phantom, stereo RCA in and 3.5mm jack in. You can also connect via Bluetooth. Input gains are controlled by dedicated pots, including the streaming level. There's an XLR Thru for sending pre-fade signal of Input 1 out, and a Mix Out XLR for carrying the post-fade mix of all inputs to another unit.

Presets and DSP are controlled from a simple one-knob interface with a LCD screen. Of course, there's also an app;

Brand: Electro-Voice

Model: Evolve 50

Pricing: RRP \$2499 inc GST

Product Info:

www.electrovoice.com

Distributor:

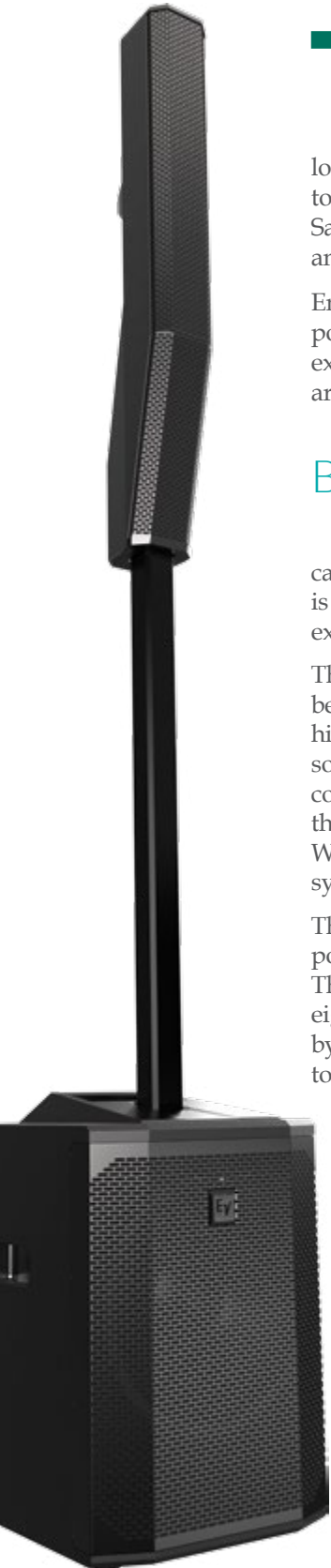
www.boschcommunications.com.au

the EV QuickSmart Mobile app lets you configure, control, and monitor up to six Evolve 50s at the same time. What really struck me is how the processing limits what you can do to the signal – in a good way. All of the presets (Music, Live, Speech, Club) are relatively subtle, and do exactly what you'd expect. You can store five of your own.

The three band parametric EQ, with mid sweepable from 200Hz to 12kHz, is surprisingly musical, and with attenuation

limited from -12dB to +6dB, you can't make it do anything too alarming. Considering this type of product will often be operated by a non-technical user, that's good design. On voice, it does a commendable job of adding intelligibility without sounding harsh.

Sonically, the Evolve 50 is a solid performer, with the most coherent phase response I've heard in this class. There's none of the unpleasant mid performance or brittle highs of its more 'plastic' competitors. When pushed, it handles itself well, with no harsh clipping or limiting artefacts. I did find that to fill the room with voice only, I tended to run the master volume at +6dB, but this wasn't an issue with playback. The Evolve 50 does exactly what it says it will do, and looks good doing it.





RADIAL SW4

A TOOL FOR MANY EVENTS

By Julius Grafton

Radial of Canada make a huge range of useful devices, from DI boxes to guitar re-amps. Not only is their stuff well built and tough, but it looks like eye candy too. Getting the user interface right along with functionality is an art form that many audio manufacturers struggle with.

Enter the SW4, the box you need when you have two consoles and one PA system. A fairly common occurrence, given most headline bands get to choose what type of console they will use, and often prefer the support band use something else.

A lot of venues just have the imported console plug right in to the house console, and if you have the right mindset this can be done digitally. But taking the outputs of a console and plugging them into two input channels on another is a crude approach, inviting overload, latency and noise into your mix.

SW4 switches two stereo pairs to one stereo output, with full transformer isolation through each path. It has sealed military grade relays inside for utter dependability. It is quite hefty – due to the transformers inside.

The power supply connects with an XLR connector so it can't worm loose. There is no power switch, it springs to life as soon as the juice is connected.

But there are further uses – for example, switching wireless system receivers. Rather than having a backup receiver sitting across a pair of mixer

Brand: Radial
Model: SW4
Pricing: \$2499.00 inc GST

Product Info: www.radialeng.com
Distributor: www.ambertech.com.au

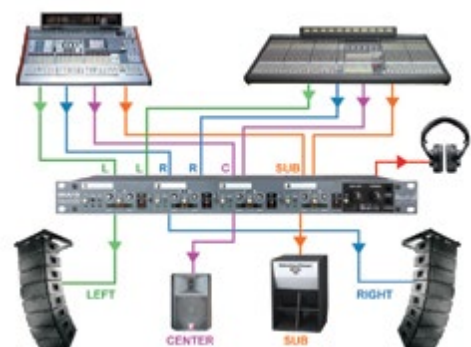
channels, you have it coming in to the SW4. Then if the first system goes bad, you just A-B switch system # 2. The downstream users, like monitors and/or broadcast splits probably don't even know the systems were just switched. Whereas without this switcher, you'd need to get on comms and tell everyone – with probable downtime playing havoc with the mixes.

Switching between backing tracks, and between band and a DJ are other uses.

This is handy: each channel on the SW4 is equipped with a 3 position PFL switch (Pre-Fade Listen) that routes the A or B signals to the headphones and front panel MONO out.

Most controls are recessed, Radial have thought long and hard about making the unit 'fool resistant', and frankly I think they've done a great job!

One of many possible uses





SPOTLIGHT CYC LED

300 RGBW DMX

UPSTAGED BY LED

By Jason **Allen**

High-end Milanese lighting company Spotlight work closely with many of Europe's finest opera houses and theatres, often testing new products in-situ as part of their development process. As such, they're closely attuned to the needs of the theatre lighting tech, and with the CYC LED 300 RGBW, they've turned their attention upstage.

Powered by a 300W RGBW LED source, the CYC LED is intended to replace much larger conventional fixtures. At 250mm x 570mm x 430mm and weighing 15Kg, it's definitely a more compact unit than the usual four-ways most theatres run. A single unit can illuminate a 6x7 metre area, set just 1.5 metres back. It accomplishes this with its asymmetrical throw, which is where it has the edge over linear LED battens. With its nicely implemented edge roll-off, it'd be a simple matter to line up a

few units across the floor and give your cyc an even wash. You can also hang it with an optional yoke.

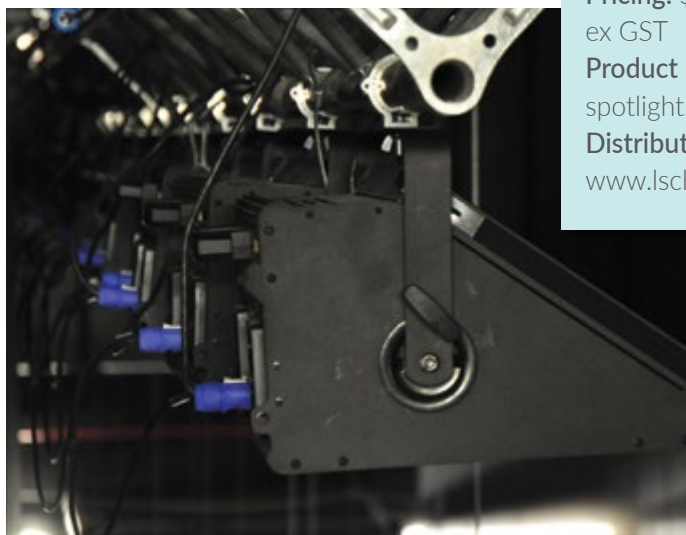
Cabling has been dealt with nicely with both Powercon and DMX in and out. Control options include DMX, RDM and stand-alone, which, thanks to an onboard memory, can store scenes and cues. Every setting can be accessed via the LCD screen and five buttons, with the menu structure straightforward to navigate.

The CYC LED runs almost supernaturally silent. While this is mostly due to natural ventilation by design, assisted ventilation can kick in if needed, which can be controlled. 'Silent Mode' will override the automatic cooling if necessary. Even with your head next to the rear fan ports, you're struggling to tell if it's even turned on.

The colour quality is deep and convincing, with none of the artificiality that some RGBWs can produce. Depending on what look you're going for, you can set the unit to operate in RGBW, CCT, CMYW, HIS, Wheel, RGBW+CCT or RGBW 16 bit modes. Whites can range from 3000 to 6500K. PWM is adjustable if you need to play nice with cameras. There's also a Strobe function.

A ground-row of CYC LED 300 RGBW DMXs can light up a whole lot of cyc with very few units from not very far back, saving you money, time, and space. Replacing your conventional cyc lights with this LED equivalent is also going to drop your power consumption by 75%, not to mention your air-conditioning bill.

Brand: Spotlight
Model: CYC LED
 300 RGBW DMX
Pricing: \$4,495 List
 ex GST
Product Info: www.spotlight.it
Distributor:
www.lslighting.com



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SENNHEISER HANDMIC DIGITAL

DEPENDABLE DYNAMIC FOR IOS

By Jason Allen



Latest in a string of Sennheiser products for recording-on-the-go, the HandMic Digital offers a hand-held dynamic cardioid for those who want to record directly to their iOS devices. It joins the lavalier versions ClipMic Digital and MKE 2 Digital, and all models leverage Apogee A/D conversion and processing.

Out of the box, you know you're holding a real microphone, not some flimsy iOS accessory. The HandMic Digital has all of the weight and seriousness of a standard analogue dynamic, and feels just as trustworthy as an SM58. There's a clip, case, and very solid desktop stand provided, too.

Connection to iOS is via the provided two metre microUSB-to-Lightning cable, or microUSB-to-USB. The microUSB connects to the base of the mic, and a sturdy plastic connector then bolts into the bottom of the mic, keeping everything plugged in. It does its job so effectively that its quite hard to remove when you're done.

The mic is compatible with any app that runs on Core Audio. I installed both the Apogee Maestro control app and Apogee MetaRecorder to test the mic. Maestro lets you set input gain and turn processing on and off. Processing options include the Rumble Reducer (high-pass filter), Hiss Reducer (lo-pass filter) and Overload Eliminator. The Rumble and Hiss Reducers are quite dramatic on a cardioid dynamic, and I'd only employ them in quite extreme environments. The Overload Eliminator works exceptionally well, and I'd definitely leave it activated as it could save the day on that interview you only get one shot at.

Input monitoring is available on MetaRecorder, and introduces a very slight, but perceptible latency,

Brand: Sennheiser
Model: HandMic Digital
Pricing: \$359 inc GST
Product Info: en-au.sennheiser.com
Distributor: en-au.sennheiser.com

though not enough to be distracting. Of course, latency will vary according to hardware, app, and settings. The mic and MetaRecorder can be set to record at 16 or 24 bit at 44.1, 48, 88.2 or 96 kHz.

The HandMic Digital is sonically excellent - it's actually the Sennheiser e835 capsule on the inside. If you've not used an e835, to my ear, its unprocessed sound sits between a Shure SM58 and a Beta58, with very strong rejection outside of its polar pattern. This makes the HandMic Digital a great mic for shooting video in noisy locations, or outside in the wind. For reporters doing pieces to camera (phone) on the go, it's ideal.

Like any cardioid dynamic, the person using it is going to need to use it with decent mic technique, as the response falls off exactly as it should. If the person you intend to mic can't keep it in the right zone, you'll be better off with an omni. But, in the right hands, the HandMic Digital produces an extremely polished result.





GOING LIVE

The fine people at Barco bought their newest products for live production and three international product experts to Sydney and Melbourne this October for Barco Technology Day. Jason Allen dropped in to get their perspectives on the current directions in display and control for events.

Barco Technology Day ran October 13 at the Melbourne Convention and Exhibition Centre, and October 17 at the Stamford Sydney Airport. Two sessions a day saw Alexis Skatchkoff (Product Manager, Projection), Dries Vandelannoote (Senior Product Manager, LED) and Meg Smith (Product Specialist, Image Processing) run the assembled crowd of current and potential Barco customers through their latest offerings in projectors, LED walls, and video control, and made themselves available for questions afterwards.



>> Alexis Skatchkoff

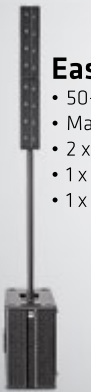


>> Dries Vandelannoote



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- 1 x E 110 SUB AS sub



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- 1 x E 110 SUB AS sub



Big Base

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- 1 x E 210 SUB AS sub



To arrange a demo contact: hkaudio@cmi.com.au

THE GERMAN AUDIO STANDARD >

Alexis and Dries were flown in from Barco home-turf in Belgium, while Meg hailed from the USA. Local Barco sales and marketing staff were also on-hand. Major new releases for Barco in the room included the F 80 4K laser phosphor projector and the X 2.5 LED panels. Also on display were the UDX-4K32, 31,000 Lumen, 3-chip DLP laser phosphor projector, X1.2 LED display, EC event controllers, and S and E series event processors. While the session was very much about Barco's offerings to its customers, we took the opportunity to pick the experts brains on developments in their particular market segments.



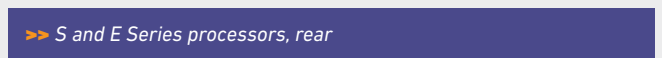
>> F80-4K



>> The road-ready UDX-4K32



>> S and E Series processors, front



>> S and E Series processors, rear



>> X Series LED



PROJECTION

"The trends we're seeing in projectors for live production is that everyone's buying 4K and laser phosphor. Lamp-free and 4K; they go together," said Alexis Skatchkoff, Product Manager, Projection. "People are investing for the future. We still sell lamp-based projectors, but we see the adoption of laser happening very fast. Lamp-based projectors have almost completely disappeared from the market at certain brightness levels. As for 4K, it's often more about image size than resolution. We're seeing rental houses sending out one projector to do what used to be the job of two."

With Christie dominant in large-scale projection in Australia, we asked Alexis to outline Barco's point-of-difference. "We made the choice to go laser phosphor, which makes the projector smaller," he offered. "Our 4K UHD models allow our customers to re-use their current lenses. This also has the benefit of a lot of lens shift, which we think is important for flexibility in rental - you never know how the projector will be hung, each venue is different, and you're often forced to use the projector in circumstances you did not expect. Having the additional lens shift helps."



LED DISPLAY

Dries Vandelanoot, Senior Product Manager, LED, emphasised why LED panels from a manufacturer like Barco cost significantly more than no-name products coming out of China. It's all about compliance and certifications. "Electronics create radiation," he pointed out. "You drive LED panels at 3,000 or 4000 Hz, so you get high refresh rates. If you don't do anything to contain electromagnetic emissions, you will interfere with RF, especially in the frequencies used by wireless microphones. Shielding, PCB layout, cabling, and power supplies are all important. Some LED vendors test for electromagnetic compatibility without cabling, but you shouldn't do that as the cable acts as an antenna. Also, with

LED, you have to measure a full square metre or more; the whole system must be measured."

With even small shows going out on the road with major video components and a LED wall, how does Dreis see the market going? "In LED rental, things have changed," he observed. "People used to use projectors for big screens, now we are seeing big IMAG on LED more often. We're also seeing interest in higher resolution LED for events. In the USA, we're hearing that 2.8mm pixel pitch is the sweet spot – it's fine enough to have high resolution, but any smaller and it's too delicate. It's not batch dependent, either. If you buy it today or next year it'll still look the same. That makes it really rentable, and you can also sub-hire to make a bigger screen if you need to."

VIDEO

Meg Smith, Product Specialist, Image Processing, comes from a strong background in video for touring and production, having done time in Las Vegas with Cirque du Soleil, among many others. "Live production is in an interesting zone right now in terms of how it handles getting video sources to displays," she pointed out. "Media servers are part of the equation, but their downfall is in the latency, and that's why bringing in live cameras is a nail in their coffin. For live camera feeds to be in sync, you need low latency, and to process at a better speed. Everyone's after good quality, synchronised signals over long distance, and it's still a little Wild West out there in terms of solutions."

In a small touring market like Australia, we're used to having one tech tasked with both lighting and video, but it's a common scenario. "Even in Vegas, most shows run bare bones with the smallest possible crew," she related. "It's usually the lighting desk sending commands to video. Depending on servers, sources and size, there's benefits to have a single operator, but only if you have other techs for trouble shooting. The big question is about overall show control – how does this equipment integrate with the rest of the show? With the Barco show controllers, we're about our GUI and very easy networking. On the dual-screen EC-200 controller, you can see the whole system across the screens, and everything is visible in the web apps. You can view the web apps on one screen, and you can fault-find while still running the show."



>> Meg Smith on the EC-200



>> Mission control



>> Craig Saunders

LIVE AND LOCAL

"We're here to focus on our customers," said Craig Saunders, Sales Engineer at Barco Melbourne. "Live and rental is part of our core. All of our projector and LED range is designed for rental and staging, and we're glad to count TDC, Big Picture, Staging Connections, and Scene Change among our user base. We're seeing a lot of mid-level demand driven by customers. Everyone now wants some sort of AV of decent quality, which is why we've introduced more affordable projectors and screen management. As far as LED goes, we try to reason with people looking at buying cheap product that you need to look at longevity. It's hard to make a good LED screen that's reliable, and the proof is in the pudding. We're proud of our install bases here like Federation Square. That screen is nine years old and has been on 24/7."



The Inaugural Industry Convention Program is Now Live

And an Important Stop Press

The establishment of an all-encompassing industry convention is seen by many as the pivotal opportunity to underpin personal, organisational and industry development, an event that is the primary means of affecting industry-wide reform and enhanced opportunity. Following the inaugural industry convention overview in last month's edition, we are delighted to confirm details of the seminar and workshop program along with the key social events. Regardless of sector, all entertainment technology industry participants will find the convention both diverse and compelling, an immersive presentation, the likes of which has never been experienced before in Australia, and one definitely not to be missed. This empowering industry building occasion will also include the first entertainment technology gala dinner dance and for those inclined, the first industry golf day. Delegates, partners and presenters will be welcomed to the region courtesy of a civic reception, and enjoy a complimentary wine tasting sponsored by the local vignerons association.

Throughout Saturday the 5th and Sunday the 6th of May 2018, a total of nineteen, fifty-minute seminar and workshop modules will be conducted, and due to the full schedule, several dedicated rooms will enable two modules to be presented concurrently. There will be a break between each module with a well catered lunch, morning and afternoon tea provided on both days. The seminar and workshop program is confirmed as follows:

- **RCM Product Compliance** and Legislative Reform presented by a team from the ACMA
- **The Digital Dividend Status & Plans Moving Forward** presented by a team from the ACMA
- **The Path to Assisted Technology Development** and Support in Penetrating Export Markets presented

by Tim Carroll and team from Austrade and AusIndustry

- **Strategic Planning** A 5 Step Process to Build a Better Business (2 modules) presented by David Bell of BMN Business Mentoring Noosa
- **Facilitating Corporate** Change-Amalgamation/Acquisition/Sharing presented by Sheree Cross of SV Strategic Solutions
- **The Future of Media** and How it Will Impact Your Business presented by Jason Allen of VCS Creative Services
- **Entertainment Industry Work Health & Safety** A Framework for Ethical and Legal Practise presented by Roderick Van Gelder of Stage Safety
- **Foreign Currency Trade** The Inside Story presented by Tony Boyadjian of Compass Global Markets
- **The Economy Today** and a Glimpse into the Crystal Ball presented by Bernard Stapleton of SV Strategic Solutions
- **Contract Law and Digital Signatures** What you didn't know presented by Susie Reece-Jones of FAL Lawyers
- **Leadership Mentoring** Examining the core qualities which define and drive effective leadership (2 modules) presented by Frank Hinton of ACETA
- **Hands on web Marketing**, Social Media and More presented by Jason Allen of VCS Creative Services
- **Hiring Staff - Exciting or Daunting** presented by David Bell of BMN Business Mentoring Noosa
- **IP Protection**, E-commerce and other Contemporary Commercial Minefields presented by Susie Reece-Jones of FAL Lawyers
- **Interactive Workshop** for Manufacturers Facilitated by a Neutral party
- **Interactive Workshop** for Manufacturers Representatives Facilitated by a Neutral party
- **Interactive Workshop** for Service Providers Facilitated by a Neutral party

For some, the convention will begin at 9.00am on Friday the 4th May 2018, tee-off time for 18 holes of golf at Wangaratta's Jubilee championship course. Formal convention proceedings get under way at 4.00pm for the important introductory plenary session, followed by a relaxing wine tasting experience, after which we take a short walk to the Wangaratta council chambers for a mayoral welcome to the industry and civic reception. The ACETA Annual General Meeting of members will be held late Saturday afternoon, then it's celebration time at the gala industry dinner dance. The Gateway Hotel ballroom is home to this night of entertainment, a four-course gourmet meal and comprehensive selection of beverages from the Gateway cellar which includes a diverse range of wines from the region. A final plenary session will take place at the completion of the seminar/workshop program on Sunday afternoon. This closing wrap-up meeting will review and seek input from all stakeholders with a view to establishing the convention as a permanent must attend annual event on the industry calendar. A number of members have indicated their interest in re-locating (particularly manufacturing plant and warehousing) from a high operational cost capital city to a much lower cost region. Due its location, amenities and lower cost structures, Wangaratta is certainly a potential re-location candidate, therefore ACETA is investigating the viability of such an initiative and will request the city administration present an advantageous re-location program at a suitable time during the convention. There has been a remarkable amount of time expended in bringing this inaugural convention together and as you can see it covers most aspects of our industry life. For the organisers, we are genuine in adding, "it exceeds our original expectations in all aspects". Further information, booking and delegate registration can be found on the ACETA web site

www.aceta.org.au

STOP PRESS: We have just completed a comprehensive survey of our industry, in particular the creative/manufacturing sector, and for the first time in our history we now have data previously not known. Valuable yes, empowering, most definitely. It details the number of active organisations, their combined commercial activity and employment numbers by sector and region. Due the fact that most creators/manufacturers are privately owned SMEs, financial information and employment numbers are not on the public record. Therefore, our survey is not definitive but based on that which is known along with calculated speculation, however it is a start and provides an idea of where we are at, which will take most industry participants by surprise, and in a positive way. This new resource will enable members to plan strategically with their eyes open and realise important support from many area's including government, and will be summarised in this publication next month. Productive and exciting times for ACETA and its constituents.

- **Frank Hinton,**
President ACETA

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Are you concerned about your mate's mental health?

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

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¹Passion, Pride, Pitfalls Dec 2014

www.entertainmentassist.org.au

Supporting the mental health of Australian entertainment industry workers

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DISORDERLY CONDUCT

No good deed goes unpunished

D received a phone call from my first ex-wife the other day. For ease of writing, let's use software protocols and call her V.1 It's not often that I hear from her, but when I do, it usually means she wants something. And this was no exception.

"How's that one man band of yours? Did you ever get it going?"

She was, of course, referring to my latest musical project - the Duncan Disorderly Experience; Cheltenham's favourite One Man Trio. Since most of the Fabulous Harris Tweed band have retired and moved out to the Mornington Peninsula, I've been looking around for a musical project.

I don't want any arguments about what to play, so something where I can do the backing tracks myself, pre-mix them, then play and sing along with them seems ideal.

I'm not the world's best singer, but a lack of vocal talent never stopped Liam Gallagher from selling millions of CDs did it?

"Yes, it's all up and running", I told her. "Why do you ask?"

"Well," she replied, "you probably don't know but I'm now the Grand Wizard of the Victorian Transparent Hardened Silica Association, and we need some entertainment for the annual awards night. We can't afford anyone good so I immediately thought of you! Can you help us out?"

Hmm. How could I refuse such a generous offer?

"When is it?" I asked.

"It's a month away so you've got plenty of time to get some songs together. I'll call you with some more details soon" and with a click she was gone.

Actually I was not quite ready for prime time, but it would be a good shakedown cruise to make sure everything worked. In reality I hadn't got much further than the planning stage, but a month would give me plenty of time to get 20 or so songs together.

I used my favourite formula when choosing them - Nothing too old, nothing too new, and nothing with more than three chords!

I pulled my trusty old 1980s Roland 505 drum machine out of the drawer, and plugged it up to check it out. It all seemed alright, except that the Snare drum button refused to work at all. Must have been worn out by all that continuous banging on it in the 80s.

That was a a bit of a blow; I could handle the guitar stuff alright, and I already had a Telecaster Bass I'd found in a garage sale, but I needed a drummer; preferably one who owed me a favour or two.

The answer hit me like a flaming pudding in a bowl of custard! Of course - my favourite daughter Fifi Trixibelle Britney Lourdes Fry. If she didn't owe me a favour then who did?

I rented a rehearsal room up near Hipster Central, where she lives, and she drummed along with a bunch of songs while I recorded them. Then I took them back to the Whizzo Tunes™ bunker, chopped them up, looped them, and played

along with them. Not perfect, but good enough, and I soon had around twenty backing tracks that I could 'repeat as necessary'.

I didn't hear any more from V.1 until she rang me again a week before the gig.

"How's it going?" she asked. "Getting it all together?"

"I'm glad you rang," I replied "Where the hell is it?" I asked.

"It's at one of the TAFE colleges that runs a great hospitality course with a restaurant where the students prepare the food. The food is great and the prices are really low. I'll text you the address."

"Oh, by the way, bring a decent PA will you - we've got a singer, a comedian, another guy who plays guitar, and you, so make sure you've got enough mics and stuff to handle it."

"OK I'll make sure." I said. "Just you make sure that you have a complete running sheet for the evening so that every one knows when they will be on and when to finish."

"Yeah, yeah, leave that to me." she replied, having already lost interest. "See you there at 6.30."

When I arrived there the place looked great. The TAFE students had done an excellent job of setting up the room, but that was where it ended. There was total chaos on the part of the Transparent Hardened Silica people, and of course, no running sheet. Someone was rumoured to have one on their phone but they hadn't arrived (and never did!).

So my faithful gf and I loaded the system in, set it up and then waited for someone to make a decision about starting.

Eventually V.1 came over and said "You'd better play some relaxing stuff while everyone gets here and settles into a few drinks."

"What about the other guitarist?" I asked. "This would be ideal for his free-form loop stuff."

"Yes it would, but no one can find him, so on you go."

I pressed play on the new laptop I had bought just for the gig, and of course it locked up instantly and refused to do anything! A hasty re-boot got it going again*** and we were up and running with a couple of easy-going JJ Cale numbers.

After around six songs, which must have been OK because no-one threw anything at me, the meals began to be served, so I stopped and told the audience "I'll be back."

"Thanks for the warning" yelled someone in the audience (Ah, my first heckler!), then I sat down and had a meal with my gf. I'd promised her we'd go out for 'dinner and a show' although I'm not altogether sure this was what she had in mind!

Next there were some awards, and a couple of speeches, followed by a very funny set from a large Sri Lankan comedian called Dilruk.

Then some more awards and speeches. During a lull in the proceedings a girl wearing a dazzling sparkly gown who looked the spitting image of Diana Ross came up to me.



"Hi, I'm doing a Diana Ross show tonight," she said, "can I go on now?"

"I guess so," I replied. "There's no running sheet and no-one seems to have any idea what's going on so you might as well." So she plugged in her iPad, grabbed a mic and launched into a very tight six song bracket. She had a great voice and received rapturous applause at the end.

Then an industry heavyweight got up and gave an amusing, if lengthy speech, after which V.1 got up, beckoned me on stage and said "Well, that's the formal part of the evening finished, so let's have some dancing."

After all those speeches the audience was nicely primed for letting off steam, and raced onto the dancefloor. I strapped on the Gibson SG, cranked up the volume, and must have got about eight bars into AC/DC's Highway to Hell when suddenly all the TAFE people ran out waving their arms yelling. "Stop, stop! It's got to stop!"

Well, I didn't think it was that bad, so I asked one of them "What's wrong?"

"It's 10 o'clock" she said, "we can't legally have any of the students on the campus after 10pm. Plus the Security people come round and lock up the buildings and the car park in ten minutes! Everyone has to leave NOW!"

As we slowly started to trolley the PA down to the loading bay, I looked at my gf and said, "I tell you what, I'm never doing anything for that woman again. Everything she gets involved with turns to chaos!"

Just then it started raining! No good deed ever goes unpunished.

*** *It's a scientific fact that the apparent longest period of time is waiting for a computer re-boot while the audience is watching; the shortest time is the nanosecond between the traffic lights turning green and the person behind you yelling 'It's not getting any greener' and blowing their horn!*



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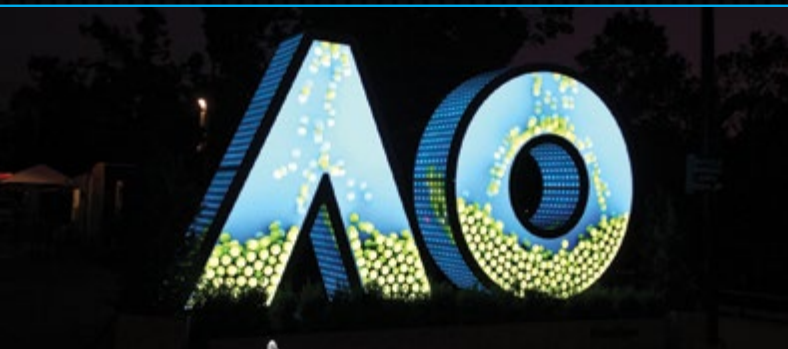
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