

ONLINE EDITION

LED Art

Deck The Houses

Le Crème

Production Services

On The Gig & Online 24/7

Falls Festival

Old Man Julius,
Sleeps in Tent!

Shure KSM

Killer Sounding Mic?

GEARBOX REVIEWS:

- High End Systems Road Hog 4
- Void Acoustics Indigo 6
- RUSH By Martin
- AJA Kumo SDI Router Family
- Chroma Q Inspire

CX NEWS:

- Promoters Better Idea
- Gig Fail in Dubbo
- Wet'N'Wild NYE Failure
- The P.A. People Showroom...30 years on
- Auction Fumble Mars SCEC Closure

CX

MONTHLY TECH NEWS

AUDIO · LIGHTS · VIDEO · STAGING · INTEGRATION

CX89 FEB 2014 \$5.50

Road Skills

Jessica Mauboy, Bon Jovi,
Vans Warped, Jill Scott,
Stereosonic Festival

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WHAT'S ON! TOUR DATES

Monday 10 February
Chatswood Concourse Theatre
409 Victoria ave, Chatswood (Sydney)

Wednesday 12 February
NEW VENUE: Royal International Convention Centre
600 Gregory Terrace
Bowen Hills, Brisbane

Friday 14 February
National Convention Centre
31 Constitution Avenue, Canberra

Monday 17 February
Melbourne Convention Centre
1 Convention Centre Place, South Wharf

Wednesday 19 February
Adelaide Convention Centre
North Terrace, Adelaide

Monday February 24
Perth Hyatt Regency
99 Adelaide Terrace, Perth

10.00am – 11.00am Sustainable Stages (Session one, Energy Efficiency Project)

TICKETS \$22 at cxevents.com.au or at show if still available.

11.00am – 6.00pm TRADESHOW OPEN – FREE ENTRY

Visit 20+ exhibitors, see a truckload of new equipment, and network like it's 2014!

(Happy hour at 5pm)

12.00pm – 1.00pm Sustainable Stages (Session two, Technology) TICKETS \$22

12.00pm – 1.00pm Simple I.T. for AV techs - hands on! With Jason Allen TICKETS \$22

1.00pm – 1.45pm Audio Evaluation, with Jimmy Den Ouden. Compare loudspeaker systems. FREE, walk up event.

2.00pm – 2.45pm LED Lighting Evaluation, with Jimmy Den Ouden. Compare compact moving head LED wash. FREE, walk up event.

2.00pm – 3.00pm Dante and AVB – hands-on network building TICKETS \$22

2.30pm – 3.30pm Dirty Money – the 2014 Edition. With Julius TICKETS \$22

3.00pm – 3.45pm Audio Evaluation, with Jimmy Den Ouden. Compare loudspeaker systems.

FREE, walk up event.

4.00pm – 4.45pm LED Lighting Evaluation, with Jimmy Den Ouden. Compare compact moving head LED wash.

FREE, walk up event.

5.00pm – 6.00pm **HAPPY HOUR** on the Trade Show floor. Drink our lovingly selected beverages

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Program is the same all cities
(Except Canberra – trade show and happy hour only)



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Hills SVL

Jands

Lexair Entertainment

Meyer Sound Australia

National Audio Systems

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PRG Australia

Production Audio Video Technology

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Sennheiser Australia

SGM/ETA

Show Technology

Technical Audio Group

ULA Group

**TOURING
EXHIBITORS**

WINTER

Annual industry touring one-day tradeshow

ROADSHOW

TOURING

AUSTRALIA WIDE

10TH - 24TH/FEB 2014

FOR MORE DETAILS GO TO www.cxevents.com.au AND GET INVOLVED...

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CX89 2014. ISSUE 89. ONLINE EDITION

EDITORIAL BY JULIUS GRAFTON

CX INVESTS IN MELBOURNE

This year CX moved print production to Melbourne, to better share revenue in our equal largest market. This adds to our Melbourne bureau, led by Jason Allen, and our locally based retained columnists Duncan Fry and Andy Stewart. It raises our Victorian spend closer to half our magazine outlays, and is the right thing to do.

Eventually we'll open a **CX-TV** studio in Melbourne as well, and make our popular shows like **CXtra** there, some of the time. But we need to make a few more moves first, and they are in play.

As for print, we are committed! If you are reading **CX** in print now, you'll notice a considerable change. We've moved onto bond stock – Grange Offset – which is much more modern. It originates from trustworthy Australian plantations. It's a high white uncoated offset sheet offering excellent opacity, an even surface and high bulk. The quality processes at our new Melbourne plant includes ISO colour matching, something that has always eluded previous printers.

We haven't been able to afford this superior level of print production until now. We've printed on regular coated stock of the best quality we could find, either mat or gloss, for 23 years. Periodically we questioned the origins and sometimes possibly dubious forestry certification of that more generic stock, and always had a degree of uncertainty about what we were buying.

ON THE ROAD

There's excitement in our HQ as we prepare for CX SUMMER ROADSHOW this month! We have a few more exhibitors and more technical experts on the road. Now there's a second truck to share the load, spread the risk and avoid the Tetris effect.

We start in Sydney at Chatswood Concourse on Monday February 10, then motor north to our new venue in Brisbane, the RICC at RNA in Bowen Hills. Please don't roll up to the old venue, we aren't there!

Down to Canberra for our quietest trade show – it's not clear whether we should continue with Canberra next year or not, that's something we debate with our touring partners.

Week two starts in Melbourne, our best attended Roadshow, then over to Adelaide where last year we were surprised by a big increase in local support. Finally week three has us finish in Perth, again at the Hyatt and really well supported. Before the first Roadshow we got mixed vibes from our partners about Perth, but once we started there everyone loved it.

So come join CX! Drink our drinks, the trade show is free and opens an hour earlier at 11am, and happy hour is on as usual at 5pm. Then we return, in February 2015.

- Julius

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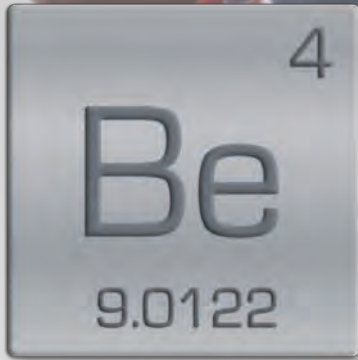
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NEWS

CX INDUSTRY NEWS



Gig Fail (1) - Promoters Better Idea Costs too high so call it a charity gig

With no barriers to staging a gig the failure rate can be high, young Clint Jensen discovered. His Beerfestabull in Bundaberg during October last year concluded with bands and others chasing fees.

NewsMail quoted Jensen, from an email to a band agent seeking payment, as saying that although the Bundaberg event ran at a loss, a proposed version of Beerfestabull in Melbourne next August would succeed due to reduced costs.

"You must think I'm mad but let me explain further. In the lead-up to the event it will be well known that the proceeds go to charity, which means I am saving major (money) on infrastructure and services," he is quoted by NewsMail.

"It's just the way it goes with charity events - you get things cheaper as businesses are more inclined to donate their products and services for a cause."

Production suppliers sometimes reduce costs for a charity event, but smart operators now rely on RentalPoint (or similar) reservation systems



Image - NewsMail

Beerfestabull organiser Clint Jensen.

to prepare a 'retail' quote, item by item, and then 'discount' the quote back to what the package should be worth.

Given the current climate of outdoor gig failures, payment up front is now common.

Good luck, Clint.

INVESTIGATIONS: julius@juliusmedia.com



Gig Fail (2) - Dubbo Prepares, Goulburn Forgets Infinity Festival calls for volunteers

Infinity Music Festival is 'Australia's only regional electric dance music festival and is presented by VA Entertainment Australia'. That's what they say, about the proposed October 2014 festival events for regional NSW.

But **CX** could not find VA Entertainment Australia, or Infinity festival, on either the ASIC (corporate search) site or ABN (tax search) site. We hit up the event Facebook site which is full of colourful teasers ahead of the 'final' lineup release early February and left a detailed message with specific questions, that remain unanswered at press time.

CX understands former Goulburn radio staffer Dene Mussillon AKA Dene Broadbelt is associated with the proposed Infinity Festival tour. Dates have been mooted in Nowra, Narrawmine, Wellington and Dubbo. Broadbelt was fired from Eagle FM, 2GN in Goulburn after promoting a show called Eagle FM Mini Day Out.

The gig was held in Victoria Park in Goulburn on March 30, 2013. Shortly after, local and imported performers contacted the radio station for payment, to the surprise

and horror of management. Eagle FM had no idea they had been made liable for artist payments, instead of simply doing a 'presents' deal that is common in the radio industry. They fired Broadbelt, and he appears to have turned up with the proposed Infinity Festival. **CX** asked via email whether he was associated in any way with the event.

We were unable to search the event ownership on ASIC or at the ABN site, since neither the festival name nor the quoted overarching company VA Entertainment Australia appear to be registered. If there are innocent third party promoters associated with the Infinity Festival, they should be locatable.

Infinity is promoting itself hard on Facebook, with over 6,000 likes. They are asking for Volunteers, and also advertising 'paid positions'.



Dene Broadbelt aka. Mussillon - Announcer, Model, Voice Artist



Gig Fail (3) - Wet'N'Wild NYE Failure Blamed on Village Public company appears to have dropped ball



NYE Water Festival. All set up and no gig

New Years eve at Sydney's new mega water park was a miserable scene as thousands of punters were turned away due to same-day cancellation of an electronic dance party. Media (including CX) laid blame at the feet of young promoters One Cube Entertainment, who certainly were out of their depth.

Facing a blizzard of anger, the four directors of One Cube went to ground, while Village Roadshow Theme Parks issued vague and possibly misleading excuses for why their major venue faced a massive hit to its reputation.

A Fairfax media investigation later revealed the reason for the cancellation was not due to "technical difficulties or public transport issues" but rather because the theme park itself employed a security contractor which could not satisfy police the event would properly proceed. "The

venue failed to provide an adequate crowd safety management plan to police", Fairfax reported.

NYE a sad night for punters

The report goes on to say that Village put the security contract to tender prior to the park opening, and awarded the tender to a small firm without suitable experience. Further claims were published alleging that the Security Supervisor was somehow linked to the winning tender.

Village will have trouble hiring their venue for similar events, while facing legal action from One Cube who are entitled to costs plus loss of profits, possibly for future New Year's Eve events they could have run at the venue.

INVESTIGATIONS: julius@juliusmedia.com



The P.A. People Showroom ...30 years on Now the only full-service Pro Audio retail space in Sydney?

In a city with more gigs and performance spaces than you can poke a stick at, it's troubling that there is a dearth of professional audio 'one stop shops'. There is a need in Sydney for retail spaces that an integrator or venue manager can walk in to, get good advice from product-neutral professionals and then walk out with everything they need from the connectors to the speakers.

The P.A. People have been quietly and professionally fulfilling this need for 30 years, and do so currently from their Rhodes Showroom near Concord Road (not far from either the M4 or Victoria Road). With their technical background in major PA installations such as ANZ Stadium and complex AV installations like Randwick's new grandstand, their staff are also in a unique position to advise anyone fitting out a restaurant or retail space or

those wanting equipment for their church, school or local performance space.

"We pride ourselves on selling our customers the correct solution", said Karen Jones, head of Sales Hire Service Division at The P.A. People. "It's all very well selling a school hall a delicate \$2,000 studio microphone, but we all know that's going to get broken pretty quickly. Our staff are focussed on providing the most 'Fit for Purpose' solution, and we do so with access to brands from both major Australian suppliers and niche overseas manufacturers."

**Find the P.A. People at:
9 - 11 Leeds Street, Rhodes NSW 2138,
or call on (02) 8755 8700. Find them on the web at
<http://www.papeople.com.au>**



Auction Fumble Mars SCEC Closure AV sale leaves taxpayer short-changed

Sydney Convention and Exhibition Centre is under demolition, after the sale of contents. The centre had a respected and well-equipped in-house AV department, and industry types were surprised at the low key auction in December of most of its assets.

Despite the closure being known for years, Government sources told **CX** the auction was arranged at the last minute. This placed enormous demands on the successful auction tenderer O'Maras Valuers & Auctioneers. They in turn failed to properly catalogue the Audio Visual component of the sale, potentially worth over a million dollars. They also sold off catering equipment and furniture from the centre.

Sources advise **CX** someone 'dropped the ball', and that the Sydney Harbour Foreshore Authority (SHFA) found itself having to arrange the sale. 'It was about the narrow time frame from vacating the building to demolition starting', our source advised. "Down the track, the new complex must open in 2017 to avoid penalties. This is a small hit in the scheme of things".

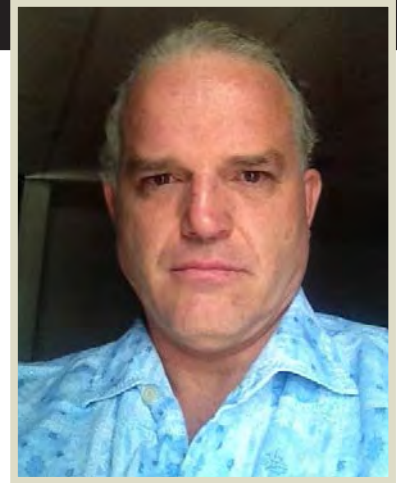
Having shouldered the responsibility for the sale, SHFA then saw some of the assets removed to go to the new, temporary tent-like Sydney Exhibition Centre at Glebe Island. Whatever was left was then poorly catalogued by O'Maras, to the extent **CX** knows of bidders winning an empty roadcase, thinking it contained Mac moving lights, and a truss dolly alone without the pictured truss.

Items were confusingly grouped, badly described, and at least one digital audio mixing system was broken down with resulting bids for the drive rack, control surface and stage rack falling well short of what a whole system should attract. Followspots were listed without ballasts. It was clear O'Maras had not engaged an AV professional to catalogue the equipment.

Silas Creel from Impact AV Australia won a bid of \$46,000 for 6 Barco 16x10 WUXGA 8000 lumen projectors. But when he went to collect them, sight unseen as the auction was

online only, there were only three available.

"I went to Ingleburn (far Western Sydney) and the guy Rob the (warehouse) manager (there) said 'I told them not to put that in the sale', they were putting things in the sale they didn't have", Silas claims. "The way the stuff was stacked out there - if my staff stacked gear that way I'd sack the lot of them."



Silas Creel. Not happy.

Silas demanded a full refund, as three projectors were useless to him. He claims O'Maras dragged the ball on the refund, although this was over the Christmas break.

O'Maras have not defended the handling of the sale. **CX** emailed a set of questions to CEO Tim O'Mara, who said "Under our contract with the principals we are not permitted to discuss a number of aspects including some matters you have raised below without their prior approval. I will forward your email to the appropriate person for them to consider. I am unsure as to when they return to work and therefore, whilst all effort will be made to respond as soon as possible I am, at this stage unable to provide an exact timeline for this response." **CX** was still waiting at presstime.

SHFA released this statement: The Sydney Harbour Foreshore Authority engaged private sector auditors to oversee the process and we have only received positive feedback on the process to date.

INVESTIGATIONS: julius@juliusmedia.com



APOLLO COLLAPSE

When the Apollo Theatre ceiling fell onto an audience in London before Christmas, the theatre biz took a deep breath. Fortunately no one was killed and better yet, bookings across London Theatre's were not affected.

According to The Stage, the last significant ceiling fall in a West End theatre was in 1973 at the Shaftesbury Theatre. The owners then wanted to pull it down, and Equity led a campaign to save it.

Theatreland, as it is called, dishes up shows at around 40 theatres to 14 million people a year. It is the largest theatre precinct in the world, closely followed by Broadway in New York.



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Nor are there any cheap seats. Anya so precisely crafts performance that virtually every location receives powerful, full frequency response. Sculpt the sound beam to reach the top of the farthest balcony, but not the wall just above it. Anya lets you be that exact.

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With the room eliminated, all that remains is a defined coverage area where the people that bought the tickets will experience what they came to experience – the artist.

Meet Anya in person at the CX Roadshow!



EDITED BY JASON ALLEN

Clay Paky A.leda B-EYE

The new Clay Paky A.leda B-EYE is a wash-light, generating beautiful colours and featuring an impressive, wide 6° to 70° beam aperture. The zoom however can be closed even further, down to as little as 4 degrees thus switching the light from a wash diffusion into a narrow and parallel beam. In this operating mode B-EYE becomes a beam-light, whose beam consists of an array of individually controllable little beams. The B-EYE LEDs can be controlled one by one; the light beam is a pulsating bundle where every micro-beam has its own colour and shade.

B-EYE's front lens can be rotated in any direction at variable speed, creating multiple small beams which can be unfolded or closed like flower petals. The A.leda B-EYE was the winner of the 2013 PLASA Award for Innovation where the judges said, "The B-EYE had a "wow" factor. It's an innovative look and a modern retake on a classic effect. It's also a fully-functional and versatile luminaire".



Philips Selecon SL BAR 620

The SL BAR 620 is a powerful LED linear fixture built on the popularity of the SL BAR 640 / 660 luminaires. Ideal for any entertainment application, the 60 centimetre SL BAR 620 suits both illumination and direct view purposes.

The luminaire is available in a standard 60 degree beam angle providing uniform colour mixing and illumination for a variety of applications. Offering multiple cells of control, each luminaire can provide dynamic looks and chases. The SL BAR 620 includes standard mounting brackets for floor or pipe mount. Mounting brackets feature secure lock off and a tight profile for close placement to ensure smooth beam spreads. Units are designed for daisy chaining and include cable management for clean cabling and easy set up.





Allen & Heath XB-14²

Designed for a broad range of applications from small radio or internet broadcast studios, to hospital radio, university radio, community radio and larger studios with multiple rooms, the XB-14² is equipped with a wealth of features specifically for broadcasters.

XB-14² builds on the success of the original XB-14 with both featuring Telco inputs for telephone callers, mic fader start sensing for external connection and internal automatic muting of the speaker outputs, stereo channel start/cue outputs for transport control, multiple headphone outputs, and an additional stereo bus (Mix B).

Available immediately, the XB-14² retails for \$2,399 inc GST.

Audio-Technica ATH-ANC70 noise cancelling headphones

Replacing a best seller can be a nerve racking exercise but with the renewal of the ATH-ANC70b Audio-Technica are chock-a-block full of confidence. Providing up to 90% noise cancelling, the new ATH-ANC70 offers a host of improvements including a microphone and phone call/music controller, completely integrated electronics with all functionality built into the ear-cup, and a new comfort-fit design.

Rather than a cable mounted headset mic and controls the ATH-ANC70 incorporates all in the left ear cup. Simply pressing the illuminated 'Audio-Technica' logo/button activates the microphone or scrolls through music tracks. Volume and on/off are equally accessible. The mic and controller support most smartphones as well as select products including the iPhone, iPad and many iPod models.

The ATH-ANC70 folds flat for storage and comes with a hard carrying case, a 1/4-inch adapter, airline adapter and AAA battery which will provide up to 40 hours of operation. It is priced at \$219 RRP.



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Martin
RUSH PAR 2 RGBW Zoom
and RUSH MH 4 Beam



Martin have announced two more fixtures in their RUSH range of affordable, club-focussed luminaires.

The RUSH PAR 2 RGBW Zoom is a bright single-lens LED PAR Can with fully premixed colour from 12 RGBW LEDs and a spectacular 10 – 60 ° zoom. It offers electronic dimming and strobe and comes with a flexible bracket for floor or truss mounting.

The RUSH MH 4 Beam is a compact beam moving head for smaller venues that blasts an intense and narrow beam for spectacular mid-air looks and effects. It houses a fixed gobo wheel and colour wheel with a multitude of effects possible from a dimmer and strobe, 6-facet prism and focus.

Barco F50

Barco have released the new F50 projector for the Training & Simulation market. This compact, ruggedised projector brings increased brightness, higher resolution (WQXGA – 2560x1600) and high frame rates (120 Hz) to a wide range of use cases. Optimized for motion platform systems and warranted for 24/7 use, the F50 excels in reliability and versatility.

Featuring smear reduction technology and 3D Active Stereo, the F50 delivers smooth and razor-sharp images at eye-limiting resolutions. Furthermore, with its unmatched optical performance and wide focus depth, this projector is a perfect choice for complex, multi-channel projection on non-flat surfaces. The wide range of interchangeable high-performance all-glass lenses also delivers image sharpness and depth with high ANSI contrast.



Meyer MJF-210

Meyer Sound has expanded its on-stage solutions with the new self-powered MJF-210 low-profile high-power stage monitor. Built for the demanding needs of today's live productions, the MJF-210 is the lightest stage monitor in the company product line, and carries the remarkable sonic performance of the MJF-212A stage monitor, which has been used by Metallica, Usher, Judas Priest, and Michael Bublé.

The MJF-210 features a low-profile design with an impressive power-to-size ratio, and very low distortion. Each monitor measures less than 35 centimeters high and weighs 30 kilos. The front of the MJF-210 slopes at an optimal 40 degrees from the stage, while the exceptionally well-behaved constant directivity horn (50° H x 70° V) gives the performer more freedom to move on stage while staying within the wide vertical coverage. The drivers are powered by a three-channel class D amplifier.





B•EYE

Before B-EYE there were only drones



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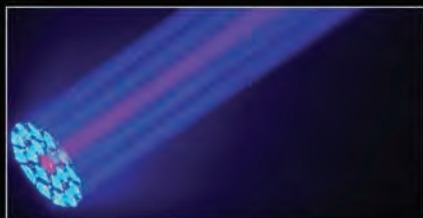


A.LEDA B-EYE K10



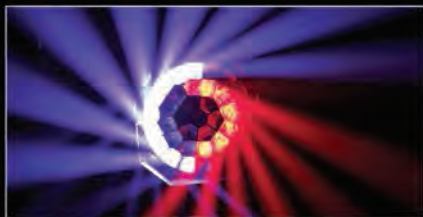
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Altronics One-Shot Rat-Trap Mark II

Altronics have released the Mark II version of their widely used One-Shot Rat-Trap speaker and grille system. The new design improves even further on what was already the world's fastest installing speaker and grille combination. The new single piece grille is a revolution in injection moulding, which required a marathon effort on behalf of Altronics designers and plastics machining experts.

The One-Shot Rat-Trap MK II offers installers considerable labour savings. Altronics field tests indicate a time saving per unit of around 8 minutes over a traditional screw fixing speaker. This equates to a \$6 to \$8 cost saving.

The 100mm (4") PA speaker driver and 100V line transformer offers excellent speech intelligibility for BGM, paging and emergency warning applications. The transformer offers 5 power tapings up to 5 Watts and is fitted with a 4 way terminal block, line monitoring capacitor, transformer cover and cable restraint, as required by the Australian Standard AS1670.4. Altronics offer a 5 year speaker performance warranty on all One-Shot speakers.



Extron VN-Matrix 250

Extron Electronics has announced VN-Matrix 250 series of encoders and decoders, which provide real-time transmission of high resolution HDCP-compliant HDMI, DVI, or RGB video across standard IP networks. The VN-Matrix 250 Series accepts HDMI and RGB signals at resolutions up to 1920x1200 and 2048x1080, and streams video and audio over an IP network, preserving the native source resolution of digital or analogue video sources. It offers a wide range of features to support diverse streaming application requirements including USB keyboard and mouse data transport, bidirectional RS-232 control, return audio streaming, multiple network ports, and support for both HDMI-embedded and analogue stereo audio.

VN-Matrix 250 Series encoders and decoders use the PURE3 codec, which provides an unmatched combination of bit rate efficiency, low latency, visually lossless image quality, and a high immunity to network errors. VN-Matrix 250 systems excel in applications with demanding quality requirements such as command and control, training and simulation, or distance collaboration applications in government, aerospace, energy, or medical environments. With its very low encode and decode latency of just 35 ms each, the VN-Matrix 250 Series is ideal for applications that must support bidirectional communication and real-time decision making. The combination of high quality, low delay, and flexible bit rate management makes the VN-Matrix 250 Series the ideal solution for many quality-critical applications.

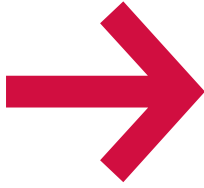


Switchcraft DE Series Panel Mount XLR Connectors

Switchcraft have introduced the DE Series Panel Mount XLR Connectors. Both male and female versions utilise the same size housing, simplifying installation and modification.

With rugged metal construction, DE Series are available in nickel or black finish and have 3,4,5,6, or 7 contacts, plated in silver or gold. All connectors are RoHS compliant, have large solder cups and the chassis ground terminal feature comes standard with all versions.





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DECK THE HOUSES

PAYING TRIBUTE TO THE SUBURBAN SEASONAL LIGHTING DESIGNER

Passing by Melbourne's Victorian Arts Centre this festive season, you may have been distracted by the appearance of a house on the lawn area, pulsing with neon and ablaze with pixelated LED abstractions. Jason Allen interviewed the creators of the 'Deck The Houses' installation to discover how rope lights, YouTube and mobile phone cameras all contribute to our culture....



SEASON'S GREETINGS

From November 2013 to January 2014, a full size house frame took up residence between the Theatres Building and Hamer Hall on Melbourne's St Kilda Road. This was the first year of the 'Deck The Houses' project – a seasonal installation that is set to grow over the coming years. Its first year saw a tribute to the mad amateur lighting designers of suburbia that turn their houses into public attractions for the festive season.

Production designer and artist Christian Wagstaff was commissioned by The Arts Centre to create the first of what could be up to five 'Houses'. Christian is Creative Director of Creative Services Pty Ltd, and over the last 22 years has worked on art projects, film and television, live theatre, special events, attractions and interior design projects for world-renowned organisations, including the Spring Racing Carnival, Crown Casino and the King Kong hand installation at Eureka Skydeck. Along with Technical Director Sam Redston, he set about capturing the spirit of the annual tradition that sees some whole streets turn into a lo-fi Las Vegas.

BY JASON ALLEN

THE ATRIUM, CROWN CASINO

FROM ST KILDA TO...BLACKBURN

As a child, travelling between his parents' homes in Blackburn and St Kilda on the tram, Christian witnessed the construction of Arts Centre Melbourne and would often reimagine the rooms of his childhood home as theatres. 'Deck the Houses' is a reference to Wagstaff's childhood and is a chance for him to recreate the 'theatrical' house of his youth on the site that inspired his love of the theatre.

It's also a loving homage to the extreme culture of Christmas light shows on ordinary houses. Fuelled by amazing yet badly shot YouTube videos, obsessive internet forums and pure, tacky theatricality, the installation seeks to distil the essence of this modern suburban tradition. "These mad people really want to expose themselves and put on a show" explained Christian. "It's an amazing phenomenon that's worth representing in the heart of Melbourne"

IF YOU BUILD IT...

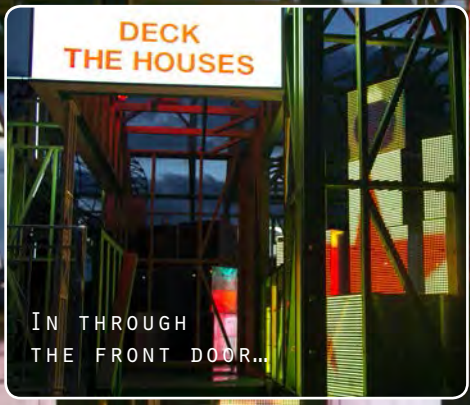
When given the brief to create something seasonal, Christian decided to stay away from the obvious. "We didn't just want to build a tree and rebuild it every year" he continued. "We wanted something that The Arts Centre could expand on. Each year we're going to add to these houses." This first house in the series is a standard, eerily familiar structure, but stripped back to its bare bones. It's based on Christian's childhood house in Blackburn. A galvanised steel frame that is lined with mirrors sits atop a simple timber deck and with timber strapping.

In the empty house, 50 galvanised steel boxes are set in different pile and patterns. All contain an LED Arts P20 LED screen with 20mm pixel pitch. A beautiful, traditional neon "Now Showing" sign is set off the side of the house, complete with faulty letters. A white theatrical marquee,

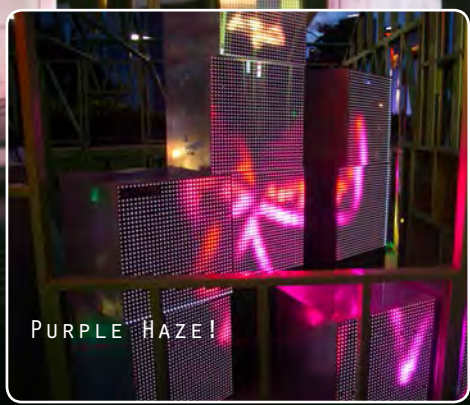
STICKWORK BY ARTIST
PATRICK DOUGHERTY –
INSTALLATION BY
CREATIVE SERVICES



LED ARTS PANELS IN ACTION



IN THROUGH
THE FRONT DOOR...



PURPLE HAZE!

replete with white light and red lettering, spells out the message "The Arts Centre Presents Deck The Houses" as if the house was a theatrical cinematic event.

CHEAP AND CHEERFUL

On a limited budget, Sam and Christian endeavoured to bring the D.I.Y. magic of suburbia to the city. Any technology used in the installation had to be affordable, weatherproof and safe to touch, as the public can walk into the house. "We were trying to turn the unremarkable into something remarkable" said Christian. "I didn't want to use ropelights or the other low end technologies that most Christmas displays use, because I wouldn't do it as well as them!"

The LED panels were the perfect solution, and also fit with the pixelated, internet-inspired aesthetic of the piece. The galvanised steel boxes they were mounted in had a Perspex screen across them for weatherproofing and safety, and sat arranged in the house in an echo of unpacked moving boxes,

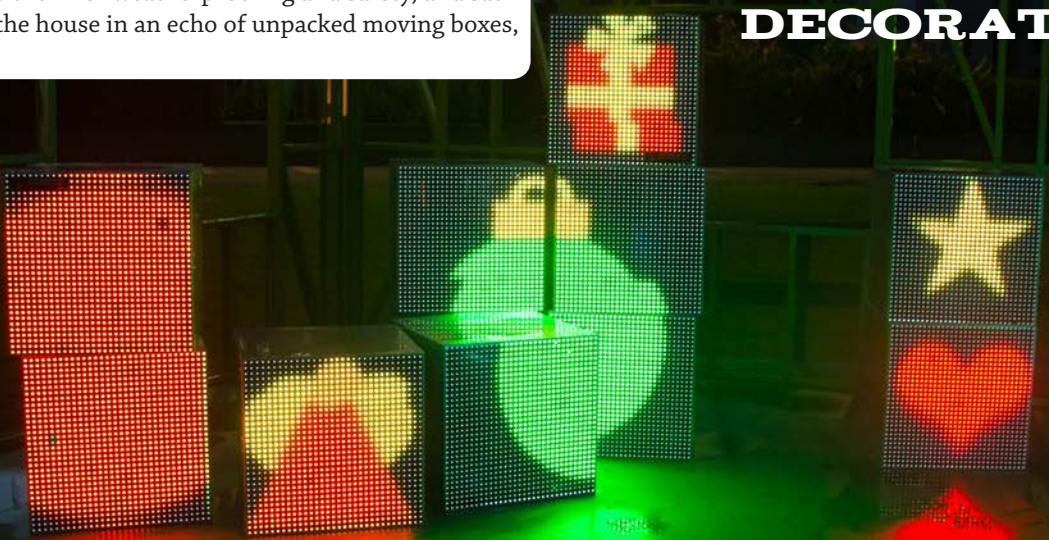
furniture or televisions. "We could have had high end, hi res panels" clarified Christian, "but I would have pushed it to a more pixelated look anyway."

IN THE BOX

John Power, lecturer in the School of Media & Communication at RMIT University, has collaborated with Christian and the Creative Services team before. John is an ex-scenic artist, who plied his trade at Scenic Studios for clients like the Melbourne Theatre Company and Opera Australia. He moved into IT and then into multimedia, and started making video art and live visuals for the club scene in the 1990s.

On 'Deck The Houses', he was brought in to create content and handle the technical challenges of mapping video content across 50 screens as though they were one big screen, small groups of screens, or individual screens, all within an automated cycle. Fitting with the themes of lo-res and D.I.Y., John created content in After Effects.

LO-RES DECORATIONS





**“MASTERCLASS IN PORTRAIT”
MELBOURNE FOOD AND WINE FESTIVAL**

“I developed some scripting in After Effects to give the graphics a wonky, hand held look, like a hand-held phone camera would give you” he explained. “There’s images of angels and snowflakes and doves, but they’re simplified as much as they possibly can be and still be recognisable”. Each box in the installation represented 32x32 pixels. Even with 50 of these screens, the whole show was just 320x160 pixels.

PATCH IT UP

Getting on-site and building the installation on a short time frame proved difficult. The panels were linked by Cat5 through a hub. A Windows 8 PC ran the content, and output HDMI into DVI on a VDWall LVT603S LED video processor. “The patch was difficult” recalled John “We made a test pattern that labelled each individual LED. We had

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some patching errors, but I could compensate for that in the After Effects composite." The laptop also ran LED Manager, a free programme which enables screen size and resolution to be defined. Another application called Smart Power put the laptop to sleep at midnight and woke it up again at 10AM, causing LED Manager to start up and open its file.

"LED is a wonderful medium" enthused John. "Having come from projection, the sheer luminosity of LED is really exciting. It just kicks out so much light. And one of the other big advantages of LED is that you can switch them off when you have absolute RGB black"

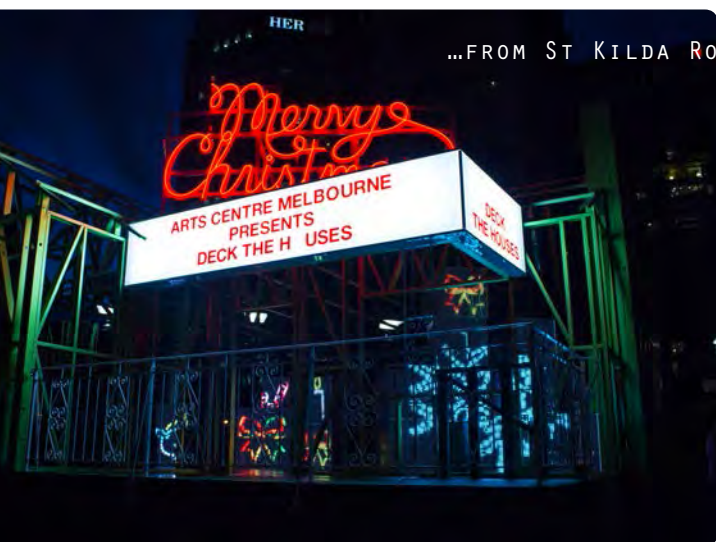
THE CHANDELIER FOR THE KING KONG AFTER PARTY

BY CREATIVE SERVICES

PHOTO: SHANNON MORRIS



...FROM HAMER H



...FROM ST KILDA RO

SEASON'S GREETINGS

CX Magazine visited Deck The Houses on a typical Melbourne Summer evening – it was cold and had just rained. Just after nine PM, the installation was still pulling crowds of the curious and enchanted into its loungeroom. Octogenarian Opera goers taking a break from the epic Ring Cycle next door wandered in along with families with young children, attracted by the mixture of familiarity and abstraction.

From the street, the cascading animations were like seeing a house having an identity crisis, trying to impersonate a hand-held Nintendo DS. When you got up close and entered through the front door, the low resolution made the fractal elves and Christmas trees seem much closer to abstract art. The shadows cast by the public as they walked through looked like silhouettes on a loungeroom curtain that you glimpse as you drive past.

Christian explained to **CX** that the neon signage that adorns the exterior of Deck The Houses was manufactured by Rhino Signmakers. Rhino are responsible for many of the large scale neon signs on Melbourne's corporate skyline, marking out the branding of major companies like ANZ. Seeing their work on the installation against the backdrop of the illuminated CBD helped bring the suburbs and the city just a little bit closer, bridging the aesthetic and cultural gap.

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THE MILL REPORT

The Changing face of *my* Australian Landscape



Sometimes the only way to improve your audio mixing technique is to force yourself out of your comfort zone. Most clients are, let's face it, easy to impress and amaze when it comes to recording or mixing techniques. So if you find yourself relying on the flattery of novices to get you through the day, chances are you're showing early signs of grinding to a halt. Time to shake things up and expand your horizons.

It's been a crazy summer here at The Mill. Between the death of my father, the birth of my son - dad dying on the same day as baby River was discharged from hospital - and our cat surviving a snake bite from a cranky Copperhead, suffice it to say there hasn't been a dull moment here in the last couple of months.

And it's all taken place seemingly in the blink of an eye. One minute I had a father; the next minute I was one. Everything changes, that's for sure - there's no telling what's going to happen next.

BY ANDY STEWART

SO IT SHOULD BE WITH MIXING

Today I was lying on the studio floor to escape the 40 degree heat, listening to a fantastic album by The Flaming Lips on some new EMA headphones (see review below), when I was suddenly struck by a thought: for me, this will be the year of musical change.

In 2014 I'm determined to rewrite my rulebook, ditch some old methods and try some new ones. I'm overdue for a new perspective, new ways of imagining the musical soundstage and placing instruments in it. It's hard to fight against your own techniques sometimes, especially when they've been hard earned. But as they say, cutting back the dead wood allows for new growth.

A NEW PERSPECTIVE

When you work with similar song arrangements over the course of several albums back-to-back, there's a tendency to start placing things in 'familiar' positions, and the more this occurs the more uncomfortable things then seem when you try to place them elsewhere. That's how it is for me at least.

It's the thing I probably wrestle with most when I'm mixing - and it's the one thing I'd love to change about my mindset this year - imagining new ways of determining what goes where in a mix: what goes up front, what sits out the back, what marks the horizon and what frames left and right.

Like most mix engineers, I have my habits and preferences, and I know what I don't like as much as what I do - perhaps



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Digital 2-Way Active Speaker

- ▶ 750W / RMS Class-D
- ▶ 1000W SMS with PFC
- ▶ 15" RCF Neo-Woofer
- ▶ 1.4" RCF Neo-CD
- ▶ 132 dB SPL max.



DVX DM28
Digital 2-Way Active Monitor

- ▶ 750W / RMS Class-D
- ▶ 2x8" RCF Neo Woofers
- ▶ 1" RCF Neo-CD, 1.75" VC
- ▶ Weight: 14 Kg



DVX DM12
Digital 2-Way Active Monitor

- ▶ 750W / RMS Class-D
- ▶ 12" RCF Neo Woofer,
- ▶ 1.4" RCF Neo-CD
- ▶ Weight: 17.5 Kg



DVX DM15
Digital 2-Way Active Monitor

- ▶ 750W / RMS Class-D
- ▶ 15" RCF Neo Woofer,
- ▶ 1.4" RCF Neo-CD
- ▶ Weight: 21 Kg

The DVX series pairs dBTechnologies' new **digipro**® power amp technology and state-of-the-art RCF neodymium speakers to raise the bar several notches for sound pressure, performance, and response. Boasting an impressive feature set comprising high quality input board, multifunctional birch multiplex housings equipped with rigging points and rails, flexible configuration options, and an unrivalled price-to-performance ratio, DVX systems are discerning professionals' go-to solutions for a vast range of applications.



THE MILL REPORT...

continued

too well. So this year more than ever I'm determined to fight against my natural placement instincts. I'm going to re-imagine how reverbs work too and play with their parameters more. I'm going to explore new acoustic guitar tones, rediscover key-input techniques, and listen to more music. Where this will all lead me I have no idea... that's the best part about it.

TOSPY TURVYLAND

In the past, the way I've tended to avoid habitual mixing practice is by working them up from different start points. If I've been working with drums first up for an extended period, next time around I'll try to listen to them last... this immediately refocuses my priorities and opens up the space for different instruments to inhabit, rather than the 'usual suspects' going where my ear 'naturally' demands they go – drums in full stereo, vocal and bass in the centre, guitars left and right... pfft!

One approach I've already been seriously interested in this year has been the mono-ing of everything on the board, particularly in complex mixes. And by 'mono-ing' I mean: not spreading sounds across the stereo image using multiple mics or stereo sources. I've been ditching everything that's stereo and positioning sounds as point-source information with pan pots – instruments, reverbs, delays... the lot. Not fanatically, mind you, just whenever possible. This has the effect of opening up the space and prevents any one thing from swamping or 'vagueing out' the mix. It's an approach I've used to great effect in the past when things have gotten overblown in the track count department. Using this methodology when the arrangement is sparse allows for a more panoramic mix to develop, and for things to be wetter without sounding unfocused.

However, the difficulty I have with super-wide mixes is the strange effect they have on me when I'm listening in headphones. I don't like things pushed to the extreme edge of left and right in headphones without there being other musical elements compensating for them in the soundscape. My cure for this in the past has been to add small delays or reverbs to the widest sounds, panned well away from the source. But this tried and true method must go if my new period of exploration has any hope of getting off the ground. I have to fight the discomfort if I'm to explore new territory, and find other ways of alleviating this headphone sensation rather than immediately reaching for my standard remedy.

With any luck the end result of all this will be a wider perspective on this sound production caper and an enthralling 2014. It's going to be a challenge, but better than doing what some of my friends and colleagues seem to have done lately – close up shop and leave the industry altogether. Boo and hiss to that!

ANDY STEWART RUNS THE MILL IN VICTORIA. HE'S ALWAYS HAPPY TO ANSWER QUESTIONS ABOUT RECORDING, MIXING OR MASTERING. CONTACT HIM HERE: ANDY@THEMILL.NET.AU

TOOLBOX review

EMA Pro 80 HEADPHONES

At ENTECH last year I stumbled across some headphones that I wasn't expecting to see –

Ear Monitors Australia's EMA Pro 80s.



Actually, I had to laugh at the time because when I first clapped eyes on them my first thought was that they looked... well, decidedly 80s. They seemed old-fashioned – gloss black with plain metal arms, paper stickers denoting the company's name and logo, and overall that unmistakable 'earmuff' persona. But knowing the guys at EMA I figured there would have to be something more to these headphones for the company to bother showing them off at a trade show. In-ear specialists selling over-the-ear headphones? Hmm...

But as it turns out, they sound really good. Looks aside, they're comfortable, not too heavy on your head, or too tight. They're balanced in their tone, and actually not too dissimilar sounding from EMA's in-ear monitors (I have two sets of the company's custom in-ears that I've been using for many years now).

Unlike several other brands of headphones I have down here at The Mill, the Pro 80s are great for recording, and for several reasons: they're closed backed so they don't spill into the mic or feedback, they're very comfortable to wear even though they look like they shouldn't be, and they're balanced in their response. They produce a very substantial (yet controlled) bottom octave without ever sounding gratuitous or EQ'd like some so-called 'DJ' headphones, while offering plenty of tops without sounding like they're compensating for excessive low-end. Tizzy and boomy they are not.

Most of the other models of headphones I use tend to sound too bright or boomy, too thin and in one case, incredibly dull. Sonically, these drive straight through the middle of all that. They're balanced, unremarkable, devoid of hype, and probably quite trustworthy. I'll be using them far more in the coming weeks and months as both recording and mixing headphones to determine this more, but so far, I'm very impressed.

The other benefit is that they're not too pricey. At \$249 retail, they're the sort of headphone you could probably buy a bunch of... and if they break you don't have to contact the insurance company. Some might balk at a headphone that feels a bit 'prototype' in its finish – let's face it, the stickers are weird – but I'll simply be removing these with orange oil. Actually, perhaps I'll replace the stickers with some old Castrol motor oil stickers I collected back in the '70s, and go for the full 'grand prix retro' stylee.

Price: \$249.00

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SYDNEY'S LE CRÈME PRODUCTION SERVICES

have combined a production company with that rarest of beasts, a successful retail business. With a command of online presence lacking in many bigger players, Jason Allen spoke to director Josh Wolf about how to handle a business on the internet...

Le Crème's Josh Wolf was working for Sydney's Coda Audio just over four years ago when that mad dream that periodically grips us all, to go out alone, finally got the better of him. With a second-hand PA and the generous provision of some warehouse space from his previous employers, Josh set up, got out there and did the hard yards on gigs. Two years in, he had a healthy business with a healthy client list and started to ruminate on how to expand.



JOSH WOLF

THIS INTERNET THING MIGHT JUST TAKE OFF...

As many production companies do, Josh contemplated adding a sales element to his business. He initially envisioned it as a passive type of income, with sales conducted almost totally online with a minimum of fuss and bother. He did some research into off-the-shelf e-commerce platforms and spoke with friends and colleagues for recommendations.

Having learnt by building a web store from available products, Josh has got some great advice to anyone embarking on the same project; "Get good accounting software that integrates with your shopping platform" he suggested. "There's a third party plug-in that enables my shop to talk to my accounts. It saves you a huge amount of time."

BY JASON ALLEN

OPEN ALL HOURS

Le Crème initially developed a relationship with Technical Audio Group from his use of Martin P.A., and soon opened a trading account. Josh then added products from CMI, NAS, Yamaha and other major distributors to his range. Josh was positive about the ease of opening accounts with most Australian wholesalers (with a notable exception or two), but went out of his way to sing the praises of National Audio, distributors of Midas, d&b, KlarkTeknik and more.

“The distributor that has helped me the most in every respect are National Audio. Hands down the best to deal with in every way. I don’t have kind enough words” Josh enthused. “They have given me support from day one. They’ve helped me every step of the way – with sales as well.” Josh is now an avid user of Midas digital consoles on the production side of the business, and puts NAS first in line for his dollar when contemplating a new PA purchase.

FIND US ON FACEBOOK

Le Crème first came to CX’s attention through its canny and agile presence on Facebook. In an online environment when sales engagement on social media is often attempted by simple reposting of third party content or clumsy, infrequent communications handled by the work experience kid, Le Crème seemed to grasp the media intuitively. “We don’t post what a normal company would post on Facebook” explained Josh, “We just give things a go. We try to get people’s attention. What’s the worst that can happen?”

People can unlike our page.”

To those in the industry that are sceptical of or even downright hostile to the idea that social media can be a useful tool for business and generate sales, Josh has a perceptive reply; “If 90% of the population is on it, they’re wrong. If everyone’s doing it, there’s something about it that people want.”

GOOD ADVICE AND HOW TO TAKE IT

A business doesn’t exist in a vacuum, and Josh has taken to heart some good advice from some very successful sources. “I asked Chris Kennedy (now Chairman and Sales Director of Norwest Productions) how he got all of those jobs and sales” Josh related. “He said ‘You’ve got to be there. You’ve got to go and do it’. What I’ve learnt from that is to get what you want, get in someone’s face. Be upfront about it.”

Josh also took some tips from everyone’s favourite billionaire playboy (no, not Iron Man) Richard Branson. “I read one of his books and he said that you shouldn’t be afraid to ruffle a few feathers – it’s just going to happen. But don’t go out of your way to annoy people, either.”

WE TAKE CREDIT CARD, DIRECT DEPOSIT, AND BITCOIN

An attention-grabbing move recently made by Le Crème was to begin accepting the virtual currency Bitcoin for payments under \$100. With the volatile algorithm-based system experiencing wild fluctuations in value, what was Josh’s



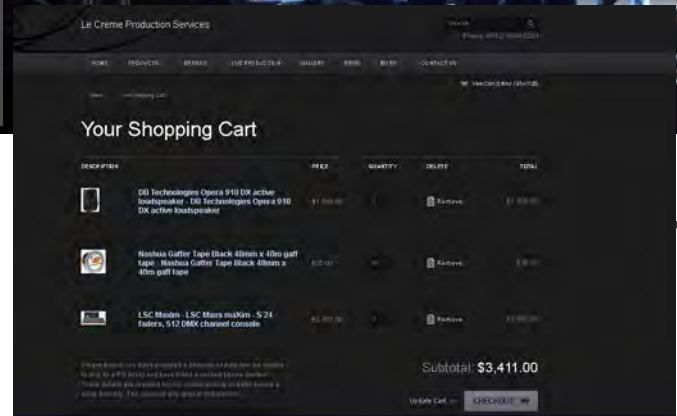
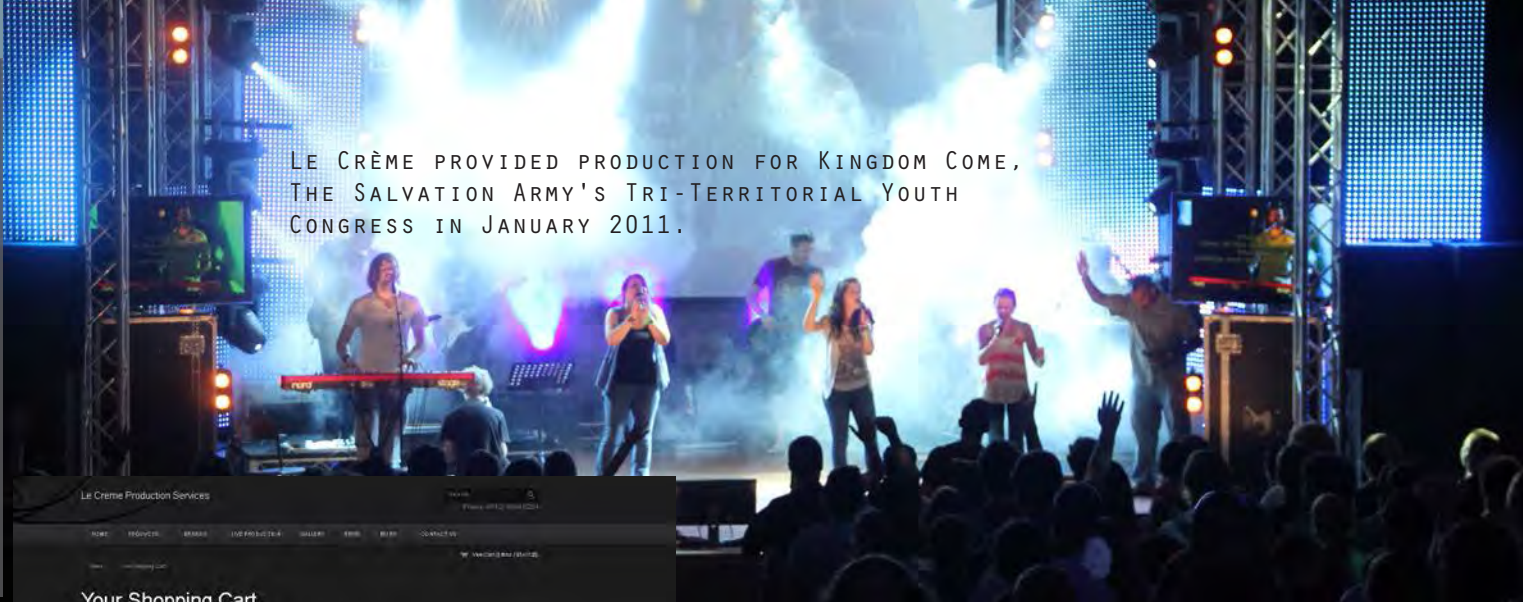
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PICKING UP SOME GAFF, POWERED SPEAKERS AND A LIGHTING CONSOLE ONLINE AT LE CRÈME

frustrating, as I originally wanted to be a pro audio store online that actually sold PRO audio.”

Having such an integrated online presence can be a two-edged sword. Your customers can find you and transact with you easily, but can also criticise you publicly with little remedy “Feedback from sales can backfire” Josh admitted. “Sometimes you get orders from people who are totally unreasonable. They can get aggressive very quickly. For example, I recently sent out an order and the customer complained that it arrived too quickly. This can lead to negative reviews on Facebook and Google.”

THE ELEPHANT IN THE ROOM

Rumours of the death of retail in Australia have been greatly exaggerated. Every media will run a process story on how the internet, grey importing, labour costs, rent and just about everything else makes it impossible to run a business as a reseller. To Josh, and other intelligent operators, this isn't ringing true. When asked what the greatest challenge facing the industry in Australia is, he didn't pull any punches.

“It's people. It's retailers doing it to themselves. It's individuals doing it to the industry” Josh railed. “Some people sell goods and the only profit they make is on their settlement discount.” Not to be published here, but Josh named names, and it's interesting that these same names keep coming up again and again in these conversations. While none of them will be going out of business anytime soon, it'll be interesting to see what happens when they inevitably do.



reasoning in adopting it? “One of my firm beliefs is that you should make it as easy as possible for people to give you money” stated Josh. “You can click on my invoices to pay online, you can call a 1300 number, or direct deposit. There's five different ways to pay. Bitcoin is another way.”

“I bought Bitcoin a month ago, after reading about it on Reddit” continued Josh “It was \$400 a coin. It went up and it's sitting at about \$1200 now. It's got the potential to catch on, it's got the potential to fail. If I'm first in accepting it, it could bring in more sales. Ultimately, it's just another way of transacting.”

SYDNEY OR THE BUSH

With pro audio and lighting retail in Sydney lacking a market-dominating presence like Melbourne's Soundcorp or Factory Sound, CX wanted to know where the goods that leave Le Crème's warehouse are destined “A lot goes to rural areas”, Josh answered, “because no-one out there can get good gear. It's giving a shopping option to someone that doesn't have it.”

While most orders are coming in via Le Crème's web portal, there's still a demand to man the phones. When Josh isn't working on live production, he now finds himself working the sales desk. “I get large orders over the phone, not the web” he explained. “Generally if people want to spend more than \$2000, they'll call in to negotiate price and make sure we're an established business.”

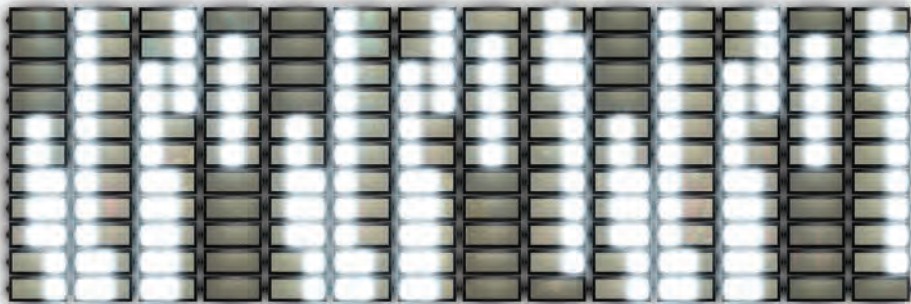
BUY IT ONCE, BUY IT RIGHT

Dealing with the gear-buying public is not always a bed of roses, and Josh is happy to vent about frustrations that many in the industry will relate to. “People tend to want to buy cheap stuff that won't last and won't satisfy their needs” sighed Josh. “Some people will call up and ask for advice, and if I recommend a better product, they often just go and buy the lower quality product elsewhere. They buy rubbish, and are then surprised when it doesn't last. It's immensely



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WHAT-IF?

What If we tell the machine to misbehave?

I recently read a very sad and disturbing article in an Aviation Journal regarding an aircraft crash in Namibia a few weeks before Christmas last year. The aircraft was a very new (manufactured in Nov 2012) Embraer 190 with a mere 3,000 operating hours, flown by an experienced pair of pilots with a total of over 20,000 flying hours between them.

The (preliminary) conclusion of the investigation is that the captain of the aircraft deliberately crashed the plane for no apparent reason (there obviously was a reason, but nothing was obvious to investigators). There were no obvious faults with the aircraft, and the FDR (flight data recorder) and CVR (cockpit voice recorder) were recovered intact.

They show the First Officer (co-pilot) leaving the cockpit to answer a call of nature, the Captain locking the cockpit door and proceeding to program the autopilot to descend the aircraft to an altitude below ground level at the highest permissible speed. 28 passengers and 6 crew perished in the crash.

This aircraft was an example of the epitome of sophisticated controls and safety systems, with levels of redundancy and system reliability orders of magnitude greater than anything we will ever encounter in a stage machinery system.

The flight crew did nothing else for a living except fly aircraft and had spent a significant part of their lives doing so at the very highest level of proficiency.

The weather was good, flying conditions close to perfect and there was no suggestion that the pilots were overworked, stressed or under any unusual pressures that

would have them take their eyes “off the ball”. How does this tragedy relate to the world of stage machinery?

Stage machinery and controls range in sophistication and complexity from simple counterweights and hemp lines to multi axis computer controlled powered flying systems with the highest safety certifications.

The high safety compliance devices are safer than their lower compliant cousins because their safety related functions are more reliable. They will always STOP when you tell them to. They will always go UP when you tell them to. They will always go DOWN when you tell them to.

If you program them to know when a collision is imminent, then they can help avoid that collision.

If you lock them as a group, then they will all stop if one stops with a fault.

If you want to deliberately crash pieces of scenery (or worse) together and you know how to tell the control system that this is a good thing to do, then it will faithfully obey your instructions.

The complexity and certification level of the stage machinery or controller is not, in and of itself, what makes something safe, it is just a (highly desirable and necessary) part of the overall safety equation.

The knowledge, experience and attitude of the operators, the maintenance of the machinery, the diligence in carrying out risk management, the good work practices of the venue, the collaboration within the crew and the morale in the venue – these are the things that make operating stage machinery “Safe”.

The higher the safety certification of the system, the more the operator can rely on it to do exactly as it’s told in the safest possible manner, but it will only do what you tell it to do.

This article forms general opinion only and must not be relied on without a detailed, professional risk assessment undertaken specific to your situation. Consult a professional staging company every time you consider anything that may involve risk with flown objects or people.

JANDS
Staging

BY ANDREW MATHIESON

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FOCUS ON THE FEMININE

AN INTERVIEW WITH LISA CIOFFI

By Jeanne Hurrell

LISA CIOFFI HAS ONLY BEEN A PROFESSIONAL TECH FOR A FEW YEARS. BUT, LIKE MANY YOUNG WOMEN, SHE HAS THE SURVIVAL SKILLS NEEDED FOR A LONG AND SUCCESSFUL CAREER IN LIVE PRODUCTION. WE CHATTED OVER COFFEE DURING HER CHRISTMAS BREAK...

JH: Why did you decide to work in technical production?

LC: Actually, it was an accident. In high school, I didn't really know what I wanted to do but I heard someone talking about the live production course at the Adelaide College of the Arts and how it included live band mixing. I've always liked music so I looked into it and found you could also do lighting and staging. So I did the full diploma course.

JH: When did you start getting paid work?

LC: It was about three years ago. One of my lecturers suggested I apply for staging work at the Festival Theatre so I did and became a casual mech, doing truck loading and set building for *Wicked*.

JH: What was that experience like?

LC: It was a little scary because I wasn't sure that I could do it — the Festival Theatre is so big and it was a large show. But everyone there was really supportive and talked me through. Now I'm much less intimidated by a large production.

JH: So what did you do after that?

LC: I went corporate for a couple of years, working at the Adelaide Convention Centre. It's quite different from theatre but it was interesting nonetheless. There was more sound and lighting with many similar set ups. It was good starting

with simple, repetitive shows then working up to larger shows across multiple halls — it gives you the chance to practise your skills.

JH: What happened after the Convention Centre?

LC: I got the job with System Sound. They were in Adelaide installing a show in the Festival Theatre and I was recommended for the radio tech job coming up on *Chitty Chitty Bang Bang*. They said it was a touring position and I wasn't sure I could do that. It had been over two years since I'd done radios on a musical, but they assured me that it was a training position and I could learn on the job. So I thought 'OK, I'll give it a go'.

JH: What made you reluctant to take the tour?

LC: Probably me. I hadn't done much sound or any radios since AC Arts so I wasn't really sure. But the people at System were so encouraging. In one of the *Chitty* breaks, I went over to Melbourne and worked in their warehouse. The guys there were great — showing me new things and explaining how they worked. I'd like to do a lot more work with them. I wouldn't mind

moving into mixing as well. On *Chitty*, I managed to sneak out front during understudy rehearsals to watch what they were doing with the mix. Hopefully, one day...

JH: How many radio mics on *Chitty*?

LC: Thirty-four managed by two radio techs on each performance. I was running around with the performers while the other tech looked after monitoring and helping with busy sections. That second job was done by the Head and Deputy Head who alternated the Front of House mix for four shows each week and four shows backstage with me.

JH: Who have been the important influences in your professional life so far?

LC: Everyone who took the time to show me something — small or large-scale. Because I'm still learning, I'm trying to take from everyone around me and so there've been many teachers.

JH: Do you have a favourite venue?

LC: *Chitty* took me to historic theatres like Her Majesty's



LISA CIOFFI

in Melbourne and the Capitol in Sydney. We played at the Lyric Theatre in Brisbane and Burswood, now Crown, in Perth. But, I still prefer the Festival Theatre in Adelaide with its huge wing space and easy loading. At the Maj in Melbourne, the OP wing where we set up radios was so small that we had cues during the performance to switch off work lights and cover monitor screens so the audience wouldn't see into our wing. But its heritage is really interesting, particularly the wall with the names of past users and stage door with the framed notices of the definitions and history of 'Chookas' and 'Break a leg'.

JH: What has been your most satisfying gig and why?

LC: Chitty so far but I expect there'll be others. What really satisfies me is getting to opening night. You go through good and bad things during the production period but there's something about opening night where you feel like it's finally done — it all works. Even if it doesn't necessarily all work — it's OK.

JH: What's been the gig from hell?

LC: I haven't had a gig from hell yet but I've certainly had a shift from hell. The Chitty move from Sydney to Melbourne was horrible. We did two shows on the final day then an overnight bump out. I'm sure people do that all the time but I was awake and working from 10am Saturday to 10am Sunday. Then I had to take the train and bus home after the bump out and, after an hour and a half nap, get to the airport to fly to Melbourne. I just felt really heavy — my brain couldn't process. By the end of the bump out, I was only good for pushing road cases and felt like I was working backwards! I'd like to think that if it happened again I'd be more prepared. Luckily, none of the other bump outs were like that.

JH: What's your favourite style of show?

LC: I love musicals. There's something about spontaneous song and dance that's just hilariously unrealistic. I wish my life was a musical! There's always something magical going on and anything can happen. And it's right in front of you — something live musicals have over film. When it happens in theatre, you can't CG that. And there's always someone in the audience who's never seen a musical before and they're going to be amazed.

JH: So — managing your life — how does that work?

LC: It's not too bad. When you're working six days per week, with time off you just want to sit outside. It can get complicated working for multiple employers but I put my schedule in my phone. If things go quiet, you contact people about getting more work. I've saved enough to last a few weeks without an income. Mum taught me well there — she's good at budgeting. The last time I was out of work I got bored, so I guess that means I like my job as a freelancer.

JH: What is your next job going to be?

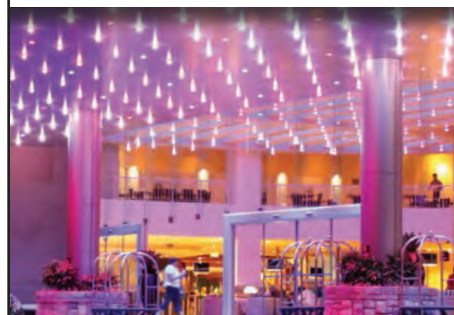
LC: In about five weeks, I'm moving to Sydney to do radios for System on Strictly Ballroom. And, if all goes well, it could keep me occupied for a couple of years and hopefully give me a chance to do some mixing as well.

JH: What advice would you give to someone who wanted to work in technical production?

LC: Just do it. I know it's easy to say, but just get out there. Call people, make contact. Don't worry too much about whether you've got the skills. People will teach you. If you don't know anything, do some training and make some contacts but then just go for it. You'll learn on the job. And if you're lucky enough to get a tour, you'll enjoy the opportunity to refine your skills and meet some really lovely people.

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FALLING WHILE FESTIVE

OLD MAN PARTIES WITH KIDS, SLEEPS IN TENT

Marion Bay is a quiet section of coast just north of the Hobart waters in Tasmania. Less than an hour from the capital, it has a secondary road leading in, and a well planned annual music festival, The Falls Festival. It is held in three locations, sharing a lineup, ending on New Year's Day.

The dirt road leads down a hill with the bay view spreading ahead. Mid afternoon on day one I've beaten most of the traffic, and drive right up to the welcome gate. Volunteers brace against a whipping gale and hand me two plastic bags – black for rubbish, clear for recycling.

I'm here following a directive from the editorial committee who thought it would be funny (for them) and enlightening (for our readers) to have a punter's perspective from a punter who would not normally attend a gig like this. Looking at the short traffic jam of backpacker campers and cheap cars crammed with what look like children with beards, I feel the committee chose well.

Cars are searched. They are looking for booze and gas bottles, possession of either will result in you losing your

BY JULIUS GRAFTON

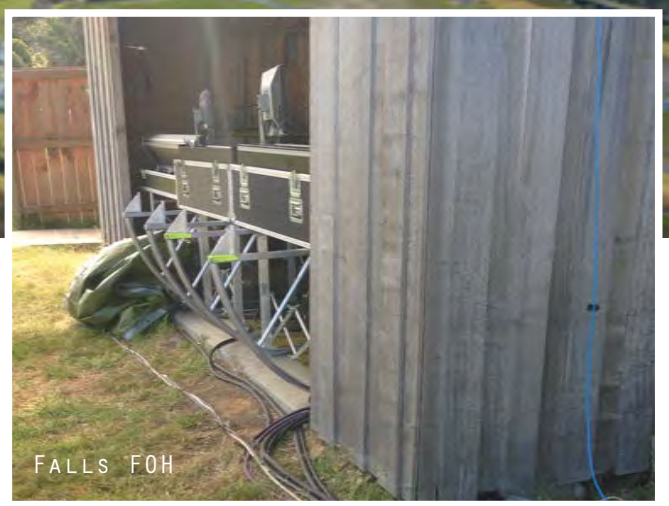


MY TICKET TO FREEDOM!

MARION BAY



BACK TO NATURE!



FALLS FOH

ticket, the numerous signs warn. I look improbable so they wave me through. 'Sorry sir,' the girl says. Not as sorry as I will be.

Now I am at the Gimmee Shelter chalet, a plywood erection with a cool dude inside. Literally chilled, the gale has peaked at about 400 on the Beaufort scale by now. He proffers the contract, which requires my name, address and phone number presumably so I can be hunted down if I steal the tent.

Tent # 104 is mine, thankfully free of a shared guest since these are twin share and had there been a lucky solo punter in the queue with me, we would have been consigned together. To share, and discover each over, yelling over the blustering of tent flaps and twanging of guy wires.

Duly established I tour my new world. Attempts at counter cultural vibe are everywhere, little woollen spider webs and painted logs poked in the ground. My first festival was The Aquarius Festival at Nimbin in 1973, where I did some lights, so I know about hippy vibe man.

LIFE SUPPORT

I do an outer lap, keen to inspect the facilities that will matter to me the most – the bar arrangements, and the other end of that process, the toilets. Both are in abundance.

Drinking is a serious business at Falls. First you need tokens – these come in \$5 and \$2 denominations (not refundable) and are, we are warned, water soluble. At least they warned us.

At a bar you dish up the tokens. This is presumably a clever form of tax on the drink concession, who can't take actual



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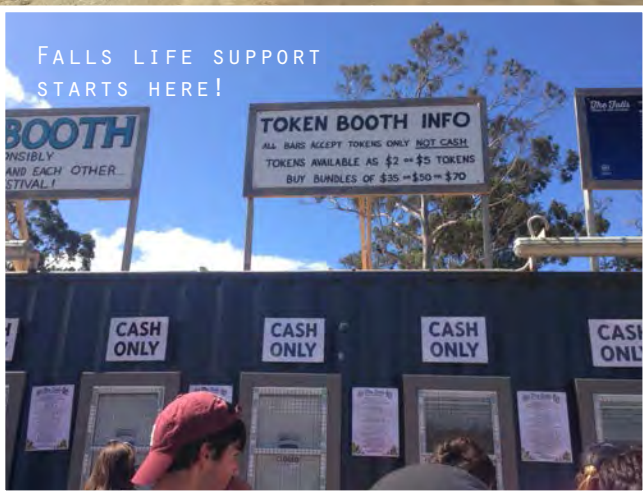
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money and who presumably redeem mountains of tokens for actual money, minus the Falls commission, later on.

Food concessions take money – lots of money. As I walk amongst the youth, marvelling at the lack of anyone remotely as old as I, the thinking turns to just how much money these kids have. At \$7 for a beer, and \$12 for a burger or \$4 for chips, it's going to be a long three days.

There are some terrific hippy vibed shops, and a too cool chilled beats coffee and pizza place with a DJ and decor that resonates with 18 year olds. I glance at the DJ, feeling empathy for his empty existence, standing there grooving away at his chill beats, chill wind whipping up his chilled shorts, blowing his neat festy dreads around like little whips. Ignored, as I am.

Absolutely no one says hello to a 56 year old, and I am starting to feel like a grizzled Toolie at Schoolies. It's an all age gig, so the arm band tells who can and can't buy booze. Unlike the walled confines of a club, it is hard to imagine how or if underage drinking is policed.

I see a sum total of two police, and the security is present but respectfully restrained. I like that. There are a couple of gruff encounters, but I'm used to that since my demeanour hovers between homeless grifter and absent minded pensioner. At least it does in this crowd.

STAGING

There are three venue areas. The Main Arena contains the Valley Stage, which is a permanent construction sitting down the slope towards the Bay itself, framed behind. There would not be a prettier stage outside of Sydney Harbour.

Audio was done by VJAM, with d&b audiotechnik J series on the main stage, and V series on the secondary stage. MPH arranged the lights. Technical all worked well.

You need to show your wrist band to enter this precinct, which has bars and concessions and toilets and probably would easily contain eight thousand people at once.

Leaving the secure area, you are in open country with concessions, camping areas, toilets and the disappointingly closed on day one Village. This appears interesting, yet remains unexplored.

The Field Arena is working on day one, with a low key and surprisingly quietly mixed slab of acts I've never heard of, like The Correspondents and Mountain Mocha. But the kids are happy. A surprising number of them are wearing onesies. I regret leaving mine in Sydney. It is flipping cold, but the wind abates at sunset.

I walked to the beach – easily a one hour return hike across the tundra, vegetation grimly clinging to the earth as I walk doubled against the arctic gale. A bridge over a creek has a sad lonely lifeguard in attendance, to deter anyone from drowning there. The beach has a troop of lifeguards, huddled in a sand whipped cluster. A dozen hipsters and one child wander the sand like extras from The Walking Dead.

INTIMATE AFTER DARK!

Sleeping in a two man tent erected on a knobbly grassy slope is very hard work, even for an easy sleeper fuelled by Tasmanian beer and many little plastic goblets of excellent Pinot Gris (\$9).

I stagger out at first light and hit one of just six hot showers (\$2 for 2 minutes). It is gratifyingly gratifying. Just prior I closely inspected the toilet – a long drop arrangement that is infinitely more appealing than those porta loo things. A men's urinal alongside is a tin walled area with guttering into which you urinate. I marvel at the considerable genetic advantage one has being male.

With no early opener in sight, I decide to pull up stumps and head for Mona in Hobart instead. I've experienced the life, heard the beats, endured the cold (it is 8 degrees this morning) and fulfilled my brief.

Next time, I'm going to force some of those glib young editorial types into something more Julius, like a Boz Scaggs concert. That'll teach them...

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LISTEN HERE

Managing Distortion

In the last couple of years (even longer probably) more songs than ever seem to have been released with an almost lethal dose of harmonic distortion. It's gotten so bad in fact that many new songs sound like they've been printed with their white noise calibration channels accidentally feeding into the stereo mix bus. To make matters worse, many radio stations also seem to be adding their own layer of this brutal, unmusical hash to the body of their broadcast mixes – nice.

Of course, this isn't what's *actually* happening – well not yet anyway – only what *appears* to be happening. Either way it's not good. Too much distortion is being applied to all facets of audio production and the outcome is all too often an indistinct, harsh yet soupy mess, masquerading as professional mixing. Pretty soon there won't be any musical content left in some of these releases, only white (and various other coloured varieties of) noise – whole musical genres in the making.

The problem is that most distortion embedded in final masters is the direct result of processes that were never intended to generate it in the first place. And with look-ahead limiters dominating the digital outputs of most productions, plug-ins by the dray load on every channel of a mix, and poorly calibrated systems the norm amongst studios and home setups, it's no wonder.

BY ANDY STEWART

CATCH IT EARLY

The main thing to be aware of – if it's *not* your intention for your folk/rock song to sound like it was recorded near the approach runway of Sydney airport – is that distortion is insidious, cumulative and increases exponentially once compressors and limiters get involved. In other words, it's easy for distortion to creep up on you and take over a mix if you're not looking out for it, but only slightly more difficult to keep your music relatively free of it, if that's your preference.

The trick is to judge how much distortion is appropriate early on, whilst remaining cognisant of the fact that whatever percentages of distortion you record now will only increase as the production gets mixed, mastered and converted to various shoddy forms of MP3.

MASTERING NOT THE ONLY GUILTY PARTY

There are obvious problems at the end of any production, where mastering can potentially inject a lethal dose of distortion into the process, particularly if you ask the mastering engineer to make your record 'loud', when right throughout the rest of the process you've been banging on about 'preserving the dynamic'. But it must also be noted that what often appears to be mastering distortion was, in fact, generated well beforehand in the early stages of recording. Mastering may only have magnified what was already there (while adding extra distortion on top for good measure).

HOW MUCH SOURCE?

As with any music involving the recording of real instruments, it all starts with source sounds. While the expectation for many of these is that they be captured distortion-free, some will obviously contain an amount of distortion, large or small, that was well intentioned. Electric

HOW DO YOU AVOID YOUR MIXES SOUNDING LIKE THEY'VE BEEN SHOVED THROUGH THE INTAKE MANIFOLD OF A 747'S JET ENGINE? WATCH OUT FOR DISTORTION FROM DAY ONE OF YOUR RECORDING SESSION.

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guitars, for instance, may be built fairly and squarely around their distortion characteristic; a classical flute on the other hand...

Regardless, a judgement needs to be made during tracking about the degree to which the captured instruments should sound distorted. It may only be subtle in these initial stages, but now is the time to remind yourself that once inherent distortion is embedded on a recording, it's only going to be *magnified* by the production process – it will never diminish. So if you want your recording to be relatively distortion-free, now is *not* the time to be adding it by accident.

PREAMPS DISTORT TOO!

One of the most insidious ways distortion is generated during recording is at the microphone preamp – and it's one of my greatest bugbears. The problem arises when a recording system is poorly calibrated so that when the recording level on the digital recorder is looking relatively high, at say -10 or even -5 dBFS, the analogue mic preamp feeding it is getting a flogging, at say $+10$ to $+20$ dBu.

For many analogue preamps, a higher than optimum output level quickly compromises the clarity of the sound passing through it, sometimes without the engineer or others involved even being aware (let alone concerned) about it. (And unfortunately, many preamps don't even have an output VU meter). People simply look at the meters on their digital recorders and assume that 'high' levels are 'good' levels, regardless of how they're generated. But it's supremely ironic that many of these so-called 'healthy' digital recording levels are actually achieved by thrashing the analogue preamp stage as the engineer simultaneously tries to achieve a quiet, distortion-free digital level. It's engineering gone stark raving mad!

CALIBRATE OR DEGENERATE

It's critically important to calibrate your recording chains *before* you start any session (or at least be aware of what they are), so that 0dBu on your analogue VU meters measures a known digital input level – somewhere between say -20 and -14 dBFS (unless of course it's analogue tape). That way, when your analogue front-end gear is running at its optimum, the digital recording device is too. Remember, if you're recording 24-bit files, it's completely unnecessary to try and push your recording levels to the brink of the digital ceiling.

BE ALERT, NOT ALARMED

There are countless other processes along the way that add further distortion to your final product: channel compressors, mix bus limiters, multiband compressors and so on, not to mention the countless recording and mixing plug-ins that intentionally distort a signal. But most of these can be ditched if things are getting out of hand. This is not the case when you add distortion to recorded material unintentionally. Once it's printed, there's no cleaning it up. We all know how to add distortion, particularly during mixing – that's easy. But when you're tracking, be vigilant throughout the process, listen with your ears, not your eyes, and remember that any subtle amounts of distortion may turn out to be far too much by the time your mix hits the airwaves.

Adding distortion by accident too early on in proceedings – courtesy of too much overdrive on your guitar amp, or gain on your mic preamps – is bad engineering, plain and simple. Like a high noise floor, which gets louder as you compress and limit the signal, distortion intensifies as the dynamic of the music is reduced. The only problem is, unlike noise reduction, there's no effective method of cleaning up a distorted signal once the damage has been done.



Andy Stewart owns and operates The Mill in Victoria, a mixing and mastering facility with clients ranging from Paul Kelly to Gotyé. He's happy to respond to any pleas for recording or mixing help... contact him at: andy@themill.net.au



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HIGH END SYSTEMS ROAD HOG 4

PIGS MIGHT FLY

BY JIMMY DEN-ODEN



JASON RECKONS I LOOK LIKE I'VE BEEN USING THIS THING FOREVER, WHEREAS THE REALITY IS THAT I OPENED THE BOX FOR THE FIRST TIME AT 3PM YESTERDAY. I GREW UP ON A HOG 1K, SO SKIPPING A FEW GENERATIONS OF CONSOLE THEN TAKING THE ROAD HOG 4 OUT FOR A SPIN WAS AN INTERESTING PROSPECT. HOW MUCH WOULD HAVE CHANGED?

It turns out the things which have changed are the things which sucked. When Hog 1k appeared, storage was done on a floppy disk. That's gone, and now replaced with an internal SSD and removable USB keys. First big win right there. The price is also very different – less than half the original release price of a Hog 1000. Don't get me wrong – I still love the 1000 because I know it inside out, idiosyncrasies and all. The fact such a mature product is still around speaks volumes – but as always advances in technology have seen subsequent generations become cheaper and better.

The basic layout of the Road Hog 4 is two sections with a tilted upper panel. The upper section contains a rather glorious 22" multi-point touch screen with

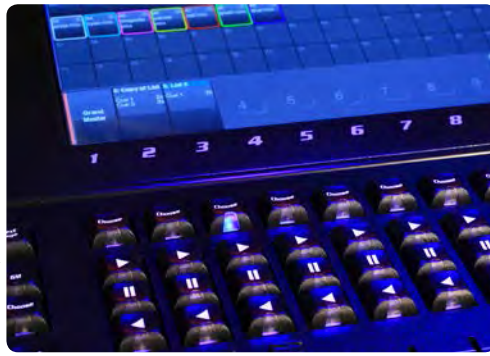
an extremely wide viewing angle – you can stand behind the console and still read what's on the screen. The lower section contains playback faders, the programmer, four rotary encoders and user programmable function keys. There's no dedicated master fader – instead you hold down a modifier key to make it appear on playback fader 1.

The programmer is quite familiar in its layout, but some little things have changed. EFFECTS is now housed amid the intensity, colour, beam keys and such. A dedicated FAN key means you no longer use the SET key for this function.

Choosing fixtures is pretty straightforward and generally logical if you've used the Hog OS previously, except now you use a touch screen. The fixture chooser has a text filter which allows you to search by fixture name, though not by manufacturer. I was blown away by the very extensive fixture library which included profiles for every test fixture I had in the building at the time (four of them!). There's an inbuilt fixture editor too, but as the on-screen dialogue box points out; building a fixture takes a while and there's a good chance someone else has already done it. So check on line first to maybe save a lot of time.



There's an on-screen keyboard which you can bring up by pressing the SET key twice, but you can also plug in a USB keyboard if you prefer that. I tried a USB mouse too and that worked fine as well, though that said the touch screen is pretty good. Some of the buttons (eg: the X buttons to close each window) are quite small, but there's a big "close window" button in the corner which shuts the active window. There's more than one way to achieve the process, and that's quite true for lots of other facets of the console.



The four encoders have small clear/silver buttons adjacent and these allow you to do a variety of things such as jumping values. Much of the console can be customized including the bank of function keys, which can do anything from selecting fixtures through to playing cue lists. Assigning cue lists to faders initially confused me a little, but it's just a case of different button sequencing from what I expected. Once you get that through your head it's all good.

There are four on-board DMX outputs around the back of the console, plus two network ports. The HogNet port is used to connect DP8000 units which give you more DMX universes, the other port connects to ArtNet equipped fixtures. The console supports more DMX than I can think of any practical application for, so it's certainly not short on capability or value. Our test unit came with a nice LED lamp which can be switched in the preferences from white to blue – both colours work well for the text on the keys. You can also adjust the level of the front mounted LED bling (sorry, I mean reading lamps!).

Shows are saved locally but can also be backed up to the included USB key. The surface includes a recessed USB port, and while getting the key into that is a little fiddly the reduced potential for

damage is well worth it. The same port is used for console restore/ upgrades which also happen via USB. There's a console restore stick included in the box.

The effects engine is better and way more in-depth than I expected it to be, and to an extent this comes at the expense of ease of use. Still, pulling out some canned effects and offsetting parameters is quickly achieved, and for many users this will be enough. There's scope to do more if you invest a little learning time.

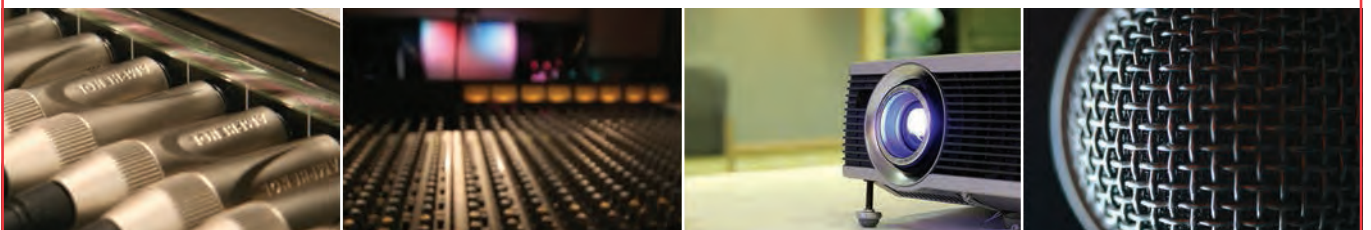
Overall the Road Hog 4 is a very user-friendly and forgiving beast. I expected to get a bit lost on it, and that didn't actually happen. Not even close. Even with my somewhat outdated thinking I'd be very comfortable taking it to a show, and a decent show at that (not just lighting some crap indie support band in a nothing venue). In case you do find yourself completely lost, there's a comprehensive help function. This pig knows how to fly.

BRAND: HIGH END SYSTEMS
 MODEL: ROAD HOG 4
 RRP: \$18,290 INC GST,
 SUPPLIED IN A KEAL ROAD CASE.
 PRODUCT INFO: WWW.HIGHEND.COM
 DISTRIBUTOR: INFO@LEXAIR.COM.AU



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VOID ACOUSTICS INDIGO 6

ALL THINGS SHINY

BY JIMMY DEN-OUDEM

INDIGO 6 IS PART OF THE VOID ACOUSTICS RANGE OF INSTALLATION PRODUCT, AND IT'S SOMETHING OF A DEVIATION FROM THE NORM IN SPEAKER DESIGN. THE INDIGO 6 IS A COMPACT, WALL MOUNT 2 WAY SPEAKER COMPRISING A 6.5" WOOFER AND A 1" COAX DEVICE, PASSIVELY CROSSED OVER INTERNALLY AT 2.2KHZ. IT WEIGHS IN AT JUST OVER 5KG, AND AT A MERE 273MM HIGH IT'S CERTAINLY NO TITAN. THE ENCLOSURE IS FORMED IN FIBERGLASS AND FINISH OPTIONS INCLUDE SMOOTH CELLULOSE OR FINE TEXTURED MATTE. VISUALLY IT'S A STRIKING DESIGN – RATHER THAN TRY TO MAKE ANOTHER SPEAKER WHICH “BLENDS IN”, VOID HAS ELECTED TO MAKE SOMETHING WHICH IS A VISUAL FEATURE. IT LOOKS MODERN AND DISTINCTIVE, AND AESTHETICALLY YOU'LL EITHER LOVE OR HATE IT.

You can't just place the Indigo 6 on a shelf or something, because it's pointy at the base and it will fall over – remember it's an installation product designed to be wall-mounted. The i6 bracket is very nice and solid, and easy to figure out. The bracket allows for movement in the vertical plane so you can angle the speaker up or down as needed. Four rather serious bolts attach the bracket to the Indigo 6. Rated power handling is 200W RMS, which is considerable given the driver size and cabinet volume.





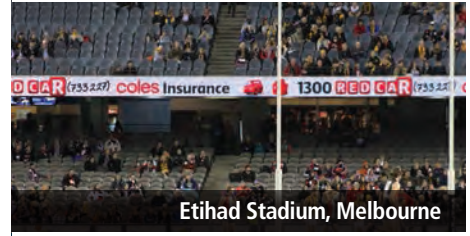
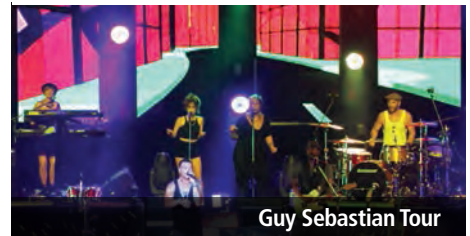
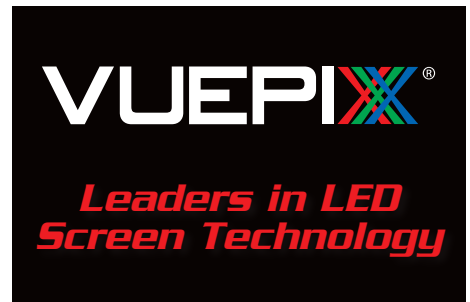
The Indigo 6 presents an 8 ohm load, and the input is via 4 pole phoenix connector, with loop out terminals to feed another box. The supplied phoenix connector can be locked in place with two screws, which is appealing. Input polarity is labeled on the removable part of the connector, which could make life difficult if you lose the plug. Good installation practice would be to verify phase on each system element anyway though, so in the right hands it doesn't matter. Dispersion is quoted at 90 x 90 degrees (H x V) – ideal for the intended applications.

Sonically, I didn't know what to expect from the Indigo 6. It certainly looks cool, but does it step up to the plate sonically? Taking into account its size, yes. I ran it up attached to a reasonably hefty power amp, and fed in some full range music. I figure music is what it's built to do, so testing with a mic seemed less relevant.

To my ears there's a rise in the high-mid area, maybe around the crossover region. The Indigo 6 has plenty of punch for its size, and while it doesn't sound flat I don't think that's a bad thing. Many of the environments in which this speaker will land will likely be quite acoustically dead spaces – think of a densely populated nightclub where all the people absorb sound. I think the little extra kick in the mid-high region will probably yield a more lively sound in such spaces.

I pushed a hefty amount of level through the test unit with no obvious signs of distress evident – and that was without any roll-off applied. With some sensible system processing you'd safely push even more level through it. Frequency response is claimed at 68Hz – 21kHz - 3dB points, though 68Hz seems optimistic to me. It's a very small enclosure after all.

If you really want the Indigo to get down low and growl, add the matching sub which looks kind of like a bigger upside-down Indigo 6. This is basically what VOID Acoustics suggest on their site too. Indigo 6 by itself is good for small bars, lounges and such, while for larger spaces and nightclub annex areas it's suggested that a sub be added. Follow the application suggestions and you'll likely achieve pleasing results.



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BRAND: VOID ACOUSTICS
 MODEL: INDIGO 6
 RRP: INDIGO 6 - \$842 EACH INC GST.
 WALL BRACKET - \$136 INC GST.
 INDIGO 12 SUBWOOFER - \$1970 INC GST.
 PRODUCT INFO: WWW.VOIDAUDIO.COM
 DISTRIBUTOR: WWW.AUDIOLOGISTICS.COM.AU

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RUSH BY MARTIN

THREE REVIEWS IN ONE!

BY JIMMY DEN-ODEN



THE MH SERIES IS THE MOVING HEAD PART OF THE RUSH BY MARTIN PRODUCT FAMILY, SO MH IS A LOGICAL KIND OF DESIGNATION. THE RANGE COMPRISES THE MH1 PROFILE, MH2 WASH, AND MH3 BEAM, WITH A SMALLER MH4 "COMPACT" BEAM FIXTURE IN THE WORKS. RUSH IS A SERIES OF FIXTURES PITCHED AT THE CLUB, BAR AND DJ MARKETS, SO THEY'RE FEATURED AND PRICED ACCORDINGLY.

The MH1 and MH2 units both run LED engines, yet interestingly colour in the MH1 is managed via dual 7 position colour wheels, whereas the the MH2 uses RGBW mixing. The MH3 Beam uses Philips MSD Platinum 5R 189W discharge source, and has a 14 position colour wheel. Let's talk about what these units have in common. They all pan 540 degrees, and the MH2 tilts 180 degrees while tilt range is 270 degrees on the profile and beam fixtures. All the units can be dimmed 0-100% - on the MH1 and MH2



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dimming (and strobing) is electronic while the MH3 does both mechanically. The MH1 has motorized iris and focus, while the MH3 has motorized zoom and focus. The MH2 has a fixed beam with a one-tenth peak angle of 17 degrees. 7 rotating, indexing, shaking gobos plus 8 static ones and a multi-facet prism complete the optic path of the MH1. The MH3 has a 17 position (plus open) static gobo wheel and an 8 facet prism.

All the units can be DMX controlled, and a single DMX profile exists for each – there’s no “extended mode”. The MH1 and MH2 units also allow for standalone operation in either auto or music trigger mode, and 4 shows can be pre-programmed into the units. Presumably this feature was carefully omitted from the MH3, since it would be hard to predict whether an auto show would maintain the required 12m projection distance to the nearest surface.

The menu system on the MH1 and MH3 is virtually identical – blue backlit LCD and nav keys. The MH2 looks a little different with a smaller, less flashy display. In fact the MH2 looks a little like an orphan between the other units – it’s physically a lot smaller and while there’s consistency with the branding the actual design looks quite different. I guess it doesn’t actually need to be all that big – at least it would be an easy install on a low ceiling.

So all this is largely speculative – but how do they actually stack up? Let’s start with movement. The MH2 Wash is by far the fastest unit of the three, with the MH3 Beam running a close second. Considering the MH1, MH2 and MH3 are totally different fixtures this kind of difference is reasonable.

The MH1 is good in open white and bright colours, but suffers in saturated red. Of course, I say that about virtually every fixture I look at – it’s really hard to do good red. Gobo projection is reasonably clean, with the rotation smooth and the indexing tight. Steve walked past and rather liked the “twin beam” gobo I happened to have in at the time.

The MH2 is surprisingly bright and punchy for its size. Given it’s basically just a “no frills colour you can move” kind of fixture, it needs to do that really well, and it does. Dialed open in white the beam has a pinkish cast to it, but you can mix that out. General colour rendition is pretty good though it feels a little pale in yellow – the yellow isn’t bad, it just seems like there’s a bit of white in it.

The MH3 Beam is a scary little bugger of a thing and it needs a fair bit of distance to pull good focus from the gobos. I’m not surprised Martin intends to make a compact version – you’d really only get full value out of the MH3 in a very large installation. It’s definitely capable of doing the job in a small club, but why use a hammer to push in a thumb-tack? Small venue users should consider waiting for the MH4, but if that’s not you then go ahead and revel in the value of the MH3.

Overall it’s fair to say the MH1, MH2 and MH3 get the intended job done, albeit with varying degrees of success. The MH1 is definitely better with some haze in the room. The MH3 definitely has the rest of the fixtures well and truly out-gunned, but a beam light can only ever be, well, a beam light. I initially thought the MH2 was the runt of the litter, but it actually turned out to be my favourite of the bunch. It might not be perfect in open white, but it is really great value and I admire the simplicity of it. There’s a lot to be said for simple things done well.

BRAND: MARTIN
 MODEL: RUSH MH SERIES
 RRP: MH1 PROFILE - \$4669 INC GST.
 MH2 WASH - \$2309 INC GST.
 MH3 BEAM - \$5389 INC GST.
 PRODUCT INFO: WWW.MARTIN.COM
 DISTRIBUTOR: WWW.SHOWTECH.COM.AU



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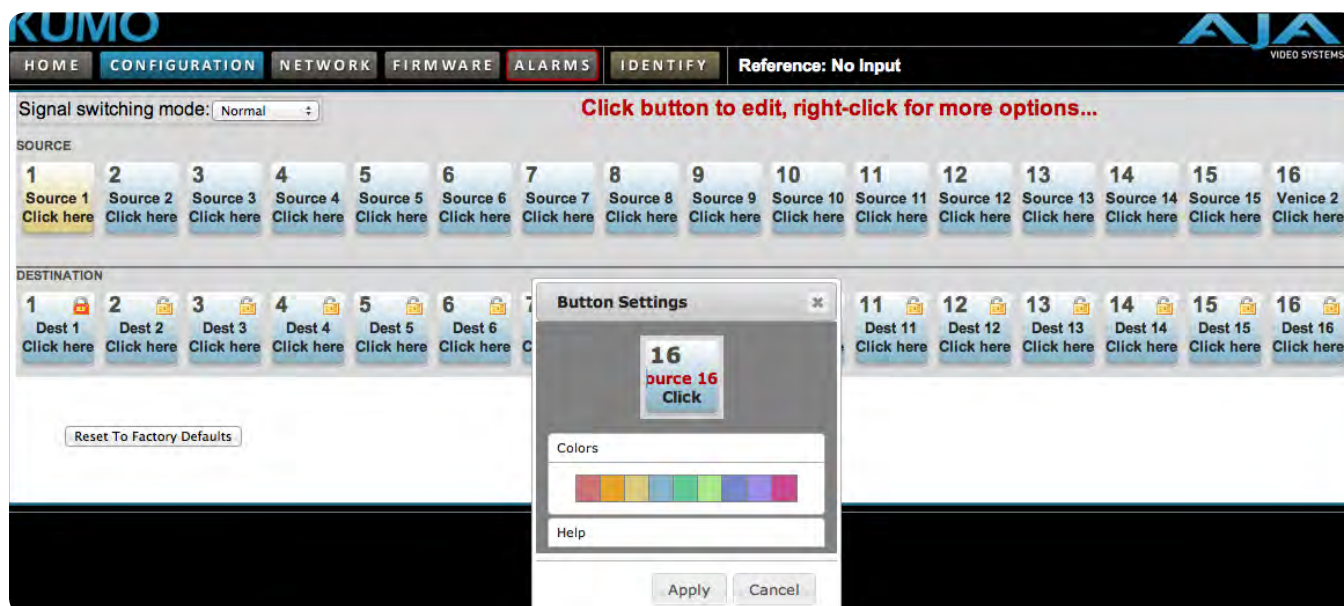
BY JIMMY DEN-ODEN



KUMO IS A FAMILY OF COMPACT SDI VIDEO ROUTERS FROM AJA. THE ENTRY POINT TO THE RANGE IS THE BASIC 16X4 MODEL, THE NEXT STEP UP BEING THE 16X16 UNIT WE REVIEWED. THERE'S ALSO A 32X32 MODEL, AS WELL AS A UNIVERSAL CP CONTROL PANEL THAT CAN OPERATE UP TO FOUR ROUTERS.

The whole range of Kumo product is IP enabled, which means that in addition to the hardware control panels it's possible to operate the router from a standard computer on the same network. This is a great idea, since it allows for savings in areas where a dedicated hardware panel is not required. Assuming all devices (including the Kumo) are referenced, switching is synchronous. Outputs are re-locked which is good.

The Kumo 1616 is a 1RU device with 16 BNC sockets for inputs, another 16 for outputs, and another pair for analogue reference in and loop out. There's an RS-232 port to allow serial control and an RJ45 LAN port which is happy



at 10 meg, 100 meg, or gigabit speeds. Lastly there's an "identify" LED, and two power supply input connectors. The power supply connectors on the 1616 and CP are at opposite ends of each device, which seems something of an oversight but it's only a minor annoyance. The unit is capable of running dual supplies, and in the event of a failure it will alert the operator both with front panel indication as well as a web UI warning.

The Kumo router is capable of accepting input signals of various configurations - SD/HD/3G SDI, SMPTE-259/292/296, 8- or 10-bits to be exact. It supports an array of video formats from 525i up to 1080p at various frame rates. It also routes 8 channel embedded audio, and preserves SDI RP188 timecode from input to output. I installed the latest firmware which allows inputs and outputs to be ganged in paired or quad configurations, allowing high bandwidth signals to be switched.

The Kumo CP control panel has been designed with its intended applications in mind. Four buttons at the left allow selection of which router you want it to control, and it's possible to lock a single destination output or the whole panel to prevent erroneous routing changes from taking your facility off-air. The clear buttons are backlit, and have a nice positive feel to them. AJA provide a template that allows you to print out facility specific labels for insertion behind the buttons. You don't need to disassemble the CP to change the labels, the buttons just pull off. If using the CP to switch on a 32 point router, you use the SHIFT keys adjacent to each source and destination row to access routes 17-32. The keys are backlit with adjustable brightness.

Configuring the router required me to reference the manual, but only one page of it. A recessed button on the 1616 (or a combination of both shift keys on the CP) allows a default temporary IP to be set. From this point, just navigate to this IP in the browser of a connected computer and make required configuration changes - IP can be manually set, firmware updated, and crosspoints switched from the GUI. Once you have the interface window open, the configuration is totally self-explanatory. Mac or PC operation is fine, even for firmware upload!

The CP and GUI switching interfaces track each other quickly and reliably. Locked crosspoints turn red on the CP. Changing router selection on the CP takes a moment and you see all the keys refresh during the process. The only real omission I can see with Kumo is that there's no way to recall a preset cross-point configuration - I'd very much like to see this implemented in a future firmware release. Still the platform is relatively new and given the recent addition of ganged switching we may yet see more features added.



BRAND: AJA
 MODEL: KUMO 1616
 RRP: KUMO 1616 - \$2508 INC GST.
 KUMO REMOTE PANEL - \$748 INC GST.
 PRODUCT INFO: WWW.AJA.COM
 DISTRIBUTOR: WWW.ADIMEX.COM.AU



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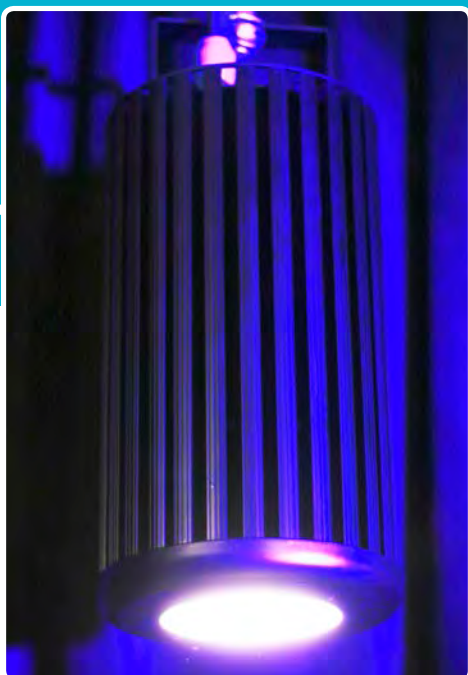
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CHROMA Q INSPIRE

RGBW LED HOUSE LIGHTING



BY JIMMY DEN-OUDEM

The Inspire LED house light from Chroma Q is just the ticket for such applications. It doesn't move and it doesn't zoom, but nor do most other types of house light fixtures. In my mind there are a lot of fixtures available for stage use, but relatively few that exist solely for the purpose of house lighting. I've always been a great believer in using the right tool for the job, so even before I switched it on, the Inspire held instant appeal.

The fixture body essentially looks like a massive cylindrical heat sink, and there's a fixed yoke at the top which you rig it from. There's no dedicated safety wire attachment point, but I guess you could strap one around the yoke. The huge heat sink capacity allows the unit to cool entirely by convection so there are no cooling fans, and hence no noise at all. The option for black or white enclosures allows the unit to blend in aesthetically, and inaudibly. The Inspire uses a single RGBW LED engine comprising 36 LEDs in a mixture of colours. It sports a theatrical dimming curve and 5 DMX control modes. You can run the unit in single channel "look select" mode, 4 channel RGBW mode, or a number of other modes including HSI and HSI with effects. There are two standalone modes as well.

The idea of effects brings up the concept of using house lighting as part of your stage lighting rig, and this blurs the once clear boundary between the two. Since the fixture is DMX controlled it's no hassle to run it from your lighting console, and because it uses an LED source it can actually do things like strobe and change colour. You could quite easily run a whole rig of units from one channel only, or you could have individual RGBW control over each one and achieve multi-colour effects. It all depends on how many DMX addresses you want to use.

The light field from the unit is just beautiful. Describing it is difficult, but it's like a Fresnel with much softer roll-off of the field around the edges. This makes it easy to achieve good even coverage over the venue. The LED house light can be ordered with one of three lens options which provide a choice of 32, 42, or 65 degree beam angles. Which lens choice is right will depend on the height at which you trim the fixture as well as the density at which they are installed. In some situations a combination may be required – narrow for main house lights and wides for under balcony areas. Since the beam is fully homogenized internally there are no colour artifacts.

Because so much of the source is dedicated to producing coloured light, white light output seems low in comparison to an incandescent fixture. It probably isn't far off, but because the field is so nicely diffuse it seems less bright. In any case once saturated colours are involved the balance tips very much the other way. This is so often the case when comparing incandescent fixtures with LED. The unit will make white at colour temperatures from 1000 to 10000K, so you can match it to virtually anything. At full white I measured current consumption at a shade under 400mA at 240V, so there's certainly no question about its efficiency.

At just north of \$2.5K it's certainly not the cheapest house light option out there, but given house lights are probably the most commonly used fitting in any building the total cost of ownership is likely to become cheaper even in the not-too-long term. If you want a house lighting rig that actually integrates with your stage lights and allows you to extend lighting looks to include the audience, the Inspire is a great option.

BRAND: CHROMA Q • MODEL: INSPIRE LED HOUSE LIGHT
 RRP: \$2535 INC GST • PRODUCT INFO: WWW.CHROMA-Q.COM
 DISTRIBUTOR: WWW.JANDS.COM.AU

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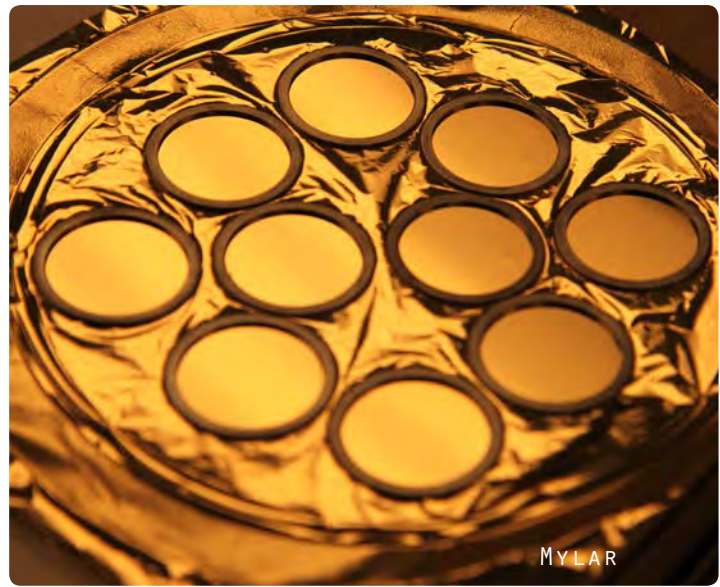
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**JOHN
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**THE INSIDE STORY
DOES IT REALLY
MEAN...**

**'KILLER
SOUNDING
MIC'?**

Shure claim they are the number one manufacturer of microphones for the live market worldwide, based on sales data from the Pro Audio Manufacturers Alliance. With almost 90 years experience, this American manufacturer seems ready to scale new heights.



MYLAR

CX travelled to Chicago to see for ourselves. We visited the Chicago factory responsible for KSM microphones, KSM being a special class of microphone for Shure, 'the best we can dream of', they say.

With live and wireless products rolling out the doors in record numbers, the studio market now has additional focus. Shure's KSM 44A with its dual pattern, dual diaphragm design, and KSM 32 and KSM 43 have always done well.

But now newer ribbon microphones, KSM 313 and KSM 353 have brought the brand greater scrutiny. Before the ribbon models came along, the KSM range was wholly made up of condenser microphones.

The ribbon models came about following the purchase by Shure of a small boutique manufacturer Crowley and Tripp Ribbon Microphones. They had a proprietary ribbon technology that is now patented under the name of Roswellite. This is an extremely durable microfilm – a small sheet will float in the air, like gossamer.

This film is used instead of foil, and won't tear.

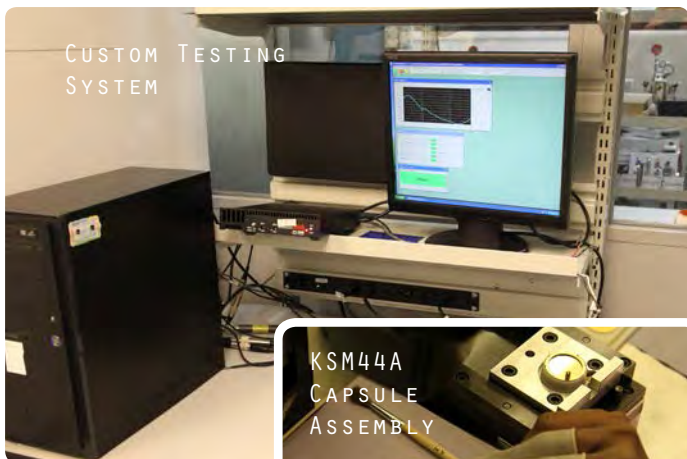
Chad Wiggins is the category director for wired microphones. He told **CX** that Shure have 'a deterministic cycle of continual improvement'. That phrase resonated, and he expanded. 'There's a hierarchy of challenges, to do all things consistently in volume is difficult.'

Perhaps not surprisingly each ribbon microphone is hand made. Operators are given a lot of training, and assemble the ribbon motor unit under a microscope. Every condenser microphone is tested for noise floor and response, while many are also tested for noise after being placed in a humidity tank overnight.

Across town from the KSM manufacturing plant is Shure HQ, where the firm has a staggering array of test equipment covering; vibration, heat, humidity, flexing, movement, and human spit – courtesy of their very own formulation that comes in huge drums. The 'technical annexe' on one end of the multi story glass Shure HQ houses two anechoic

**SHURE
KSM**

BY JULIUS GRAFTON



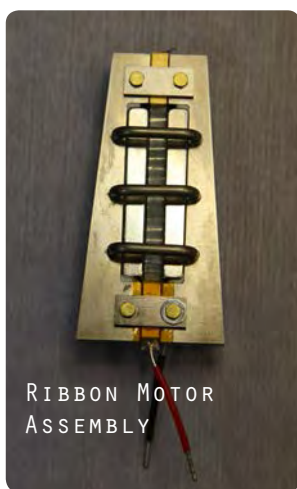
CUSTOM TESTING SYSTEM



KSM44A CAPSULE ASSEMBLY



CUSTOM TESTING SYSTEM



RIBBON MOTOR ASSEMBLY

chambers, a performance listening centre (studio), a mic lab where the research and development is done and where unique test tools are made. They have a fully functioning CNC machine shop, and even a cable flex x-ray machine.

The performance listening centre studio has plenty of space for miking up instruments, and some of the hundreds of seemingly happy Shure 'associates' (or staff) play in various staff bands for some lunchtime gigs. Shure itself is voted one of the top employers in Chicago.

But the real mic testing happens across the industry, and an example of this is the amazing Groovemaster Studios across town. Owner John Karkazis is a Chicago producer who cracked the big time with metal band Disturbed. Once they had sold six million records, his royalty cheque bought him an old six story brewery.

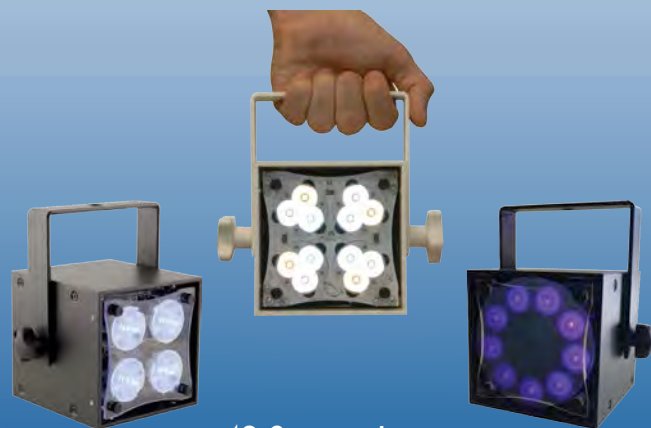
That building is today a funky multi level facility, and when **CX** visited John spent valuable time talking about various aspects of the KSM ribbon mic's he has been using. The relationship between the Shure people and John is typical of the kind of laborious networking any manufacturer needs – you need trusted professionals to evaluate your designs and provide honest feedback.

Overall **CX** gained an impressive snapshot of the complexity of microphone manufacture, and came to appreciate the position held by the KSM line, at the top of the pecking order in the Shure catalogue.

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February
2014

ROAD SKILLS

Jessica Mauboy

Bon Jovi Vans Warped

Jill Scott

Stereosonic Festival

Jessica Mauboy PHOTOGRAPHY - Troy Constable
Vans Warped PHOTOGRAPHY - Ashley Marr
Stereosonic PHOTOGRAPHY - Rukes



Jessica Mauboy's To The End Of The Earth Tour saw her perform at all major metro and many regional centres across the country and featured all her biggest hits including songs from The Sapphires and brand new songs from her latest album.

Audio production for the tour was supplied by Monitor City with Chris Braun running front of house from a DiGiCo SD8. The tour travels a full package of audio, lighting and backline in a truck packed to the brim and unusually there are very few gigs on the tour that do not use the touring production. Of course, the gig I attended at Star City's Event Centre was one of those!

"The Sydney show at the Star Events Centre was one of those as it already has a pretty amazing d&b audiotechnik J-Line PA so there was no need to hang our touring Nexo system," explained Chris. "Also, the night before we were in Wollongong and the turnaround for the following night was Darwin so we advanced my system tech, Mark Bollenberg, to Darwin on the day of the Sydney show to get

Jessica Mauboy

TO THE END OF THE EARTH TOUR



everything ready up there. We still couldn't get our touring gear from Wollongong to Darwin in time and had to use a full PA system from Novatech. Everything was completely different but it worked out fine."

The touring PA was a Nexo STM line array which Chris describes as perfect for this tour and by far the most versatile PA he has ever used due to its modularity. When the PA is flown in its entirety there are six elements of Nexo STM M46 and six B112 per side plus two of the STM 118 subs on top of the PA in omni mode forming the STM's two wide format. Eight more 118 subs are staggered across the front of the stage in cardioid and are being steered dependant on each venue.

"The Nexo STM is Mark Bollenberg's weapon of choice and it's always nice when you get to marry up an audio guru like Mark to the PA he actually prefers to tour with," added Chris. "The results are just ridiculous – he's making my life a lot easier than it should be even in quite challenging circumstances."

Along with the DiGiCo SD8, which is clocked externally with Antelope clocks, Chris uses a Klark Techik DN360 equalizer, Al Smart C2 compressor and two Lake LM44 for signal processing.

"It's nothing too fancy but every tool that we could need is there," he said. "It's really great to tour the console although

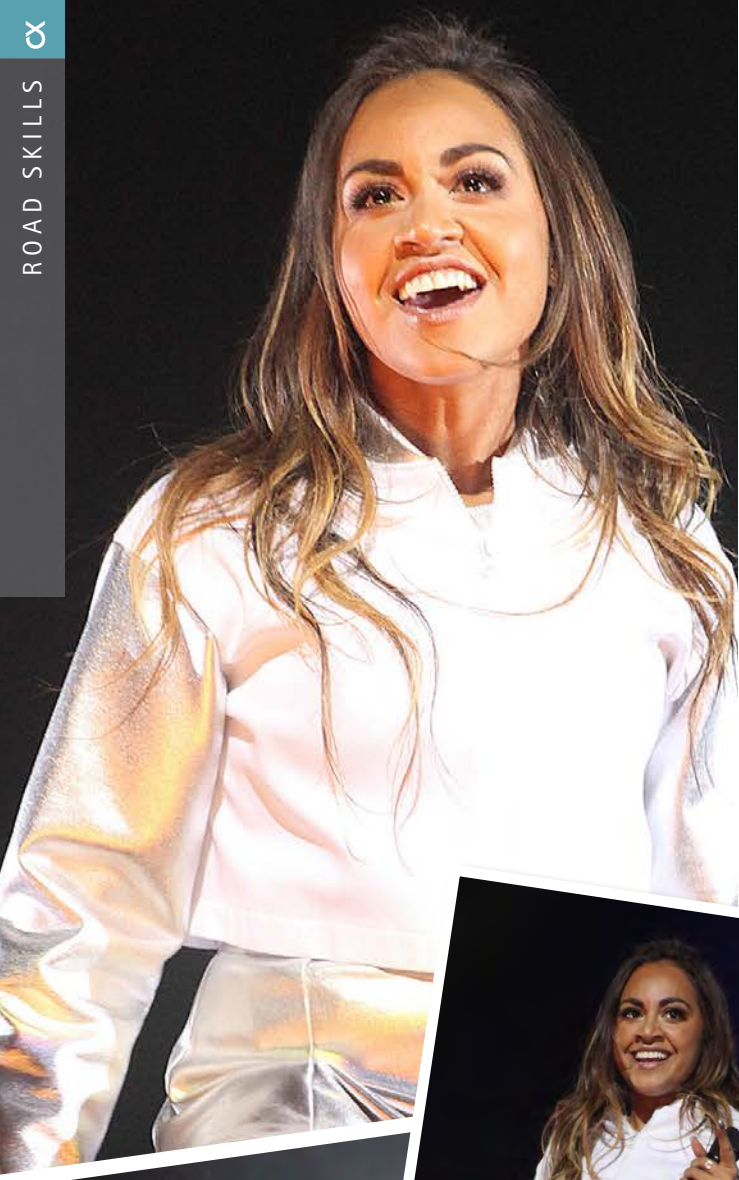
it's no secret that my usual console of choice is a MIDAS Pro so I was a little nervous taking the DiGiCo out however having used them a bunch on one off shows, I was familiar with them and to be honest, it's been a real pleasure to mix on. Both brands sound brilliant and each has their own little idiosyncrasies that people either love or hate but let's face it... at the end of the day it's about what comes out of the speakers and no one cares what you use to do it!"

A Waves SoundGrid Server runs a few Waves plugins on the outputs of the console such as the C6 multiband compressor and NLS Non-Linear Summer. Chris states that what you put into the Nexo STM is exactly what you get out of it.

"It's a very transparent PA and it's amazed me just how easily I can hear the difference in modes using the NLS plugin switching between the SSL, TG or Neve subbing busses," remarked Chris. "It's quite staggering."

Chris admits that he doesn't have to do much to Jessica's vocals as its pretty amazing straight up although he does have to keep an eye on the dynamics.

"She has a huge dynamic range and the power behind her voice is quite substantial," he revealed. "I use the Waves C6 to tame certain areas of her vocal and do the broad strokes. Jess does a wide range of songs including an acoustic set, The Sapphires set and a full blown, in-your-face pop set so



the vocal changes a lot but the C6 looks after that in the background whilst I concentrate on other things. The EQ for her vocal is the inbuilt SD8 EQ which except for filters, is completely flat.

"I also use Waves MaxxVolume because some nights Jessica may get a little fatigued towards the end of the show and I can bring the MaxxVolume thresholds in and without Jess having to overcompensate, her vocals sit right on top of the mix where it has to be. Jess knows I'm here managing her every minute of the show and is confident that if she's feeling a little tired, that she doesn't have to make up the difference herself which is new for her given this is the first time Jess has had a full crew behind her.

Jessica's vocal is one of the easiest I've ever had to work with; there's plenty of volume so the mic pre isn't cranked and the dynamics are there but not working overtime. I'm not smashing the crap out of the compressor all the time giving you one version of her vocal. Every now and then it gets hit quite hard but it's not living there the whole time. What you hear is a fairly untouched vocal."

Chris was impressed by the gear and service offered by Monitor City describing working with them as being 'a dream'.

"It's been very relaxed and the gear is so tidy and well maintained," he said. "A lot of the credit must go to them and I'll definitely use them a lot more for touring. Ade Barnard is a great production manager and a real pleasure to work with – in fact the whole team is awesome ... I've never laughed so much on bump ins and outs!"

Monitor engineer Ivan Ordenes has worked frequently with Jessica Mauboy but as her FOH guy and was finding monitor duties a bit unusual!

"I'm used to her sound and songs from a FOH perspective and I think Jessica was used to that too," he remarked. "However, her in-ear monitoring mix is kind of like what I did at FOH with lots of effects. I haven't done monitors for a while so I had to get rid of a lot of the rust in my ears! Knowing her music and sound, as well as the band, helped me put together something that made them feel comfortable. Jessica likes a lot of effects, delays and reverbs in her in-ears so it's a very full on show. Thanks Miss Jessica for the opportunity to get back on monitors."

Ivan was also using a DiGiCo SD8 with 10 mixes of Sennheiser EW300 IEM and a butt kicker on drums. Ivan also supplies a mix to the lighting department. "I've worked with lighting designer Michael 'Simmo' Simpson a lot over the years and the communication between us is superb," said Ivan. "Michael was having issues front of house following audio cues correctly so that the lighting could change quickly and so I gave him a mono in-ear link to the comm system which is run through dimmers, FOH and followspots. Automatically the whole lighting department has comms and within those comms they have a program feed with clicks, counts and MD directions, and that has saved them a lot of grief. There are no calls between FOH to the followspots as the followspot operator follows simple indications from Michael and the actual count and clicks in the backing tracks."





IVAN ORDENES AND GINA HAMLON
(MONITOR SYSTEMS ENGINEER)



CHRIS BRAUN
AT THE DIGICO SD8



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THE STAR
EVENT CENTRE
KEEPS AN
EYE ON ALL
THINGS
TECHNICAL



MICHAEL 'SIMMO' SIMP
AT THE
LITE CONS



ADE BARNARD, MARK BOLLENBERG
AND CHRIS BRAUN AT FOH

Rather than just talking about technique and equipment, Ivan thought that the entire family should be mentioned and congratulated.

“There’s Robyn Jelleff looking after Tour Management who is awesome and Nanette Jelleff assisting Tour Management and driving the band,” he added. “Connie Samaniego is debuting on the road doing an awesome job assisting Ms Jessica, particularly with wardrobe. Mr Don is driving the crew tour bus and Mr Paul "Roughy" driving the ATS production truck. Pat Meyer and Christian Walsh are the backline kings.”

Originally the lighting design was by Paul Collison but unfortunately, due to conflicting schedules, he had to give up the tour to Michael who was originally going to be the board operator, using a MA2 lite, for the tour.

“I didn’t change PC’s design in terms of fixtures too much but we did lose all of the video elements,” commented Michael. “I added Clay Paky Sharpy wash units for more

punch as well as some Martin MAC700 profiles, although I would have preferred Vipers. Other than that I pretty much kept PC’s look with the MAC101’s and the 2K Patt Skypans whilst adding a few of my own elements.”

To make up for the absence of the video screens, Michael added more beam look and a more club vibe to some of the songs. Nine bars of four Martin MAC101 LED fixtures, as well as eight MAC301, helped him achieve that.

“PC’s design was very much based on the video visuals so I had to come up with something to fill the void,” added Michael. “I also had sixteen Sunstrips which I really like. They’re a great little unit and I like the tungsten look, you can get some cool effects out of them.”

Tim Alder and Shaun Cook took care of lighting rigging during the November segment of the tour. Michael and Shaun have incorporated Martin LC panels into the new lighting design, having Shaun operating the video aspect of the show.

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Bon Jovi

'Because We Can Tour'

Bon Jovi toured the country's stadiums with 'that car' and we just have to share some amazing touring statistics with you:

2160 - Total human man-hours spent programming the lights and video before the test build (24 days).

1900 - Hours spent on video content creation.

49 - Number of Bon Jovi songs that the video and lighting team had to program.

12 - Number of people who worked full time on the design of the video content.

8,500 - Total amps required to execute one show: lights, audio, video, rigging, motion control.

1,800 - Total number of road cases used to transport all the equipment for the tour including lights, audio, video, stage, band instruments, wardrobe, etc.

875 - Total kilowatts of power consumed during one open air show for lights, audio, video, rigging, and motion control.

821 - Kilometers of cable used for power, lighting, and audio equipment on tour.

200 - Number of additional local crewmembers recruited in each city to help build and tear down the production/staging.

43 - Number of sea containers used to ship the show gear across the Pacific Ocean (in addition to one 747 jet charter).

3 - Number of days it takes to set up the production / staging for an outdoor Bon Jovi show.

2,007 - Lighting cues.

942 - Video content/screens cues.

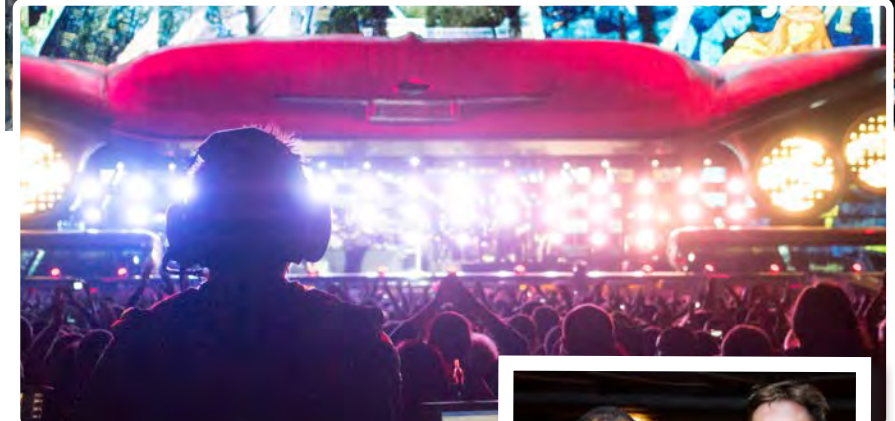
789 - Intelligent lighting fixtures on the stadium stage.

20 - 600' Strands of Fiber Optic connecting network and video signals.

626,208 - LED lights used on stage (not including the side screens!)

1,840,000 - Total watts that the sound system can generate.

368 - Number of separate amp channels in the sound system.



LD MARTIN THOMAS &
MATT HANSEN (MPH AUSTRALIA)

Jill Scott's recent Australian tour saw Robe's Pointes out on the road for the first time in Australia. The 24 x Pointes were newly purchased for the tour by Australian lighting vendor Clifton Productions.

Embracing the principal of 'less is more', lighting designer Martin Thomas produced a subtle and refined show with twelve Pointes on the downstage truss used throughout the show as hard edged profile key lights in CTO. The other dozen Pointes were distributed around the rest of the rig and used for numerous effects and adding colour and movement.

"They are absolutely awesome, one of the most feature packed lighting fixtures I have had the pleasure of using in a long time," commented Martin. "The CTO is perfect, there are so many effects in there and it does a great generic profile replication."

Also in the rig were Robe LEDWash 600s and ColorSpot 1200E ATs with a MA Lighting grandMA1 for control.



Jill Scott

Vans Warped

December 2013 was a busy time for Entertainment Installations who provided all of the lighting and two stages of audio (main stage audio was by JPJ Audio) for the Vans Warped Tour 2013.

It was a hard-slog tour of six dates (Brisbane, Coffs Harbour, Sydney, Canberra, Melbourne, Adelaide) featuring a range of mostly US punk / rock bands, as well as a few Australian bands, with the Main Stage headliner being The Offspring and Stage 2 headliner Parkway Drive!

Following a setup day in Brisbane, the next two dates were overnights with the full festival audio and lighting package for all stages going in at 7am on-the-day for 11am doors! It was tough going for the crew, a few days off, then a setup day for Canberra and another two overnights for Melbourne and Adelaide. All the crew and staff travelled by overnight coaches between gigs.

For Stages 2 and 3 a Martin Audio Wavefront PA stacked L+R was chosen as it was the quickest to setup and there wasn't going to be time to finesse a line array each day - it really was point-and-shoot. Stage 2 featured a Digidesign



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Profile at FOH and a Yamaha PM5D/RH on monitors whilst Stage 3 used a Digidesign SC48 on FOH duties and a Yamaha M7CL/48 on monitors. Both stages utilised EV XW15 active wedges and a full festival mic kit.

Lighting on Stage 2 and 3 was basic with some fresnels and LED Par64's on each stage, however, a floor package was added for Parkway Drive on Stage 2 that used Clay Paky Sharpy, Martin Atomic Strobes and molefay duets.

Main Stage lighting was The Offspring's spec using a 4m truss circle, 4 x finger trusses, 6 x rolling truss uprights + front/ rear truss and used MAC301, MAC2000 Wash, Martin Vipers, MAC101, Clay Paky Sharpy, Atomic Strobes,

LED Strip HO, Molefays, and MultiPars all controlled by a Roadhog FullBoar 4 with a Roadhog FullBoar 3 as backup.

"We had eleven audio and lighting crew on the road with the festival and they all did an amazing job under tough conditions to get our stages up and running and on-time every day, all day," commented Neale Mace, managing director of EI. "The crew need a special mention as they really put in on this one: James Leydon, Dave Henderson, Wes Higgins, Murrey Carr, Dave Robertson, Dan Lia, Bryce Mace, Daryl Bowen, Nicholas Craven, Patrick Williams, and Keir Smith."

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Simon Aitken has been involved in the production and music scene for over 20 years. His career started in local theatre and school productions when in his early teens, which progressed to pub shows with a 'back yard' lighting and sound company through Gippsland, then moving to Melbourne in 1996 to study production. Since then, Simon has worked at many lighting companies in Melbourne, including 10 years at Phaseshift Productions providing production for many one off shows and tours for Australian Promoters. Simon has designed Live Music TV shows and worked with many international artists including DJ Shadow, Ben Folds, Grace Jones and Goyte to name a few.

Moving to Production Management, Simon has toured through Australia and New Zealand with acts such as Deadmau5 and The Black Keys, Swedish House Mafia as well as touring extensively overseas with Mika and the ever-impressive live show of 'Empire of the Sun'.

Simon has recently moved into a position at SFX Totem (formally TotemoneLove Group) production managing and designing the Southern hemispheres biggest touring Dance Music Festival, Stereosonic.

What are the three best things about your job?

I now have the privilege of spending more time at home after many years of constant touring.

Working with some of the best production staff this country and the world has to offer.

Catching up with friends that I have met and travelled with around the world from various different artists, and now working on what is classified amongst the community as one of the top three dance music festivals in the world artists 'have to play at'.

And the three worst things?

Not having an unlimited budget to spend on production!

You can't control the elements. The mop up, I try to make it as easy as possible, but it does take up to two months to put everything to bed entirely on shows like Stereosonic.

What do you never leave home without when working?

My sense of humour, and a sense of adventure - we all know that both are needed on long days.

What do you do when not working on Stereosonic?

Is there a life other than Stereosonic? Yes... there is. I look after a bunch of other shows for SFX. Last year saw 75,000 tickets sold to Swedish House Mafia concerts over four days, as well as tours with Dash Berlin, Above and Beyond, Arty and Matt Zo, Dada Life and Ferry Corsten. Also thrown in to the years adventure was designing the latest Empire of the Sun show.

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What was the worst nightmare you encountered with Stereosonic?

To tell the truth, there was no real 'nightmares'. There were a couple of tough moments with weather, but nothing that really was too out of the ordinary for an Australian festival, or any festival in the world really. It's all about solutions.

What has been the strangest request from an artist?

The list is long – however I don't have to deal with the hospitality riders at the festivals, which is where the really tough and strange requests appear.

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

Probably best to stay politically correct on this one, but with 60 acts, jetlag, flying back and forth across this great expanse of a county, there is always a couple of acts at various times that would be what you call 'trying', however they mostly end up with smiles on their faces at the end of the day.

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

I've been thinking about this one a lot. The best one was probably an act this year asking for 1.5 hours on stage with no other acts on so they could sound check (while the festival was running). Of course, I try to look after everyone however there are some items that just can't happen. We got it down to a 15 minute change over. The word 'Festival' came in to the conversation many times.....

In your opinion, who performed the best set ever at Stereosonic and why?

There were many, in fact too many to list. With 80 % of the world's great touring DJ's, visuals from Zedd, Calvin Harris, Above and Beyond help add to look of the shows. David Guetta really can shine as an artist who completely absorbs production in to his show, then you have Australian artists such as Will Sparks cranking out amazing sets, and the super solid crowd favourite Above and Beyond. We hope that many world class artists will deliver world class sets. All I can do is support them with the best production available to deliver what they can.

What is the most bizarre sight you have ever seen at Stereosonic?

I must say, Day Two, Sydney when I arrived back at the show in the morning, and could barely find a piece of the 300kgs of confetti we let go the previous day on the ground. It was like there wasn't a gig the day before – amazing work I must say. Cleaners are an extremely important cog on the wheel, especially on a two day festival.

Who has delivered the best audio mix at Stereosonic?

The whole festival sounded great, however, must give special mention to Craig Gordon. He did an amazing job for me looking after the Acts that didn't have their own engineer.

Who has delivered the best lighting at Stereosonic?

Over the years, Tiesto, Armin, Guetta, Calvin, Axwell have been great shows, however, one of my favourite is always Bert from Ferry Corsten. Bert always pulls a blinder of a show, and this year at Stereosonic operated lights and video for the 'Full On' stage show for ten hours each day. He displayed true passion for the music and 'the show'.

Which Stereosonic venue is your favourite and why?

Has to be Sydney showgrounds, particularly the stadium – 40,000 fans with great viewing from all angles.

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

I must say the Spyder X20 unit, not brand new, but still recent. It makes life really easy for all the video crew from the artists, not to mention for the video suppliers crew.

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

Hmmmmmm – I don't think I remember, or want to.

What was the worst weather event at Stereosonic?

This year we were hit with winds of up to 70kms an hour in Melbourne. In 2011 it rained solid for about five days leading up to the festival. As mentioned previously, you can't control the elements.

What invention would make your job easier?

A time machine, a teleporter, something like that would make doing 5 two day festivals in five states over only 5 physical days a little easier. Even the pre-production would be easier with a teleporter. It would save all those hours on planes and in hire cars going to meetings, as well as more face to face time with suppliers.

Who would play on your ideal Stereosonic set list?

I think the Stereosonic directors got it pretty right in 2013 – let's see what 2014 brings.

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

The sun will come up tomorrow... is something that I vocalize. It makes crew feel that they need to do a good job during the day, and no matter what, tomorrow is a new day. The other one is 'good is not good enough'. Unfortunately, some people take it the wrong way, or don't care enough to be better.... There is nothing wrong with striving to be better, different, and constantly pushing boundaries and innovating. Very Steve Jobs attitude I guess, however, Apple is now the richest company in the world. Can't be too bad of a motto to follow right?

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

I have to confess that once I hit about 16 or 17 I learnt that drumming wouldn't pay the bills and that it would be smarter to aim to be a lighting guy and progress from there. Hopefully I have lots of years left to keep following the 'good is not good enough' attitude and create even more amazing shows.

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BY JIMMY DEN-ouden




Y-SPLIT?

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Way 1 – monitors from FOH mic split (I pinched this trick from Tim Whitten). If you're stuck doing monitors from FOH, chances are you'll want a different EQ for monitors and FOH on stuff like your lead vocal. Y-split the multi-

core channel at the desk end and run it into two adjacent channels. Remember you only need to apply phantom power on one of the channels if the mic uses it. Now unassign the second channel from the main mix, and presto you have a vocal channel dedicated monitor EQ. Note that this only works when your auxiliary sends are POST EQ. Another use if you want two different EQ settings for FOH, or even a compressed and an uncompressed channel for blended compression.

You can also use a bunch of Y-splits as a "poor man's monitor split" – it's totally passive and will often work well, though keep in mind you're far more susceptible to problems



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HOW TO BUILD AN AUDIO Y-SPLIT:

You'll need one female and two male XLR connectors, and about half a metre of decent quality twin shielded cable. Normal mic cable tends to be a bit thick to fit through the connector shrouds, so look for something a bit thinner. I use Canare L2B2T which is actually an install cable with a foil shield and drain wire, but it seems to hold up pretty well regardless.

Start by chopping the cable in half. Terminate one end of one cable into a male XLR – pin 1 ground to shield, pin 2 hot to red, pin 3 cold to black (or whatever is your default colour scheme). Do the same with the other piece of cable and the other male XLR. Then prepare the other end of each of these cables for termination but join them together in parallel before you terminate them both into the female XLR. Remember the strain relief and backshell before you solder. Run it through a cable tester, write your name on it, and pack it into your gig bag.

with ground loops than with a transformer isolated split.

Way 2 – Lots of wedges, few sends or return lines. I used this one recently in a venue where monitors had to be run from FOH. Six of them. Loading an amp channel with six 8 ohm wedges would present an impedance of about 1.3 ohms – not a real good idea. The amps were fine at 2 ohms per channel, so I Y-split the signal to two amp channels and ran three boxes off each. Situation resolved. For the doubters among you, remember that technically this is no different from looping out of one amp's inputs into another set.

MINI-JACK TO TWIN XLR AT MIC LEVEL

Since everybody forgot how to bring a CD to play at their gig, we sound people are frequently asked to playback content from iPods, laptops and such. Few if any large format consoles have RCA or jack inputs, so you need to convert the mini-jack output to twin XLR. If your playback source is far away then a pair of DI boxes is the preferred way to do this, since it balances the signal and reduces inducted noise. If your source is local though, you can do it with a cable.

The best cable I've used for this purpose actually has a couple of resistors inside the connectors to reduce the presented signal to mic level (thanks to The Music Box for this one). Why is this good? Large consoles all have pads with which you can attenuate line level on XLR. Small consoles don't – typically line level must be connected on a jack. Mic level signals are fine on each, and have a common connector. Why carry two different cables when you can have one that will work on anything? Or if you can take two then one becomes a redundant cable – spares rock.

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CX NETWORK



Australian Commercial & Entertainment Technologies Association

Industry statistics on way in 2014

The lack of proper, reliable and regular data is one of the frustrations of our industry. Planning at an individual business or sectoral level is reduced to informed guess work, emerging trends are likely over or underestimated and decisions are made on gut feel, hearsay, rumour or wishful thinking.

For the past 12 months or so ACETA has been working up a framework for the collection and dissemination of meaningful industry statistics to help alleviate the situation and provide some quality information to members to add to their own analysis of the market and trends.

When the question is asked how much is the industry worth, the answer is: we don't know. We know that we contribute to and, enable the activities of many industries to generate billions of dollars each year (think of our role in broadcast, live music, meetings and conventions, tertiary education, building and construction etc) but can't actually say what we contribute in our own right.

This means equally, and probably more importantly, that we can't really examine the health of the industry. Is it stronger this year than last, is the performance of the various aspects of the industry the same this year as before, is the industry growth/share matrix the same year on year (measuring industry cash cows, rising stars, question marks or dogs)?

Not having real and current data is like walking around in a blackout in your own home. Sure you know the environment because of your experience in living in it and as a result you have a picture of where you need to get to in your minds eye. But somehow you still manage to bump into a chair or trip over something you (or others) left on the floor earlier that night. Bottom line, it's easier to get to where you're going when you can see what you and the others around you are doing.

ACETA's industry statistics will help you do that.

How will it work?

The intention is that the statistics can be used by all members to compare their results and performance against local industry trends. In addition, ACETA will be using the

aggregated data to work with government, other industry sectors and international bodies to increase industry awareness of the industry and engagement.

We are currently finalising arrangements with a third party secure data collection agency but the plan is the process will look something like this:

- Data will be collected each quarter (Mar, Jun, Sep, Dec) from members
- Members/subscribers will be sent an electronic pro forma from the collection agency
- The data will comprise sales value and volumes across a variety of product types
- The data collection will be undertaken by a third party. The collection agency will be a specialist in the handling of secure data and confidential data
- The data collected from the industry will be aggregated and made available to members/subscribers in an excel style format looking something like:

Product/Segment	Total Sales (units)	Total Sales (\$)	Your Sales (units)	Your Share (\$)	Your Share (units)	Your Share (\$)
Product A	1,000	1,000,000	100	150,000	10%	15%

- Of course from this data further in house analysis can be done. Average unit values can be examined along with planning for entry into new product segments, future budgeting, market share analysis, the development of manufacturing or distribution strategies and so on.

What data will be available?

The intention is to have data available on each key industry segments in the following categories:

- Audio
- Lighting
- Staging

Altogether we have allowed for 100 segments, 50 for audio and 50 for lighting/staging. Clearly this level of detail is required if we are to provide meaningful and detailed data to members.

Many categories will therefore be divided into smaller segments so that like-for-like products and real world applications can be examined and compared. For example, the power amplifier category data is being developed around the following product segments:

BY IAN HARVEY

POWER AMPLIFIERS	
Stereo	Power Amplifiers, without DSP: Stereo - less than 500w
	Power Amplifiers, without DSP: Stereo - 500w or greater
	Power Amplifiers, with DSP: Stereo - less than 1Kw
	Power Amplifiers, with DSP: Stereo - 1Kw or greater
Multi-channel	Power Amplifiers: Multi channel- less than 500w
	Power Amplifiers: Multi-channel - greater than 500w
Commercial, 100v	Power Amplifiers: Providing 70V and/or 100V output, inc. with mic input/s

This kind of segmentation is being developed for microphones, speakers, mixers, luminaires, lighting distribution and control products, and so on.

We believe this level of detail will be sufficient for members to undertake in-depth examination of the segments they are interested or active in as well as being able to present a whole-of- industry data when those results are examined more broadly.

What will it cost and when will it be available?

Like many things the online environment has changed the dynamics and costs of secure data collection and dissemination. Previously only the big accountancy companies or the likes of GfK or Neilson could provide this type of service and at not inconsiderable cost.

The approach we are taking is to use the new and much lower cost services provided by specialist online data management companies. The benefits of confidentiality and secure data management and analysis remain the same but the costs are significantly less.

While we are not quite ready to announce the costs to members here now we will do so shortly. We believe you will find the costs remarkably modest in real dollar terms and an absolute bargain relative to the value that can be gained.

We are currently finalising arrangements with the data collection company. By the time you read this in CX we hope to have completed those arrangements and will then begin to prepare the materials for members and confirm the subscription costs.

Our hope is that real, current and reliable industry data can become available to members and industry participants from April 2014.

If you have any thoughts, queries or comments we would be pleased to hear them. Contact Ian Harvey at ACETA on 03 9527 8133 or email ian.harvey@aceta.org.au



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BIZ TALK

THE GENERIC CONTRACT



with Julius Grafton

I recently wrote about non-payment, specifically where the corrupt and incompetent 2010 Commonwealth Games organizers in India tried to rip off suppliers. (See Blog, <http://cxmagblog.com/2013/12/29/done-an-excellent-gig-and-they-wont-pay-you/>)

This generated some discussion about contracts, and how more humble suppliers, such as a production supplier, could protect themselves.

Enter the need for a Generic Contract or Agreement (they are the same thing) so this is what should be contained within.

First state your business name, address and a short reference to yourself, like this: CX Magazine (hereafter referred to as CX). Saves you writing the whole name every time you mention you. Then insert the LEGAL and complete business name, and address, of the client. Be careful – search them on ASIC to get this correct. Give them a short reference such as ‘CUSTOMER’, as in: (hereafter referred to as CUSTOMER).

With the correct legal entities established, what is the contract covering?

You should number the sections. The first section could read like this:

(1) This contract covers provision of services to CUSTOMER between these dates, at this location. Obviously you insert the required info!

Then the nature of services needs to be item 2. Like this:

(2) Services will include but not be limited to, supply of one beautiful perfect bound magazine, printed on forest safe white paper in Australia, and containing fabulous stories told with great accuracy. As required CX will supply CUSTOMER with additionally requested items, at an agreed rate.

The ‘additionally requested items at an agreed rate’ leaves things open so you can charge for extras.

With the ‘who’, ‘what’, ‘where’ and ‘when’ now done, you can sort out the terms. There are your rules of supply, spelling out some essential details.

These need to include HOW you’ll supply the services, such as delivered and setup ‘show ready’, or just supply for the client to collect. Are there extra charges, and what are they? For a production gig these may include rigging, power provision, loaders and extra time for rehearsals or tech checking. If the deal is foggy or the info sketchy, you may have a problem at settlement.

Who covers loss and damage? Is the CUSTOMER responsible for any loss or damage, whatsoever, howsoever caused, while the equipment is in their possession? That

would be standard if this were a rental contract and the gear is not controlled by you or under your direct supervision.

Most important of all, how is the contract to be paid? When I did productions I always put in a bad weather provision for an outdoor event which stated full payment was due in the event of a cancellation within 24 hours of the event. It would read thus: ‘CUSTOMER agrees to pay CX in full for provision of services under the contract even if the event is cancelled within 24 hours of scheduled start time.’

When and how you get paid is mission critical, so make sure your contract spells this out. If you plan to invoice the customer, be sure that the contract states any invoice becomes due and payable within 7, 14 or 30 days. You decide.

Finally, how do you ‘execute’ the contract? The best way is for the customer to sign the thing, countersigned by you. Each of you needs a copy. Make sure it is dated.

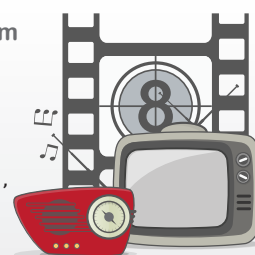
For more routine events or work, you could simply append the information contained within the contract on the end of your quotes, with this kind of statement: ‘All work done by **CX** (you) is subject to the following terms and conditions of trade., Acceptance of this quote, in writing or orally, binds the CUSTOMER to these conditions.....’

Remember, a CONTRACT is not really binding on anyone until it’s tested in court and if they don’t want to pay you, they can make life hard. Take care!

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Drum Pants

The best drummer's present you can't buy...yet

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A couple of weeks before Christmas I had a phone call from LL, the drummer with the Fabulous Harris Tweed Band.

“Mate,” he rasped, “you’re comin’ over Christmas day, aren’t you?”

“Yes, you invited us two months ago. Why, are you cancelling Christmas?” I replied.

“No, just ringing to tell you the good news – you’re my Kris Kringle.”

“Aren’t you supposed to keep that a secret, so you look surprised when you get the present?” I asked.

“Stuff that, I want to make sure you buy me something decent,” he wheezed. “Nothing too expensive; I reckon fifty bucks should do it! Gotta go, it’s time for meals on wheels and then my afternoon nap.” And with a cough and a click he was gone.

Hmmm. Fifty bucks? In his dreams! What’s a good present for a drummer? What can you get for the man who has everything? Apart from a course of penicillin, that is!

Maybe a new pair of sticks – perhaps the ones with ‘hold between fingers’ written on them? However he’s already got more sticks than you can, well, shake a stick at, plus one of every drum ever made, so there isn’t much in the way of percussive stuff that he doesn’t already have. He’s even got a couple of acoustic guitars, despite being unable to play either of them! Although he is very good at holding them upside down (he’s left handed) and looking dreamily out of the window, a skill that was useful for picking up impressionable young women when he was 25, but a skill that has somewhat atrophied over the 30 years he’s been married!

But when the going gets tough, the tough go online, and as luck would have it, a link on my favourite online newsletter Gizmag led me to the ideal present for a drummer (drum roll please) ... Ta Da - Drum Pants!

What the hell are Drum Pants, I hear you ask? Well, you know how drummers are always slapping on their thighs, the table, the steering wheel, the dashboard, in fact, anywhere that’s guaranteed to drive you absolutely

spacko? The Drum Pants are two sets of long strips of three sensors that slide down the front of your jeans, then velcro themselves to your legs. You connect them to a little control box that can USB itself into your computer, or smartphone, or a speaker...and then you slap them!

On the website they say it’s not just a complete drum kit in your pants, it can be a whole band, because it can also connect to a sampler and control any sampled instrument, depending on which sensors you whack and how hard you whack them.

The basic kit gives you control over six individual sensors at once, but the system can support up to twelve with the addition of extra strips. Once a strip is in place, it just needs to be tapped to produce a sound, which can be heard by connecting either a pair of headphones or an external speaker to the control box.

There are 100 different built-in sounds which you can select using a knob on the control box, including drums, synthesizers, pianos, and guitars. An included Internet app, which can be accessed through most browsers, lets you set which sensor plays which sound.

The app can also adjust the tone and pitch of each sound and allows users to upload their own customized sounds.

Reading through the blurb, I could see that this gadget would radically change our on-stage performances. No more lugging a giant kit around, with a traps case that can only be carried by a couple of Olympic weight-lifters in the peak of condition; now the drummer can just sit on a stool, plug into the mixer, slap his thighs and away we go!

However, such a simple setup may not suit all bands, which might miss the awesome sight of a mega drumkit on stage. Wrapping the drummer up in a large poster-size print of John Bonham’s kit would easily solve this problem, and also make lugging everything down the stairs at the load out a thing of the past.

I resolved to look into the Drum Pants a bit further, but in the meantime all of us in the band were surprised to receive a ‘cease and desist’ letter from some lawyers in Scotland.

The letter informed us that they acted on behalf of the Harris Tweed Corporation, the owners of the Harris Tweed clothing material Trademark, and that it had come to their



attention that we were using their trademark without permission, and were to stop immediately!

I was all for sending a reply with detailed instructions of just exactly where they could stick their trademark and stop wasting their and our time, but the others in the band felt that a more conciliatory approach might get a better result. Weak jelly-backed bastards!

The origin of the band's name, though, had nothing to do with the Harris Tweed cloth at all. We actually named it after a character in the old Eagle comic from England when we were kids. His name was Harris Tweed, Extra Special Agent, a buffoon who was always getting into trouble and had to be helped out by his assistant named Boy.

This was pointed out in the reply letter, which was acknowledged and it was agreed that no further action was necessary. Obviously going after the original publishers 50 years later was going to be a 'lose - lose' situation. But think of all the pointless billable lawyer hours even our letter would have cost the poor crofters and farmers who make up the Harris Tweed owners. It wouldn't have been a cheap exercise. We're all in the wrong business!

In the end I couldn't get the Drum Pants. Further investigation showed that it was a Kickstarter project, and due for release in May this year only if they get the \$99 per unit funding. That's a bit late for a Christmas present, even from me!

So I bought him a roll-up drum kit for kids, at a much better price of \$20! It's about the size of a small tea towel made of rubber, with a rudimentary picture of drums printed on it. When you've finished annoying the crap out of everyone - whoops, sorry, I mean finished playing, you just roll it up and put it in your pocket. To get it working you plug it into your computer and hit it with a stick, and about a second later a very tinny drum sound comes out. I could be cruel and untruthfully say that we've already got that when LL plays his normal kit, but to be honest I don't think even the Harris Tweedz could cope with that kind of latency!



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