

ONLINE
EDITION

Ladies of Rock'n'Roll

Smart, Revered &
Career Driven

Melbourne's Ding Dong Lounge

Raising the bar in Music City

GEARBOX REVIEWS:

- AVID S3L
- Meyer Sound MJF-210
- DTS NICK NRG 501
- SONY DWZ Series Digital Wireless

CX NEWS:

- Sennheiser Australia Official Opening
- Bungled Auctions
- CX Roadshow completes third tour!
- Smart Grid emerges
- AAA hit by fire, People News

CX

MONTHLY TECH NEWS
AUDIO · LIGHTS · VIDEO · STAGING · INTEGRATION

CX90 MARCH 2014 \$5.50

Hamer Hall

The Democratisation
of Broadcast

Roadskills

Hunters & Collectors,
Paramore, Sarah Blasko

CX Roadshow

2014 Pictorial Check-in

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www.mackie.com/products/vlz4-series-compact-mixers

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www.cmi.com.au/mackie-dealers.html

VLZ4 SERIES

Is Your Wireless Microphone Ready for the Digital Dividend Restack?

TRADE-IN
OFFER
EXTENDED
SAVE BIG \$\$\$\$

With the Digital Dividend Restack now only 15 months away people are obviously starting to wonder what they should do with their existing wireless microphone systems. Especially after some media outlets reported recently that if you operate a wireless microphone system in the 694MHz-820MHz frequency range after 1 January 2015, you may face large fines and/or jail. So for a limited time, Shure will take your existing wireless system off your hands and offer you a great price on a new replacement Shure wireless system that you know will last you into the future.

TAKING YOUR WIRELESS SYSTEM BACK TO AN AUTHORISED SHURE RESELLER

Trade in your existing wireless microphone systems and save BIG \$\$\$\$ on brand new Shure wireless systems that are ready for the Digital Dividend Restack:

1. Bring in any brand of wireless microphone to your participating Authorised Australian Shure Reseller and as long as it is a complete, working wireless system you can qualify for an extra discount on a new replacement Shure wireless microphone system.
2. The discount applies to a replacement channel of Shure wireless for every working channel of wireless you hand in. That is, a channel for channel trade in deal.
3. All traded in wireless systems will be returned to the Shure Distribution Centre for correct disposal and recycling.

By acting now you can be confident for the future and you will save money.

Conditions:

1. This offer is valid for all trade in's occurring between 1st October 2013 – 31st March 2014. **2.** Access to the extra discounts applies for channel-for-channel trades of complete systems. **3.** All trade in systems must be in complete working order. Non-complete or non-working units will not be accepted.

JANDS

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PREPARE TO SAY
HELLO TO
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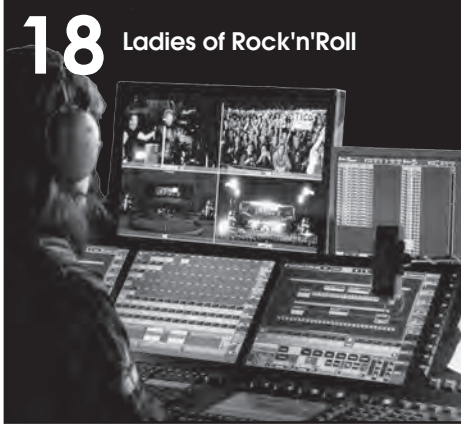
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CX90 2014. ISSUE 90. ONLINE EDITION

EDITORIAL BY JULIUS GRAFTON

RACE TO THE BOTTOM

Sydney Convention and Exhibition Centre AV gear is still on sale at press-time via the poorly devised O'Mara Online Auction website. Our criticisms last month of poorly catalogued equipment have fallen on deaf ears, with wireless mic's and receivers conveniently separated amongst a litany of other nutty missteps. And whoever figured selling speaker boxes 'untested' would maximise revenue? But hey – it's just tax payer owned gear, so who gives a rip?

STRUGGLES TO ASSOCIATE

It was great to host ACETA's annual general meeting at CX Roadshow in Melbourne, but clear that this worthy organisation isn't getting all the support it is due. While pondering the inability for Australian's to actually associate, the dearly revered Australian Road Crew Association started to rip itself apart, just eight months after incorporation. Hopefully there will be a revival for ARCA, and also it is likely that the new move to open ACETA to associate membership will secure its future. It is good to see ALIA, the lighting association, maintaining progress. Why don't Australian's associate well?

ROADTALES

February is our favourite month since we get to tour Australia and meet up with literally a thousand or more of you – 1,500 at least on the CX Summer Roadshow, plus all the exhibitors. It's great feedback for CX! We've already made some changes in this very issue as a result. By way of example, the cover reverts to gloss, and we threw out the half gate flap thing we trialed in February. There will be editorial tweaks soon as well, since the free beer we supplied at every Roadshow had a way of loosening up many people, who regaled us with what is good, and what is un-good, in these pages. Generally, it was pretty easy to compare notes amongst our team and decode the trends. Thank you.

COMMUNITY

We had great attendance at CX Roadshow – except in Canberra, a city we'll have to forego in the future. The big thrill for us is the sense of community in our small, niche industry that is essentially born from entertainment technology. I know there's been a commercially driven carve-off with the 'integrators', who were happy with ENTECH a decade ago and who usually walk the same reality as the rest of us technical types. Scratch an integrator and you'll find someone who almost certainly came up the gig pathway. Anyway, we are united.

WOMEN IN THE INDUSTRY

While we were away Cat was crafting this great feature on Woman in the Biz (see 'Ladies of Rock 'n' Roll', page 18). Lee was finishing out layout, which gets better every issue, and Dee (Lee and Dee? Cat? 3 letters only) was ironing out our books to make sure every contractor on tour got paid straight away. They did. Anyway, the corollary is that there are FAR too few girls working behind the scenes in technical gigs, and there needs to be FAR more. From what we see, girls who progress into product representative roles do very well and don't end up graded as a 'C Grade' rep. For more on our patented Rep Rating System, see cxmagblog.com in February!

- Julius

PUBLISHERS PANEL

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NEWS

CX INDUSTRY NEWS



Sennheiser Australia Official Opening Grand Event Heralds 16th Subsidiary

No one else could fill two charter boats and draw the who's who of Australian audio to Sydney for a summer Friday night, but Sennheiser did. The drawing power of the two CEOs, Dr. Andreas Sennheiser and Daniel Sennheiser along with strong industry approval for the purchase of Syntec International did the trick.

Offering a very professional and slick evening, the audience also met new Managing Director of Sennheiser Australia, Bjørn Rennemo Henriksen, along with Paul Whiting, President of Global Sales. Tributes to Bob Sloss and his team at Syntec flowed thick and fast, and first class food and beverage set the scene.

Dr. Andreas Sennheiser stressed the importance of opening a subsidiary in Australia and New Zealand for Sennheiser: "For 70 years we at Sennheiser have been shaping the audio industry based on our heritage, innovation culture and our passion for excellence. Australia and New Zealand are a very important market for us. Now we are even better set up to serve our customers in this region."

Daniel Sennheiser said: "The positive developments show us that the strategic decision to operate locally using our own subsidiaries is correct. With direct presence in Australia and New Zealand we are well set up for the future and will be able to be even closer and serve our customers with the excellent service and high quality Sennheiser is known for around the globe."



Bjørn Rennemo Henriksen ,
Paul Whiting, Dr. Andreas Sennheiser,
Daniel Sennheiser.



Julius with Sennheiser management.

Images - Joe Moreno photos



Bungled Auctions - Summer of 2014 More chaos as SCEC AV sold, Now Greys fail

Professional auction houses once prided themselves on accurate cataloguing of equipment. A potential buyer could scrutinize the goods before bidding. But catalogue errors continue with phase two of the Sydney Convention and Exhibition Centre AV sale.

Despite the mess reported last month, O'Maras listed more equipment, notably wireless microphones without receivers and loudspeaker systems 'untested'. These value-reducing tactics cost NSW tax payers, the ultimate owners of the equipment.

"Gear that only works with specific matching kit has been separated - some by over 2 months", said buyer Ben Alcott from Damn Fine Productions. "I don't know what O'Maras are thinking and why they haven't appointed somebody with some idea of what they are doing. Surely a technical person was required to sort through the gear, match it, and actually write proper descriptions of it?"

Meanwhile Grays Online recently listed equipment with descriptions including 'mixing table' instead of desk, and 'Full Range Linea Activation Speaker System' which is actually an EAW speaker.



CX Roadshow completes third tour 1,500 industry types meet 70 experts



23 firms took two truckloads of new equipment, accompanied by 70 product experts, across Australia in February on the third CX Summer Roadshow. Attendance in all states except ACT was very solid for the one day, 'pop-up' tradeshow.

Exhibits ranged from low-end accessories to ultra sophisticated digital mixing systems, and were proportionally split across the lighting and audio factional line. Roadshow opened for one day only in each city, and was accompanied by seminars and demonstration events.

The most anticipated technology attracting the greatest interest was made in 1956. A Strong Corporation Super Trouper carbon arc follow spot was toured, despite its enormous weight, and fired up during happy hour. Belching smoke and the occasional cough of soot, the old girl had been lovingly restored by Peter Twartz, in partnership with Steve Devine.



In keeping with the retro-is-sexy theme, Roadshow 2015 will attempt to tour a 1979 Double 4 way PA loaded with JBL and driven by Phase Linear amplifiers. Anyone with surviving components should contact this magazine.

Next industry events on the calendar are ENTECH-CONNECT (23 - 24 July) at the Royal Exhibition Building in Melbourne, and Integrate (26 - 28 August) at Sydney Showground in Olympic Park.

CX Roadshow returns in 2015, starting in Brisbane on February 9 and finishing in Perth on the 23rd. Canberra has been dropped from the schedule.



Smart Grid Emerges Power Costs to Hit Venues

Trials of Smart Grid technologies in NSW and at Malaga in Spain set the scene for radical changes to power charging, delegates at the Sustainable Stages seminar at CX Roadshow were told in February. Smart Grid is a combination of monitoring and control where power utilities can reach into user premises to adjust air conditioning or other enabled devices.

Fears of the power grid 'death spiral' arise whenever Australia has a heatwave such as experienced in January across the south-east. While Victoria has over 12 mega watts of installed capacity, peaks of over 10 megawatts strained the system which came close to blackouts. Yet actual use is in decline, with the closure of the Alcoa aluminium refinery in Geelong this winter saving the grid 350 megawatts.

But power utilities say they need to charge more, as useage declines, to retain margins. This allied with 'cost of use' contracts will see venues face dynamic costs for power consumption with peak pricing likely to skyrocket.

Venues with traditional lighting and air-conditioning could become unviable with hirers unable to budget or bear the risk of ultra high energy costs affected by the spot market price mechanisms which currently exist at the wholesale end of the power industry.

Resources discussed at the Sustainable Stages seminars are available from Live Performance Australia, via the Greener Live Performances initiative.



AAA Hit by Fire But Business as Usual

AAA Production Services in Myaree, Perth suffered a significant fire during February that disrupted business. Owner Neil Campbell invoked the 'show must go on' philosophy and quickly had things underway again.

"We don't have mains power, phones or running water but it is a testament to how far wireless technology has come that with a generator and a wireless connection we are still running the office from a demountable out the back", he told CX.

He was able to reclaim some of the premises, albeit in a chaotic state, and salvage enough equipment to maintain operations. AAA are the largest sound reinforcement firm in West Australia, and have an agency agreement with JPJ Audio where AAA provide systems and crew on national tours which cross into Perth.

"We are astounded and grateful at the huge support we have had", Neil said.



People News

Outside of Hillsong, Andrew has extensive live audio knowledge and has worked alongside many of Australia's leading production supply firms.



Andrew Crawford

Andrew Crawford has joined Jands as Technical Representative; Production Audio within the Technical Resource Group. He is responsible for technical advice, specification and support for customers engaged in live and installed audio.

Andrew has had several decades as a live sound engineer, most recently working for Hillsong Church, and touring internationally with United, one of the top ranked Christian bands in the world today.

Jeff Shoemith joins Audio Brands Australia in the role of Sales Engineer. Jeff has worked with The PA People, Jands and Hills SVL during his 25 years in the industry.



Jeff Shoemith

Don McConnell, Director of Audio Brands commented: "I'm very pleased to welcome Jeff to the company. I have known Jeff for a long time, going way back to his system tech days at The PA People. Jeff has that rare combination of being highly technical, yet being able to clearly communicate and share that knowledge. He is 100% customer focused and I'm excited to have him on-board."



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Anya is the most technologically advanced sound system ever created. She is so different from every other sound system that we shouldn't call her a "sound system". In fact, she is not.

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Anya is born from more than 15 years of research into technology that shapes and directs large-scale audio output. Anya adapts total array performance to deliver stunningly uniform high SPL coverage with such precision that the room effectively disappears. We call this Adaptive Performance™.

With Anya, you never have a reflection from a large wall because she makes it as if there are no walls. There is no ceiling, no roof, no nearby houses. With in-situ refinements, there are no balcony faces.

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.

Yet for all her capabilities, Anya is simple and intuitive. No complicated array angle, no addressing individual loudspeakers. Just tell Anya where you want the sound; she'll do the rest.

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.

New Gear

EDITED BY JASON ALLEN

This month in New Gear...

- ALTRONICS
- ALLEN & HEATH
- BEHRINGER
- ELECTRO-VOICE
- JBL
- MARSHALL
- MARTIN MAC
- MARTIN RUSH
- MEYER LYON
- NEUMANN
- PENN-ELCOM
- PRESONUS
- RADIAL
- SHURE



Neumann TLM 107 Microphone

With its newly developed double diaphragm capsule and exceptional impulse fidelity, the new Neumann TLM 107 is particularly suitable for percussion and the finest overtones of stringed instruments. As a multi-pattern microphone made by Neumann.Berlin, the TLM 107 is impressive not only in the cardioid setting, but delivers balanced sound for all five directional characteristics: Omnidirectional, cardioid and figure-8, with the intermediate patterns wide-angle cardioid and hypercardioid.

All of the microphone switch functions are controlled through a wear-resistant navigation switch. The contemporary, intuitive operating concept includes an illuminated pattern display in the chrome ring, with the Pad and Low Cut status LEDs positioned to the left and right. The switch and display are located on the rear of the microphone so as to not distract singers. After 15 seconds, the display is turned off automatically, allowing the TLM 107 to be positioned discretely on the stage.

PreSonus Temblor T10 Subwoofer

PreSonus is shipping its new Temblor T10 subwoofer. Designed to complement full-range studio reference monitors—including the PreSonus Eris and Sceptre without overshadowing them, the T10 is intended for serious personal studios and professional music-production environments, offering a tight low end due to fast and accurate transient response.

The T10 features a 10-inch glass-composite woofer, driven by 250 watts of Class AB power; a front-firing, bass-reflex acoustic port; optimised, resonance-suppressing internal bracing; and internal damping and heat sink. Frequency response ranges from 20 Hz to 130 Hz.





Allen & Heath Qu-24

Building on the success of the rackmount Qu16, Allen & Heath have introduced a 24 channel version - Qu24. Rather than more channels on layers the new mixer extends the console width by 8 channels providing 24 faders and 'channel strips.' Qu-24 features total recall of settings (including 25 motorised faders and digitally controlled preamps), an intuitive Touchscreen, Qu-Drive integrated multitrack recorder, dSNAKE for remote I/O and personal monitoring, multi-channel USB streaming to Mac, Qu-Pad control app, and iLive's renowned FX library to deliver class-leading audio quality.

Standard configuration includes 24 mic/line inputs, 3 stereo inputs, 4 FX engines with dedicated stereo returns, 20 mixes (including LR, 10 aux mixes, plus 2 dedicated FX busses), 12 mix processing channels, patchable AES digital output with a further 2-channel ALT output, dedicated Talkback mic pre input and 2-Track output.

Qu24 is due to ship in March 2014 and carries an RRP of \$4,999 inc GST.

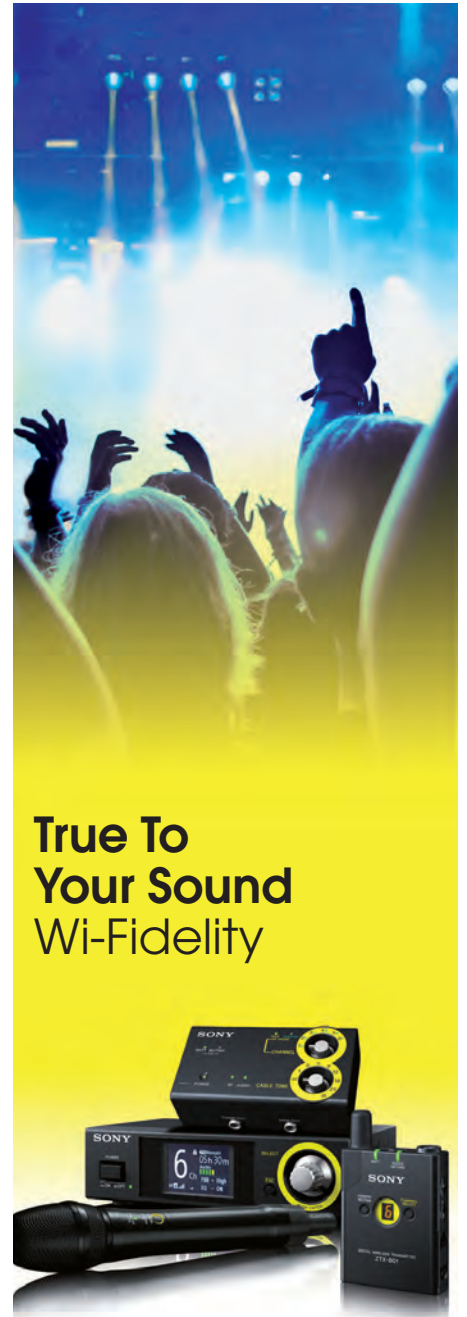
Martin MAC Quantum Wash

The MAC Quantum Wash features tight beams, beautiful wash fields, a market-leading colour palette, and uniform mixing that combines to accommodate the most demanding applications. Combining an impressive 750W of RGBW LED power with Martin's market leading optical system ensures that the 1:6 zoom on the MAC Quantum Wash operates with maximum output and superior performance.



Radial 'WallDI'

Radial Engineering Ltd has announced the Radial SB5W - wall-mount stereo direct box. The SB5W is a stereo direct box that fits inside a standard light switch electrical enclosure and employs a Decora wall plate cover for the fit and finish. As the design is completely passive, no local powering is needed. Choice of RCA or 3.5mm mini TRS inputs make it easy to interface to laptops and iPhones. A simple level control sets the output. This is augmented with a set & forget switch to sum the stereo audio file to mono plus a ground lift to eliminate hum and buzz caused by ground loops that often appear when interfacing computers and video projectors with professional audio equipment. Connections from the SB5W are done with simple screw-down terminals and tie wraps for strain relief.



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ALTRONICS

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ELECTRO-VOICE **Marshall Mini HSDI Camera**



The new Marshall Electronics CV500-MB HD-SDI Miniature Camera provides full HD 1920x1080i/59.94 video for filming all types of Broadcast applications such as Reality TV, Extreme Sports, Documentaries, Stunt Filming, Hidden Cams, and others. The CV500-MB is only 1.5" square, enabling unobtrusive placement or concealment.

The CV500 series incorporates a newly designed Sony Exmor 2.2 Megapixel CMOS Sensor and a miniature High Definition Prime Lens. The new Sony Exmor sensor enables the HD-SDI Mini Camera to operate at very low lighting conditions, 0.5Lux (color) & 0.1Lux (b/w) with Sens-Up (30X) technology ensuring vivid images as low as 0.02Lux.

JBL

MARSHALL

MARTIN MAC

MARTIN RUSH

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PRESONUS

RADIAL

SHURE



Martin RUSH Par 2 RGBW Zoom

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

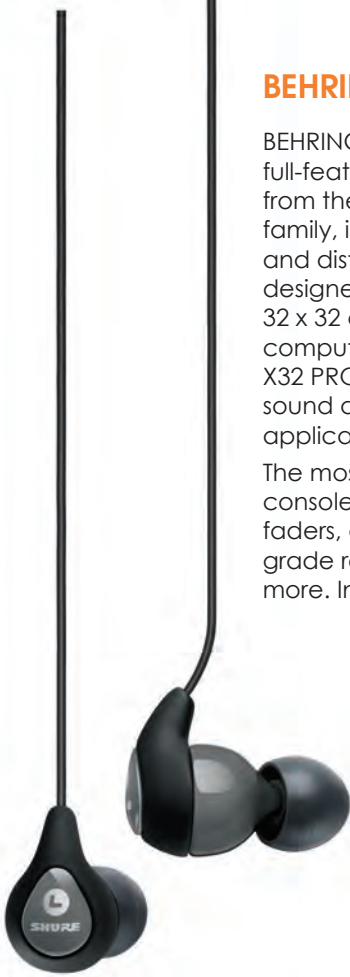


BEHRINGER X32 PRODUCER

BEHRINGER's new X32 PRODUCER, the latest full-featured, rack-mountable console from the award-winning X32 Digital Mixer family, is now available through dealers and distributors worldwide. With 16 MIDAS-designed mic preamps, 8 stereo FX engines, a 32 x 32 channel USB 2.0 audio interface – plus computer, iPad or iPhone remote control, the X32 PRODUCER is ideal for professional live sound duties, as well as recording and studio applications.

The most compact of the X32 family of consoles, the X32 PRODUCER offers motorised faders, on-board stereo FX racks with studio-grade reverbs, compressors, delays, EQs and more. Inputs and outputs can be expanded

via AES50 ports on the console that permit the easy addition of up to six optional S16 digital stage boxes, for an additional 16 remote mic preamps and 8 XLR outputs per device. Routing is made simple through the PRODUCER's onboard color TFT screen. Purchase includes a free download of Traktion 4 Music Production Software, which takes full advantage of the X32 PRODUCER's 32 x 32 channel USB 2.0 recording interface for live or studio recording/editing.



Shure SE112 Sound Isolating Earphones

Ideal for musicians and audio industry professionals, Shure's new SE112 earphones boast legendary sound and durability at an affordable price. Designed for everything from live performance to personal listening, the sound isolating sleeves help block ambient noise and prevent outside noise from interfering with the listening experience.

The SE112 comes equipped with a durable fixed 50" cable and three sizes of soft, flexible sleeves that gently contour to ears for a comfortable fit. To further enhance the fit for long-term wear, and to keep cables out of the way, the earphones feature an over-the-ear configuration.



B•EYE

Before B-EYE there were only drones



A.LEDA B-EYE K20
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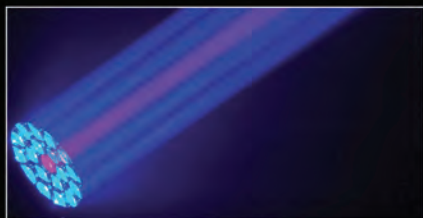


A.LEDA B-EYE K10



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PERTH
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WA 6090 Australia
T: +61 8 9248 8119

ALTRONICS

Penn-Elcom CaseDesigner software

ALLEN & HEATH

Penn-Elcom's CaseDesigner software opens up the world of flightcase design for those engaged in construction. It allows 2D or 3D representations with full 360 degree rotation and at the same time generates sheet cutting sizes.

BEHRINGER

CaseDesigner then lists all the component parts and their cost. Whether you are making similar cases repeatedly or 'one offs', the user design interface enables cases to be designed and made faster and easier, saving you time, effort and avoiding costly mistakes by obtaining customer approval for finalised designs and specifications.



ELECTRO-VOICE

JBL

MARSHALL

MARTIN MAC

MARTIN RUSH

MEYER LYON

Meyer Sound LYON Linear Sound Reinforcement System

NEUMANN

Meyer has introduced the self-powered LYON linear sound reinforcement system, the newest addition to the LEO Family of linear loudspeaker systems. Incorporating the technology of the LEO Family in a lighter and more compact package, LYON extends the advantages of highly linear self-powered systems to a broader range of venues and applications



PENN-ELCOM

PRESONUS

LYON linear line array loudspeakers are available in two versions: the LYON-M main line array loudspeaker and the LYON-W wide-coverage line array loudspeaker. Complemented by the 1100-LFC low-frequency control element and the Galileo Callisto loudspeaker management system, the LYON-M can anchor a powerful system for installations in arenas and large auditoriums, as well as tours and festivals. The LYON-W can serve as down fills to augment a LYON-based system. Both LYON versions can be used to provide supplemental coverage in a LEO system.

RADIAL

SHURE

Electro-Voice ETX Portable Powered Loudspeakers

EV's new ETX family features three two-way models (10-inch, 12-inch and 15-inch, all with a precision HF titanium compression driver), a three-way model (15-inch with a 6.5-inch MF driver and a precision HF titanium compression driver) and two subs (15-inch and 18-inch drivers). Inside each low-profile, tour-grade wood enclosure are EV-engineered high-efficiency transducers, high-powered Class-D amplifiers and FIR-Drive DSP, working together to provide precise coverage at the highest SPLs.

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Addendum Altronics One-Shot Rat-Trap Mark II



Our article on the One-Shot Rat-Trap Mark II in the CX89-February issue should have shown a picture of the new design grille system which eliminates the need for fasteners thanks to a spring loaded integral clip system. The new single piece grille 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. Traditionally speaker grilles required screws or special fixings.

CX apologizes for any confusion caused by the omission of this image from the article.

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LADIES OF



MONITOR ENGINEER KARRIE KEYES IS BASED IN VENTURA, CALIFORNIA AND IS THE MOTHER OF TWIN 18 YEAR OLD DAUGHTERS. SHE HAS WORKED IN THE AUDIO INDUSTRY FOR 28 YEARS STARTING OUT WORKING FOR RATT SOUND LOADING TRUCKS AND SETTING UP GEAR. EVENTUALLY, SHE LEARNED MONITOR MIXING AND ESTABLISHED A LONG-TERM RELATIONSHIP WITH PEARL JAM LEADER EDDIE VEDDER, WORKING ALMOST EXCLUSIVELY FOR THEM SINCE 2005.

24 YEAR OLD BIANCA MARTIN HAS BEEN WORKING IN THE SOUND INDUSTRY SIX YEARS STARTING OUT DOING SMALL GIGS AND WORKING AT THE LOCAL THEATRE IN WAGGA WAGGA. BIANCA MOVED TO SYDNEY TO START A 3 YEAR TRAINEESHIP AT JPJ AUDIO AND HAS NOW BEEN WORKING FOR JPJ FOR 4 YEARS. THROUGH THAT TIME SHE HAS WORKED ON A WIDE RANGE OF GIGS FROM SMALL LOCAL BANDS TO INTERNATIONAL BANDS AND HAS DONE A LARGE AMOUNT OF PA RIGGING ALONG WITH SOME STAGE, MONITORS AND FOH.

Once upon a time women on a tour worked in either wardrobe or catering and female techs were a rarity. Slowly, the status is changing and the clichéd image of the surly, grunting male roadie is fading away. We talk to four Ladies of Rock who are smart, revered by their peers and climbing the career ladder.

Who is your main client at the moment?

- Karrie:** Pearl Jam and Eddie Vedder.
- Bianca:** I work full time for JPJ Audio. I get all my work through them, they keep me busy all year round.
- Kait:** In the next couple of months I will be touring with Kate Miller-Heidke and Missy Higgins and in between will be looking after the shows in the theatre at the Palms at Crown.
- Sooner:** KISS and Motley Crue.

What are the three best things about your job?

- Karrie:** Being surrounded by music, the sense of accomplishment after stressful shows or projects solving challenges and traveling the world.
- Bianca:** Being part of the excitement, hearing

BY CAT STROM

THEATRE BANDS KAIT HALL LIGHTING DESIGNER TORS Y RODUCTION SOONER ROUTHIER ROCK'N'ROLL



KAIT HALL HAS BEEN IN THE LIGHTING INDUSTRY SINCE 1993 AND HAS DESIGNED AND TOURED WITH VARIOUS ACTS BOTH IN AUSTRALIA AND INTERNATIONALLY. HER STUDIES AT UNIVERSITY, A BACHELOR OF ARTS (PERFORMANCE STUDIES), LED HER FIRSTLY TO THEATRICAL PROJECTS BUT QUICKLY GREW TO ENCOMPASS ALL FACETS OF THE ENTERTAINMENT LIGHTING INDUSTRY. SHE LIVES IN MELBOURNE WITH HER PARTNER CAM WHO IS ALSO A LIGHTING DESIGNER AT THEIR COMPANY, LET THERE BE LIGHT. TOGETHER THEY JUGGLE THEIR TOURING CAREERS WITH LOOKING AFTER THEIR 3 YEAR OLD SON ARI.



SOONER ROUTHIER IS A CO-OWNER OF SRAE PRODUCTIONS, A PRODUCTION DESIGN COMPANY THAT SPECIALIZES IN PRODUCTION DESIGN AND IMPLEMENTATION FOR CONCERTS AND SPECIAL EVENTS. SOONER HAS BEEN WORKING IN THE INDUSTRY AS A LIGHTING DESIGNER/DIRECTOR FOR APPROXIMATELY 13 YEARS AND TOURING FOR ABOUT 10, MOSTLY ROCK ACTS VARYING FROM CLUB TO STADIUM LEVEL. SHE CURRENTLY LIVES IN THE SEACOAST AREA OF NEW HAMPSHIRE JUST NORTH OF BOSTON IN THE US WITH HER HUSBAND, CHRIS – A TOURING SET CARPENTER. SOONER WAS IN AUSTRALIA LAST DECEMBER WITH BON JOVI AS LIGHTING DIRECTOR.

the crowd scream as the band goes on stage. Travelling around to places you normally would not go. The people you meet on tour, I have met so many wonderful people from all over the world. It's always fun working with new people, getting to know them then saying goodbye.

Kait: My work has allowed me to travel all around the world seeing places I would never have thought of visiting otherwise. It's also enabled me to return to some of my favorite cities in the world without buying the airfare. I am constantly meeting new creative and talented people that are really entertaining and inspiring. Sometimes the people that you meet when you are touring become like family members after spending years together on the road. It's a really special relationship you

develop when you spend 24 hours a day living and working together. I love that every day is different, whether it's a new venue or a new act, I never have time to get stagnant or bored. I'm very lucky to spend my working life helping to entertain people.

Sooner: The travelling has always been one of my favorite things about my job. I always wanted to travel the world. Now I do! And I get paid to do it. Who wouldn't want that gig? I also love that I get to be creative on a daily basis. I think that if I didn't have the creative outlet I would go insane. Making colours and patterns with lights is a great way to make a living!

KARRIE KEYS

MONITOR ENGINEER

STAGE

MONITO

And the three worst things?

Karrie: Crappy festivals, catering and missing important days in my daughter's lives.

Bianca: A lack of a sleeping pattern, working three twenty hour days all in different cities and missing out on birthdays and holidays.

Kait: Just because you get to travel a lot, doesn't mean that you always get to see the sights. Often I have ended up literally minutes from major landmarks but have only seen the inside of the gig and the car park where the bus is parked. Touring is never as glamorous as it sounds (even getting access to a clean shower can be a luxury when you are in some countries). The hours can be long and tiring (16-18 hour days are not unusual). Long months away from friends and family, especially when tours overlap with personal events like birthdays and weddings, can take its toll. Even if you are in your home town, gigs are typically on the same days that friends/family are socialising so you end up missing out on a lot. On the whole though I get to spend a lot more time with my child than someone who works a traditional corporate office job so I wouldn't trade it. I'd much rather work a few really long, hard days than a normal 40 hour/5 day a week job.

Sooner: The travelling can be rough. Even though it's my favorite thing to do. I miss out on many life events with family and friends. And I'm often away from my husband for months on end.

What do you never leave home without when working?

Karrie: Lots of books.

Bianca: Ear plugs, if I'm not mixing a band then I like to protect my ears.

Kait: I always have a phone, a USB stick and normally a laptop.

Sooner: My light meter is important for work. I hate when artists look terrible on camera, so I try hard to make sure the spots are at the correct colour temp and work with the video director and engineer

to perfect. I learned a lot working with designer Doug "Spike" Brant for Bon Jovi on this subject. Also, I can never, ever be without my running shoes. Working out is important to my mental and physical health on the road.

Who do look up to in the industry and why?

Karrie: People that look outside the box to solve challenges.

Bianca: Wyn Milson, he is one of the best sound guys in Australia, I have learnt so much from Wyn and hope to be as talented one day, he is a legend.

Kait: There are so many people that helped teach and guide me when I started in this business. It's really like an apprenticeship in some ways because most things you need to know in this industry are not things you learn from a book or a course. My brother, Tim Hall, who owns Resolution X, is someone who I still look to for mentoring especially when it comes to the business side of things. When I was starting out there weren't many other females in the industry but the very first tour I did as a systems person was for Beck. His LD was Susanne Sasic and she was also working with bands like Nirvana and Sonic Youth at the time so I think subconsciously that was motivating to see other women reaching the top of their field. It never really occurred to me that it was unusual to be a woman touring in the rock and roll business. I am also motivated a lot by seeing other mothers in the industry who still tour and juggle family life. Talking and working with people like Donna and Vicky from the Waifs, and Claire Bowditch was really inspirational because they encouraged me to think about ways to incorporate touring with family life.

Sooner: There are a lot of designers that I appreciate in the industry. I couldn't name just a few. I draw most of my inspiration from art galleries and architecture.



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

Karrie: Hmmm.

Bianca: There have been a few end of tour parties that rolled into the early hours of the morning or days. Nothing too outrageous, just a few drunken memories.

Kait: What happens on tour stays on tour. It's a cliché but if you don't remember this rule you won't stay long in the business.

Sooner: Dale Earnhardt Jr drove some roadie friends of mine and I around his go-cart track in his SUV. That was incredible.

What invention would make your job easier?

Karrie: Equipment manufactures spending as much time and resources designing monitors as they do designing Sound Systems.

Bianca: The ability to run unlimited wireless, running out of radio spectrum can be a problem. Hopefully one day all our equipment will run wireless.

Kait: Teleporter!

Sooner: Teletransporting Device.

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

Karrie: Take a deep breath and keep smiling.

Bianca: "There will be a show"

Kait: Not really, I try to keep things in perspective. No matter what happens I know the show will go on.

Sooner: No. But I love to do yoga. My favorite thing to do on day offs lately is find a local studio for a class. I meet the locals and get good recommendations on dinner!

Have you ever experienced a shocking case of chauvinism and if so, what was it?

Karrie: Yes, but you take a deep breath and keep smiling. It is not worth the energy to even address it. For the most part if you are good at what you do, people will accept you. Sometimes I am met with shock as the local crews have never seen or met a woman engineer. They get over it shortly.

Bianca: Nothing shocking, you do get a few stage hands making comments in the back of a truck. I choose to just ignore it, it makes me more determined to do the best job possible.

Kait: I turned up at Festival Hall in 1995 to do a Slayer load in and one of the American guys pulled me off the lighting crew telling me that "little girls like you can't do lights - you better go put up the drapes".

Sooner: I'm sure I have. But I quickly ignore and forget about it. If you even think about a gender gap in this industry, it instantly becomes an issue in your life. I feel that thinking positively and



motivating yourself through kindness goes a long way. I try not to let negativity in! It's a cancer on tour and can spread to co-workers when you are working together so closely.

Do you find that being a female on tour means you get mistaken for working in catering or wardrobe?

Karrie: Yes, security usually points me to the dressing rooms when I come to work.
Bianca: Ha ha, yes all the time. I'm always being asked questions about food, water and where the green rooms are, and what the Wi-Fi pass word is, it is never ending.

Kait: No, but sometimes it's hard to convince the security that I'm working and not just a fan. In 1999 I toured through Poland and you could tell the old house guys were highly amused to see a female in charge of an all-male lighting crew from Germany. By the end of the day they were shouting us vodka shots and we were all laughing together.

Sooner: Yes. But I think that those jobs are very respectable positions on a tour. Most of them work MUCH MUCH harder than I do. So I think it's flattering.

What qualities can a female technician bring to a tour that a male cannot?

Karrie: I don't think it is a 'cannot' – but a difference in how each approaches the gig. Women tend to be more patient and almost to their detriment will not take gigs they do not feel they are qualified or capable of doing, while men tend to jump in over their heads and bluff their way through. I think there tends to be a bit less ego with women and often times don't get their feelings hurt as easily.

Bianca: I believe it's all up to the individual person, and what qualities they can bring to a tour. I don't find there to be much difference between males and females.

Kait: I don't think I like to re-enforce these kinds of stereotypes because it perpetuates the myth that people should/shouldn't get jobs BECAUSE of their gender. I think it's really important to judge individuals on their merits and what they can bring to each job. It's really important that the crew and the artist all work well together and it's more about who you are than what gender you are.

Is there anything a male technician can do which you believe a female cannot?

Karrie: Well they have an easier time peeing during a gig - but other than that no! For women it is a matter of learning how to lift and maneuver gig around. There are plenty of men that are on the smaller side that have had to learn the same things.

Bianca: Nothing, I feel more than comfortable doing anything a male is asked to do. With OH&S being so strict and our equipment becoming smaller and lighter it's not about needing to be

strong to lift heavy boxes around. I believe it is all pretty equal.

Kait: Again, I think there is a danger in generalization but it is naïve to pretend women and men are all the same. While men on the whole are generally physically bigger and stronger than women, I've seen plenty of exceptions to this rule - both with strong women and weak men. There is no doubt that the work can be really physical at times but there are always smarter more efficient ways of getting things done and times where being small can be just as advantageous as being tall. I don't think anyone should see this as a barrier to getting into the industry if this is his or her passion.

Do you have children or plan to have some in the future and if so, how will you cope?

Karrie: Yes, my girls are in college now. We survived. I took less work to be home, stuck with Pearl Jam as they provided an easier tour schedule. They had a supportive dad and we juggled everything else – when I was home (which was more often than not) I was home 24/7. In some respects it was easier than working 9-5 and having the kids in daycare.

Bianca: No, but I would love to have a family one day, however I have a few more years before I have to think about that. There is still so much I want to do in the industry before I start a family.

Kait: Yes, and it's not easy but I have great support from family. You have to make different choices and there are always sacrifices but some things are easier these days with things like Skype. It's funny but my partner and I always joke that we used to go on tour and then come home and spend a week recovering from how hard it was. Now with a young child in the house we look at touring as the easy part.

Sooner: This is the current issue running through my brain 24/7. I will definitely have children very soon. I have no idea how to make it work. But I'll figure it out!

How do you earn the respect of your road colleagues?

Karrie: By being a team player and doing your job to the best of your ability.

Bianca: Teamwork is important, working hard and trying my best at every gig. I don't worry about what people think of me, I just do my job the best I can do it.



What's your most memorable moment on a tour?

Karrie: There are so many. Probably trying to pull cables underneath the stage while the Rolling Stones were playing. Playing a show the day we found out that Kurt Cobain had killed himself – we were all so lost and in shock. For those two hours that Pearl Jam played – it felt like we would all be alright.

Bianca: During the One Direction tour Harry Styles wished me happy birthday on stage at a show, after a very long day it made me smile. I had every 13 year old girl wishing they were me for about 10 seconds.

Kait: Live Earth in 2007 was amazing because it was a worldwide event and I think it felt really unifying being a small part of something that big. It was also a chance to catch up with so many of the friends I've made over the years who were all there working for different acts or performing. The free concert in the Sydney Domain on the eve of the 2000 Olympics was also pretty special. When you are working in the middle of an endless sea of 100,000 people it's a pretty humbling moment. One of the tours I did with Killing Heidi was in East Timor for the Australian Army in 2001. It was pretty life changing spending time travelling through the country under armed guard. I would never have had a chance to see first-hand what our peace-keeping troops go through to protect other people's freedoms and that was a really touching experience.

Sooner: I was working for Rage Against The Machine during the Democratic and Republican National Conventions in 2008. The band wanted to play a secret show in front of the Minnesota State House on a temporary stage. They were stopped by the police before getting on stage to perform. Word had leaked that the show was going to happen and there were about 5,000 fans on the lawn. The band walked around the stage to the pit area at the front and motioned for the crowd to sit. The ENTIRE audience sat on the ground and watched the band perform some of their songs accapella using a bullhorn and their voices. It was incredible to see a band command an audience that way.

Do you have a career goal that you want to reach and if so, what?

Karrie: At this point I am working on a degree in Social Justice and hope to work with non-profits in the future as well as working with young women wanting to enter the field through SoundGirls. Org which I co-founded with Michelle Sabolchick Pettinato.

Bianca: My goal is just to become an amazing system tech. Try my hardest every day and have a lot of fun along the way.

Kait: I believe I measure success differently these days. As long as I go home happy at the end of the gig then I have met my goal.

Sooner: My main goal is to continue my design work. I'd like to explore other genres of music and theatre however. I love rock and roll but my passion has always been modern dance. I love lighting in intimate theatrical settings.

Do you think you get equal pay to men?

Karrie: I don't know how much of an issue that is as I negotiate my salary. As far as other sectors and other industry related gigs. I certainly hope so, I can't even believe we are still fighting for that.

Bianca: Yes, the company I work for pay the same regardless of gender. We have a few females working at JPJ and I have never heard of any of them being paid less.

Kait: I don't feel this has ever been an issue, if you get the gig then they want YOU because of what YOU can offer.

Sooner: Yes.

What words of advice would you give any young ladies wishing to pursue a career such as yours?

Karrie: Don't give up – keep going – find support and mentors. Jump at any chance that is offered to you.

Bianca: Just go for it. Don't listen to any negatives. It's all about your work ethic and not about your gender.

Kait: I think you have to be aware that this is more of a lifestyle than a job. It's not something you do 9-5 and then clock off and live a "normal" life. Your colleagues become your friends and pseudo family on the road so it can be tough if you don't get along with each other but so rewarding when you do. People skills are just as important as being a good technician/designer. I think it's probably naïve to think that you will always get treated equally to guys, there are still some chauvinistic people around. Thankfully this is really rare these days though. So if you love it, do it. And if you don't love it, there are easier ways to make a living!

Sooner: GO FOR IT. Push through the nerves and any doubts you might fear. Make mistakes and learn from them. Don't become complacent. If you see your goals clearly and can picture yourself reaching them, you will succeed. And don't even think about gender being an issue. You are equal and as long as you respect yourself, men will respect you.



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THE MILL REPORT

BRING OUT YOUR DEAD, THEN BUY SOME MORE



Sometimes the studio environment has about as much romantic attachment as a cold sore; so what do you do when your gear is looking old and tired? Chuck it out, sell it on eBay or just put in the back room and forget about it?

I cracked the sh**s with some of my old gear the other day, as one occasionally does in the studio. My romantic attachment to a couple of old spring reverbs had suddenly soured like milk on a total fire ban day, and my favourite digital delay had transformed from an Aston Martin DB5 into a Datsun Stanza. Maybe it was just a trick of the light... or swamp gas.

I'm not sure what caused it. Some of the gear hasn't been pressed into action on a recording or mix session for some months; maybe that was it. Other bits and pieces were just getting in my way, gathering dust, and contributing to nought but the power bill. Then there were the two old busted Studer tape machines – actually, there are *three* that currently don't work, now that I think about it. They're great for hernias or bad backs if anyone's looking to develop one of those – boat anchors the lot of them. One machine has good Sifam VU meters on it. Maybe I'll take them off then hurl the rest of the bits in the metal recycling down at the tip... if they'll let me.

There are several old Digidesign HD cards, two Mac Pros – one of which is actually *rusty* (never seen that before), while the other copped 400V+ one day in a wiring mishap courtesy of my local electrician. It sparked, then flashed... haven't turned it on since.

There are old Farfisa keyboards, boxes of old software, thousands of CDs, piles of dysfunctional

looms, mics that I'd forgotten I owned... even paint tins that are undoubtedly dry and crusty.

All of this stuff takes up precious room in the studio, or the maintenance room (otherwise known as the transfer station between here and the tip). Periodically this leads me to hit the wall whereupon I have to make room... for new stuff basically. But this stuff is hard to chuck out. I have a personal attachment to almost every one of these items (apart from the paint tins), and sometimes the gear has a second history that predates me. This gear is my family. I can't just give it the heave-ho over the railing at the scrap yard, can I? Who does that to family members?

I've never been able to.

THE GREAT CRAP-SPREE

But then there are the days when I get deeply rational and officious, whereupon most of equipment is suddenly for the chop. On these occasions, each and every piece of gear connected to the patchbay or taking up shelf space has to write me a 500-word job description to convince me of its current worth or value. Sometimes several hours go by while I scour the room looking for things to sell or turf.

But then something happens. My Class-A vintage pro audio conscience kicks in and tries to save the gear on my behalf: "Well surely someone would get use out of it... maybe someone is desperate for the parts on that old Studer/AKG/Quad Eight? Or maybe you could fix it? It's a great bit of gear, that."

This chatter stops me in my tracks every time, sows the seeds of doubt and before I realise what's happened I'm off doing something else. The gear survives to see another day and consequently the place just gets more and more crammed with stuff.

"Good stuff," my conscience wants me to add...

So then the gear mostly gets left for another six months until either I have to move it again, the outboard racks start to overflow or it breaks down. Then I quickly rediscover the problem and think, "I must just see if anyone wants that 50kg loom (with bantam connectors on one end and that useless EDAC on the other), or those Tandberg mono-block heads." I have a box of those, believe it or not – brand new. I must literally have half the world's new old stock of them... can't chuck 'em out even though almost no-one has ever heard of a Tandberg tape machine, let alone uses one.

BY ANDY STEWART

TO HURL, OR NOT TO HURL

The reason I'm banging on about this, by the way, is because this all happened to me only a few days ago. However, on this particular occasion I just happened to mention my (potential) hit-list to a friend of mine, who also just happens to have a forum on his website. Next thing I know this friend of mine has gone and posted the hit-list on his site, and now there are people texting me about one particular item on the list, and a string of posts on the forum about how amazing it is! Let's call it a spring reverb for the sake of this discussion... because that's what it is.

"I might jump, I love springs," one poster suggested...

"The most delicious vocal reverb; drive it gently and it's the ultimate chamber," said another.

It was even described as "Motown Gold."

"Motown Gold is it?" I thought to myself, as I continued through the thread. That's funny because another engineering friend of mine who's used it regularly describes it as, "that unusably stupid thing in the corner that goes 'boing!'" (Admittedly, one of the guys I'm quoting from the forum is a well-respected engineer who owns the Quad Eight spring himself, so he's well within his rights to offer any opinion he likes.)

ITEMS (NOT) FOR SALE

Then an incredible situation arose that I never imagined was possible. The words on the thread convinced me so utterly of this unit's worth, I simply had to have it. There was no way I could do another mix until I owned that bit of gear...

especially since it apparently, "sounds like a natural space – not a spring reverb."

But hang on, *it's already in my rack...* and dusty to boot! Wasn't I excited about selling it only half an hour ago? What the hell has happened?

Such was the power of the online post that no matter how many people subsequently waved hundreds of dollars in cash under my nose, I wasn't selling it. Not this week anyway. I must be soft in the head I reckon. I mean, I've heard about grass being greener on the other side before, but on my side...?

There was no denying it: of all the fellow audio nutcases on that forum I was without doubt the sickest.

GATHER YE NEVE PRES WHILE YE MAY

I don't really know if there's a moral to be gleaned from this tale or not. But one thing is definitely true: there's so much good gear out there, old and new, that if you don't watch out, you'll end up spending more time and money acquiring gear than you do using it. Worse still, you may spend half your evenings talking to people on forums about it, even though some of the classic outboard units you've acquired are still on the shelf waiting to be repaired or restored.

Instead, what we should all be doing is acquiring less crap and improving our skills. Or maybe not... maybe I should simply be using my spring reverb *more* than I recently have been? Maybe I should be buying *more* gear – surrounding myself with 50 *more* power-hungry devices that were emulated perfectly by Universal Audio nearly a decade ago.

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In hindsight, I think the moral of the story is only this: I'm a hypocrite... go buy whatever the hell you like and talk about it to whomever you like!

Let's face it; I buy busted old crap all the time because I love it. Some of it sounds incredible, crazy, nutty... and the less frequently used gear is often perfect on those odd occasions. And that's the point here really isn't it; we're all striving to have just the right sound for every occasion, and have fun doing it.

In the end it's a case of each to their own...

Now please excuse me, I must go and investigate whether they used Quad Eight spring reverbs on Motown records...

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

kept getting tangled in the console's knobs, so I abandoned it. With this thing I have the best of both worlds: wireless functionality and a printed memory locator! If you use Pro Tools and constantly scratch your head trying to remember how to perform a menial task, get one. They're well worth it I reckon.

2: X-LOGIC ALPHA VHD PRE



The second thing I've had in the studio (for the second time actually – I had one here a few years ago) is a four-channel SSL rack-mounted preamp: the X-Logic Alpha VHD Pre. It's here to marry up with a dummy-head stereo microphone I regularly use here at The Mill as an ambient mic. Ambient miking techniques can tax the noise floor of any mic and preamp combination, especially if the source sound is itself quiet, let alone when the microphone has a woefully low output.

Every other preamp in the studio hasn't quite been able to muster the gain required for the dummy head without inducing an intolerable amount of noise. The SSL, however, is fantastic at providing it with huge amounts of effectively silent gain (up to 75dB), making it my new favourite preamp. Quiet is good.

Moreover the SSL VHD has all the right functionality for a studio pre: XLR in and outs, illuminated phantom and 20dB pad switches, and individual Hi-Z instrument inputs on the front panel (they're not much use to me on the back). The quality of the circuits and the feel of the controls are superb – as you would expect from an SSL product.

What's also cool about the VHD pre is its so-named Variable Harmonic Drive knob – again, one per channel. This control introduces fully analogue, 2nd and 3rd order harmonics to the signal path, turning your pristine sound into a beautiful mess to any degree you choose. Just dial it in. The VHD circuit not only allows you to wind some amazing distortion into all manner of signals, you can do it with full control of the output into your recorder. Like most SSL gear, the pricetag of the VHD pre is at the high end of the spectrum, but the quality is almost without peer.

EDITOR'S KEYS PRO TOOLS KEYBOARD COVER

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2 TINY TOOLBOX reviews

- EDITOR'S KEYS PRO TOOLS KEYBOARD COVER
- X-LOGIC ALPHA VHD PRE

1: EDITOR'S KEYS PRO TOOLS KEYBOARD COVER



There are a few things that arrived at The Mill recently – some for review, others that I've purchased outright for the studio.

One of these is by no means the most glamorous bit of gear I've bought in recent years, but it's without doubt the lightest and most effective for the price. It's my new Editor's Keys Pro Tools Keyboard Cover (www.editorskeys.com/pro-tools-ultra-thin-short-wireless-cover/).

The product is a half-millimetre thick silicone skin for my wireless Mac keyboard. I bought it recently because I was sick of trying to remember less frequently used Pro Tools commands. It's been fantastic: fits cleanly over the keyboard and doesn't feel clunky like the crappy old plastic ones. Not only has it freed up my thinking while I'm using the program, it's taught me a few moves into the bargain.

I used to use a similar custom keyboard years ago, but the problem with that keyboard was it required USB power. Consequently, the lead

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MELBOURNE'S DING DONG LOUNGE



RAISING THE BAR IN MUSIC CITY



THE AWESOME FOURSOME
SCOTT JAMIESON, DREW MENARD,
WIL BURSTON AND BILL WALSH

Where there's a Wil...
Quiet from the outside but loud and proud inside, Ding Dong has hosted the best of national and international indie, punk

All of the best things in the City of Melbourne are to be found in small laneways. Ding Dong Lounge, longtime champion of great rock, good music and late nights, sits unassumingly above a German restaurant in Market Lane. Now boasting a quality refit, Jason Allen got past the door guy to see what shiny new gear touring rock dogs will enjoy at the venue...

and rock. Owner Bill Walsh, singing drummer of the legendary Cosmic Psychos, has modelled the venue on its sister Ding Dong Lounge in New York and the greatly missed Continental of Prahran.

Being packed cheek by jowl amid the restaurants of Chinatown has its risks, and in June 2011, a fire from the establishment below did the venue some damage. This set Bill on a course to remodel and relaunch. Opening again with rented production, Ding Dong went about raising the bar for Melbourne's live music venues.

Cue the entry of Wil Burston, longtime rock'n'roll touring engineer, seeking to get off the road and put down roots in the city. An old friend of Bill's, he was asked to helm production in the venue and happily accepted. When the equation of renting lights and sound compared to buying pointed to ownership, both Wil and Bill were ready to do something special.

What goes on stage, stays on stage

Wil then turned to integrators Soundcorp to assist him with the new design for the club. Soundcorp's Pro Audio Product Manager, Scott Jamieson, co-ordinated the project, helping Wil in the design process by critically evaluating solutions to the problems Ding Dong had experienced in the past. "Ding Dong was ready

BY JASON ALLEN



for a refit" said Scott. "It does a diverse range of acts and Bill Walsh knows what it's like to be up on the stage. He was always a smart operator back when he was touring with the Cosmic Psychos, and knew what he wanted the system to achieve".

Scott helped to integrate all aspects of the venue's systems, including DSP, back-of-house sound and automated operation. He worked closely with Wil and Group Technologies' Technical Sales specialist Drew Menard to computer model the P.A. design's performance in Nexo's NS-1 3D modelling software. "We all discussed some of the shortfalls in the previous system" explained Drew. "They included coverage, horsepower and sound on stage. That's one of the big issues with smaller venues – what's happening with the P.A. drastically affects what's happening on stage. We wanted to make sure both the F.O.H. and foldback systems worked cohesively."

In Through The Out Door

"From the moment that Soundcorp picked up the project, it was an exceedingly painless process" reported Wil. "They managed to install the P.A. without losing a night of trading, and we were trading five nights a week. They did the entire fit-out in six working days across three weeks. In the first week they did cable pulls. The second week, they started fitting off and terminating, then they dropped the existing P.A. out, flew the new one in and commissioned it in three days."

Up Front

Ding Dong now possesses one of the finest mid-sized club systems in Australia. On each side of the thrusted stage hangs a Nexo GEO S1230 and a GEO S1210, providing 40 degrees vertical dispersion and between 80 and 120 degrees of horizontal dispersion. These are complimented by four Nexo LS600 subwoofers in a centre/ outside configuration. "We have 25 stories of apartments looking over our roof space, so we had to do some beam steering to get the vertical lobe off the subs" elaborated Wil. "We also had to high pass the system at 38Hz because the LS600s were running flat to 28Hz and were knocking things off the tables."

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READY TO ROCK

DING DONG

lounge



IS IT WISE TO LET DJs THIS CLOSE TO AMPS???

Fill to the sides of the stage is provided by stereo pairs of Nexo PS8s. When Ding Dong is running its Weekender and Midnight Run club nights, two Nexo PS10R2s function as dancefloor in-fill. When bands grace the stage, they become sidefill. All Nexo loudspeakers are driven by Nexo NX power amps. Amazingly, the whole F.O.H. system required almost no EQ. "We had to do very little tuning" observed Wil. "It was all time alignment. We only pulled two frequencies out of the entire system. One was a 1/30th of an octave slice at 53Hz to get rid of the resonance from the slab. The other was a small dip at 5kHz which I've since put back in."

Out The Back

Onstage, seven Quest 12MP wedges and a Quest HP112S sub to augment the drumfill take care of monitoring, running off three Camco D6 power amps. Processing from Canadian DSP maker Xilica handles some basic EQ and limiting of the foldback system in the form of an XP-8080 fixed architecture processor.

Xilica's new Neutrino open architecture DSP was chosen to run both F.O.H. and B.O.H. speaker systems. Featuring 40 bit floating point processing powered by SHARC DSP, the Neutrino A1616 was

set up to handle all time alignment, system EQ and dynamics, and simple operation by staff to switch between performance modes. Through a combination of an Xilica NeuPanel Touch 7" touch screen behind the bar and several Xilica NeuPanel Mini rotary and push button panels throughout the venue, Ding Dong can be switched seamlessly between DJ, Live and Soundcheck mode, which enables a band to check in the live room while keeping the playback in the front bar separate.

The Red Snapper

Driving the system is Wil's mixing console brand of choice, DiGiCo. An SD9 connected to a 32x8 D-Rack handles both F.O.H. and foldback duties. "Having toured forever and used everything, I use nothing but a DiGiCo if possible" stated Wil. "They're one of the only digital consoles that has full 40 bit floating processing throughout, the latency is always fixed and you don't have to do anything to it to make it sound good to start with. It's musical without changing colour, and it does what you tell it to do."

At just 878 mm wide and 785 mm deep, the compact footprint of the SD9 was important to make the most of limited space. Even for such a



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small console, it still provides 48 inputs, 16+3 busses and a 12x8 matrix, more than enough to handle anything a band can throw at it. Its generous 24 physical faders were also a big selling point for Wil; "As a single operator venue, the two banks of faders are invaluable" he agreed.

Good Fences Make Good Neighbours

Australian live music venues in urban areas are under great pressure from neighbours, councils and the Liquor Licensing Commission over noise levels. "Although Ding Dong has been there forever, the gentrification of the city is impacting on it" noted Scott Jamieson. "We had to make sure the license was in no way jeopardised." To this end, an Apex HERA Sound Level Controller and Apex ARGOS Sound level limiter sit in-line before the main PA processors. The Apex system is used exclusively to control sound levels when Ding Dong hosts DJs in club mode. The HERA constantly monitors sound levels through an analysis microphone, adjusting the ARGOS as needed and keeping a detailed log for reference.

"This was the perfect way to keep control and know with absolute confidence that the DJ couldn't push it too hard" continued Scott. "The ARGOS uses servo-loop circuitry similar to a VCA to preserve dynamic range, so you get a better result than just slamming it against a brick-wall compressor/limiter. It also allows you to vary volume limits at different times of the day. There have been no issues with the noise police or neighbours. If the neighbours ever DO claim it was louder one night than the last, you can print out a log of the readings from the evening." It's given Wil Burstson peace of mind; "It ensures that the room stays at 101-95dB, depending on the time of evening, until 7 AM, saving both our licence and staff's hearing! From midnight, we are a club, and without this system I doubt we would still be trading!"

Gobsmacked

While Ding Dong's excellent in-house production team handles most gigs, a steady roster of touring engineers have heaped praise on the new system. "The younger touring engineers coming through from Sydney and Brisbane are just gobsmacked" related Wil with pride. "They're all totally envious and point out that they have nothing like this in their cities." Scott Jamieson has been glad of the feedback. "It's one of the cleanest, best quality installs I've seen" he concurred. "The job the install team did was phenomenal, as well as on time and on budget."

"Working with Wil and Bill was very easy because they had such a clear vision of what they wanted to achieve" Scott continued. "Wil's knowledge of audio and familiarity with Nexo made it easy to put together a system that is just phenomenal. And while everyone else wants to do it cheap, Bill realises you have to do it right." Wil was happy to return the compliments; "It was one of the most painless, transparent P.A. installs I could imagine. Soundcorp's support has been fantastic."

Let's clean up this town

Scott Jamieson sees the changes at Ding Dong as symptomatic of new emphasis on a quality experience in live music venues in Melbourne. "The industry's had a change" Scott pointed out. "If you look at Richmond's Corner Hotel, it was historically a grungy rock venue and has now been renovated. It's now running a pair of DiGiCo SD10s! The market is changing and venues like Ding Dong are leading the next wave. People want to walk into a place and not stick to the floor and hear sound that isn't an offence to your ears."

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Safety instrumentation (e.g. high reliability limit switches, position encoders and load cells) and motor control technology (e.g. inverters, switchgear and brakes) have seen a steady reduction in cost at the same time as precision and reliability have been consistently improving.

Combine this with staggering advances in computer and communications (networking) technology and we now have the ability to install and operate highly sophisticated stage machinery with a degree of precision, safety and reliability that we could only dream of a generation ago. At the same time as the technology has been developing, we have seen a maturing of the relevant Standards and Codes of Practice (albeit lagging somewhat behind the technology) and an increasing awareness of Workplace Safety and Risk Management has seen a Legislative Environment that is generally keeping up with the technology and remaining relevant.

No matter how advanced the technology becomes, however, there is probably going to be a place for a well designed, maintained and operated, good old-fashioned counterweight system in the world of theatre, at least for the foreseeable future.

This type of installation was phased out, by legislation, in The Netherlands, and if the stories we hear from our overseas colleagues are true, there is a general decline in the level of "First Principles" skills in that part of the world because flymen and riggers are no longer "cutting their teeth" on these systems.

While it is in our interests to promote the use of high technology in theatres and performance spaces, we are also supporters of the more basic (cheaper) forms of theatrical technology, provided they are installed, maintained and used in a safe manner.

So when a colleague who was recently at a suburban "Civic" style theatre venue on business unrelated to Stage Machinery saw this little "accident waiting to happen" and came back with photographs, we had quite a debate as to our legal and ethical obligations.



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.

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BY ANDREW MATHIESON



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DEMOCRATISATION OF BROADCAST

When Hamer Hall, Melbourne's premiere concert hall and home to the Melbourne Symphony Orchestra, shut its doors on 5 July 2010, a redevelopment began that would see not only its infrastructure refreshed, but also its operational remit reconsidered. Jason Allen went backstage to see the tech that's almost invisible to the audience, but could completely change the way the Hall serves its public...



HAMER HALL

Over two years of major architectural and infrastructure upgrade works, new capabilities were added to Hamer Hall in order to equip it to service the nation's culture in ways that were not possible when the Hall was first opened in 1982. In its functional brief for the redevelopment in 2009, the administrative body that governs Hamer Hall, the Victorian Arts Centre Trust (VACT), mandated that the new Hall must be capable of recording and broadcasting its own programmes. This signalled a major shift in how the venue perceived its own role in culture creation and dissemination.

Previously, Hamer Hall had relied on external bodies such as the ABC for professional quality broadcast and recording services. Until recently, it was technologically, economically and logistically impossible to deliver a high-quality product in-house. So what had changed so radically? There is a revolution going on in what used to be called broadcast. Until recently, only large businesses and institutions could afford the money and investment of time needed to create engaging, rich video. Now anyone with the will can do it. The market is beginning to refer to the phenomenon as Procasting; the availability of professional equipment and results to a non-professional user.

The Bigger Picture

Engineering consultants Hanson Associates were already intimately familiar with Hamer Hall and the redevelopment. Contracted to Stage 1 of the upgrade, Hanson Associates' Mark Hanson and Andrew Harpur were designing new technical services such as integrated production audio, video and stage management infrastructure, front of



JASON ALLEN



PROMPT
SIDE CAMERA,
CIRCLE



CAMERAS MOUNTED
ON THE CIRCLE

house paging and digital signage, as well as providing advice on acoustics for the audio control room. While the goal to incorporate in-house broadcast facilities was written into the scope of the project, it was not fully funded until early 2012. Hanson Associates was then asked to expand its work to develop the project brief and deliver a conceptual, physical and operational framework that determined the concert hall's way forward.

Sitting down with David Harvey, Senior Project Manager of Master Planning and Development at the VACT, Hanson Associates helped to distil the project's goals. Hamer Hall needed to improve its audience profile by attracting a younger audience. They saw social media as a key tool to achieve this, and wanted to create their own content for communicating on that platform. In addition, the VACT had identified that secondary broadcast channels, mainly internet distribution, provided an opportunity for market growth. It was now Hanson Associate's task to contemplate the state and direction of this market, how to service it, and what an institution needed to do in order to enter it.

In Focus

Identifying trends and then taking advantage of emerging business opportunities requires enough experience in the market to perceive change when it is still nascent. Graham Brewer, a broadcast specialist with a recent history of system design that includes state and national parliaments, and an impressive track record as Head of Broadcast Solutions for BBC in London, was Hanson Associates key technical adviser on the project. Graham shares Hanson Associates philosophy that their consultancy provides much more than simple technical direction; its greatest service to its customers is in understanding their business and helping it to grow.

"We add value by working with you through stages of business development and showing you where the pitfalls are" said Graham. With Hamer Hall and the VACT having no previous experience in broadcast production, Graham helped them clarify their objectives. "You have to know what end result you need" he elaborated. "A lot of the cost is not in the setup, it's in investing in making your content desirable." Hanson Associates wanted to create a facility that would be not only technically excellent, but would also be used regularly by staff, producing engaging content that would be valuable to the VACT and its customers.

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The Virtual Subscription

A major conceptual touchstone for the facility is The Berlin Symphony Orchestra subscription programme. Alongside traditional subscription models with season tickets to attend concerts in person, Berlin offers a discounted internet subscription in which their concerts are webcast in HD. A digital subscriber can then watch the concert at their convenience, in their own home. Seeing that both audiences and presenters will soon come to expect this kind of technical capability to be standard in a world-class cultural centre, the challenge was to then determine what technologies were available, practical and suited for use in Hamer Hall.

Hanson Associates presented the VACT with a full implementation strategy, performance specification and a request for a proposal document to take to market. A key strategy of the request for proposal document was to define the goals of the facility without specifying exact solutions by performance specification, brand or model. Hanson Associates believes that the in-depth product knowledge bought to bear by a specialised integrator leads to better outcomes for the client. "The integrators understand how their products will interact better than anyone else does" agreed consultant Andrew Harpur. "They therefore best understand how to extract the maximum performance from a given budget."

Robot Symphony

Based on their excellent offering of local support and a solid technical solution, specialist broadcast integrator Techte, led by Head of Sales Mal Chandler, won the contract to provide and install all equipment for the project. The layout, lighting and acoustics of the control room were developed by Hanson Associates in line with their Total Room Environmental Design™ philosophy. Andrew Harpur acted as project manager, taking weekly meetings with contractors and client, ensuring site issues were resolved and the project was delivered to programme.

Techtel's technical solution centred around a Telemetrics robotic camera system known as The Symphony System. Designed particularly for capturing orchestral concerts with only one or two operators, four cameras have been installed in Hamer Hall's auditorium that are remotely controlled from the broadcast control room. Further expansion points have been included that will enable the system to grow to eight cameras over time. With a short setup time and flexible control, a single operator can plot and automate a show during rehearsal and run the live capture single-handedly.



Mal Chandler



Andrew Harpur



Mark Hanson



Graham Brewer

Encased in Carbonite

The heart of the vision mixing system is a Ross Video Carbonite mixer. Chosen for its low latency, it can not only handle mixing duties for recording, but also send a live produced feed to public displays and latecomer monitors in the venue. The Carbonite is emblematic of the new generation of technology that is making Procasting possible. It is built to a broadcast specification and designed with broadcast architecture, but is much easier to use. In addition to the mixer, Hamer Hall also purchased Ross Video's Expression character generator and Inception social media management tools. Integrating perfectly with the Carbonite, this was a clear practical demonstration of an integrator's expertise delivering maximum client R.O.I.

But even as accessible as the technology is, both Hanson and Techtel know that staff training was always going to be key to a successful project outcome. Trainers from Ross Video were flown to Melbourne to bring the Hall staff up to speed. A Telemetrics expert from New York was brought in to both commission the system and deliver a training programme. In addition, Techtel itself provided an additional eight full days of training through its local resource.

FILMING
THE MSO



The Stage is now Live

With the capability to produce full HD vision integrated with character generation and live streams from Twitter, Hamer Hall can now provide a full Procast experience to both web and its own environment. The VACT has a vision to become a Digital Precinct, in which visitors connect directly to the centre through their own smart devices to become part of a rich multimedia experience. Programmes, facility information, event times, and streaming content are all planned to add to the visitor experience.

For the presenters, Hamer Hall can now provide basic recording, editing, graphics and storage for any event in the Hall, in addition to basic webcasting and broadcast. Future stages are anticipated to deliver more cameras and higher storage capacity to further improve production value, regular, full-blown webcasting capabilities, as per the Berlin model, as well as an extensive Video On Demand service. Hanson Associates have put Hamer Hall on a track to become a leader in Procasting, fully capitalising on its position as a cultural and technological leader in the arts.

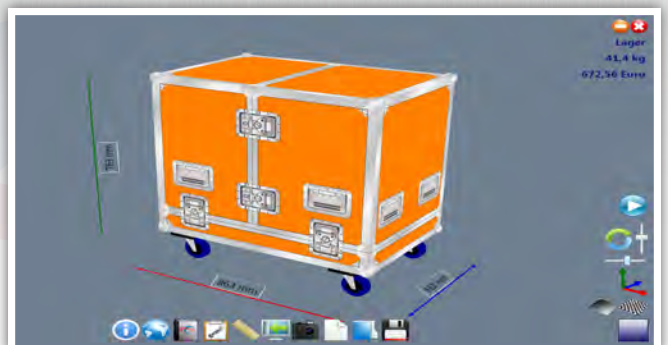
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LISTEN HERE

Setting Vocal Levels – A Different Perspective

Sometimes vocals just *refuse* to settle into their rightful position in a mix. When this happens, don't print the vocal on a separate channel and fob the problem off onto the mastering engineer. Investigate what the problem is and sort it out during the mix. Chances are the issues causing your vocal dilemma have less to do with level and more to do with your approach to the song.

I'VE WRITTEN ABOUT SETTING VOCAL LEVELS IN CX MAGAZINE BEFORE (ISSUE 75 I THINK), AND OUTSIDE THE CONFINES OF THESE PAGES IT'S BEEN THE TOPIC OF DISCUSSION IN MY WORLD FOR ABOUT THE LAST THREE DECADES. TO SAY THE ISSUE IS A PERENNIAL ONE IS QUITE THE UNDERSTATEMENT, SO THIS ISSUE I THOUGHT I'D ADDRESS IT AGAIN, ONLY THIS TIME FROM A DIFFERENT ANGLE.

SET & REGRET

The main problem with setting the 'right' vocal level is that there are no hard and fast rules to help you determine what that is – an unhelpful statement I know, but true. And, of course, there are countless types of vocal performances – main vocals, backing vocals, intimate vocals, yelled vocals, oohs, aaahhs, treatment harmonies and distant calls, all of which require a different approach to make them fit.

So what the hell do you do? How do you place the human voice in just the right musical context? Let's investigate.

MAIN VOCALS

I'll be concentrating primarily on main vocals in this article for the simple reason that more people lose sleep over these vocal levels than just about any other element of a production.

Being the star of the show, and the cornerstone of any good mix, main vocals come with their own fair share of 'issues', sometimes even *before* they're mixed. Consequently, they're often complex to get just right, even if Neumanns and Neves were plentiful during the recording

session and you're given *carte blanche* during mixdown.

With main vocals in particular – and it's the technique I discussed back in Issue 75 – one trick to getting the level right is to dump the fader and re-establish it from scratch several times with your eyes firmly shut, each time taking note of the new position. When you find yourself hitting the same mark over and over, or at least getting within a dB or so each time, you know the vocal level is pretty settled.

Problem is, this technique doesn't always work. Sometimes your new levels are all over the place: -5dBu one minute, +2 the next. At other times they're consistent, but still things don't sound right. There are lots of potential reasons for this, the main ones usually being: poor vocal EQ choices, the wrong vocal compression, fundamental issues with other aspects of the mix (are the drums too loud, is the bass too quiet etc), or the most common of them all – a misunderstanding of where and how the vocal should reside in the mix in the first place.

RECALIBRATE YOUR THINKING

Cue our 'alternative' technique, which isn't so much a technique as a recalibration. The trick lies in understanding the *scale* of the music you're working with – how big or small, loud or soft it is. By interrogating your current approach – the vocal tone, compression, effects etc – you may discover that the path you've taken it down isn't quite right for the *scale* of its surroundings. In some cases you may not have even *considered* scale during the mix.

Try asking yourself: is the song trying to sound enormous or was it recorded whisper quietly? Has it been delivered with extreme force during the tracking or were the takes dainty and delicate?

SMALLER VOCAL, BIGGER BAND

When a main vocal isn't settling into a mix properly it's often fighting against the illusion of scale, be it big or small.

Sometimes the main vocal of a big rock production, for instance, can get too loud in the mix simply because every time you turn it down the words get lost and the voice sounds dull. There's a lot typically going on in an epic rock track, after all – guitars, drums and bass all going for it. The solution here is to understand the physical scale of the singer relative to his or her surroundings.

If the song is trying to sound *huge*, a powerfully sung vocal stuck too far 'out-front' and dry will only tend to fight this perception (as you've already discovered) – the louder the vocal, the smaller everything around it seems. The vocal should sound clear but be modestly proportioned.

BY ANDY STEWART

How? Well, the trick in this situation is not so much to turn the vocal down as make the voice thinner. The reason being that big low-end frequencies tend to create the sense that the singer is up close, and at lower levels, dull. By reducing the low-end you help push the singer back into the mix, while simultaneously improving their clarity.

LET THE HIGHS PASS

Setup a high-pass filter on the vocal and pull out some bottom-end – the amount will depend on the singer, but sometimes there will be more extraneous low-end than you expected. Now the singer seems smaller, their surrounding bigger, and yet everything, including the vocal, is clearer and more powerful. And the reason for this is simple: in nature, a far away voice carries with it far less bottom and top-end than one six inches in front of you.

BIG VOCAL, LITTLE BAND

The reverse can also be true... an intimately recorded folk song, for instance, can often require a more up-front, fuller vocal tone. The idea here, in simple terms, being that the vocal can appear big because the scale of its surroundings is intended to sound small, and there's less cacophony in the sonic spectrum. If the main vocal is too low and thin in this context it may start sounding like Rob Brydon's small man trapped in a box – probably not your intention. But hey... if that's what you want it to sound like. Generally speaking though, a fuller tone here can make all the difference, improving the sense of intimacy and focus.

BACKING VOCALS

Backing vocals take so many forms it's almost impossible to offer an opinion here about how they should sit in a mix without sounding like a fool. The

upside is that they're generally far less critical to the mix than the main vocal, though not always.

Where extreme care must be taken when filtering the bandwidth of a main vocal's tone, there's relatively more freedom to be enjoyed when it comes to backing vocals. Depending on their role, backing vocals can be literally comprised of any type of voice, be placed anywhere, have any type of EQ and exist at virtually any level. Given this, the gloves are off when it comes to exploring their possibilities. If you get in the habit of experimenting with them regularly, they will eventually make you far more capable of mixing 'magnetically attractive' main vocals.

GET RADICAL

So play with the tonal characteristics of BVs next time you're doing a mix in ways you normally wouldn't. Start by filtering out tops and bottoms – particularly where a 'far off' voice is the illusion you're trying to create. Thinner will immediately sound further away. If you're mixing sweet 'oohs' and 'ahhs', try filtering out everything below 300Hz or so and boost the high-end... make those babies fizz and hear them cut sweetly through the mix without ever sounding loud or boomy.

Of course, as many of you reading this are probably already aware, this technique of making things sound recessed in the mix whilst remaining crystal clear can be applied to any sound, not just voices. But it's the human voice that most listeners are attracted to. Get that right and your mix is halfway there.

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

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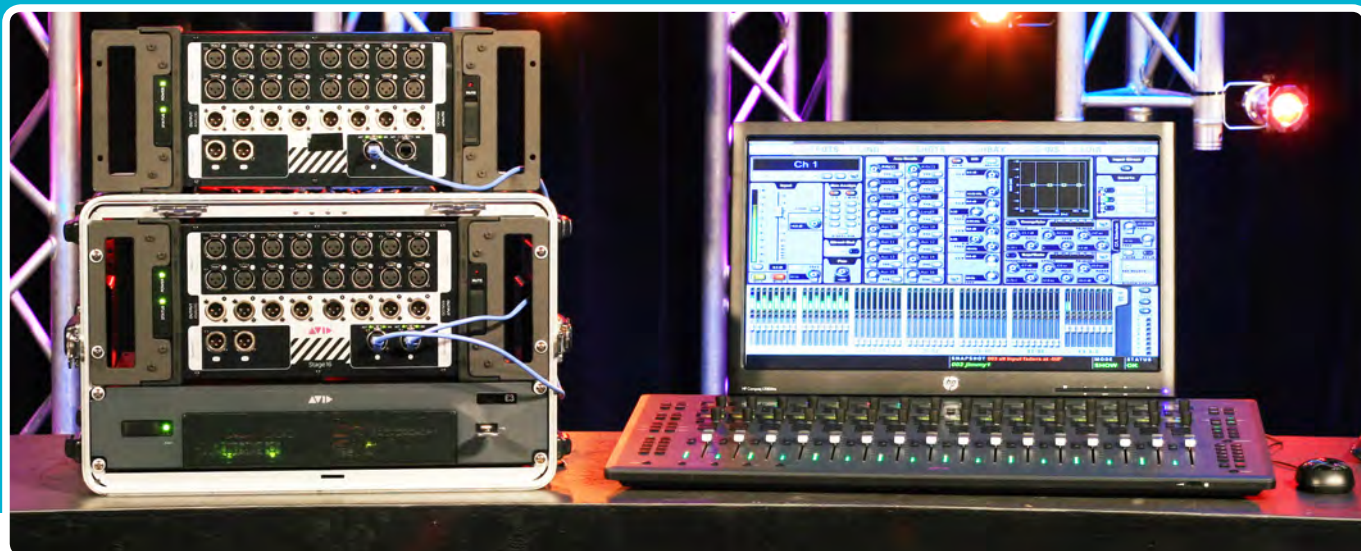




AVID S3L

EUPHONIX MEETS DIGIDESIGN?

BY JIMMY DEN-ouden



IT'S BEEN SOME TIME SINCE AVID ACQUIRED BOTH DIGIDESIGN AND EUPHONIX. THE S3L COMPACT LIVE MIXING SYSTEM COULD IN SOME WAYS BE REGARDED AS THE LEGACY OF BOTH THESE COMPANIES COMBINED. THIS MIGHT SOUND A BIT FRANKENSTEIN, BUT FEELS FAR MORE LIKE A COHESIVE SYSTEM.

Hardware

The S3L is a multi-part system, notionally with the same box architecture as Profile. At the foundation of it all is the E3 mix engine - a simple 2RU box. The E3 is a drab looking device resembling a rack-mount computer, but with XLR connectors on the back. Four analogue inputs and outputs are supplemented with two AES pairs in and out. There are three AVB network ports (on EtherCon), plus a screen output as well as two rear USB ports and one on the front. The screen is important since you can't effectively drive the system without it - our test kit came with a touch-screen which also connects to one of the USB ports for interactivity.

Pleasingly there's absolutely nothing you can kick on the front panel of the E3 to stop it from working - sliding the power switch just brings up an on-screen confirmation to shut it down. The AVB network ports connect to the Stage 16 IO racks and to the S3 surface, as well as ProTools if you're using it. A 9 pin D-sub connector is provided for dual GPIO connectivity, as well as an ECx Ethernet port for remote control. Dual BNC connectors allow external WordClock connection if that's something you care about. Normally I'd include more specs in a review, but it's all on the website and there's plenty more to talk about here.

The E3 engine runs Venue 4 software, which uses the ProTools HDX card rather than the TDM card as found in SC48 & Profile. The HDX card is locked to the E3, so don't get any ideas about putting it into your DAW. With a new engine comes the need for new AAX DSP plug-in versions. While Waves won't be releasing AAX versions, other manufacturers are currently writing them. Whether or not getting an AAX version of a plug-in (for which you already hold a license) will carry a cost is unclear at this stage. Ultimately it will be up to the plug-in manufacturer whether or not they charge for such, but it's hard to imagine they'd charge for what is





essentially a platform migration and expect users to remain loyal (think about how well that worked out for MYOB, who charged users full whack to change from PC to Mac or vice-versa).

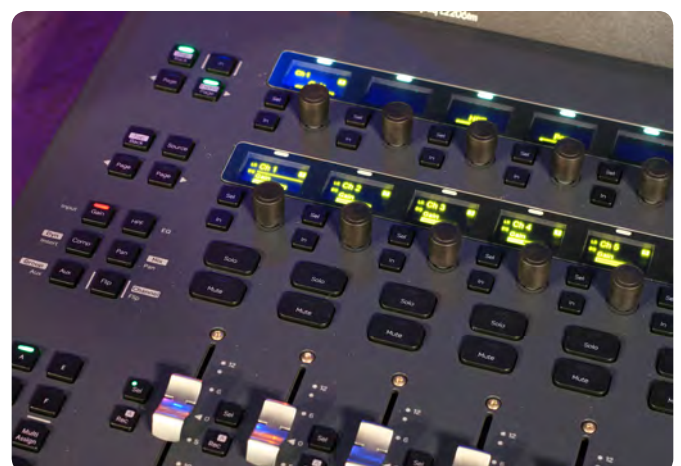
The Stage 16 rack is a compact little 4RU box boasting 16 analogue inputs, eight analogue outputs and two AES paired digital outputs. It has dual AVB connectors, one of which links to the mix rack. The second can act as a redundant link, or loop out to another Stage 16 rack. The network doesn't seem to care what you plug into which socket – I tried several configurations and they all worked. The front panel LEDs on each Stage 16 can be flashed via the "identify" button in the Venue software. The rack ears double as handles, and there are nifty rubber bumpers all around the Stage 16. A recessed IEC connector means you can lie the Stage 16 flat on a stage like an analogue multi-core plate. Julius liked that a lot. The S3 surface looks and feels like an oversized MC Mix DAW controller. It has 16 faders, each of which has an encoder, Select / In keys and OLED display above. There are big solo and mute keys for each channel, and smaller Select and Record arm buttons adjacent to the fader. Also adjacent to each fader is a meter ramp. You can dim the meters (and everything else) from the system settings page of the Venue software. A second row of encoders, Select / In keys and OLED sits above this.

The back panel has more analogue I/O (four channels of each), plus headphones and footswitch sockets and two deskclamp connectors (only LED lamps can be used). You really need these since the surface is dark, the buttons are

dark, and the writing isn't backlit. Lamps are not included. Headphone level is controlled by a thumbwheel at the front of the surface, which seems a bit cheap when every other thing on there is a digital encoder. The power supply for the console has a lead which is just short enough to prevent it from sitting on the ground, and its connector doesn't lock into the surface. You can probably guess what I'm getting at here, but it's not actually such a big deal.

Software

Cleverly, Avid has built the S3L to be very good at recovering when bits of the system are disconnected or turned off – it's totally self healing. I pulled power on the surface to see what would happen. Re-booting and re-connecting to the mix rack took just under 30 seconds, and importantly there was no interruption to audio. Using the surface IO would obviously change this.





Disconnecting the Stage 16 racks the system was able to re-discover them and pass audio in about 2 seconds. That's insanely fast. Using a redundant connection there was no loss of audio when the primary was pulled. All these tests simulate potential real-world problems, so how the system reacts is important. It passed with flying colours. Also nice was that upon first connecting the Stage 16 racks, the E16 automatically uploaded the correct firmware into them, so you don't have to worry about version conflicts.

Broadly speaking the S3 surface works in three separate parts – the faders and encoders above, then the left group of 8 upper encoders, and thirdly the right group of upper encoders. The faders work much as you'd expect, with the function of the encoders above changing based on what you select from the function keys at the left end of the surface. Choosing an auxiliary spills the list of auxiliaries out across the OLED displays, and you then press the encoder for the mix you want to send to. These functions can be flipped to the fader, along with others.

The faders are arranged in layers A through F, plus a user layer on which I found DCAs. Future upgrades promise to allow customization of the user layer, but this is not yet implemented. As with all Venue consoles, there are a number of ways to do most things. You could actually ditch the surface and drive the whole system with the screen and mouse, but it would be less fun. The faders feel good and once you get a grip on where to find everything it's relatively fast to get around. I like that you can be doing one thing on the screen and a different thing on the surface – ie: adjusting an effect parameter and changing a channel send level simultaneously.

The S3L system connects straight to ProTools for instant recording of 64 channels. That's so cool little more needs to be said about it, except you can route the 'Tools channels back into the system and do a Virtual Soundcheck. Individual or all inputs can be flipped over to ProTools playback. It would be possible to use ProTools for live backing tracks too. The real idea of the system though is that you can record a live set, then take your session file back to the studio and use the S3



surface to control your DAW, and indeed Avid plans to add EuCon compatibility which will allow it to work as such. The ProTools connection is a single Ethernet cable, and as with the stage boxes you can plug it in anywhere on the AVB network. I love that.

Another thing I love is the Delay Compensation feature, which allows the system to keep everything in phase with everything else regardless of bussing and plug-ins. Many people don't realize how radical and bad a change can result from not **A)** having this feature and **B)** knowing when you need to use it. Even on a simple 2 track playback routed directly to stereo bus and also to stereo via group, the difference in stereo image and HF response is noticeable.

Opinions

The E3 mix rack supports playback of audio files from a USB key. The sales blurb explains that you can play MP3 files which puzzles me a bit since it's an awful format to implement on a professional device. I see no need for professional devices to support dodgy consumer formats – in my mind it just encourages shoddy work. I experimented a bit and was delighted to find I could play back WAV files too – you just need a bigger USB key to store them. Recording 2 track to the USB key I found myself with a 48kHz 24 bit stereo file, which also pleased me immensely. You can't record and play back at the same time, but I think that's standard for every internal console media player ever made.

Disappointingly it's still possible to flip parameters like gain, HPF and pan to the faders – this has always been the stupidest feature of Venue. Finding myself lost in a world of "gain on faders" is nearly my worst "monitor-guy nightmare". A simple system setting which limited flip functionality to auxiliaries would be a great addition to the Venue platform, since it would also let you have one function on the faders and another on the encoders.

Eight user keys with a shift button for functions 9-16 can be programmed with "events". Rather than single functions, this means a key can perform a number of actions simultaneously or over definable times. You could for instance have a key to fade your BGM, stop the playback, and open your mic channels on stage. This is very cool and well thought out, and a command to flip a specific mix to faders would make it even better.

Snapshots work much the same way as they always have on Venue, and make absolute sense. The ECx port on the back of the mix engine allows remote control over the system via any device which supports a VNC connection. iPad, PC, Mac, tablet, whatever – just add WiFi and a VNC client, and you're good to go. It doesn't cost a mint because it works with whatever hardware you already own.

Final thoughts

I try to avoid pre-judging gear before the review process, but even so I anticipated that the S3L would be a bit of a toy console.

It isn't a toy. It's a Venue with a tiny footprint – that makes it extremely space efficient. Once you find all the buttons it works just like any other Venue desk albeit with some extra features. It sounds good, it works well and despite repeated attempts I couldn't break it.

The biggest battle for S3L will not be to get the gig done, but finding and developing a market for itself. With the increasing number of live shows being recorded for web streaming and other purposes, the integrated ProTools connectivity and future control capability may just see it succeed. The high entry price will ultimately be offset by removing the need for a dedicated recording engineer when you want to record every gig.



BRAND: AVID
 MODEL: S3L
 RRP: STARTS AT \$19,800 INC GST WITH SINGLE STAGE RACK, OR CLOSER TO \$28,600 FOR A 48 CHANNEL SYSTEM.
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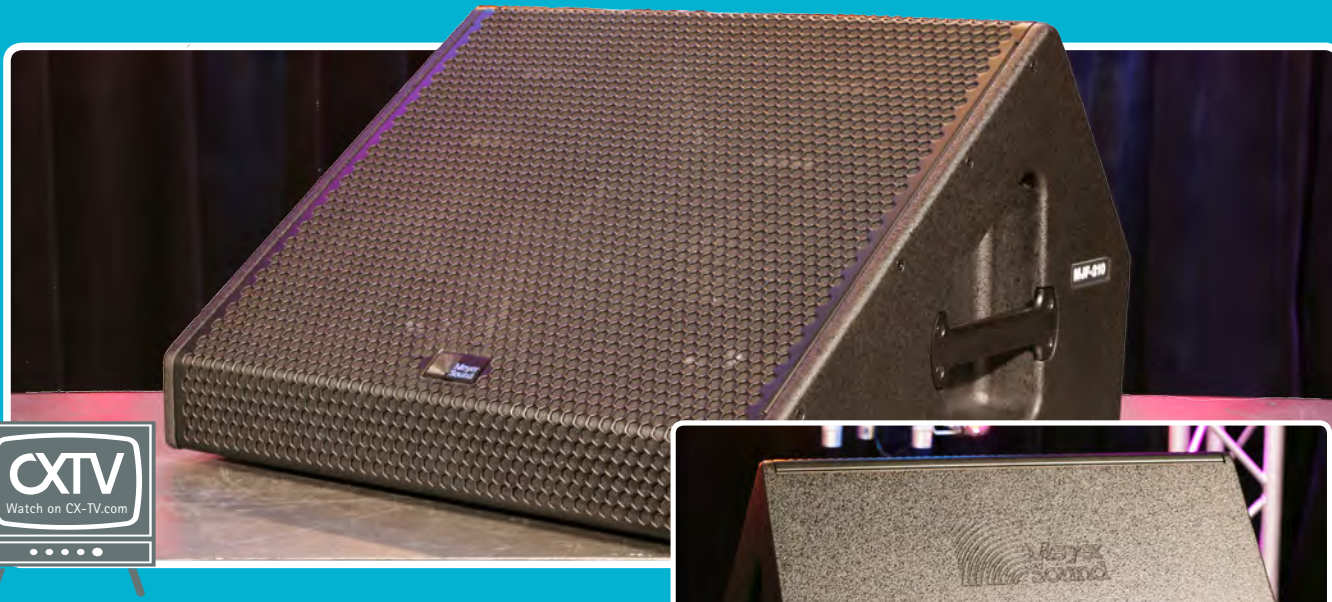
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MEYER SOUND MJF-210

— LOW-PROFILE HIGH-POWER STAGE MONITOR —

BY JIMMY DEN-ODEN



I LOVE IT WHEN STUFF DOES EXACTLY WHAT IT SAYS ON THE BOX. THE MJF-210 IS MARKETED AS A LOW-PROFILE HIGH-POWER STAGE MONITOR, AND THAT'S EXACTLY WHAT IT IS. YOU CAN'T POLE MOUNT IT, YOU CAN'T FLY IT, YOU CAN'T ROTATE THE HORN TO USE IT AS A FOH BOX. BUT THAT'S OKAY, BECAUSE MJF-210 DOESN'T PROFESS TO DO ANY OF THESE THINGS. IT DOES EXACTLY ONE THING; BE A WEDGE. THE THING ABOUT A SPECIALTY PRODUCT IS THAT BECAUSE IT HAS NOTHING IN THE WAY OF FLEXIBILITY, IT REALLY NEEDS TO BE EXCEPTIONAL AT ITS JOB TO JUSTIFY THE EXPENSE.

It looks fairly obvious to me that the MJF-210 borrows some heritage from the MJF-212, its dual 12" peer. The MJF-212 is an utter beast of a thing, but for some applications a tad unwieldy. The MJF-210 uses dual 10" LF drivers, crossed over at 830Hz into a 4" diaphragm HF compression driver. That's pretty well the biggest HF driver you could ever hope to see in a wedge. The HF driver is attached to a 50x70 degree (HxV) constant directivity horn.

An internal 3 channel class D amplifier module powers the whole operation, and an optional RMS module allows remote monitoring of amp parameters. Our test unit had the simple IO module, which contains 3 pin XLR and PowerCon connectors for audio and power input and loop through. Peak current consumption at 230V is just



shy of 2.5A, with long term continuous draw about 1.1A. This means you could quite safely daisy-chain at least 4 units off a 10A supply.

Frequency response is stated at 60Hz-16kHz +/- 4dB. Running some full-range track through the MJF-210 this seems pretty believable. High frequencies are present without being aggressive – just enough to give a level of detail not found on every wedge. It's important to make the point that a box which sounds great for playback doesn't necessarily work well as a wedge. More important is how well it works with a mic (or several) in front of it, and a lot of this comes down to phase coherence as well as frequency response.

I really like dual LF driver wedges in general. The smaller size of the individual drivers gives them

more punch in usable frequency ranges, and they don't get all wallowy and flappy down low. This holds true with the MJF-210 – it's loud as all hell where you need it most. I ran a vocal mic into a small mixer then straight into the wedge with no EQ with very good results. Gain before feedback was excellent, especially in the relatively reflective and downright acoustically hostile environment of our studio.

Physically the box feels good and solid. It weighs 30.4kg which is a bit, but that's because it's made from real wood and metal. The sensibly located dual handles make it quite manageable anyway – it even balances well on them. The metal grille is internally braced in 6 places (2 either side of the horn and 2 between the LF drivers) – it's strong enough to stand on. The box sits on a pair of tough rubber rails to prevent runaway wedge syndrome. Yes, it's actually something you need to consider with this box.

With no input signal connected there's a slight noisefloor, but it's not noticeable until you stick your head close to the wedge. It's pretty hard to build a high-power anything without some kind of noisefloor, and it's not really enough to worry me. Directivity is good across the vocal range, a little low-mid escaping from the rear. All as expected. As with things Meyer, your input source needs to be capable of producing 20dBV to achieve maximum SPL from the box.

Talking SPL, I reckon a single MJF-210 would comfortably take the place of pairs of other wedges, and once you start to take into account polar patterns of most commonly used mics there are certain advantages to using single wedges rather than pairs. The biggest barrier to using single wedges is often artist perception, so chances are if you could persuade them to try it they'd be happy (provided they can let go of the ego).

So does the MJF-210 justify its own existence as a box with a very single-minded sense of purpose? Yes, and admirably. The MJF-210 is a bloody good monitor. Though track playback may sound less than totally exciting, it's very neutral response means the only factor you really need to account for with EQ is the space in which you're using it. I can't find power or SPL specs, but I don't care because I know it does what I need a wedge to do and more.

BRAND: MEYER SOUND
MODEL: MJF-210
LIST PRICE: \$8840 PLUS GST. PRO USER
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DTS NICK NRG 501

NICK JUNIOR

BY JIMMY DEN-ODEN



THE NICK NRG 501 IS A COMPACT MOVING HEAD LED FIXTURE THAT USES 7X RGBW LED MODULES, WHICH ARE INTERNALLY HOMOGENISED WITHIN THE FIXTURE. PAN AND TILT ARE A FAIRLY STANDARD 540 AND 270 DEGREES RESPECTIVELY, BUT BECAUSE THE 501 HAS A SMALL HEAD IT CAN TRAVERSE THESE RANGES VERY QUICKLY – 2 SECONDS FOR PAN AND 1.2 SECONDS FOR TILT. FOUR SELECTABLE SPEEDS ALLOW YOU TO SPECIFY HOW FAST THIS HAPPENS, SO IF YOU PREFER SUBTLETY TO SPEED THAT'S JUST FINE.

NRG 501 has a motorized zoom mechanism, which allows for quite a wide range of beam angles – between 3.5 and 52 degrees. Zoom is fast and feels precise. The whole fixture sort of feels quite precise actually. There's an option to order the 501 with FPR (free pan rotation), just like on the 1201. Notice any similarities yet?



The head and yoke sits atop what seems outwardly a larger base than the fixture needs. I suspect the same base appears on other fixtures in the DTS stable. It would be a fair play really, since it reduces R&D costs and time required to bring a new product to market.

Perhaps the most distinguishing feature of the 501 is its low power consumption – specified at 125W. So that allows you to run around 18 units on one 10A line pretty comfortably. The fixture has PowerCon for both input and loop through. DMX input is via 3 or 5 pin XLR (both options are installed), both with loop through outputs. At 8.9kg it's economical on your rigging budget too.

Fixture setup is done by a four-button menu system with a lovely OLED display. While the menu is fairly intuitive, there are several layers that you can drill down into for quite advanced control. Additional to the on-board DMX connections, there's a wireless DMX receiver card available, and Free Pan Rotation is also optional.

Colour mixing on the fixture is smooth as is the dimming. When you're looking for white light, you can have it in any colour temperature from 2700K to 8000K. On the output stakes, it doesn't keep up with mid and large sized heads, but I don't really think that's what it's trying to do anyway. The NICK NRG 501 sits in the compact head end of the moving head market, and with that in mind it's priced such that using many fixtures is a viable choice. It's easy to rig, power and use, and makes for great eye candy.

BRAND: DTS LIGHTING
 MODEL: NICK NRG 501
 RRP: \$3995.00 INC GST
 PRODUCT INFO: WWW.DTS-LIGHTING.COM
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SONY DWZ SERIES DIGITAL WIRELESS

IS BEAUTY MORE THAN SKIN DEEP?

BY JIMMY DEN-ODEN



SONY ISN'T REALLY THE FIRST NAME TO SPRING TO MIND FOR RADIO MICS, NOR MICS IN GENERAL (WITH PERHAPS THE EXCEPTION OF THE ECM-77, WHICH IS KIND OF OLD NEWS NOW). SO I WAS INTERESTED TO HEAR THEY'D RELEASED A NEW RANGE OF DIGITAL WIRELESS SYSTEMS FOR BOTH PRESENTER AND MUSICIAN USE. THE RANGE INCLUDES A COUPLE OF RECEIVER AND TRANSMITTER OPTIONS. WE REVIEWED THE DWZB70HL KIT, WHICH INCLUDES A BELTPACK TRANSMITTER AND DESKTOP RECEIVER, PLUS HEADSET AND LAVALIER MICS. SONY ALSO LENT US A HANDHELD TRANSMITTER TO MATCH.

DWZ operates at 2.4GHz, and physically the kit is a thing of utter beauty. The receiver has a lovely OLED screen, adjacent to which is a rotary encoder and an escape button. Push the encoder to jump into the menu and select options, press escape when you're done. It couldn't be simpler. The menu on our kit included a couple of really cool options – a 5 band EQ and a feedback reducer with variable effect level.

Around the back of the receiver you'll find BNC sockets for a pair of antennae, XLR output (switchable from mic to line level), DC input, and dual TRS outputs (main and aux/tuner). The unit comes with an external power supply, the connector a typically proprietary Sony one. The belt-pack transmitter has an audio mute function which allows you to mute all outputs, or just the main – so you can connect the aux output to your guitar tuner and tune up without subjecting everyone in the room to the noise.

The handheld transmitter is lightweight and elegant, and it (along with the belt-pack) supports

telemetry to show remaining battery time on the receiver display. Just make sure to tell the receiver what kind of battery you're running so it's accurate. TX channel selection is done via one button – press and hold to enter channel select mode, quick press to change channels, then hold again to save it. The kit supports 6 channels, and the receiver can scan to find the best available channel. Dead simple, dead easy. Want encrypted digital? No problem, flip the switch on the transmitter and turn on the menu option in the receiver.

The belt-pack transmitter has the same stumpy aerial as the handheld – it's nice and solid. You can connect a lapel mic, headset mic, or instrument. There's a switch to choose between mic / inst, and another to provide 3 stages of attenuation. The switches are on the side of the pack, and because they sit just proud of the housing it's easy to change them. A bit too easy – pocketing the pack could see inadvertent changes. The handheld transmitter is attenuated by removing the head and sliding a small PCB mounted switch.

It all seemed great so far, until discovering a high noise floor that makes the XLR unusable at mic level. XLR at line level is fine, so are the unbalanced jack outputs. The handheld transmitter capsule is muddy and lacks presence, and regardless of TX attenuation it breaks up badly when you put a lot of vocal level into it. It wouldn't work for powerful singers. The lapel is somewhat better though definitely geared toward speech frequencies. I tested the feedback reduction function, which turned out to be very good. The DWZ kit looks beautiful and on paper all the features are really well thought out, but the awful handheld and high noise floor let it down badly. Still, with a contactless battery charger option available it's likely to find appeal in boardrooms and similar applications.



BRAND: SONY
 MODEL: DWZB70HL
 RRP: \$999.00 INC GST, ADD \$462
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Hunters & Collectors are in the midst of their first tour since 1998 performing ten 'a day on the green' concerts nationally, followed by two special indoor concerts at Sydney's Enmore Theatre and Melbourne's Palais Theatre.





HUNTERS ^{AND} COLLECTORS

AT BIMBADGET WINERY

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and FOH guy Rob Miles**

has been with the band since the early days, juggling his audio commitments with also being an architect and graphic designer. In fact, Rob is the band's official Art Director.

"The core of us – Mark Seymour, John Archer, Doug Falconer and I – had a band before Hunters and even a band before that band, so we go back to the late seventies," said Rob. "H&C started in 1981 and broke up in 1998 but in 2009 they reformed for Sound Relief and in 2011 we did the V8



Supercars in Sydney plus the 2005 Hall of Fame appearance and the AFL Grand Final in 2013. So between 1998 and 2014 we've only got together four times although I have been continually working for Mark Seymour."

As Art Director for the band, Rob works closely with lighting designer Cam McKaige and video designer Nigel Randall, and it is a team approach for the design of the show. The visuals for the show evolve from video content, that the band own, which has been worked into a series of backdrops.

"The end result is a combination of ideas and content we had in film clips with a bunch of new imagery that I have designed for this tour, which reaches to the merchandising too," he said. "I had this idea of the passage of past and future time

represented by fossils – and that is in no way referring to the band! – and I made a series of images with fossilized items such as speakers and French horns mixed in with ammonites and nautiluses that had similar shapes. That's been blended into the video, lighting and merchandising. It is also a natural fit with the name 'Hunters & Collectors', and the natural history museum-like presentation I explored with the H&C boxed set called 'Horn Of Plenty'."

Rob has a bit of a fetish for photographing manhole covers around the world and boasts an impressively large collection of said images. He decided to rebuild one in Photoshop using the H&C logo and incorporate it into the show.

JPJ Audio supplied the audio at the Bimbadgen Winery gig supply-gear that has been tried and tested on these outdoor gigs - a d&b audiotechnik J-Line PA, which is Rob's preference, and a Venue Profile console, not Rob's preference but he doesn't dislike it. A DiGiCo SD11 is used for monitors looked after by legendary monitor engineer Rod Matheson, (AKA The Black Wiggle).

"The PA is pretty much a standard line array hang with

four hangs, two main and two per side for width plus delays, one or two sets depending on the size of the winery," Rob elaborated. "Delay hangs vary for each gig, as do the number of subs, and either a centre cluster of 12 boxes behind the FOH tower, or one or two pairs of hangs at middle and far distance from stage. Here at Bimbadgen we have a single pair of left and right delay hangs. If the crowd is going to be really spread out then sometimes we have a problem with width and knowing how far to set the delays back is sometimes a challenge. If you want it to be a completely even transition then you need to bring them further forward but then you obviously can't go as deep with it, so there's a little bit of compromise there. Guto Monteiro is the systems engineer on this tour and he is fantastic at setting up the PA, just how I like it."

Having done thousands of shows for H&C as well as Mark Seymour, and evolving from the pub environment, Rob describes the sound for H&C as BIG. "Everything is big, there's nothing small," he commented. "Everything essentially evolved around the bass sound which is totally unique. After coming back to H&C after doing other bands, I realize what a dominating powerful sound it is and everything else is constructed around it. Mark has a big voice too, he has to in order to get over all the other big things! Scale and power are what H&C do."

When discussing digital consoles Rob remarks that he requires real estate, with as much as possible on the top layer and so he avoids the smaller consoles with multiple layers.

"No matter how sophisticated they are or how good they sound, they're not right for me," he said. "I'm a very interventionist mixer, I throw things around all the time and my hands are always on the console. I'm not one of these guys that sets it up and leaves the musicians to do the work. We have a lot of dynamics in this band and I work them hard all the time. Things like having effect return faders on different layers to your main inputs are a complete nonstarter for me. I have to have things grouped so that I've got effect returns next to vocals, for example, where I'm cross-fading things. I still need to do panning by having things on faders so that I can do smooth pans between them – I can't be doing that with a mouse. The same goes for plug-ins. Everything has to be done in real time and that's where digital consoles can be very clumsy. However, on a positive note, the fact that they have snapshots and reliable recall is obviously a fantastic thing."

Having worked with Mark Seymour for 35 years, Rob knows his voice extremely well and as well as using a specific microphone (Neumann KMS 105) and compression with him, he can anticipate his moves and dynamics.

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ROB MILES AND SYSTEM ENGINEER GUTO MONTEIRO

"I can pretty much pick where he is going to go dynamically and he will go really hard sometimes, in fact too hard, and I'll have to compensate," added Rob. "I can basically track him and anticipate him the whole time. He has excellent mic technique though, and knows he can rely on me to keep his voice in your face without it becoming overwhelming. A singer needs to have that confidence and not have to worry about his dynamics, and stay close in the mic, and then we can both do our jobs."

Lighting designer Cam McKaige used a rather eclectic Phaseshift Productions rig that included Martin MAC Vipers, MAC700's, Robe Robin 600 LED Washes, LightSky Extreme Beams, and Atomic Strobes as well as ETC Source 4 750 watt profiles and Mole Fay Duets.

"Obviously I designed the lighting to compliment the video content although there are three songs in the set where we have purposely left the screen blank," commented Cam. "All of the stages are fairly similar on this tour being 18 metre domes, except for the first one which was a 25

metre Hercules super structure, and we wanted the biggest LED screen we could fit into each venue. We thought we'd start with the biggest look possible from a screen point of view and supplement it with as much as we could weight wise. It's a nice size rig for this show and it has been working really well."

The 160 LED Arts 20mm LED panels were sub-hired by Phaseshift from Lighting Lab. Although the lighting rig is quite symmetrical in design, it's not necessarily so in its use with Cam picking up a lot of individual people and highlighting a lot of solos.

"I'm happy for half the stage to go dark and the other half to be lit at any given moment," he said. "It's about highlighting the solos and the talents so it's a bit asymmetrical in that manner."

Cam had a standard front, mid and rear truss with twelve MAC Vipers and twelve Robin 600 spread over the mid and rear trusses. Six MAC700 Washes are situated on the front truss with the Extreme Beams on low hung side trusses, six per side.

"There's no floor package due to too many rostrums and too many bands," added Cam. "The Vipers are my favourite toy at the moment but I also like the Robe 600's as they look good with the individual rings, a little bit different and not just constantly a full block of colour."

For control Cam uses a MA Lighting grandMA1 full size with Catalyst running through it for video control.

Johnny Bamford headed up the Phaseshift crew assisted by Graz McHugh and Luke Thiel.



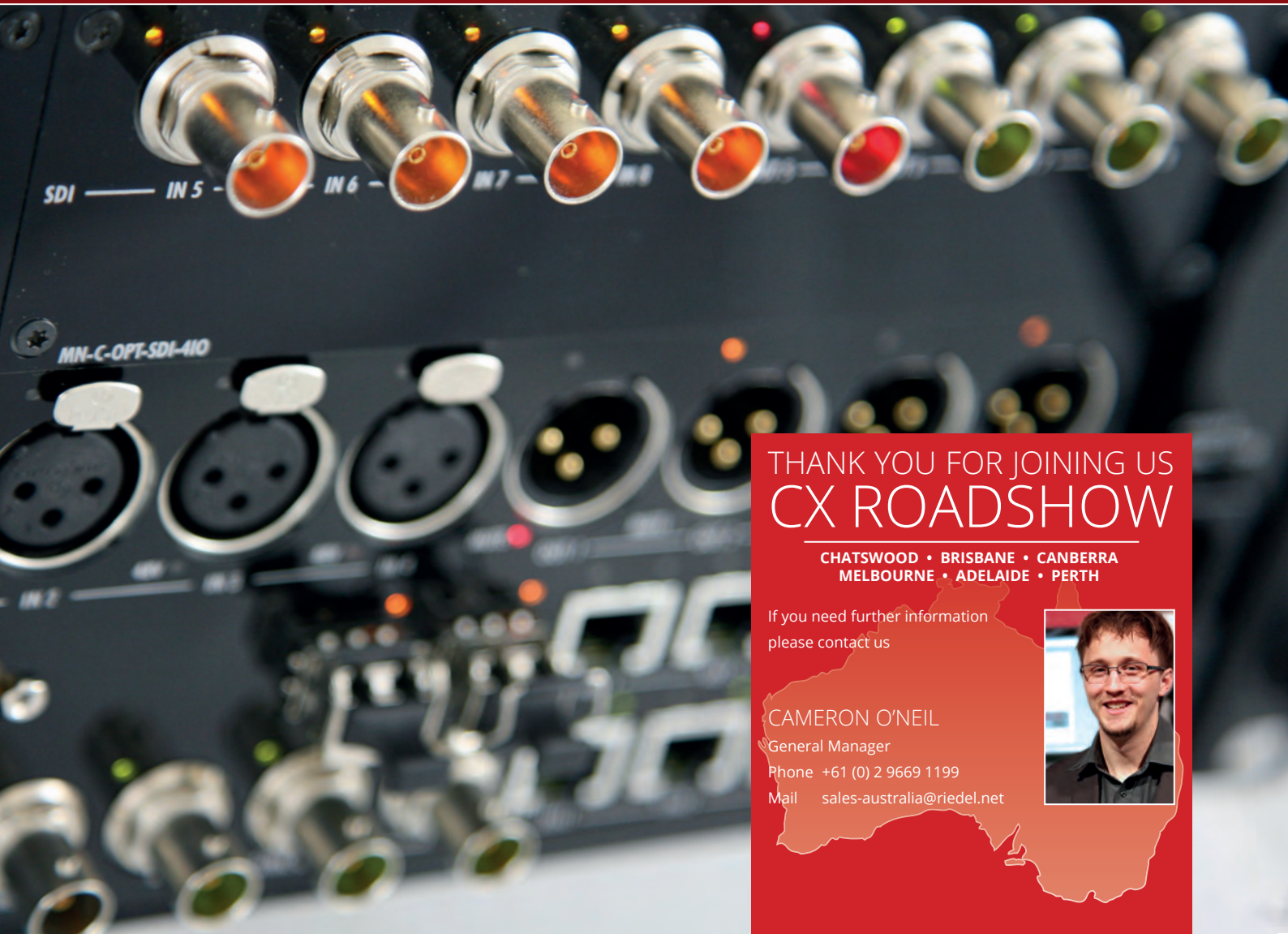
CAM MCKAIGE AND JOHNNY BAMFORD

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PARAMORE



PARAMORE RETURNED TO AUSTRALIA FOR A TOUR IN EARLY 2014, WITH THE HAYLEY WILLIAMS-LED 3-PIECE PERFORMING SHOWS IN BRISBANE, SYDNEY, ADELAIDE, MELBOURNE AND PERTH. THE TENNESSEE TRIO WERE LAST IN TOWN AT THE START OF LAST YEAR TO PLAY SOUNDWAVE, AND SINCE THEN THEY HAVE PRODUCED A SELF-TITLED FOURTH ALBUM AFTER A SHAKE-UP IN THE BAND'S LINEUP, INCLUDING THE DEPARTURE OF TWO FOUNDING MEMBERS.

Dave Jackson's company Creative Productions supplied the lighting gear and crew for the tour as they have a close connection with bands associated with Soundwave.

Most of the gear in the rig is owned by Creative Productions, such as the 48 x Martin MAC301's, 6 x DF50 and 4 x Unique Viper Smoke Machines plus 200 x Egg Strobes and the 26 x LightSky Extreme Beams. The Extreme Beams are similar in effect to a Clay Paky Sharpy and described by Dave as one of the most reliable he has ever owned, but then he would as he is the Australian importer for the product! Creative also own the infrastructure such as rigging, dimming and distribution.

"The moving light market moves so quickly and over the years I have invested millions of dollars into purchasing them and I'm not about to do it again," remarked Dave. "I have a good relationship with PRG and can still be competitive

CREW - JEREMY NOLAN, HARLEY PARKER, CHRIS TATNEL



whilst also getting the latest toys. We own the bread and butter and bring in the ham and salad to add to it!"

The fifty Martin MAC Auras on the back ladders were sub-hired from Matt Downs at SWS whilst PRG supplied two MA Lighting MA2 consoles, 22 x Vari*Lite VL3500 FX, and 15 x Martin MAC Vipers.

Dave invested in twenty five of the new SGM X5 strobes as the band were very keen to have them and there weren't any in the country to sub-hire.

"Entertainment Technology Australia were very supportive and got them here Christmas Eve just in time for the tour," said Dave. "We've had a couple of minor issues which they have been quick to sort out but they are certainly the way of the future. I like that you can double them up on a circuit, that's really handy."

Lighting director Chad Peters has been the band's lighting designer for many years but this time around they hired Butch Allen to design the lighting. I asked him if he was a bit miffed by this and after a moment's thought he answered tactfully that the band has grown beyond his means.

"The band have a lot of input when it comes to lighting as they really care what it looks like," he commented. "I feel that I had a lot more energy in the shows that I did which the band liked at the time. However, when Butch Allen comes in you don't get fired but kept on and learn a lot. I learnt that not every light has to be on all the time! Now we still have energy, intense movement or strobing but then there are also a lot of static looks that personally I would never have done. But it works and I've certainly had more compliments about the lighting with his design than mine!"

The focus of the set are the luscious drapes in front of which ladders of lights hang. A seemingly random pattern of MiSTRIPS make up a 'fence' across the stage and are used to great effect. The ladders create a wall of light with each ladder holding SGM X5 strobes that alternate with the LightSky Extreme Beams that also fill in a grid with Martin MAC Auras as well as two lite moles. In the air and on the upstage row are the VL3500 FX whilst downstage there are the MAC301 wrapping around the apron. Small fresnels are used as footlights for the band and MAC Vipers are used for side light and on the downstage truss.

Unfortunately for Chad, Butch decided upon a MA2 full size console for control and he only had three days to learn how to use it!

"I'm still learning as we go," he laughed. "I was a Hog guy and find it much better with fixture personalities."

Chad further commented on how much he loves touring in Australia as he finds the lighting companies so good.

"It's always amazing," he said. "Everything is fast, everything you ask for gets done and the best service."

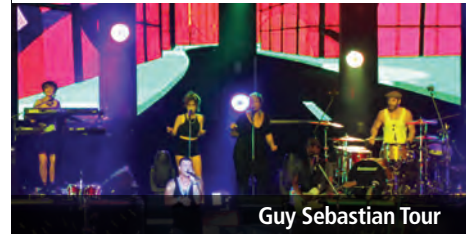
CREW - PAUL OWEN, GLEN
BIELENBERG, AND, UNFORTUNATELY
NOT SHOWN, MATT DOWNS

CHAD PETERS AND
DAVE JACKSON



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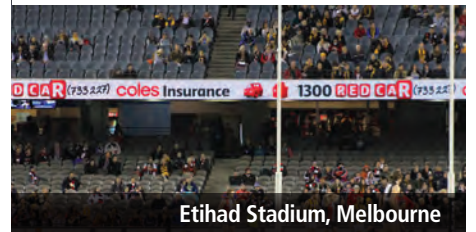
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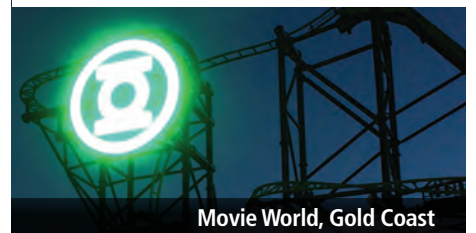
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Heavenly

Sarah Blasko

Set in the architectural splendour, rich acoustics and otherworldly ambience of the church setting, Heavenly Sounds aims to bring a unique and intimate concert experience to audiences around the country.

The first Heavenly Sounds tour was brought to life in November 2011 and since then a wide variety of artists such as Julia Stone, Beth Orton, and Kate Miller-Heidke have performed to full pews in churches and cathedrals around the country. Sarah Blasko joined the Heavenly Sounds tour of churches and cathedrals for five special shows in January to perform the last round of shows supporting her ARIA-nominated album 'I Awake'. Accompanied by Benjamin Fletcher on guitars and David Hunt on piano, these intimate shows were a very different offering to her previous Australian tour with a 50-piece orchestra.

Front of house engineer Matt Landers has worked on and off for Sarah for many years however this was his first Heavenly Sounds tour.

"It's a stripped back three-piece show which suits the venues and worked really well," began Matt. "There's definitely a different approach you take working on a production like this from how you mix the show to the system setup and design. The FOH systems were quite

Sounds

FLINDERS ST BAPTIST CHURCH ADELAIDE. VIEW FROM MEZZANINE. BEN FLETCHER ON GUITAR, SARAH CENTRE, DAVE HUNT ON PIANO, JOHN HALL (NOVATECH) ON MONITORS IN THE BAPTISMAL POOL – POSSIBLY THE STRANGEST POSITION EVER SEEN FOR A MONITOR GUY!



small due to the nature of the show and venue. Sightlines in these venues are unusual too and a large front of house PA would be too obtrusive. Most importantly was getting good coverage throughout the room and not having to push levels too loud at any one source. Some of these venues can be unforgiving."

Local production was picked up in each city with the PA following the same traditional pattern of a left / right with some delays and fills as well. The set up in Adelaide where the gear photographs were shot, was one L'Acoustics 112P on top of a SB15p sub per side with a 108P on push up stands for outfill and balcony fill.

Some of the churches on the tour were fairly modern spaces with carpets whilst others, such as Brisbane's St John's Cathedral, were acoustically quite lively.

"We had delays all the way down the cathedral for that gig," commented Matt. "It meant I had greater control of the mix so everyone was getting a clear audio in this enormous reverberant room."

"I thought Sarah's show really work well in the Cathedral considering reports of previous shows in that venue being a disaster. There's a lot of space in Sarah's music that the band and herself use really well and in a room like this its adds another dimension to the show. Obviously no reverb was needed on her vocal that night but it still sounded huge but in control as we were working with the room not against. It helped having a nice d&b audiotechnik Q7 system setup with delays so we never had to push levels at any one source too loud. The shows are an all seated affair as well which helps to focus the system and not have any unnecessary PA bleed into other parts of the Cathedral. It really was all about subtlety and control for each show – a less is more kind of vibe."

Whilst much of the audio differed from gig to gig, Matt always had an Avid console at FOH; an SC48 at every gig except Adelaide where he was given a Profile.

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"We also carried Sarah's Audio-Technica AE5400 vocal mic and the Earthworks PianoMic™ system courtesy of JPJ," he added. "I didn't specify the console as I was just sent the production specs for the tour but I was happy with the choice. The SC48 with a smaller footprint helped out plus it's easy for me to use my Waves plugs without the need for extra cards/ hardware."

The main challenge that Matt encountered whilst mixing for this show was working with the grand piano to achieve a show level out front and not sacrificing tone.

"Often the piano was positioned quiet close to the FOH system or, as in Sydney, in front," he explained. "The Earthworks PianoMic is great as it is easy to position and move around to find what works best on any given day, but I'd also need to give it some treatment out the front to get a decent level without feedback. Mostly it was low end issues but with

a graphic EQ over a group I achieved a good result each night. The whole mix would then work around the piano level by adding the nice guitar tones and the vocals which actually ended up being the perfect level for FOH in this situation."

"Sarah's vocal is amazing. She's got so much control and can go from a whisper to belting it out when need be, moving from a low to high register with ease. Her vocal is really a treat to work with. I'm sure other engineers that have worked with Sarah would agree. I used an Audio-Technica AE5400 on her vocal which is a great piece of gear; a warm sounding condenser without the extended presence I find added to other live vocal condensers. I think it suited Sarah really well. It's a cardioid pattern which helps as she does sing off mic from time to time. She also uses an effected vocal mic for special moments. Unlike most singers these days that want to control their own effects on stage with a \$200 stomp box, Sarah leaves it to the FOH engineer to create her effected / feature vocal mic sound. That adds a bit of creativity to the show as well."

Whilst the tour held many challenges for Matt, he also had a lot of fun mixing these shows stating that he could sit down to mix the show which was only 12 inputs but really work the subtle moments and pull out a few tricks here and there. He also sends a big thank you to Stephen Zagami, Heavenly Sounds' production manager, for his hard work in making it all happen.

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MATT LANDERS WITH THE AVID PROFILE.



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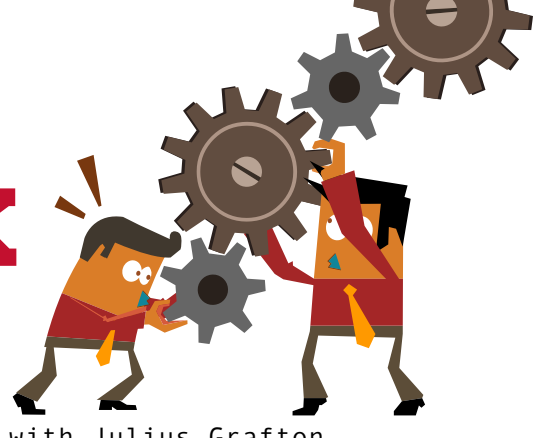
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BIZ TALK

MAD CRAZY MONEY REDUX



with Julius Grafton

It was back to the future at CX Roadshow when I did an encore performance of my Crazy Money seminars from 2012. They were very popular then, and again this summer, pitched at small businesses that are the backbone of entertainment. Almost every freelancer is a small business, and we had plenty from all walks attending across Australia.

Back in 2012 the pressing issue was the brand new PPSR (Personal Property Security Register) - the register where details of security interests in personal property can be registered and searched. It arrived at the start of 2012 with little fanfare.

This Roadshow I mostly skipped around the PPSR but a comrade in the front row somewhere told me her problem. The installation firm they run had registered all the equipment in the job while under progress. As you should - you haven't been paid in full, you need to retain title to the equipment.

Problem for her was the entity they were contracting with was different to the entity on the PPSR. When the job fell over, the claim on the equipment failed. Which segued nicely with this year's theme, which is 'Who is Who; in the Fun Zoo?'

I started by advising the punters to carefully research any person or any firm they transact with. I showed them some journalist tricks to find the birth date of a person, and better search the company and the various ATO registers - free - for tell tale information.

For instance, if you search the ABN Lookup (Australian Business Name register) and find several versions of one person, be very wary. By way of example, I was researching a suspicious individual and discovered multiple Active and Cancelled ABN's with versions of his name. First name, middle name, surname, then first and surname, then first name and two surnames and so on.

The perp noted above was later proven to be a bankrupt shyster with an amazing story and a way with words. Sounds like someone everyone knows in the entertainment biz, and none of that is a hanging offense. It is however a very good reason to operate on a 'cleared funds in advance' basis.

Many cases of non payment arose, natural in a Seminar based on rip-offs. While most people sought a deposit on confirmation from new clients, some then didn't get paid on completion. A few people reported fake EFT emails prior to the show, and the funds not arriving. This is open and shut fraud which is easy for the police. Bouncing bank cheques are not a police matter however, and it is possible for a bank cheque to be cancelled after issue, on the pretext it was 'lost'.

This year's hottest topic was Preferential Payments (also known as Relation Back) where after being paid for work the client goes broke. Some time later, often months later, the clients liquidator sends a letter of demand requiring the payments received from the client be repaid forthwith. On first receiving such a letter, which is usually fairly violently phrased with threats of legal action and a deadline for payment, most people are incredulous, and race off to their lawyer for a \$300 cup of tea.

The advice given is often foggy and qualified. Yes, it could be considered that the money you received from your client was indeed a preferential payment.

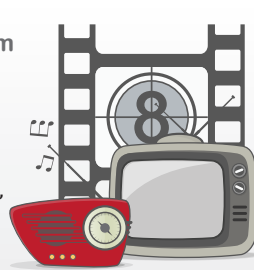
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ACETA set to expand in 2014

ACETA is positioned to expand in 2014, a year which may prove to be a landmark in the history of the Australian commercial entertainment technology industry. Two new initiatives are about to be implemented that will benefit all parties involved in the supply of goods and services to entertainment technology consumers. In concert with other ACETA programs, they will lay the foundation for increased commercial activity and employment in the sector, with a positive flow-on to the arts and crafts, an elevation of well-being for the industry at its broadest.

MANUFACTURERS MANIFESTO

Following a long period of research and reaction testing, February 2014 saw the launch of the ACETA Australian Manufacturers Manifesto. Its initial distribution is to the ACETA database of Australian manufacturers which currently lists nearly 80 operational organisations. ACETA members will receive a copy, as will the international and domestic media. Pro Audio Central, producers of international industry publications such as Pro Audio Asia, Pro Audio Middle East and Pro Audio Worship, support the initiative and the rationale that underpins it. They have confirmed a willingness to work with us including comprehensive coverage in their publications which, as a matter of interest, address the developing markets - take note you exporters looking to further your reach.

On the home front Julius Media, publishers of this magazine, also support and are committed to this initiative. They too share the belief that the time is right to proactively enhance resourcing by unifying this sector to realise increased commercial activity worldwide and employment. To that end Julius Media have committed to publishing program information and member company profiles in each edition of CX.

ACETA is your one and only industry and federal government recognised peak body, it is a not-

for-profit and therefore relies on membership to realise positive outcomes for its constituents. If you are a manufacturer and wish to increase a) the resources available to you and b) your commercial activity, particularly in export, we commend you become or investigate becoming an ACETA member. To do this phone ACETA HQ (03) 9527 8133 or e-mail sara.hood@aceta.org.au. Please note, to realise any financial benefit that may arise from any ACETA initiative (one-off or recurrent export or development grant etc.), for obvious reasons there will be a membership qualifying period. It has been suggested that to realise any financial benefit a party would need to have been an ACETA member for 18 months. This issue will be determined by the ACETA Board at its upcoming Board meeting.

If you would like a copy of the ACETA Australian Manufacturers Manifesto please e-mail sara.hood@aceta.org.au.

ACETA ASSOCIATE MEMBERSHIP

To complete the desire to achieve inclusion in ACETA for all organisations who participate in the supply of goods and services to commercial and entertainment technology consumers, the ACETA Board will recommend to the membership the introduction of associate membership. This initiative will require a change to the ACETA constitution, therefore it is a legal requirement that it be approved by the members, and this will take place at the annual general meeting (AGM) of members in May this year. The constitution has been re-written to reflect associate membership and we have also taken the opportunity to include industry guidelines. First of all this new constitution will be debated at the upcoming ACETA Board meeting where it will be recommended as is or in amended form, then circulated to the membership prior to the AGM. Members will accept or reject the new constitution via a vote when the meeting is convened in May 2014.

We propose that those who would qualify for ACETA associate membership are as follows:

1. Organisations who re-sell (retailers, dealers) sound reinforcement, staging, automation, lighting and other vision systems for mobile and installed live sound.

BY FRANK HINTON

2. Organisations who re-sell (retailers, dealers) audio production systems and devices for studio including music capture, mixing, mastering and post/pre-production for television programs, advertisements and motion picture.
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4. Organisations who re-sell (retailers, dealers) vision systems that capture images for the production of entertainment and educational program.
5. Organisations who re-sell (retailers, dealers) commercial integrated audio visual systems and devices.
6. Organisations who maintain (service) the above described (1 – 5) technologies.
7. Organisations who provide system design, integration, installation and training of the above described (1 – 5) technologies.
8. Organisations who rent the above described (1 – 5) technologies.
9. Allied industry associations.
10. Entertainment technology education institutions, including schools, colleges and universities.
11. Entertainment technology media organisations.
12. Entertainment technology trade/industry event owners.

If you qualify and would like to register your interest in becoming an associate member of ACETA should the initiative be approved, please contact ACETA HQ on (03) 9527 8133 or e-mail sara.hood@aceta.org.au.

As is the case with all industry not-for-profit peak bodies. ACETA will only be sustainable and benefit its constituents if it maintains the desirable number of committed members. As the general commercial environment and our industry landscape becomes more challenging, many ask the question; can we afford not to have an industry peak body? Who would challenge detrimental government legislation, who would address skills shortage, who would collect data and provide statistical information, who would support ethical trade and identify non-conforming and unsafe product, who would institute programs to aid export, who would work to establish sustainable industry promotional platforms, who? You know the answer. There are some who prosper by going it alone, however many find strength and increased potential in unity.

**Frank Hinton
President
ACETA**



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Go West Young Man

Following the Golden Pipeline

I received an email a few weeks ago from Western Australia asking if I'd like to be a guest speaker at the Techwest Conference, to be held in the little town of Merredin, about 300k east of Perth. Techwest turned out to be a growing network of regional theatre and venue technicians; the ones who have the job of trying to fit a Sydney Opera House sized production into a 200 seat hall! And then explaining that to the production managers. The conference is held in regional towns to show everyone the restrictions/problems that smaller venues have to face daily. The availability (or not!) of qualified (or not!) casual staff, for example.

It's a tough job they do and it sounded interesting, so I said why not?

I'd done something like this a few years earlier at a Bose technical and training conference on the Gold Coast.

----- © 2014 DUNCAN FRY

My brief was to supply something light-hearted as a break from the intensive brand training. No tech stuff from me, then!

While the attendees sat down and tried to enjoy their lunch, I hopped up and entertained them (Hmm – not sure 'entertain' is the right word) with stories of ... well, if not life in the fast lane, then life in the broken-down truck lane! And, despite the graphic 'bodily functions' nature of some of the stories, most of which have appeared in some form in this magazine, everyone seemed to enjoy them, laughing and applauding in all the right places. Pro Audio stand-up, you might call it.

So I dusted off my notes from that occasion, added in a few more recent stories as well as the favourites, and set off for the airport. I always enjoy the flight to and from Perth. It's only three to four hours long, depending on the prevailing wind. Long enough to settle in and enjoy a good movie or some reading, but not so long that you end up with a nasty attack of numb bum syndrome.



INSIDE CUMMINS THEATRE

When the plane landed I was met by Alan, who was also travelling to the conference, and together we headed off down the Great Eastern Highway to Merredin.

As we cruised along through the hills on the outskirts of Perth, I occasionally glimpsed what appeared to be a large pipeline running through the trees that line the road. When we reached the flat plains of the wheatbelt, the pipeline got closer to the road, and followed us for kilometre after kilometre.

After about 200k, we stopped to get a sandwich, a Darwin stubby sized bottle of ginger beer for me, and to 'water the horses'. The pipeline was still there alongside the road.

Curiosity finally got the better of me, so when we got back in the car I asked Alan,

"What is that pipeline?"

"It's the Golden Pipeline," he replied. "It's the longest water pipeline in the world, and runs all the way to Kalgoorlie."

"How far is that?" I asked, East Coast latte-sipping hipster that I am, with no knowledge of anything outside my home state.

"About 560 kilometres," he said.

Wow – that's some pipe! Everything is a long way in WA! Apparently the pipeline story is revered in the west, but I had never heard of it at all. I'm normally a profound well of trivia, but I had no knowledge of this whatsoever!

So here is a very short version of the story – pay attention down the back as there will be a test afterwards!

The pipeline was planned in 1895 and opened in 1903. Sadly C.Y.O'Connor, the Chief Engineer and creator of the plan, died mysteriously before the opening and never saw his dream come true.

Approximately 60,000 steel pipes 750mm in diameter were welded together for the pipeline. Each pipe was 8.5 metres long, which was chosen because it was the maximum length of the goods railcars on the trains that brought them up from Perth. Eight pumping stations were built, and as luck would have it, one of them was at Merredin, where I was headed.

In the 1930's Depression era, leaky parts of the pipe were replaced as a government employment project – with wooden pipes! Karri planks were wrapped up in wire and coated in tar and bitumen. That would have been an interesting water taste for the people of Kalgoorlie. Leakage figures were soon up to 1,700,000 litres per day, but by 1971 it had all been replaced with modern pipes. Rotting planks and coils of wire are still lying next to the pipe in some places.

The conference was being held in the newly restored and renovated Cummins Theatre in town, but first I had to check into my accommodation – the Olympic Motel. At a guess I'd have to say it was built in 1956 - hence the name – and appeared to still have all its original features, apart from the addition of a large screen TV and an efficient air conditioner.

Then it was off to the pub with Alan, Brad and the boys from Geraldton, for a pizza and a Cooper's Sparkling Ale, reputedly very good for what ails you, and also for quieting noisy diffs!

The next morning we wandered down to the French Bakery to grab some breakfast. I now suspect that French may have been the name of the franchise owners, not their nationality, because my chatty attempts at ordering en française were met with blank stares. Luckily English worked OK, and in a couple of minutes we were all sitting in the park opposite, munching away on our croissants and my personal favourite - a custard cream filled horn. A true WA delicacy.

While in the park we noticed something unusual, and I've included a picture of it here. It's a solar powered rubbish bin. That's right, a rubbish bin with a solar panel on the top of it. None of us could work out what it did; Wi-fi hotspot? Built-in incinerator? Doctor Who's mini Tardis? The answer couldn't be found and it remains a mystery to this day.

My talk went pretty well, I thought, although it was a tough gig; minimal sound guys but plenty of theatre and lighting techs. Still, no-one threw anything, and it was a bit of light relief from the serious stuff going on.

The next problem was how I was going to get back to Perth, since my new mate Alan was staying for the second day's AGM. But then Brad came up to me and said he'd worked it out. Kevin and Michelle from Pro-Design Lighting in Perth had been displaying some lights (and also sponsored our food), and were heading back to Perth bright and early next morning, just in time to get me to the airport for my flight.

The car was loaded with lighting, but with careful packing they managed to make a little space for me and off we went. As we headed back down the Great Eastern Highway, Kevin said, "Have a look at the GPS."

It said "After 278 kilometres Turn Left!"

"I wonder what it would say if we were crossing the Nullarbor?" I said.

"It would have said the same thing but with a zero on the end!" he replied.

Like I said before, everything is a long way in WA!



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