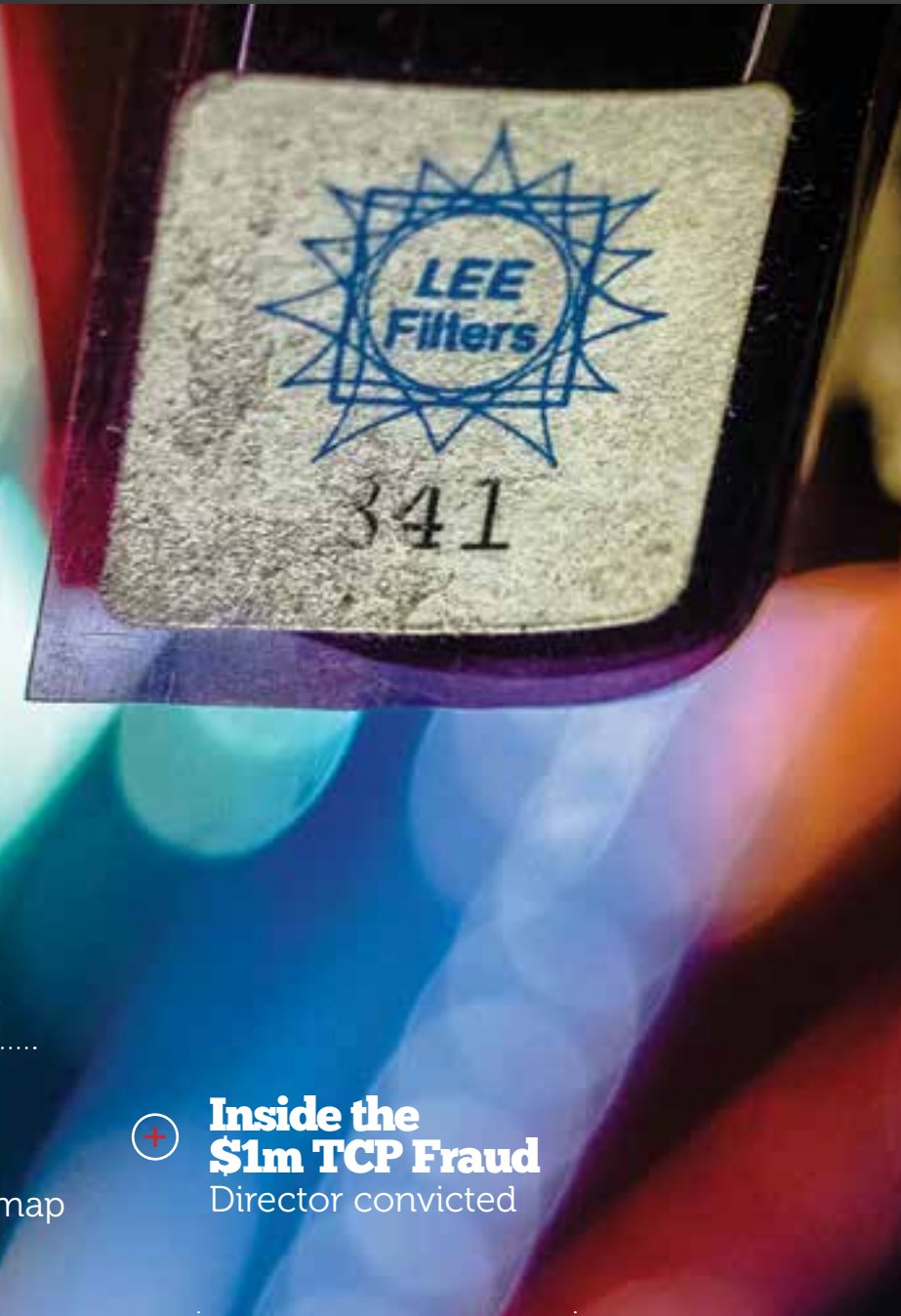




MONTHLY TECH NEWS

CX119 OCTOBER 2016  
\$7.50 AU



Integrate **+**  
2016:  
**AV gets  
user  
focused**

**+** **Upgrading the  
Nova network**  
20 studios and a lap of the map

**+** **Inside the  
\$1m TCP Fraud**  
Director convicted

**> NEWS:**

- The Hump turns 100
- Former TCP owner guilty
- Hills strengthen AV division
- TDC to build d3 studio
- Mirvac shaft venue

**> REGULARS:**

- New gear
- History
- Listen Here
- The Mill Report
- Industry Women
- Tech Talk
- ACETA
- Duncan Fry

**> ROADSKILLS:**

- Jimmy Barnes
- (Not) Neil Diamond
- Flight Facilities

**> GEARBOX:**

- Rosco Lightpad  
Vector CCT
- SGM G-1 Beam
- Riedel MicroN
- Extron CCI Pro 700



**STAGE**



**WIRELESS**



**STUDIO**



**HEADPHONES**



**INSTALL**



# AV Roadshow October EVERYTHING is FREE!

CX Network and Juliusmedia present ICTECH, where AV and IT professionals see new technology, network and experience unparalleled professional development. Entry to the trade displays and seminars is totally free of cost.

Pre register and you are also entitled to FREE PARKING\*. ONE DAY ONLY in each city

<b>PERTH</b> Thursday 13 October	<b>ADELAIDE</b> Monday 17 October	<b>MELBOURNE</b> Wednesday 19 October	<b>BRISBANE</b> Monday 24 October	<b>SYDNEY</b> Wednesday 26 October
Exhibition and Convention Centre	Convention Centre	Park Function Centre	Royal International Convention Centre - RNA Showground	Technology Park

## SCHEDULE

11 am	Tradeshow open		
12 pm	Soft Codecs – A new platform for old audio problems (Or; achieving great results for conferencing audio)	Crime and Chaos: Inside the TCP collapse	AV Control Systems – The balance between form and function
1 pm	Converged Networks and what this means to ProAV*	SVSi Training – Introduction to Networked AV	
2 pm	Introduction to electroacoustics	IP for AV	IP for AV
3 pm	Behind the scenes with Lightware (2 hrs)*	Industry Transition from Dedicated AV to Networked AV and Cloud Control	Unified Collaboration and the future**
4 pm	Ampetronic and A.F.I.L.S.		
4.30 pm	Happy Hour		
6 pm	Show close for 2016		

\* Melbourne, Brisbane, Sydney only \*\* Brisbane and Sydney only

FOUNDATION EXHIBITORS:



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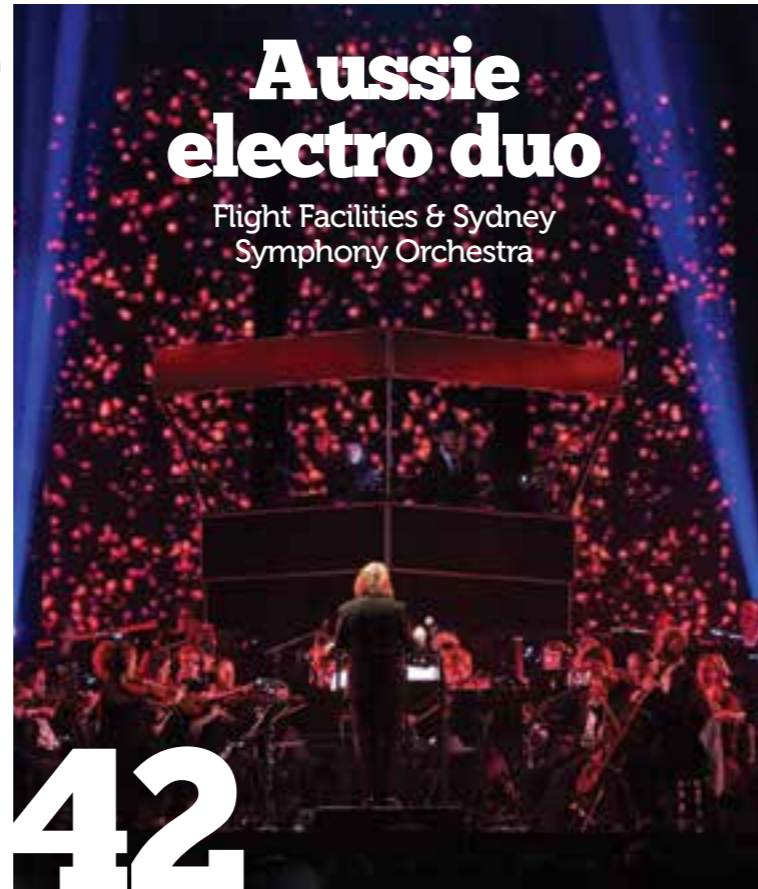
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• Cover photo by Tony Lukeman



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**Awards Brain Snap**

People didn't know where to look when Chris Holder self immolated on stage at the AV Industry Awards during Integrate late in August. In what can best be described as botched humor, he paid out on the industry, sponsors, exhibitors and advertisers with a gloomy assessment of ruin.

It was a tour de farce of epic proportions and continued for ten gruesome minutes, all captured by RAVE TV and online here: <https://www.youtube.com/watch?v=RVMUD5ixoEI> and it begs the question: who in their right mind would run an industry awards?

CX ran the infamous ENTECH Awards for a decade, best remembered at the Plaza Ballroom in Collins Street in 1997 when John Blackman was hosting. The video wall crashed, audio was mangled by someone under the influence (now deceased), and trying to be democratic led to us appointing an accountant as the returning officer.

With no intervention allowed, Blackman hands the envelope to the barrel girl who announces the Lighting Product Of The Year ..... CLS Tri Truss! CX readership had voted, kind of like the UK competition to name an important scientific

research vessel where the winning name was Boatie McBoatface. 500 well oiled ENTECH'ers rose as one, chanting 'Truss! 'Truss! 'Truss! You had to be there.

**AV meets IT**

Our fledgling ICTECH Roadshow departs this month for a spin around the land, with 7 pioneering exhibitors and a full schedule of seminars and training each day. Like all our shows, everything is free including parking if you pre-register.

We're thinking the AV meets IT thing is growing, it's a little like lighting meets video a decade ago when the screen guys and the lighting guys were looking askance at each other and a turf war erupted. That one settled down nicely.

I had an interesting meeting recently where the differences between the Security (tech), AV and IT businesses was discussed. You can expect to see some changes in the way equipment is distributed and sold fairly soon. Models will change.

**History**

This issue we debut a History Page, curated by Dan Cole. He has been slaving away for the past while

placing ALL our back issues online at [cxnetwork.com.au](http://cxnetwork.com.au) where anyone can log on free and browse the way things were.

We first published in December 1990, so there has been some notable events in our time, such as the implementation of The Internet, death of the fax, and advent of the mobile phone. No kidding, we predate all these. I feel slightly old.

Here's a new thing: LiFi. Where the LED transmits the data. Another: China launched Micius, said to be the world's first quantum satellite in August. Look THAT one up, it'll change things. Again.

But back to the past: it is stunning how the cost of equipment has fallen! This has led to the barriers to entry falling as well, such that new entrants in many corners of our wonderful industry are frequent. We love meeting new people at our Roadshows!

See you on the road!

*Julius Grafton*  
CX Magazine

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**119** **2016**  
Volume III (+)

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[www.qsc.com/beyondmixing](http://www.qsc.com/beyondmixing)



## The Hump turns 100 And Light Tonight turns 11



Network YouTube show The Hump clocked up 100 weeks at the end of September, having rolled out every Wednesday lunchtime for the past two years. Produced by Jason Allen, the show features him, Sophie Eshman, Meg Mackintosh and CX head Julius Grafton.

Loosely modeled on nothing in particular, The Hump has had some viral hits, with Allen's creation David 'Davo' Davidson - Legendary Roadie - scoring over 35,000 video views. A typical Hump show runs for 10 minutes, and contains four or five segments with several short ad breaks.

Meanwhile stablemate CX Network show Light Tonight has rolled out its 11th episode and is viewed by as many as 45,000 people each month. Produced by Cat Strom, the show is hosted by Christian Heath and Jimmy Den Ouden. While The Hump carries Australian sponsored advertising, Light Tonight is sold in Euros and has solid advertising content from manufacturers around the world.

Both shows are produced from CX HQ at Chatswood in Sydney, and are edited by Jack McSweeney.

division at an electrical contractor. Musico bought back the TCP name and phone number and now operates the reincarnated company with a staff of four. Like Sofi he is one of a series of victims of Richard Skarzynski.

Read the whole story in a special edition of Bio Talk, starting on page 53.

\* Seminar at ICTECH, all major cities in October: Crime and chaos: Inside the TCP collapse. Register free at [www.itechroadshow.com.au](http://www.itechroadshow.com.au)

## FORMER TCP OWNER GUILTY FRAUD ASSISTED THE END OF COMPANY

Although it collapsed in 2010, the end of the saga that was Total Concept Projects finally came at Liverpool Local Court in September when co-owner Richard Skarzynski pleaded guilty of fraud.



In the dying days of the AV contracting company, which peaked at \$50 million turnover with 100 staff, the disgraced director

systemically defrauded young lease broker Matthew Sofi by generating counterfeit paperwork and forging the signature of his co-owner, Tony Musico.

The \$1m fraud saw Sofi's firm launch various legal actions, including a case against industry heavyweights Hills and Bosch, all of which failed. Facing a \$900,000 legal bill, the lease company itself failed, and Sofi referred Skarzynski to the police. "It was a big hit for a young guy", Sofi told CX.

Initially both Skarzynski and Musico were arrested, charges against Musico were dropped once he proved he did not sign the fraudulent leases.

Amazingly Skarzynski still works in the AV contracting industry, fronting the AV

## Hills strengthen AV division



Hills Limited has announced the appointment of Mr Ken Dwyer to the Board effective immediately.

Ken Dwyer is the former head of Audio Products Group, acquired two years ago by Hills. He commenced his career in marketing and investment banking, subsequently entered the audio industry, founding a chain of specialist home entertainment stores and more recently a major audio products distribution

business operating across Australia and New Zealand. He has considerable practical experience in the "added-value" distribution of technology products both nationally and internationally.

Hills Chair, Ms Jennifer Hill-Ling, welcomed Mr Dwyer's appointment.

"Ken brings a wealth of experience in our industry at a time where we are poised for

growth. We look forward to working with him".

Also announced recently, Hills have de-merged their Healthcare division which simplifies the company into two main (and compatible) activities - Security Technology and Audio Visual. The de-merge also releases funds, with Hills expected to make significant announcements 'soon'.

## TDC to build d3 studio

TDC-Technical Direction Company, based in Sydney, is embarking on development of a new studio space along with further investment in d3 Technologies Pro range of media servers.

Designed to be a hotbed for creativity, the studio will enable project stakeholders to create and implement ideas using emerging creative technology solutions. "Our history has always been about bringing the latest technologies to the market in this region, we are heavily invested in

ensuring that we offer emerging solutions when it comes to 3D modelling and previsualisation for shows, as the future of video evolves," said Michael Hassett (pictured), CEO at TDC. Within the studio environment TDC clients will be able to see how any project looks during early design phases enabling them to adapt and experiment with new ideas to ensure maximum audience impact.

To coincide with the new studio, TDC has joined the d3 Technologies Worldwide Strategic



Partner Programme providing the full spectrum of d3 expertise across server functionality, training and expert advice.

"Having utilized d3 servers now for several years we realized the commitment of the d3 team behind this powerful solution, our relationship as a Strategic Partner allows us to work side by side with the developers at d3, this is invaluable in future technology development for both of our organisations," explained Hassett.

## Mirvac shaft Australian Technology Park

Builder Mirvac have moved construction forward at Australian Technology Park, forcing venue management to strongly encourage contracted events to move elsewhere.

Mirvac purchased the site and advised the venue its lease would not be renewed when it expired in June 2016. Then the company decided to move building works

forward to now - October - rendering the venue not fit for purpose.

Mirvac and the NSW Government development arm, UrbanGrowth NSW have attempted to downplay the situation with statements implying it is 'business as usual' at ATP.

Anything but, say the venue,

where virtually all contracted events for the first half of 2017 have scrambled to find alternative venues - leaving ATP empty yet paying rent to Mirvac.

Juliusmedia (publisher of CX) had two Roadshows - ENTECH and SECTECH - booked at the venue next year, both have now moved to Royal Randwick's new conference facility.

AKG C7

01



The AKG C7 is a reference handheld condenser microphone. It's designed to solve many common problems musicians face on stage. Feedback is reduced by its perfect super-cardioid polar pattern throughout the entire frequency spectrum. In addition, the C7 handles extremely high SPL levels without distortion, and eliminates handling noise through a built-in mechano-pneumatic shock absorption system. Lastly, a multilayer protection system prevents unwanted pop noises. The C7 will retail in Australia at \$599 inc GST, with availability TBC.

NEW Australian Distributor:  
CMI Music and Audio  
www.cmi.com.au or (03) 9315 2244

BOSE POWERSHARE

The new Bose PowerShare adaptable power amplifier line consists of three 1U models: 2- and 4- channel fixed-install models (PS602 and PS604) and one 2-channel portable amplifier (PS602P). Each model delivers 600 watts of power that can be shared across all output channels. With support for both low- and high-impedance loads up to 100V, PowerShare amplifiers adapt to a wide range of applications. Onboard configurable loudspeaker processing and direct access to zone controllers eliminate the need for an additional signal processor in many installations.

Australian Distributor: Bose  
www.bose.com.au/en\_au/professional.html or 1800 023 367

02



CHAMSYS MAGICO MQ500 STADIUM

03



The MQ500 Stadium features dual multi touch displays in full HD with adjustable viewing angle and gesture support. It also features an inbuilt MagicVis 3D visualiser with high quality beam and gobo rendering. It supports up to 200 universes on-board direct from the console without the need for external processing. A MagicHD media server runs on board enabling pixel mapping to all 200 universes. The MQ500 includes an intensity wheel and 100mm split crossfaders for theatre control, and incorporates 42 fader and executor playbacks for live busking.

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

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## EXTRON QUANTUM ULTRA

Extron's Quantum Ultra is a modular 4K videowall processor with high-performance scaling and windowing technology. The Quantum Ultra features the Extron Vector 4K 4:4:4 scaling engine and 400 Gbps HyperLane video bus, capable of carrying a multitude of high-resolution sources. A single processor can support multiple videowalls with mixed resolutions and screen orientations, providing flexible system design with minimal complexity and cost. Customisable output resolutions, output overlap, and mullion compensation provide compatibility with nearly any display technology. RS-232 and Ethernet interfaces provide direct connections for control systems.

Australian Distributor: Extron Australia  
www.extron.com.au or (08) 8351 2188

04



## HIGH END SYSTEMS SOLASPOT PRO 1000

With just under 20,000 lumens output, the SolaSpot Pro 1000 includes a rotating and a fixed Gobo wheel, CMY Colour Mixing plus fixed Colour Wheel plus variable CTO, animation wheel, iris, frost and linear prism. The compact SolaSpot Pro 1000 includes specially designed optics, allowing sharp focus to be achieved throughout the entirety of the 11 to 45 degree zoom range. It has a modular construction design for easy maintenance, and includes High End Systems' patented thermal control software to ensure that the fixture's cooling system

is as quiet and efficient as possible. The SolaSpot Pro 1000 supports both RDM and Artnet.

06



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

## INOGENI SHAREZ



05

The Inogeni SHARE2 Converter captures two streams of uncompressed video and combines them into one single USB stream output. Audio can be combined from HDMI/DVI/VGA or CVBS sources, and the mixed audio and video sent to your PC for recording, videoconferencing, lecture capture, or streaming. No driver installation is necessary and it will work on all motherboards and USB 3.0 chipsets. It features an HDMI, DVI and a NTSC/PAL input, a line level stereo analogue input, a line level stereo analogue output, an internal USB 3.0 hub with 2x USB 3.0 ports for expansion purposes and USB 3.0 connector for the host. It supports SD and HDTV video formats up to 1080p60, and most computer graphic formats. It is compatible with Windows, OSX and Linux operating systems, and is UVC-compliant, so it will work with all DirectShow/V4L2 and AVFoundation compatible software.

NEW Australian Distributor: Corsair Solutions  
www.corsairsolutions.com.au or (03) 9005 9861

## OPTOMA W515 AND W515T

07

Optoma has expanded its professional range of installation projectors with two new models - the W515 and W515T. Delivering 6000 lumens, both models offer large zoom range, lens shift and built-in geometric adjustment feature that allows the installer to adjust each corner of the image to create a perfectly square picture. This is practical when requiring image stacking, use on uneven walls or in locations where the projector needs to be installed on an angle. Available on the Optoma W515T, HDBaseT gives installers the ability to transmit uncompressed HD video and audio over a CAT5e/6 Ethernet cable, as well as control commands using the LAN. The Optoma ProScene W515T with HDBaseT connectivity - has an Australia RRP of \$4,499 inc GST, and the Optoma ProScene W515 has an Australian RRP of \$4,099 inc GST.



Australian distributor:  
Amber Technology  
www.ambertech.com.au  
or (02) 9998 7600



09

## PHILIPS SHOWLINE SL HYDRUS 350

The Philips Showline SL HYDRUS 350 is a hybrid BEAM/SPOT/WASH moving luminaire designed for event, television and concert lighting applications. Powered by the PHILIPS Platinum 17RA Lamp, the Hydrus can run in beam, spot, and wash modes. It includes a fixed colour wheel with open slot, split colour mode and effect mode, a fixed gobo/aperture wheel, indexable/rotating gobo wheel with images from the VARI\*LITE Library, an animation wheel for dynamic effects, and two rotating beam prisms. With a choice of either DMX512 or Artnet control, the Showline SL-HYDRUS 350 has an Australian list price of \$8950.00 + GST each.

Australian Distributor:  
Philips Entertainment  
www.lighting.philips.com or 0419 133 342

## TASCAM DR-100MKIII

08

The newest generation of Tascam's flagship Handheld Digital Stereo Recorder delivers ultra-high resolution recordings up to 192kHz/24-bit, with a 109dB S/N ratio. The unit includes dual stereo mics in both AB and omnidirectional patterns, two XLR/combo jacks, switchable phantom power, and a dedicated input level control. The DR-100mkIII's dual battery technology utilises built-in Li-ion rechargeable as well as AA batteries, giving you extended recording times and the ability to change batteries on the fly. Other features include temperature-compensated clocking, high-performance dual-mono AKM "Velvet Sound" converters, HDDA microphone preamps, and support for SDXC cards up to 128GB. Australian RRP is \$799 inc GST.



Australian Distributor:  
CMI Music and Audio  
www.cmi.com.au  
or (03) 9315 2244

New



10

## SHOWPRO PHAROS

The Pharos is a compact LED profile with output comparable to 575W ellipsoidal reflector spotlights. Features include a 14° - 30° zoom, fine focus gobo projecting, and blading. The Pharos achieves CRI 95 and also includes a gobo holder.

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

## VUEPIX ER SERIES

11



VuePix ER series LED screens are high performance rental panels for indoor and outdoor applications. Designed specifically for the touring and rental markets, the panels are light-weight and slim, but durable, equipped with user-friendly features like positioning pins and ergonomic handles for convenient handling and operation, fast build-up, and easy alignment. The dual power and signal redundancy and exchangeable

power and control of the unit allows servicing of the screen with minimal time. The high ingress protection rating (IP65 front, IP54 rear) makes the ER series panels ideal for various rental projects. The optional front service access simplifies the maintenance and servicing for specific projects.

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



## VUEPIX D SERIES

The VuePix D Series interactive media floor panels have an integrated grid of motion sensors which detect movement and respond to any physical activity happening on the surface or within a close distance. Equipped with high contrast LEDs and featuring anti-reflective and anti-slip surface, the D series panels provide uniform blacks and visual performance under any light conditions, and at wide viewing angles. The LED modules are magnetically attached to the frames, allowing easy service and maintenance.

The D series frames are specifically designed for very fast alignment and levelling, with the power and data connectors integrated into the panels, helping to reduce the installation time. The D series panels are fully IP65 rated and can carry loads of up to 2500kg/m<sup>2</sup> with a safety factor of 3.

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

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# history

1991: 2016

In this issue we take a snapshot of the magazine through the ages, looking at what we were all doing and talking about 5, 15 and 25 years ago.



## ➔ Magazine 1991

In 1991 the September edition of Channels (#8) featured news of the new Yamaha PM4000 (40-8) 'possibly the last large analogue concert board' we suggested with the onset of digital consoles 'by the end of the decade'. The cover also included news of the closure of the iconic company Strand Lighting Australia - no doubt CCT in the UK and Selecon in our region contributing to their demise. Some fond memories of Strand Sydney were retold.

Sad news of Andy Pollard, King of Riggers, passed away. Please spare a thought.

One of our first trade-show

coverage pieces was of the AES regional convention in Moonee Valley with most key distributors and manufacturers present. Fast-forward to now and how we exhibit, network and share ideas and knowledge!

Production Spotlight featured Paul Kelly at Bathurst Leagues, in which the first order of business for the crew and Tour Manager John Pope was wrangling 9 tonnes of equipment up 24 stairs in the middle of winter. And of the night? Five hundred punters paid \$12 for 1.5hrs of the feature act, 1-hour support and the Bianca Video Disco.

Elsewhere in the edition we revealed the mysteries, ins, outs and traps of leasing and financing sound and lighting equipment. Not a pretty scene in 1991 - on 30K you were looking at \$900 per month repayments. A new Shure SM 58 cost \$237 and a used Strand 5k dimmer rack was worth \$1500.

Duncan Fry published his book Live Sound Mixing, a crucial text for engineers serious about live audio. In 'The Connector Bible' Peter Twartz flagged the Speakon as the new audio standard and Frank Calvi answered reader questions such as 'How to drive moving light effects from a lighting console'.

## ➔ Magazine 2001

Fast-forward 10 years to October 2001 and Connections Magazine #92. With ENTECH 2002 coming up, we were in a reflective mood noting that it had been 30 years since the advent of the modern era of transistor-based equipment - an EV X-Line cabinet was more powerful than a 1970s Clair Bros PA assemblage. And in 1972 there was no Par Can or winch-ups as we recognize today.

In News, Coemar was acquired by the Stanton group, and InnaSON consoles and Mackie started their NZ operations - Mackie also unveiled that month the MDR24/96 24-track hard disk recorder retailing \$6495. Also in

News was Fairlight's 'Dream' digital audio workstation range, a premier product at the time.

The edition looked closely at studios and studio equipment, profiling Milk Bar Recording Studios in Sydney, co-owned by Sammy Kanni and Dave Sykes. Our 'Market Report' that month provided specifications and prices on studio monitors (including headphones) from 32 manufacturers. For e.g. a pair of Genelec 1023A monitors were listed at \$6950.

Also featured were the latest products from the 2001 PLASA trade show held in London such as Robert Juliat followspots; the Giotto 400

Wash; JBL Precision Directivity line of high-output focusable speakers; Midas Legend 3000; Allen & Heath's ML3000, which in 24+2 configuration retailed in Oz in 2001 for \$19,995.

We also published that month a lift-out supplement called Projector Magazine which included the vexed issue of which projector to buy with suggested criteria, and a Market Report on AV Control Devices and Systems.

Rounding off the edition's 82 pages, Andrew Yabsley provided an anatomy-science lesson on how the human ear actually works; in 'My Gig' we profiled Drama Sound Recordist Andrew Ramage.



## ➔ Magazine 2011

Closer to the present, CX Magazine #64, October 2011 covered both ENTECH and Integrate events co-existing happily-well-enough, we reported, and in the first of a number of articles for CX, the Australian Commercial & Entertainment Technologies Association outlined its role in the industry and its future activities.

Technical staging profiles included the Australian Dance Theatre tour of Europe, Optus' staff engagement event produced by Fourth Wall Events, and the complete technical outline of the

Brisbane Festival.

We're serious about safety at CX so convened a panel of experts to talk about recent staging incidents, extracted in the magazine. The CX-TV show views hit 50,000 in one week. Make some time to view the full show if you can - it might save yours or someone's life.

In 'Gearbox' we reviewed Blackmagic Design's Smartview HD LCD display (\$715), the ETC Selado Desire D40 ParCan sized LED fixture (from \$2925), the Roland R-1000 48 track REAC system recorder (approx \$6000), Neumann KH120 active

near-field studio monitors, and the BOSE Room-match 2 way full range loudspeaker system.

A section included an extract from the CX-TV segment, 'The Loudness War' that discussed audio levels in television; the Installer outlined how to problem-solve a broken venue PA system; Andrew Mathieson addressed the curly question "What if I need stage lighting circuits with a shared neutral?"; and, tipping his lid to lighting experiences, Duncan Fry raised the spectre of the infamous Nescafe Par 43 can.

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# Integrate 2016 AV Gets User Focussed

**I**ntegrate opened its doors for 2016 at Sydney's Olympic Park, returning to the venue after 2015's Melbourne jaunt. There was a constant buzz on the show floor, buoying the mood of the exhibitors. The vibe was confident, and Jason Allen went into the fray to report on all the latest...

Product-wise, the big theme emerging from the show is 'end-user focussed design', with companies including AMX and Sennheiser creating user interfaces obviously driven by graphic designers, with the ultimate goal of making even high-end professional equipment as intuitive to use as an Apple product. Design-influenced techniques employed include colour coding, graphics-only user and quick start manuals, and an avoidance of technical names and acronyms for labels; not 'HDMI', rather 'blue'.

While this could be seen as AV manufacturers considering the end-user to be their customer, instead of the integrator, I think it's a savvy combination of both – the simpler to use an AV product is for someone with no AV background, the less support an integrator will have to provide. That's not only in end-user training, but tech support when things go wrong. As a lot of support calls are caused by end users failing to understand how to use the product, as opposed to a genuine technical fault, the savings and efficiencies for any company with a service contract could be profound.



Jason Grbevski of Sennheiser with the Team Connect Ceiling microphone array

## Small Gear, Big Ideas

Small, clever products caught our attention - AMX's MyTurn Source Selector Button is a small, removable button that clips onto retractable AMX cables, including USB, HDMI and Ethernet. When attached to whichever cable a presenter is using, they simply press it, and the MyTurn receiver connected to a switcher sends a signal to switch to that source. The next presenter can then press theirs, or take the MyTurn from the previous presenter. It's the digital equivalent of 'the talking stick' and completely simplifies AV switching for any environment in a way any user on the planet could understand.



avt's Nicolette Minnie and Graham Barret

take turns with AMX's MyTurn

Whole brands and product lines now reflect the maturity of integration via network, with control, audio, and video over IP now an unremarkable norm as opposed to something that needs to be accepted or explained. Even QSC's Q-SYS, on display at Technical Audio Group's stand has been pressed into use to simulate a boardroom including audio and video capture, run an automated coffee ordering system via touchscreen, and control LED lighting on their Audio Technica 'sushi train' display – and all this from a product that until recently was considered an audio DSP.



Coffee via Q-Sys at TAG

## Big Changes

Industry tradeshow are all about forging and strengthening relationships, from supplier, to business, to end user. It's why it's all important for brands whose distribution has recently changed to be there – new relationships need to start, and existing customers need to be introduced to new products. Integrate 2016 saw an unusually large number of changes in the pro AV distribution landscape. Two prominent brands left Hills; TOA has moved to Australis and AKG to CMI. Both new distributors were there with their new range in force, and both represent significant expansions to their wholesale trade and market presence.



Trevor Morrow from Australis

While Biamp's departure from Hills was announced months ago, Integrate saw new distributor Midwich carry the brand on their stand in Australia for the first time. Biamp's own technical development staff were there in person, and Biamp's Business Development and Consultant Liaison Manager, Jim Seretis talked us through Devio, Biamp's answer to huddle room conferencing, which includes a processor with HDMI and USB 3.0 connectivity, plus a choice of ceiling or tabletop beamforming microphones.

## See, Hear, Touch

Don McConnell's Audio Brands Australia continues to expand, and they're now carrying the full Earthworks range of recording, performance and analysis microphones, as well as their high-performance pre-amps. Audio Brands also added another useful product category in Frontrow, an American manufacturer that specialises in classroom sound, automated lesson capture and distribution, room control, and campus control, all built with the simplicity and reliability that market demands.

ULA Group have taken on an extremely interesting product range in Belgium's Glassiled - an LED embedded glass video pixel product. Put simply, it's big, building-rated sheets of glass with a matrix of LEDs in them, which are practically invisible until they're turned on. The LEDs – either monochrome or RGB – are powered via a super-efficient, transparent conductive layer, offering an animated glass facade that is high in brightness and luminosity. The invisible wiring assures that the vision is not obstructed and the glass retains its primary function – transparency. Entire buildings can be made of Glassiled, and then turned into a giant canvas for programmed lighting or pixel mapped video.



Cuono Biviano with new

ULA Group brand Glassiled

In The Loop

Amber Technology, in addition to the new Sonance commercial speaker range, were showing off their new brand Contacta, an English marque that manufactures across the hearing assistance, queue management, speech transfer (think talking to bank tellers through security glass) and security sectors. While every pro knows that hearing loops are compulsory in Australian buildings where there is amplified speech, what many of us don't know is that there is an enormous market for small, domestic hearing loops. Amber's Richard Neale showed us a small device that takes an optical output from your TV or AV receiver, meaning the hard-of-hearing can listen at their own level without affecting anyone else in the family.

Simple, but clever!

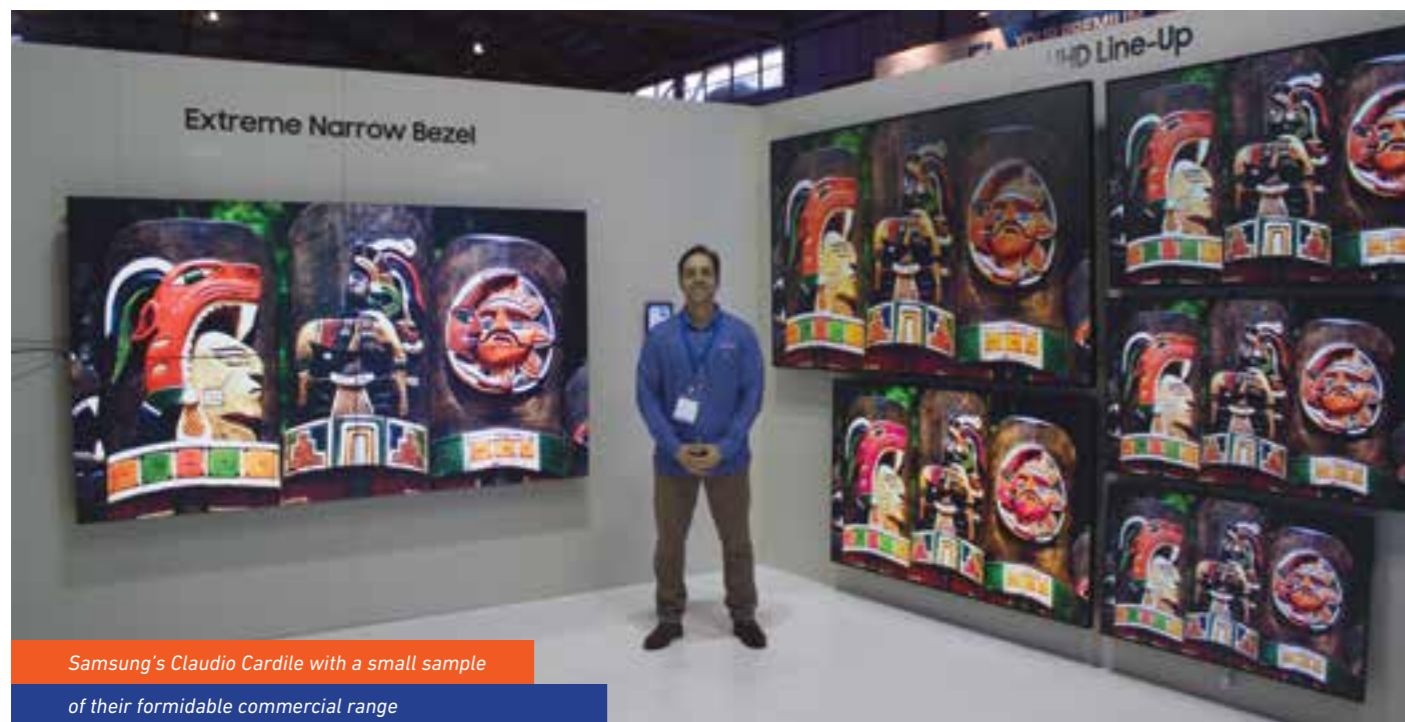
Corsair Solutions became the first Australasian distributor for Canada's Inogeni, who make a range of video converters and collaboration tools. Corsair's Mark Hall gave us a guided tour of Inogeni's Share 2, a dual video to USB 3.0 'super-converter'. The Share 2 accepts multiple video and audio inputs, from webcams, HDMI, USB 3.0 and analogue audio, and can mix everything together into one USB 3.0 out. It's perfect for use with soft codecs like Skype or GoToMeeting, and can be controlled via RS232 or by the extremely straightforward button interface on the top of the unit.



Amber Technology's Richard Neale with new brand Contacta



Mark Hall of Corsair with the Inogeni Share 2



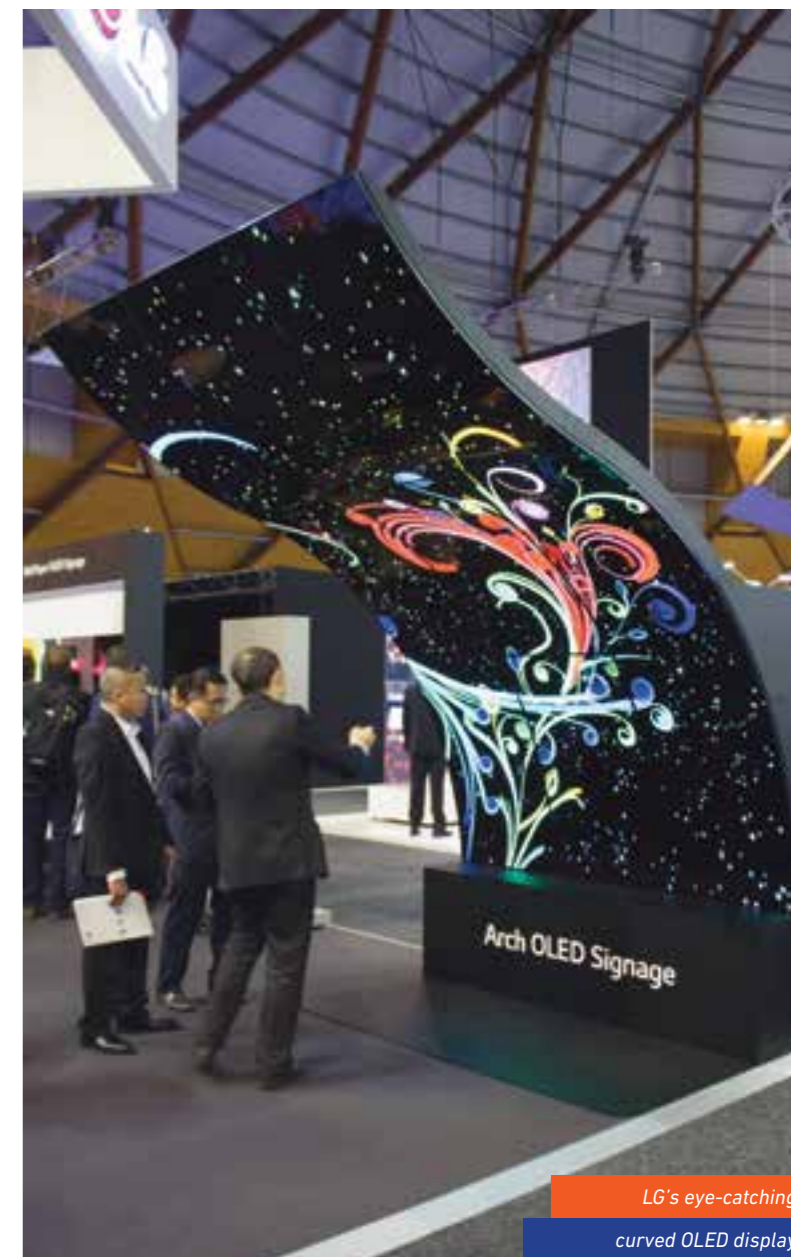
Samsung's Claudio Cardile with a small sample of their formidable commercial range



CMI's Mark Wayte with the Mackie Axis Digital Mixing System



EAW's James Bamlett on the PAVT stand with Radius



LG's eye-catching curved OLED display

House Lights Up

Jands were displaying their new range of auditorium and back-of-house LED lighting solutions from the UK's Global Design Solutions (GDS). Known for their tungsten-like smooth dimming, GDS's ArcSystem is a range of modular, efficient LED lighting products designed for use in auditorium and arena spaces, using wired DMX or the wireless ArcMesh protocol. Venues that fit the system are said to achieve an energy use reduction of between 70% and 90%, with the low-power and low-heat output of LED lighting not only costing less to illuminate the space, but also drastically reducing the need for air-conditioning.








New at Jands GDS

AV, On the Road

If you couldn't make it to Integrate, we have good news – ICTech Roadshow, the first travelling tradeshow for the AV industry, is coming to you this month. Exhibitors including Panasonic, avt, Extron, Jands, Axis AV, Lightware and Midwich will be touring with product specialists on-hand to answer all your questions on the stand. Skill-up with the huge seminar programme, with offerings from major manufacturers as well as SynAudCon training from independent educator Technication. It's all free, including parking and Happy Hour, for pre-registered attendees. To view the seminar programme and register, go to [www.itechroadshow.com.au](http://www.itechroadshow.com.au).

The show runs 11 AM to 6PM, with dates and locations as follows:

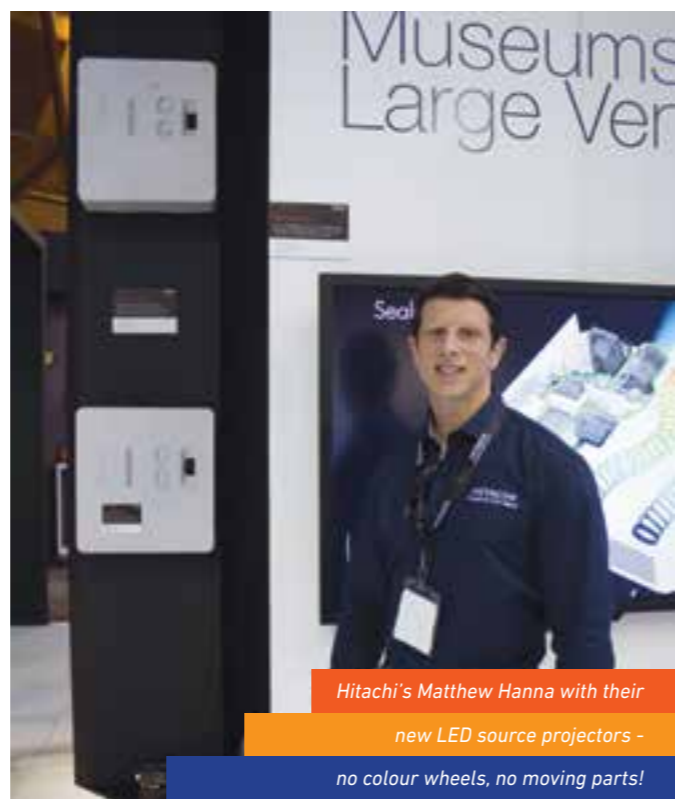
 <p><b>PERTH</b> Thursday 13 October</p>	 <p><b>ADELAIDE</b> Monday 17 October</p>	 <p><b>MELBOURNE</b> Wednesday 19 October</p>	 <p><b>BRISBANE</b> Monday 24 October</p>	 <p><b>SYDNEY</b> Wednesday 26 October</p>
<p>Perth Convention and Exhibition Centre - 21 Mounts Bay Road, Perth</p>	<p>Adelaide Convention Centre - North Terrace, Adelaide</p>	<p>Melbourne Park Function Centre Olympic Boulevard, Melbourne</p>	<p>Royal International Convention Centre RNA Showground, Gregory Terrace, Bowen Hills</p>	<p>Australian Technology Park Locomotive Street, Eveleigh</p>



Axis Av's Gerry Raffaut with the new iMAG Systems Thunder



Panasonic's Ray Orton demonstrates LightID, a technology that encodes data in high-frequency light



Hitachi's Matthew Hanna with their new LED source projectors - no colour wheels, no moving parts!



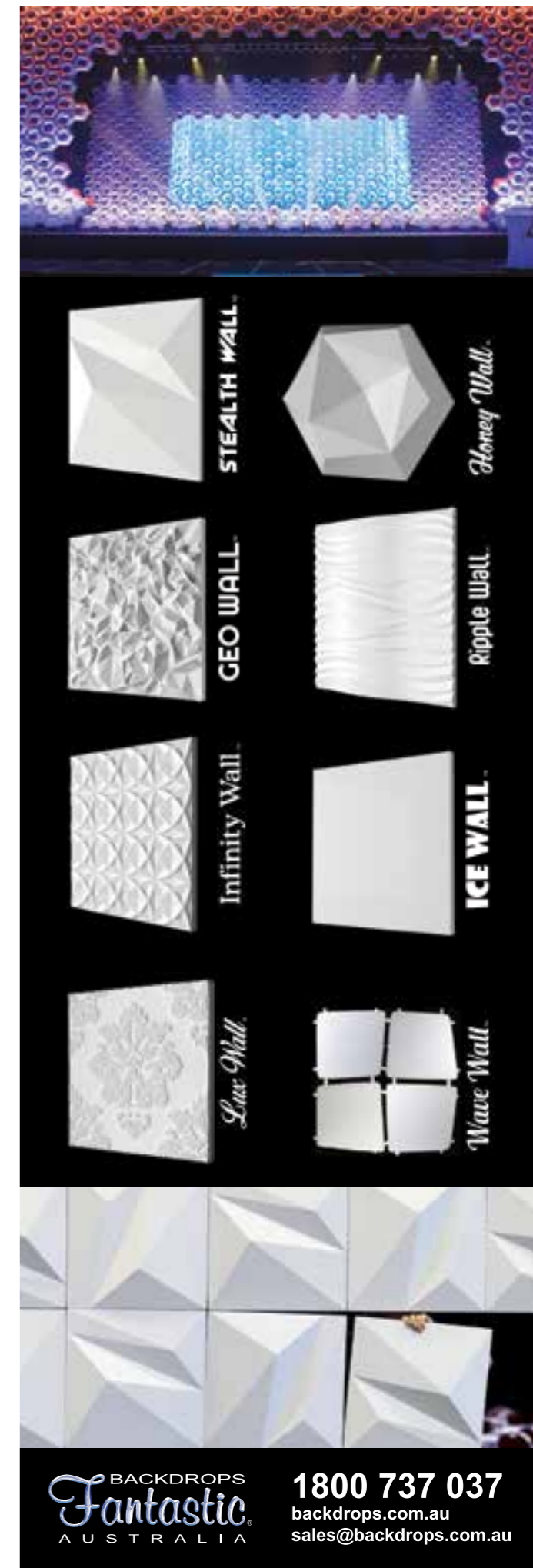
Don McConnell of Audio Brands Australia, now distributing the full Earthworks range and Frontraw education tech



Jim Seretis of Biamp with Devio, on new distributor Midwich's stand



Paul Haddad of Epson with the mighty Pro L25000UNL Laser WUXGA 3LCD Projector



STEALTH WALL

Money Wall

GEO WALL

Ripple Wall

Infinity Wall

ICE WALL

Low Wall

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## UPGRADING THE


**NOVA**  
 ENTERTAINMENT

## 20 studios and a Lap of the Map



Malcolm Sully

Scott Jamieson

**Nova Entertainment is Australia's fastest growing entertainment company** with broad interests across the media industry. The company owns and operates nine radio stations, including the most listened to metro network, the five stations that make up the Nova Network. Growing steadily from its first FM license and studio back in 2000, the network has slowly added more facilities over the last 16 years. With 20 studios built and equipped across the years, it was time to bring them all onto a standard rig. Jason Allen spoke with Soundcorp's Scott Jamieson and Nova's Malcolm Sully about how to refit 20 working studios across three time zones...

Soundcorp's Melbourne-based Manager of Professional Audio Products, Scott Jamieson, is no stranger to large scale radio station rollouts. In addition to working with Nova for 15 years, he's also overseen rollouts for the ABC and the Austereo network. It was Soundcorp that fitted out Nova's first Sydney studio in 2000, supplying everything including mics, CD players, monitors, processors, headphone amps and patchbays, essentially the whole audio chain from mic to transmitter link. From the opening of their second studio in Melbourne soon after, Nova have been a Pro Tools house, supplied nationally by Soundcorp.

"Over the last 15 years, we've sold each of the Nova stations their Pro Tools HD rigs as they've come online," outlined Scott. "The systems were initially HD2 PCIe cards with a Digidesign 192 16-channel I/O. That rolled out over nine years, through Sydney, Melbourne, Perth, Adelaide, Brisbane, Gosford, and then the second stations for Sydney and Melbourne, who are now known as Smooth. Across the stations and 15 years, there's been 20 Pro Tools systems installed, all based on the same hardware, but in different versions according to what year they were bought."

### On the Tools

"For most of the studios, the gear hadn't been touched since each city had been launched," explained Malcolm Sully, a Perth-based Technology Manager for Nova. "We did a soft rollout and Pro Tools upgrade six years ago, where we changed to Intel Macs and got Pro Tools onto the latest version. This time around, we were looking at a much bigger project, as the newest version of Pro Tools wasn't backward-compatible with the old Macs. We had HD 2 systems on PCIe cards everywhere, but moving forward, we had to go with Thunderbolt to accommodate the new technology."

"We specified the systems as new Mac Pros with G Technology media-specific high- throughput external Thunderbolt drives, Pro Tools HD Native and an Avid HD 8x8x8 I/O, the modern equivalent of a 192," continued Scott. "That's a good substitution because the cabling is the same. We traded in the old HD2s and the 192 against the HD Native and 8x8x8; Avid has done hardware trade-ins at the HD level for many years. As we started the discussions on this project in March 2015, Pro Tools 12 had been released, but it was still version 12.0, and we agreed we'd stick with 11, but with a contingency that, within 12 months, we'd upgrade to the latest version of 12. That's what we've just finished now in September 2016."

### All About the Workflow

Nova uses its Pro Tools production studios for three main applications; individual radio show production, radio commercial production, and station imaging. During individual show production, a production staffer is on the rig while a specific show is on the air, listening and sometimes recording the show to Pro Tools. They'll pick out material to use in promos for the show, and 'best-of' packages. They also produce skits, songs and other material specifically for that programme. "During a show, one of the on-air talent made an unintentional double entendre," illustrated Scott. "The production team jumped on it, took that snippet off air, auto-tuned it, put it to music, and 30 minutes later were playing it in the show."

As an ad-driven business, Nova make radio commercials for their clients, and provide a full service; from writing, to talent sourcing, to production. Lastly, the studios are used to create material for imaging, the snippets of audio that make up a station's identity, for example station IDs and ads for their programmes. Two imaging staff are employed in cities where stations are co-located; one for each station pitching to their demographics.

### Keeping it Consistent

"We need consistency between studios," Malcolm pointed out, "especially because we often move Pro Tools projects around the country. It happens a lot between Sydney and Melbourne - production of the drive show may move between states, according to availability of staff, and who's on annual leave. Other projects that we move around a lot are imaging projects; station-centric productions. It's rare that commercial projects are moved around. They tend to move as finished product. Now everything is the same around the country, we know there's consistency, especially for imaging. Consistency between Sydney and Melbourne in particular is paramount because of the way they share responsibilities across shows."

As the hardware needed to be standard, so did the software, including all plug-ins. With a minimum of a Waves Gold Bundle already standard across the network, the new rollout includes Waves Restoration Bundle (for de-noise and de-click), Waves Morphoder (for vocoding), Antares Auto-Tune 8, IK Multimedia Total Studio 3 Bundle, Serato Pitch'n Time Pro, SPL De-Verb, some plugins from McDSP. and Audio Ease Speakerphone 2.

You Want Fries **With That?**

"Audio Ease Speakerphone 2 is a brilliant plug-in for production work," enthused Scott. "They've sampled hundreds of different speakers and audio environments. If you want a voiceover to sound like a phone line, you can select that, or 'drive-through speaker', or 'radio in the next room'. But they've taken it further – if you want a mobile phone, you don't just select 'mobile phone' you select 'Sony Eriksson model xxx with 75% coverage', and it not only does all the EQ and compression, it'll put in the right amount of dropouts. It's even got sound effects - if you select the 'desktop phone' preset, it also loads a number of appropriate effects like dial tones, DTMF, 'hang-up', 'angry hang-up', and 'dropped the handset'. Nova use it heavily."

With the new version of Pro Tools no longer supporting older Pro Control controllers, and some existing D-Command controllers being overkill for the application, the decision was made to roll out Artist Series control surfaces across the network. As the old control surfaces were mounted into the desktops, and the Artist Series are much smaller, all of the exiting desktops had to be replaced, with local carpenters called in in each city to do the job. Some studios had their Macs relocated from being housed remotely in Master Control Rooms to in the studio, which meant new cabling work. And all of this was done against a background of a continuous production schedule.

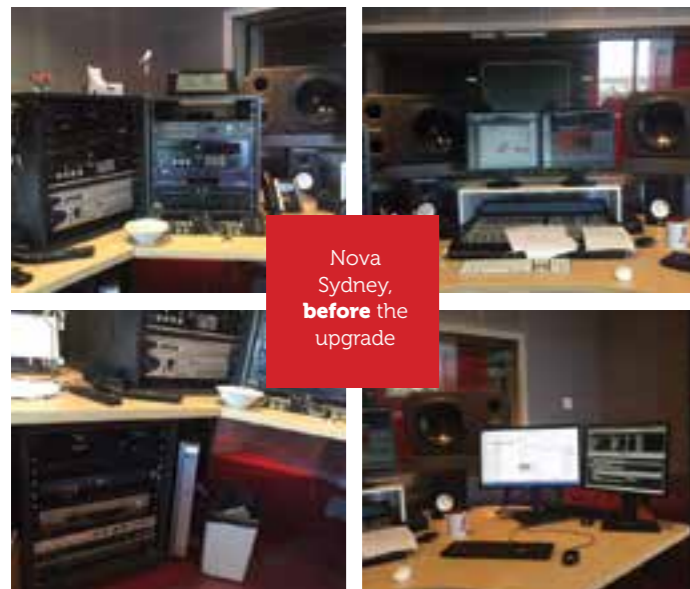
"A quarter of this project was in Sydney," observed Scott. "Their five studios run a minimum of eight hours a day. There's one studio that does breakfast in the morning from

4:30 AM. They finish at lunch, and the drive team come in, and are there until 9 PM. Being able to fit in with their schedules was very important."

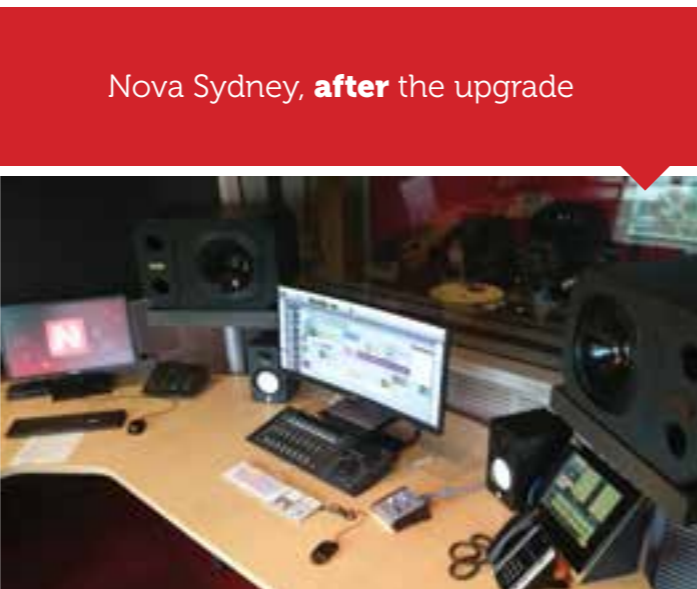
Bigger, Better, **Faster, Stronger**

With the new systems harmonised across the network, Malcolm has seen the staff reaping the benefits. "The biggest improvement is in the processing speed and the ability to export faster than real time," he said. "I put my hand up to do this project because I was passionate about it, and I wanted it to be everything it could be. We had to do the 'Lap of the Map'. 20 studios is a massive undertaking. I didn't have much hair in the first place, but now I have a lot less! The hardest aspect was coordination around the country. In every site, we needed different things done. Working with Scott is fantastic. We've known each other for 14 years, and I've built many stations with him on the journey. Dealing with so many different personalities and setups, it could have gone horribly wrong, but everyone was keen and kept pushing it along. Everyone happily worked harder to make a break for us to get into the studios to get the work done."

Soundcorp have a continuing relationship with the new systems, with remote access built-in for maintenance. "If there are any issues, we can dial in from the office, from home, or from an iPad out on the road, and tweak the systems," said Scott. "It doesn't happen often, but from time to time there's a system that requires a little TLC. It's all part of what we can do; a full turnkey solution across the whole network, and software support across the whole country."



Nova Sydney, **before** the upgrade



Nova Sydney, **after** the upgrade

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**LISTEN HERE**  
**SHORT AND CURLY: THE**  
**LAND OF TOPSY-TURVY**

By Andy  
**Stewart**

Mastering

Sometimes a mix needs almost nothing done to it in mastering. Sometimes a little help here and there goes a long way: a bit of EQ, some light limiting perhaps. Then there are the times when a mix's tone is so out of whack the only thing that can be done is for the mastering engineer to reject the mix and hit the ball back into the mix engineer's court.

I've been mastering for about 16 years now – when I'm not producing or mixing – and in that time I've heard a lot of great mixes, some average ones and some truly epic failures. Wearing the mastering hat is an endlessly demanding, deeply satisfying yet sometimes frustrating role. For the most part you get to witness things coming to a conclusion while along the way improving the sounds of people's artistic endeavours that many already thought represented the best they could have hoped for. Exceeding people's expectations is a nice perk of the job and an important indicator for me of a master's success. Making things sounds worse isn't in my remit. But things don't always go to plan and some mastering sessions don't end with a final cut, but rather a job list for the client to take back to his or her mix engineer. Why? Because there are times when I just can't let a bad mix through the net. I'm always careful to test the waters first, of course, to find out if a recall is either practical or possible. (No good ever comes from bagging

out a mix – or for that matter a fellow engineer – if there's no hope of improving it.) But where a recall is possible, and if time permits, I will sometimes encourage this option – even though it doesn't always suit my own timeline – because typically more can be achieved by returning to the mix when significant issues arise, than proceeding with the mastering process when I know it will only produce an inferior, compromised outcome. In the end, there is far more scope for detailed adjustment to a song at the mix stage than when it's all glued together as a stereo file – I once assumed this to be an incontrovertible fact but you'd be surprised how many people can barely distinguish the two processes from one another. Many come to a mastering session with what is essentially a long list of mix adjustments. When this happens you know you're in for a long session. But there's a grey area between these 'turn-around' sessions and great mixes, an area that if you were to catch me at my most cynical I'd say was vast. Debate about its geographical expanse aside, this grey area is where countless issues are revealed about a mix that can only be fixed during mastering to some compromised extent or other. While there are countless mix issues that can arise, one stands out repeatedly that I want to discuss here – tone.

**OVERALL & INDIVIDUAL**

When the overall tone of a mix is significantly outside the boundaries of what I would loosely call 'viable', correcting it can often reveal issues that were previously concealed by its inherent imbalance. It might be a glassy tambourine clashing with the main vocal, or too much bottom end in the electric guitars. Whatever the cause, an inherently off-kilter mix tone is

something mix engineers should work hard to minimise wherever possible. It's not good enough to mix in isolation and expect mastering to correct wildly flawed tone without expecting some sort of downside. But what's worse is a mix where all the individual instrument tones are upside down and inside out: vocals too dull, cymbals too bright, guitars harsh and thin, bass drums indecipherable, and so on. When a mix is presented to mastering like this it's simply a case of prioritising what element (or elements) should be improved, rather than expecting that every individual element can be made to sound better. Do we clear up and try and lift the lead vocal at the expense of the guitar tone, or soften said guitars, further relegating the vocal to an incoherent mumble? Do we try and make the kick drum audible through most speakers or only some, and if we do focus on that, will we end up with a murky lump in the guitars and vocals as a consequence? Do we try to tame the cymbals with a multi-band compressor or will that create the overall impression that the mix is dull?

As you can see all of this is immediately a conversation about compromise. Topsy-turvy tones within a mix wreak havoc in mastering, but it's often only at this late stage of proceedings that an artist becomes aware of what's at stake – nothing less than the compromise of their art. When tonal compromise is the only realistic option left on the table no-one is ever very happy about it, of course. From an artist's perspective, up to this juncture most of the production process has been about endless possibilities, not impossibilities. Suddenly the language is all arse-about, the conversations all centred around things like 'limited scope', 'highest priorities' and of course 'compromise'. This is typically when people start to ask too much of this final process by expecting it to perform miracles that should have taken place further back up the production line. This also has the unfortunate knock-on effect of putting undue pressure on the mastering engineer who then often looks for solutions that simply aren't there, sometimes doing more harm than good in the process.

**GET IT TOGETHER**

So what can be done? Crucially, productions and in particular the mixing of these productions needs to improve. Central to this must be the clear expectation by all concerned that a mix should be as tonally balanced as possible and sound as good outside the mix room as it does in it. As is often the case with any aspect of audio production, mixing is constrained by the usual suspects: the musical ingredients, the available budget and associated amount of time that can be spent finessing each mix, and the personalities involved. But that's all by the by. Mix engineers should try hard to avoid becoming isolationists – I know of one individual who insists on never really listening to music at all other than what he produces, lest he be 'compromised' by the world around him. It's insane. In reality he's just lazy, and like many of us, finds it confronting to compare his mixes (especially when clients are present) to great sounding commercially

successful releases. But confronting that fear is something every mix engineer should face. It's only by finding more and varied ways to 'pressure test' your mixes that you can discover their shortcomings, thereby empowering you with information about how they can be improved and/or rectified. If you hide from the world when you mix, and run a mile from any sort of external comparison or listening test outside your closeted mix environment you're headed for disaster... or your mastering engineer is.

**FIND SOLUTIONS, NOT EXCUSES**

Do everyone you work with a favour and pay careful attention to the tones you ascribe to instruments in your future mix masterpieces. Don't let your clients walk out the door convinced of uneducated drivel relating to their mixes either... thing like: "the vocal couldn't be made any clearer" or "the bass guitar was never going to be important" when obviously that was not the case. Don't fill their heads full of nonsense designed only to give you just enough time to escape out the back door with their hard-earned cash.

I recently had a mastering client who complained that his vocal in a particular mix was hard to hear – and he was right – but that he and the mix engineer "simply couldn't make it any clearer... that's just how it sounded." I was floored. Not only was this concept patently absurd, he was clearly disappointed by the outcome. Fundamentally, the mix was dominated by a cacophony of cymbals, guitars and harsh keyboards all pressing in around a quietly sung, mellow toned vocal. It was a bad mix, where the vocal was all but unintelligible – though the lyrical content was apparently crucial to the piece. Yet instead of making a few fundamental changes that would have transformed the mix and made the vocal clearer and vastly more engaging, the engineer, for whatever reason, decided instead to convince the artist that the voice, "just sounded like that" and that nothing could really be done about it. I'd only have two words to say to someone like that: "You're fired!"

**A**ndy Stewart owns and operates The Mill in the hills of Bass Coast in Victoria. He's happy to respond to any pleas for recording or mixing help... contact him at: [andy@themillstudio.com.au](mailto:andy@themillstudio.com.au)

**TOOLBOX  
REVIEW**



**HOFA  
IQ-REVERB PLUG-IN**

The name Hofa is by no means a household one in the world of pro audio. Countless software designers live outside the uber-mainstream as we all know, many of them arguably superior to the ones floating down it, and this German company is no exception.

Hofa makes a great suite of plug-ins, not least of which is the one I've been incorporating into almost every mix I've done in the last six months – IQ Reverb.

This is a superbly clear, potentially enormous sounding convolution reverb that offers countless presets, the ability to import your own impulse responses, and myriad control parameters, the choice of which surround the central 3D model display of the reverb selected. The bonus feature of the GUI – which I love and which these days helps me distinguish a good plug-in from an old clunker – is its elastic resizability right out to full-screen... great for detailed work.

IQ Reverb takes a bit of getting used to at first, but once you get to know the GUI it starts becoming more intuitive.

Some key features of the plug-in outside the normal controls of decay time, pre-delay and dampening etc, are the Position, Cut, Gate and Reverse controls.

Position, when selected, brings up a visual image of three-dimensional space, providing you with a giant X with which to position yourself inside that space. The results are significant changes to the sound of the response – placing the X further back far more diffuse than up front, left/right imbalance providing more of just that. Double-clicking in this window switches to L/R mode – each side of which is adjustable independently.

Cut literally truncates the impulse response time, regardless of its original RT60 value, making for radically tighter drum sounds

etc, without the natural decay. This feature provides two controls: Time (selectable in milliseconds or beats) and Fade Time (in milliseconds).

Gate is somewhat different to Cut, although on the surface the two controls seem to play the same role. Gate places control over the input source, rather than the output length, with easy threshold, hold and release times always in full view. This can make some of the more expansive, lengthy reverb options much tighter in a mix at the adjustment of a few controls (the middle 'hold' control adjustable in beats as well as milliseconds).

Reverse is cool, because it can be applied to any reverb. It's just a button press away inside the Time window, and when applied flips the 3D model around too, just in case you hadn't noticed how different the reverb sounds. In reverse, some of these sound truly nuts.

Last points of interest: I like that the plug-in splits its impulse responses into three frequency bands, each of which have an adjustable crossover point and dampening controls. The modulation control also sound good; adding width and thickness to the tone of spaces, depending on how much Rate and Depth you apply.

As a side note to all of this – and this point applies to all Hofa's plug-ins to some degree – there are several features in IQ-Reverb that can go unnoticed if you're not looking

too hard. The most obvious of these are the fact that many of the controls around the 3D image are also controllable inside it. If you hover a cursor over any of these you will see the corresponding outer control light up. This gives you good visual representation of how each control works. There are also tabs for IRs (Impulse Responses) as well as IQ Reverb 'presets'. You could miss this second tab altogether if you're not looking for it, never discovering the long list of alternatives at your fingertips. The tabs are hiding in plain sight on the right-hand side of the plug-in.

All in all IQ-Reverb by Hofa is a bit of a monster – lots of controls (though not a mind-boggling array), impressive sounds, and a detailed GUI that displays everything in a fascinating way.

- Andy Stewart

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# THE MILL REPORT

By Andy Stewart



Photo by Pete Forsyth, Wiki Strategies

## UNPROMISING BEGINNINGS

This is how things work. Some people are gifted, and the rest aren't. Are you in this elite club, or are you just another one of the faceless millions whose life would be better spent contemplating more modest pursuits like full-time work and weekend sport rather than a life of music and art?

I'm being sarcastic of course.

In a quirky interview with his colleague Daniel Lanois, Brian Eno once remarked that most people who dare to daydream of another life for themselves – an artistic life – are generally prevented from doing so by the misnomer that only 'special' or 'exceptional' people make great art or music.

But as he goes on to say, most great music comes from "unpromising beginnings," and that if people only realised how much of the music recorded by their favourite artists sprang from these unpromising beginnings, they might be more inclined to have a go themselves.

He's right of course. Most great recorded music starts with a single fairly unremarkable idea, and builds from there, like an explorer taking his or her first step into the unknown. Whoever discovered something amazing in their first step?

It's an important idea to contemplate – particularly for anyone considering their first foray into the world of music – because it's not something you hear much about in the media.

To music press and record company employees alike, the very notion that anyone has the potential to make great music is all far too pedestrian an idea for them to bear. They prefer to peddle the misnomer that pop stars are somehow demigods blessed with genius and gifts beyond the comprehension of mere mortals. It's about mythmaking and record sales in the end, though none of them like to admit it.

But it's all rubbish of course. In reality, most art, regardless of what form it takes, is inspired by a combination of self-belief and hard work. Sure there are other ingredients involved, but by and large it's the belief in yourself as an artist that drives it.

Unfortunately, most people become convinced, either by subtle external forces or internal doubt, that a life inclusive of some form of artistic endeavour is somehow for 'other people': visionaries with a gift that they themselves do not possess perhaps.

But it's simply not the case. While there are indeed exceptional talents

out there in every field of human endeavour, including art, most successful artists are the products of their own internal validation process.

They don't wake up in the morning feeling like it's outside their remit as a human being to make art, or that if they did the products of this pursuit would somehow be invalid or draw scorn from those for whom true artistic endeavour has somehow been prescribed.

Art is a personal endeavour, not the preserve of mythical, god-like creatures, the works of which are hanging in the Louvre or the Guggenheim. The most famous paintings in history were done by mere mortals working on their own in front of a piece of canvas. There were no security cameras present at the time, or multi-million dollar price tags hanging off them. And if you saw any of these works half finished you might be shocked.

Likewise, some of the greatest songs ever written started out as random scribbles underpinned by four chords. They were worked

over, and worked over again before finally becoming something worth recording.

Despite the popular myth, most songs or symphonies don't get teleported into the mind of the artist from some magical netherworld as a finished masterpiece. They're the product of self-belief and hard work. So next time you're contemplating a life that might involve making music, don't immediately find ways to cut the idea down, or let the first negative thought that pops into your head talk you out of it. Don't let the nay-sayers or negative vibe merchants convince you that music is for a special elite – frankly they have no idea what they're talking about and their unsubstantiated mumblings should be disregarded entirely.

Some of the best albums I've ever been involved with have had truly unremarkable beginnings, though by the end of the process there's barely a trace of it. And this is a crucial thing about art to understand.

The process is often obscured, and from the outside at least it can be almost impossible to conceive of how anyone comes up with some of this extraordinary music. But in truth the process can be messy, confused, uninspired and indeed "unpromising." But when it's all wrapped up in a neat bow and on sale in the shops, that's forgotten by almost everyone – sometimes even the artist.

These demoralising flat-spots in the process, needless to say, are the junctures where most people turn 180 degrees and head for home, convinced that there's nothing out there for them – that they just don't have what it takes to be an artist. Because they can't see a road ahead that might lead them to this other sort of life that they have occasionally imagined for themselves, they balk at the prospect of carrying on regardless. Little do these people know they're

in fact on the same road as everyone else that ever became a well-known artist.

The only distinction in the vast majority of cases between someone who contemplates the journey and those who succeed as recording artists is the length of time they were prepared to stick it out on that sometimes lonely, meandering road to the artistic life.

Which leads us to the hugely contentious issue of how one defines success in this field in the first place. Is it a popularity contest from start to finish? If so, Van Gogh was an abject failure as were most of the famous artists that ever lived whose works are all now worth countless millions. If you'd asked 180 million pounds (or the equivalent) for a Van Gogh during his lifetime people would have laughed themselves silly, before committing you to the same mental institution as Vincent.

It's a tricky conversation, the discussion around success. Beyond commerce, there are countless other measures of equal or more significant worth, not least of which

is whether or not you yourself like what you've created. If so, fantastic. Of course, sometimes it pays to try and keep your ego out of it and pursue art in its purest form without ever expecting validation or praise from the outside world. But that's easy to say, hard to pull off. As Tom Waits remarked during his acceptance speech to the Rock and Roll Hall of Fame: "We all love music but we really want music to love us."

The bottom line is this: no-one has the inside running when it comes to making something great – not you, not me. Almost everything starts out sounding a bit crap and goes from there. The trick is to stand up to the punches the process throws at you along the journey and keep persisting. In my experience, persistence – beyond almost any other human characteristic – is what pays off in the end.

Andy Stewart owns and operates The Mill in the hills of Bass Coast. He's happy to respond to any pleas for recording or mixing help... contact him at: [andy@themillstudio.com.au](mailto:andy@themillstudio.com.au)

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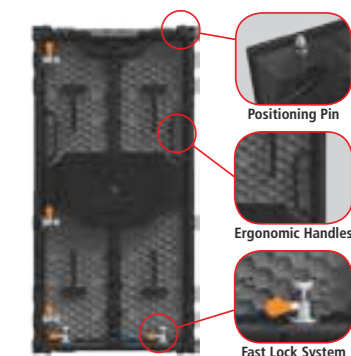


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# JIMMY BARNES

SOUL  
SEARCHIN'  
TOUR

**J**immy Barnes *Soul Searchin'* tour saw one of Australia's favourite singers hit the road throughout August to celebrate the release of his *Soul Searchin'* album. The all-new album follows *Soul Deep* (1991), *Soul Deeper* (2000) and *The Rhythm and the Blues* (2009) which have earned more than twelve ARIA Platinum Sales Awards between them.

Audio for tour was an all Kiwi affair with Leon Dalton of Global Production Partners FOH and Mike Cole doubling up as production manager and monitor guy.

Leon has worked on and off for Jimmy over the past twelve years either doing FOH or monitors. On this tour inhouse PA systems were used with an infill package toured.

"There's always emphasis on Jimmy's vocal," Leon clarified. "We also toured the control package with everything supplied by JPJ and a couple of their guys including Joel Pearson who is a fantastic butler and makes great cocktails."

This production was very different to a Jimmy Barnes rock show with thirteen people onstage and Leon and Mike had to work hard to keep everything under control.

"It's a very dynamic show but at the same time you can't mix it like a rock gig as it's a soul gig," he said. "The audience is more diverse than a normal Barnes rock gig so it's just catering the mix for everyone, not just the hard core Barnesy rock fans."

FOH Leon mixed on a Soundcraft Vi6 console multi-tracking everything onto a laptop. Leon used nine effects engines including reverb and delay on Jimmy's vocal, reverb and chorus on the BV's and brass, plus different reverbs on the snare drum and toms.

"To be honest Jimmy's voice is really easy to deal with," commented Leon. "There's very little EQ on his voice, everything is done in the system and his vocal is flat with a compressor on it and that's all. I'm not really one to hack things on channels, it's more about tuning the PA and getting everything sitting right. Everything should naturally sound great out of the box as they're all great musicians with great sounds - I'm just there to make it louder!"

Leon tactfully remarked that the Nexo system in the Enmore Theatre was not his favourite but fortunately Joel had done hundreds of shows in the venue and knew how to get the best out of the PA.

"It's quite difficult mixing under the balcony - you've got to mix very low end and low mid-heavy for it to sound anything like it should in the auditorium," Leon said. "It's finding that compromise. When the sound check started today I thought 'oh dear' but Joel suggested I walk out into the auditorium and it sounded fine. It's a little bit challenging and a good idea to stick your headphones on."

Leon explained that this show was all about control of noise and that Mike had worked hard onstage to bring down the stage volume from a normal Barnesy rock show. To do that he has smaller powered L-Acoustics boxes and a lot of in ears to bring the stage volume down as well as adding Perspex around the guitars. The result is that if you're sitting in the front row you don't have a guitar pinning you to your seat!

For several years Jimmy has used a KSM9 as his main vocal microphone with Mike saying that they have always swayed towards Shure mics because of familiarity, ease to get and being able to keep things consistent.

PHOTOS  
BY TROY  
CONSTABLE



For several years Jimmy has used a KSM9 as his main vocal

“On this show 90% of the mics are Shure which has a lot to do with my familiarity with them,” said Mike. “We know they’re reliable, tried and tested stage microphones.”

Onstage there were ten sets of Shure PSM1000 IEMs chosen purely because Mike says they are the most reliable at getting all the frequencies to work together. The majority of the stage monitoring was taken care of by the fourteen L-Acoustics powered 108P’s as well as a drumfill wedge and a pair of wedges for Jimmy.

Mike was mixing monitors on a Yamaha PM5D which he says does the job and is reliable however he is reaching the maximum output of what he can do.

“It’s a console that does twenty-four sends and we’re running twenty-six sends off it using extra outputs,” he said. “The band can’t grow and stick with that console. The reason we have stuck with it is that it had to be something we can easily hire on the other side of Australia when we can’t get a truck there.”

Mike admits that once soundcheck is done and dusted, there’s actually very little he has to do.

“It’s just a matter of watching people, making sure they are content on stage,” he added. “As we have managed to keep the stage volume right down and have so many on IEM’s, it doesn’t require much change going on. There are a few bits and pieces where there are duets going on that I need to keep an eye on otherwise, as long as I’ve done my job properly before the show, it’s a baby sitting job and just making sure everyone is happy.”

Simon ‘Junior’ Johnson has lit Jimmy for a few years now and this time round he has kept the lighting design fairly simple as Jimmy had requested a more traditional looking sixties feel.

“We also decided to keep to a simple colour palette of red, blue, magenta, amber but absolutely NO green - that was the strict brief!” said Simon. “I’ve gone for a more static look with very little live movement.”

Naturally Simon wasn’t too enthusiastic about touring a whole bunch of Par cans especially as they usually didn’t load in until midday. Instead he decided to use Robe Robin 100 LEDBeams giving him the ability to create more looks whilst still ensuring a Par can feel.



MIKE COLE



LEON DALTON



SIMON JOHNSON

Joining the twenty-four Robe Robins in the roof were fourteen LightSky Extreme Beams for ACL type Beam shapes, 18 duets because no Jimmy show would be complete without a few blinders and a row of MMX Spots along the back.

“The MMX allow me to up light the back drape, silhouette the band and a little bit of movement in the air for the last couple of songs in the set,” explained Simon. “The Robe Robin 100 is probably one of the better fixtures that Robe have made.”

Simon was running an MA Lighting MA2 light console with an MA2 command wing and a fader wing as a backup.

With no production rehearsals prior to the tour, the ease of the MA2 platform allowed Simon to build the basics offline giving him a good head start and as much programming time on the first show.

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# Hot August Nights

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Neil Diamond



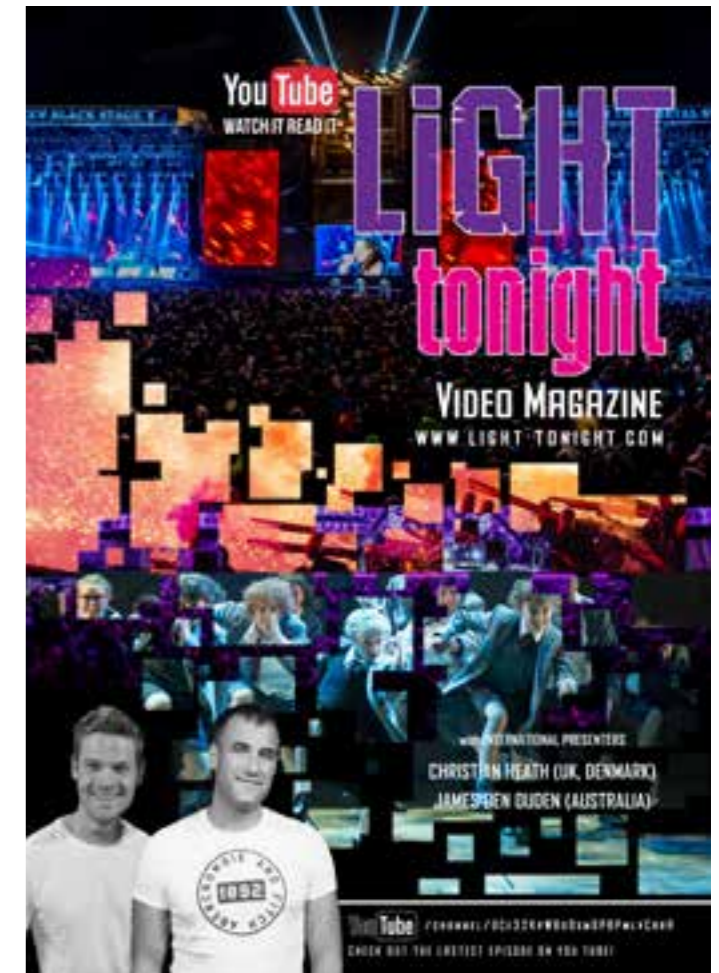
**It**'s over 40 years since Neil Diamond stepped on stage at the Greek Theatre in Los Angeles with a symphony orchestra and recorded what is still known today as one of the greatest epic live albums of all time. During August this year Neil Diamond impersonator Peter Byrne recreated this show together with the 30 piece Sydney International Orchestra at an RSL near you. Peter has the capacity to recreate Neil Diamond to a standard that apparently Neil himself has endorsed on many occasions hearing Peter's tribute. CX caught up with the show at Hornsby RSL on a Saturday along with FOH engineer Michael Orland who has worked with Peter Byrne for close to a quarter of a century. "During that time we've almost come to blows, he's screamed at me and I've screamed at him," laughed Michael. "I know the word 'family' is a bit over used in these situations but it is like that. We love and hate each other but certainly respect each

other's boundaries. Peter has come to accept that Michael Orland can be a real pain in the arse to work with because he cares about what he does." Michael admits that he is really precious and always abusing people but puts it down to his obsessiveness about sound. "Maybe that's not a bad thing when you're dealing with things on this scale - or that's what I like to think anyway!" he remarked. "There was one year when Peter got talked into



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trying someone else and at the risk of sounding like a wanker, he came back to me running with open arms. I'm sure the other guys were easier to work with as I'm always fussing and fretting which makes some people nervous."

Michael looks forward to the month of August when Peter takes this show on the road every year. It gives him a chance to excel himself after months of doing corporate gigs with cover bands using MP3 backing tracks!

"I'll get into the venue first thing in the morning and there's no break until I shut up the vehicles at the end of the night," he said. "I work my

arse off but come home feeling invigorated. Its hard work but I know no one else could have pulled it off. There's job satisfaction in being that smug!"

Most of the band were on headphones and everyone had their own personal monitor device. At Hornsby RSL one of the girls was controlling her own monitor using her iPad, another using her phone. Other key players had Behringer Powerplay controllers. Prior to this set up, the club's audio guy would be used to run monitors and sometimes this resulted in the whole show going to hell.

"If we didn't have the budget to fly around our own monitor guy then we needed to make everyone their own monitor person," explained Michael.

"Peter was initially nervous about it but everyone took to it like ducks to water and it solved all of our problems."

Michael hasn't done a gig in Hornsby RSL for fifteen years but was happy with the venue and its' Martin line array. The club wouldn't lose precious seats out front for a mix position so he was relegated to hugging the side wall although Michael says the club were very helpful on the day. For many years Michael toured the show with a Yamaha DM1000 but now he uses a pair of Midas M32 Cores which he loves.

"It's a light, little one rack unit thing and if I

want extra channels I use two Cores adding in extra Midas DL32 and DL16 stage boxes," he said. "This year we're using about 50 channels so that's a DL36, a DL16 and two Cores which can pack into two little padded bags."

Michael controls the show out front from a rather large touch screen having used a tablet out front during soundcheck to get the settings correct.

"The touch screen is just like using any audio console where you can use as many faders as you want," he commented. "All the problems I used to have initially trying to run wireless

where every now and then things would cut out, have been solved. I couldn't work out how the soundchecks would be perfect and then at 8pm a message would appear on my screen saying I had lost contact with the desk. Finally, I realized that when the doors opened, 600 people with mobile phones would flood in and 2.4GHz would be unreliable. Someone suggested I use 5GHz and suddenly all my problems were solved!"

Michael was also advised to spend at least \$5000 on a super router but opted for a \$60 router from Kogan which he says has been great.

"It's been a rock solid set up and a thirty second pack up at the end of the night," he added. "No huge console to wrangle, no effects rack and

no multicore to deal with. I don't understand the old sound guys sitting around the campfire discussing how they miss the old days."

Michael says that he has to do very little to Peter's voice and that on most gigs he has his EQ on bypass. However as the whole show is built around Peter's voice, Michael will tweak the overall third octave on front of house.

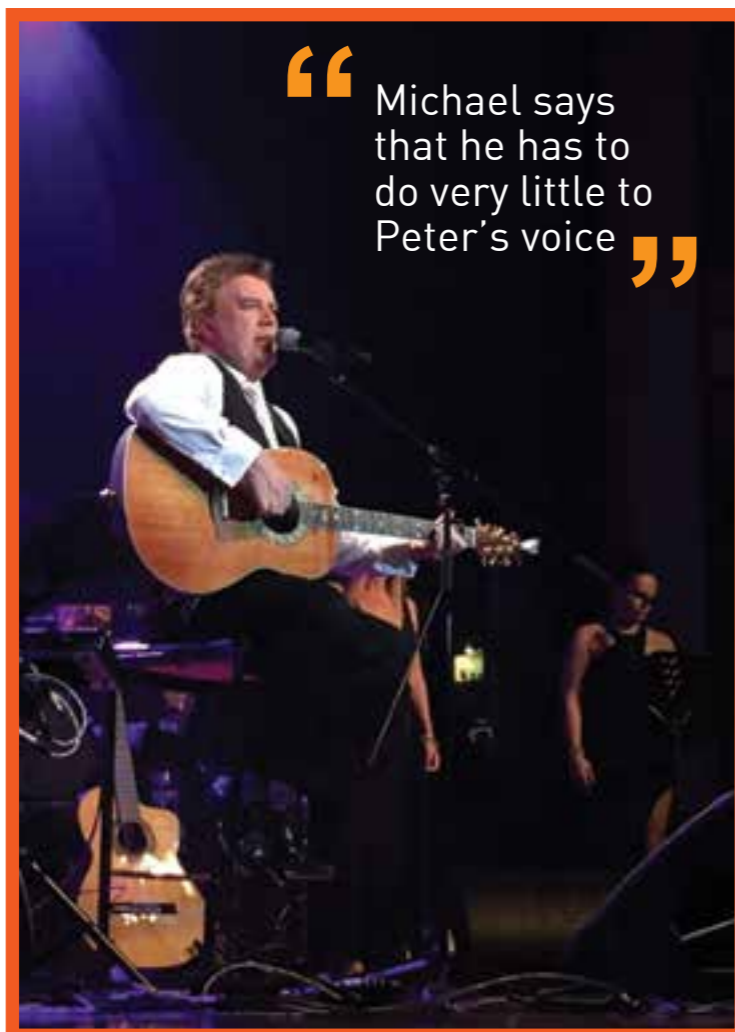
"Peter's voice doesn't need fixing, it's not broken," Michael reported. "If we were back in analogue-land, everything would be at 12 o'clock. There are some voices I work with

where I struggle but thankfully Peter isn't one of those. It just sounds good flat. Obviously I use a high pass at around about 120Hz but apart from that, totally flat. With the onboard effects I use Lexicon Emulation for the reverb and I only use delay as an eerie effect a couple of times during the show, there's no normal doubling delay that sits on his voice."

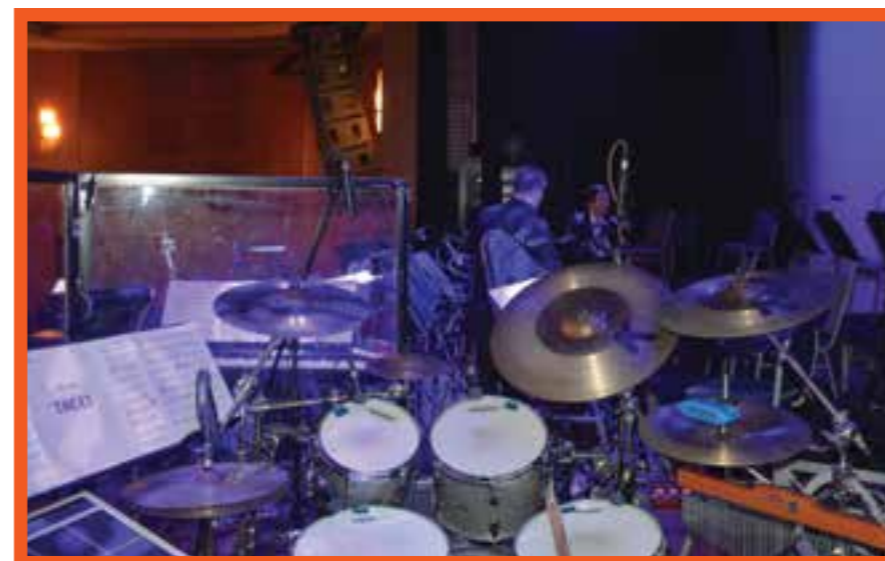
The only microphones that Michael travels with are the string bug mics and the horn clip-ons, all the other mics he picks up interstate or uses his own when performing in Sydney.

"That's all Shure gear, ULXD and PM900 for Peter and that makes it pretty easy," he said. "The band bring their own head phones or in-ear pieces and plug them directly into their Powerplay controllers." The following gig at Wenty's Leagues would be a corker as last time Michael was there he had trouble fitting a six-piece band on the stage let alone 35 people. He also has to vacate the auditorium for three hours in the afternoon whilst bingo takes place!! Expect to see Michael losing it and throwing furniture around the venue.

Michael hugging the side wall at Hornsby RSL



“ Michael says that he has to do very little to Peter's voice ”



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Last year the 2015 Melbourne Festival was launched by a similar show with the Melbourne Symphony Orchestra. After that Melbourne show sold out in just three hours, it made sense to bring the show to their hometown of Sydney in 2016 as part of the Redbull Music Academy Weekender.

Matt Smith of Colourblind has been lighting the band since April 2013. The first run he did with them was part of a tour for their single *I Didn't Believe*.

"The show was very different compared to that on the weekend!" he commented. "When I started with Flight Facilities, the headline shows on that tour were in 500 - 800 cap venues with an 8ft wide set piece, a few moving lights and my Chamsys Maxi Wing."

This time around the band were content to leave the design of the show to Matt, Tom Wright (associate designer/programmer), and Tim Lovett (visual director).

"Together we came up with the design and went for gold!" said Matt. "Everything was approved by Jimmy Lyell and Hugo Gruzman (Flight Facilities) but it's great to have that much level of trust from them over the creative control of the show. During pre-vis and programming on site, we had a number of discussions about some specific cue points, but other than that we were left to our own devices."

Matt insists there were no hurdles this time around although last year there were many firsts for both band and crew as it was the first time Flight Facilities had played live ..... let alone with an orchestra!

"It was also the first time that both Steffan Johnson (FOH) and I had worked with



# Aussie electro duo FLIGHT FACILITIES & SYDNEY SYMPHONY Orchestra

*Aussie electro duo Flight Facilities teamed up with the fifty-piece Sydney Symphony Orchestra for a massive one-off concert for 15,000 fans in Sydney's The Domain.*

an orchestra," said Matt. "Sidney Myer Music Bowl is an interesting venue when it comes to trim heights and rigging, it tapers down as you go upstage. So this year was much calmer and easier for all involved."

The creative team wanted a design that would complement the new, flight control tower set piece built by Standby Go in Melbourne. So Matt decided to follow the same angles with the six overhead trusses. Two 9m ramps, lined with twelve GLP impression X4 Bar 20, were positioned either side of stage running up to the control tower.

"We were going for a kind of runway lighting look which Hugo particularly loves," explained Matt. "I'm in love with the X4 Bars, I used them on the Rufus tour earlier this year and keep looking for an excuse to use them again and again."

Tim Lovett came up with the screen design of ten columns of Roe 12mm provided by Big Picture. The ten columns started lower off stage and ascended up to the largest centre column behind the control tower. Tim had a few different designs but the team all agreed that the one they eventually went with complimented the design the best.

In lighting the orchestra, Matt opted for nice even backlight using sixteen Martin MAC Auras in two groups behind the orchestra and four each side as clips. He kept all other moving lights off the orchestra to avoid distracting from their sheet music. The SSO's own



sconce lights provided enough light bouncing off the sheet music to give their faces a nice glow.

Key to the design were the 'Landing Lights' - six truss towers at descending heights, each with four MAC 101s rigged from a horizontal pipe. Clay Paky Sharpys provided aerial effects over the orchestra with Clay Paky Stormys chosen as LED strobes.

"Overhead we had eighteen MAC Vipers which have been my go-to profile for quite some time now," Matt said. "They have fantastic gobos, fast and precise zoom and focus and rich saturated colours. I also had a dozen Quantum Wash, this is the first time I'd used these and was very impressed. I had to run these at 50% most of the time, the output on them is incredible. Then I had eight MAC 2000 Wash XB for the Flight Facilities band members and for a little down stage edge wash when required. Lastly, there were twenty-four 4 way linear Molefey for audience blinders."

*For control Matt used MA Lighting MA2, his preferred platform these days, and the show was time coded, as is usual with Flight Facilities these days.*



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# ROSCO LITEPAD VECTOR CCT

By Jimmy **Den-Ouden**

## LITEPAD GROWS UP AND SHRINKS DOWN

**T**his review begins with a lesson in recent history. Maybe five years ago we reviewed a selection of products from the LitePad range by Rosco. Cool things were afoot at the time, with the product being deployed in an interesting and quite diverse array of applications. We liked

LitePad then because it was tough, compact, versatile, and it produced a beautifully soft and even lightfield.

First generation LitePad was available in a choice of two colour temperatures. Great if your application only called for one specific temperature, but this made it harder to match up with other sources. We have a daylight LitePad here at CX we use for the occasional location interview, and in some applications we use a CTO filter to match it up with ambient sources. It gets us closer but it's not perfect, and it's another thing to remember to carry around. Also because it's a filter it reduces the output.

LitePad Vector CCT is available in exactly one size – an 8" x 8" square, and in the spirit of product advancement it's brighter than its predecessors. Rosco claims four times brighter than the original 12" x 12" square LitePad.

It's also loaded with two sets of LEDs which

allow it to produce white light at 3000K, or 6000K, or anything in between those two in 100 degree steps. The onboard control panel allows the output to be dimmed from 100% to 0% in 1% increments.

Rosco provides both CRI and CQS metrics for the Vector, which surprisingly scored considerably better (low 90's on both scales) at lower colour temperatures. Lux at 1m is 1500 @ 3000K or 1700 @ 6000K. So colour rendition is better at 3000K, but it's brighter at 6000K.

Power consumption is stated at 65W, which is a bit over 5A at 12V. Not insignificant, especially for an LED fixture. Our test kit came with a yoke bracket and V-Lock battery plate, which is great because it shows Rosco has a commitment toward supporting a common standard for batteries. No proprietary garbage here! Other industry sectors could learn from this. There's a plug-in power supply option too for when you have local power available.

Another thing you can plug in is DMX via an RJ45 socket. Granted this isn't the most common DMX connector but given modest rear panel space I'll let it go. Conveniently it does allow multiple units to be linked together with Cat5 cables, which are actually cheaper than DMX cables and typically easier to source if

you're stuck without one.

It's an odd move, but I actually like it. Making a DMX to RJ45 adapter should take you all of 5 minutes with the soldering iron, and the pinouts are in the LitePad Vector manual.

I think though most people won't bother with DMX control – this is really a device designed for DOPs and film makers to be able to quickly and easily light a scene or interview. The fixture is available in a daylight only version, and also as a 2 or three head kit complete with backpack or hardcase. Score one for portability. With the release of LitePad Vector CCT

Rosco demonstrated effectively how to take a great product and make it even better.

**Manufacturer:** Rosco  
**Product:** Lightpad Vector CCT  
**Web:** [www.rosco.com/australia](http://www.rosco.com/australia)  
**Distributor:** Rosco  
**Price:** \$1,250 inc gst



In keeping with the great outdoors theme, the G-1 Beam is available in battery powered as well as mains powered variants. Combining this with wireless DMX capability puts the fixture into a category almost of its own. An IP65 rated beamlight which can be deployed outdoors without any cabling! The only real challenge is making sure nobody steals the thing – at 8.9kg including batteries it's very easy to handle. Battery life is stated as 10-12 hours under typical operating conditions.

Between one and three batteries can be fitted into the removable base, which attaches to the G-1 Beam fixture itself with a pair of butterfly catches. The base can be charged with or without the head attached, and power is input via TRUE1 PowerCon connector. If you need cabled DMX, use the 5 pin XLR connectors also integrated into the base.

## SGM G-1 BEAM LOADS OF TRICKS



The beam feature set is relatively straightforward, with a 19 position + open gobo wheel, and a 14 position + open colour wheel. The light source is a 6500K white LED, good on paper for 62,000 Lux at 3m distance. When battery operation is a factor, every watt of power used matters. I think the beam feature set provides a really good compromise between functionality and battery power optimization. It's not over the top but it's more than adequate to achieve a bunch of really good, unique looks. Naturally focus is motorized, allowing for clean results when projecting gobo patterns onto surfaces.

The LED source can be strobed, and there are a number of preset macro functions and a gobo oscillation effect included too. Tilt range is fairly typical at 240 degrees, while the G-1 Beam offers endless rotation on the pan axis. The fixture is touted as being maintenance free. Pretty well all you need to do is keep it clean enough to let the light out the end, and you can do that by washing it with a low-pressure hose!

Just to satisfy my own curiosity I took the G-1 Beam outside the CX office late one evening and switched it on. Then I pointed a hose at it and let fly for several minutes until I felt any further dousing was just a waste of water. In this setting I was struck not only by the way the fixture kept working uninterrupted, but also how visible the beam was over distance in the sky. Using it indoors just didn't do it justice (though it may have been less confusing to our neighbours).

For my mind the G-1 Beam is one of the coolest and certainly one of the more unique fixtures to cross my desk any time in recent memory. It's bright, and it's very clever. The IP rating, scope for fully wireless operation, zero maintenance requirements and endless pan really do make it very unique indeed.



**Brand:** SGM  
**Model:** G-1 Beam  
**RRP:** \$4,995 ex gst, inc 3 batteries  
**Product Info:** [www.sgmlight.com](http://www.sgmlight.com)  
**Distributor:** [www.etaust.com](http://www.etaust.com)

By Jimmy **Den-Ouden**

**W**e've seen a massive rise in the popularity of beam lights over the past several years. In my mind it all kind of stemmed from the release of the Sharpy, and since then this category of fixture has seen increases in output and beam feature count, but what we haven't seen much of is weather protection. Given the beam light is a fixture which is frequently deployed outdoors, this strikes me as somewhat ironic. SGM has identified this essentially under-serviced market sector, and come to the table with their solution – the IP65 rated G-1 Beam. Perhaps taking advantage of some of the lessons learnt in the process of designing the G-Spot fixture, the G-1 spot is similarly an LED fixture, but with a very narrow 2.8 degree beam angle. While the beam angle is fixed, it can be reduced to 0.8 degrees using an "aperture pseudo-zoom".

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# RIEDEL MICRON

## MORE FROM MEDIORNET

By Jimmy **Den-Ouden**

**I**t's no big secret I'm quite the fan of MediorNet by Riedel. It's a fast, flexible, reliable, and very clever platform. Of course all this cleverness comes at a price, but then so does anything that's proper broadcast grade.

MicroN is a part of the MediorNet family, and very much a multi purpose device. It can stand alone and act as a 12x12 video and 2 port MADI router/embedder/de-embedder, it can link with one or more other MicroN units to form a bigger or de-centralised router via mesh network, or it can act as an interface to a Riedel MetroN fiber router.

MicroN has 8x 10G fiber ports, 12x HD-SDI inputs, 12x HD-SDI outputs, 2x MADI ports, and a gigabit Ethernet port. The fiber ports link multiple MicroN units together (or to a MetroN router), while the SDI and MADI ports interface to video and audio sources and destinations. There's also a CONFIG port, to which you connect a computer in order to configure the device using MediorWorks.

Essentially once you build a network of one or more MicroN devices, it's possible to route anything from any port on any box to anywhere you want. In a mesh network, MicroN units can all be directly linked to each other via multiple fiber runs, and traffic within the system is entirely self-managed. In the unlikely event one box fails, the rest of the network doesn't fall over in a heap. To me, the self-management of network traffic has always been one of the most appealing aspects of the MediorNet platform. Outputs can even be prioritized.

If you need to go bigger than about 9 boxes worth of MicroN, then you use MicroN to interface with MetroN. MetroN is a 64 port fiber router, on which half the ports operate at 10G and the other half at 4.25G. Each 10G port can transport up to 6 HD-SDI video signals, allowing MetroN to act as the basis for a video router supporting 192 inputs and theoretically unlimited outputs.

MediorWorks runs in java, and is downloaded from MicroN via a web interface. Getting up and running is pretty straightforward – make sure you have java installed, then link your computer to the config port, give it a static IP, and punch the IP address of the MicroN

**Brand:** Riedel  
**Model:** MicroN  
**RRP:** \$18,000 ex gst  
**Distributor:** [www.riedel.net](http://www.riedel.net)

into a browser window. If you've used MediorNet before it will be a familiar process. You can configure MediorNet from any box connected to the network.

MediorNet has had some updates since we last looked at it, with a new dashboard window, colour scheme, and some extra features. It took me a few minutes to remember how to setup signal routes, but once I figured it out it was pretty simple to make the MetroN do whatever I wanted it to. It's quite easy to route a video signal from one place to another, with a split window tree view allowing multiple signals to be routed simultaneously. This is great if you want to route lots of audio at once.

Speaking of routing audio, it's possible to route individual MADI channels into each of the 16 audio embedders for each SDI output, and similarly to de-embed SDI audio and route this to a MADI output. You can even re-order the audio channel routing from one SDI input to an SDI output. Every audio input and output can have its level adjusted, and there's even an option to apply delay as well.

MediorWorks is good for detailed signal routing, but sometimes you just want to change a bunch of routes quickly without getting a computer involved. For this application Riedel offers the RSP-2318 Smartpanel, which can run apps and not only act as a comms panel but also a router controller. Using a Smartpanel, you can change individual routing or run macros, which allow up to 100 operations to be automated onto a single button. Configuration of the smart panel is done via web interface.

MicroN can generate a selection of test signals for both audio and video outputs, and while we haven't talked about it yet it's of course also possible to route Ethernet from any box on the MediorNet network to any other box. Whole network configurations can be saved and recalled, so you could be using the MicroN box to deliver commentary feeds one day, and pickup remote video inputs the next. Naturally MicroN has the familiar Riedel OLED display, plenty of cooling fans and dual power supplies, so as well as looking nice it is built to work hard. Heavy lifting for signal routing just got a bit easier.



# EXTRON CCI PRO 700

## A FRESH APPROACH TO CONFERENCING CONTROL

By Jason **Allen**

**T**here's now a big focus among AV manufacturers on end-user interface design – differentiating their products by making them as intuitive, familiar, and easy to use as possible. More and more companies are turning to graphic and industrial designers to help shape their products from inception through to delivery, testing user reactions before release to market. While marketing-driven product development has been common in mass-market industries for decades, it's relatively new in professional electronics and AV, where for years the target market has been the integrators and installers themselves.

The Extron CCI Pro 700 is a timely case-in-point. It's an immediately familiar and stylish piece of gear that would look at home on any corporate boardroom table. It looks exactly like a high-end conferencing phone. But it isn't (although its internal speakers can play back conference audio and you can dial or access a phonebook from the interface). It's actually a completely customisable control surface for a conferencing and AV environment, complete with 3.5" colour screen with four context-dependent buttons, six back-lit soft buttons, configurable buttons for volume, navigation, call mode, keypad, room and conference functions, and even light and motion sensors for room and system activation.

Usually this kind of control capability would be in a customised GUI running on a touch screen, accessed from dedicated wall controllers, on a conferencing phone, or more than likely, spread across a combination of all three. What's clever about the CCI Pro 700 is that it gives the installer a simple and elegant way to send out control messages to any part of the system from a central, approachable interface. The six backlit soft buttons come pre-printed with some common labels, such as 'Display On' 'PC', 'Laptop' and so on, but you can create and order custom button labels that say anything you like. Running on PoE (a nice time, cable and space saver), the CCI Pro 700 is compatible with any kind of conferencing system, whether soft or hard codec. It runs with any Extron IP Link Pro control processor, and can be quickly set-up with templates downloadable for Extron's Global Configurator and GUI Configurator softwares. There's also support for Microsoft Skype for Business when used in with Extron's Codec Connect running on a PC.



The CCI Pro 700 feels substantial, solid and well-built, which is going to make any customer feel comfortable and assured of quality. And that's what this kind of product is about - ensuring that the end-user is getting the most out of their AV system dollar. There's nothing to confuse or fluster a user that has no knowledge about what actually happens when you push a button or what mysterious boxes that the CCI Pro 700 is connected to. And the more a client understands the interface that's in front of them, the less ongoing support an integrator has to provide, thereby maximizing the profit in any given job. So, in that sense, it's not all about the end-user after all!

**Brand:** Extron  
**Model:** CCI Pro 700  
**RRP:** \$3,614  
**Product Info:** [www.extron.com.au](http://www.extron.com.au)  
**Distributor:** [www.extron.com.au](http://www.extron.com.au)



# Special Report



By Julius Grafton

## Inside the \$1 million TCP



### Director convicted on six counts

**S**ydney AV installation company Total Concept Projects employed 100 people and turned over \$50 million. Bad management led to the failure of the group in April 2010. It had traded over two decades and done contracting work on countless large and small projects over Australia.

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RICHARD SKARZYNSKI



ANTHONY MUSICO



In the desperate final days of the group, co owner **Richard Skarzynski** embarked on a series of fraudulent lease transactions that led to over a million dollars being funneled to creditors and others. This in turn led to complex civil legal action against two industry heavyweights, Hills and Bosch, where a lease company attempted to recoup over half a million dollars it paid them.

TCP was owned by Skarzynski and his partner, **Anthony Musico**. Both men were arrested after the civil case collapsed and charged with fraud offenses. They were released on bail after being held for hours in the dock at Auburn Police Station in Sydney's west.

"It was 7.30 on the morning of December 18 last year and two cops come to my door and say 'Are you Anthony Musico?' I say yes. They say, 'you're under arrest!'" Musico said.

"I had no idea what it was about. I had my board shorts and no shirt – I said, OK, you're arresting me. Let me go upstairs and get a shirt on. They follow me up the stairs."

Hauled off to the Police Station, Musico cooled his heels in the charge room while the Police attempted to find Skarzynski.

"They took my wedding ring. Take my fingerprints and a mug shot of me. I'm freaking out. Then they put me in the lockup. A glass door, stainless steel chair. Skarzynski comes in with his diary, they put him in the cell next to me."

Eventually both men were released on bail, instructed not to talk to each other.

**SEEDS OF CRISIS**

The collapse of TCP came after a decade of rapid expansion that saw the firm move from regular commercial audio visual contracting to an ambitious media foray that involved selling digital signage to registered clubs.

"In 2004 the idea was to put plasma screens into the clubs. We would centrally manage the content, the clubs would buy the screen on finance. Each package was worth about \$240,000 for 20 screens, installation and content".

The venture was called Total Concept Media, and the pitch to the clubs was that TCM would solicit and supply local advertising through the screen system in each club. Club events and promotions would run alongside paid advertising, that TCM would source.

"Skarzynski offered the clubs a 100 percent guarantee that if they didn't get enough advertising to make the lease payments then we would make the payments – 8 grand a month each." Musico is almost yelling now.

"I said, 'I'm not going to do that. Adjust the offer on the contracts to 50%. He said 'OK, we will'. But he didn't"

"It was like a Ponzi scheme. We would sell a system, get the quarter million, and he would be paying some of the lease money – eight grand a month – back to some of the clubs".

"Of course there was a shortfall in advertising. We were a content creator, a content provider, we had a sales team to provide advertising. How the f—k can we guarantee this advertising?"

"He (Skarzynski) said 'the clubs are making so much money'. Plus the liability (for the leased systems) was with the clubs not us. We had clubs from Maroochydore to Wagga Wagga up until 2007."

The TCP Group staff count went from 40 to 100. But then came the global financial crisis. In a double whammy the clubs were hit with new anti-smoking legislation.

"The money stopped. In 2008 I started to find out what was going wrong", Musico says. "We were outfitting the Australian Headquarters Joint Operations Command (HQJOC) centre 15 km south of Bungendore, in the ACT. Plus we were doing the Children's Hospital in Melbourne – big, big jobs."

**BETTER DAYS**

Total Concept Productions (as it was known then) grew out of a firm called Disco Roadshow that Skarzynski, Musico and a third partner started after school. They were ambitious DJs and the late 1980's was a boom time for nightclubs.

The guys all met when they were 13, at St Patricks Strathfield. By 1984 we had the Granville shop. "We were hungry, our motto was 'do whatever it takes'. Those were good times."

Disco Roadshow became TCP in 1988 and they did laser shows too, on some of the big tours including the huge Jesus Christ Superstar arena tour.

But big AV contracting was the way forward. They got the first big contract, for fitout of the entire Shangri-La Hotel in Sydney between 1989 and 1991. Then came the Aquatic Centre at Homebush. The 1990's Olympic boom provided very good growth.

TCP were revered and reviled in the industry. Other installation firms said they under quoted work. Skarzynski had more front than a Mack truck and started to live beyond his means.

**THE FRAUD**

The buyer does due diligence and decides something is off with some finance leases. Musico wants to know what the problem is.

"The guy says 'you have sequential serial numbers on some of the leases'. I say, 'what leases?'"

Increasingly desperate, Skarzynski embarked on a unique fund raising exercise in August 2009. He located a willing lease broker, Matthew Sofi, who was a principal at Australian Financial Services and Leasing (AFSL).

Sofi put the first proposal to Macquarie Bank which took a quick look at TCP and rejected the deal immediately. Ironically the Macquarie executive was Michael Roth, who was later convicted of lease fraud. SMH reported: *The judge described how Roth had got "caught up with" a senior manager who drank and gambled at lunchtimes, as others at Macquarie turned a blind eye.*

Undeterred Sofi then decided to do the deal himself with AFSL as lease company.

An invoice from Hills Industries Limited for \$308,000 was emailed from Skarzynski's office to AFSL. Four days later AFSL paid Hills the \$308,000, having established a finance lease with TCP over 48 months, payable at \$9219.10 per month. The lease was signed by Skarzynski and Musico, witnessed by someone in Skarzynski's office.

Musico was also living well. "I decided to rebuild in Strathfield, did a knock down and put up a 700k house. But he (Skarzynski) buys for \$3m, knocks it down and builds a \$2 million house."

"Look, I'm not clean, I buried my head in the sand. I just said 'sort it out'. It'll be OK", Musico confesses.

The global financial crisis hit, turnover got worse, creditors were screaming, and deals had to be done.

"I put 400k of my money into the business and said to him 'you need to do this too', so he borrows 400k. I'm over it, I tell him we need to sell the business and then we find a buyer for about \$7 million".

Much later the Hills CFO Renee McLeod would advise Sofi that they understood the payment was in respect of their regular account with TCP – not payment for the invoice held by AFSL. The invoice was, in fact, counterfeit. It was not generated by Hills. It showed dozens of items of equipment, each with a bogus serial number.

Possibly emboldened by this scheme to pay off a major creditor, Five days later Skarzynski turned his attention to Bosch, which had already sued TCP for \$198,000. Bosch had court orders to seize the funds from TCP's bank and Skarzynski needed to get them off his back.

An invoice from Bosch was emailed to AFSL but Sofi was confused. The invoice was for \$147,000 plus gst – not the \$198,000 requested. Skarzynski's personal assistant then provided a fresh invoice for \$198,000 from Bosch. Again it had page after page of equipment, all with bogus serial numbers.

Again Sofi would later find that the Bosch invoice did not exist. Amanda Blake at Bosch Security Systems Pty Ltd told him the document known as C051689 was not an invoice.

Skarzynski had stumbled onto a finance company that trusted him. While AFSL did send Hills and Bosch a remittance advice note for the funds it was paying them, it did not check the invoices were indeed legitimate.

**A CHAIN OF DECEIT**

Skarzynski embarked on a leasing binge. Sofi was a compliant contact, possibly less diligent as he was risking his own money.

The following month a lease was approved, this time the supplier of goods was a firm called Ironmark Engineering Pty Ltd. The invoice was duly provided by Skarzynski's personal assistant, totaling \$192,445. Again lease documents were signed in the TCP office, by both directors, witnessed by a staff member.

Somewhat strangely the funds to pay the Ironmark invoice were paid by AFSL to a company called Jetbravo Pty Ltd. It is not clear where those funds ended up.

More transactions occur through to the end of 2009, and a surprising number of errors on invoices occur. Sofi is on the phone to Skarzynski's P.A. often. Other finance firms are approached to fund some of the deals, and they all decline.

Sofi is getting a little cautious, so he decides to fund another lease provided TCP discharge some of their previous finance. On the basis of an undertaking by Skarzynski to pay out two of the leases within six months, Sofi approves another deal, and again Ironmark is the 'vendor'.

Holding an invoice from Ironmark, he ultimately pays \$160,600 into a bank account that turns out to be Skarzynski's personal company, R & G Investments Pty Ltd.

Just prior to Christmas, another deal is run past Sofi. This time, Skarzynski's assistant says that it involves 16 Plasma screens and brackets to be installed for the Australian Open. The amount is \$117,920 and again the invoice came from Ironmark.

Banking details are not matching up, invoices are being resent. Paperwork is flowing at a furious rate, and almost all transactions are handled between Skarzynski's long suffering personal assistant and Sofi.

By early February 2010, Sofi is alarmed at the inconsistencies and irregular payments coming from TCP. He is sending regular demands for payment. He meets Skarzynski, then finally on February 17th loses his patience and advises Skarzynski and Musico that he will place caveats over various properties owned by TCP.

**THE COLLAPSE**

Musico calls Sofi, and then hurriedly drives over to view the documents.

A crisis meeting of all the parties is called for the following morning. Musico heads to his lawyer, who calls Sofi. A series of meetings and actions occur, including Sofi obtaining a mortgage over Skarzynski's home.

Through the first half of March, AFSL sends demands to all the TCP Group firms, along with Musico and both Skarzynski and his wife. Sofi finally contacts Bosch and Hills and faces the revelation that the invoices he holds were not in fact generated by those firms.

Worse still, investigations reveal that Ironmark know nothing about anything. It transpires the firm is a small fabricator of steel (a contractor to TCP), operated by a Robert Shen who is very confused – English is his second language. Shen refuses to discuss anything with Sofi.

Panic reigns. On 14 April 2010 TCP Group is placed into receivership. Ferrier Hodgson take control, fire Skarzynski and quickly close the doors. The bank sells the real estate. Skarzynski and Musico eventually are bankrupted.

Sofi decides to sue Hills and Bosch on the basis the funds were paid by mistake. They defend the action, which goes all the way to the High Court of Australia and is ultimately unsuccessful. Sofi has now spent a considerable amount on the failed attempt to force Hills and Bosch to repay what they contend was money received in good faith to repay their respective TCP exposures.

Sofi's action against Hills and Bosch exposed the chain of fraudulent documents that originated in Skarzynski's office. With the case failed, Sofi refers the fraud to the police, who arrest Skarzynski and Musico in December last year – 2015.

**THE CASE**

Detectives spent a lot of time dredging through the document trail supplied by Sofi, and build a case against both directors.

**In total the matter involved \$1,050,120 of fraudulent leases. The directors were each charged under the Crimes Act with six charges covering 18 instances of 'obtain money by false misleading statement'.**

Fortunately for the TCP duo the matter was punted into the Local Court at Liverpool, where the penalty for a conviction was a maximum of two years in jail. The District Court can dish up a much longer sentence. It appears District Court logjams led to the decision to hear the case in the junior court.

Musico had his matter dropped when he was able to prove that his signature had been forged on all the documents. He was not a party to the fraud and has no convictions against his name.

Skarzynski pleaded guilty to all charges in May this year, and was remanded on bail for sentencing. On September 9 at Liverpool Local Court he was sentenced to 250 hours community service.

He and Musico still work in the AV contracting industry.

After the failure of the firm Musico's brother bought the TCP name and phone number back from the receiver. Musico was working as an AV Tech at a venue to feed his family, and eventually helped his brother refit the same venue.

This led to a small reincarnation of TCP that today handles work for many former clients – but not any of the 32 registered clubs. They all took their medicine on the failed TCM debacle, some losing almost all of the \$240,000 they paid, plus interest, for a solution that was never going to work. Overall TCM gouged over \$7.5 million from the clubs. Perfectly legally.

Skarzynski now works for an AV integrator in Sydney, and is a business coach and mentor with a practice "where business leaders are continually challenged to make the courageous decisions vital in the definition of their and their business' long term success. (It) takes leaders on a journey towards business excellence and personal enrichment through peer-to-peer mentoring, sharing and learning. Where members are encouraged to challenge themselves, and be challenged by others, in a safe environment."

“Richard has a practical business approach and is committed to delivering value to business owners and leaders that supports them to achieve their best” they offer.

*\* Seminar at ICTECH, all major cities in October: Crime and chaos: Inside the TCP collapse. Register free at [www.ictechroadshow.com.au/seminars/](http://www.ictechroadshow.com.au/seminars/)*



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# Industry Women

With  
Toni Venditti

## Becky Pell

**B**ecky Pell is a successful audio engineer, yoga teacher and writer living in London with her Australian husband - FOH engineer Chris Pyne, who she met while they were touring together with Kylie Minogue. Originally from Northern England, Becky moved to London for work when she was 20. She's had a varied career working as a monitor tech for Black Crowes, Travis and Kylie Minogue for a long time before moving behind the desk to mix monitors for Aha, Muse, Anastacia, Il Divo, Westlife, Sarah Brightman, Natalie Imbruglia, and Take That. Currently Becky is working with Shane Filan, Gary Barlow and Anastacia.

Her love for the industry began when Becky attended her first gig at the age of 12. She scored a seat behind the FOH desk and her view of the show and the activity involved to put on a show of that calibre fascinated her - she didn't know whether to watch the engineer or the band. It was here that she realised there could be a career for her that looked way more fun than a proper job! That was it for Becky, from that day she was determined to be a sound engineer.

After Becky finished school she attended the School of Audio Engineering in London initially and was commuting 350km each way 3 times a week until the School of Sound Recording opened in Manchester and she was able to transfer closer to home. They taught her about the physics of sound and how to navigate her way around a desk, but she says she is not sure how much actual knowledge it gave her other than demonstrating to prospective employers how serious she was about her career and education. To get experience and work, Becky wrote to everyone audio-related in The White Book (the pre-internet industry bible) without results although she did pick up some unpaid backstage work at the Glastonbury festival which just helped to fuel the fire in her belly!

Eventually she saw an ad in a performing arts paper, The Stage, for

a sound engineer at a South London PA company - R G Jones Sound Engineering. While being under-qualified she thought she would give it a go anyway so she applied. Becky's luck shone through because at the time they were also looking for a junior/apprentice. Simon Honeywell and John Carroll decided to give her a go and she moved to London a week later. Her career started with cleaning a lot of cables, loading a lot of trucks, and eventually she was allowed to start getting her hands on the gear. Becky says this was a fantastic starting point for her giving her the basic grounding and she would recommend that route to anyone wanting to really learn their chops. She was with R G Jones for five years learning the ropes and getting to know a lot of people in the business before going freelance. Her first tour was as Monitor Tech with the Black Crowes.

Becky has met a lot of great people along the way who are happy to help and teach interested people - Fred 'Gumby' Jackson - monitors for Bruce Springsteen pretty much taught her how to mix monitors, and Rod Matheson taught her about mixing techniques showing her his style of observing and listening to build a mix which was both musical and functional, and his relaxed but efficient communication with the band. From her husband Chris - she learnt a lot about EQing drums saying "He creates some of the best sounding drums I've ever heard so I shamelessly stole his techniques!"

There are many others who have shared their knowledge with her over the years and she is very grateful to them all. Becky likes to give back so last year she presented a half-day talk at a music college about life in the live music industry, and has kept in touch with some of the students

offering advice and help, and like 'Gumby', Becky is always happy to have a young, keen tech working with her who's up for learning the ropes.

Becky has had very little trouble being a woman in the business although she remembers one odious creep in the early days who told her she would never make it if she didn't learn to open her legs. She found it really satisfying meeting him years later - having very much made it without having his recommendation! Becky has found she's been quickly accepted by male crews by giving as good as she got and pulling her weight. Becky says "If you go around having a chip on your shoulder about being 'different', it will bite you on the arse. If you just forget about it and concentrate on being a valuable part of the team you won't go too far wrong. As my mum has always said, 'you catch more flies with honey than you do with vinegar'". Becky has earned respect by being professional, reliable, friendly and helpful, and doing the best she can in every situation.

Working with an impressive roster of A level artists I asked Becky what she thought made a great audio engineer. She explains that while FOH and monitor engineers are different beasts - both need to be organised, work methodically and logically, and have trained ears to pick out different sounds in a mix and frequencies within that. They should be knowledgeable about the gear they're using and be able to get around it fast (especially monitors) and most importantly - not be a stress-head.

Great communication is essential - you earn the artist's trust and they feel safe with you. "Often they are feeling very exposed up there during a performance and they're relying on you to give them a comfortable audio environment so they can relax and give their best performance. And you have to be able to deal with 6 different people talking to you at once!" One of Becky's attributes is that she is good at maintaining a calm atmosphere on stage and being patient with 'challenging' artists. Her strength is blending the technical and analytical with the creative and intuitive.

When touring, Becky really enjoys using a Digico desk saying "they're so versatile and intuitive to get around and they sound good". She uses her own IEM (Ultimate Ears moulds) and will use UE18s for musicians and UE11s for singers. Her last purchase was an RF scanner (TTi Thurdy Thandbar Instruments from <http://www.aimti.com>), which is an invaluable tool and comes in pretty handy as the spectrum gets sold off and finding frequencies for clear IEM and mic channels can be difficult.

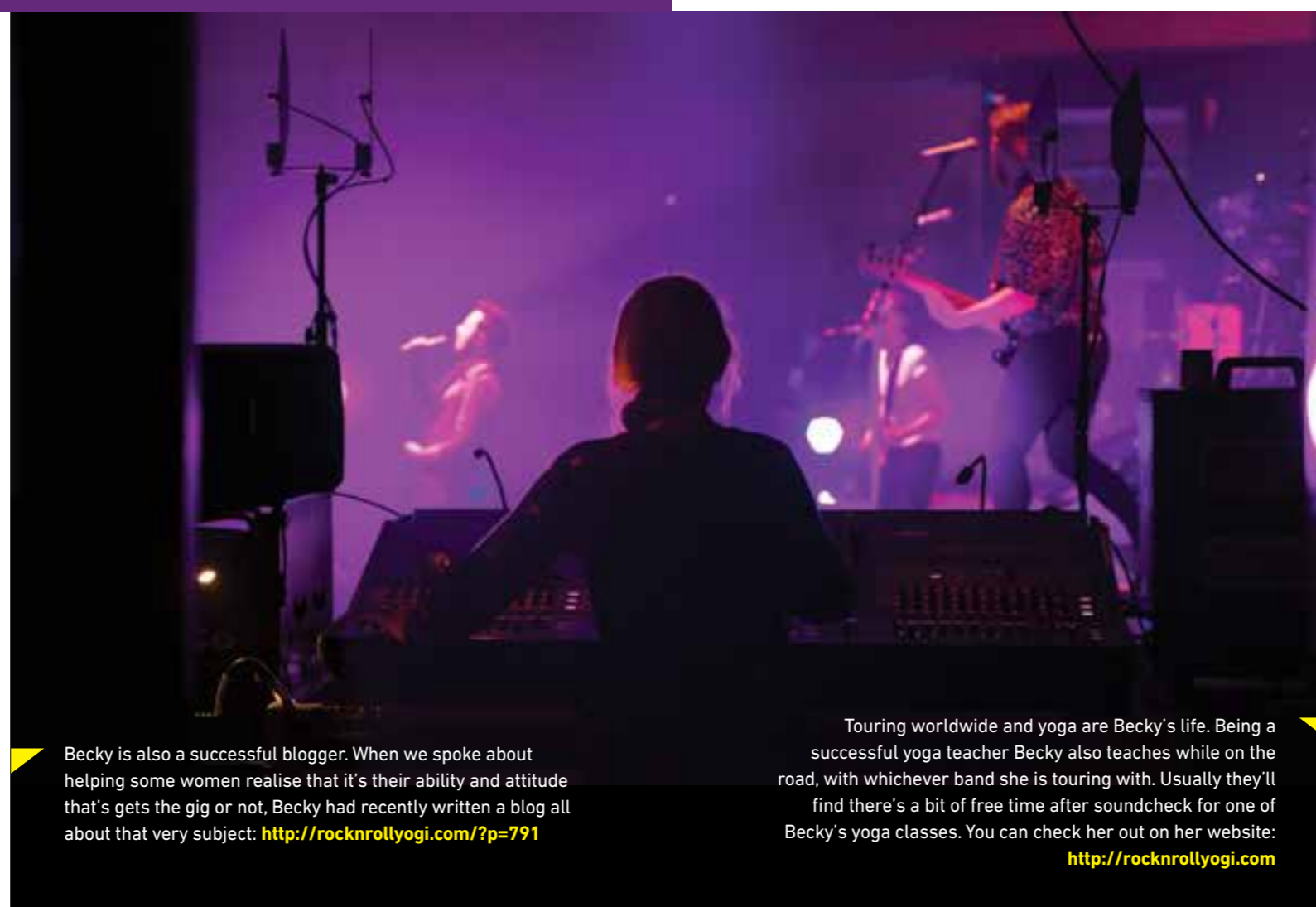
Becky's most favourite gig was 2 sold out nights at the biggest stadium in Europe on Westlife's farewell tour and her worst gig moment was when she fell into a very full and smelly portaloos at Glastonbury festival (I giggled!).

Becky has great advice for anyone starting out:

- get a pension and set up a direct debit so you don't even think about the money going out of your account
- don't go crazy when you see a nice big bank balance after a tour, because you don't know how long it might have to last you, and the tax man will want some of it
- try and save some of those lump sums for an investment like property.

"Oh, and cigarettes and drugs are a GIGANTIC waste of money - take it from me, you WILL look back and think - I wish I could have all that money I spent on killing myself, back!"

Becky is also a successful blogger. When we spoke about helping some women realise that it's their ability and attitude that gets the gig or not, Becky had recently written a blog all about that very subject: <http://rocknrollyogi.com/?p=791>



Becky is also a successful blogger. When we spoke about helping some women realise that it's their ability and attitude that gets the gig or not, Becky had recently written a blog all about that very subject: <http://rocknrollyogi.com/?p=791>

Touring worldwide and yoga are Becky's life. Being a successful yoga teacher Becky also teaches while on the road, with whichever band she is touring with. Usually they'll find there's a bit of free time after soundcheck for one of Becky's yoga classes. You can check her out on her website: <http://rocknrollyogi.com>

# Noise, it is all Noise!

by Simon Byrne

**A**ustralia has no national framework for noise control, and national regulations and guidelines cover only a few aspects of the noise environment. When I set out to write this, my goal was to deliver a comprehensive state by state guide of the local noise regulations and how they applied to our industry. It quickly became apparent that this was going to be tough. This is because each state and territory has their own approach to managing noise regulation.

Some are comprehensive, well thought through, regulated properly, use proper physics and try to strike a balance between the needs for a thriving live music scene with those of their neighbours. Victoria gets a gold star for this which may in part explain why there is a strong live culture in that state.

Most are really vague and I'd argue, unworkable. For example in News South Wales, there is a concept of "offensive noise" within the regulations. Offensive noise is defined as "interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted." That's it! No reference levels, no measurements, no times at which the definition applies and it is certainly not a standard which you can measure and then take corrective action. This obviously leaves massive room for interpretation as what is offensive is highly debatable.

Noise usually falls under the State/Territory Government Environment portfolios, and regulations are introduced at a state level, which are then typically enforced by the local councils and the Police. In addition to those 3 layers, all State and Territories' Liquor Licensing bodies usually impose noise restrictions on licenced premises.

If there is a common thread, it is that entertainment sound originating from a licenced premises, should not be heard

inside a neighbour's residence (even with the windows open). If a complaint is made to a liquor licensing board, it will probably get up and the licensee will need to take steps to fix the problem. The liquor licence restrictions are on top of any other State noise regulation and are usually the most restrictive, and are on a case by case basis.

The forward looking jurisdictions are developing Entertainment Precincts/Hubs that recognise these activities create noise, yet need to be nurtured.

These State governments recognise that entertainment is an important contributor to the fabric of society and the economy. For example, Brisbane's Fortitude Valley is an important entertainment hub for the city where there has been conflict between residents and the entertainment industry. To address these issues, Brisbane City Council has created a special entertainment precinct where the onus has been put on new developments to ensure noise management and attenuation measures are in place so that residents can coexist with the entertainment activities. Also, greater communication is being developed for potential residents. That is, making sure they understand that these areas are noisier than normal and that they should embrace that, or not move in! They have even developed the "Valley Sound Machine" which is an online tool that lets potential residents experience simulated noise levels at different times and places in the Fortitude Valley Special Entertainment Precinct.

Victoria is a leader in this too. Indeed, as of 2014, anyone selling a property in the Melbourne metropolitan area must provide a due diligence checklist to all potential buyers of residential properties which includes a notice about the increased noise that should be expected in urban areas such as the inner city. Once again, know what you are in for and if you don't like it, don't move in!

ACT and Tasmania are reviewing their regulations right now and appear to recognise that entertainment needs to be incorporated into their plans for a future vibrant society. NSW unfortunately don't seem to be doing the same.

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### >> Links

- Brisbane Council's Music Harmony Plan (Fortitude Valley Music Precinct):**  
<https://www.brisbane.qld.gov.au/sites/default/files/valley-music-harmony-plan.pdf>
- Study on Smartphones as Sound Level Meters**  
<http://scitation.aip.org/content/asa/journal/jasa/135/4/10.1121/1.4865269>
- SPLnFFT Noise Meter App for iPhone**  
<https://itunes.apple.com/au/app/splnfft-noise-meter/id355396114?mt=8>



SPFnFFT Sound Level Meter App

## >> What about Sound Level Meters?

The problem with sound level meters is that they reduce a highly complex waveform with an infinite number of variables to a single number.

Think about it in the visual domain. Say you take a photo of a scene of a golden sunset, on the beach, facing east, with some waves, with some surfers in the water, some people walking their dogs and some kids building a sandcastle. Now assign a single number to describe that entire scene.

It is the similar problem with sound. You are assigning a single number for a complex waveform ranging from 20Hz to 20,000hz. In frequency range, that

is a 1,000 to 1 ratio and the amplitude varies by 1,000,000 to 1.

A sound level meter provides a very simple answer to a complex question.

Despite this, they can be of real value to an audio operator because it provides a guide:

- **The human hearing system** is very good at hearing variations in relative level but not absolute levels. That means we are not good at consistently mixing at the same level every night.
- **Depending on how loud last night's show was**, your hearing might still

be recovering. Which in turn means you might be inclined to mix louder tonight without realising it. A meter helps you deliver consistent levels. As a side note, if I am a punter at a concert, I'll often use ear plugs if I know that I am mixing the next day.

- **If you are operating** under noise level restrictions, you have a reference to work to.

You must accept though, that unless you have professional training in sound level measurement, and your equipment is calibrated that your readings really are just a guide.

## >> What to look for in a sound level meter?

At a minimum:

- **A, C and Z (unweighted) readings.**
- **Slow and Fast response.**
- **The ability to be calibrated**
- **Type 2 - This refers to the IEC 61672** Standard and the tolerances contained in the standard. Type 1 is really good, very tight tolerances, expensive and

used for laboratory and legal type work. Type 2 is a looser but still accurate (+/- 2db), more cost effective standard.

Where sound measurement standards exist within regulation, they tend to be A Weighted, Fast Response.

**Nice to have:**

Leq - Leq is the preferred method to describe sound levels that vary over time, resulting in a single decibel value which takes into account the total sound energy over the period of time of interest.

This is a useful guide to how much sound you are exposing the audience over the period of your event.

## >> Phone Apps

Unfortunately for Android and Windows phone users, probably not. The hardware manufacturers of these phones design them in isolation, to varying costs, specify and source their parts from lot's of different suppliers. It is challenging for an App developer to account for these variables so they tend to be inconsistent.

iPhones however can be ok (+/- 2db, Type 2) provided they are calibrated correctly and especially with an external microphone.

iPhones are a closed ecosystem so App developers have been able to confidently develop their apps with known hardware and software.

They aren't without their problems though:

- **Stability** - Studies have shown that iPhones calibration shift as they age. This makes sense considering how how roughly we treat our phones.



MicW i436 External Measurement Microphone for iPhone

## >> Simon's Solutions!

As the person behind the desk, what should you do if you find yourself dealing with environmental noise complaints during a show?

- **In a licenced premises**, be receptive to the instructions of the licensee when it comes to levels. They risk a fine and in extreme cases, their licence is at risk.
- **If the Police are involved**, they do have the authority to require any actions needed resolve the noise issue. They'll get it turned down and in many states, can issue on the spot fines to "the person in charge". The person in charge is likely the promoter or licensee. In some states, they can impound the equipment!
- **Tame those subs!** Yes we love our subs, but turning them down will often go a long way to solving the problem. Losing 6dB in the bottom end might be all that is needed.
- **Only put the sound where you need to**, and not where you don't.
- **Be proactive and professional** - It won't be the last time you'll have this issue.



# A new season delivers...

Spring is well and truly ensconced in ACETA, the sun is indeed shining, all manner of things are growing and on reflection, the last month or so has been a particularly fertile period for your peak body, there is much to talk about. But first, I must take a liberty and commend the board of management and our administration to you, ACETA is operating in a very happy and productive environment. Membership is steadily growing, house-keeping is tidy, programs are being implemented and new initiatives are in the pipeline.

**SELF-REGULATION OF PRODUCT COMPLIANCE IS NOW ON THE TABLE** as ACETA recently lodged a 'Statement of Intent' with the Australian Communication and Media Authority (ACMA) proposing self-regulation with regard to RCM product compliance, facilitating formalities between ACETA and ACMA that we hope delivers a positive outcome. Aside from due responsibility, we will be empowered by self-regulation that equips us to address challenges that undermine our industry. We have the opportunity of achieving not only an optimum compliance culture, but the conservation of much needed resources, all conducted in a non-punitive environment. Self-regulation status would only apply to the ACETA membership as the association has no jurisdiction over non-members. On successful conclusion we will accelerate to the process of ACCREDITATION and an ADVERTISING campaign focussed on responsible supply and acquisition.

**ADDRESSING ENTERTAINMENT INDUSTRY OH&S REQUIRES A UNIFIED APPROACH** an imperative recognised at the August ACETA board meeting, where it was agreed to form a sub-committee of industry veterans familiar with the issues, to help ACETA form a position on the safety landscape. It was suggested we enlist the help of Roderick van Gelder of Stage Safety Pty Ltd, one of the most knowledgeable in the field. As a first step Roderick has agreed to join the ACETA sub-committee along with Julius Grafton editor of this publication, and Geoff Newey of 'The Look' with one or two others. Their brief will be to consider a base line safety induction program and a unified approach to a complex and fractured subject, as an action plan for the ACETA board to consider and implement

**CORPORATE OH&S** responsibilities are not well

understood, particularly in small to medium sized organisations, most are not OH&S compliant therefore exposed on a number of fronts. Ignore it at your own peril, as you risk Fairwork litigation that can arise with something like incorrect dismissal procedures. Understanding and achieving compliance is normally a costly process, however the ACETA Forum will host a free member webinar presented by 'Employsure' a specialist in the field, who will provide a valuable insight into understanding and attaining OH&S compliance.

**THE ACETA LEADERSHIP MENTORING PROGRAM** was recently approved and will get underway initially as a pilot program. Conducted over one day, a four module program has been developed addressing three core practical leadership skills, communication (public speaking), organising (conducting successful meetings) and effectiveness (optimum time management). Free to members on this occasion only, 20-30 individuals from the membership will participate and receive appropriate acknowledgement.

**THE ACETA APTITUDE TEST** is now a reality and we are researching a delivery system that enables applicants seeking employment in the industry to complete the on-line test, and see it delivered seamlessly to ACETA under a strict code of integrity. With applicant permission, test results and other relevant data will be stored in the ACETA data bank and made available to ACETA members seeking to fill a vacant position, a most effective method of connecting potential employees with employers. A bank of audio questions has been compiled and we are now working on the lighting, staging/rigging and vision/integration requirement, all tests are aimed at determining a base aptitude and knowledge level possessed by an applicant.

**A DATA BASE FOR INDUSTRY JOB SEEKERS** is under development. Members who have received multiple applications for a position will be invited to forward the unsuccessful one's to a central ACETA data base, accessible only by ACETA members.

Before we go, ACETAs participation in the Integrate Trade Show was most successful, thanks to all who visited and finally check out the new web site [www.aceta.org.au](http://www.aceta.org.au),

All the best, Frank Hinton, President

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It's a **'MUSIC'** trivia pursuit

Baptism of fire for the balsa wood P.A.

The story so far: In order to stave off the rigours of imminent middle age (Yeah right, Dunk. Ed) our man has decided to put together the lightest, compactest and affordablest PA possible within his meagre budget. Now read on:

**A**s luck would have it, my new and improved diet-conscious PA 'Lite' made its debut a couple of weekends ago.

A music trivia night for a local club was the ideal start to its stellar career. No pressure - the band would do a couple of short dance brackets in between batches of questions, and also a 'guess that riff' section where we would drag out all the guitar riffs that we could remember how to play. The band had already done a few of these nights, and in the past we've spent hours if not days working out questions and answers, but not this time.

"Hey Mr Music Trivia smarty-pants," wheezed drummer LL down the phone. "What are we going to do for questions and stuff? **Can you knock up about 40 questions by the weekend?**"

"What?" I yelled "Are you kidding? I've hardly got time to scratch my bum this week. Didn't you think about any of this before saying 'Yes' to them? We'll have to cancel it"

"Cancel? No way, I could really use the bread, man. Life here at the Xanadu retirement home doesn't come cheap, you know." He paused, then continued, "Jeez, I can't believe it's just sort of sneaked up on me. I thought we had plenty of time. What are we going to do? We can't very well use the same questions we used last time, can we...?"

A longer pause followed, so long I thought he'd nodded off - or worse! Then with an almighty cough he was back: "...or can we? How long since we did the last one for these people?"

"About three years, I'd say," I replied. "Well, that's it then - we'll just use the same questions, the same riffs we used last time! I'll get onto RH Positive (the bass player); he keeps a copy of everything, and we won't have to do any new stuff at all!"

"You don't think anyone will remember?" I asked. "Course not," he snorted. "The oldies certainly won't, and the youngies will have been too tish-faced! If they remember any answers they'll just think they're getting smarter! It'll be a win-win situation! See ya there." And with a final cough he was gone.

Having had nothing but sunshine all week, the day of the gig dawned with nothing but unrelenting drizzle, steady rain, and more drizzle. Ideal loading-in weather, as long as someone else was doing it.

I rolled up at the club only to find that my regular parking spot out the front had been dug up to make a flowerbed, and some optimistic person had planted a row of Gladioli across the middle of it. These were now squashed underneath the turbo Capri, which had muddy water (or watery mud; hard to tell which!) up to the wheel hubs.

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[www.entertainmentassist.org.au](http://www.entertainmentassist.org.au)

Supporting the mental health of Australian entertainment industry workers

Passion, Pride, Pitfalls Dec 2014



Putting on some wet weather gear, I opened up the trailer, grabbed a couple of stage monitors, and slogged my way through the mud to the awning over the front door of the club. I was just about to walk through the door, when the entertainment manager scuttled out, putting up a hand to stop me.

"Wait, wait - we can't have you traipsing mud through the nice clean foyer here. That'll never do. Hang on a minute." He turned and yelled at one of the staff who was laying out the tables. "You - come over here and give me a hand."

He turned back to me. "OK, you keep bringing everything to the door here and we'll take it upstairs for you."

What? He's offering to load it all upstairs for me? Woo-hoo! I didn't give him time to change his mind, just dropped the wedges at his feet and went back for more.

In about 10 minutes or less everything was waiting at the door for the two of them. Even having to stand in the rain, I thought I had the better part of the deal! I closed up the trailer, busied myself doing nothing at all for a few minutes, and then wandered over just as the last sub had gone upstairs!

I carefully cleaned the mud off my shoes before walking inside. No point in upsetting him, I reasoned. You never know, he may offer to load it all out for me at the end of the night as well!

I had laid out the new system at work the previous weekend, and worked out what new leads I needed, and where the power would come from, how many power cables I would need, and anything else. The thing with self-powered boxes is that you need a lot more power leads than with a standard amp rack based system, so I had gone down to Blokesworld and bought a bundle of new 5 metre-long black power leads with moulded piggyback connectors.

My initial thoughts were to run the subs from a regular rack mount amp, but I had managed to score a couple of high power bolt-on digital sub amps that miraculously fitted the speaker access door on my compact subs. It turned out to be a simple

matter to replace the doors with the amps on both subs, and 'voila!' self powered subs at a bargain price.

A four-way power adapter box went behind each stack, and from it one power lead went to the Sub, one to Mid/High box, one to the pair of LED lighting cans that clamped to a mini lighting bar bolted on top of the Mid/High box, and one to power the closest stage monitor. Very neat, and surprisingly it all worked!

Leads carrying the signals to and from the mixer were all colour coded and labelled each end: red for the Front-of-House speakers, purple to the monitors, dark blue for all microphone leads.

**The trivia quiz part of the night went well**, although LL's confident assertion that no-one would remember the questions proved to be a tad optimistic. Quite a few remembered the questions, but hardly anyone remembered the answers!

There were a couple of 'Who am I?' questions to pass the time while scores were being checked. However the first one threw a spanner in the works when someone knew the answer in the first few words.. "I was born on the 5 September 194..."

Up shot a hand - "Freddie Mercury!" "Crikey - correct!" replied our compere. "Hmm, that was quick. OK, just talk amongst yourselves for a while until we get the scores sorted." To be fair the compere had agreed to do it at the last minute, as the one we used last time was away in the country on an extended gardening course and was unavailable.

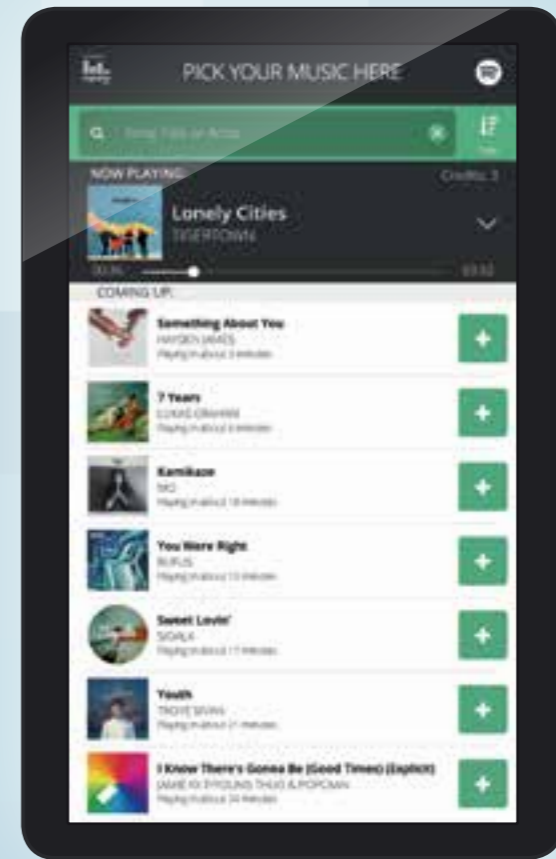
Other than that the night went well. Everyone had a good time, we remembered how to play most of the riffs, and most of the songs, no-one suffered from terminal trivia egomania, and no-one argued with the judges' decisions. Just as well, or they would have had to argue their case before 'Hanging Judge Fry!'

**The new weight-loss PA worked very well**; there was nothing but praise for the sound, the band loved the monitors, and it was fast to set up and take down. Can't ask for much more than that, really - apart from twice the money, perhaps!

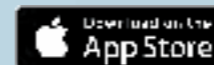
**In fact, the only downside was that when load-out time came, there was no sign of the entertainment manager and his offsider, and I was forced to test the system's portability on my own! To paraphrase a much used management saying, 'A successful gig has many parents, but the load-out is an orphan!'**

**Still, at least it had stopped raining by then..**

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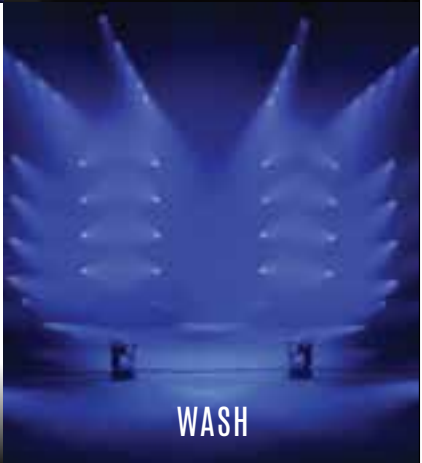
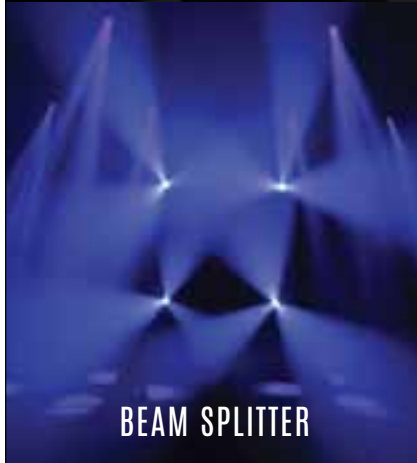
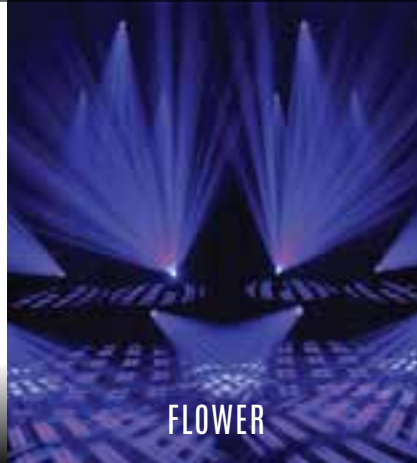


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