



# CX

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

CX100 FEBRUARY 2015 \$5.99

**DTS**  
Finalise Dream Team

**Faderless, Wireless Mixing**  
Are sound operators ready to go totally virtual?

**Roadshow Preview**  
Technology on show

**Roadskills**  
Jason Mraz  
Rodriguez  
The Field Festival

**GEARBOX REVIEWS:** Meyer Sound IntelligentDC • Mackie DL32R • Antari Z-1520  
• JBL EON615 • Decimator Design DMON-12S

**CX NEWS:** Martin Professional integrated - Harman takeover • AVPartners deploy cut price lighting  
• Roadshow rolls out! • LSC Move to larger factory • EXTRON and RGB



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# Everything is FREE at ROADSHOW!

11.00AM: FREE TRADESHOW

11.00AM: FREE SEMINAR:  
WHAT IS IN THE SPEC?  
CONSULTANTS, DESIGNERS AND INTEGRATORS FROM YOUR CITY TALK ABOUT WHAT NEW AV PRODUCTS AND TECHNOLOGIES THEY ARE SPECIFYING FOR PROJECTS AND INCLUDING IN THEIR INSTALLATIONS. GET THE INSIDE WORD.

12.00PM: FREE DEMO:  
PA SYSTEMS FOR 500 PEOPLE.

12.30PM: FREE SEMINAR:  
ANY GIVEN SUNDAY – HOW WE WORSHIP NOW!  
TECHNOLOGY AND PRODUCTION MANAGERS FROM YOUR CITY'S BUSIEST CHURCHES DISCUSS HOW THEY KEEP THINGS RUNNING SMOOTHLY, WEEK IN, WEEK OUT. COVERING EVERYTHING FROM GEAR CHOICES TO TRAINING AND MANAGING VOLUNTEERS. OUR PANEL WILL GO IN-DEPTH

1.00PM: LIGHTING SHOWCASE:  
NEWEST LED WASH, SPOT AND FLOOR FIXTURES.

2.00PM: FREE SEMINAR:  
OUR VENUES – OUR CALL!  
PROMINENT VENUE MANAGERS, TECH STAFF AND PRODUCTION PERSONNEL FROM YOUR CITY DISCUSS YOUR VENUES; HOW THEY'RE RUN, HOW THEY'RE FITTED OUT, HOW THEY CAN BE IMPROVED AND WHAT THEY NEED TO STAY WORKING AND RELEVANT IN THE FUTURE.

2.00PM: FREE DEMO:  
PA SYSTEMS FOR 500 PEOPLE.

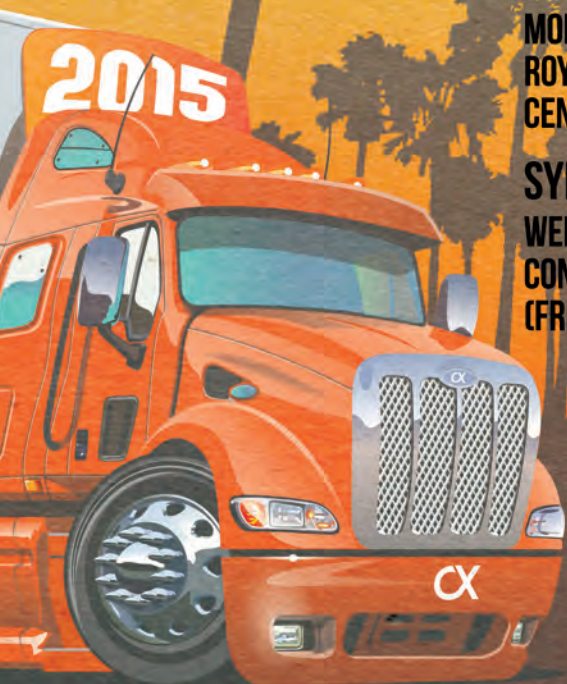
3.00PM: LIGHTING SHOWCASE:  
NEWEST LED WASH, SPOT AND FLOOR FIXTURES.

3.30PM: FREE ROUNDTABLE:  
INDUSTRY ACCREDITATION SCHEME:  
LET'S SQUEEZE OUT THE COWBOYS!  
A ROUNDTABLE DISCUSSION WITH PEOPLE FROM YOUR CITY ABOUT THE PROBLEMS WITH PRODUCTION SUPPLIERS WHO DON'T INSURE PROPERLY, DON'T PAY PROPERLY, DON'T HAVE WORKERS COMPENSATION INSURANCE AND DON'T FOLLOW WORKPLACE HEALTH AND SAFETY GUIDELINES PROPERLY.

4.30PM: HAPPY HOUR AND YES, THIS IS FREE TOO!  
WITH GIVE-AWAYS AND MORE.

6.00PM: SHOW CLOSES

WE'RE ON THE ROAD  
THIS MONTH!



## BRISBANE

MONDAY 9TH FEBRUARY 2015  
ROYAL INTERNATIONAL CONVENTION  
CENTRE AT RNA (SHOWGROUNDS)

## SYDNEY

WEDNESDAY 11TH FEBRUARY 2015  
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(FREE PARKING)

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MONDAY 16TH FEBRUARY 2015  
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EXHIBITION CENTRE

## ADELAIDE

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DTS - Finalise Dream Team



Faderless, Wireless Mixing



RoadSkills - Jason Mraz Rodriguez Field Festival



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**CX100 2015. PRINT EDITION**

EDITORIAL BY JULIUS GRAFTON

**100CX**

Welcome to issue 100 of CX. Prior to CX we published 116 editions of Connections, 18 of Channels, and had a go at fragmenting our market with an extra 6 lots of Presentech for AV. Spinning off a magazine that you try to sell to the same advertiser was a really dumb idea then, as it is now.

More importantly this is the 25th year of publishing and that makes me the longest serving anyone in the same seat publishing for a quarter of a century, in terms of the sound, light and vision industry.

To celebrate I have pushed the Go button on our new Light-Tonight video magazine on YouTube, and have Sound-Today in development to join it. These are pitched at the international market and are as good as we can make them.

**HARD YARDS**

While helping the girlfriend move house, I realised I am not quite as robust as I was when touring Australia in an 8 tonner. After we filled, moved and unloaded a pair of 3 tonners in summer humidity, I was to coin a phrase, fully munted.

While re-beer-drating I reflected on the parallels of touring. Then, we drove somewhere, hauled everything out of a packed 8 tonner, set up, focussed, tuned, checked and found dinner. We dealt with knuckleheaded support crew, venue managers, punters, and our own band. Stairs were there to be climbed.

A support band and/or highly annoying D.J. would bore us stupid while we drank the slab of beer that was on the rider. Showtime would see us well past midnight, we would pack up and load out, trying to beat the previous record of 75 minutes. Sometimes we would load out around punter fights, and occasionally join same if they were in the way.

Probably legally drunk, I would drive the truck to the next town or home, whichever was less than 3 hours (my limit) as I cannot drive into dawn sun without falling asleep.

So was that as hard as moving house? It was worse, and we would do it 7 nights a week if the gigs were there. And I am so glad I gave it up. Was it awesome? No.

**OVERSUPPLY**

Seems there are too many people 'having a go' at audio visual, sound and lighting. A week doesn't go by where we don't discover a new company name in the CX subscriptions department.

'Here's another one', the overworked subs clerk will say. 'Better tell Mr. Grafton there's a new kid in town'.

With no barriers to entry other than money, the business of supplying or installing gear for shows is attractive until actual business gets in the way. That is paying tax, insurance, abiding by legislation, and safety - all of which makes you 'compliant'.

Undercutting people who comply, while not complying yourself, is anti social and against the interests of everyone - including the client who is saving money because you are cutting corners.

This is the hot topic at my COWBOYS seminar at Roadshow (3.30pm each city) this month. Come and join the debate then have a drink after to talk some more.

**- Julius****PUBLISHERS PANEL**

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QU-24



QU-32

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**NEW**

# NEWS

## CX INDUSTRY NEWS



### Martin Professional is integrated Harman takeover bedded down

Lars Dige Knudsen, Vice President and General Manager of Martin Professional, welcomed me to the three level complex in Aarhus, Denmark, built a dozen years ago designed by renowned Danish architects Schmidt, Hammer & Lassen.

Big LC panels show customised coloured shapes, visible from the outside through the glass. Steel walkways connect levels. It is very Danish, modern, and clean.

Over lunch in a meeting room off the foyer, Lars explained the benefits of the acquisition by Harman, the world's largest audio collective. "There are obvious synergies we can benefit from mutually, both with regards to our sales channels and the solutions we will be able to provide. In addition, the entire infrastructure is something which will enable us to scale our business".

When completed in March 2013, the sale of Martin saw a financial owner, the Danish conglomerate Schouw replaced with another listed multinational but one that has operated successfully in the entertainment industry for decades. Harman are more an 'industrial' owner than Schouw were.

"In Harman there are three divisions, Professional is the smallest, but most profitable of the divisions. Of those firms within Pro, we are the second largest unit. Ahead of the acquisition a successful turnaround was carried out. The accomplished synergies including optimized sales structure, utilization of shared technology resources and overhead services has further contributed to Martin's strong market position and performance".

The results were immediate. Turnover to June 30 was close to US\$ 200 million with an all-time high 2-digit EBIT percentage (profit before interest and tax) "I can tell you, the first quarter (Q1) is looking even better", Lars says.

I was shown the research and development areas, where around fifty staff work on optical, mechanical, electronic and software design, then send the results down to the 'torture chamber' (i.e. the testing facilities) for some tough love. There are moving lights with weights hung off them, struggling to operate in high humidity. Some are being shaken to death, others frozen. It is ugly.

At the northern tip of Denmark, in Frederikshavn, the factory sits like a distant but close relation, also built to suit Martin and with imposing modern features like LED lit structural trusses. Workers multitask at assembly stations

fed by a conveyer from the enormous parts vault, a robot controlled store three stories tall. Parts sit in three vertical containers, with three robots placing and retrieving grey tubs on demand from the assembly floor.

With tubs rolling down the conveyer, and staff zipping about on electric carts, the place is as modern as one may imagine. Jigs, rigs and specialised tools cram the place, workers in black T shirts (how appropriate) assembling structures to time targets. Quantum base plates and yokes go together, then a wash or a profile head is added. The finished device rolls over to the test lab.

A small percentage of assemblies are ordered into the spare parts wing, where another automated robotic store allows fast retrieval for the targeted 24-hour turnaround should a part or assembly be needed in the field.

To the left side, finished LED screens, movers and LED fixtures move to testing and calibration; a crucial part of the plant that sometimes works extra shifts to remove bottlenecks. Every device is run for some time to bed down the components, then subjected to a technical and a visual test. Six lines of moving lights on jigs were all fired up to a screen on the ceiling, with technicians in recliner seats looking at a dozen projections at once. One saw something amiss, and stopped to quickly open the unit and make adjustments.

Martin imports metalwork from Asia, along with many other components – in common with other lighting manufacturers. A quality lab tests inbound goods to ensure the quality and standard that Martin is known for. Martin relies confidently on the processes in the factory to catch any issues prior to shipping.

With incredible attention to detail and obvious tight processes, I left feeling assured Martin's product is built to a very high standard.

Now Harman have the reigns, it remains to be seen how firms as diverse as AMX, Studer, Soundcraft and JBL (plus the others) will all eventually evolve with common purpose. But you can be sure the brain trusts are all talking, and seem to be on one very big page. Exciting times.



LARS DIGE KNUDSEN



## AVPartners deploy cut price LED's at Crown Perth Five star venue gains no star lighting

AVPartners recently issued a press release highlighting a number of 'AV technology improvements at Crown Perth', which are intended to 'further help bolster the venue's reputation as a premium meetings, conferences and events destination.'

The changes follow AVPartners appointment as the AV supplier at the five-star venue in June 2014.

But CX can reveal AVPartners have installed 230 'Beyond Lighting BY-P28A' fixtures, closely related to the BY-M28 which CX found online at Alibaba, selling for US \$550 each. 160 of these moving headLED zoom beams are installed in the Grand Ballroom, and 70 in the Astral Ballroom, many directly overhead each table position.

Yet formerly the venue table lighting featured the well-established Martin MX10 Extreme profile fixture which allowed gobo projections, which the new wash fixture doesn't. That device ran at a zero failure rate, according to the previous incumbent. It is unclear how the addition of LED wash fixtures would 'further help bolster the venue's reputation as a premium meetings, conferences and events destination' and warrant a press release.

Beyond Lighting are available direct and on Alibaba, where they claim to have been established in 2013 with 10 years OEM experience. OEM generally means Original Equipment Manufacturer.

Matthew Taylor is the Partner at AVPartners Crown Perth. He says "the LED fixtures installed at Crown are a P28A, a modified version of the Beyond BY-M28A . The fixture is very versatile, quiet and extremely quick which offers us great scope for visual effects on the tables, walls, floors and in the coffers. Customer feed back has been fantastic and as you'd expect Crown Perth and AVPartners are delighted."



The Director of Conventions and Events at Crown Perth, Michael Altieri said "AVPartners share Crown Perth's commitment to excellence and have wasted no time expanding our offering at Crown Perth. We're excited to see what they deliver next to help the venue be the best it can be."



## CX Roadshow Rolls With added FREE this February

Free parking and free seminars are new for the 2015 CX Roadshow, visiting five cities in February. 20 firms are on the road, with 2 trucks filling the venue for the one day touring tradeshow.

Major brands and distributors offering sound, lighting and video are joined this year by several leading production suppliers keen to meet new people and spread their networks.

Seminars have evolved and are now free of cost, with pre-registered trade getting first seating while walk-up's are seated second. Parking is now free at all venues for those who pre-register and select the free parking option. This can save significant sums.



- Monday Feb 9, Brisbane RICC (Showground)
- Wednesday Feb 11, Sydney, Concourse Chatswood
- Monday Feb 16, Melbourne MCEC South Wharf
- Wednesday Feb 18, Adelaide Convention Centre
- Monday Feb 23, Perth, Crown Burswood (first time)

THE TRADE SHOW OPENS AT 11AM EACH DAY.  
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## LSC Move to Larger Factory

Confident Move Belies Rumours



GARY PRITCHARD WITH  
RICHIE MICKAN  
OUTSIDE NEW FACTORY



ALAN GRAHAM CAME OUT OF  
RETIREMENT TO HELP BUILD  
THE OFFICES  
AT LSC

After decades manufacturing lighting control equipment in Melbourne, LSC Lighting Systems have upgraded their factory. They had occupied the previous facility for over 7 years.

"Although our last building had served us well, we have grown in a number of areas, and it no longer fitted us in all the right places", said founder Gary Pritchard.

"The addition of the Clarity range of control consoles and the exponential growth requirements for both smart dimming and mains distribution, has seen our production area requirements change considerably! This factored in with some exciting new developments in product development meant we had to move to a brand new, state of the art electronics facility."

LSC had a hard time bringing the Clarity to market while the Australian dollar was at or near parity with the US dollar. Rumours of their demise were clearly wide of the mark. 'We wouldn't invest in a move like this unless we very confident', Gary concluded.

The new building offers a better layout of office space and more room for the production facility - plus room to expand. The new facility is at Dandenong South.



## EXTRON and RGB

Extron Electronics Australian distributor, RGB Integration, has changed its company name to Extron Australia. Though the name has changed, there is no change in ownership. Extron Australia will continue to be the sole distributor of Extron in Australia, providing sales, support, training, and certification for pro AV dealers all across the country.

The two companies have always had tightly integrated operations, so customers in Australia will continue to receive the same service and support. The company will continue to be headquartered in Adelaide, with additional product demonstration and training facilities in Melbourne, Sydney, and Brisbane.

"As the sole authorised distributor for Extron in Australia, we remain determined to emulate Extron standards in everything we do," says Ron Boyes, Managing Director of

RGB Integration. "By taking on the Extron Australia name, we are better able to communicate the benefits that our direct involvement with Extron provides for our customers."

"We have had an exclusive relationship with Ron Boyes and RGB Integration for more than 25 years and they have a proven track record of understanding the Extron way of doing things," says Andrew Edwards, President and CEO of Extron. "The new company name reflects the fact that Ron and his team are delivering the high level of service, support, and solutions that Extron is known for around the world."

### CLARIFICATION

#### OpenLive and Shane Bailey

In December CX we wrote Shane Bailey from NAS is an investor in OpenLive, the proposed hi definition audio website. It is a different Shane Bailey. We also noted that musician users of the venue 'black box' have the option to pay a small fee to obtain all or part of the recorded live performance. OpenLive say no musician will pay a fee.

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# New Gear

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## Yamaha's new flagship digital mixing system Rivage PM10

Things have been quiet at the top end of Yamaha's live digital mixing range since the retirement of the PM1D back in 2009. That has all changed with the release of Rivage PM10, a 144 input channel, 72 mix bus, 36 matrix bus behemoth that runs at 96kHz. The CS-R10 control surface features two 15" touch screens, 38 faders and a full implementation of Yamaha's Selected Channel Interface. A Rivage PM10 system consists of a control surface, one or two DSP engines, up to eight I/O racks, and RY and HY cards.

EDITED BY JASON ALLEN

### The CS-R10 control surface



RY cards are designed to slot into the RPIo622 I/O rack and are fitted with 16 XLRs for analogue input or output, or AES connectivity. The HY cards are fitted to both the RPIo622 I/O rack and DSP-R10 DSP engine and carry either 256 channels of Yamaha's new TWINLANE protocol or 144 channels of Dante. TWINLANE is a proprietary Yamaha network protocol that can handle up to 400 audio channels over distances of up to 300 metres from device to device via multi mode fibre cable. A ring network configuration makes it easy to implement redundancy that will keep the network running in the event of cable failure or similar problems. Up to two DSP engines and eight I/O racks can be connected in a single ring.

Yamaha have paid attention to the details, partnering with Rupert Neve Designs to add Neve 'Silk' processing to every mix channel, as well as an option to choose between a 'Legacy' Yamaha digital compressor or 'Comp260, a plug-in using Yamaha's VCM platform that models a 'popular analog comp/limiter from the mid 70s'. Following on from the inclusion of third-party DSP capable of running third-party software in their CL and QL digital mixers, Yamaha have upped the ante on the PM10 by including enough power to run up to 192 plug-in instances. These include four new plug-ins from Rupert Neve Designs as well as reverbs from TC Electronic and an Eventide Harmonizer.



Front and rear view of the RPIo622 I/O rack

The PM1D often did duty on monitors, and Yamaha have acknowledged this by including a fully-featured monitor section. The PM10 has two monitor outputs plus Cue busses, and up to eight combinations of monitor sources can be stored for instant recall. Output level is independently adjustable for each. The monitor section also offers dedicated delays, plus 8-band parametric EQ. An insert point prior to the EQ stage allows plug-ins to be used in the monitor section as well.

The PM10 contains a host of other operational innovations gleaned from years of user feedback. These include extensive new options to filter and 'Recall Safe' parameters and settings from the 1000 scenes available in memory. The new Overlay Filter can be "overlaid" on a current mix to apply offsets to the fader levels and mix/matrix send levels independently from scene recall. The control surface features three groups of 12 faders to which channels can be assigned as required. The two leftmost fader groups work with large touch panel displays in the top panel, providing an enhanced version of the Centralogic operating environment. Channels to be conveniently managed

in 12 channel groups, facilitating 2-person operation, with different operators handling the left and right groups.

**CX will review the Rivaige PM10 as soon as possible after its arrival in Australia. Stay tuned...**



**The DSP-R10 DSP engine**

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## Martin MH5

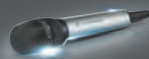
With two color wheels, two gobo wheels and rotating prism the MH 5 Profile offers full effect in a super compact housing, making it perfect for DJs, bands, clubs, bars, cruise ships and installations where small footprint and low weight is critical. Compact 75 W LED moving head profile One rotating and one fixed gobo wheel, Two color wheels, 16 DMX channels.



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- YAMAHA



**Australian Distributor: Barco Systems**  
[www.barco.com](http://www.barco.com) or (03) 9646 5833

**Barco  
 RLS-W12**

The Barco RLS-W12 is a single-chip DLP projector producing 12,000 centre lumens. It offers WUXGA (1920 x 1200) resolution plus extended warping and blending. Featuring both HDBaseTTM and BarcoLink, the RLS-W12 supports point-to-point transmission of video signals – up to WUXGA at 60 Hz – from source to projector, over distances of more than 70 metres, via a single Cat 5 or BNC cable. With an optional rental frame, it's equally suited for the rental and staging market as well as small to medium installations.

**Electro-Voice  
 X1 Compact 12" Vertical Line Array System**

EV's latest compact size X-Line system is designed to deliver best-in-class coverage, control smoothness and total SPL output capability. Its Mid-Band Hydra design emulates the behaviour of a double line of four 3" point sources to deliver perfect mid-band coupling while maintaining the efficiency, power and bandwidth of a 12" transducer. The Wavefront-Shaping Circular Hydra incorporates 2 new ND2R ring-exit, high-output 2" titanium compression drivers coupled to a pair of constant energy planar wave generators on a 90° waveguide optimised for high efficiency, uniform pattern control and smooth, extended linear response. The X1's Integrated Rigging System featuring a captive twist-lock multi-angle arraying system significantly reduces load in/out time and therefore production costs.

Two new models of subwoofer will be available for use with the X1. The X1-128 is a low-profile, ground-stacking



**Australian Distributor:  
 Bosch Communications Systems**  
[www.boschcommunications.com.au](http://www.boschcommunications.com.au) or (02) 9683 4752

dual 18" model designed for exceptionally high output with high definition and low distortion. The X1-125F is a flyable dual 15" subwoofer. The X1-125F features a pair of DVX3159A subwoofers in a trapezoidal cabinet and features the same integrated rigging system (IRS) as the full-range cabinets.

**Steinberg  
 Cubase Pro and Artist 8**

Steinberg have released two major new versions of its DAW platform, and Cubase has become Cubase Pro. The name change reflects the 25 year evolution of Steinberg's advanced music production system and spearheads the Cubase range of DAWs.

Both Cubase Pro 8 and Cubase Artist 8 have been given an engine rebuild and automation enhancements. New features include VCA faders, emulating the behaviour of VCAs in live desks, allowing you to control multiple channel volumes with a single fader. Another addition is 'virgin territories', a feature that eliminates redundant automation data. The new render in-place function makes for easy bouncing of MIDI and audio parts. Chord pads, Chord Assistant modes and MIDI tempo detection have been added, while the new Rack Zone provides a dedicated area for the MediaBay sound browser and VST Instrument Rack.



**Australian Distributor: Yamaha Music Australia**  
[au.yamaha.com](http://au.yamaha.com) or (03) 9693 5111

# ENTECH

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- STEINBERG
- YAMAHA



**Kramer  
Dolev Powered Speakers**

Australian Distributor: Kramer Australia  
www.krameraustralia.com.au or (07) 3806 4290

Kramer has announced a new family of powered speakers for near-field monitoring and installations, the Dolev Series. The Dolev 5, 6 and 8 house a 5.25"/6.5"/8" fibreglass woofer respectively, with all three running a 1" Neodymium dome tweeter. Power handling from the 5 to 8

runs 50/75/100W, bi-amped across the range. Frequency response ranges from 55/47/43Hz to 20kHz from the smallest to largest models. All three have XLR, RCA and TRS Inputs, as well as an adjustable high frequency level control.

**Penn Elcom**

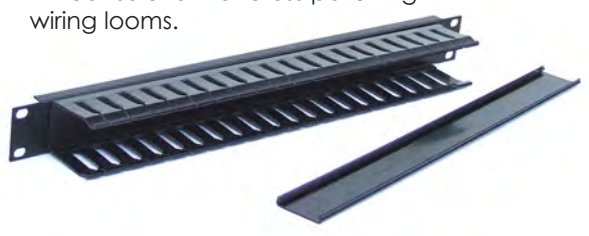
Those ever reliable utility lifesavers over at Penn Elcom have a number of nifty new products out to make your life easier.

**CN01 Deluxe Cage Nut Insertion/Extraction Tool**



Where have you been all our lives? This tool is invaluable for anyone inserting or extracting cage nuts. No more cut fingers with sharp tools and screwdrivers! Suitable for the 8.3mm / 5/16" & 9.5mm / 3/8" hole variants of the M4, M5 & M6 Cage Nuts. The Cage Nut is placed in the jaws of the tool which then squeezes the sides to allow the legs to be easily inserted into the hole. Brilliant!

**CMP-SD 1U Cable Management Slotted Duct with Cover**



A neat solution for cross patching wiring looms.

**New Gang Boxes**

New single and double Gang Boxes to go with their Front Panels pre-punched for Neutrik D and A/B Series connectors.



**Penn Elcom Pre-Packs**

Penn Elcom Pre-Packs are a range of pre-packaged items for cabinet and case manufacture, blister packed for retail sale individually or in kit form. The packs feature an extensive range of their most popular products for amplifier, roadcase and speaker repair or manufacture.



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# DTS Finalise

Misano Adriatico (Italy) based lighting manufacturer DTS have finalised their Dream Team range of moving heads.



MAX



First came JACK. "We researched what rental companies wanted", says Pierluigi Gasperoni of DTS. "So JACK is compact, small and light. It has very high luminous output and is multifunctional. For the first time you have wash, spot, and beam, all three in one. We've sold thousands of JACKS."

MAX followed, this time with four different kinds of projections – beam, spot, wash, and studio projection defined as uniform projection with a precise edge. In beam mode it runs 1 to 60 degrees. In Studio mode, it has auto gobo focus while zooming out as wide as 40 degrees.

DTS designed an infinite pan rotation system called FPR, which is patented. This means a designer can pan anywhere, without rewinding the fixture. They won a PLASA award for this feature.

New is the WONDER, a wash moving head LED projector fitted with dual light assembly. It goes from beam to wash with separate control over the inner and the outer circle of LED's. In practice this enables beam within a beam, and centre intensity or different colour.

**SILVANO LATTEO**  
President DTS

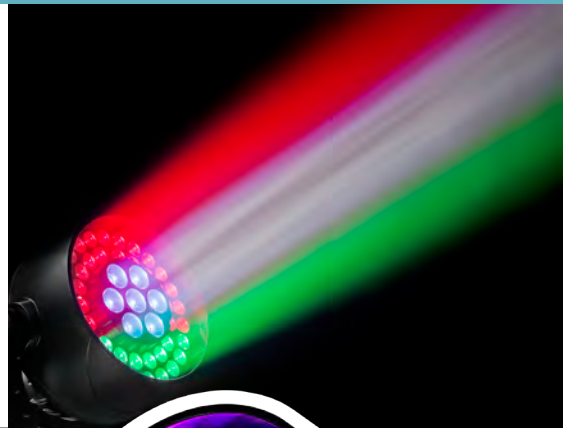
# DREAM TEAM

Inside the 'other' Italian Lighting Company

NRG1201



RAPTOR



WONDER



It's like two lights in one, and the centre control makes the wash very clean.

Next comes RAPTOR, the smallest, lightest most compact beam on the market right now, they claim. Loaded with a 330 watt Osram lamp. It has a sub 1 degree beam that burned a neat hole in the demo room curtain from 5 metres away. At slightly over 15 kilos, it will rotate 360 degrees in under one second.

The final part of the range is the NICK NRG trio, 501, 801 and 1201 which are all LED wash moving head fixtures. They also have the FPR option.



AUTOMATED PARTS STORE



## FAMILY CONNECTIONS

So who are DTS? It is a family owned lighting manufacturer, run by four members of the Latteo family. Silvano, Dante, Eliseo and their sister Marinella head the 70 strong workforce, located in three close factories set amongst semi rural farmland just inland from the northern Mediterranean holiday strip of Rimini.

They started with a metal turning workshop, as an adjunct to their farming. Some work for a commercial lighting manufacturer blossomed into assembly of high end domestic lights, followed by simpler stage lighting products like Par Cans. They have made more than one million of these.

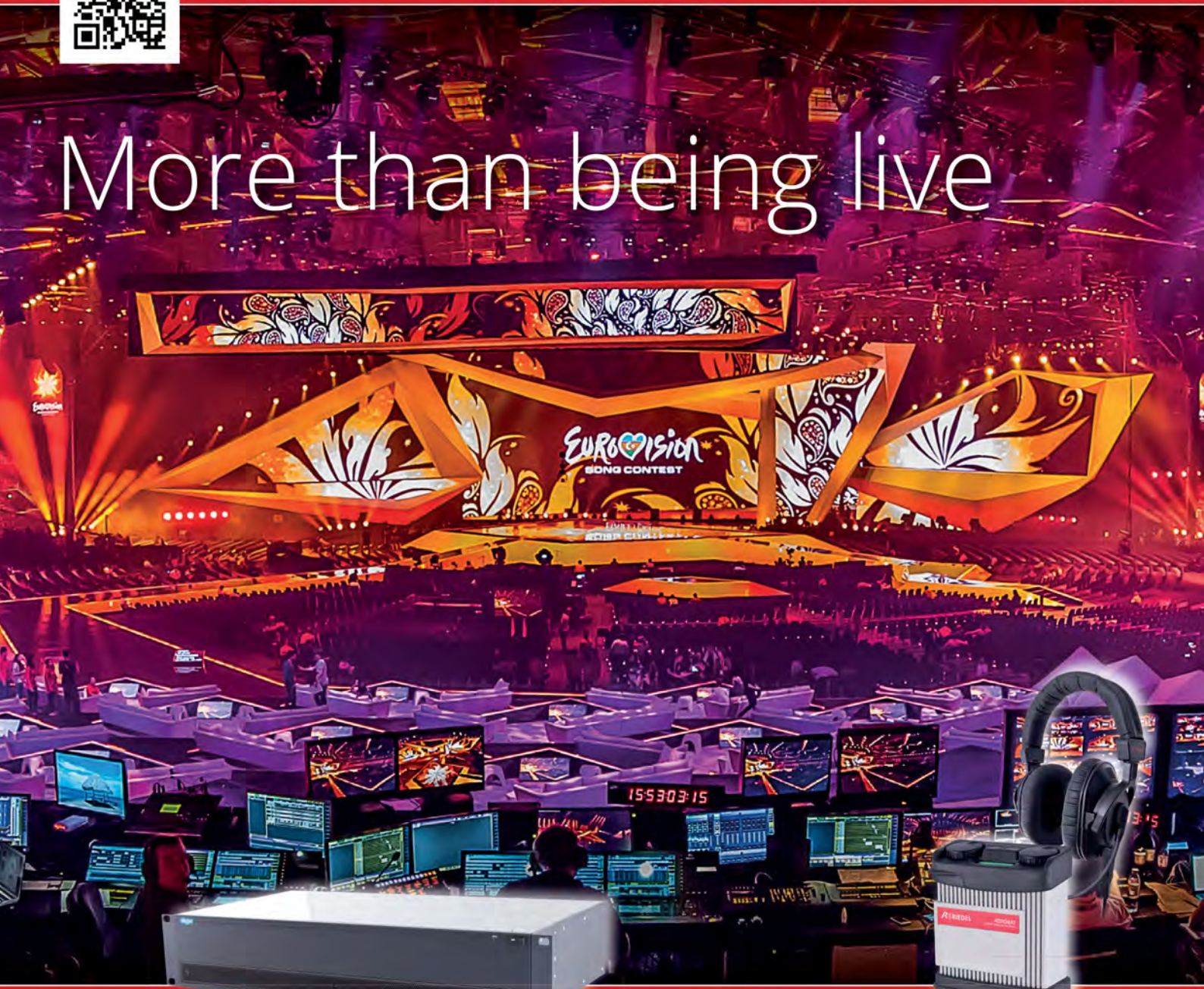
In 1990 they commenced research and development and became a manufacturer in their own right. They wanted to start something that would last.

The farms still operate around some of the factories, and they have an acute sense of countryside. They have a brochure on how they recycle and preserve the environment.





# More than being live



## Professional A/V interface for Skype

**skype** STX-200 **Now available**

Licensed by Microsoft, the STX-200 is a stand-alone, studio-grade solution that leverages Skype to bring live content directly from reporters to the on-air production.

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- Studio grade audio interfaces
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  - 2ch Analogue Audio XLR Output (balanced line level)
  - SDI embedded audio
- Gigabit Ethernet Connection
- User Interface connection via HDMI / Display Port Out
- USB Ports for various accessories
- GPIs

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- Up to 60/100 individually addressable Wireless Control Panels/ Belpacks (CC-60/CC-120)
- Excellent audio quality via VoIP-over-DECT technology with 1.9 GHz (license-free worldwide)
- Connection of antennas via existing Ethernet infrastructure (PoE)
- No interference with radio microphones, In Ear Monitoring (IEM) or other UHF systems



## GROWTH STRATEGY

A key to growth is that they have always reinvested and adopted technology in a major way. Today they have an entire factory of metal work machines, some highly automated, including a 3D laser cutter and an automated turning machine that can produce large elements.

In the assembly factory, it is warm and inviting against the winter breeze outside. Music is playing, and an obvious good vibe is evident. Finished goods move to a large walkway that runs down to packaging and despatch. At the end is a store of components, with all smaller parts housed within a huge automated Modular store. The operator enters what is needed, and the system locates the shelf of product and delivers it within seconds. This kind of automation saves serious time and space.

DTS have a huge catalogue. They have ranges dedicated to theatre, events, TV, and then hundreds of products for the architectural market – railway stations, museums, churches, bridges, commercial spaces, buildings, fountains, and even swimming pools. They say they were the first to market with an IP65 rated washlight.

Pierluigi says that technical support is a company strength, and showed me a department with half a dozen technicians who were working on quality control. Elsewhere they

have a research and development team with a large 3D printer that can produce plastic models of parts for testing.

Selling around the world, DTS swims against the tide as a small quality focussed manufacturer that has adopted automation and smart techniques to carve a place in a very tough market.



**THOMAS TADDEI**  
International  
Sales

# TOUCH THE FUTURE OF LIVE MIXING.

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**W**e enhanced the feature set of our StudioLive AI mixers and engineered it into an intuitive, touch-ready interface called UC Surface. RM Series I/O lives in a rack...



Capture® 2 one-click recording



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QMix™-AI for iPhone controls up to 16 separate monitor mixes.



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...but the real breakthrough is the ease and flexibility of control options you get with UC Surface. It takes the concept of moving faders into the future.

The UC Surface church-service-ready interface is designed for live sound mixing with contextual-based navigation for quick, intuitive access to all functions.

And of course RM Series AI mixers come with the seamless suite of software that makes our mixers so useful in a worship setting: Capture 2 for one-click recording. Studio One Artist DAW. And QMix-AI to adjust the

## RM32AI 32-channel/25-bus mixer

- 32 channels each with dual (A/B) Fat Channel processing (4-band parametric EQ, gate, compressor, limiter, high pass)
- 32 recallable remote XMAX™ mic preamps with +48V phantom power
- 16 aux mix buses with full Fat Channels
- 4 internal FX buses (2 reverb, 2 delay)
- 3 main mix buses (left, right, mono/centre) with full Fat Channels
- Front panel Mute All button temporarily mutes all inputs and outputs
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- 52 x 34 digital FireWire I/O recording interface



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# THE MILL REPORT

Andy Stewart owns and operates The Mill in Victoria; a world class production and mastering facility. He's happy to respond to any pleas for recording, mixing or mastering help... contact him at: [andy@themillstudio.com.au](mailto:andy@themillstudio.com.au) or visit [www.themillstudio.com.au](http://www.themillstudio.com.au)

# OF DEGENERATES & DEGENERATION

I don't know about you, but to some degree or other I'm as guilty as the next person when it comes to the pursuit of vintage audio equipment. Whether it be tape machines, an old keyboard, mic or clapped out preamp, I'm always interested to discover whether a particular piece of vintage equipment might serve some purpose in my studio.

For every piece of junk ever built for the production of audio, there's now an online forum singing its praises. Whether it be an old tape machine with unresolvable wow and flutter problems, an '80s synth with unobtainable custom-built chipsets or a busted spring reverb worth its weight in waste paper, there's always a group out there who loves a particular piece of 'classic gear' without prejudice.

But do these people really know what they're talking about, or have they just read about the equipment in a Beatles biography or pro audio magazine (like this one)? Is anyone actually listening to this stuff?



But like managing an illness, I'm also well aware that my interest in all things audio can quickly morph into an irrational desire to simply acquire equipment for the sake of owning it... not because I need it, not because it's vital to my studio's gear list; only because it has a VU meter on it, or goes 'boing' and worked at one stage in the distant past.

From my perspective, acquiring old audio gear is a dangerously futile pursuit in many respects, for the simple fact that I'm no tech. I can't easily fix things myself, so there's a tendency for anything that arrives here not working to remain that way for a goodly while before I finally either get it repaired at considerable expense by someone who knows how, or pluck up the courage to throw it out or sell it. In the meantime a lot of hours gets wasted farting around with stuff that by rights I should never have acquired in the first place.

### GARAGE SALE GOODIES

The problem is, most of the audio junk you and I come across – and let's face it, there's still a lot of old stuff out there waiting to be rummaged through – while it has the *potential* to be of some use to your studio, usually doesn't work very well (if at all) when it arrives.

So unless you're electronically savvy and can fix the gear as you acquire it, buying stuff like tape recorders, synths, mics, etc can quickly turn you into junk collector rather than an engineer, producer or studio owner. Before too long a veritable graveyard of gear can pile up around you until one day the producers of 'Hoarders TV' come knocking on your door asking if they could film you at work one day.

### THE STUFF OF LEGEND

The real danger arises when you buy a piece of old gear and install it in the studio immediately, because A: the gear is 'legendary', B: there's a space in your outboard rack for it, and C: it looks très cool.

Untested but legendary – now there's a potentially disastrous combo, and here's why.

When you buy old gear, particularly when you've paid good money for it, there's a tendency to assume

– provided it passes a signal at all – that the gear is cool and working well, and therefore anything it does – any sound it makes or noise it emits – is also cool.

And therein lies the problem. You stop listening and start down the path to 'delusional deafness'. This is where the reputation, pedigree or history of a piece of gear gets in the way of you listening dispassionately to what it actually sounds like.

A perfect example of this happened here at The Mill only last week as I embarked on a song mix that had been recorded only weeks earlier on a 'classic' 16-track tape machine, before being transferred into ProTools.

Because the tape machine apparently "looks amazing", according to the client and machine's owner, and because other similar machines recorded some famous records back in the day, no-one seemed to notice it 'wowing' during the tracking session like teenagers at a One Direction concert. Instruments were dissonant, voices hopelessly out of tune and overdosing on vibrato to the point where pitch correction could barely begin to rein in the problem.

The point here is that, somewhat incredibly, no-one noticed the obvious technical issues at the time. The romance surrounding the old gear had blinded and deafened the engineer and musicians to the reality of the recorded signals presenting back off the tape machine. It was as if the room had been filled with a purple haze of delusion. But no, it wasn't cool. Sorry Jimmy.

### OPEN EARS, OPEN MIND

Now as much as I've probably been guilty of attracting this moniker in the past, there's nothing worse than a gear snob, especially one who owns a bunch of old gear but doesn't really know how to use it.

If you're one of these people who likes to hoard old gear, sucking it into your habitat like a voracious bower bird, do yourself a favour and learn how to use it first before setting yourself up as the local authority. And please, do me a favour: don't then join a forum and start talking about the gear as if you've been using it for 40 years. It's not a good look, and I can't stand it when

The image is a promotional banner for NW Group. It features a large, stylized blue 'NW' logo in the center, set against a background of a large stadium filled with spectators. Below the logo, the text 'NW GROUP' is written in large, bold, blue letters. Underneath that, the text 'TECHNICAL SOLUTIONS FOR LIVE EVENTS ACROSS AUSTRALASIA' is written in smaller, white letters. At the bottom of the banner, there are logos for several partner companies: Norwest, Cairellie, Oceanio, spyglass, and Phase 1 Audio. Below these logos, the text 'Sydney, Melbourne, Brisbane, Auckland, Wellington, Perth' is written, followed by the website addresses 'nwgroup.co.nz' and 'nwgroup.com.au'.

people appropriate the experiences of others, passing them off as their own.

But above all else listen to what you're recording, because if you think it was the gear that made all those records great, you're seriously delusional.

Let's though assume for a moment that no-one's *that* impressionable, nevertheless you can't underestimate the affects time has on old gear. Thirty, forty and sometimes even sixty or seventy years after some of this equipment actually tracked the music you now find so legendary, a lot of it has fallen hopelessly – sometimes fatally – into disrepair. Assuming it sounds as good as it did back in its heyday is a trap, but an even bigger mistake is relying on the gear itself to make great sounds and, by association, great music.

**BACK-TRACKING**

Having ranted on like this, don't get me wrong. I'm not trying to snuff out people's interest in old equipment, not at all. I love it when people show an obsessive interest in some of these old boat anchors. It's great to see.

The problem is only that sometimes the obsession gets in the way of doing the job a producer or engineer is mostly being paid to do: listen intently. It's not good enough, particularly if you're taking people's hard-earned dosh, to let sonic travesties slip through the net because you were too busy marvelling at the tape transport of your old Ampex to notice that the machine was poorly aligned or playing up.

When the studio talk drifts away from how the song is coming together into a four-hour conversation about how Rupert Neve wound his transformers or Geoff Emerick recorded George Harrison's amp, it's time to reset your focus. You may in fact be missing the point that both these fine gentlemen would themselves be at pains to stress: that listening to what you're recording is paramount to good musical outcomes, not just the design of the equipment itself.

It's one of those consoles that seems caught in a nether world between comprehensive large format facility and hog-tied summing mixer pointlessness. From my point of view The Box has pros and cons that change depending on what project you're working on, in a nutshell because the console tries to do as much as it can with the smallest amount of facilities ever offered on a new API console. They're great facilities mind you; there's just fewer of them. What this means is that one minute the console is lacking in one specific area (four preamps for example are likely to be insufficient for a tracking session with a three-piece rock band), and then for the next session it's lacking in some other way (when you're mixing 95 channels together 16 summing faders will arguably feel somewhat pointless, although with some patching trickery you can squeeze 28 down the chute). If this is what you see The Box as being, it's simply not for you.

The Box is a small-format console that harks back to the days of consoles like the Neve BCM10, where channel counts on recording sessions were nothing like they are today, but quality was everything.

The Box offers four quality transformer-coupled 548B multi-input preamps, a 16-channel summing section with 100mm faders and a fairly comprehensive monitoring section. It's in many respects the perfect high-end analogue console for physically constrained control rooms that require a central command and control facility.

The API has fantastic attributes. First and foremost it sounds beautiful, and offers plenty of luxurious headroom (provided your recorders are properly calibrated to interface with an analogue setup). It has a fantastic stereo summing bus compressor that can also be redirected to the front end as required, and like all good professional consoles, it offers a control section and back panel connectivity that's arguably far more valuable to the operation of a studio than its handful of preamps or line-level outputs.

To me, this is what The Box is all about. It's not about pretending to be a large-format console; it's never going to be that. It's about running a studio setup from a high quality analogue mixer, rather than a cobbled together hybrid of converters, outboard or half-arsed monitoring systems. Setup this console with a comprehensive patch bay and you'll have a centerpiece that's perfect for a modest studio operation.

There are only two downsides. The cost is fairly hefty, and this fact alone – irrespective of the console's specs – will likely knock many prospective buyers out of the contest. Secondly, the lack of EQ on the summing side of the console really feels like a let down to me. API is as famous for its EQ as it is for its preamps and a simple two-band API tone shifter would have made The Box a much more comprehensive and self-sufficient little unit.

Regardless, The Box is well worth an audition if you're looking for a new, high quality mixer-come-control-room-centrepiece for your studio. Something that fits through the studio door, works reliably, records and mixes things with plenty of clarity and headroom, offers great control room management and a fantastic stereo analogue mix bus output (with VU meters!).

**API'S 'THE BOX' ANALOGUE CONSOLE**

**TOOLBOX**  
**review**

I've had 'The Box' – API's relatively new compact recording/summing console – at The Mill for a while now and I'm still torn about what I truly make of it.



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**DPA D:Facto II Wireless**  
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**VUE audiotechnik V4-d DSP Amplifier**  
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## AUDIO LOGISTICS

**AUDAC WaveDynamics Power Amplifiers**  
These two and four channel power amplifiers with inbuilt DSP, set a new standard for affordable amplification.

**VOID ACOUSTICS Arcline Line Array**  
The Arcline family of products are a range of no-compromise solutions for system designers, sound consultants and production companies of all types.

**AUDAC ATEO Installation Loudspeaker**  
ATEO is a series of extraordinary loudspeakers from Audac, designed for fixed install applications in environments such as retail stores, pubs, restaurants and clubs.



## BOSCH

**Electro-Voice X-line X1 Vertical Array System**  
EV's X1 compact line-array system delivers best-in-class coverage, control, smoothness and total SPL output.

**Dynacord AXM 12A Active 12" Coax Monitor with DSP**  
Dynacord's active wedge, the AXM 12A, prides itself on the compact form, flexibility, hi-power and extensive DSP features.

**Dynacord PM502 Hybrid Powered Mixer**  
Dynacord's PM502 is the compact powered mixer for today, providing both 100 V line or low ohm mode in live and installed applications.



## CLEARLIGHT SHOWS

**LDR follow spot**  
The LDR Canto 1200 MSD/MSR is a great quality follow spot, it incorporates a double condenser zoom optical system & a large side handle to control pan and tilt movement. This 1200W follow spot is designed for use with either a MSR or MSD source.

**Apollo Right Arm**  
The Right Arm adds pan and tilt capabilities to a range of static theatrical and studio lighting fixtures, allowing the designer to maximize the lighting rig without crowding fixtures or over-extending the budget

**GDS ArcSystem**  
The most exciting feature of the ArcSystem range is smooth dimming from 100% to absolute zero. Never before an LED component could so seamlessly replace traditional auditorium lighting without losing quality or function. Over a 20-second fade to black, the quality of the dim is smooth and indistinguishable from the dim quality of a halogen globe.



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- wednesday Feb 11  
sydney  
concourse chatswood
- Monday Feb 16  
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## CMJ

### Mackie DL32R

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### Mackie DL1608/806

Australia's favorite small format digital mixer. Wireless control over 16 or 8 channels provides the mobile freedom to wirelessly control the mix from anywhere in the venue.

### Master Fader 3

Find out why this intuitive app has been used to mix over 2 million shows worldwide.



## DESIGN QUINTESSENCE

### Prollyft Chain Hoists

Prollyft AETOS Chain Hoists are designed to meet the increasing demands of the entertainment industry incorporating a number of innovative features and ease of future technological upgrades.

### Global Truss F34 0-25° Hinged Junction (2.5° increments)

DQ has designed a neat and compact variable hinged junction that can be fixed at angles between 0 and 25° at 2.5° increments. They will soon have stock of F34, F44P and 400mm Box Truss.

### U-Drop

The U-Drop is the flexible answer to the problem of suspending fixture drops and allows endless configurations.



## DTS AUSTRALIA

### DTS Max – FPR

330 watt lamp with 1.5 – 60 degree optical range in 4 modes. CMY Animation and of course with the mighty DTS FPR system and weighing in at 19kg.

### DTS NRG 801

14 full colour RGBW LEDs with an 8 – 50 degree zoom. Wireless ready of course, with the DTS FPR system and weighing in at 9kg.

### DTS Profilo LED 50

Beam shaper for museums, retail applications, churches and production . 50w LED 300k 18 – 36 degree zoom weighing in at 6kg.



## HILLS

### L-Acoustics Kara

Modular WST line source, lightweight with extended LF resources and 110° horizontal activity.

### Hitachi CPWU13K Data Projector

3D capable projector with 13,000 ANSI lumens, WUXGA (1920 x 1200) resolution and 6 lens options.

### Roland M-5000

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# ROADSHOW 2015 TECHNOLOGY ON SHOW

Monday Feb 9  
Brisbane RICC  
(showground)

wednesday Feb 11  
sydney  
concourse chatswood

Monday Feb 16  
Melbourne MCEC  
south wharf

wednesday Feb 18  
Adelaide  
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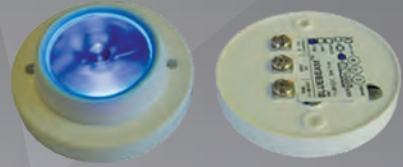




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## SO YOU'VE FINISHED YOUR RECORD... Part II

When your songs are released into the seething snake pit that is the worldwide music scene, the fight for their notoriety begins in earnest. It's an ugly, dirty industry this business, and some of the protagonists involved are less than scrupulous.

In the context of this dog-eat-dog market, sitting back and assuming that the sheer brilliance of your release will somehow effortlessly float you above this mayhem is naïve thinking, especially if you're hoping for overnight success.

So how do you compete?

In the last issue of CX magazine, way back in 2014, I talked in this column, as well as 'The Mill Report', about some of the reasons why many singles and albums fail to resonate with the listening public, or in many cases, fail to be heard at all.

It's a big topic, full of conjecture, crystal ball gazing and 20:20 hindsight. In the end it's very hard to write a chemical formula for chart success but there are certain obvious mistakes common amongst many of the (commercially speaking) abject failures. While avoiding these doesn't inevitably set you on a path to fame and fortune, it nevertheless gives you a greater fighting chance.

### TO RECAP

Among the topics discussed in CX99 were the use of social media to promote your gigs, and playing as much as you can to grow your fan base. Nothing quite beats a burgeoning grass-roots support to attract the attention of record labels and artist management, if that's what you're hoping to achieve along the way.

The best way to do this of course is with great songs... pure and simple. That's where the most crucial work is done on any successful music release; in the song-writing phase. That's easy to say of course, harder to do. And sure, there are other things like media stunts and striking visual imagery that may get you some notoriety (as well as being an ex-soapie star or erstwhile B-grade celebrity), but these typically fall flat on their arse if the songs themselves are lame.

The other main points I made last issue included planning ahead, having high expectations for the commercial success of your music, and promoting



Andy Stewart owns and operates The Mill studio in Victoria; a world class production and mastering facility. He's happy to respond to any pleas for recording, mixing or mastering help... contact him at: [andy@themillstudio.com.au](mailto:andy@themillstudio.com.au) or visit [www.themillstudio.com.au](http://www.themillstudio.com.au)

the release with a decent film clip. Here are some further observations about the obstacles that regularly derail people's fragile crack at the big-time.

### TARGETED MONEY

While it may be a truism, commercial success can only come if the music penetrates into the marketplace. Like the sound of one hand clapping no-one can judge whether or not they like a song you've made if it never crosses their path.

One of the many reasons people never hear most of the music that's released in Australia is because when something is released – sent to radio stations, launched locally by the band and promoted on local radio with an interview or two perhaps – a series of insidious and subtle judgement calls are made in the back rooms of radio stations and pubs etc about the merits of your music. Frustratingly, most of these are virtually instantaneous.

If your music is deemed amateurish, uncool in the current musical climate or perceived in some way to be a poor rendition of something else – by whatever conscious or unconscious method – it's headed straight for the bin, and fast.

This happens every day, a hundred times over to bands all over the country.

One way to minimise your music suffering this rough justice, particularly if you're starting out, is to focus your funds on a single, rather than a more time consuming and costly album. This allows you to spend whatever limited funds you may have on a more concise product, and produce it to a higher standard. Rather than recording, mixing and mastering ten songs poorly, producing one song not only allows it more production time, it potentially leaves some funds free for a decent film clip and maybe even some promotion.

If you're new to the scene, think of a single release as a taste tester for the listening public. If they like what you're offering, they'll immediately want more... an album perhaps? Offer them ten Brussels sprouts on the

# LISTEN HERE

BY ANDY STEWART

other hand and they'll probably turn up their noses.

The only flaw in this logic is that it assumes you know exactly which song will resonate with the general public before you record it. Sometimes it's hard to judge which song that might be.

Nevertheless, the main thing to understand is that, for your music to pierce through the total mayhem that is the crowded music scene, you need a well-honed stick not a Brussels sprout.

### SLOW & STEADY

The other totally different perspective on all of this is that, for most styles of music, success is not something that happens overnight.

I know several musos that are household names these days thanks to a combination of good music and sheer persistence. Their large back catalogue has been slowly built up over decades, and for these artists, measuring their success by the initial album sales 10 or 20 years ago would have defined them as abject failures. But their persistence paid off.

Years of toiling at the coalface combined with an unwavering belief in the music they were making eventually pushed them to the top of their respective trees. Now they're well known and deriving good incomes doing what they love.

### HONING YOUR SKILLS

The other thing to appreciate about the music industry that relates directly back to this notion of persistence, is that, despite what some of the cynics may say, the vast majority of bands who succeed these days – as was the case in the past – do so in no small part because they're highly skilled performers with vast levels of experience behind them.

I've worked with hundreds of bands live, as well as in the studio, many of them huge international megastars, and without exception, the thing that has always impressed me most about each and every one of them is just how technically proficient they all are. I quickly realised years ago that the notoriety of these acts was no accident, nor some simple combination of luck, looks and a recording contract. They have all been, by and

large, brilliant and well deserving of their position at the top of the tree.

### MATCH FITNESS

Music is like highly competitive sport. If making it to the top is your burning ambition, you have to be match fit, highly skilled and hard working. You can't just play a couple of gigs then throw your hands in the air in frustration if the world doesn't stop dead in its tracks to listen. There are exceptional players everywhere and even though you may be a fantastic songwriter and performer yourself, you're probably not the first person to think you're more deserving of recognition than you possibly are.

It takes a massive effort to start the ball rolling, involving thankless hours of practice, gigging to two men and a dog, poor pay and a diet consisting mainly of fried rice and humble pie. You have to keep at it. The ones that persist always do better than the ones that gave up after a couple of kicks in the guts.

### ARE YOU A LIFER?

If you're serious about a career in the music industry, you have to ask yourself one simple question: are you in it for the long haul? Are you prepared to put out five albums before anyone really shows any interest in your music, or will you give up when the first release only sells ninety copies?

Most success is hard earned in this industry. Of course there are overnight successes; that will never change. But of all the musicians who succeed in gaining public recognition and financial independence, most of them do so over an extended period of time. Even some of the ones you <<think>> succeeded overnight, in fact, played in relative obscurity for a decade beforehand.

So regardless of what you do or how you do it, if the belief in your music is strong enough, and you're in it for the long haul, you stand a far greater chance of achieving notoriety than another act that gives up after two albums. In my experience, the sound of one hand clapping eventually gives way to the sound of the last man standing.

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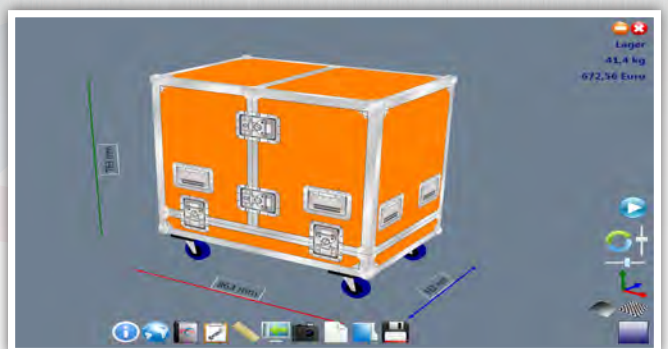
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# FADERLESS, WIRELESS MIXING

## ARE SOUND OPERATORS READY TO GO TOTALLY VIRTUAL?

The first time I ever saw anything 'wireless' involving a PA was in the late 1990s when Melbourne theatre specialist System Sound came into the Arts Centre's State Theatre to do production on a short run of a musical. I was the house tech, and vividly remember watching Kelvin Gedye set up a PC to control the system processor, enable Remote Desktop, connect a laptop (via Bluetooth, if memory serves) and then proceed to walk the stalls, circle and balcony while making changes to levels and system EQ for each section. My jaw hit the floor. This was clearly the future.



ENGINEER MARTIN FREY MIXES BAND 'HEY MARSEILLES' LIVE AT THE USA'S REDHOOK BREWERY VIA MACKIE'S MASTER FADER APP AND A DL32R

PRESONUS RM32AI AND UC SURFACE APP



### Step Away From The Surface

At first, digital mixing manufacturers coyly released applications that gave limited amounts of control to operators. Early apps were either geared toward tuning stage monitors or providing musicians with a simple way to control their foldback mix. Given

But the future seemed to stall for a while. Outside of Yamaha's Studio Manager software for its digital desks occasionally being remoted via the same method Kelvin used, the industry as a whole seemed reluctant to pursue any kind of virtualisation or wireless control. Then WiFi, and more importantly, the iPad happened. In barely four years, the iPad has revolutionised control systems in both live mixing and fixed installation; its power, ubiquity and flexibility making it an unparalleled force for disruption.



PRESONUS RM32AI AND UC SURFACE IN ACTION

BY JASON ALLEN

a taste of the benefits of wireless freedom, engineers the world over began clamouring for every single function of their desks to be available wirelessly. Some loved being able to walk the whole room and improve the mix accordingly. Some just wanted to sit at the bar on the easy gigs.

At the end of 2014, three manufacturers have taken the next logical step and produced live digital mixers that are effectively stage boxes and DSP without any physical controls, relying completely on third party touch screen devices for their operation; PreSonus StudioLive RM Series, Mackie DL32R and Behringer X Air. Now, technically, Mackie were really the first to market at 2012's NAMM show with the DL1608, which required an iPad to operate, but the DL1608 still had a 'desk like' form factor and had gain pots. The new generation are either rack mountable or portable stage boxes, designed to be plopped down side-stage. The Mackie and Behringer come with built-in WiFi, the PreSonus with a USB-WiFi dongle.

The big question is; are engineers willing to embrace a paradigm in which they give up their beloved faders and pots? Up until now, the iPhone/iPad/Android app available for your desk was an addition to your control arsenal, supplementing your hardware. Now, it IS your control surface. The advantages are mobility, ubiquity and multiple users. The disadvantages are possibly hostile WiFi environments, lack of haptic feedback and resistance from those who just won't give up on hardware control. So let's take a look at the offerings from PreSonus, Mackie and Behringer and see how they differ from one another, what they can do for your set-up and why you might think about going faderless...

### PreSonus StudioLive RM Series

The PreSonus StudioLive series includes traditional 'desks', as well as the new RM (rack mount) series. With one foot in the studio and the other on stage, PreSonus have gone a long way trying to provide the best of both worlds. The integration of DAW StudioOne and recording software Capture with the AI series really puts StudioLive in a unique position in the market.

There are two models of RM; the RM32AI and the RM16AI. The RM32AI has 32 mic inputs, 16 mix outputs and mounts in 4RU; the RM16AI has 16 mic inputs, 8 mix outputs and mounts in 3RU. All other specs are the same between the models; 25 mix buses (16 aux, 4 effects, stereo, mono/centre and solo), plus tape and digital returns. The built-in FireWire interface can send out 54 channels to record and accept 34 back for playback. The expansion ports offer Dante and AVB options.

Both models are controlled either wired or wirelessly via Ethernet. The main control app is called UC Surface and is available for Mac, Windows and iOS. There's also an app for iPhone called QMix-AI, designed to give musicians control of their foldback mix. Any given control network for an RM mixer can include up to 16 devices in any combination. Any AI mixers can be cascaded via FireWire and can gain share. PreSonus have promised new Dante and AVB stage boxes are coming in 2015.

### Mackie DL32R

The DL32R is targeted fairly and squarely at live use. It's 3U rack mount design gives you 32 inputs (24 XLR, 8 XLR/TRS combo) 14 XLR outputs, a stereo AES digital output and a dedicated stereo monitor output. Channels are mixed to six subgroups, 14 aux sends, six matrix busses



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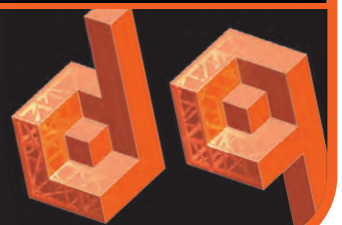
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MACKIE'S DL32R AND MASTER FADER IPAD APP

and main L/R busses, with the six subgroups running their own EQ and compression. Three separate effects processors with dedicated sends allow for two reverbs and one delay with tap control. Six VCAs and six Mute Groups round out the processing.

Easy live multi track recording is a big selling point of this new generation of gear, and the DL32R gives you two ways to go about it. The first of these is direct to a USB hard drive, which is currently specced to give you 48 kHz/24-bit audio with 24 in and 24 out. Mackie are promising that this will soon be increased to 32x32 via a free firmware update. There's also a built-in USB 2.0 computer audio interface that enables 32x32 recording and playback directly to your DAW.

The DL32R is controlled via Master Fader – an iOS-only app, running on iPad, iPhone, or iPod Touch. Up to 10 devices can control a DL32R at the same time, with the administrator able to lock out functions on the other nine devices, limiting musicians to their own foldback mix and so forth.

### Behringer X Air

Behringer first entered the faderless mixing market with a rack mounted version of its X32 digital desk. They've since added another 'desk like' product, the X Air X18. They've rapidly expanded on this with the announcement of three more models of rack mount mixer, the XR18, XR16 and XR12.

The XR18 has 18 mix channels, with 16 XLR inputs with preamps and two line-level TRS ins. These can be mixed to six aux busses and stereo, all of which have dedicated XLR outs. The biggest model of the range boasts some features that the two smaller models don't have: 18x18 USB playback and recording, and built-in UltraNet connectivity for connection to Behringer's personal monitoring units.

The XR16 gives you 16 mix channels, fed from eight XLR inputs with preamps and eight TRS line ins. These can be mixed to four aux busses and stereo, each with it's own XLR out. Stereo recording and playback (.wav) is available via USB. The smallest of the range, the XR12 is a 12 channel mixer with four XLR inputs with preamps and eight line ins via TRS. Two auxes and stereo output to TRS and XLR connections respectively. Stereo recording and playback (.wav) is available via USB.

THE BEHRINGER X R18 AND IPAD APP



All units have four FX slots, a 100 band RTA over the stereo bus, integrated tri-mode WiFi, and MIDI I/O, enabling you to add a hardware MIDI controller if you'd like faders, pots or triggers. Interestingly, all models are promising automixing 'based on the legendary Dan Dugan automix system' in a 'future firmware' upgrade, a feature that could put them in a market quite separate to the PreSonus and Mackie offerings. Of all three manufacturers, Behringer offer the most options for control, which can be done either wired or wirelessly with software and apps for iOS, Android, PC, Mac and even Linux available.

### The Real World Speaks

Over at the CX Facebook page, we asked real sound engineers working at the coalfaces of live production what they thought of the push to go virtual. Several common themes emerged; everybody loves the flexibility, but the robustness of WiFi itself in an increasingly wireless world gives many pause for thought...

"I think the benefits of ringing out monitors from stage, doing the 'walk out front' and being able to dial up on the go are there, but I simply see them as benefits alone. I wouldn't feel overly comfortable doing away with a surface completely," - Alan Phillips.

"I have been using the Behringer X32 rack for over a year. Prior to that, I was remoting Yamaha consoles on laptops for over 12 years. So none of this 'new trend' is new to me. I gave up physical faders long before anyone else I knew. I understand the apprehension of my cohorts, but, for me, it makes so much more sense. Trust me, you might start off awkwardly but you do get quick and instant in your responses. Now, whenever I am thrust behind a 'physical' console these days, either digital or analogue, it feels clumsy to me." - Michael Orland.

"I doubt it'd work here at my school. We have a minimum of 700 laptops on WiFi on each campus at all times during the day and enough access points to eat all the channels. And they're looking at adding WIDI (wireless projectors) into the mix as well. I love the remote options though, as most of my work is single-op gigs, so ringing monitors is hard work with a 40 metre walk from console to stage and lots of wide stairs." - Simon Greatwood.


"It comes down to how 'hands-on' into the mix you need to get during the set. I still can't live without my physical faders when there's a stage full of live instruments and I need to have my hand on several faders at any one time. But for speech, electro and small acoustic sets, yeah, sometimes I'll just remote in on the iPad and relaaaax." - Jonno Sea.



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# MEYER SOUND INTELLIGENTDC

## +48V IS NOT JUST FOR MICROPHONES

THIS ISN'T A SPEAKER REVIEW, NOR A CABLE OR AMPLIFIER REVIEW. YET AT THE SAME TIME, IT'S ALL THREE ROLLED INTO ONE. How?

IntelligentDC is the name Meyer Sound gives its remote powering and signal distribution system, and it's pretty cool. The IntelligentDC drive option is available on a range of Meyer Sound speakers you'd already know - from the tiny MM4-XP through to the more sizeable UPJ-1XP. There's even an IntelligentDC subwoofer available - the UMS-1XP.

There are two important aspects about this system - the how and the why.

How is dead simple. Install IntelligentDC speakers in the desired locations, and run a combined signal & power cable back to a central distribution point. At this point, install an MPS-488HP power supply and connect it to the speakers via Phoenix or EN3 connectors. Connect individual inputs via XLR for each power supply output, or just plug in one signal and use the channel link switches for common feeds. Turn on the power, send signal.

BY JIMMY DEN-ouden



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That's it, you're done! The 1RU device will run up to 8 speakers. There's also a single channel supply available for the MM4-XP.

It's important to understand that you're not sending an amplifier signal to the speakers – just balanced audio and low voltage power. This means you don't have to worry about signal loss inherent to low impedance systems.

Whereas constant voltage systems rely on local transformers that saturate at low frequencies, IntelligentDC speakers are internally amplified (bi-amplified on all but the MM-4XP) – so an IntelligentDC speaker sounds exactly the same as its mains powered counterpart.

The MPS-88HP uses less space than an amplifier (and way less space than 8 amplifiers!), so you don't need huge amp racks either. Because each speaker is driven from a discrete output



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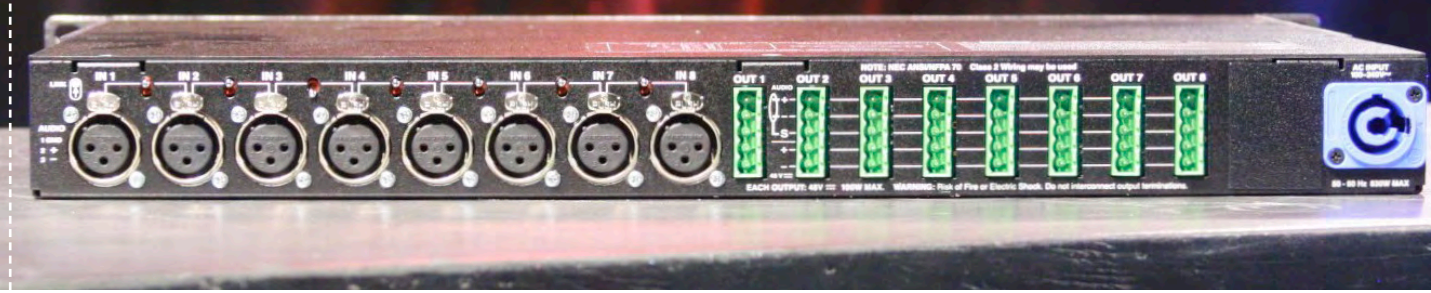
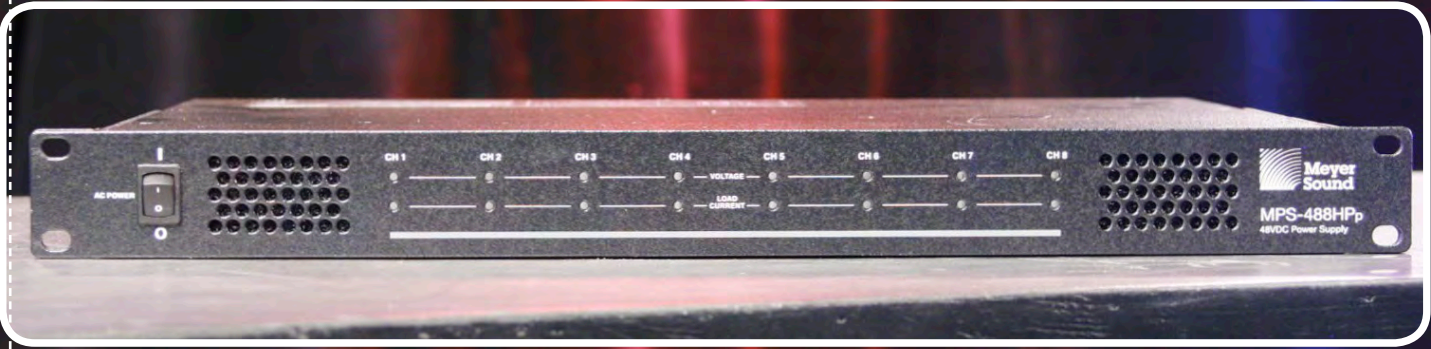
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with its own input, they're all individually addressable and hence you can apply different processing to each box. Cool. If you opt for the RMS enabled version of the power supply, you can even monitor each output.

With only one cable to run power and signal to each speaker, there is some scope for savings to be made during the installation process. There's a useful table on the IntelligentDC wiring diagram PDF which details maximum cable lengths in relation to the cable gauge used.

Carrying 48V rather than 240V different rules apply as to who can run and terminate these cables, as well as the conditions under which they may be installed.

I suppose what with this being Gearbox and all we do need to talk about how well the system actually works. We had a test kit with a power supply, MM-4XP, UMS-1XP, UPJ-1XP, UPJunior-XP and a UPM-1XP. I plugged most of the boxes into the supply, positioned them all in the same physical plane, and sent some signal through. It all worked, it all sounded right, and even with paralleled inputs the levels each speaker produced kind of matched up the way I expected them to. I tried unplugging and re-plugging some of the speakers with the power on and nothing blew up or went awry, it all shows the stability so typical of Meyer Sound gear.

I do think the system is intended for permanent installation applications, but there wouldn't really be much stopping you using it for temporary deployment other than perhaps needing to field-terminate some cables. For this reason the Phoenix connectors would be my preferred choice, since they require only a screwdriver to terminate. For permanent applications, the locking ring on the EN3 may be a better choice.

With speaker options ranging from extremely small to what I'd call moderate, it's clear that IntelligentDC would work well as a fill or distributed system – it's not a main PA and nor does it claim to be one. It's there to support bigger systems and get to the places they can't, and it does this easily. Think of an application outside of a venue (function centres, shopping malls, airports), and you'll find this is where the system is most powerful.





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# MACKIE DL32R LOOK MUM, NO FADERS!



BRAND: MACKIE MODEL: DL32R  
 RRP: \$3499 INC GST  
 PRODUCT INFO: WWW.MACKIE.COM  
 DISTRIBUTOR: WWW.CMI.COM.AU

DL32R IS THE LATEST IN WIRELESS REMOTE MIXING FROM MACKIE, WHO WERE EARLY ADOPTERS OF REMOTE MIXING TECHNOLOGY WITH THEIR DL1608. IF THE DL1608 WAS AIMED AT THE MI MARKET, THE DL32R STEPS IT UP A NOTCH OR TWO, WITH ITS FORM FACTOR, FEATURE SET, CHANNEL COUNT AND I/O PLACING IT FIRMLY IN THE PROFESSIONAL SECTOR. THE ONLY WAY TO CONTROL IT IS REMOTELY VIA IPAD USING THE MACKIE "MASTER FADER" APP. WITH A "MY FADER" IPHONE APP AVAILABLE FOR THE DL1608, WE MAY EVENTUALLY SEE THIS FOR THE DL32R AS WELL.

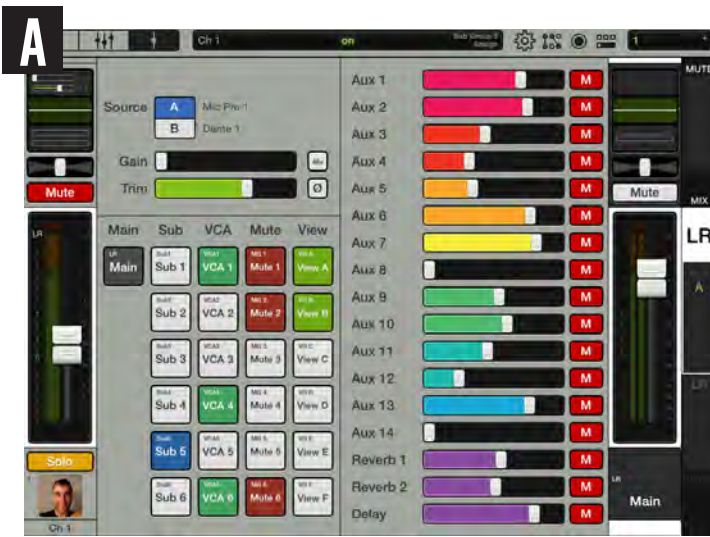


Let's start with the physical elements. The DL32R is a 3RU device weighing under 9kg. The front panel has 32 XLR inputs, 8 of which are combo jacks. 14 male XLRs provide analogue output, and there's another XLR for AES output. Dual 6.5mm jacks take care of monitor output as does a third jack for headphones. A headphone volume pot and a couple of indicator LEDs complete the front panel. Round the back, dual USB sockets allow connection to PC or USB drive. Finally there's an RJ45 connector for control, and a power button.

There's no internal WiFi on the DL32R, so you need to supply your own wireless router. I used a Linksys WRT54G (old, but pretty stable), and a pair of hook & loop straps allow the router to be attached to the top of the DL32R. Network connectivity on the DL32R is card-based to allow for future connectivity upgrades (ie: Dante support, which is already in the software!).

Now let's talk about internal features. 32 mix channels plus 3 stereo effect returns. Stereo mix bus, fourteen aux busses (plus effect sends), 6 mute groups, 6 subgroups, 6 VCA groups and 6 matrix sends. There's also routing to and from the USB ports. Whereas the DL1608 has fixed architecture, the DL32R has more flexibility and allows selectable routing for each channel and output. It's insanely cool to have a patch bay available as a touch screen on an iPad – not because it's a touch screen, but

BY JIMMY DEN-OUDEM



- A** - This is the channel view showing gain and aux sends
- B** - This is the 8 channel view with a custom fader layout - note multitouch works on faders!
- C** - Overview screen



because unlike others it allows you to drag the view up and down and side to side. It's very quick to use even if you need to patch every channel.

The software has 3 basic views – an overview, an 8 channel view, and a single channel view. These are selected from the upper left corner. The overview doesn't let you change much at all, but it does show you metering for every signal path in the console. The 8 channel view shows you 8 faders plus a master at once, and you can swipe left and right to change which faders you see. You can also build 6 custom fader layouts including channels, subgroups, and effect returns.

The channel view shows you a single channel, and lets you flip between gain/aux sends, EQ and dynamic sub-pages. There's even a choice between modern and "vintage" EQ styles. The gain/aux send page also allows you to choose between A/B inputs for each channel, as well as activate phantom power and phase invert. There's even a digital trim function to adjust levels if you've selected USB playback as a source.

I really like that the app gives you the choice of viewing a channel and all the places it's being sent to, or viewing a send and all its contributing channels. It makes the thing more user friendly for more different types of thinking. Even stuff like version mismatching between DL32R firmware and Master Fader has been appropriately addressed, though updating the DL32R can take up to 15 minutes.

You can save and recall scenes very easily, and there's

even a scope filter. I like that the custom fader layouts are also recallable. Channel setups can even be saved to Dropbox, and shows backed up to USB.

Two kinds of recording are possible via USB – straight to a hard drive or to a DAW. Support on Mac is native, and there's a Windows driver download available. The USB ports cannot be used simultaneously.

The Master Fader app is free and fabulously intuitive. I downloaded it and it was immediately obvious how to connect to the DL32R and operate it. I didn't try the multi-track recording but it all looks outwardly straightforward. If it's not, there's a comprehensive user manual on-line, written by a human complete with a good sense of humour.

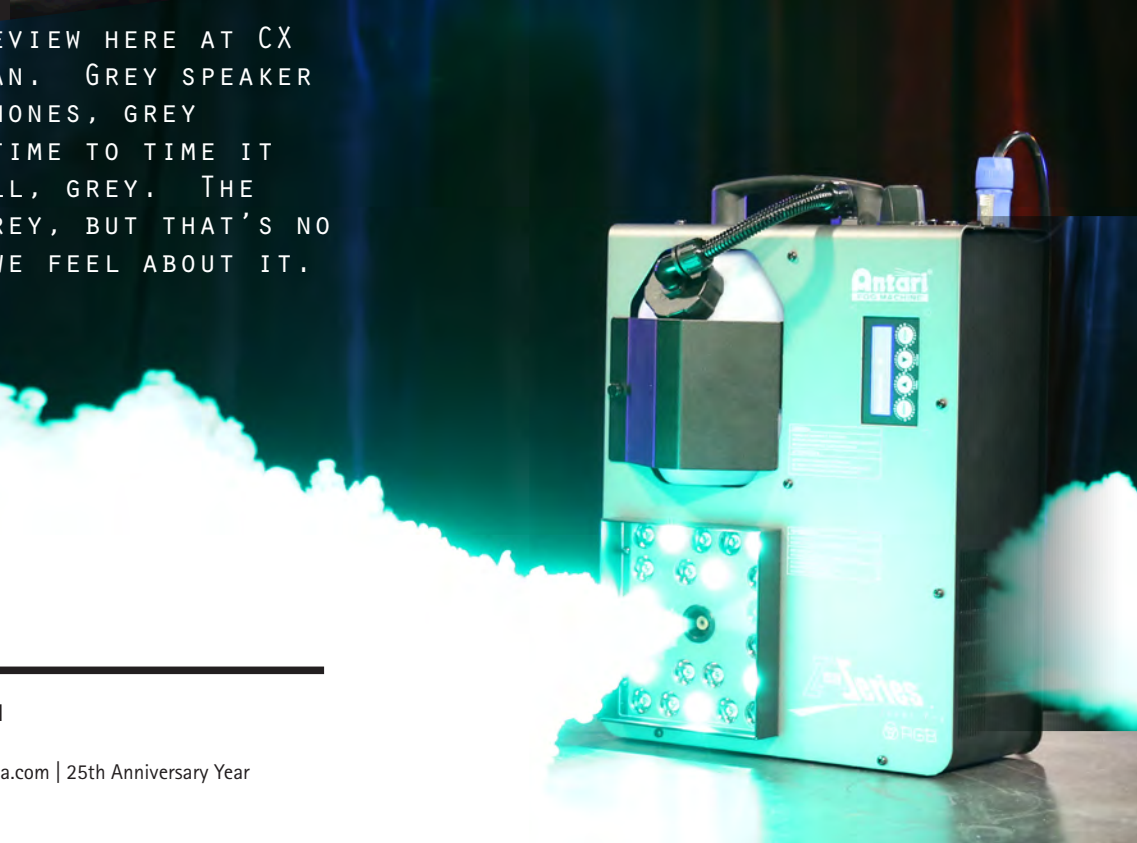
Anyway, everything makes a lot of sense – even before I looked at the manual I was immediately comfortable that I knew my way around it. But would I be comfortable with the level of reliability? It is wireless after all...

I guess the short answer is that I trust it as much as I trust my wireless setup. Perhaps this is why Mackie has left the wireless component to others? I do like my crunchy old Linksys router, but I've also had good results with the Apple Airport Extreme, as well as some enterprise grade Cisco gear (you know, the stuff I need to call a guy to do the command line programming on). The bottom line with the DL32R is that while you won't lose audio if the WiFi flakes out, you will lose ALL control over the device. Use cheap WiFi gear at your own peril!

# ANTARI Z-1520 SMOKE AND MIRRORS



SOME PRODUCTS WE REVIEW HERE AT CX ARE VERY UTILITARIAN. GREY SPEAKER BOXES, GREY MICROPHONES, GREY AMPLIFIERS. FROM TIME TO TIME IT ALL GETS A BIT, WELL, GREY. THE ANTARI Z-1520 IS GREY, BUT THAT'S NO REFLECTION ON HOW WE FEEL ABOUT IT.



BY JIMMY DEN-ouden

**IT'S FUN, AND GOOD, CLEAN, CHEAP FUN AT THAT. THE Z-1520 IS A FOGGER AT HEART, BUT UNLIKE MOST UNITS THAT HAVE THE NOZZLE ON THE END, THIS ONE HAS IT ON TOP. IT'S A COMPACT LITTLE THING - ABOUT THE SIZE OF A BRIEFCASE. WITH A HANDLE AT ONE END AND A METAL BRACKET SECURING THE FOG JUICE RESERVOIR IN PLACE, YOU CAN PICK IT UP AND CARRY IT QUITE EASILY.**

In addition to the top mounted fog jet are 8 red, 7 green and 7 blue LED sources. These surround the jet and have quite tight beam angles. The idea is that the LED sources illuminate the jet of fog created by the Z-1520, and for what seems an odd idea it works really well and it's quite a visually imposing effect.

Setup on the unit is done via two line backlit LCD with adjacent menu navigation keys. The menu system is fairly basic and dead simple to use. Control is via DMX512 on three or five pin XLR, with discrete channels for fog and the RGB lighting channels. There's also a keyfob remote supplied, and each of the buttons on this triggers the fogger mech as well as a preset colour. You choose the colour in the menu, along with how long the lights stay on after you release the button.

The Z-1520 doesn't really do subtle well - for starters it's REALLY loud when you hit the fog. It can't fight physics any more than any other fogger pushing a lot of gas out of a tiny aperture. Physics says this will be noisy, so best just accept that and plan your use accordingly.

I was really impressed by how far the fog jet throws once it leaves the nozzle - it's at least five metres and probably lots more if you have the ceiling height to accommodate it. Because of the sheer speed and volume of the fog (and compact footprint of the unit itself), the duty cycle is limited. You get a good solid first continuous hit, but only short bursts immediately after this. Give the unit a moment to catch its breath and you're good to go again.

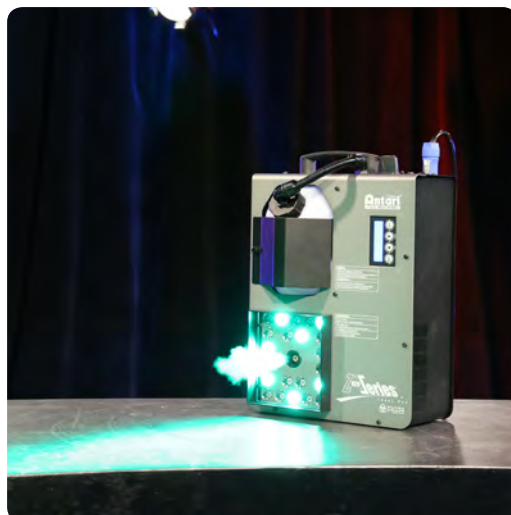
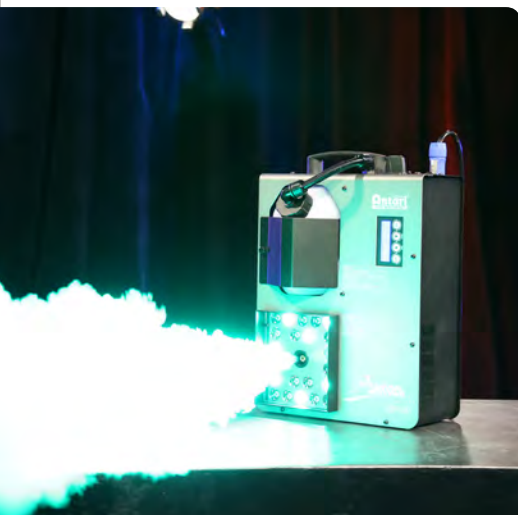
I can't find any supporting documentation to say it's okay to run the Z-1520 on its end, but I've tried it several times and it doesn't seem to be a problem in any way. I don't know that on-end is really the intention of this unit though - it's a cool effect when it points straight up. Dotting a few of these around the front edge of a stage would give a great strong effect, and looking at the price it certainly won't break the bank either. I think this is a great little product.

BRAND: ANTARI  
MODEL: Z-1520

RRP: \$882.00 INC GST

PRODUCT INFO: [WWW.ANTARI.COM](http://WWW.ANTARI.COM)

DISTRIBUTOR: [WWW.ULAGROUP.COM](http://WWW.ULAGROUP.COM)



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# JBL EON615

## EON GROWS UP

I REMEMBER THE FIRST EON JBL EVER MADE. I THINK IT WAS ONE OF THEIR FIRST "PLASTIC FANTASTIC" CABINETS, AND WHILE BY TODAY'S STANDARDS IT SOUNDED PRETTY NAFF, A DECADE AGO IT WAS PRETTY GOOD. SUBSEQUENT REVISIONS TO THE LINE HAVE SEEN IT MATURE INTO SOMETHING RATHER GOOD AND WIDELY ACCEPTED.



BRAND: JBL  
 MODEL: EON615  
 RRP: \$799.00 EACH INC GST  
 PRODUCT INFO: [WWW.JBLPRO.COM](http://WWW.JBLPRO.COM)  
 DISTRIBUTOR: [WWW.JANDS.COM.AU](http://WWW.JANDS.COM.AU)



The latest addition to the EON line adds some bulk and some brainpower, but oddly feels a lot lighter. Where previous generations have really been self-powered speakers at the core, the 615 is more of a portable PA system.

It's also alarmingly well priced at just shy of \$800 bucks retail. We veritably crucified a powered wooden box costing 25% more, so sending the EON615 over to CX for review was something of a ballsy move by JBL.

Let's start with specs – 50Hz – 20kHz +/- 3dB, 80 x 60 nominal coverage, internal dual Class D amplifiers providing a continuous 350W to the LF driver and 150W to the HF section. All in a package weighing slightly less than 18kg. 3 integrated fly points (2 on top and 1 at the back) even allow you a flying option. It's a limited option but it's an option in a price bracket where such things are, well, rare.

Taking into account the above, the EON615 sounds reasonable enough on paper, but then lots of things sound reasonable on paper. A more important question is how does it sound passing a signal? Pretty good actually, but more on why later. First though, some more tech...

The back panel features a 2 input mixer with independent level control for each input plus a master level. There's a summed output as well, and all connections are on XLR. You can input mic or line level by pressing the recessed button adjacent each pot with a small pointy thing (fingers alone won't do the job). There's also a button allowing you to toggle through four DSP

BY JIMMY DEN-OUDEM



modes ('EQ presets') – FOH, Monitor, Sub, and Speech. The modes are all pretty similar if truth be told, the Sub mode inserts an aggressive HPF and the others all do the kind of stuff you'd expect. Another button allows you to dim the front panel LED, and the remaining controls relate to the Bluetooth remote app.

Yep, that's totally a thing now. A Bluetooth based app is on the way to let you remotely EQ and adjust your EON615 from the convenience of your phone/pad/iWhatever, should the preset EQ modes not suit you. The EQ+ button lets you bypass the Bluetooth EQ, and boot/sync buttons are used to initiate the connection to the remote device.

So really, how does it sound? Kind of built for the MI market really... I played a bunch of recorded music content back and listening to it the 615 is generally balanced with a bit of an emphasis on the upper end of the frequency spectrum. I pushed it well into an unhappy place with LOTS of level, and it seemed like the LF driver ran out of steam and hit limiting well before the HF driver, but at least it's well protected.

Conversely putting it into Monitor mode and lying it on the ground, I used an SM58 with no EQ or filtering and the EON615 pretty much hit limit on everything at bang on the same time it started to feed back. Worth noting is that it was pretty loud when this happened. I think as a basic monitor for acoustic acts it would be ample, even generous. It's not about to become a viable replacement for your concert wedges. Gain before feedback was good, and when feedback eventually occurred it happened with plenty of warning - it's pretty well behaved as a wedge.

Does it meet the spec? I didn't stop to measure it, because to me it doesn't matter. The only thing the EON615 needs to do to be a winner is to be better than the competition, and in this price bracket that's knock-off China boxes. Frankly it blows the socks off any of these, and with local support and backup I think we can expect big things from the new EON.

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# DECIMATOR DESIGN DMON-12S

DECIMATOR DESIGN STARTED OUT A FEW YEARS BACK AS REDBYTE, MAKING A RANGE OF COOL LITTLE VIDEO ACCESSORIES. SOME OF THE EARLY GEAR LOOKED A LITTLE CLUNKY BUT IT CERTAINLY DID THE JOB. OVER THE YEARS THE PRODUCT RANGE HAS BEEN EXPANDED, AND THE PRODUCT DESIGN AND CONSTRUCTION METHODS REFINED. DECIMATOR DESIGN IS VERY MUCH AN AUSSIE COMPANY MAKING WORLD-CLASS PRODUCTS. THE DMON-12S IS ONE OF THEM, AND FRANKLY I'D BE SURPRISED IT IT'S NOT MAKING A FEW OTHER VIDEO COMPANIES JUST A LITTLE BIT NERVOUS.

The DMON-12S is a compact little device with 12x SDI inputs, plus 2x SDI and an HDMI output. It's a multi-viewer which can display anything from 1 to 12 windows simultaneously, and it does it for under \$2k which frankly is nothing short of amazing. If you wanted a 16 channel device you'd be looking at closer to five digits than four, though that fourfold increase would also get you rack ears. I'd probably just add another DMON-12S and cascade it into the first. You can also pass a single input through to the outputs (including HDMI). Various layouts can be stored and recalled.

The DMON-12S supports a wide array of SD, HD and 3G input formats and you can mix formats from quadrant to quadrant. It supports UMDs, or under monitor displays. You can set the title of each multi-view window. It supports four different colour tallies (red, green, blue and yellow) per window. It supports up to 16 channels of embedded audio metering per window. These features can all be independently enabled or disabled on a per window basis. You can mix aspect ratios across quadrants, and all inputs have low latency buffers to allow simultaneous display of non-synchronous sources. Safe action and safe title overlays as well as centre cross can also be enabled individually per window.

A 37 pin D-sub connector provides 32 GPI connections for tallies and remote switching, and the same connector transports RS422/485 for dynamic UMDs and tallies via TSL protocol. A USB port allows setup and customization

BRAND: DECIMATOR DESIGN  
MODEL: DMON-12S  
RRP: \$1990.00 EXCL. GST  
PRODUCT INFO: [WWW.DECIMATOR.COM](http://WWW.DECIMATOR.COM)  
DISTRIBUTOR: [WWW.AVGROUP.COM.AU](http://WWW.AVGROUP.COM.AU)

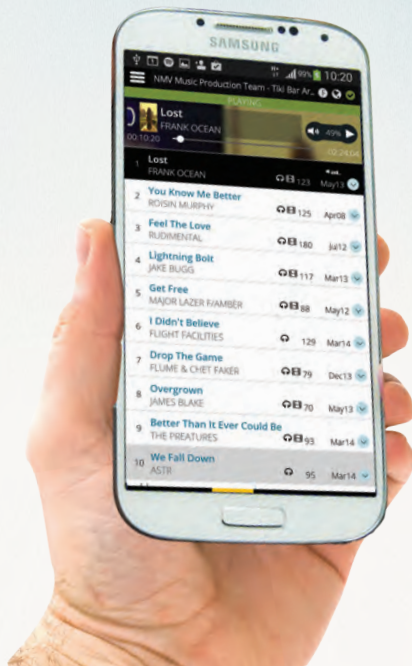


– this happens via the USB Control Panel (Mac and PC versions available) – the same app as is used to configure all Decimator products. Quick function changes such as the number of multi-view windows, or input routing to each window can be performed from the backlit LCD display and adjacent function keys. For a tiny little display and menu, it actually lets you do quite a high level of configuration. It's a huge improvement on the previous generation "LED & button" system.

I think this is such a clever little box, and certainly capable of far more than you'd expect from something so compact and affordable. I really love the little design features too, like the locking DC connector and decent sized power supply to avoid overheating.

## AUSSIE INNOVATION AT ITS BEST

BY JIMMY DEN-ODEN



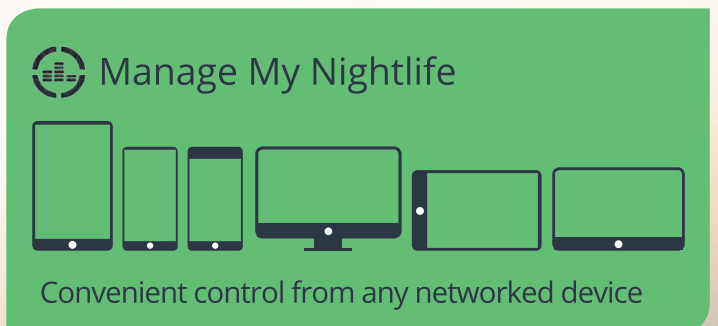
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February  
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# ROAD SKILLS



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journey has propelled him from the San Diego coffee house scene to arena, amphitheatres, and stadiums all over the world. A two-time GRAMMY® Award winner and six-time nominee, Mraz made pop history with his record-breaking classic single, "I'm Yours," while also earning platinum and multi-platinum certifications in more than 20 countries.

A dedicated surfer, farmer/gardener, filmmaker, and photographer, Mraz is first and foremost a committed global citizen. His impassioned social activism and philanthropic efforts span wide-ranging environmental advocacy and ardent support for LGBT equality.



*Editorial by Cat Strom*

*Photography: Jason Mraz - Troy Constable*

*Rodriguez - Tony Lamplough, Field Day - Ashley Mar*

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AMPHITHEATRES  
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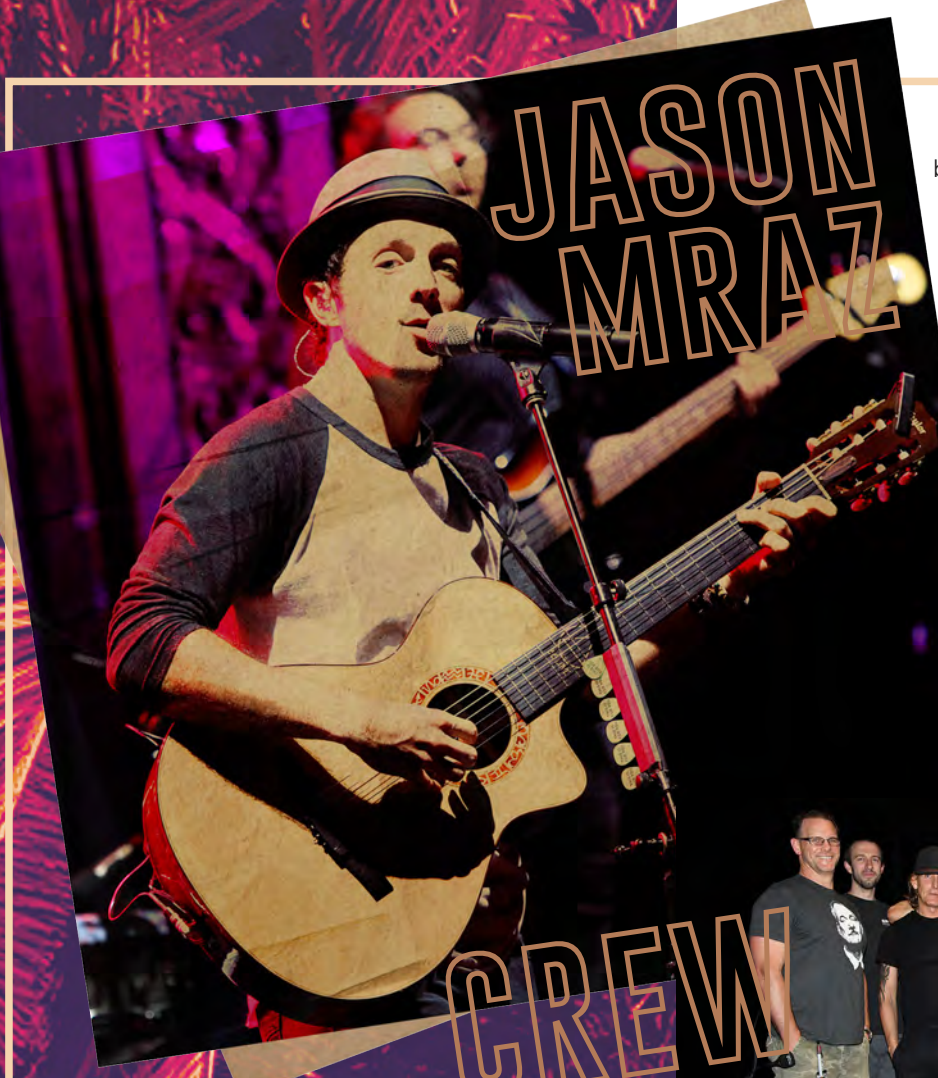
JASON  
MRAZ

SINGER SURFER SONGWRITER

GARDENER  FARMER

ENVIRONMENTAL ADVOCATE

FILMMAKER PHOTOGRAPHER



Ettore admits his job is made easier by the fact that Mraz has a super strong, beautiful vocal as do the female backing singers.

"I have the most fun with this as it is all real - everybody is actually playing, there are no triggers of any kind," said Ettore. "We have all acoustic instruments such as cellos, mandolins, ukuleles and acoustic guitars. My favourite moment in the show is when they do what we call the 'hoot' - they all gather around a single microphone and I don't plug anything in except the bass guitar to get a little low end. They gather in a circle with a few acoustic instruments and all sing, it's just amazing."

For his recent tour, Mraz made a conscious choice to perform in venues smaller than the usual arenas with several multi-day residencies, and in Australia he played Melbourne's Palais Theatre and Sydney's State Theatre.

Entertainment Installations supplied the lighting and audio package, with inhouse PA systems utilized.

Ettore Deditiis has been mixing Mraz's FOH for the past nine years, this time round with a Digidesign Profile 48/16.

"The Profile is an easy console to pick up wherever we're playing and that's important because we can't always fly the console with us," Ettore commented. "I have the Waves Version 9 so I have a lot of great plug-ins that I can use. It adapts well with Pro Tools which is great as in the US we do a lot of recording with a Pro Tools rig. It's an easy hook up, it reads it well and runs nice together - it's pretty seamless.

"The Waves really turns the console around into a totally different surface and adds a lot. The main plug-ins that I like are the H-Comp hybrid compressor, I use H-Delay hybrid delay for effects, I use the API collection frequently and I use the SSL plug-ins a lot."



FROM LEFT; MATT SWANSON - TOUR MANAGER, MATT KORNICK - MONITOR ENGINEER, BRENDON McNICHOL - GUITAR TECH, ETTORE DEDIVITIIS - FOH/PRODUCTION MANAGER, JOEL REIFF - LIGHTING OPERATOR, SATOSHI NISHIMURA - SOUND TECHNICIAN, RACHEL JOHNSON - TOUR COORDINATOR, ADAM O'TOOLE - GUITAR TECH, JERRY LINDAHL - DIRECTOR OF MERCHANDISE, JD BRUMBACK - STAGE MANAGER

Microphones are all Shure with Ettore remarking that he has used them forever and that they are bulletproof.

Matt Kornick looked after monitors on a Yamaha CL5. Shure 900 PSM with Ultimate Ears are used by all with a few sidefills, however there are no amplifiers onstage.

The lighting was designed by Butch Allen with Joel Reiff on the road as lighting director. The Uprising Collective supplied content.

"There were a bunch of people designing the show with directive from Jason on what he wants the feel to be," said Joel. "In fact, Butch Allen won the 2014 Lighting Designer of the Year Parnelli Award for this show which is kind of cool as we beat some big names from some big tours."

The setup is fairly simple with an upstage front truss and a downstage truss, however it is the choice of instruments that makes it interesting. There may not be many instruments but what they have can really pack a punch.

FROM LEFT; JOEL REIFF, LIGHTING OPERATOR, AND WILL TODD FROM ENTERTAINMENT INSTALLATIONS





"We have eleven Clay Paky B-Eye K20 which are a pretty unique fixture that can give you a lot of interesting looks unachievable with any other LED fixture," said Joel. "Sometimes we'll use them for colour wash, other times soft movement and for upbeat songs, they can do some crazy stuff with the ability to control every pixel in the light. We also have eighteen Martin MAC Viper Profile which are my bullet proof fixtures of choice. Those two fixtures pretty much carry the show although we also have fourteen Clay Paky Sharpy for eye candy and of course, the classic Sharpy beam effect."

Eight Martin MAC Aura LED Wash fixtures replaced the requested TMB Solaris Flares in order to light the audience thus involving them in the show. Ten 150w fresnels on floor stands (replacing Lowell Lights) provide soft glow and an ethereal look.

Joel chooses a grandMA2 fullsize (with grandMA2 light for back up) to control the show describing it as his tool of choice.

"I'm just comfortable with it," he stated. "It's flexible, it does everything I need seventeen different ways! Plus, they are easy to source on tour."

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■ TYPICAL  
■ EON615

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by HARMAN

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Ticket sales for Rodriguez's Australian tour surpassed all expectations leading to extra shows. Rodriguez, an American folk musician from Detroit, has a fanatical following in Australia and was the subject of the Oscar-winning 2012 documentary film

# RODRIGUEZ SEARCHING FOR SUGARMAN

## THE AUSTRALIAN TOUR

When our own FOH-guru James 'Oysters' Kilpatrick was offered the opportunity to mix Rodriguez's Australian tour, he was initially quite excited as his Auntie had played Rodriguez's album a lot when he was a child. However, despite knowing Rodriguez's material intimately, Oysters hesitated for a moment.

"He sings extraordinarily quiet which clearly can cause some issues," explained Oysters. "Obviously I have to work but there's no point in taking a job that could damage your reputation. Long term you'd end up with less work. It can also be a bit odd working for a person whose record you've really liked, especially if it's close to your top ten albums of all time."

Eventually Oysters figured how bad could it really be and because he has mixed sound for pretty challenging acts such as the Dalai Lama (a habitual microphone fiddler) outside in the wind for 40,000 people, he wanted to make it good for all concerned and took the challenge.



FOH-guru  
James  
'oysters'  
kilpatrick



"I got it to a good place but it took a lot of hard work!" he remarked. "If you wanted to hear his voice properly and true to Cold Fact, you had to mix the show around the low to mid 80's (db). His voice sounds fantastic and is really true to his original albums, it's just very quiet. On his records his voice is quite prominent in the mix and it's very hard to recreate that live given the circumstances of touring, you had to be very careful of where the PA was flown. He would get quite worried if the PA was too close to his stage position due to the bass from the back of the array spilling on to the stage, and before the PA was even working properly, he'd ask you to turn it down. He had a gap of 30 odd years of not gigging, so the power and bass response of a modern PA system was something he had clearly not gotten used to since his return to large scale performance. Hence the positioning of the array and subs so it made as minimal impact as possible to the stage."

As a seasoned engineer, Oysters accepts that around 70% of his jobs are straightforward with a standard amount of planning, whereas this job was anything but simple. Great thought was put into where the PA went, the bands stage amplifiers had to be pointed sideways or backwards, the drummer had to play quieter than usual ..... in fact any small discretion could mean the difference between success and failure.



It would be a safe assumption that Rodriguez has had a fairly high turnover of FOH engineers.

Fortunately Oysters had been pre-warned about Rodriguez's low level voice and was well prepared. A Shure DFR feedback reducer set to remove narrow band notches and a Waves Vocal Rider plug in made the difference between hearing Rodriguez well and just hearing him in parts.

The first two shows in New Zealand ran smoothly as the venues were very 'live' concert halls and he hardly needed any band through the PA ensuring Rodriguez's voice worked well.

"Australia included larger outdoor gigs where I really had to make the PA work," said Oysters. "I was prepared by making sure I toured a Shure DFR feedback reducer and a Waves Vocal Rider plug in to keep his voice up and really clear. With the Shure DFR, you can get away with things you normally wouldn't be able to – you can easily get another 6 dB out of the vocal with it.

"We bought the Waves Vocal Rider for the tour; normally when an artist sings loudly it turns their voice down without compression but with Rodriguez I was using it to turn his voice up to +8dB on the fader. As soon as he stopped singing, I'd have it rocket back down to about -2dB. It worked well because doing that all night with your finger would wear you out and you'd have no time for anything else. That would distract you from the finer points of the shows sound and the subtle band parts especially as the 3 piece band had a very high standard of musicianship.

There was so much gain in the microphone, you could hear people walking behind the drapes during sound check so I had to automate it."

At 72 years of age, Rodriguez had a bit of trouble with modern lighting in his eyes. Matt Brown the monitor engineer had the genius idea to put a foam windshield on the microphone so that he could find it in the dark in-between songs and being foam you can move your lips onto it (the metal of a normal mic pop shield can be rather unpleasant to touch with your face).

"He could put his hand up and feel it in the dark and that's good because he then brings his mouth right onto the loudest part of the mic," added Oysters. "Almost my sole concentration would be the structure of the song and making sure all his words could be heard clearly as every song has a distinct social message. Typically we didn't use a lot of bottom end, there isn't a lot of bottom end on the two records but there's quite a bit of bass guitar playing but it's more of a low - mid amp sound."

The electric guitar played a lot of the melody in some of the songs, the bass in others, so the subs were placed in a cardioid array to keep the audio off the stage once the PA got louder. Flown subs well away from the

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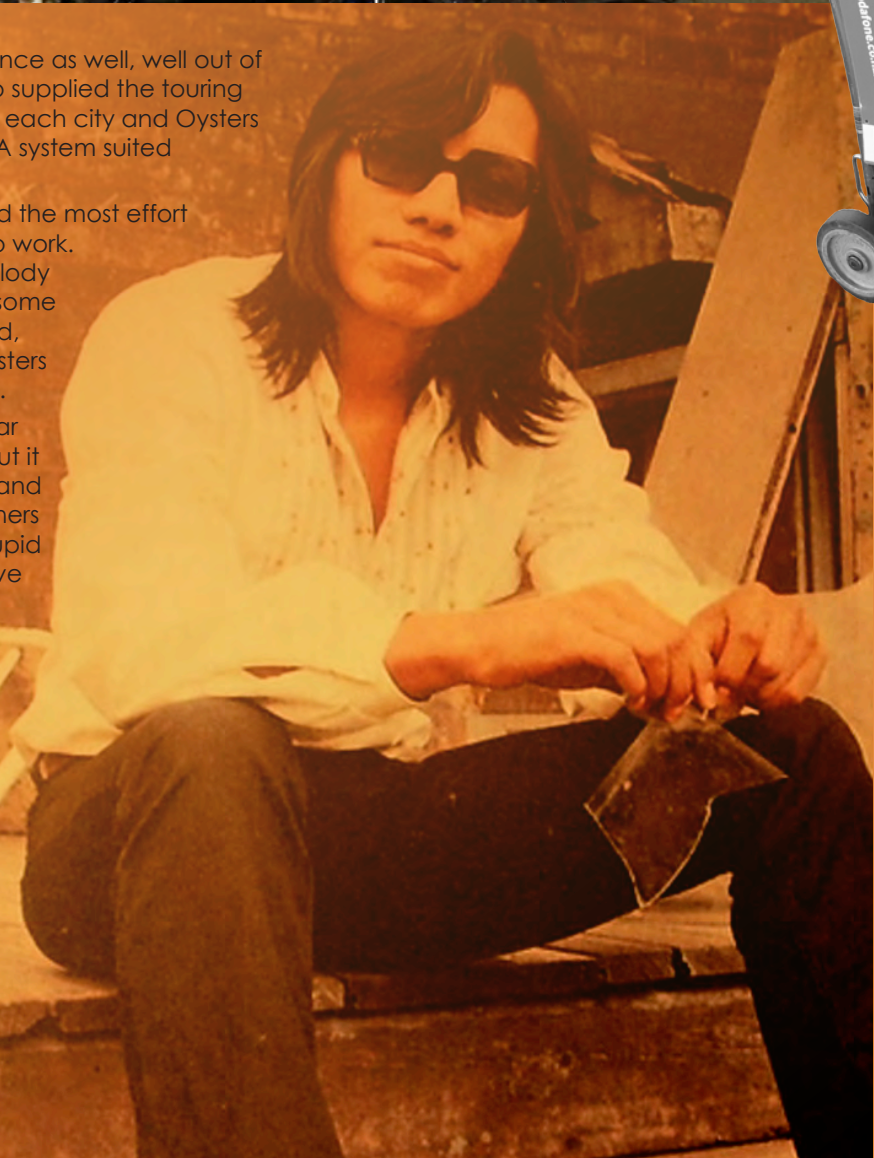


# RODRIGUEZ

stage worked the best; for the audience as well, well out of their faces in a quiet show. JPJ Audio supplied the touring package with local cabinets used in each city and Oysters discovered that the L'Acoustics K2 PA system suited Rodriguez's voice the best.

Oysters admits that this tour required the most effort ever from him just to get the audio to work. Balancing all the lines and bits of melody from his songs was challenging and some people suggested not having a band, just Rodriguez and a guitar but in Oysters opinion that would not have worked.

"You can't have a guy and his guitar cover 6500 people in the wind without it being incredibly loud at some point and either hurting some people, while others can't hear it very well or having a stupid amount of delays," he said. "You have to have some power with some melody to go distances outdoors. It took a great effort to get the audio right for this show but it is an amazing show and the guy is a genius. I had to be extremely careful and I would personally have to check every rigging plot, where the subs were stacked, look at all the audio heat maps for the venues





## Unusually, Matt carries his entire monitor rig of a Behringer X32 Compact and X32 Rack in two checked cases and a single carry-on bag!

respectively). We even put delays into some of the Australian venues – AEC in Adelaide and Kings Park in Perth – because Peyton and AJ wanted the best for his audience everywhere we played no matter what, which is a great attitude from the Promoter and the Artist towards the ticket buying public as it should be."

Matt Brown was Lou Reed's monitor engineer for almost ten years and he has been working for Rodriguez since April 2014, completing two tours so far.

Matt believes there is a right tool for each job and Behringer's X32 system fit the bill for the Rodriguez tours.

The show consists of 16 inputs, 8 monitor wedge mixes, 1 stereo hardwired IEM mix and 2 mono wireless IEM mixes.

"I'm using the X32 Compact for Inputs 1-16 and Outputs 1-8, as well as the X32 Rack for Inputs 17-32 and Outputs 9-16 via AES50," he explained. "This allows me to have a portable solution with all the features of the full size X32 console, without sacrificing a work surface."

Matt is able to set up or pack down his entire monitor rig in a mere ten minutes all by himself.

"As the X32 Rack can be used alone, it gives me another option for mixing," he added. "When we flew to Perth the X32 Compact stayed on the truck, and I used the X32 Rack as the mixer. I use X32-Mix extensively and our drummer, Pete Wilkins makes adjustments to his P1 headphone amp, hardwired IEM's wirelessly using his Android phone."

Matt reveals that Pete uses some off the shelf consumer type IEM's and that he uses JH Audio JH13's, which he loves because they sound very balanced, clear and detailed.

"For me the gig is really straight forward, I just have to make sure the sound on stage is consistent each night," commented Matt. "The backing band have the real challenge, they must keep their intensity in check as to not overpower the main man center stage."



and so forth. Normally I could trust the JPJ crew to do this and email me the details beforehand but not with this tour, every venue and audio decision had a meeting with Peyton Wilson and AJ McFadden (the US and Australian production guys



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# Field Day FESTIVAL



Since 2002, the popular boutique music festival Field Day has been held on New Year's Day at the mercy of the elements in Sydney's Domain. The line-ups are known for mixing hip-hop, house, indie and electronic artists from around the world. This year's draw cards included SBTRKT, Alt-J, Dillon Francis, RÜFÜS and Bastille.

For several years Ziggy Ziegler has had the task of looking after the lighting for the main Centre Field stage, a job that requires extreme patience, understanding, lots of lollies and chocolate.

Chameleon Touring Systems provide the lighting with their own Dave 'Doc' Williams designing the rigs for all the stages to match artist and budget requirements.

"Doc is very good and experienced in festivals so I just have to turn up on the day as LD on site," Ziggy revealed. "It's very old school music festival in the way it works. There'll be a base rig and then the headliner acts usually have an extra floor package."

The base rig this year was constructed of five staggered height trusses and two side angled trusses filled with 12 Martin MAC Viper Wash, 16 MAC Viper



Ziggy Ziegler



Profiles, 26 Clay Paky Sharpys, 12 Alpha Beams, 12 4-way molefay strips and 20 Atomic strobes.

"It's a very rock'n'roll beam rig with no LED fixtures at all this year on the main stage," Ziggy added. "The acts on stage 2 were more suited to LED gear and so it was a nice contrast."

The backdrop to the entire stage were three LED screens, with the left and right screens placed at an angle to make wings. Video was run through the screens all day with some artists providing their own content.

SBTRKT brought in Clay Paky A.leda B-EYEs, MAC101's, Atomics, Alpha Beams and lasers with their LD bringing in his own MA onPC with wing board and a Hippo. RUFUS also had B-EYE's along with eighteen Fusion Bars on verticals with LD Matt Smith bringing in his own Chamsys console.

Dillon Francis' LD had absolutely no programming time, arriving FOH just before the artist took to the stage. Consequently Ziggy was on the MA2 light backup console programming as the LD was operating the show on the main MA2 full size console!

"He was requesting what he would like and I was blind programming a series of cues, strobes, colours and positions which I'd then whack into the main console, tell him where they would be and he would then hit the fader," explained Ziggy. "Of all the LDs, only one of them turned up fairly early. The rest of them turned up whilst others acts were on so we'd have to connect everything up whilst the fill in DJ's were playing. Several of them were running ArtNet whilst we were running MA Net and we had to change systems in that short time so it became very hairy technically."

As most acts had had no rehearsals and their LD's had not tested everything, there were a few issues throughout the show that Ziggy had to help them through.

"You have to remember that you have to be the nice guy otherwise it's not going to happen," added Ziggy. "They arrive really stressed, concerned for their act and you have to make it happen. You have to have a cool temper otherwise it can get pretty hot and volatile FOH!"

"When I first did Field Day there was only one LD from overseas and I was left to do the rest of the acts so I could play away and have a bit of fun. As the years have passed, there are more and more LD's touring with

acts – including DJ's – as they realize lighting is important. So many of these LD's also have their own consoles as they are so compact and can be carried on the plane."

Occasionally managers come FOH and demand the unattainable.

"They'll start making requests during the show for things that are impossible," Ziggy said. "They can get very excited and literally push you or whack you over the head! One year, a manager wanted the strobes so fast and on for so long, they physically couldn't go any faster without actually being fully on. It looked terrible and the audience clearly didn't like it but it was what was demanded and they're the manager, so within technical limitations, you do what you can."

Field Day is a big day for Ziggy both mentally and physically. Not only does he have to keep his patience, he has to bring a survival bag especially as Field Day is famous for its extreme heat. His bag consists of sunscreen, insect repellent, band aids, paracetamol, and lots of water avoiding soft drinks and Redbull. And he doesn't work on NYE!

"It always seems to be very hot and sunny and they're all out there running around half naked," commented Ziggy. "Sunburn and heat stroke always occur plus most of them are still dehydrated from the night before, in fact many come straight from whatever they were doing NYE. The heat can become a massive issue and sometimes it effects the bands too. One year, an artist passed out on the drum kit in the middle of a set."

Ziggy loves working on festivals, for despite the heat and challenges, the festive atmosphere and audiences enjoying the bands makes it worthwhile every time.

"At least this year they weren't having sex everywhere," he added interestingly. "I did lights at Parklife in the middle of a doof-doo tent when the whole FOH stage started bouncing and moving. I turned around and there was a couple stripped naked and going for it, banging against the FOH. I just thought OK ..... hopefully they'll keep in time to the music."

# WHAT-IF?

## What If you don't have time to service everything?

WE'VE PREVIOUSLY DISCUSSED THE IMPORTANCE OF ROUTINE MAINTENANCE AND TESTING OF MACHINERY, SO IN THIS (FIRST OF A SERIES) ARTICLE, WE'LL LOOK AT WHAT MIGHT CONSTITUTE "GOOD" AND "BAD" MAINTENANCE AND TESTING, HOW WE SHOULD BE REPORTING TO AND ADVISING OUR CLIENTS, AND OUR RESPONSIBILITIES IN ASSISTING A CLIENT TO MAKE APPROPRIATE AND SENSIBLE RISK MANAGEMENT DECISIONS.

At the risk of stating the obvious, resources are always finite and usually quite limited, whether we're talking about the skilled manpower needed to carry out the work, the financial capacity of a client to fund such work, or the hours and days needed to make the machinery available for maintenance and testing.

What never seems to be finite or limited though, is the length of the list of tasks that "absolutely must" be carried out. Despite what your client insists, it's just not possible that every single task or activity that makes up a maintenance and testing regime is going to be #1 on the scale of "Important" to "Not That Important", so it's vital that maintenance and testing tasks are correctly prioritised.

To decide on these priorities, we need to sort the tasks first.

We can consider maintenance and testing to be a series of tasks, carried out to validate, maintain or enhance one (or more) of the following functions of a machine or system:

- **Safety.** In an ideal world, there would be a Risk Assessment that identifies the safety functions that are needed to mitigate the assessed risks, so your list of tasks should be fairly self explanatory. In a less than ideal world, you need to make a list of essential safety testing that MUST be carried out as scheduled, for example, brake function and load testing, emergency limit testing, rigging checks etc.
- **Availability.** Or "reliability", or "stability". The maintenance and testing tasks that deal with reducing the probability of the machine not operating correctly and therefore not being available to use in its intended manner. An example of this would be, say, an intermittent "Start" button on a machine controller – the machine may not work as intended if it fails

to start, but this is not an unsafe failure, and can be repaired relatively easily. If it is one of several machines that perform similar functions, then the operator may elect to not have this repair done (this time) as they can "work around" a failure of the machine to perform. Alternately, if it is a machine that is absolutely crucial to the venue operating to an acceptable level, then this repair would clearly be a very high priority.

- **Longevity.** Those maintenance tasks that effect the lifespan of the machine. An obvious example here would be checking and changing gearbox oil. Failure to do this may, eventually, lead to the gearbox seizing. Assuming that the mode of failure of the gearbox as a result of running dry would not be a failure to a dangerous condition (failure of a load bearing element to support the load as an example) then the decision to carry out this type of maintenance is often economic – what is the cost of down time and repair of the machine measured against the costs of routine maintenance.

Safety functions are almost always the #1 priority. Almost always I hear you ask? You may have the option of shutting the machine down, making it safe and taking it out of service – with a machine that is not mission critical, this may be a valid option to take – deferring dealing with the fault or task that is causing a safety issue (in a safe manner) until resources (manpower, funds or time) become available.

Once the safety issues are dealt with, then a discussion with the owner/operator of the machine is necessary to choose, on a task by task basis, which is more important – availability or longevity?

### In future articles on this subject, we'll look at -

- The consequences of testing the wrong thing or testing the right thing in the wrong manner
- Reporting to our clients – keeping it clear, concise and accurate, and informing them of any residual risk so that they know they have an issue that needs attention.

### Until then, Stay Safe

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



BY ANDREW MATHIESON

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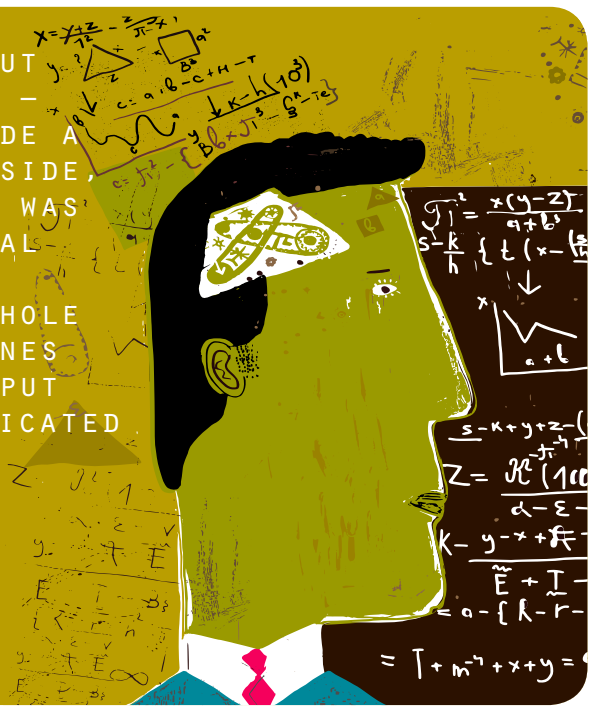
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STUFF FOR THE BRAINY TYPES

IN THE STYLE OF DUNCAN FRY, I'VE PUT A PICTURE IN THE STORY THIS MONTH - IT'S A PHOTO OF ME STANDING OUTSIDE A GENERATOR AT A FESTIVAL. I SAY OUTSIDE, BECAUSE THIS WAS A GENERATOR THAT WAS SO BIG THAT IT HAD ITS OWN INTERNAL CONTROL ROOM YOU COULD WALK INTO. NOT JUST A CONTROL PANEL, BUT A WHOLE CONTROL ROOM. IT ALSO HAD TWO ENGINES FOR MORE OUTPUT - GETTING THE OUTPUT OF THESE SYNCHRONISED WAS A COMPLICATED PROCESS THAT I DIDN'T UNDERSTAND. HENCE I WASN'T ALLOWED INSIDE.

# GENERATORS

BY JIMMY DEN-ouden



It got me to thinking though that as an industry which often relies on generators to stage events, we don't really know much about them. We should know more, so here are the basics.

**1** First up, understand that generators form part of a temporary electrical installation. This means they're subject to the Australian Standard wiring rules. Generators need to be correctly grounded, and if you don't know to do this, hire a site sparky who does. Ignoring this requirement can cause serious safety (and if something goes wrong, liability) issues. The assumption that the generator will adequately ground itself through the skids is incorrect and dangerous!

**2** Get the right sized generator for your event, which is probably a bigger generator than you think you need. Even at a moderately sized outdoor event, someone will usually come to you and ask to power their hokka lights or hot water urn from your generator. They might not even ask, and instead just plug their mobile coolroom or coffee cart into any free socket they can find. Try to anticipate such needs and pre-emptively address them.

**3** Know the fuel status of your generator before the show starts. This means knowing the tank is full, what kind of fuel is used, and how long it will run for on a full tank at full load (generators use more fuel the more power you draw). If the generator is used for LX programming or site lighting the night before the event, organise to get it refuelled the next morning.

**4** Balance your load correctly. That means try to evenly distribute current draw across the phases. Most generators will have meters that allow you to see the draw on each phase - use them! Pulling loads of juice from one phase and nothing off the others will upset the generator eventually - you just won't know when. Awkward if it happens in the midst of the closing act.



**5** Know how to start and stop the generator. Most have a battery isolator inside the engine compartment. Most mid-sized generators have automated control systems - usually to start them you just turn the switch or key to "auto". If the site sparky won't be around to run the genset, ask them to take you through its operation before they leave. Always allow the generator to start up and achieve a steady engine speed before energising any breakers. Kill the breakers before you shut down the motor.

**6** Deal with inrush current effectively. Some devices (especially transformer based amplifiers and discharge lamp fixtures) draw more current during startup than normal operation. Stagger the process of switching these on to avoid tripping breakers.

Quick & dirty generator size guide	
If you want...	you need...
1x 32A 3 phase outlet	50kVA
1x 40A 3 phase outlet	60kVA
3x 32A 3 phase outlet + 15A single phase outlet	100kVA

# CX-WORD

FEBRUARY EDITION

# CX-WORD

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- 13 It is nylon and it bears weight
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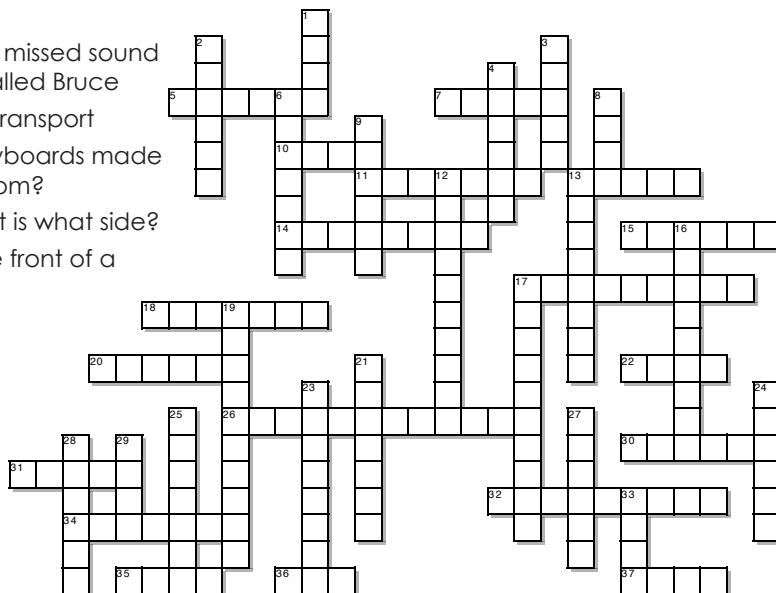
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- 29 Prompt is what side?
- 33 On the front of a Barco



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You just have to look at the number of motor vehicle recalls that have taken place in the last 12 months and the consequences that have led to some of those taking place. General Motors in the US alone recalled more than 30 million vehicles for faults of various types including ignition switches, seatbelts and airbags. The GM ignition switch issue which as affected 2.6 million of their cars has been linked to 27 deaths in the US.

**In Australia more than 800,000 vehicles were recalled in 2014 (more than any time since 2001) due to various ills including 100,000 due to potentially faulty Takata airbags. Like its US parent, Holden in Australia was impacted with a total of 13 recalls in 2014.**

So are cars becoming less reliable or are manufacturers simply more concerned about being sued for negligence, and so being more open about problems with their vehicles?

The answer to both questions is yes.

Perhaps more concerning is the case of the Infinity and Olsent cable ranges, sold widely in Australia since 2010 by reputable retailers such as Masters, Thrifty and Mitre 10. Testing has shown that these cable were non-compliant and that over a relatively short period of time could become brittle and spark fires, possibly as early as next year, due to inferior plastic insulation coatings.

The scale of this product compliance issue is extraordinary with the Australian Competition and Consumer Commission believing that the faulty

## launches safety campaign

cabling has been used in up to 40,000 homes and businesses across Australia and accounting for nearly 4,000 kilometres of faulty cabling sold since 2010.

The commission is so concerned it has formed a special taskforce involving consumer agencies and building and safety regulators to execute a nationwide product safety recall.

These recalls serve as a reminder to companies sourcing from cheaper overseas suppliers whose products may not meet quality standards.

The same could also be said for services. There is always someone who can make or provide something cheaper than the next guy but as consumers seek to push down costs and companies respond do they really know what they are trading away?

So what has this to do with the world of commercial audio and entertainment gear?

Well we are hardly immune from cost pressure from our consumers, promoters and producers. Who isn't being asked to provide more for less? And of course, there is also no shortage of cheap product, you only need to take a look at the Facebook page called Knock Off Entertainment Gear Australia to see examples of products that may be better described as resembling entertainment products rather than performing like entertainment products.

With an excess of manufacturing capabilities just to our north and the availability of abundant cheap product there are almost no barriers to importing entertainment industry products. Australia may have laws and standards, but they are only useful if complied with and enforced. We know this has been patchy at best in the past. As any responsible company knows, compliance is not simple and not cheap. It's a quick area to cut if you're under price pressure or don't care about safety.

Consequently, the same kinds of issues that have so badly impacted the global auto industry through poorly made low cost components or underperforming and non-compliant products like Infinity and Olsent cables can impact our industry too.

Perhaps only our small scale has protected us so far from the sorts of consequences that could take place at any time where faulty, poorly made or deployed, or non-compliant products are being used in the entertainment industry.

But that small scale also means that unlike the motor industry or electrical services we are not as heavily regulated. Non-compliant products or poorly skilled operators can infiltrate the industry and expose the whole of the sector and its customers to unacceptable risk, risks that in many respects are not so different from those causing concern in other industries, failures that lead to injury or death or fire or the destruction of property.

Let's face it, if 4,000 kilometres of non-compliant potentially dangerous electrical cable can 'slip past'

BY FRANK HINTON

the manufacturer, importer, more than 18 major retailers, countless electrical service contractors and installers as well as Australia's consumer protection and compliance sector over a period of 4 years then what is to stop a batch of non-compliant or poorly engineered chain motors, lighting components, electrical equipment or speaker cabinets from being imported and deployed with potentially disastrous results? Nothing – other than the good will and professionalism of the industry.

ACETA doesn't think the well-being of the industry should be left to chance or allowed to fall into the hands of rogues or cowboys, or simply the ignorant looking to make a buck. The reality is we are just one industry.

For this reason ACETA began 2015 with a compliance campaign designed to reduce the risks, both to safety and to the industry's reputation should we go down the same route as Infinity, Olsen and the auto makers.

The campaign began in January by informing key stakeholders of the need to act to ensure suppliers provide a suitable standard of equipment, design, engineering or set ups to do the job safely and reliably. Too many customers presume and don't ask. Or they rely on nebulous statements in hiring contracts that say that the hirer agrees to comply with safety, but they never check that anyone does.

We are also raising the issue of good corporate integrity, such as paying at least award wages and complying with OH&S.

These stakeholders include local government authorities, work cover agencies, consumer affairs bodies, major commercial customers, and event organisers and promoters. We are tracking their responses on a dedicated page in our new ACETA website.

We are advising everyone to look for the ACETA logo to be assured that a supplier is compliant and if there is no logo to ask for more information. Members can use the ACETA logo as their mark of compliance.

We are making it clear that in Australia customers and other stakeholders can no longer presume safety will just happen. Perhaps as a nation we have been complacent over the years, perhaps we have been lucky. The auto industry and those non-compliant cables have proven that everyone now needs to be pro-actively vigilant. ACETA leads the way for commercial and entertainment technology.

To the industry we invite your response,  
if you could contact:  
[ian.harvey@aceta.org.au](mailto:ian.harvey@aceta.org.au)  
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Frank Hinton  
President ACETA

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# SUPERMARKETS ATTEMPT BLACKMAIL

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### BIZ TALK

with Julius Grafton



IN JUNE LAST YEAR WE WROTE ABOUT HOW COLES, THE SUPERMARKET CHAIN, FACED FINES OF \$200 MILLION FOR STANDING OVER SMALL SUPPLIERS. AT THE TIME, THE CHAIN STOUTLY DEFENDED ITSELF, AND PUFFED INDIGNANTLY. IT'S SENIOR EXECUTIVE IN CHARGE OF THE CONTESTED STRATEGY, JOHN DURKAN HAS SINCE BEEN PROMOTED TO LEAD THE SUPERMARKET CHAIN.

In December the firm agreed to pay a \$10 million fine, with \$1 million in legal costs and refund up to 200 suppliers it had gouged. Durkan ate humble pie and tried to make it sound like someone else's idea.

Amazingly the other large supermarket chain Woolworths also embarked on a supplier screwing scheme in December, brazenly demanding 'margin fill' payments by the end of the month, from suppliers whose product it had discounted to match price reductions over at Coles.

According to Fairfax media, former Tesco executive Alex Dower joined Woolworths as commercial director in 2012. He allegedly urged his buyers by email to continue

the scheme despite media attention. The scheme was simple: Woolworths demanded un-agreed payments from suppliers to shore up the quarterly results, which were tipped to be down.

Fresh from scalping Coles, the corporate regulator ACCC then turned its attention to the unfolding Woolworths scheme.

CX is amazed at the audacity of the 'executives' involved, and the apparent acquiescence of the CEO in each case. Coles will pay more in refunds and fines than it ever would have gained, and Woolworths is set to follow.

Presumably they will promote Alex Dower for his chutzpa.

Meanwhile the third operator, Aldi from Germany, is expanding rapidly and has a good reputation with suppliers. They are said to stick to contracts, and pay suppliers what they agree to pay, when they agree to pay it. How novel.

The lessons from this? First of all, try to avoid having a dominant customer. A business that spreads its customer base also spreads its risk. A contractor working for one builder is actually a slave. A manufacturer selling to one distributor has no market power.

Second, be prepared to blow the whistle – and weather the storm. Principles do matter, and short term pain sometimes is required for long term gain.

Finally, don't be bullied. Take the behaviour to the top, and if the CEO isn't interested, write to the shareholders. Do it loudly, a squeaky wheel gets oiled. If you still get nowhere, go to social media and expose the mob. At which time, expect the usual blizzard of legal letters. Keep strong.

Who says running a business is a dream? More like a nightmare for some.

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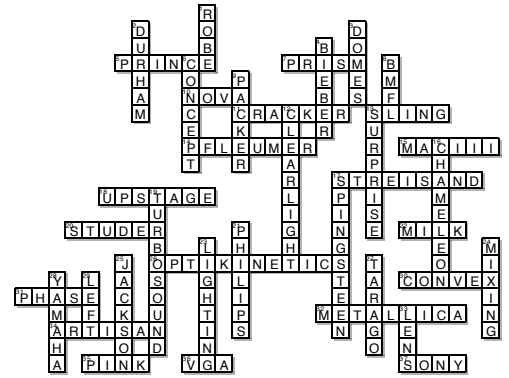
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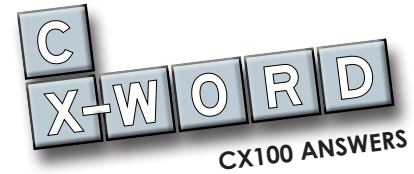


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## The sharp dressed men

BLUES, BEARDS AND BOOGIE

I WAS  
CHATTING TO  
BIG JULIUS,  
OUR DEAR  
LEADER,  
LAST TIME  
I SAW HIM,  
AND I WAS  
TELLING HIM  
STORIES OF  
THE TIME  
THAT I

PLAYED IN A ZZ TOP TRIBUTE BAND.

“THAT’S GREAT STUFF,” HE  
LAUGHED, “WHY DON’T YOU  
WRITE A STORY ABOUT IT?”

“I HAVE”, I REPLIED, “ABOUT  
15 YEARS AGO OR SO.”

“NEVER MIND”, HE SAID, “JUST  
WRITE IT AGAIN!”

SO HERE IT IS ...



© 2015 DUNCAN FRY

**There comes a time in every sound mixer’s life when sooner or later you feel like a change. As I was sitting in front of yet another band I suddenly thought – Jeez, I’ve had a gutful; it’s my turn to sing and play in a band, and let some other poor sucker sit in front of it all night!**

I'll be the first to admit that I'm not the world's best guitarist or singer. (Such humility is unbecoming, Dunk. Ed) Indeed, it's often been said that my voice filled the club, and people could be seen leaving to make room for it!

But much more importantly, it's my PA system so who's going to stop me?

With two friends - Andy, a bass player who worked for us at ARX, and his friend Brett, who was a drummer, we had the basis for a power trio, and what better trio than a ZZ Top tribute band. Originally we borrowed one of the band's songs and called ourselves The Sharp Dressed Men, but as it turned out, some Canadian band had thought up the same idea.

So, we borrowed another song title and became LegZZ - Blues, Beards and Boogie. Colin (the aforementioned poor sucker!) from ARX agreed to mix for us. His heavy metal mix of the Pete Best Beatles cabaret band, that kept the audience pinned to the back wall of the pub, had assured him a place in mixing history, and we felt we'd be in good hands!

We styled ourselves on the Grand Old Men of the South look favoured by the lads on their Eliminator album. Custom made clothing was out of the financial question, but a trip to the nearest Army disposals store netted us a couple of ex-Luftwaffe overcoats, which looked just the part. The only problem was that they were designed to keep out the cold of a sub-zero night at 10,000 feet over the Alps, not to be worn on stage under a mass of blazing par cans! I would regularly come off stage quite a few kilos lighter, and char-broiled to perfection.

Beards were another matter. None of us had real beards, so something fake was required. Enquiries into the price of 'genuine' fake beards, the kind actors might wear, made us realise that a cheaper solution needed to be found. And quickly, as we had our first gig coming up.

But when the going gets tough, the tough go to Spotlight! The solution to the beard problem was found in the form of the fluffy toilet seat cover material much favoured by Mr and Mrs Front Porch. Better still, we could buy it by the metre and cover the guitars and drums as well!

After a couple of experiments we got the shape approximately correct, stapled on some elastic, and wow - instant Harley Davidson rider. Add the coat and a baseball cap, and from about 500 metres away the likeness was uncanny!

There was one other advantage in playing onstage with a fake beard. When you came offstage, without the beard and in normal clothes, no-one in the audience knew who you were. So if they had thought the band was piss-weak you could nod and agree.

For early gigs I used my 1959 reissue Gibson Flying V, but it was (a) a bit too valuable, and (b) not quite the right shape. Luckily an ad in the Trading Post for an Ibanez Explorer caught my eye. I bought it for less than the replacement cost of the super hot output Seymour Duncan pickups it had been fitted with. Now I had the sound, and exactly the look, apart from one important

## DUNCAN FRY... CONTINUED

point - it didn't spin, and how could you have a ZZ Top tribute band without spinning guitars?

A trip to the NAMM show in LA the following January solved the problem in the form of a couple of 'Spins' guitar straps. These legendary items were the real McCoy, and would let the guitar keep playing as you spun it around. I screwed it onto the back of the Explorer as per the instructions, and it really worked.

There was one vital piece of information, however, that the instructions didn't mention. 'Do not watch the guitar as it spins' should have been printed in very large type at the top of the installation notes.

At the next gig I used it on stage for the first time. I sang "Every girl's crazy 'bout a sharp dressed man", stepped back from the microphone, gave the guitar a good spin, then watched it as it came round and whacked me on the side of the head, causing me to momentarily knock myself out, lose my balance and crash backwards into the drums, much to everyone's amusement!

When I came to and scrambled to my feet, the crowd was still wetting themselves laughing. I spun the guitar a few more times, they all cheered, and after putting the drums back together, with a "1-2-3-4" we went straight back into it.

We did a fair few parties and gigs around the pubs of Melbourne, and then one Friday I got a call from a friend who ran the PA at the Sydenham Hotel in Richmond, Melbourne. He asked if we could do the Saturday night headline spot, since the band that was booked had cancelled suddenly. It would cost us nothing for production and we'd get the entire door take.

Sounded like a win-win situation to us, so we readily agreed.

When we turned up on the night we discovered that he had somehow neglected to mention the fact that it was a reggae night, and we were there taking the place of crowd favourites Jah Rasta and the Kingstoned Trio or something like that. The place was wall-to-wall full of dreadlocks and rainbow beanies, and the atmosphere was redolent with the tangy aroma of de 'erb, mon.

Quite what they made of us as we bounded out onstage, beards a-flyin' and guitars a-spinnin', I'll never know. Stunned silence greeted every song, and one rastaman down the front stared like a stunned mullet with his mouth open, glass of beer halfway to his mouth all through the set. When we finally ground to a halt he drained his glass in one long mouthful, came up to me, shook my hand and said "Dat was truly righteous, mon," and then shuffled off home.

We felt we needed some merchandising, so I printed up about 25 t-shirts (black and XXL, of course - is there any other colour or size?) and at the next gig gave them to the girl on the door to sell. Halfway through the night Andy, who had the deep "How how how how" voice, told the audience they had to go down to the front and buy a t-shirt. There was a mass stampede down there, and in about thirty seconds they'd all been sold and there was a wall of black beer bellies with the LegZZ logo cheering in front of us.

After we packed up at the end of the night, all three of us were walking back to the car park when we saw one of our fans asleep in the gutter, still wearing his LegZZ t-shirt, although covered in chunder and other stains! Waking up as we walked past, he raised himself up on one elbow and yelled out "Hey, great gig, guys... uuuurrrps" as he rolled over to continue recycling the night's alcohol intake.

A great night for everyone, obviously.

**Any tribute band stories to share?**

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