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TV documentary found

War Stories

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Roadshow Highlights

Inside the tour pictorial

Roadskills

Icehouse
FOH Engineer - Jon Lemon
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GEARBOX REVIEWS: Powersoft X8 • High End Systems Hedgehog 4 • Allen & Heath Qu-32
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EDITORIAL BY JULIUS GRAFTON

THE HEART OF THINGS

Our Roadshow is great on so many levels for us, your media slaves. It gets us out of our cushy HQ and puts us in front of our readers and our exhibitors. But there's always something that stops me. Here's one moment.

I was on truck duty in Brisbane. The other guys had retreated to the Hilton for steak and drink. Someone has to be there, otherwise we leave stuff behind.

I watched the ten All Access crew and the two ATS drivers loading the semi and the rigid. Unlike a regular tour, ours is a tetris pack of many different sized cases. The crew made rows of like sized cases, and the leader would eyeball whatever would fit the next gap.

Experienced loaders can size up a case from 30 metres away, and they would call the one they wanted, three guys would haul it up the ramp. The less experienced guys were coached by those who knew more.

Typical of our industry, no one got hurt and no one got angry. It wasn't always like this - bare knuckle all holds and no rules applied in earlier times. The ATS drivers were both in their pantechs with hands on.

When done, the drivers locked the doors and drove to Sydney. No shower, just get in all sweaty and go. Just like we used to do it. Unlike the old days, I took a cab to the Hilton, and had a steak and a bottle of plonk in the restaurant. Then I retreated to my own room and next day flew to Sydney.

ACCREDITATION

I hosted a 'Ban the Cowboys' seminar and plenty of worried production suppliers came along. They hate competing against operators who don't pay proper wages, don't have public liability insurance, and don't have workers compensation policies.

Plenty of people noted sham contracts are rife, with many production suppliers requiring crew hold an ABN (Australian Business Number) and produce an invoice to be paid. Many were not aware this is 'sham contracting', as it is hard to justify instead of classing the crew as casual and deducting tax.

Almost no one knew that contractors are entitled to superannuation. Employers have to pay 9.5% superannuation when an employee is paid \$450 or more before tax in a month. The ATO also says: "If you pay your contractors under a contract that is wholly or principally for labour, you have to pay super contributions for them. This is even if the contractor quotes an Australian business number (ABN). These contractors are considered your employees for Superannuation guarantee purposes."

Most people at the seminars didn't think an accreditation scheme was a good idea, instead it seems we need an industry 'skills' accreditation scheme.

VENUES

Touring also brings us into close quarters with venue staff and crew. The vast majority are exceedingly professional and a pleasure to work with. A few are not, and almost nothing bothers me more than knuckleheaded events 'professionals' sending me emails without reading my tour brief.

I've reached a point of low tolerance now, and am inclined to be blunt with them. Who wants to be asked questions already answered in the documentation?

Maybe it's because it is us, and we are wise to the wiseguys, but the house AV teams now seem to be charging reasonable prices for projectors and screens in the seminar rooms. A few years ago, I would haggle on the basis we could BUY a video projector for less than the rental quotes!

CX goes back on the Roadshow trail soon, as we have a Security Technology version of our Roadshow running in partnership with Bridge Publishing, who produce the trade magazine for that industry. It'll be interesting to see how our Roadshow concept ports over to another industry.

- Julius

PUBLISHERS PANEL

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NEWS

CX INDUSTRY NEWS



Accreditation scheme debated Sham contracting a bigger issue

Calls for an accreditation scheme for production suppliers received a lukewarm response at a national seminar during **CX Roadshow** in February. Attended by production suppliers and freelance crew in five capital cities, the seminar audience were more interested in skills accreditation.



LINED UP FOR SYDNEY ROADSHOW

While 'rogue operators' were an acknowledged problem, the industry view is that they will either fail or move up to become compliant. While many instances of low cost, non or under insured operators were revealed, the greater problem appears to be sham contracting.

Almost no one at the seminars understood the issue. Many crew present reported they routinely are asked to invoice their labour to venues and production suppliers using an Australian Business Number. Yet the Australian Tax Office recently imposed new restrictions on issuing an ABN, and placed a 'sham contractor' tool on their website.

Using the tool, it is impossible for the hourly provision of labour to be classified as contracting. Instead the employer must engage the crew as casual staff – with tax declaration and superannuation paperwork completed. Crew and employers uniformly were mainly surprised to hear this, and often didn't know Worker's Compensation insurance is required for contractors as well as staff.

"How can I do this", an Adelaide supplier asked, "when

Accreditation in WA 'Dormant'

Event Industry Association to revive scheme

An accreditation programme run by Events Industry Association (WA) since 2003 later went into hibernation due to lack of support from government and lack of interest from the industry. Now the EIA is keen to redevelop the programme which has been specifically designed for the events industry.

They need industry support which will make state and local government (and corporates) support it financially and in terms of giving preference to accredited businesses.

Cassandra Brennan, EIA President was at **CX Roadshow** in Perth and led a discussion about what is seen as a really good accreditation programme for the industry that is easily transferrable between states.

I don't have or need Workers Compensation insurance for myself. So if I hire a guy for one show, then I need it for him. I may as well pay him cash under the table."

The threshold for superannuation was also not widely known, with delegates expressing doubt and surprise at the news that super is payable to staff and contractors earning more than \$450 a month gross, where the contractor uses an ABN and is not an incorporated company with an Australian Company Number (ACN).

Skills recognition via training accreditation was dismissed, with one Adelaide TAFE prepared to offer this but facing very little interest. Many delegates thought an industry wide accreditation system to validate skills at three levels (trainee, experienced, and supervisor) was overdue. Lighting association ALIA are preparing to trial a program in Melbourne, with assistance from the **CX training library**.

CX will consult on this and hope to bring options for a national scheme to the **2016 Roadshow** for industry consideration.



Melbourne Firm Sold to Harman

SM Pro Audio now R & D hub

PICTURED: DANNY OLESH & MICHAEL JAGO



Harman had just launched Soundcraft Ui mixers, directly based on SM Pro Audio's uMix which itself was only launched mid 2014.

Danny Olesh hit Music Messe in Frankfurt and worked the media assiduously to create a buzz around his rack mount, html controlled mix system. One video, shot the night before the show opened with a jet-lagged Danny talking about uMix had 25,000 views. It worked – Harman came calling, and within months they had taken over the firm, in a deal rumoured to be worth a potential \$10 million over time.

International audio goliath Harman (owners of Soundcraft, Studer, JBL, Crown, AKG, Martin Professional, dbx, Lexicon and others) has acquired Melbourne firm SM Pro Audio, which will now operate as a division of Harman Professional.

Blake Augsburger, president of Harman Professional Division, said "the depth of innovation and quality of engineering talent at SM Pro Audio provides Harman Professional with a strong internal technology partner for a broad range of products."

"We're very excited", Danny told **CX**. "This doesn't happen often. We created something from scratch in Melbourne. The line of products we now want to create is amazing. Our office in Melbourne will remain, with R & D there."

How did he get SM Pro Audio to this stage? "With the help of AusIndustry, we've done 12 years of tradeshows overseas. We created the digital mixer system and made a lot of noise at Messe last year."

Danny's background is audio and electronics. Aged 50, he worked at Brushes in the 1980's, then

inside recording studios, and with touring PA.

"I did live sound, then I wrote software for a radio playback system. With John Fuller our Audio Supermarket distribution business grew, we saw the opportunity to create product to export when the Australian dollars was at 50c to the US dollar. We needed to sell to get some US dollars in."

Audio Supermarket continues, with Michael Jago in charge.

HARMAN UI16,
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OpenLive Launches Small

1 Million buys 30 artists

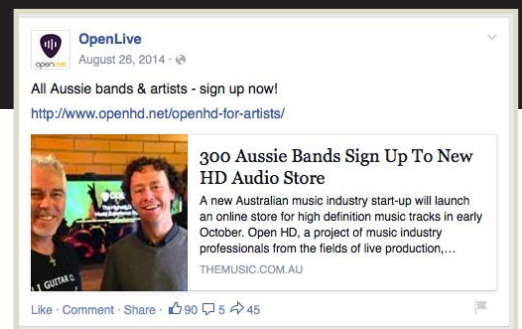
Launched with great fanfare last winter, the Australian high definition subscription streaming music service OpenLive commenced sales in late February with just 30 artists on sale.

Conceived by former CMI audio reps Andy McIntyre, Simon Tait and Gary Dunn, the start up attracted around \$1m in funding from investors dazzled by the sale of subscription streaming music service Beats Music, and Beats Electronics to Apple for around three billion dollars.

Yet the promise of highest definition audio was undersold when the site went live, with users able to download and share a wav file and play it on their device. Open Live did not explain at launch which devices play at what bit rate.

The other arm of OpenLive offers live gig recording, yet only one – veteran band Screaming Jets – was online at launch.

"There are over 300 independant bands that have registered and major label content will be added in the



300 BANDS SIGNED UP IN AUGUST.
BY FEBRUARY 30 WERE ONLINE

coming months", OpenLive told **CX**. "More artists will be added each day but we have chosen to launch with a select few while we continue to test the site."

At presstime the offering remained just 30 artists.

In start up mode, the company has hired people, purchased a live recording rig, and done a lot of travelling across the eight months prior to the site launch.

"I guess you'd call us vigilantes in a sense, we have taken in all the pros and cons from artists, rights holders and listeners in regards to the current norms of digital music distribution, and built a platform on which everyone wins" Andy McIntyre, OpenHD's Managing Director wrote in a press release.

www.openlive.com.au



Riedel Names Cameron O'Neill Now Director for Asia-Pacific Region



RIEDEL COMMUNICATIONS
ASIA-PACIFIC COMPANY
DIRECTOR, CAMERON O'NEILL

Riedel Communications, provider of an amazing array of real-time video, audio, data, and communications networks, have appointed Cameron O'Neill as the company's director for the Asia-Pacific region.

Cameron will be based in Tokyo, working to build the Riedel presence there into a robust East Asian hub for Riedel design, sales, support, and service.

"In the next five years, we will be ramping up our focus on Asia," said Thomas Riedel, CEO at Riedel Communications. "Recent additions to our product portfolio make us more competitive in this market, and we're confident that Cameron can guide our regional operations in leveraging these innovations to take advantage of significant new business opportunities."

O'Neill served as general manager of Riedel Australia for three years prior to taking on this new role, and he was a professional user of the company's equipment for the preceding five years. He already has a history working with Riedel's Japanese distributor, Otaritec, and attending Japan's largest trade show, Inter BEE. O'Neill also has traveled extensively in Japan and throughout Southeast Asia, and has cultivated a good working knowledge of the Japanese language.



CX Launches ICTech Roadshow October 2016 Nationwide

CX Network have launched a new Roadshow aimed at the Information and Communications Technology market. ICTech Roadshow will feature networking and integration technologies such as audio visual, control, presentation and collaboration systems for corporate installation, education, institutions and public spaces.

ICTech is the third Roadshow from CX Network in 2016, and will tour five capital cities across October. Other Roadshows are the newly renamed ENTECH Roadshow (formerly CX Summer Roadshow), and the SecTech Roadshow which targets the security technology industry.



ICTECH DIRECTOR-
JASON ALLEN

ICTech is headed by Jason Allen who hosted highly successful and well attended seminars at **CX Roadshow** in February. Jason will curate a series of technical seminars and workshops at ICTech, which will run for one day in each city.

2016 marks the fifth year of Roadshow operations for the group, which plans further Roadshows in other technology industries.

- ENTECH show manager Stephen Dallimore has taken a position with Show Technology.
- Audio Product Group is merging into Hills after being acquired in June 2014. The exact outcomes for staff are not yet known. Hills were due to hold a press briefing just after our deadline.
- Sydney production and events supplier The Music Box have moved into a 5,500 square metre facility at Condell Park. Owned by Vic and Greg Leto, the firm offers a wide variety of solutions to a diverse customer base. They also operate Australia's largest loudspeaker repair facility, Speaker Hospital.
- Crestron Electronics Inc will open its various new offices in the region from July, and discontinue the distribution agreement with Hills. 'Customers in ANZ can look forward to even further engagement and enhanced services', says local boss Stuart Craig.



ENTECH sold to CX Network Trade show in July cancelled

ETF have sold the ENTECH trade show name to CX Network, headed by ENTECH founder Julius Grafton.



Having acquired ENTECH in 2004, ETF successfully operated the event for some time. ETF launched a satellite event, ENTECH-CONNECT which has run successfully in Melbourne in off-years to the main ENTECH trade show in Sydney.

ETF have advised that the forthcoming Sydney ENTECH, scheduled for July will now not proceed.

CX Network operate the CX Summer Roadshow, a touring 'pop-up' trade show. They plan to re-name the Roadshow as '**CX presents the ENTECH Roadshow**' for 2016. CX Network head Julius Grafton confirmed today they have no intention of running a traditional trade show in any form.

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Allen & Heath Qu-Pac



The new Qu-Pac digital mixer takes the features of Allen & Heath's Qu family and shrinks it into a compact desk or rack mount format. Qu-Pac has the built-in I/O of a Qu-16 mixer but with the 'brain' of a Qu-32, allowing it to handle up to 38 inputs when connected to the Allen & Heath family of AudioRacks over up to 120m of Cat5 cable. Qu-Pac can be controlled via iPad, but the full functions of the mixer can also be accessed from the front panel and touchscreen. User permissions and the customisable Qu-Control screen make Qu-Pac convenient and safe for day-to-day use by non-technical staff. With custom settings and Cat5 expansion up to 38 inputs, Qu-Pac provides a scalable solution for any scenario requiring a pro mixing solution in a tiny footprint.

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QSC GXD



QSC's new GXD 4 and GXD 8 power amplifiers feature high peak output power with up to 1600 Watts from the GXD 4 and a respectable 4500 Watts from the GXD 8 (both figures Max Total Peak Power.) Power levels are matched to the industry's most popular loudspeakers and are optimised for headroom into 4Ω and 8Ω speaker systems. Built-in processing includes High & Low-Pass filters, 4-band PEQ, Limiting, and Delay. A large LCD display on the front simplifies amplifier setup, with precision rotary encoders for gain and DSP parameter control. Parallel XLR and 1/4" TRS input connectors provide convenient loop-thru capability.

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MIDAS M32R



Australian Distributor:
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MIDAS's new rack-mountable M32R digital mixing console comes with 16 MIDAS PRO Microphone Preamplifiers and AES50 networking allowing access to 96 additional inputs and outputs. 40 mix channels, eight DCAs, six mute groups and eight effects engines are onboard to mix to 25 time-aligned and phase-coherent mix buses. It even ships with the mounting brackets! MIDAS are promising 'future 96 kHz operation' via a firmware upgrade.

The user interface includes 17 MIDAS PRO motorised 100 mm faders, a daylight viewable 5" full colour TFT display screen and DAW remote control emulations of the Mackie Control and HUI protocols. Control is also available wirelessly via MIDAS Apps for iPhone and iPad. Recording and playback is simple through a built-in 32 x 32 channel USB 2.0 audio interface.

EDITED BY JASON ALLEN



**Martin
Rush MH1 Profile Plus**

The Martin Rush MH1 Profile Plus is an update to the MH1 Profile, with 50% more output power. The 180W LED moving head fixture now produces a healthy 7100 lumens, and includes 20 standalone scene memories and 2 gobos with gobo indexing on one of the wheels. The MH1 Profile Plus also features auto and music trigger modes, DMX control via three and five pin XLR, 540° Pan and 270° Tilt.

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RØDE NTR Ribbon Microphone

With the goal of creating "The world's very best ribbon microphone", RØDE have announced the NTR. The unique design places the ribbon distinctly separate to the microphone frame and body, allowing the greatest possible acoustic transparency around the ribbon element and minimising resonance. The ribbon element itself is only 1.8 microns thick - one of the thinnest ribbons in existence. Surrounding the ribbon element is a chemically etched all-metal layer of mesh - the same used on the SMR pop shield. This is extremely rigid while exhibiting super low density, resulting in greater acoustic transparency. Married to RØDE's ribbon element is a high output, ultra-low noise, low impedance transformer.



**RØDELink
Digital Wireless System**

RØDELink is a fully digital wireless audio system that utilises a next-generation 2.4GHz, 128-bit encrypted digital transmission sent on two channels simultaneously, providing a high-resolution 24-bit/44.1k digital audio signal at a range of up to 100 metres. The RØDELink system will consist of a number of receiver and transmitter options, and will be available in kits for specific audio solutions across film, news gathering, presentation and stage use. The first of these to be released, The Filmmaker Kit, will consist of a beltpack transmitter, on-camera or beltpack receiver, and RØDE's broadcast quality Lavalier microphone.



**RØDELink
NTG4 and NTG4+ Shotgun Microphones**

RØDE has also announced two new shotgun microphones, the NTG4 and NTG4+. With an all-new capsule, the NTG4 and NTG4+ exhibit low noise and high sensitivity, giving you cleaner audio at the source. On-board digital switching now controls a 75Hz high pass filter, 10db PAD and high frequency attenuation when using a DeadCat style furry windshield. The NTG4+ comes equipped with an internal rechargeable lithium battery. Providing up to 150 hours operating time, the battery is conveniently charged via any USB power source using the supplied MicroUSB cable.



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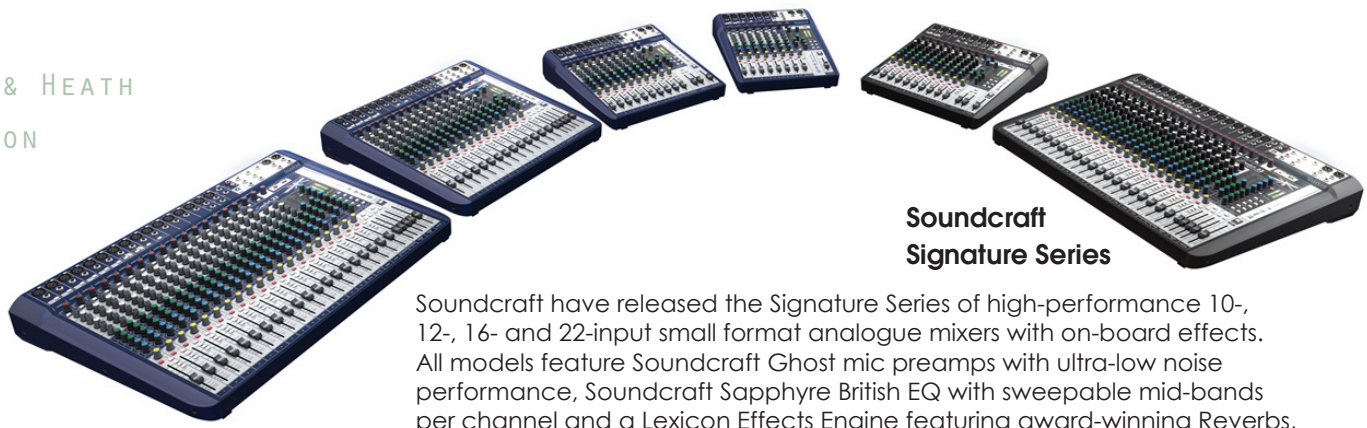


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**Soundcraft
Signature Series**

Soundcraft have released the Signature Series of high-performance 10-, 12-, 16- and 22-input small format analogue mixers with on-board effects. All models feature Soundcraft Ghost mic preamps with ultra-low noise performance, Soundcraft Sapphyre British EQ with sweepable mid-bands per channel and a Lexicon Effects Engine featuring award-winning Reverbs, Delays, Choruses and Modulations. Limiters from dbx are available on the input channels, and a 2-in/2-out USB audio playback and recording interface lets you record to or play back from your laptop. All models are of robust metal construction and have an internal universal power supply.

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



Soundcraft UI 12 and 16

Soundcraft's new UI 12 and 16 Tablet/PC/Smartphone controlled digital mixers come with integrated Wi-Fi and are compatible with iOS, Android, Windows, Mac OS, and Linux devices. Up to 10 control devices can access the UIs simultaneously. All preamps are fully recallable and remote-controlled, feeding into each channel's 4-band Parametric EQ, High-Pass Filter, Compressor, De-esser and Noise Gate. In addition to a 31-band Graphic EQ, Noise Gate and Compressor on all outputs and an RTA on all inputs and outputs, Harman have included signal processing from dbx, Digitech, and three dedicated Lexicon FX effects processors. 2-channel USB audio playback and recording is available on the UI16 only.

Australian Distributor: Jands
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Yamaha RMio64-D

Yamaha's RMio64-D is a digital interface that lets you transfer up to 64 digital inputs and 64 digital outputs between a Dante network and a MADI-compatible device. The RMio64-D MADI inputs and outputs feature built-in sample rate conversion so

that sources with differing word clocks can be connected without causing noise or dropouts. In addition to redundant Dante network connections, the RMio64-D additionally supports MADI redundancy through simultaneous coaxial and optical connections. There's also MADI Split (loopback) capability, in which a signal received at either the coaxial or optical input can be also retransmitted to the other output. The RMio64-D is available in Australia now with an RRP of \$4,500 inc GST.

Australian Distributor: Yamaha Music Australia
au.yamaha.com or (03) 9693 5111

JBL SRX800 Series

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**Sennheiser
Evolution Wireless D1**

Sennheiser has launched evolution wireless D1, a range of digital wireless microphone systems designed for operation by musicians and other non-technical users. With systems for vocals or for instruments, transmitters and receivers automatically pair and select suitable transmission frequencies, while multiple D1 systems can automatically coordinate themselves. D1 operates in the 2,400 to 2,483.5 MHz range, which is license-free worldwide so there is no need to register the system or pay for the use of bandwidth. Region-specific particularities are catered for in the respective country variants. To allow co-existence with Wi-Fi, Bluetooth and other 2.4 GHz systems, the D1 receiver continually scans the RF environment, and will inaudibly and seamlessly hop to another frequency if it detects any interference.



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en-au.sennheiser.com or (02) 9910 6700

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The LED UP Quad-4 is a battery operated uplighter which comes in a nylon four-pack carry case for easy transport and deployment. Using 4 x 10Watt RGBW LEDs and a simple base-mounted gimble system, you can expect up to 12 hours of operation from the lithium batteries with only a five hour charge time. Presented in matt black, the LED UP Quad-4s can be controlled via DMX via three-pin XLR or over WiFi via the free Show Technology app. By using the included WiFi adaptor, you can simply select the fixtures on your smartphone and adjust colours and brightness as required. They are available individually or are sold in packs of four.



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

**Symetrix
SymNet Composer 3.0**

Symetrix has launched SymNet Composer 3.0, an update to the manufacturer's open architecture design software. Version 3.0 has built upon the native support of Audinate's Dante media networking technology for select third-party devices and extends support of market-leading products thanks to new partnerships with Shure Inc. and Audio-Technica. For Shure users, SymNet Composer 3.0 brings the MXWAPT4 and MXWAPT8 access point transceivers from Shure's Microflex Wireless range into the SymNet fold. SymNet Composer 3.0 also adds native Dante configuration for the ATND971 Dante-enabled cardioid condenser boundary microphone and the ATND8677 Dante-



enabled microphone desk stand from Audio-Technica, which can be used with any gooseneck microphone sporting a three-pin XLRM-type output connector.

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The all-new 3-Series 4K DigitalMedia Presentation System (DMPS3-4K-150-C) delivers 4K switching and scaling with simple setup powered by the exclusive new Crestron .AV Framework. It combines DM technology with an IP-based 3-Series Control System, 10X1 4K/60 switcher,



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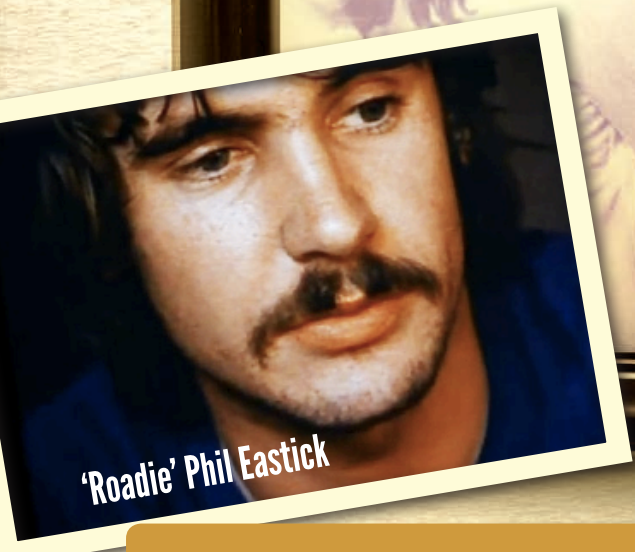
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TV Documentary found

HUSHION TOUR

EXPLOIT THE CREW



'Roadie' Phil Eastick

“My folks think I’m crazy. A lot of people think I’m crazy. At my age, there aren’t too many guys that have the responsibility I got”. ‘Roadie’ Phil Eastick is talking to camera, on an old ABC documentary called ‘Second Fiddle’. At the time, his weekly pay was just \$50.

BY JULIUS GRAFTON

The half hour show was re-run on ABC Rage in January and is now on YouTube. It follows glam rock band Hush on a regional tour, from one nameless town to another across Victoria in the summer of 1977. Phil drove a crappy Kay Truck Rental, with his younger brother Mike, and veteran roadie David 'Pops' Houghton crammed into the uncomfortable cabin.

Watching how it was almost forty years ago is almost an out of body experience for someone who was there.

Before he died in 2010, Phil told CX: "When I took over the Hush gig in the 70's I had a PA built by Jands with the old Tycobrahe (Jim Gamble) desk which was rumoured to have been the James Gang monitor desk."

"Pops, Michael and I were featured in an episode of Big Country - very embarrassing footage now - mostly shot in Victoria - and featuring Geoff Schucraft as Tour Manager."

OVERNIGHTERS ARE US

In the footage, the three crew routinely drive overnight in the horrible truck, and live on old fashioned hamburgers and milkshakes. They all work with a lit fag.

The early PA is horn loaded, the lights operated from side of stage on a Strand Miniset 10 channel dimmer. Steel Par 64 cans (alloy came later) sit bolted to a frame on pneumatic lifter lighting towers. Colin Baldwin remembers touring with Hush. 'It almost killed me'. His lighting company, Baldwin Lighting then hired the band their lights.

Typical of the day, the tour schedules were arranged with zero regard for crew. An example from the era, had Hush do Dalby, Brisbane, Rockhampton, Mackay, Townsville then Cairns - all without a day off, and all by road.

Band manager Peter Rix is shown in his office, Gold Records on the wall, opining how tough a business it is. 'If the crew miss a show, or roll a truck, it is very marginal'.

Yet footage shows tour manager Geoff Schucraft counting \$20 bills. A lot of them. The ticket price was \$4 - high at the time, and as many as 1,000 kids would cram a town hall. That's \$4,000 a day. Contrasting with the \$50 crew wage per week.

Someone was making serious money.

While they pack up, the band are in a motel room with a gaggle of girls. 'Schucraft's day goes on' the narrator says. 'He makes sure the band get enough sleep, is servant, jailor, and accountant'.

The crew come into his motel room. 'The truck is packed'. He tells them the next gig is 270k away. 'What time's the access?' asks Phil. '9, 9.30' says Geoff. 'Here's \$120, Michael can you get some explosives out of that?'

In the 1970's flash powder could be purchased from a fireworks company without permit, or you'd visit any gun store and produce a gun license to get gunpowder. The FFF grade was the best!



Breakfast in bed



Horrible truck

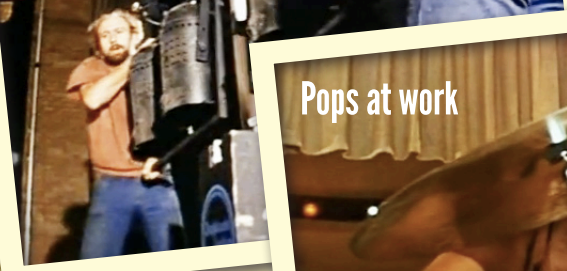


Geoff Schucraft & Michael Eastick



Phil mixing with fag

Steel paricans come off pneumatic lifter



Geoff Schucraft



Pops at work



Typical 1970's hair



Crew reporting in

NO SLEEP, NO GLORY

'No sleep, no glory', the narrator says as dawn breaks through the truck windows. 'After two months you start to go numb', Phil tells. 'Every day becomes just another day. You're starting to do things from memory'.

'We're doing it the hardest way, you're leaving right after some physically hard work, you don't have time for a shower. You get in the truck and it's exactly the same as when you got out of it.'

'When it comes time for breakfast, there's often no where to get it. If you're lucky, there's a petrol station if not, there's the cans in the back'.

Road crew in that era toured spare fuel.

'For the band it's breakfast in bed', the narrator says as the motel breakfast is delivered through the slot in the wall. 'You're bacon's crisper than mine', one popstar says.

Shucraft is on the phone to Rix, suggesting he come down and show his face. 'That's your job', Rix says, but agrees to visit the tour and sort out some 'hassle with a promoter'.

'The three workhorses of Hush are a highly disposable item', the narrator says. Phil is saying the crew need another guy on the road, but it would mean an extra vehicle and salary.

'Hush are extremely keen students of business efficiency'.

ABUSE AND EXPLOITATION RULE

'We abuse the roadcrew a lot, they have to expect it', says guitarist Les Gock. 'We expect more than is humanly possible', adds singer Keith Lamb.

'Most roadies want to be a pop star', says Dave.

'Roadies want to be stars, and in trying to be a star they are the ones who chuck TV's out the window', says Les. 'Roadies have as big an ego as a lot of people in bands'.

'The idea is to take four guys on the road, a working rock and roll band, and exploit them', says Peter Rix.

'The show. Forget about access or power hassles, or what kind of hall keeper you run into. It's (about) the show', says Phil.

The narrator sums up: 'Philip Eastick came to Hush as roadie number 28, and lasted longer than anyone else. During the 8 weeks it took to make this program, Hush acquired a new bass player, dumped their manager, and moved through roadie 29, 30, 31 and 32.'

As for Hush, they fizzled. Poor old Keith Lamb was found wandering on a country road some years later and a psychiatrist deemed him to have mental issues as he claimed to have 13 gold records. He actually did, and he is still around somewhere.

Les Gock went on to become a successful jingle writer.



Peter Rix talking about exploitation



Band car mobbed



This says it all

(Footnote) At least 8 crew died in motor accidents across this decade. Worst was a Swanee truck that crashed during an overnighter in 1980 and burned, killing Allan Dallow and Billy Rowe. 22 crew from this era have committed suicide.

YouTube /watch?v=ufzMp4FRGsE

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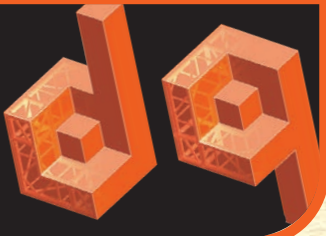
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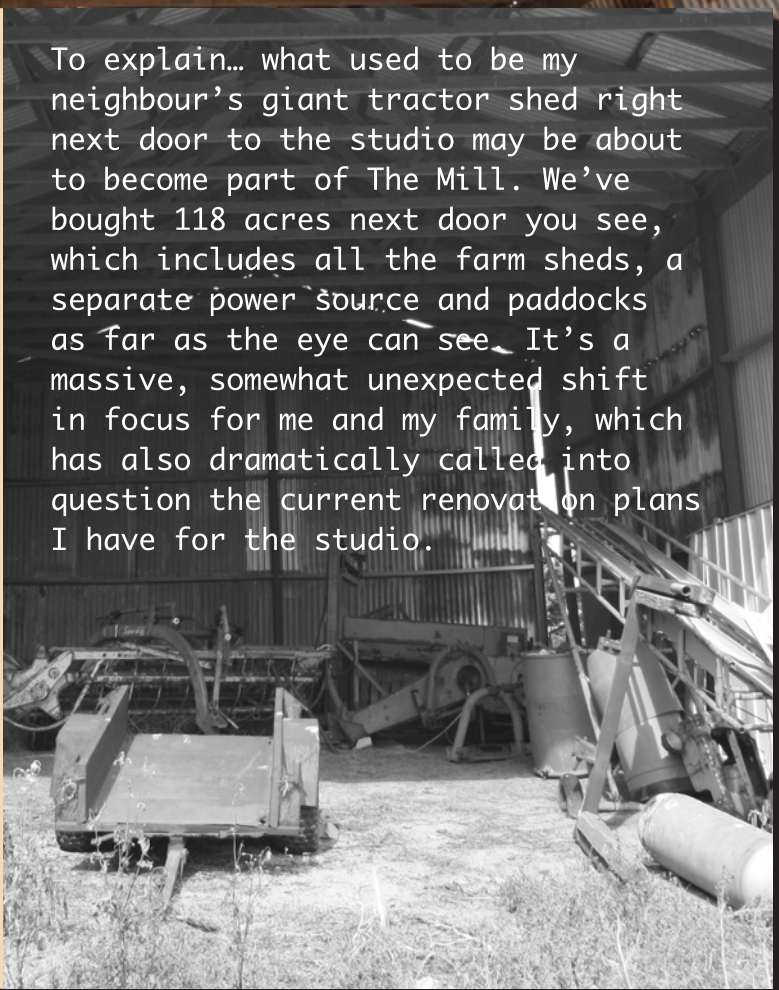


THE MILL REPORT

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 or visit www.themillstudio.com.au

To say 'it's all happening' down here at The Mill would be an understatement of momentous proportions. I've been burning the candle at both ends lately, as well as trying to get the thing to light in the middle. Between the several album projects I have on the go - not to mention the mastering of a new wave of vinyl releases (which seems very 'in' at the moment), and repairing faulty Neumann mics and Neve preamps - the studio is contemplating what so many others have at some point in their lifespan - a grand expansion.

To explain... what used to be my neighbour's giant tractor shed right next door to the studio may be about to become part of The Mill. We've bought 118 acres next door you see, which includes all the farm sheds, a separate power source and paddocks as far as the eye can see. It's a massive, somewhat unexpected shift in focus for me and my family, which has also dramatically called into question the current renovation plans I have for the studio.



BY ANDY STEWART

TRACK TIME

The Mill has never been a full-on tracking studio. It was primarily designed for mixing and mastering, hence its very large production-style control room, and little else other than a machine room and small overdub booth.

There's accommodation upstairs and a large lounge room behind the main space that gets pressed into tracking duties from time to time, but there has never been a large main tracking room per se. Not often, but occasionally, I really wish there was.

The original studio plans contemplated it at one stage, but in trying to stay within the confines of the original building footprint, a separate recording room would have compromised the size of the control room far too much. In the end I avoided cutting the space into too many tiny pieces, which frankly, was the best move I ever made.

Nearly all the recording gets done in the main production room anyway, but this has its strengths and weaknesses. There are times when I get royally sick of tripping over mic leads and headphones in and around the console. Tracking without being able to monitor via the speakers half the time can get quite annoying too.

But now plans are afoot to join the existing studio building to the shed next door – which is no more than about six metres away. It's a decent sized building: 14 x 8 metres with a six metre gabled roofline. In reality it's little more than a tin shed with decent roof trussing and a metal frame, but when the sun hits it at a certain angle and you're drunk enough, the building looks like the perfect tracking space.

Originally I had no intention to expand The Mill like this. Frankly, there was no room for expansion anyway, nor funds to contemplate it. But a couple of things have changed down here that have led to the land purchase, and now, quite unexpectedly, the shed 'next door' is ours.

And what does any self-respecting producer/engineer with masters degrees in both pipe dreaming and economic suicide contemplate every time he sees an empty shed?

A studio.

The building is currently three sided, with a dirt floor and swallows nesting in the roof. But that's exactly what The Mill studio building looked like before I moved here. In all honesty it's the perfect blank canvas for a tracking space – it's big and raw and right next door!

The trick will be to crunch the numbers – though I'm not sure what that means exactly – to see if we can honestly afford to convert the building into a viable *and quiet* tracking space. It's a big area to renovate, no doubt requiring tens of thousands of dollars in labour and materials to bring online, but if we can pull it off it will be amazing.

STILL AIR

It's one of the most important aspects of any decent recording studio – a large, good sounding space that's *quiet*. Despite what some people may think, that's what you pay for when you hire a decent recording studio – still air. Sure, the gear is important but it all counts for nothing if the main recording space is noisy.

But the problem with recording studios is that, historically, they've been at the most cost ineffective end of the production process. They generally occupy the largest space, require the most equipment and infrastructure and can charge the least amount of money per hour. Mastering meanwhile has generally been the most lucrative link in the production chain, earning those engineers more money per day from a generally smaller financial investment in terms of both equipment and floor-space. Mixing has been somewhere in between the two, often involving less equipment than a recording studio but typically more than a mastering suite (though there are exceptions to this generalisation).

But mixing rooms are rare as hen's teeth nowadays, particularly in Australia. Off hand I can hardly think of one that's not attached to a bigger studio complex, and I know why.

Things have changed dramatically in the last decade. 'Production facilities' – for want of a better phrase – like The Mill have grown exponentially in number, taking



The image is a promotional graphic 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, there is a row of logos for 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'.

advantage of the rise and rise of vastly less expensive equipment, at the same time snapping up some of the older more expensive gear at a fraction of its original price.

These new facilities have invested far less in equipment than the older ones, which were unfortunately never able to pay off their gear before the tidal wave of cheaper stuff flooded the market. When the market flooded, earnings plummeted and businesses closed.

The new production spaces are typically owner/operator affairs run by highly skilled individuals who offer clients a wide variety of music and production tools to accomplish everything from song-writing and recording, right through to mixing and sometimes even mastering.

As this model has taken over, the shift from big studios to smaller ones has seen one-stop-shops develop, where basically everything is done in the one small facility.

In other words, it's difficult in 2015 to be dedicated to one aspect of an audio production. People expect to be able to do their recording, mixing and, to a lesser extent, mastering in the one place. Not necessarily always the best approach, but it can certainly work out if the person running the show knows what he or she is doing.

But this scenario doesn't feel particularly new... in many ways it's the wheel coming full circle.

THE UNSTOPPABLE DREAM

So The Mill will in all likelihood be adding a big tracking room. Although the costs of building it may never be recovered in truth, my dreams for the space are quickly overrunning any economic rationality that might want to abort the mission. Time will tell what happens...

Meanwhile I'm rushing out the door right now to drive 2.5 hours across Victoria to an album launch for a band I produced 17 years ago called the Dead Salesmen. They're the uncrowned kings of Ballarat and their album 'Amen' is being re-released on vinyl tonight (mastered by yours truly). It's going to be a blast from the past and many of my friends and colleagues will be there to get drunk and sing along to some familiar tunes of yore.

Looking forward to it immensely... looking back.

property, particularly in terms of analogue compression and gating. It was standard fare in many commercial studios, but my impression is that the name dropped off the radar, perhaps because the concept of analogue gating, in particular – for which Drawmer was renowned – has been largely replaced by digital plug-ins.

Regardless, Drawmer is well and truly alive and well, as the new release – an analogue three-band stereo FET compressor dubbed the '1973' – proves.

It's very Drawmer: plainly spoken knobs and switches adorn a sturdy matte black faceplate, with white writing clearly defining everything on-board, even in low light.

The unit is a multi-band; it's strength therefore being in controlling the dynamics of bands of frequencies independently of one another, which makes it a powerful analogue tool.

While many modern-day plug-in multi-band equivalents offer five or six bands in the main, most often I never instantiate more than about two or three, so three has turned out to be a good option.

I've been using the 1973 off and on for about a month at The Mill and it's been refreshing to have a multi-band compressor strapped across the mix bus insert of analogue mixes.

This unit is a weapon. It's sophisticated, sounds great and has all the right features, including a couple I didn't expect.

The obvious controls on each of the three bands are Threshold, Attack, Release and Gain. Added to these is a high-quality, three-position toggle switch that flips each band between Mute, On and Bypass. Mute takes the band out of the audio path, On engages the compression settings, while Bypass leaves the audio to pass through unaffected. Personally, I would have preferred a solo function rather than a mute, but you soon get used to the difference.

Each band also has a set of horizontal, red LED gain reduction meters that are clear and precise, and great at viewing from across the room as well as up close. The two continuously variable crossover controls for the three bands are: low/mid, from 50Hz to 1.3kHz, and mid/high from 1kHz to 14kHz.

There are two further features on the bands themselves. The low band has a "Big" switch, which basically reduces the compressor's sensitivity to sub-harmonics. It sounds good and adds largesse to the sound, or more accurately, reduces the compressor's capacity to take it away. On the high band there's an equivalent "Air" switch, which does the same to frequencies above around 10kHz or so. These add some nice extra tone control to the equation when things start to sound a little choked.

The output section must get a mention here too. Great VU meters dominate the right hand side of the unit, and have both 10dB pad, and peak/VU switches. There's a great 'Mix' control that blends the affects of the whole unit with the original signal to allow serious parallel compression to take place. Finally, there's an output gain control, a bypass switch, and a power on/off.

The Drawmer 1973 is a fantastic tool. It's got lots of control, is robustly constructed, and sounds nice. Well worthy of any analogue recording, mixing or mastering chain. I want it!

TOOLBOX
review

DRAWMER 1973 3-BAND STEREO COMPRESSOR



Studio Connections: (03) 9416 8097 or www.studioconnections.com.au

Price: \$2100

Well, this name is a blast from the past! I haven't really seen the name 'Drawmer' much for years. When I was young, the brand was relatively hot

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CX Roadshow hits new peaks

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Roadshow delivered nationally in February, with a new slogan 'everything is free' working, with extra attendance in Sydney, Perth and Adelaide. A trimmed but more focussed seminar program allowed extra depth.

Mornings started with loadin at 6.30, and exhibitors arrived at 8.30 for setup. Morning tea at 10.30 was followed by doors open at 11, and the first seminar of the day 'what's in the (AV) spec?' was always the best attended.

This year our PA demo had 8 systems compared, and the LED comparison also had 8 fixtures.

Happy hour started at 4.30, and the show closed at 6pm. By 7pm all exhibitors were out of the hall, and the truck doors were shut by 9pm at the latest (8.30 in Perth and Adelaide).

Next roadshow for CX is our sec tech roadshow in May, CX Roadshow returns next February.

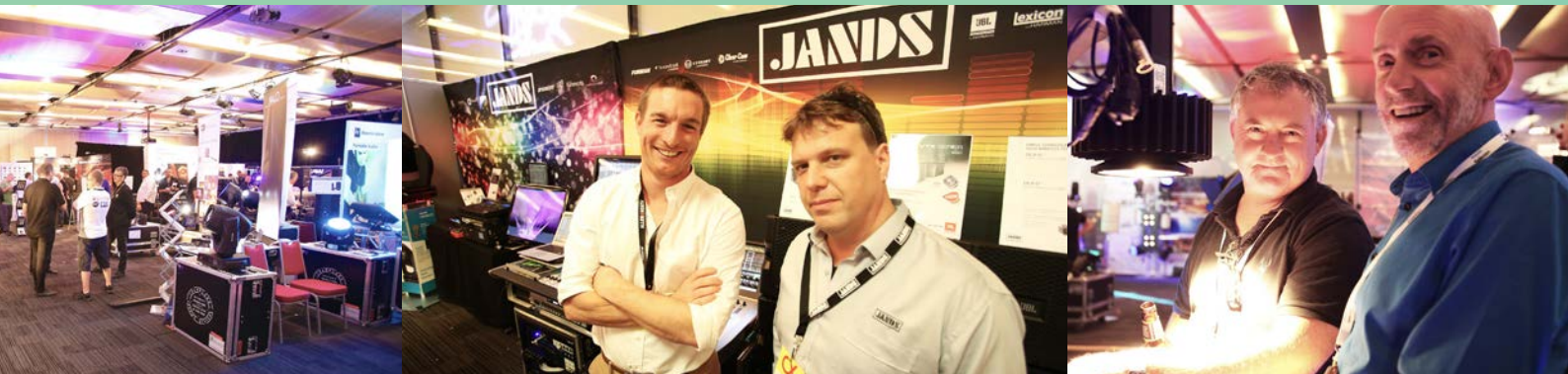


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CX SUMMER ROADSHOW HIGHLIGHTS



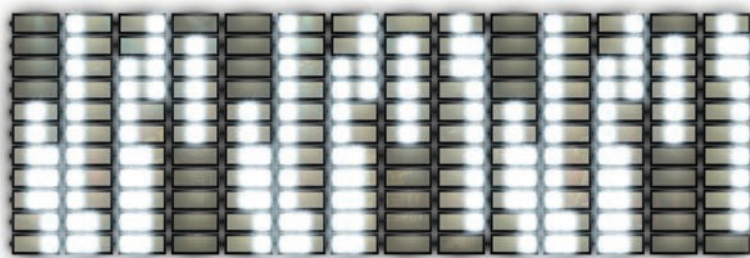




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LISTEN HERE

BY ANDY STEWART

SPEAKERS VERSUS HEADPHONES... AND THE WINNER IS?



I think it's fair to say that the headphone market worldwide has exploded beyond anyone's expectations. It's a public transport phenomenon nowadays, so much so that where once upon a time you could count on one hand the number of people on a train wearing something in their ears, now you can do the same for those that aren't.

It was deeply ironic I thought, that while travelling on a tram in Melbourne recently, I was literally the only person not wearing earbuds or fancy headphones. All around me were people sporting Audio-Technica, Bose and Sennheiser headphones as if they were Gucci handbags or Ray Ban sunnies. I felt out of place... me, the only one *not* listening to music on a tram!

It got me thinking. One of the most contentious debates in pro audio is this idea that mixing in headphones is somehow unwise because it's 'an unnatural listening experience – a dubious practise because it's not how people listen to music in the real world.'

Hmm, the 'real world' eh?

I think the vast majority of commuters on the number 96 tram the other day would have had something to say about this idea; namely that it's bollocks.

The 'real world' is now full of people trying to establish their own personal space in crowded public environments. A large percentage of these punters are framing this privacy bubble with headphones and music most the time, donning every make and model of earbud and over-ear headphone, whilst simultaneously making a fashion statement. For these people, this is their new listening reality; their new format.

DUAL REALITY

Pro audio boffins meanwhile remain resolute, still often contending that the psychoacoustic flaws of headphone mixing render the practice foolhardy at best. But when almost everyone is listening to music in

headphones, surely it follows that you need to at least refer to this replay format during a mixing session.

If millions of people are listening to music in headphones, many of them exclusively so, what's foolhardy is ignoring how your mixes play out in them.

Mixing is a complicated process; we all know that. But an engineer's role isn't made any simpler by ignoring the headphone trend and writing off the listening experience of millions as 'not real-world' and therefore 'not my problem'.

It's every engineer's duty to accommodate that experience in their work.

It has been the case for decades – although it's now unquestionably more habitual than ever – that professional mix engineers listen to their work in headphones as well as on speakers. Each may have their own working methods; some referring to headphones towards the end of a mix, others starting off in headphones to edit, examine audio files for flaws and establish panning ideas etc. But one way or another, every mix master worth his or her salt listens to both replay formats at some point during a session.

CHEAPEST CONTROL ROOM EVER

One of the obvious advantages of working in headphones is clearly that it's cheaper. The prohibitive costs and practical obstacles that prevent most people from ever setting up a decent listening room suddenly become irrelevant when there's nothing to build.

Finding a spare room in which to setup shop is hard enough for most people. Taking the plunge and turning this annexed space into a customised 'control room' is far more involved and difficult again. Not only can the costs of setting up such a room be vastly greater than the purchase price of a decent pair of open-backed headphones, there's really no guarantee that at the end of it all you'll have a decent sounding room anyway, or that the neighbours won't still complain about your infernal late-night tinkering.

If you're renting premises things are trickier still. Not too many landlords I've ever come across like holes drilled in their walls, let alone glass inserted into the dividing stud between the bedroom and the study. And what happens if you suddenly get booted out of said premises? It won't be easy to take any of the construction with you when you leave.

So for many audio enthusiasts out there, the relentless poo-pooing by the pro audio establishment of headphone mixing is an unhelpful downer on getting the job done.

THE STEREO EMBRACE

My take on it is this: do both – use speakers and headphones. Mixing in headphones can tell you a lot about a mix that control room speakers tend to downplay. The most obvious of these are panning and soundstage presentation.

I often use headphones – decent ones I might add – to analyse how wide an established sound is relative to the central mono position. The difficulty here lies in the fact that the centre 'mono' position in headphones

can sometimes sound quite different to that same information played via two speakers in a room.

This is commonly known as the 'phantom centre', where the two speakers in a stereo system replay the same information, making the central sounds appear to come from the middle where no speaker exists. In headphones these sounds often appear to be coming from inside your head rather than displayed in front of you.

To me, this is one of the obvious differences. When you listen to speakers, you're presented with the information like a painting on a wall, whereas headphones tend to immerse you in the image, as if the painting is right up against your nose. It's like the front edge of the picture is actually across the plane of your hearing, making centred information seem like it's all around you rather than in front of you. Meanwhile, things panned 100% left or right will be rendered inaudible to the other ear.

This is where headphone mixing gets its 'unnatural' moniker from, since hard-panned sounds replayed through speakers in a room are always audible to both ears to some degree or other, and therefore decidedly less stereo. In headphones, panning contrasts are far starker and more brutal. But this doesn't necessarily make headphone mixing wrong or invalid per se. It's just a different way of listening. Good mixes should therefore accommodate both perspectives.

PANNING FOR GOLD

Panning can be very precise in headphones, and often things wound fully left or right – particularly if they're quite dry, loud, or bright – can be too extreme for a coherent stereo image. When this happens sounds can almost feel like they're coming from behind you, or appear unnaturally too close. What's happening here is that your brain's ability to perceive where a sound is coming from is thrown out of kilter because you're denying the other ear information that it instinctively expects to hear... which never happens in a physical space.

This is why I tend to back off on extreme panning when I'm refining a mix in headphones, and sometimes turn these components down a little, for this same reason. At

other times I'll tend to make extremely panned sounds a little mellower in tone too so as not to be so distracting to a solitary ear. In the end it's precisely this phenomenon – where one ear gets all the information, and the other none – that's the most tricky to manage across both listening realms.

Through a pair of good speakers in a room, things that are hard panned and obvious in a mix can sound fantastic, while in headphones the same exact instruments can sometimes leave you cold; often sounding decidedly unmixed and starkly rendered. The cure is typically to share some aspect of these sounds with the opposing speaker. This might be as simple as panning a reverb response or delay signal into the opposite side of the image, just enough to trick the brain into thinking it's hearing a room reflection. Often it only takes a tiny amount of this sort of effect to settle the stereo image down in headphones without compromising the speaker's rendering of the mix too much.

One other great advantage of headphones is that they are past masters at revealing left/right bass anomalies. Provided your headphones have good low-end response – and heaps of models do these days – lopsided sub-harmonics are quickly exposed and can then easily be rectified with a high-pass filter.

THERE IS NO WINNER

What this all illustrates is that the two listening experiences are quite different, and any mix solutions you might have for one doesn't necessarily benefit the other. In the end mixing for both headphones and speakers is a compromise. Weighing up the benefits of what's good for one over the other is where the artistry of your job comes into play.

Where possible, listen to headphones and speakers as much as you can during a mix. It doesn't matter particularly which listening format dominates your process, just so long as there's a bit of the other thrown in there at least some of the time. Once you've developed an understanding of the strengths and weaknesses of both, your mixes will be better for it, no matter who hears them, or where.



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WARstories

PART ONE

The cx community is an inclusive one; our audience is made up of those from stage, broadcast, install, integration, rock'n'roll and those that love them. one thing they all have in common is stories. specifically, stories from the coal-face of production and installation, usually about something going catastrophically wrong. they're too good not to share, so we're going to do just that...

The house lights go down, the curtain goes up, and then..... nothing happens. what was your biggest show-stopping moment, and what caused it? extra respect for admitting it was you...

BY JASON ALLEN



"We had a tech we nicknamed 'Earth Hour', because during the first hour of his inaugural lighting op he couldn't get any of the lights up. I blame myself though for hiring him."

- sam balfour

"My firsthand outdoor gig; 1976. No sound. Saw a lead on the ground and realised the desk was disconnected. Plugged it in and sent a huge crash through the PA. Took out half the boxes."

- Frank Andrewartha

"I was SM for a BIG school awards night. We had used smoke and pyro FX in rehearsal and had isolated the alarms. The FX guy had not reset all the switches. Ten minutes before start he forgot to isolate alarms. Awards night started , big performance number, then pyros and smoke went off, then

fire alarm and sprinklers. 1400 wet punters in their best attire evacuated onto city street and awards evening in ruins!!!! And one very embarrassed pyro guy!!

- **John Daly**

"Full house at the Tamworth Workers Club with The Angels. I was running lights when during the first song, my foot went down a hole which contained the switch for the retractable stage and curtain system. The whole front line went down like one of those money grabbing machines. By the time we stopped laughing, it took 15 minutes to reset."

- **Tim Bradsmith**

"I was supposed to play the Australian National Anthem on CD and played the wrong track...didn't notice for the first 20 seconds....ooops."

- **Patrick Salloch**

"Opening of second act of a musical, suddenly backing vocalist's mics were dead. 15 minute delay while rebooting desk, running up and down checking lines etc. We finally decided to go anyway, and the mics worked perfectly. Turns out I'd accidentally included them in the orchestra VCA group which was down for the interval. I admitted that it was operator error but I didn't go into details."

- **Dëri Hadler**

"It was 1986 at the Melbourne Royal Show, horse sale ring theatrical performance, full house. At the start of show there was a lighting/thunder/lightning crescendo building to a lead character appearing. Flash pots were activated from a foot switch, then there was a dead short. ALL power and lights went out. The show stopped and the audience was ushered out by torch light. A 30 minute hunt for the fuse box, fuse replaced (no breakers in those days), flash pot short fixed, and rest of the season went without fault."

- **Keith Ellison**

what's the crusiest gig you've ever done?

"Stage crew for the Queen's 80th birthday pantomime in the backyard of Buckingham Palace. Got there at 8 AM and had to push a fake tree on stage and back off again each day at 5 PM. Four days of great catering. I played lawn bowls with Ronnie Corbett and Patsy Kensit, held a door open for the Queen and got paid for it. Good times."

- **Russell Smith**

"Did you know that if you stick a tennis ball under your chin you can sleep at the desk without slumping forward? Works great with the David Clarke noise reducing headphones. Got me through many an overnighter."

- **Frank Andrewartha**

"Corporate gig in Coney Island at Luna Park Sydney. The stage hand and myself spent more time on the slippery dips then we did doing the gig. Everyone was having too much fun to care."

- **Troy McKay**

"Sound op poolside with one (yep, count 'em) hand held microphone."

- **Thorin Roulston**

what's the remotest, most difficult to get to and poorly equipped place that you've ever done a gig?

"Shearing shed on a private property 30 minutes drive southeast of Lavers Hill in the Otways in the middle of winter. Access roads and tracks were muddy at best, topography like a seismograph, 4WD access only. Power supply peaked at 190 volts before the caterers arrived."

- **Ken O'Brian**

"A mine in PNG. We needed armed escort with machine guns to get to the gig."

- **Ziggy Ziegler**

"I once did an art exhibition inside a cave between Margaret River and Augusta in SW WA. Power was a 250 metre run and significantly less than 250V at the end! Fortunately it was all Par16 halogen (pre LED) so it didn't matter. Having to waterproof everything and cart gear up and down tight passage ways and shafts made for a very long few days"

- **Craig Beatson**

"East Timor, Dili, 1998, I think. We had to sleep in mozzie domes. The General of the supply base said 'There is to be no drinking or smoking on this base! If you hear enemies attacking the base, please stay in your mozzie domes!' Haha!!"

- **Daniel Lade**

WA CONTINUED Rstories



what's the most endearingly clueless request you've ever fielded?

"A client rang up and asked to hire music stands. He also asked whether he could get them any cheaper if they were not fitted with lights. I said no, that they come with lights and that we would still charge the same if we removed the lights. He then tried again, saying 'But I don't need the lights, as the orchestra is blind.' I'm still not sure that I wasn't being set up..."

- **chris schlaghecke**

"Plotting a school show and the teacher explains to me that the kids will be wearing white so can I light them with black? Not sure if she was having a go. I fired the UV cannons and was told 'That's purple, not black'."

- **tim phillips**

"Small hires are the worst. I was once asked if we had something that would suspend their disco ball in an open field. They were literally asking me for a sky hook."

- **thomas andrew williams**

"I had a lighting designer fresh out of a large entertainment training institution ask for gobos to be put in the Par64s."

- **john grimshaw**

"I had one guy asked if the headset mic needed to go on his head, or is there a stand for it like a normal mic, 'cos he didn't really want to have to have it on his head for fear of radiation and emissions causing tumors. But he wasn't going to take a SM58 on a stand 'cos it didn't look as cool. I said 'Try Jaycar Electronics'... and he hung up!"

- **peter mundy**

"I work for a contracting company that does Foxtel satellite and cable installs. A tech gets on-site after a two hour drive only to hear this: 'Oh you're the Foxtel guy! Look I'm renting and the landlord doesn't want the dish anywhere that's visible. He also doesn't want the roof tiles moved or any drilling or cables run because he doesn't want to risk any damage. The lady at Foxtel told me you can put a dish and box anywhere and it'll work.' Yeah sure mate, no worries. And sour skittles are actually made of pickled unicorn farts coated with the powdered tears of children."

- **maz tee**

electronics and water don't mix:
what's your flood story?



"I remember Billboard, Melbourne, 1982. The sewerage pumps had failed, and because it was under street level, all the sewerage from the surrounding area back flowed into the building. The gig wasn't cancelled, and people were wading through this sh*t all night. Un-freakin'-believable....."

- **george alexander**

"Coke bottles were left on the roof when the Qantas Domestic Terminal was built in Sydney. Drains blocked, roof flooded, flood water went straight down the gap between the concourse and main building, straight into the Comms room housing the Media Matrix with four DSP cards. It was totally trashed. Insurance wasn't very happy about having to pay for a new one of those."

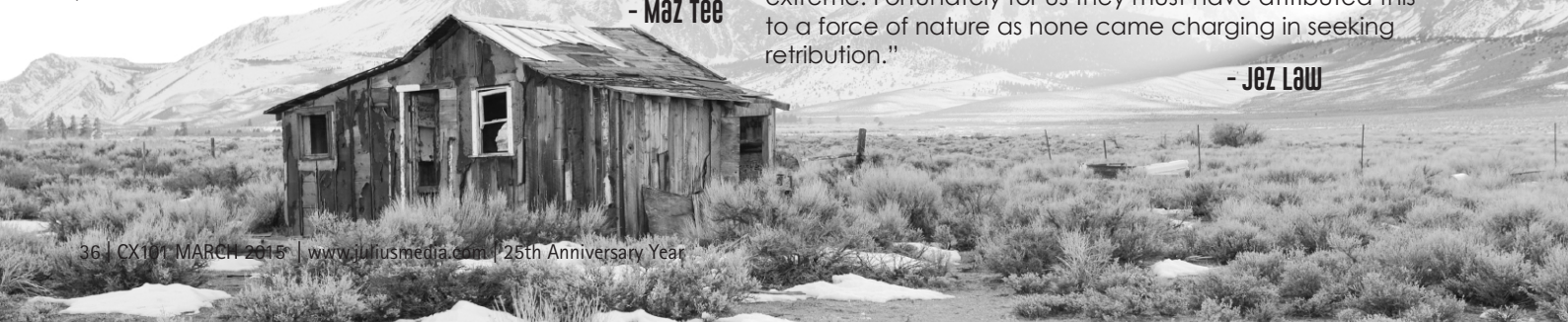
- **malcolm savage**

"Dimmer racks surrounded by a large puddle in a theatre. We drew straws to see who would sacrifice themselves turning them on. It was the only area flooded so the show continued once the racks were on."

- **stephen dean**

"Working at a B&S in a big marquee where it was pissing down all night. After the show we were watching an enormous bulge in the roof with about a ton of water building up, right over the FOH console and drive racks. We carefully got some brooms, and with the soft end gently pushed the water over to the edge of the tent where unbeknownst to us about 50 revellers were camped under the eaves with their swags. The ensuing screams as they were hit with a swimming pools worth of ice cold water at 2 AM were blood curdling in the extreme. Fortunately for us they must have attributed this to a force of nature as none came charging in seeking retribution."

- **jez law**





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POWERSOFT X8 BRAWN & BRAINS

The x series from Italian company Powersoft includes two models – the x4 and the one we tested, the x8. x8 is effectively double an x4. In a time when everything is switchmode and lightweight, the x8 seems heavy by comparison to every other amp around. Not as heavy as an AM1600, but next to anything contemporary it's quite, er, meaty. You'd expect it to do something amazing for all the weight, and the good news is that it does.

Let's start by talking output power. The X8 is specified to produce 1600W into 8 ohms, or 3000W into 4 ohms, or a staggering 5200W into 2 ohms. Per channel. That's 41kW all up, which is just ever so slightly unhinged. It's the highest output rating I can ever remember seeing on an amp. By a lot.

Astoundingly I didn't manage to test the X8 to its full capacity. I didn't have 16x dual 18" subs floating around the office, nor a swimming pool filled with dummy loads. I'll give Powersoft the benefit of my trust here, and choose to believe the spec.

I guess the brutish power output explains the unique power supply options. The X8 can be run directly from 3 phase power. Or bi-phase. Or single phase. At anything from 85 to 440 Volts. The amp knows exactly what kind of supply is connected, and just works accordingly. The X8 doesn't require a neutral when operating on 3 phase. Single and bi-phase operation require linking of various pins on the power supply connector, and presumably the amp identifies this. When running from three phase, the amp automatically balances the power load across the three phases. I love that because it's so damn clever.

The back panel of the X8 is crowded as could reasonably be expected. There's an NL4 for each output pair, XLR for each of the 8 analogue and 4 AES inputs, and a pair of EtherCon sockets for network connectivity. Our test unit also included Dante support. There are two fan grilles and a power connector stuffed in there as well, but even so the layout is tidy.

BY JIMMY DEN-UDEN



The X8 has a crazy powerful DSP inside which supports dual Dante streams, full channel routing from anything to anything, 4 sec input delay and 200ms output delay. Input & output EQ choices include raised cosine, custom FIR, parametric IIR, peaking, hi/lo shelving, all-pass, band pass, and band stop. Yay for choice!

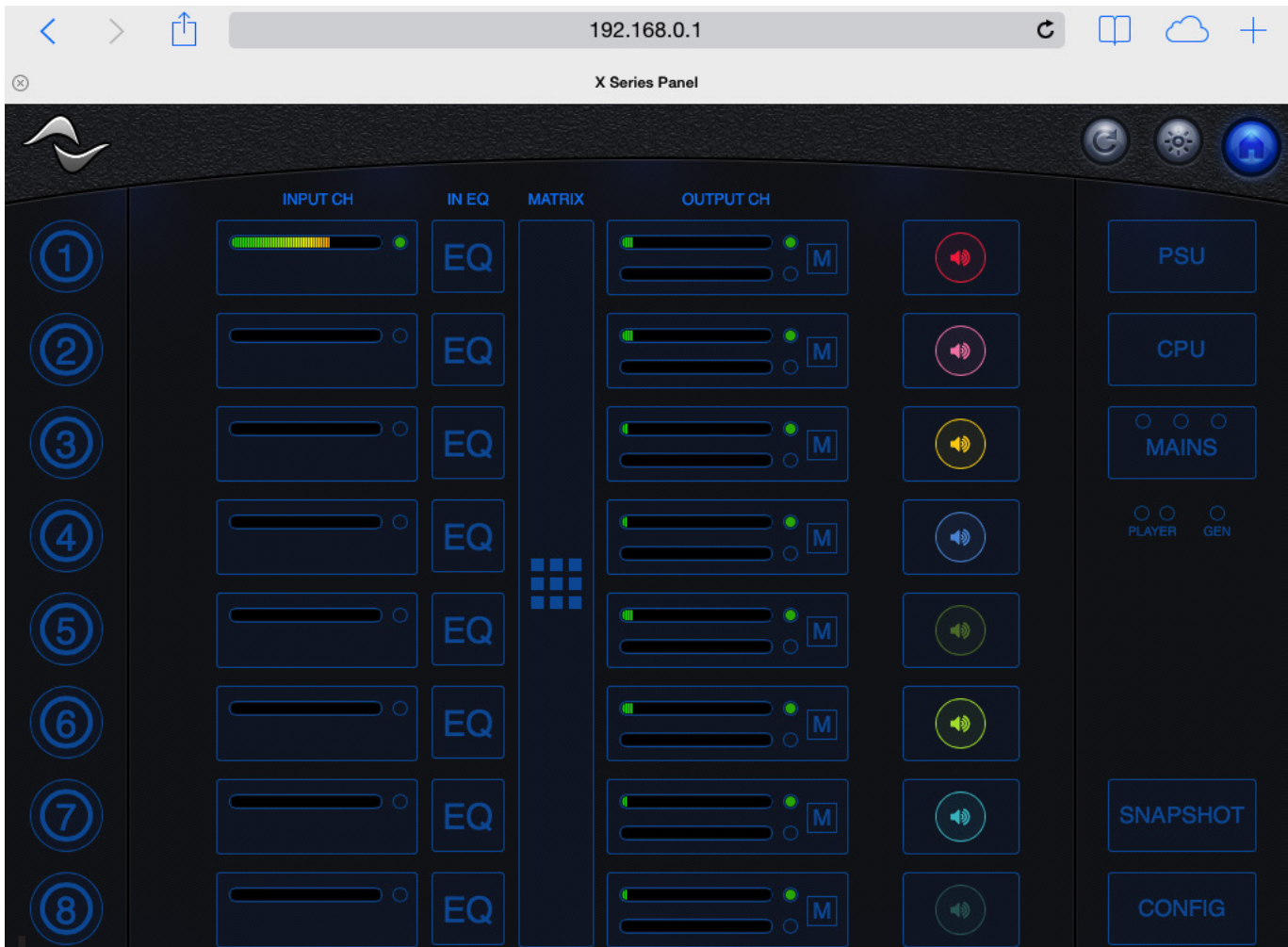
The front panel of the X8 features 11 buttons and that's it. No labels, no words, just buttons. The big one in the middle controls power, the next four either side of it activate channel mute and indicate input signal. To the left of these is the WiFi on/off button. Push this and the X8 generates its own wireless network, which you can then join using your iPhone or iPad. The amp has an internal webserver which generates an interface from which you can monitor audio levels, impedance and

temperatures, as well as make basic control adjustments such as channel mute and matrix mixing.

For more advanced control, use the Armonia PC software from the Powersoft website. Install the software then plug the amp and your PC into a network router. Run Armonia and use the auto-discover function to find then add the X8 to your workspace. Once this is done, you've got control over every aspect of the amp including the plethora of filters, delays, and four different types of output limiter too. Armonia has a "damping" tab which lets you calculate cable attenuation too – it's very clever.

Armonia software enables access to filters, limiters and other control parameters



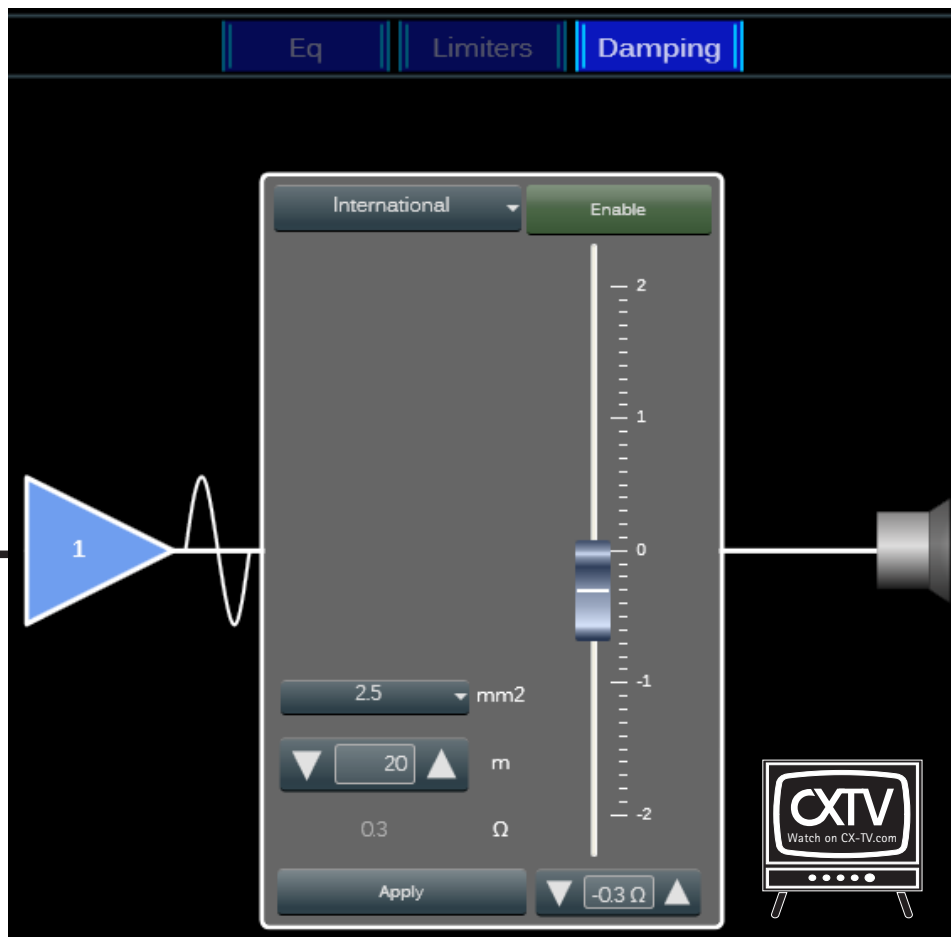


ipad app allows wireless monitoring of the amp

Really, "very clever" is probably quite a good summary of the X8 in general. Its flexible powering and configuration options mean it can be deployed into most applications with ease. The exhaustive feature-set and "dollars per watt" factor make the X8 a very attractive value proposition indeed.

Armonia even fixtures out cable loss

BRAND: POWERSOFT
 MODEL: X8
 RRP: X8 - \$17,011 INC GST.
 X8-DANTE - \$18,849 INC GST.
 PRODUCT INFO:
 WWW.POWERSOFT-AUDIO.COM
 DISTRIBUTOR:
 WWW.PAVT.COM.AU



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HIGH END SYSTEMS

HEDGEHOG 4

Every year at the CX roadshow I run a lighting demo. This year I happened to have the High End Systems Hedgehog 4 on loan for review, and it happened to be exactly around the same time all the roadshow LX demo fixtures were arriving. Wicked I thought, I have plenty of stuff to test it with.



BRAND: HIGH END SYSTEMS • MODEL: HEDGEHOG 4
RRP: \$9695.00 INC GST
PRODUCT INFO: WWW.HIGHEND.COM
DISTRIBUTOR: WWW.LEXAIR.COM.AU

BY JIMMY DEN-ODEN

The big hassle about my lighting demo is that because the fixtures are mostly very new, it can be hard to find library files with which to control them. I was very pleased when I looked in the HedgeHog 4 fixture schedule to see most of my demo fixtures already had profiles written.

This is something High End just seems to do well – they get onto authoring new fixture files for their consoles very quickly. I had a problem with one file – written on a beta version of the relevant fixture's DMX chart. I notified the distributor, and High End had a working file back to me at short order. I really like that a lot, because frankly I'm bad at writing library files. Or at least, I thought I was...

The HedgeHog 4 includes a fixture builder, with which you can create a library file (from scratch or from an existing one). Since some of the features need to be built in specific ways, duplicating something existing and modifying it was the best way to go for me. Because it's all done inside the console you won't need that old USB floppy drive either. It took me a little playing around, but pretty soon I had every fixture up and running.

Most of the HedgeHog 4 makes very good sense even if you are, like me, hopelessly out of touch with lighting control systems. I figured out how to pull user-created fixtures out of one show and merge them into another, and all without reading instructions. That's quite a complex thing to do.

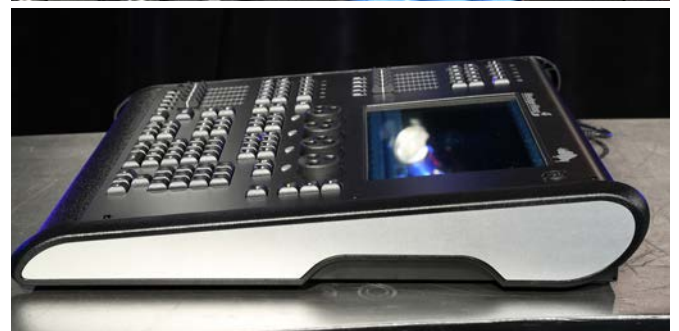
Physically there's very little console but a lot to love about it. Four model variations are available presenting a variety of network and external touch screen options, and if you decide you've bought the wrong one you can always pay extra and just download the firmware to enable the extra features. Essentially it's one hardware choice with four software options.

2 on-board DMX and 4 (6 on the 4X model) Art-Net universes are included with the HedgeHog 4, as are 10 playback faders, four encoder wheels, a good programmer section and multi-touch touch screen. Two rear USB ports let you connect an external keyboard/mouse/trackball/touch screen/USB storage. Four ports would have been better, but I guess you could add a USB hub.

I say you can add a mouse, but for most functions it's not necessary. The screen is compact, but it's well laid-out and seems to respond pretty accurately even to my fat fingers. I think the thing I like the most about the HegeHog 4 is that it's so fabulously responsive. I dislike waiting for any console to respond to user input, and I didn't find the HedgeHog 4 towing the line at any point. It feels quite wonderful to operate.

There are some other features to mention – the network enabled models can work as a backup for the larger Hog consoles, there are still user-definable soft-keys, you can connect additional wings, DMX widgets and DP8000 boxes, MIDI LTC is an option, the internal drive is a 256GB SSD so it's robust, and there are several case options available. Oh, and there's a Light Converse Visualizer included too.

All that's great but at the end of the day I didn't need to know any of these things to decide that I like this console a whole lot.



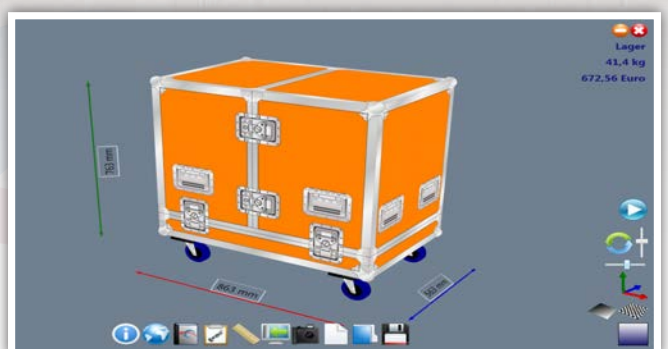
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ALLEN & HEATH

QU-32 JOIN THE QUEUE

it was either just before or just after its initial release that cx reviewed the qu-16 digital console from allen & heath. we were so quick off the mark in fact, that at the time the hardware had some features the software didn't yet support. we still liked it anyway, and now all that stuff is supported we like it more.

The Qu-16 proved to be quite a solid little platform, but at the end of the day some shows just need more than 16 channels. Enter the Qu-24 and now the Qu-32 – the topic of this review.

Allen & Heath has gotten away with making two quite different operating systems for their digital consoles. iLive is a very different beast to the Qu series, but then iLive is slightly closer to an "open architecture" device which is harder to simplify into an interface.

Anyhow the architecture of the Qu-32 is that of a 32 mic/line input console, with 33 motorized faders. It has a main stereo bus, four mono and three stereo aux busses, four subgroups, and even two stereo matrix busses. Plus PFL. 10 user keys allow control over mute groups, scene selection, solo clear and tap tempo functions.

The dSNAKE port lets you use remote IO in the form of the A&H AR racks. Native CoreAudio and ASIO support allow

BY JIMMY DEN-UDEN

BRAND: ALLEN & HEATH MODEL: QU32 RRP: \$6499.00 INC GST
 PRODUCT INFO: WWW.ALLEN-HEATH.COM
 DISTRIBUTOR: WWW.TAG.COM.AU



multi-track playback direct from a Mac or PC (PC driver download required). The 18 channel Qu-Drive recorder lets you make multi-track recordings direct to a USB hard drive at 48kHz.

Like I said, it was quite a while ago that we reviewed the 16 channel unit. I'd forgotten how very easy this series of consoles is to use, extremely intuitive being the answer. It's not the kind of console where you'll still be discovering features on the third gig you use it at – everything's up front and centre. It's so obvious how it all works that I needn't bother explaining it. If you know how to operate a mixing console, you'll be able to figure this one out. It boots up nearly as fast as an analogue board too.

Allen & Heath has included the iLive effects library, which I've always thought of as pretty good for something that didn't come from an "effects processors and plug-ins" company. The "superstrip" has all the

encoders that I care about right there on the surface. For everything else, the 7" touch screen provides fairly ready access. There's also the Qu-Pad iPad app, for which you just need to plug the console into a wireless access point.

Personal monitoring for musicians is gaining popularity, with a wide choice of systems now available. With support to the ME-1 personal monitoring solution included, Qu-32 has this covered.

I don't know where I see the Qu32 going – corporate and school users will find it fits many of their needs, but I reckon houses of worship will like it best due to the decent channel count, recording functionality, and compact size. It sounds pretty good too, and really there's not a lot you couldn't throw at this console. The Qu series is built on a competent platform, and provided you're okay with fixed architecture it's a solid little performer.

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APOLLO DESIGN

AVERE 4UV

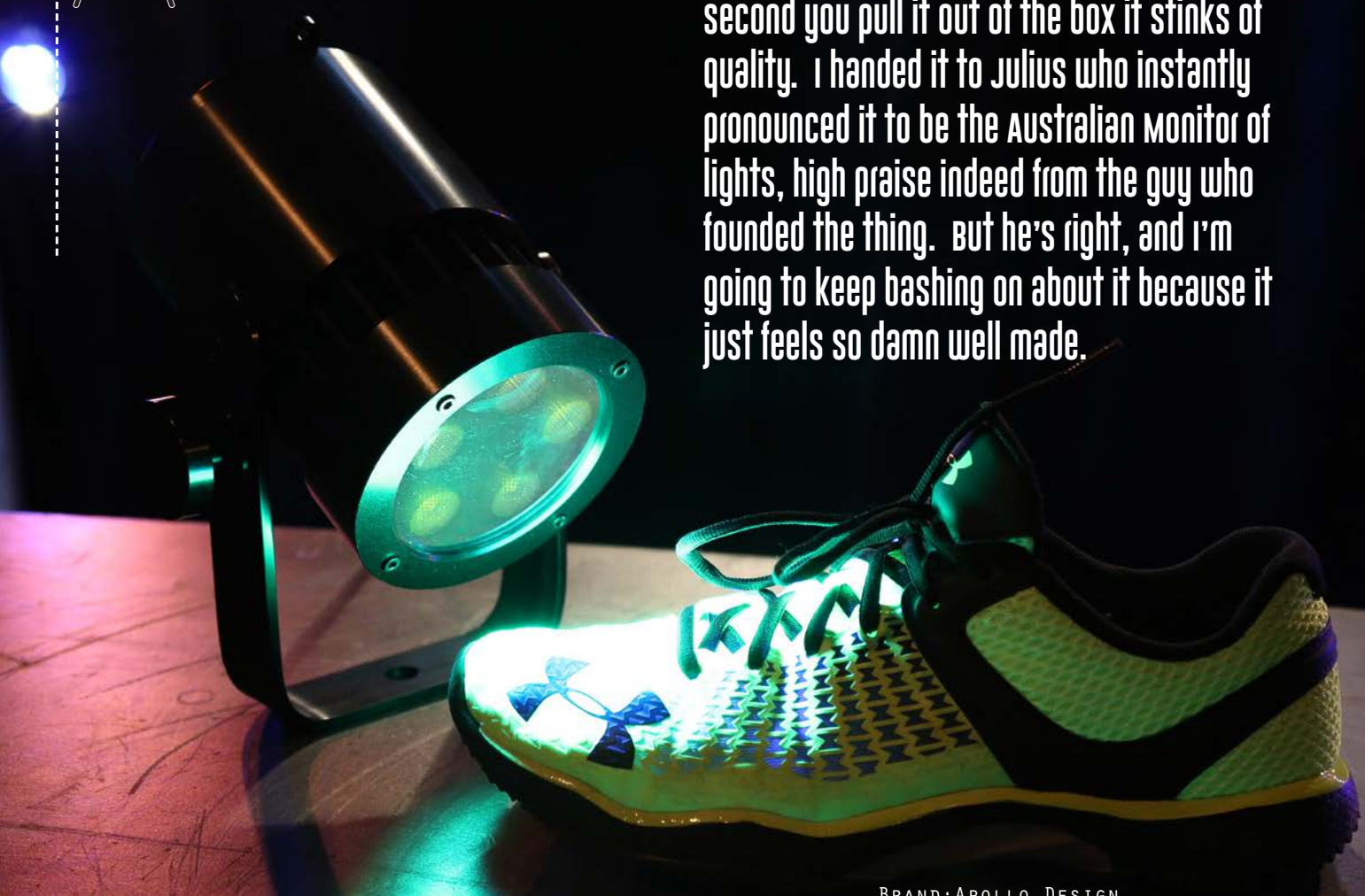
ULTRA-VIOLET

LED

you know how some products just feel well made?



The Avere 4uv is such a product. From the second you pull it out of the box it stinks of quality. I handed it to Julius who instantly pronounced it to be the Australian monitor of lights, high praise indeed from the guy who founded the thing. But he's right, and I'm going to keep bashing on about it because it just feels so damn well made.



BRAND: APOLLO DESIGN

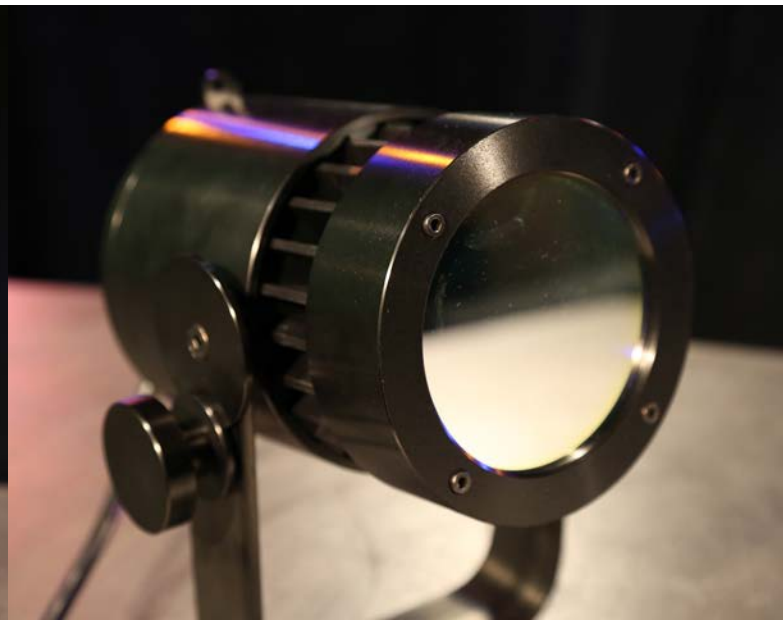
MODEL: AVERE 4UV

RRP: \$2395.00 INC GST

PRODUCT INFO: WWW.APOLLODESIGN.NET

DISTRIBUTOR: WWW.CLEARLIGHT.COM.AU

BY JIMMY DEN-ouden



Large chunks of the Avere 4UV appear to have been turned on a lathe from solid bits of metal. The front lens is a polished mirror finish thing that looks like it just fell out of a cleanroom in a microchip factory. Even the safety attachment point is a very deliberately constructed and attached device. The centre section of the body is a massive heatsink, and the gland at the cable entry is perhaps the one obvious indication of its IP65 rating.

All that's quite fortunate really, since the Avere 4UV's purpose in life is fundamentally quite a limited one. It's a UV fixture, and an LED powered one at that. Consuming a paltry 18.5W, it emits a 22 degree beam at a wavelength of 365nm. There's an option for 15 or 35 degree beam too if you need it. Behind the polycarbonate lens sit 5x 2.8W 365nm UV LEDs, which explain why the current draw is low – it only produces the required wavelength of light. I told you it was kinda limited...

But here's the thing, it does what it does extremely well! There are plenty of UV fluoro fixtures out there, but they all kind of suck. They're slow to start, and the light output

is not especially easy to direct. The output of the 4UV is well controlled, and while turn-on isn't exactly instant, at around half a second it's quick enough not to matter. The majority of competing UV LED fixtures are decidedly suited to the amateur market. The Avere 4UV produces enough output to warrant a warning label on the side. That's proper professional.

Being entirely convection cooled there is no fan noise, and I can't even pick any control noise from the electronics. It's truly silent in operation. The front board assembly can be replaced allowing future upgrade capability, but personally I can't really see anything I'd want to change.

The Avere 4UV isn't the sort of "daily driver" of fixtures you'll use on a regular basis in a venue. It's very purpose specific, and the reality is that you'd need a good reason to buy it. That said, as much as it will work well in theme park or architectural applications, it certainly ticks all the boxes for theatre users who require powerful, targeted and silent UV illumination.



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SENNHEISER ESFERA



WHEN 2 CHANNELS = 5.1

BY JIMMY DEN-ODEN



Let's face it, most of us are not geared up to record or mix surround sound. Many of us are doing well if we can even figure out how to monitor a 5.1 signal. Surround sound has long been a source of confusion to many of us. Sennheiser might be about to change all that with the Esfera system.

If Esfera is a hard word to wrap your mouth around that's okay because it's easy tech to wrap your brain around. In a nutshell, Esfera lets you acquire in stereo then convert to 5.1 surround.

It all sounds a bit easy, doesn't it? Esfera begins with the SPM 8000 microphone, which is actually a pair of MKH capsules, shock mounted in an XY array. The whole operation sits within a blimp type windshield with an adjustable threaded handle at the base. The output is via 5 pin XLR, and our test kit included a cable to convert this to dual 3 pins. Each line requires +48V since the capsules are condensers, but the good news is you can plug the SPM 8000 into any video camera or 2 track recorder capable of powering it. In an outside broadcast situation you could place the SPM8000 on a sideline and send it back to the truck via analog or digital multicore.



Once captured, the stereo signal from the SPM 8000 is fed into the SPB 8000 processor, which then gives you 5.1 surround output on three AES3 connectors. If you're capturing in realtime, the SPB 8000 can apply phantom power to its inputs, and input gain is adjustable too.

If you've recorded your stereo signal on an external device in the field, you can even feed it through the SPB 8000 after the fact. An AES3 input allows the unit to keep a digitised signal within the digital domain, and adjustable sample rates from 44.1 to 96kHz mean you don't need to do a lot of messy sample rate conversion. The unit can even lock to an external Wordclock.

Four preset buttons on the front of the unit allow quick recall of various processing configurations, and another button enables the internal compressor. Setup of the parameters is done via computer over Ethernet, and even though the interface is quite simple it allows for complicated operations such as rotating the image, or delaying surround signals. There's even a "windshield high boost" function. Once you've modified the settings, you just hit "Adapt" in the software to update the active preset.

I think given the way the system works it's probably quite important to match your input gains for each side of the XY mic – presumably this is why gain is a common function on the SPB 8000. One control adjusts both inputs simultaneously. I think the price is probably a fair indication of the extreme level of precision and accuracy you can expect from the SPM 8000.

I don't quite know what sort of audio wizardry goes on inside the SPB 8000, but it certainly seems to work. It isn't hard to imagine Sennheiser could make an AU or VST version of the process for users who don't require the realtime capability of the rack mount processor, but whether or not they see value in this is another matter.

Esfera does exactly what it sets out to do, and it achieves this effectively and with the greatest of ease. Whether or not you can justify the dollars attached to this capability will depend entirely on your application, but with infrastructure and ongoing labour savings to be had it certainly bears some consideration.

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March
2015

ROAD SKILLS



Editorial by Cat Strom

*Photography: Icehouse - Troy Constable
Jon Lemon FOH Sound Engineer - Bob King
Passenger - Jarred Seng & Katrina Clarke*

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ALEX SAAD, F LEA BE & DAVE TAYLOR

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This year's run started at Sydney's Penrith Panthers Evan Theatre in mid-January with the band's longtime lighting designer Alex Saad opting for a radical new look.

Six 6mm LED panels in assorted

rectangular sizes – four smaller ones on the stage and three larger hung – form the visual backdrop for the show. These are complimented by sixteen Ayrton MagicPanel 602 LED fixtures, two groups of eight housed within two grids that are suspended alongside the LED panels. Alex admits that the MagicPanels are something different for Icehouse.

"I decided to use the MagicPanels because I wanted a fixture that I could pixel map so that they all became part of one big wall of image at the back of the

stage," remarked Alex. "Combining the MagicPanels and LED screens means I can produce a colour block or an image across the whole lot. Obviously the MagicPanels are a DMX light that you can pan, tilt, and control each individual cell. They're very versatile and deliver a great, big block beam. You can control their output so there's a small pinspot of light or a band of colour wash."

The front truss houses Martin MAC700's which Alex uses for specials profiling people or as follow spots, with LightSky Extreme Beams on the floor back of stage and Robe Robins with molefays on the mid truss.

"The Extreme Beams are great, I love them and I use Robe Robins all the time as they're such a great workhorse," he said.

Quite a bit of new content was produced for this leg of the tour with Larry Ponting and Alex working closely on the visuals. Alex used Catalyst to control the media and his usual Hog4 with a wing to control the lighting.

The production was sourced from a variety of companies: the LED screens from Lighting Lab, the MagicPanels from S-W-S and Up & Beyond Productions, the rest of the lighting from Johnston Audio.

At the Panthers gig, FOH engineer Richie Robinson

ALEX SAAD AND RICHIE ROBINSON



used the in-house Electro-Voice line array augmented with some extra subs.

"I'm used to being able to work with most modern PA's and the EV system in Panthers covers the room well," commented Richie. "Most of the larger RSL and theatre PA's these days are pretty good. As long as it's all working, has enough power and headroom, and covers all the seats evenly I'm usually happy."

Richie points out that the band are great players and very experienced which makes his job easier and when listening to some of the original recordings, he thought that they are actually playing some of the songs better these days than on the original tracks.

When mixing the band, Richie combines the live elements with on some songs, backing tracks care of Pro Tools.

"As Iva wrote and programmed all of the songs, he is used to hearing the click track going in his in-ears even if there's nothing coming off the Pro Tools tracks that we use in the FOH mix," he said. "I wanted to focus on what everyone was playing live - I guess it's a case of getting the right balance so when I do hear something coming off Pro Tools, it never overwhelms what is being played live but adds to the way people remember the recorded songs. Some of those memorable parts to me being the effected backing vocals in Electric Blue and Hey Little Girl as well as the percussion in Great Southern Land and the synth loops at the start of Cross the Border. I never think of those Pro Tools elements as dominant parts of the mix - they do make it lush, but they've got to sit with what the other guys are playing because they're such great musicians."

A control package from JPJ Audio was toured for most gigs including an Avid Profile console for FOH, a Yamaha PM5D for monitor engineer Paul 'Kenno' Kennedy, and Shure PSM1000's for in-ears plus Shure and Sennheiser microphones. Preferred overhead mics are either AKG 414 or Audio-Technica AT4050 large diaphragm condenser mics. Iva plays an oboe during Man of Colours and for this, Richie uses a Neumann KMS 105 supercardioid condenser microphone.

"The control package was all about consistency as we have no audio crew on the road other than Kenno and me," explained Richie. "If you carry your own package with your own mics, you know how everything goes together, all your leads are labeled and loomed up and that consistency is really helpful."

Everyone on stage has the Shure PSM1000 in-ears and there are also 2 x d&b audiotechnik M4 wedges downstage and 2 x d&b QSubs for drum fill, and Nexo Alpha E for side fill. These are used to give the stage a bit of low end "grunt" to augment the IEM's.

"I recently switched to the Shure PSM1000's as I have been using them with The John Butler Trio who own a set of them," said Kenno. "I really enjoy using them so I decided to use them on Icehouse and it's all working out just fine."

"I'm pretty old school using a Yamaha PM5D-RH with an Apogee Big Ben Word Clock which helps clean things up especially if you're using in-ears. You don't notice the difference that much when you're doing straight out rock'n'roll with just wedges. The Yamaha PM5D-RH is bullet proof and I use it for just about every band that I do. It's simply a great monitor console; it's easy to get around, it's logical and it sounds great, especially with the Word Clock. It's built for the job and does it fantastically."

Kenno notes that everyone on stage has pretty much a full band mix, with some using clicks. His mix has a lot of effects, reverbs and compression which are all in the console.

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20 QUESTIONS WITH

I sound engineer

Jon Lemon



JON LEMON WAS BORN IN ADELAIDE AND STARTED IN MUSIC THERE AS A TEENAGER, MOVED TO MELBOURNE IN THE 70'S TO WORK FOR THE SPORTS, FROM THERE WORKED FOR MANY AUSSIE BANDS INCLUDING, AMONGST OTHERS, STARS, MI SEX, AND BILLY THORPE. JON WORKED FOR JANDS UNTIL ABOUT 1984 WHEN HE WENT TO LONDON TO WORK FOR SKY. HE HAS SINCE ALSO LIVED IN IRELAND MOVING TO THE US IN 2009. THE PAST FEW YEARS HAS SEEN HIM WORK WITH A MULTITUDE OF CHART TOPPING BANDS INCLUDING BECK, THE CURE, PET SHOP BOYS, BRYAN FERRY, CHRISTINA AGUILERA, NINE INCH NAILS, DEPECHE MODE, INXS AND THE SMASHING PUMPKINS.

INXS





DEPECHE MODE

JANET JACKSON

TOM WAITS

BRYAN FERRY

THE CURE

JANE'S ADDICTION

What are the three best things about your job?

The satisfaction of a great night at the mixing console, The travel, I still enjoy that. The great people you meet through this biz.

And the three worst things?

Dealing with accountants, generally not our accountants they're usually cool.

People who don't tell the truth.

And that's about it really.

What do you never leave home without when working?

My toothbrush! Actually these days an ilok full of Waves plugins licences.

What was the worst nightmare you encountered on the road?

A couple of times being at venues when someone has died through an accident, shouldn't happen.

What has been the strangest request from an artist?

Wow, there's been so many, but maybe....when I was a young buck working at Jands and was asked by the international client to come back to her hotel room! Not saying who obviously and no I didn't go.

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

A certain American heavy metal band that got back together in 2005.

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

It's got to be by a promoter in Italy to not set the mixing console up in the middle of the venue and just mix from a corridor as he hadn't held any space for sound and lighting on the arena floor.

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

That's hard I've been lucky enough to do so many great tours over the years but I think a couple of the Cure tours in the early 90's were probably my fav's, developing the old Turbosound Flashlight system, getting to see great LeRoy Bennett lighting shows every night and working with such a great bunch of people. In saying, working with Ray Lamontagne last year was pretty damn special too!

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

Narrara 1983, two people shagging right next to the mixing tower with hundreds of people cheering them on.

Who do you admire in the industry and why?

So many people really, Eric Robinson from Jands as he has always been so honest with me and helped me in the early days. Howard Page who has stood by me and mentored me for decades. Bryan Grant from Brit Row for being one of the great guys of our industry, and so many crew both in Oz and overseas who work tirelessly... better than men than me.

Which venue is your favourite and why?

Probably the Olympia Haller in Munich, it always sounds great, and then anywhere with great catering.

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

Waves Soundgrid server, so nice to have so many plugins available on an open platform, I use Digico consoles so being able to use Waves plugins (and more to come) at 96k plus has changed the way I mix.

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

Mmm unprintable but it happened on Depeche Mode's Faith & Devotion tour which was voted by "Q" magazine as the most decadent tour of the 90's, I'll leave it to your imagination.

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

It would be first at Narrara 83 where it rained and rained during the setup, then at Glastonbury 90 with Sinead O'Connor, I'd never seen so much mud and shit at a festival and again at Glastonbury with band "Live" in 1997. I think it was as they still hadn't worked out the drainage!! All equally as bad as each other.

**What invention would make your job easier?
A Teleporter.**

Which band would you most like to work for and why? That's a moving target for me, it used to be Sting and then I was offered it in 2005 but had just signed a contract with the Japanese artist called Himuro and couldn't get out of it but today probably Phoenix, I just love the music. In saying that though I wish Sia would go on tour again as she has such a deep repertoire now, always a favourite.

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

Not really I just feel lucky to still be doing this and enjoying it.

Do you still call Australia home?

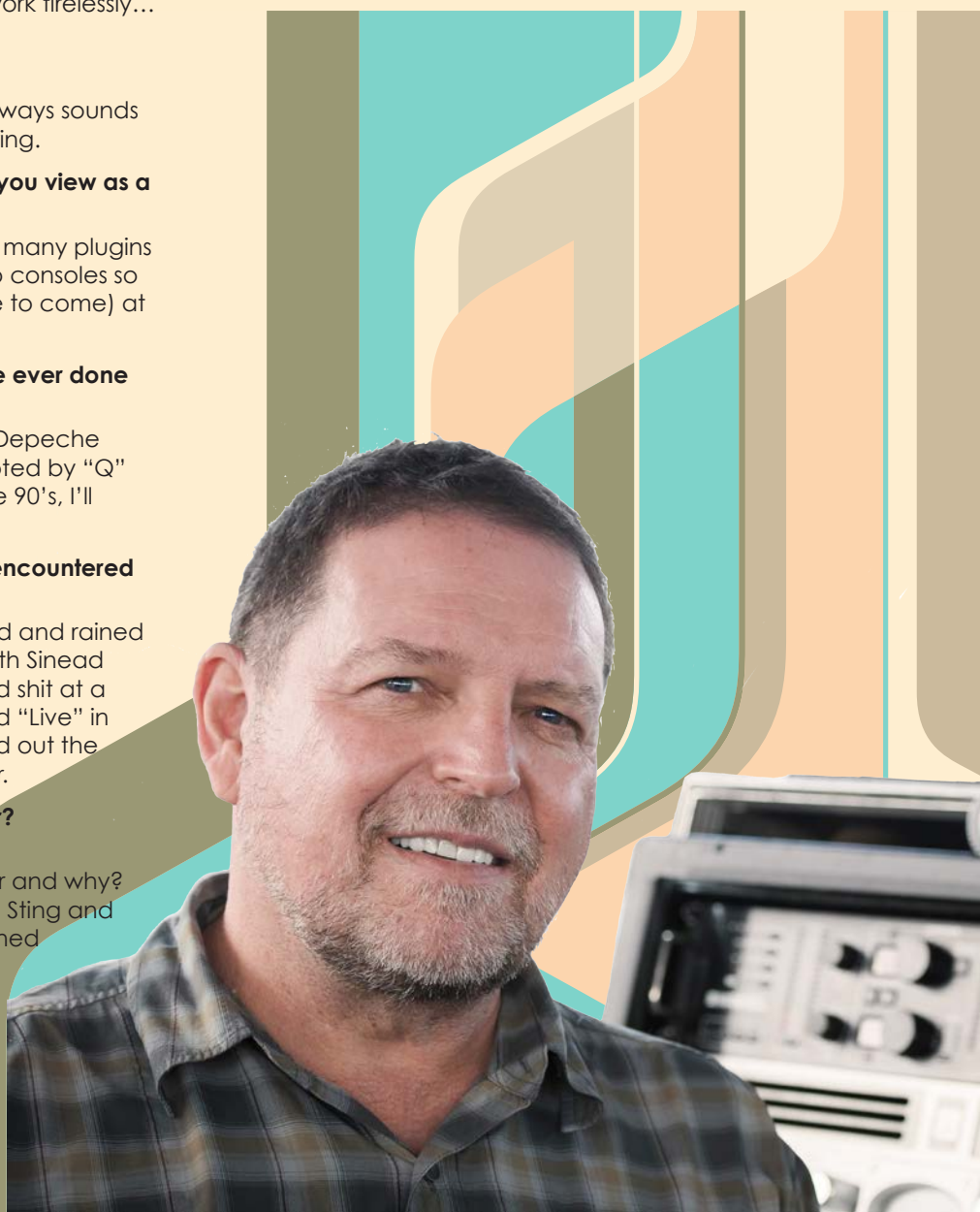
I do, I have recently done up a beach house down on the Fleurieu Peninsula where I have built a mixing room and hope to spend most Aussie summers down here and will retire in the end to there.

Do you have a preferred sound console and if so, what and why?

I use Digico's. I've been involved with them since the start with the D5 and of course now use the SD range whether it be the SD7, SD10 or SD5, they just sound great and it's a company that listens to engineers and gives them what they want.

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

Believe it or not I wanted to do sound for live concerts, a guy called Trevor Marshall had a company in Adelaide called Trevmar Sound and I fell into working with him on weekends when I was about 14 or 15 and loved it. Then when I was about 16 I waited in the Townhouse hotel to meet Bruce Jackson who was mixing Diana Ross and he took me to the gig and was so generous with his time and after that I realized this is what I want to do... worked out for me !!





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English folk singer-songwriter Passenger has just finished his seven month Whispers world tour here in Australia. The Australian tour took in often missed places such as Cairns, Canberra & Darwin.



The show is designed by James Scott of the design collective Okulus, a partnership with Louis Oliver which has recently garnered much media attention. Okulus currently design for Chvrches, Zac Brown Band, You Me At Six and The Temper Trap amongst others, and have plans for within the next year to expand their creative scope by incorporating a third designer.

"Okulus is a collective of like-minded designers who are creatively driven rather than company driven," explained James. "We have no ties to any suppliers or manufacturers; what we feel is best for a

James Scott
of the design
collective
Okulus



Passenger





design is what we go for and we let production fight with suppliers to get the gear! We would never sacrifice our integrity or design vision for what is available. A lot of designers fall into that trap because I don't think they're brave enough to say no to substitutes. Of course, you have to be reasonable and there are some things you can happily substitute. There is a lot of creative license within the company, but I think it's refreshing that we say no as suppliers should be there to help rather than hinder."

Passenger wanted his album artwork for Whispers to be a key element of the show creating environments that have their roots in the said artwork. James collaborated with the album artist Sarah Larnach to adapt and fragment her artwork into a media server friendly format. Editing and animation was skillfully carried about by Lydia Baker or UK based "Screen Light Design"

"Even though there were some aspects of the design I would have liked to go more into depth with different

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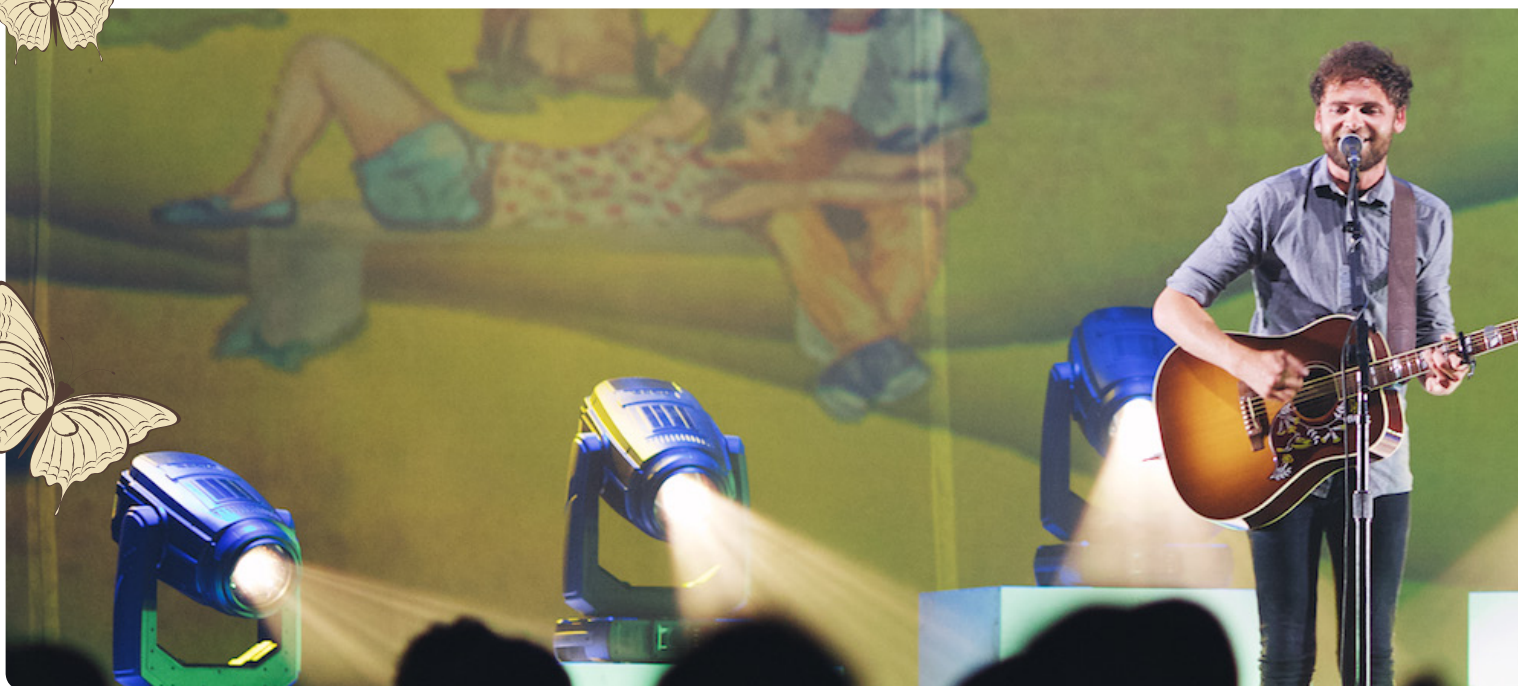


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settings, Passenger didn't want the video to distract from the honest and unique performance, so we only have half a dozen songs that incorporate video," said James.

When designing the lighting, James had to allow for a large projection surface with nothing in the way of it so he opted for groups of lights up stage of Passenger, on the outside of the stage so that the lighting could focus attention towards him whilst not hindering the projection. Adding to the 'framing' of the projection surface are eight white wooden plinths of various low heights, located on the floor and coloured by the wash fixtures on the floor.

The floor package consisted of twelve Robe LEDWash 600 fixtures: six surrounding the plinths, two either side downstage and one either side downstage used as keylights on a boom.

"On the plinths, eight Robe MMX Spots or Martin MAC Vipers have been used on the tour," commented James. "The fixture just had to have a large aperture lens and be able to produce big gobos to fill the large void of space created by the fact we have no mid line fixtures,

only fixtures on the floor and in the air. The light needed to zoom out and spread as wide as they could optically go to fill mid-air when there was no projection."

The two groups of four fixtures either side of the stage would ideally be the same fixture as on the plinths. These could swing gobos out into the crowd or zoom wide to fill the whole stage. The mid truss has six wash fixtures to supply the 'base coat'.

"We also have a front truss with six moving lights of any flavour," added James. "These are used for keylighting the support act (as most of Passengers keylight comes from the side) where there are three people onstage. You need a fixture that is bright enough to get the correct tone out of it for lighting people's faces and the one product that surprisingly works really well is the Robe Pointe."

Audience lighting was supplied by a modern twist of vintage, in the form of twelve Patt 2013 tungsten fixture as whenever Passenger addresses the audience, he likes to see them- but not blind them! In Australia, these were not available and so James substituted Skyfans.





Even though it was the arse end of the tour, James was excited to be offered Robe BMFL fixtures as his main spot fixture for the Australian tour.

"The Robe BMFL totally blew me away, in fact it probably has too many features!" remarked James. "Compared to the Robe Robin MMX the gobos are that much better, the animation wheel is much more defined, and you get more coverage out of the zoom."

Whilst the lighting was supplied in Australia by MPH Australia there was no need to specify a control console as James travels with a MA Lighting onPC command wing purchased by Passenger.

"It travels on the plane with me as it always weighs less than 23 kilos," he added. "In fact we do this with most of our bands now. Why advance a lighting console when you can spend five grand and buy one? It's cheaper, easier and you can guarantee the consistency of the show everywhere."

A Catalyst laptop, supplied by Meadia, travels with the MA onPC command wing.



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Woohah are a young, multi-faceted production company in Melbourne's south-east making big inroads into the 'one-stop-shop' hire market. Jason Allen sat down with Woohah's indefatigable managing director, Arosh Fernando, to talk passion, vision, direction and diversification...

WOOHAH PRODUCTIONS

The exuberantly named Woohah Productions radiate youthful energy, bringing a fresh approach to everything they do. Managing Director Arosh Fernando is 29 years old and heads up a team whose average age is just 25. Based in an industrial estate in Moorabbin, Woohah supply lighting, video, audio, DJs, video content and even consumables across the corporate, live, events, school, and church markets. Arosh and the team have built the business on the time-honoured strategy of saying 'yes' to everything and sorting out the details as they go.



"All of this is an accident!" joked Arosh. "Through my church, I got into audio, video and lighting from the age of 12 and I loved it. At high school, I was studying aerospace engineering and then I got into uni, but I deferred. I quit my first job at 16 with \$3,000 saved up and started Woohah with that in December 2001. Lighting was my first passion. I was self-taught. It was the early days





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WOOHAH'S AROSH FERNANDO

of the internet, but I'd find a manual and read through it, look at photos. I always say 'yes' to a job, learn the skill set, learn the equipment and then go forward."

Learning The Ropes

Two of Melbourne's premiere lighting companies provided a fertile training ground for Arosh to learn his trade. "I grew up at Phaseshift Productions and Resolution X," Arosh recalled. "I did work experience at Res X back when they were run out of a container. I worked for them until I was 23. I loved it so much I would unroll cables at Phaseshift just to get the experience of production and touring. I'd ask if it was OK to sit behind a console and just play with stuff."

With the love of production firmly entrenched, the inevitable gear acquisition soon followed. "Lighting was my first purchase," Arosh continued. "I bought eight second-hand Mac 250s and an LSC maXim desk. I had a station wagon and I'd do band gigs and community shows while I still worked as a lighting op for other people to grow my skills. I begged for my first clients, on the phone, to anyone. My first concert was at Moorabbin Town Hall, a community event. I said 'Please I'm a local, give me a go!' I had to ask people to lend me trailers because I was too young to hire a truck!"

From these humble beginnings, Arosh started to build a client base. "We grew Woohah from there. One of our clients started using us more and more, but I still worked for everyone else. We sub-hired to everyone else. Then, in 2008, we rented our first factory, and that's when it became serious. I quit working for other people. And some of those clients we've had from day one have stayed with us."

One Stop Philosophy

Despite casually joking about Woohah being an accident, Arosh has had a clear strategy for the business from the outset. "What I wanted to create was something different and unique, a one-stop-shop solution," enthused Arosh. "We do audio, video and lighting, and I saw that there is a medium-sized, medium-scale market, and no-one was doing all three in that space. Honestly, I almost regretted it because of the equipment cost. It means you invest in a good system, and then multiply it by three."

Arosh's perception fits with what has been a change emerging in the production industry over the last decade. "People want a one-stop-shop," he observed. "We have four pillars of this business, including a DJ business that I started as a hobby in high school. We now supply DJs for major events like The Logies."

Arosh sees Woohah's core income stream coming from corporate clients; "We're targeting the corporate market," he confirmed. "We offer custom solutions to distinguish ourselves from other AV companies. To that end, we do fabrication and custom creation." The corporate market doesn't end at sales conferences and awards, according to Arosh, who sees a flow-on effect to secondary markets. "People from the corporate market want the production they've seen at their events for their weddings. You get weddings now that people are spending \$50,000 on AV. There was a job up in Swan Hill recently that they turned a basketball stadium into a reception centre and were happy to pay for it."

Gearing Up

So how does a growing business like Woohah decide on which gear to invest in, especially when aiming to spend in three different disciplines? "The AV industry is small in Australia," Arosh explained. "Marketing has a big influence on what equipment becomes the industry standard. We've always gone with what the industry and market have dictated, simply because people know the equipment, know what's good and know what works. There's no point in buying the best brand in America if it's not known in Australia. As a smaller company, we not only need the work for it to go out, we also need the sub-hires."

In the lighting department, Woohah have chosen to focus on fixtures from both Clay Paky and Martin. "They're both amazing brands, and I can't fault them. We were among the first to buy Clay Paky A.leda K10s. We did Nickelodeon SlimeFest with them. They got covered in slime and still worked. In terms of Martin, we stock everything from MAC 700s to MAC 250s. Controlwise, we use MA Lighting GrandMa, and we also have a High End Systems Hog 1000." With Woohah's audio department heavily focussed on the DJ market as they first geared up, Arosh invested in that market's mainstays. "Audio wise, we have gone down the RCF path, even into the RCF line array, the HDL series," he said. "We carry a lot of Pioneer CDJ consoles. As the music scene changes from live to DJ, sub-hiring of DJ backline has become very strong. All the corporate AV companies come to us to hire extra DJ gear." At the mix position, Woohah place their trust in Allen and Heath, particularly the new Qu Series of digital boards. Shure wireless mics handle vocal inputs.

Let's Roll The Video

The third branch of production, video, has been Woohah's biggest area of growth. "We're moving from lighting heavy to video heavy," Arosh expanded. "In Victoria there's only two tiers of the video hire market; the big companies like TDC, Big Picture and Mediatec, and the guys that rent out cheap Chinese stuff. We're slotting into the middle. That's working really well for us. Video is a strength for us. It grew our business three-fold last year. Growing that fast has its consequences, so we're pulling it back a bit, getting systems in place and getting the guys trained in maintenance. More product acquisition is on the horizon, as the demand increases. We're expecting to double the business again this year."

This growth is all the more amazing when you

consider how recently Woohah entered the video market properly. "Video is only two years old in our world," confided Arosh. "I took 12 months out of my work life to travel to China and work out what worked for us in terms of a screen. We decided on a modular, three millimetre pitch LED product. It's amazing and everyone loves it, but it was a real learning curve. There's a real stigma around Chinese-made product and I didn't want the hassle of all that. The only way we could get what we wanted was by building it in China, but I didn't want the problems that came with it. So I got hands-on. I inspected the build throughout the process and made sure the components were what I wanted. I incorporated lots of ideas, and specified the rigging and ground support system. I made sure it had the ability to curve so it could be built into expo sets." Woohah is now the proud owner of 44 square metres of 50cm x 50cm modular LED panels.

Rounding out Woohah's video inventory is a large range of 60 and 70 inch flat panels, Barco ImagePROs for scaling and Roland V-800HD vision mixing. "The V-800HD is one of the simplest, easiest things to use in vision mixing," praised Arosh. "It's my Swiss Army knife. If the client throws three laptops and two cameras at me, you can plug them in and you're done."

Content is King

Along with such a video heavy inventory came the need to customise and even create content for their clients. "Once we bought the modular LED screens, people wanted to build strange shapes, and we needed to change content," Arosh elaborated. "We had just worked on Nickelodeon Slimefest with a content company called Avino Media. I said 'Hey guys, we'd love some exposure into this market, why don't we join together?' I've always got clients looking for content creation and 3D rendering." The partnership has become official and now Avino are under the Woohah umbrella. "We did the deal at the end of last year and publicly announced it this year. We're now able to provide our clients with a one stop video solution, and we're building a visualisation studio."

Got Gaff?

Another area of expansion for the ever-changing Woohah is consumable sales under the name Audio Visual House. "Coming from a church background, we have a lot of connections to churches and schools," Arosh expounded. "We asked ourselves how to stay in touch with these people. What they needed every few months was globes, gaffa tape, and other consumables. So we started stocking them. They'd call us up for smoke fluid or globes, and we stayed in touch. As soon as we started it up, we got a contract with the Melbourne Convention and Exhibition Centre. So now we sell huge amounts of AA batteries and boxes upon boxes of gaffa tape. So what we want to create now is a one-stop-shop that the other AV companies can come to and put in a monthly order for globes, tape, batteries and everything else they need. We're bulk buying and want to keep the prices at what they'd pay directly to the supplier."

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STUFF FOR THE BRAINY TYPES

SOMETIMES IT IS EASIER TO GET BLOOD FROM A STONE THAN TO GET THE BUDGET TO DO THINGS PROPERLY. SOME DAYS WE HAVE TO MAKE COMPROMISES, AND WE FIND OURSELVES DOING THINGS LIKE MONITORS FROM FRONT OF HOUSE, OR MIX FOH FROM SIDE OF STAGE. I WAS ONCE ASKED TO SOUND CHECK WITH A BAND THREE HOURS BEFORE THE PA HAD EVEN ARRIVED ON SITE. SO HERE ARE SOME QUICK TIPS ON HOW TO MAKE THE BEST OF A BAD SITUATION.

THE BEST OF TIMES, THE WORST OF TIMES

BY JIMMY DEN-ouden



MONITORS FROM OUT FRONT

This is not as bad as it sounds, and for many small events it's pretty standard.

- Take headphones, because even if you don't have a wedge you'll need to be able to figure out what you're sending into the ones in front of your musicians.
- Start by sorting out your monitor mixes. If the band can't hear themselves and each other properly, they can't play a song. If they can't play a song then you have nothing to mix. Simple. Do monitors first, just make sure you have enough gain on your channels to get suitable levels out front.
- You'll want to use pre-fade auxiliaries for monitor sends so changing the FOH mix doesn't mess with the people on stage. If your sends are pre-EQ, choose mics that work well with the wedges.
- If your sends are post EQ, Y-split your lead vocal (or patch it to two inputs on a digital desk) so you can have independent channel EQ for FOH and monitors.
- Keep it simple – work with your act to get basic but solid monitors up and running well. Better something simple that works than a failure-prone extravagance.
- Use post-fade sends for backing tracks so if you fade out at FOH the monitors track the change.



FOH FROM SIDE OF STAGE

What to do when your mix position lands "behind" the PA

- Again, get monitors sorted out first. Once the band is happy you'll be less distracted and better equipped to sort out the room mix. You're next to the stage – if the musos really need something, trust me you'll probably know about it.
- Don't rely exclusively on headphones, especially in small rooms. You really need to get out in front of the PA and listen to how it combines with what's naturally coming off stage. Go for lots of walks, it's healthy for you and your mix.
- Go gently with effects. You'll hear a lot of low and low-mid information from behind the stacks, but you can't really rely on this to tell you how present your effects are, especially on vocals! Sort out suitable levels during sound check so pushing the return fader to unity is about right.
- Always get back to the console by the end of the song so you can mute the effects return during banter.
- Consider using an iPad or tablet remote mixing device if it's an option.



Finally, remember that while these situations suck a bit, there are two ways to approach them. You can turn up and complain about the situation, or just get on with it and do the best job you can. Have a guess which one leads to more success for the act, more money and better audio conditions. Lastly, remember that even if you're not willing to accept these limitations on a gig, somebody else out there probably is. We all like to have haughty standards, but are they really worth hungering over?

CX-WORD

MARCH EDITION

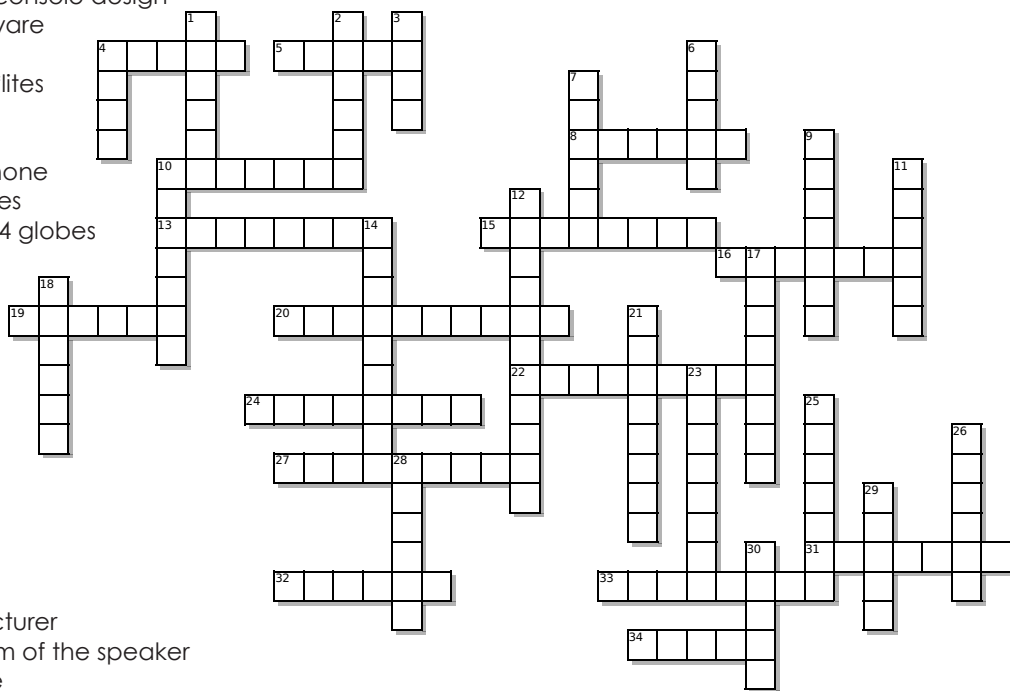
CX-WORD

Send feedback & input to julius@juliusmedia.com

Answers - page 72

ACROSS

- 4 The distance of a beam
- 5 Name of a three phase plug
- 8 The Jim who is famous for console design
- 10 Makers of roadcase hardware
- 13 A common pattern
- 15 Control desk for older Vari*lites
- 16 Lee 113
- 19 The old word for a lamp
- 20 Another name for microphone
- 22 The Patrick who lights Stones
- 24 Maker of less reliable Par 64 globes in USA
- 27 Measured complex ratio
- 31 Name of a town and a publisher
- 32 Type of fuel used in trucks
- 33 An Aussie website that promises high def audio
- 34 The surname of she who writes Roadskills



DOWN

- 1 She is on The Hump
- 2 New York lighting manufacturer
- 3 Goes near the engine room of the speaker
- 4 Obscure name for a lightie
- 6 The measure of a beam width
- 7 The engine room of a speaker
- 9 Mixing console from Canada, 1980's
- 10 19 pin lx plug
- 11 Esteemed audio cable
- 12 Australia's biggest audio manufacturer is here
- 14 Place nearest the pit

- 17 Firm that makes an XLR
- 18 Old name for a loader
- 21 A kind of pink gel
- 23 Boss of Rode
- 25 Place nearest the cyk
- 26 Big bang
- 28 USA maker of horn loaded loudspeakers
- 29 Another name for multicore
- 30 He is on The Hump

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PRINCIPLES OF BUSINESS

WHAT'S YOUR CODE?

BIZ TALK

with Julius Grafton



HAVING RUN THE 'BAN THE COWBOYS' SEMINAR, SPEAKING TO THE TOPIC OF 'ETHICAL BUSINESS', I WENT BACK TO SEE THE FAIR TRADE POLICY HERE AT CX NETWORK. FUNNY BUT I COULDN'T FIND IT.

At the same time I was locked in a dispute with one of the big venues about next year's Roadshow. The venue had agreed on our date next February but said their system could not contract more than 12 months out. With their email clearly stating we have the venue 'booked', we locked in the other four cities.

Planning a Roadshow in the correct sequence is every part as hard as planning any tour. With a track record and prior experience I knew our schedule was fine, until the venue in question FAILED to produce a contract at the 12 month out point.

Then came these weasel words: "For your 2016 event, as your event dates are xx February 2016 – we are now able to officially challenge for the space to move forward to contract (we have an international client with a pencil hold on those dates)."

They had gazumped us, in favour of a larger event. Much argy, and a lot of bargy, followed and we were able to switch the actual space for something equally as suitable on the correct date.

But the principle bothered me. They operate on a different level.

What are sound business principles?

In no particular order, this is what we work to, here at CX Network:

- Deliver what you promise. Don't degrade it.
- Do it when you say it will be done. Not later.
- Charge a fair price and stick to it.
- Do what you can to help the client, every time.
- Try to exceed expectations.
- Be fair. Be firm. Be true to yourself.
- Admit your stuffups quickly. Be transparent.
- Refund overpayments promptly
- Pay suppliers on time
- Be open, learn to say no and explain why.

I'm sure there are more of these, but you get the general idea. We then have a sub-set of rules about journalism and fact checking that generally follow those used by large public media conglomerates.

In the case of the oily venue example above, in reviewing the correspondence files our finance director discovered the quote for next year's Roadshow is 40% less than we are paying this year. Last year we paid a similar sum, and the difference added up to over ten grand.

So we have demanded they refund us what we see as an overcharge. They in return have weaselled on about 'different rate scales', to which I say a duck is a duck and an apple is an apple.

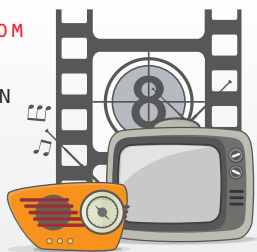
That particular battle will take some time to wind through a court, and the venue can be very sure I will prosecute my case hard. Because of the principle.

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Australian Commercial & Entertainment Technologies Association

As this issue of CX finds its way into reader's hands more than 4,000 students are commencing their degree studies at a number of tertiary music and entertainment industry related courses across the country. At the same time many more younger students are in their first weeks of Certificate courses at schools and TAFEs.

While some of these students are studying to play an instrument or sing to a professional standard many are enrolled in audio production courses, undertaking staging and production studies or planning a career in event or venue management. The reality is that there are more prospective industry members in the form of students studying for roles in our industry each year than we see actual industry participants at any one of Entech, SMPTE or Integrate shows.

So how is it the industry perceives there is a skills shortage?

In part it is a question of the skills taught and the experience offered by many training providers. The traditional course offer has been based around audio production, in essence the skills required to become a studio or broadcast engineer or more recently to work in a post-production facility. These students are often highly capable of working with ProTools and are creative but lack the true engineering background that many of our existing and aging industry members have and, that the industry has a continued need for.

Traditional sources for these skills have long since dried up. The ABC, the PMG (Telstra predecessor) and others used to be a good source of engineering skills for our industry. In the current environment we don't seem able to attract sufficient numbers of students or workers from the IT world where much of today's engineering is taught and who are capable of talking about IP addresses and DNS servers, skills that are relevant in these days of audio over internet and wireless audio, as they would be referring to decibels and sound pressure levels.

BY FRANK HINTON

Industry skills – there's no shortage of people so why the shortage of skills?

The other 'missing' skills are what might be referred to as the 'soft' skills. The ability to communicate, to work in teams and to collaborate. All essential in our business. They are also the skills that are key to customer service and sales - again essential elements in conducting our business.

Throw in the often unsocial hours that make up the week of many entertainment industry workers and often less than comfortable working environments and you have some very real barriers.

So what is to be done?

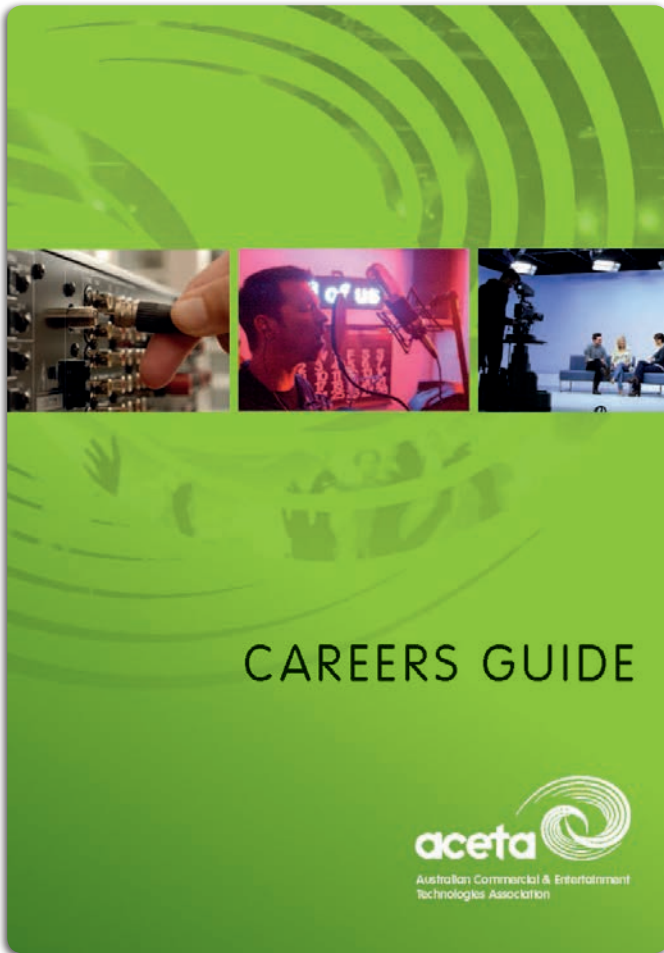
ACETA's action has several parts:

- Industry promotion: An ACETA Careers Guide e-brochure outlines the opportunities in the industry, what skills and training are required for each, and how to go about finding a dream job in the industry. There is also a list of institutions offering relevant courses. This shows parents, careers advisors and students the breadth of opportunities in our industry.
- Consultation with the education sector: Working with the TAFE and higher education sector ACETA is helping shape the curriculum so it is practical for today's world.
- Industry internships and work placements: Commercial and entertainment technology companies are being asked to provide a work placement or internship for students or new grads, so they can get real world experience.
- Implementation of an industry accreditation scheme: ACETA is reviewing the current industry professional accreditation to identify whether these can be re-purposed for ACETA or whether a new program needs to be developed. This is an accreditation scheme for individuals.
- Recognition and reward for those who participate in training: ACETA will then work with industry to recognise those qualifications and reward those who hold them.
- Training and job register provider: ACETA will then develop ACETA-accredited training and provide a job register for those already in the industry as well as those who wish to enter it.

How can you help?

ACETA will again be sending out the Careers Guide by email to careers advisors in schools across the country but we need the support of industry. Let's get this guide out there amongst all the key people and you can help us do that:

- Take a moment to talk to students attending the upcoming trade shows about working in the industry and direct them to our website to download the guide
- Would you be willing to join a curriculum working group as an industry consultant? It's not as dry as it may seem and doesn't take a lot of time. What they need is your expertise.
- Would you take on a student or two for their industry placement (usually about 60 hours work and where they



will get a sense of the real world) Email us and we'll add your name to a list for the tertiary colleges.

- If you have kids in school, please make sure the careers advisors at their schools get the Careers Guide
- Email the link to the Careers Guide to all our staff and colleagues. If they have kids at high school ask them to pass it onto the careers advisor.
- If you go to a high school to do a job, print off a copy and take it with you and ask the school secretary to pass it on to the careers advisor.

If we can get the money, we'll print and mail it to high schools, but it's not cheap. We'll need to charge \$1000 for a full page (no smaller ads) and we'll need at least ten advertisers. If you know anyone who would be interested, please let us know.

ACETA is your industry body, working to protect and further the interest of everyone who works in our profession. We have a new website at www.aceta.org.au, can be found on Facebook at www.facebook.com/AusCETA or info@aceta.org.au



Frank Hinton
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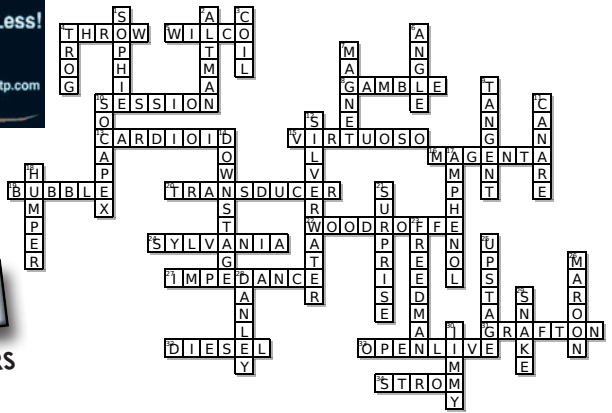
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Welcoming 2015, Hanoi style

A NEW YEAR'S EVE TRAVELLER'S TALE



'HANOI ROCKS,
SCOOTERS ROLL,
PEDESTRIANS
JUST TRY TO
CROSS THE ROAD'

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REGULAR READERS OF THIS COLUMN (WHO THEY, DUNK? ED) MAY REMEMBER ME WRITING A FEW YEARS AGO ABOUT HOW I'D NEVER BEEN TO VIETNAM, DESPITE THE OFFER OF AN ALL-EXPENSES PAID TRIP FROM THE GOVERNMENT BACK IN THE EARLY 70s. AS LUCK WOULD HAVE IT I DIDN'T WIN THE NATIONAL SERVICE VIETLOTTO – THE ONE LOTTERY I'VE BEEN VERY HAPPY NOT TO WIN - BUT SINCE THEN I'VE OFTEN WONDERED WHAT THE COUNTRY WAS LIKE.

SO, WORKING ON THE BASIS OF 'IF NOT NOW, THEN WHEN?' MY GF AND I BOOKED SOME PLANE TICKETS. WE PARKED THE DOG WITH ITS BEST FRIEND FOR A FEW WEEKS, AND THEN STRAIGHT AFTER THE CHRISTMAS FESTIVITIES WE HEADED OFF INTO THE SUNSET, HANOI BOUND, FOR OUR FIRST TASTE OF THE MYSTERIOUS EAST.

The old quarter of Hanoi was exactly what I imagined a busy Asian city to be like. Tiny streets crowded with people, day and night markets, the delicious smells of street food cooking on every corner, and an endless parade of motor scooters zapping around, seemingly with a total disregard for traffic rules, should there happen to be any!

Officially they drive on the right hand side of the road in Vietnam, but hey, if that's a trifle inconvenient, then feel free to drive on the other side; if you're lucky, people will get out of your way. After three weeks I had yet to see any scooter driver give even the slightest glance at the traffic bearing down on them when they entered from a side street. Small roads, main roads, even freeways, little 100 cc Vespas and Hondas would dart into the flow



of traffic from both directions without either looking or stopping!

All around the city there are pedestrian crossing stripes painted on the road. Frankly I don't know why they waste the paint, because no-one, I repeat no-one ever slows down or stops for you at all.

In a word, the traffic is total chaos. Yet it seems to work because all the locals know the rules of the game called 'no-see chicken' i.e, if I don't see you then you're not there!

For pedestrians the only way to cross the road is to play 'no-see chicken' yourself. Put your head down, step off the kerb and walk slowly to the other side. Do not look at the traffic, otherwise you've lost the game. If you don't look, then the traffic will be forced to weave around you, and assuming you make it to the other side then you've won. Personally we always tried to grab hold of a couple of locals as a human shield for extra safety!

But I digress. After a couple of days an email arrived from Colin back at ARX, suggesting that I catch up with Stage Professional, our distributors in Vietnam, whose offices were luckily in Hanoi. So I made contact, and

α DUNCAN FRY... CONTINUED

arranged for their product manager Hung to pick me up and go for a look around.

It was New Year's Eve, and my gf was getting her hair done for the occasion, so I had about five or six hours to spare!

Hung met me in the hotel lobby at the agreed time, and said he had parked around the corner. I wondered to myself where he might have parked his car, since our little street was permanently gridlocked and appeared to have no space to park whatsoever. However, when we walked around the corner, I saw that Hung had neglected to mention that it wasn't a car he had parked but his motor scooter, and the plan was for me to ride on the back through the chaotic city traffic! Still, always up for some excitement, I hopped on, grabbed the seat handles and off we went, whizzing through the streets.

To tell the truth, though, it was an excellent way to get around the city, with an ease and speed that a car could only dream of.

New Year's Eve is a major celebration in Vietnam, and Stage Pro were doing the sound for five concert systems around the large lake at the centre of Hanoi.

The largest one was in the square outside the Opera House, near the newer part of the city. Three large circular video screens surrounded by moving lights formed the centrepiece of the stage, which would have been easily thirty or forty metres across, and twenty to thirty deep. Setting it up had already taken the best part of a week, and there was still a lot more to do before showtime.

Audio for the concert was being handled by a DiGiCo SD8 desk out front, sixteen or more d&b 'J box' cabinets hanging each side of the stage, as well as a whole warehouseful of subs underneath. There was obviously going to be some serious bottom end happening that night.

Since by now it was getting close to lunchtime, we wandered over to a café and had some delicious Phở (spicy beef and noodle soup, a staple of the Vietnamese diet) for lunch. Then it was back on the scooter and off to check out a couple of the other shows they were setting up.

When we returned to the hotel Hung told me if I wanted to go to the Opera House concert he would leave me an Access All Areas VIP pass on his way home so we could come down and watch the show in comfort. Sounded good so I said 'yes please'.

At about 8.30pm we set off to walk the couple of kilometres or so to the Opera House. The city streets were starting to become crowded, and as we approached I could see that there was already a massive crowd filling the whole Town Square in front of the Opera House, and backing up the main street leading down to it.

It's one thing to have a VIP pass; it's quite a different thing to be able to get close enough to use it! Slowly we wriggled, squeezed and pushed our way through the crowded square. A risky business since as far as I could see we were the only Western faces there. Not a good look, really, as all the crowd could see were two non-Asians pushing their way to the front. Luckily my gf



has dazzling blonde hair – something the locals don't see very often – and the sea of jet-black hair parted miraculously as she walked through, waving the pass above her head.

The show was being sponsored by Yamaha motorbikes and Clear Men anti-dandruff shampoo. Seeing our pass as we got closer, the team of Yamaha girls rubber stamped our hands, and tied ribbons around our wrists, then took selfies of themselves with us!

We finally made it to the VIP area in front of the mixing position just as the official section of the show, with choirs, traditional dancers and awards, was finishing. No wonder the stage was so big, since there were at least a hundred people or more up there singing and dancing and waving to the crowd. The stage went dark as they paraded off, and then the popular music section of the show started in earnest.

But first, we had a word from the sponsor. With a deafening roar a Yamaha commercial suddenly filled all three video screens, the lights scanned the crowd and the music level went up to a point where the legs of my jeans were flapping in time with the kick drum!

Suddenly two motorbikes and riders zoomed up from the base of the stage and started doing figure-of-eight manoeuvres on stage in time with the commercial's backing track.

It was a super slick production, very loud and fat sounding, but not painfully so.

When the commercial finished, the show got well and truly underway, with a steady parade of local Vietnamese boy bands, girl groups, solo artists, DJ mixers, more motorbikes and more commercials, all loudified™*** to absolute maximum SPL! Something for everyone. As the countdown to midnight began, the crowd went crazy. When it hit 12 o'clock the air was full of confetti, streamers, crazy lights and screaming punters.

We started to leave as the barriers came down to form a giant mosh pit/dance floor and the DJ party got under way.

It had truly been a New Year's Eve with a difference. Totally unable to understand a single word, we nevertheless had a great time watching a well-rehearsed, well-organised giant production. I gave it 10 out of 10 to everyone involved with it.



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