



MONTHLY TECH NEWS

CX122 MAR 2017
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+ Cirque du Soleil's Kooza

Big audio
in the big top

+ **QSC's Q-SYS**
Death of hardware?

+ **Daze of our lives**
Headed back in time

> NEWS:

- BBQ Light Rig
- Barco to sell High End
- Where were the women?
- RIP Valere Huart-Gyon

> ROADSKILLS:

- Toyota Country Music Festival
- Passenger
- Bruce Springsteen

> REGULARS:

- Listen Here! Wall of sound
- Biz Talk: Just like a jail
- The Corporate Event Client
- Duncan Fry

> GEARBOX:

- Adamson Point 8 and 115 Sub
- SSL Nucleus 2
- Soundcraft Ui24-R



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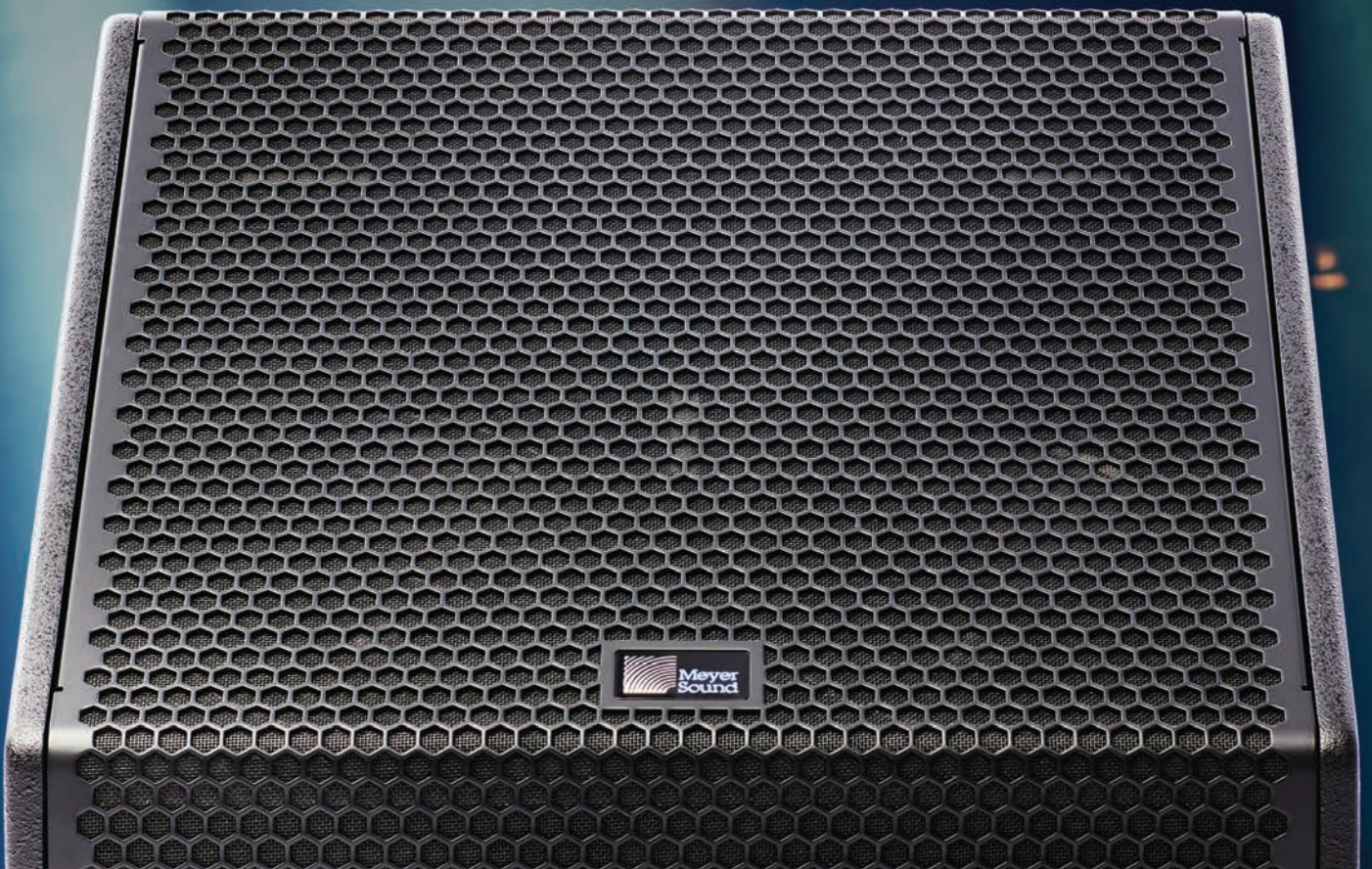


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Ayrton's Valère Huart-Gyors dies



ust prior to rolling out an Ayrton showcase in Australia, sales leader Valère Huart-Gyors died suddenly aged just 37. His heart stopped.

"Now, sadly, Valère will no longer get angry at how societies have broken creativity, he will no longer organise parties with his

friends, death has stolen half of his life. He was infinitely kind to the whole team, whose dismay is matched only by the sadness of having lost a friend.", the firm said.

"We are already missing him."



WOMEN MISSING FROM ENTECH

February saw a record 2,536 attend the ENTECH Roadshow, of which just 4.5% were female. This spurred some commentary as to whether it represents female participation in entertainment technical roles – or whether ENTECH isn't considered welcoming.

"It is a very obvious trend in the technical production community", said Kat Grandquist, who is studying tech production at WAAPA.

"I don't think the idea of participating in creative technical trades is accessible to most women. They are encouraged to be singers or actors but don't get shown other creative opportunity's available in the industry."

"I see loads of women start out in technical fields and then many go off to other fields, often because they get sick of being surrounded by the blokey attitude", says Bronwyn Pringle from Melbourne.

"It's even there in the language we use. 'Old Boys' and 'Soundgirls'. The bulk of women in technical areas are young. It's also a problem across the world. I went to the trade show alongside the Live Design Broadway Masterclass in New York and the situation was exactly the same."

Barco flag sale of High End Systems to ETC

In a strange announcement, Barco and ETC announced that they are in the midst of serious discussions wherein ETC would acquire High End Systems, Barco's lighting firm.

Barco say this is in line with its strategy to sharpen the focus on its core activities.

Fred Foster, ETC CEO said: "ETC has been executing a strategy to grow our company. Our plan is to continue High End operations from their current location in Austin. High End products like the Sola family of LED automated fixtures, Wholehog consoles, and Axon media servers are innovative tools for the live-events industry. Our intention is to make the investments needed in order to restore these products and the High End brand to market-leader status."

While unusual, announcements like this usually come true, so it looks like Barco will now exit stage lighting.

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BBO Lighting Rig

How Oceania recovered - and the gig went on



Oceania had the worst of bad fortune when a semi loaded with a complete light rig burst into flames on the Matamata side of the Kaimai Range early February.

The rig was headed to Tauranga Domain for the One Love Festival which kicked off on Saturday 4 February at midday. At around 9.20am on Friday the driver noticed smoke in his rear view mirror and found a safe place to pull over. As soon as he did, fire took hold of the trailer.

He unhooked the tractor and drove it to a safe spot, and by the time the fire brigade arrived the load was well alight. They put



three tanker loads of water into it, and then when the fire crew started to pull walls of cases down, the next row would sometimes burst into flame.

By this time the Oceania crew chief had legged the hour and a half drive down there, hoping to salvage something, but it was clear the system was a write off.

Oceania Lighting boss Simon Garrett spoke to One Love Festival lighting designer Jason Steele about alternatives, and started the frantic prep of an entire system through Friday.

Fortunately the rig for the Halburg Awards was almost prepped with fixture addressed, and as that show went up the following Tuesday, Simon reasoned that much of it could be used at One Love if it was all kept together. With approval from Jason Steele, the team feverishly rebuilt a five truss festival rig.

"I know Jason pretty well – and a lot of it was common gear", Simon Garrett told CX NZ.

"We'd lost 52 Pointe, 20 motors from a 5 truss gig with uprights, 3 consoles, (MA2lite, Hog4, RH4 and a hog 4 wing), AVO dimmers, HPCs, Media rack, Arc washes, Sun strips and the kitchen roadcase. I miss that the most!"

"We had 2 trucks out by 5pm, legged it down there, got food on the road and finished setup by 5am with the client happy and a bunch of tired guys."

The system came back Sunday night, and was rotated for loads in to the Halberg Awards.



**"I KNOW JASON
PRETTY WELL – AND
A LOT OF IT WAS
COMMON GEAR",
SIMON GARRETT TOLD CX NZ.**

"It's a credit to my team, I'm really proud of them, hey? They just got on with it", concluded Simon.

A collapsed wheel bearing on the rear of the trailer is thought to be the cause of the fire.



ENTECH rolls across

Australia Roadshow set to grow



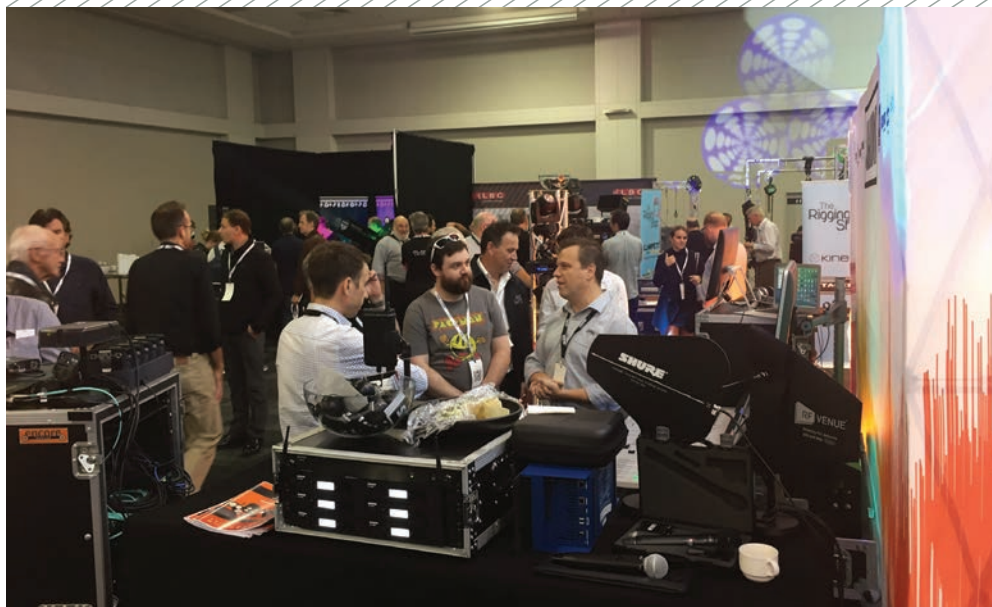
With record attendance and visitors clamoring for more gear, ENTECH is set for expansion in 2018 as the show returns to Darling Harbour for one day. Maintaining the highly popular one day format, ENTECH will again tour Australia but this time a few weeks later, running into March.

New this February, the big prize draw was highly popular, with five suppliers each offering a major prize worth up to \$2,750 in each city. Prizes were drawn at 1pm, 3pm and 5pm and winners took their equipment direct from the show.

Also new was a cable rolling competition, which proved that something prosaic could still be highly competitive.

But the focus of ENTECH is trade networking, and that's what 30 exhibitors did with the 2,500 trade that attended across Australia. An exit poll by CX saw over 600 responses, firmly establishing that the format is correct and requesting more equipment on larger stands.

The 2018 tour will see the show at the new ICC in Darling Harbour, where ENTECH was first staged in 1994. Other popular venues from 2017 are retained, including Crown Burswood and the RICC in Brisbane. The show will move to the Adelaide Entertainment Centre Theatre for the first time, and return to Melbourne Park Function Centre.



180 cases in at 6am, out at 9pm



Reina Kakimi from Ushio



Richard Whitehouse wins a prize in Sydney

AKG C636 AND P5i

The new AKG C636 is the sound of the studio redesigned for the stage. Featuring a proprietary double shock suspension system for rejection of handling noise, the multilayer pop noise rejection system eliminates plosives, while the polar cardioid pattern eliminates feedback. Made with hand-selected components and manually tuned, the new C636 retains the spirit of the classic AKG C535 condenser microphone, while being re-engineered to meet the demands of today's vocal performers. The AKG P5i has a supercardioid polar pattern that provides high gain before feedback and suppresses ambient noise. The P5i also features a heavy-duty metal body and an integrated windscreen that eliminates pop and wind noise. The P5i is designed to automatically configure with the HARMAN Connected PA ecosystem, providing instant recall of presets.



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

EVENT LIGHTING STAGING

Event Lighting is now offering TUV rated staging modules, stairs and railings with adjustable or fixed legs. Featuring a specialised anti-slip, hexagonal textured surface, with aluminium frame and 18mm plywood deck, adjustable coffin latches lock the modules into place and over-centre clamps lock in the legs. Swivel feet offer fine adjustment to any uneven surfaces or use the fixed leg system on even ground for a fast and easy build. Black velvet skirting is available at three different heights to provide a professional aesthetic, with velcro skirt clips that attach to the edge of the modules.

Australian Distributor:
Event Lighting
www.event-lighting.com.au
or (02) 9897 3077



EXTRON DTP T SW4 HD 4K

Extron's DTP T SW4 HD 4K is a four-input switcher for sending HDMI and control signals over shielded CATx cable up to 100 metres to DTP-enabled products. It supports computer and video resolutions up to 4K. This HDCP-compliant switcher includes many integrator-friendly features, such as auto-input switching, selectable HDCP authorization, and HDBaseT compatibility. Convenient control options include front panel control, RS-232, and contact closure with tally output. It also supports simultaneous transmission of bidirectional RS-232 and IR signals for AV device control.

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



GLP X4 ATOM

The GLP X4 Atom is fitted with a 30W high output quad colour OSRAM LED source that GLP use across the X4 range, giving it a bright, full spectrum output for its compact size. With a 9 to 1 zoom ratio that goes from a wide 34° wash down to a tight 3.5° beam, the X4 Atom can be quickly assembled in pairs, quads, lines and grids of fixtures in any configuration required while still keeping individual control of each head. The X4 Atom is IP65 rated, allowing it to be used all year round, indoors or out.

Australian Distributor: TLC Global
www.tlcglobal.com.au or (07) 5539 2142



QSC Q-SYS CORE 510i

09

The Q-SYS Core 510i processor is an audio, video and control processing system that leverages Intel CPUs and motherboards as well as a dedicated, Linux realtime operating system developed by QSC to provide class-leading capabilities for AV systems of any scale. The Q-SYS Core 510i processor offers the most flexible audio I/O of any Core in the Q-SYS Platform, perfect for applications that require a diversity of analogue, digital and networked audio



connectivity. It features eight onboard I/O card slots that can be populated with any combination of Q-SYS Type-II I/O card allowing diverse connectivity options.

Australian Distributor: Technical Audio Group
www.tag.com.au or (02) 9519 0900

SHOWPRO LED PAR QUAD 12QX IP65

10

The ShowPro LED PAR QUAD 12QX IP65 is an outdoor-rated LED wash light, featuring 12 x 10W RGBW LEDs in a compact weather-proof package. It has selectable PWM frequencies for flicker-free output, a double mounting bracket that allows the fixture to be floor-mounted, four selectable dimming curve modes (off, fast, medium, slow), patented structural design delivering passive cooling, and silent operation suitable for broadcast environments. Its alloy body also houses a high contrast OLED menu display, with password protected menu lock.



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

SOUNDCRAFT UI24R

11

The Ui24R is a complete digital mixing and multitrack recording system that delivers flexible I/O and wireless control. The system can be controlled by up to 10 devices via Ethernet or built-in dual-band Wi-Fi. The Ui24R provides 24 input channels, including 10 combo/XLR, 10 XLR, two line level, and two digital mix channels. Also on-board are Lexicon reverbs, choruses, delays, dbx compression, dbx AFS2 automatic feedback suppression, and two channels of DigiTech guitar and amp modelling. The Ui24R is part of the new HARMAN Connected PA ecosystem, whose components self-identify, and are controlled via one app. Preset recall and setup wizards help customers to quickly optimise volume, configuration settings and sound quality.



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

SHURE INTELLIMIX P300, ANIUSB-MATRIX, AND ANI22

12

Shure have introduced the IntelliMix P300 Audio Conferencing Processor, a new digital signal processor created specifically for conferencing applications. The P300 offers Shure IntelliMix DSP algorithms, a variety of connectivity options, and seamless operation with Shure Microflex Advance and Microflex Wireless microphone solutions. The new processor connects up to eight Dante microphone channels to a room video system, USB soft codec, or mobile device. Each channel supports multiple IntelliMix DSP features, including AEC, Noise Reduction, and Automatic Gain Control, plus automatic mixing. Shure has also released the ANIUSB-MATRIX and ANI22. The ANIUSB-

MATRIX provides flexible routing of up to four Dante audio inputs and one analogue input to a room video conferencing system or a soft codec. The ANIUSB-MATRIX is a product for videoconferencing where a premium microphone solution is desired, but the AEC of another hardware or software codec will be used.

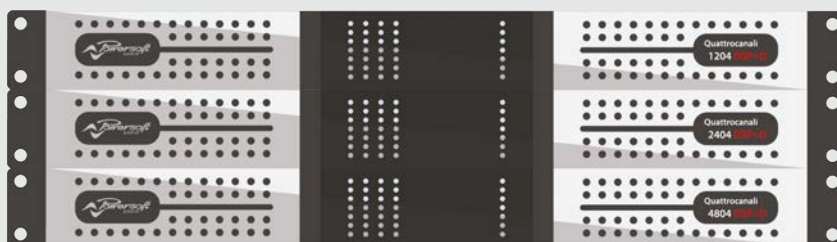
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JBL AWC62

05

The JBL AWC62 is an all-weather 2-way coaxial loudspeaker. With an ultra-compact, weather-resistant design, the AWC62 incorporates a coaxial driver with the smallest possible speaker profile. The AWC62 offers consistent 110° coverage with high output in a cabinet that measures just 10.2 x 10.2 x 10.1 inches. The AWC62 is IP56 rated to deliver wide bandwidth, intelligible sound even in the harshest environments. Made long-term outdoor use, a rugged fiberglass reinforced ABS cabinet and highly treated grille with multi-layer weather backing provide excellent protection from dust, wind and heavy rain.

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



LUMINEX LUMISPLIT

06

LumiSplit is a new family of powerful and robust Luminex DMX/RDM splitters, coming in a 2.10 rack and 1.6 rack & truss version. The new LumiSplit boosters are discoverable and configurable from any RDM controller, and users can now easily merge and backup their DMX sources directly from the splitter. The RDM filter per zone (A/B) or per port prevents lighting fixtures from being flooded by undesired RDM packets. All Luminex devices come in a robust housing with galvanic and optical isolation per outlet to make them ideal for touring and live events.



Australian Distributor: Production Audio Video Technology
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AMPFIBIAN X1 WEATHERPROOF CONNECTION PROTECTOR

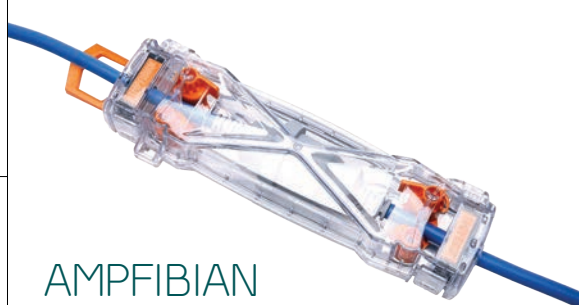
Is this the end of frustrating electrical disconnections? You're used to having a throng of extension cords spread around the place at shows and events. While most people are careful even the well-intentioned can trip over a cord or "borrow" it for something else, and bring your production to a screeching halt.

Put an end to this frustration with the new Ampfibian X1 weatherproof connection protector. This tough little unit clamps around the cord connection and locks it together with a water-tight seal. The built-in spring-loaded cleats grip the cords - not the plugs - so not matter how hard you pull, you stay connected.

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Australian Distributor: Ampfibian
www.ampfibian.com.au
or 1800 342-426



POWERSOFT QUATTROCANALI SERIES

08

Powersoft's new four-channel amplifier platform includes three models: the Quattrocanali 4804 (1200 W per channel @ 8ohms), the Quattrocanali 2404 (600 W per channel @ 8ohms) and the Quattrocanali 1204 (300 W per channel @ 8 ohms). They feature Powersoft's

switch-mode power supply with power factor correction, smart rail management and bridgeable switch mode fixed frequency Class D output circuit topology. All are capable of driving 70V/100V distributed lines, selectable per channel. DSP+D versions of the Quattrocanali feature full compatibility with Ottocanali and X Series amplifier platforms, offering control via Armonia, and four Dante input channels.

Australian Distributor:
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SHOW
TECHNOLOGY

Cirque du Soleil's Kooza

Audio ahead
of its time



Cirque du Soleil's Kooza has been on the road for over a decade, and is spending a good chunk of 2016 and 2017 in the southern hemisphere, touring Australia before heading to Singapore and beyond. A completely self-sufficient village, the whole production tours with everything it needs, including power generation, along for the ride. Jason Allen visited in Melbourne to check out the audio...

The Clowns (Photo- Matt Beard Costumes- Marie-Chantale Vaillancourt ©2012 Cirque du Soleil)



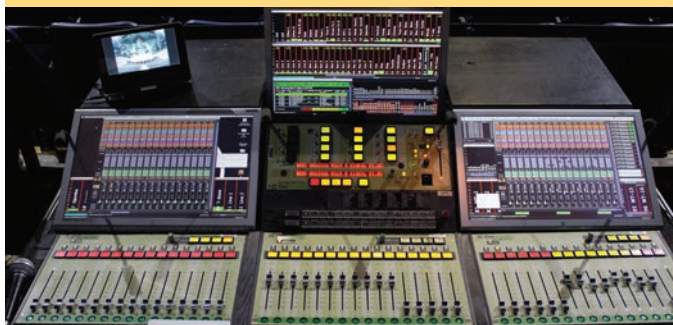
Kooza is designed to tour in the most efficient way possible. With most production gear installed into shipping containers, at the end of a run they simply shut the door, disconnect some external patch cables, and load it onto a truck. It's this approach that makes the audio technology a literal time capsule. Designed over a decade ago, the audio system was totally cutting edge in its day, and in many ways still is. What particularly caught my attention was the FOH mixing desk, which isn't a desk at all.

The LCS CueConsole is a modular control system for LCS's Matrix3 LX-300 audio DSP and I/O system. Originally released back in 2001, the system is capable of distributed I/O, mixing, processing, and playback, all with integrated control from multiple units, connected via a network. Amazingly, this was all possible 16 years ago, when Yamaha's then brand-new PM1D was the only thing on the market even vaguely comparable, and even that couldn't do half the things that LCS's system can. LCS was acquired by Meyer Sound back in 2005, with most of the staff staying on to keep contributing to development of their products. What was the LCS Matrix3 became the backbone for Meyer Sound's D-Mi-tri digital audio platform, which has added even more features as it's evolved. Sadly, the CueConsole has recently been discontinued.



Swan Song

1. CueConsole at FOH
2. Kooza's Head of Sound, Antonio Trilla Benedito



CueConsole allowed you to build show control and editing from four separate modules; Transporter, Faders, Meters+, and Editor. Kooza's FOH control position runs 3 Fader units with 16 faders each, and

one Transporter unit for cue control. With the CueControl software running on a Mac Mini with a Mac Pro as back-up, three LCD screens give the operator an overview that looks almost exactly like a modern touchscreen-based digital mixing platform, but with mouse-based editing. The Macs and the CueConsole components all connect via Cat5 to a switch, which sends control messages back to the six Matrix3 processors housed in 'The Dog House', the shipping container at rear of stage is home to all audio processing, monitor land, and the radio systems.

With each of the 93 regularly recalled cues in Kooza, the layout of the Fader banks can change completely. "CueConsole is all about flexibility," said Kooza's Head of Audio, Toni Trilla. "You can put anything on any fader bank, and they can do everything; inputs, outputs, VCAs. If I were to lose one, I could easily move to another. So, when you're setting up a show like this, your workflow is a lot of programming, but you can really do whatever you want. Once we're up and running, we do the same show every day, so you don't go into editing the channel processing that much, so we don't need a really big console at FOH." With this compact set-up, Toni easily handles all of the inputs from the eight piece live band, more than 32 inputs from synth and computer line sources, and 16 channels of effects play back from the Wild Tracks system.

Get Wild

The LCS Wild Tracks playback system is a hard disk unit capable of 24 channels of multitrack, and is also housed in 'The Dog House' with the rest of the processing. The files stored on Wild Tracks and the cues programmed into it can appear at FOH on the CueConsole's screens, and the output channels are mapped to the mixer. In cues with multiple files playing back at once, it's easy to alter levels and panning on the fly, an impossibility if you were running effects mixed-down to stereo.

With 48 loudspeakers throughout Le Grand Chapiteau, most of which are on their own dedicated bus, Kooza takes full advantage of the Matrix3's Space Map programmable surround and panning system. Built into cues and fully accessible from CueConsole, Space Map provides a graphic and time-based environment in which to move audio at will across outputs. With the loudspeakers and bussing rendered visually on-screen, a source's path through them can be drawn, allowing for the creation of wild and dramatic surround field effects. During the show, Wild Track's outputs zoom around the tent in sync with performers as they spin in hoops, or race around the stage.

Wild Tracks view on CueConsole

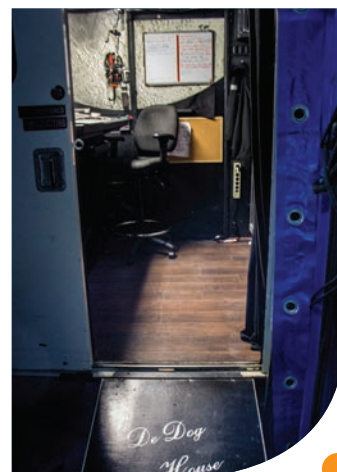


•• Old School Cool

The Matrix3 and CueConsole combination offered show editing and recall flexibility that's still almost unmatched today. Kooza has some 460 cues in its memory, some of which are for set-up and tuning, some are variations of the show according to performer changes, and some are to compensate for humidity. Each cue is built of sub-cues, which not only set levels, pans and processing, but also I/O structure and Wild Tracks playback. All of it is accessible and editable with a text editor, meaning an operator can easily change an input or output gain by 2dB globally across the system, or just for one cue. "You can even set a 'Wait' time and 'Fade' time per cue for any parameter," added Toni. "We've used that to do a Space Map-type effect just with bussing, sending delay and reverb to go to the surrounds with programmed fades and pan."

The audio design of Kooza only rarely shows its age. Matrix3 doesn't run effects, so it's all outboard at FOH via two TC Electronics M-One XLs, one TC Electronics FireworX, and a TC ICON controlling a TC System 6000, all responding to programme change messages from CueConsole. At monitor land, the band and performers mix is handled by the rarely seen non-recallable pre-amp version of the Yamaha PM5D, on which gains are set manually via analogue pots. A venerable Yamaha DM1000 sits in 'The Dog House' rack as a sub-mixer for the electronic drum kit's hardware and software outputs, while a Yamaha 01V sits at FOH as an emergency mixer for evacuation announcements, and to take a stereo out from the monitor desk in the unlikely event of a system crash.

1. PM5D on Monitors inside 'The Dog House'
2. Matrix3s, Wild Tracks, Radios, and Processing, all racked in 'The Dog House'
3. Entrance to 'The Dog House'



The Innocent (Photo- Matt Beard
Costumes- Marie-Chantale Vaillancourt
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From FOH, pre-show



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1. Kooza's Finale (Photo- Matt Beard Costumes- Marie-Chantale Vaillancourt ©2012 Cirque du Soleil)
2. Chair Balancing (Photo- Matt Beard Costumes- Marie-Chantale Vaillancourt ©2012 Cirque du Soleil)



•• Under The Big Top

Out the front, the PA is all Meyer Sound. Two left-right hangs of M'elodie with six elements each cover the bulk of the crowd, with six CQ-1s covering the sides. Two UPQ-1Ps are downfills into the shadow of the M'elodie coverage, with six 6 UPJ-1Ps covering the front rows. Seven UPJ-1Ps are flown around the rear of the Chapiteau to provide surrounds. On stage, the multi-story travelling structure that houses the band, known as 'La Bataclan', hides four M1D array elements projecting out from between its first and second floors, with a further 10 units hidden in a ring around the stage. Six 700-HP subwoofers fill out the low end.

The show is extremely dynamic, with two or three peaks of at 110dB at FOH, but only for a moment. With extensive radio mic use for a Cirque show, live vocals and three horns in the band, it's quite the mixing challenge in what isn't a huge space. Surprisingly, the tent itself is very reflective, particularly in the high mids. Despite all this, Toni and the crew deliver a flawless and immersive experience, achieving the ultimate goal in theatre of this type – you're enjoying it so much you forget that it's actually a PA system you're hearing.

Behing The Big Top - serious touring infrastructure



Band room inside 'La Bataclan'





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The Death of Hardware?



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QSC's Q-SYS audio, video and control (AVC) platform has been gaining popularity in the Australian install market at an exponential rate. With a development team made up of the godfathers of open architecture DSP, the smarts behind Q-SYS just demonstrated the inevitable result of convergence at ISE – control and processing of audio and video running on standard Dell server hardware. Is this the death of hardware?

After last year's InfoComm in Las Vegas, it seemed clear to me that if we, as the AV industry, were going all-out to replace our switching, routing, and transport with Ethernet, then the next logical step would be to stop including dedicated processing in AV hardware and use the IT industry's off-the-shelf solutions for that as well. QSC have now made that very close to reality, demonstrating for the first time Q-SYS running on a Dell EMC PowerEdge R730 server.

A recent press release from QSC described the technology demonstration at ISE in February 2017 as the first manufacturer "decoupling existing Q-SYS software from proprietary hardware and creating an architecture where centralized AVC processing can live in the datacenter. Now processing intensive features such as AEC and feedback suppression can become a shared resource for any meeting room across the enterprise. This, combined with a portfolio of cost-effective meeting room I/O peripherals, allows users to reliably distribute content and control using existing IT network infrastructure."

Dude, You're Getting a Dell

This could represent a seismic shift in audio, video and control in enterprise rollouts. This is a future with processing included in the IT rack, scaled and allocated as neces-

sary, with audio and video endpoints connected as needed across the network. Say goodbye to dedicated DSP hardware! So, how did QSC, a company until recent history mostly associated with amplifiers, seemingly get so far so fast? It actually began in the early 2000s, when Rich Zwiebel and John Britton of Peak Audio fame joined QSC to develop the next generation of DSP. Peak Audio helped develop the first open architecture DSP, MediaMatrix, and networked audio transport protocol CobraNet.

Intel Inside

"What became the Q-SYS Platform was never conceptualised as just an audio DSP," explained Andy Pearce, QSC's Director of System Sales for Asia Pacific.

"Its original name was InterVAC - Integrated Video Audio Controller. The thinking was: why have separate boxes for control, video, and audio? The one-box, software-based advantage is in ease of installation, programming, and redundancy. To realise the dream, QSC knew they needed to break the existing paradigm and build an entirely new platform based on IT standards and technology."



Andy Pearce

The foundation of the Q-SYS Platform lies on the use of Intel chipset, Linux OS and IEEE networking standards. This enabled them to innovate as more processing power became available. "Our original Cores were intentionally positioned at a higher price class, as they used the most powerful Intel chips available in the mid-2000s," continued Andy. "The original strategy was to position Q-SYS as the defector standard for large installations like stadiums and theme parks. As the platform evolved, we developed additional processors, Integrated and Unified Cores to meet the needs of small and medium-sized installations. It's been a relatively straightforward process – we know Intel's trajectory for chipset innovation, so we can count on future performance improvements in relation to the amount of DSP and control capability."

The Core of the Matter

Choosing IT-aligned technology has been a long-term strategy that we believe will change the entire AV market. "Q-SYS was built on a shared architecture and programming techniques. This philosophy has allowed us to implement Q-SYS into a standard IT-based server. Everything we can do today using a Q-SYS Core hardware manufactured by QSC can now be implemented on the standard Dell server hardware. QSC made it clear at ISE that Q-SYS running on a Dell server was a technology announcement, a very different thing from a product announcement. A technology announcement signals an intention or direction for a company or industry; an insight into a philosophy or advancement that will be applied going forward. "IT is our new customer. The convergence of IT and AV has happened: there is no denying this fundamental principal. We are very excited to be the first manufacturer to demonstrate a true AV solution built for IT and we look forward to leading the mindset shift in the industry," Andy clarifies.

"However, QSC doesn't want to bypass or disrupt something that has value to the end user," Andy summarised. "This won't be a replacement for everything. The Q-SYS Core 110f processor, traditionally an in-room processor, is a huge part of our existing strategy, and it does not yet make sense to replace all in-room processing with enterprise-wide server hardware. Large corporate, hospitality, and healthcare projects demand this IT-centric solution, and we want to meet that demand. However, it's undeniable that Q-SYS has transformed from a mere audio DSP to a complete audio, video and control platform, with its sights set on winning these markets."



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DAZE OF OUR LIVES



years of Rock Lighting and Sound



By Graeme 'Yogi' Harrison and Julius Grafton

In 2002 we ran a feature in Connections about the beginnings of Australian rock lighting and sound. This was based on a 'museum' display held at ENTECH that year of photos, memorabilia and gear lent by readers on the same subject. Here is the complete feature in the one place for the first time.

It is impossible to review the development of performance audio and lighting in Australia without mentioning the Sixties, because that is where it really started.

Not much was going on in Sydney. AWA, Magnavox and ROLA (now known as Lorantz) dominated the local speaker industry. Extremely high import duty taxes at the time encouraged local companies to make speakers and public address systems. It is worth noting that modern audio and stage lighting systems were derived from cinema audio systems (such as Altec) and theatrical and industrial (building) lighting.

Bob Purvis in Perth was one of the earliest pioneers of audio reinforcement in Oz. He was the first audio hire contractor in Western Australia in 1955 (and possibly the whole country) with his company Purvisonic Sound. A very young Ian McLean was his apprentice. Ian went on to work for Seeburg background music systems. Purvis built amps and speaker boxes and was the first person to import the

legendary SAE amplifiers to Australia.

Ian McLean moved to Sydney in the early sixties and started building column speaker boxes with 4 x 8-inch ROLA speakers in each, each tapped with a 5-watt (100-volt) line transformer. Ian built his own 50 watt mixer amplifiers to drive them. He went on to build his own version of a self-powered box in 1974 by using a modified JBL 4530 cabinet made by WASP Industries with an Altec 211 horn. His hire company, 'Sound Affair' was very active during the seventies and later changed its name to SAVI (Sound And Visual Innovators) in 1993. Ian founded the Sontec Group in the Eighties which has recently been absorbed by Chubb Industries. He now runs Tecsound, a sound contracting business.

Gary Nessel and John Woodhead founded the Strauss company in Melbourne in the mid 1960's. They manufactured guitar and bass amps from day one and PA amps and boxes from the late 60's. It soon became a case

of not who used Strauss, but who didn't! A young Frank Hinton joined as sales manager.

The 'Polka' guitar amps and 'Emperor' bass amp were to become the prime choice of musicians across Australia. They built large-scale sound systems from Altec Lansing designs, powering them with huge Strauss valve amps and using Strauss active crossovers. They built their own mixers and were well in advance of their Sydney counterparts. In 1969, the company went under. NOVA SOUND was formed from the remnants of Strauss by Al Butler, and continues today.

In 1960, an RCA engineer named Victor Kay (Snr) moved to Sydney from Brazil and went to work for AWA. Import duties on imported speakers at that time was around 45%, so Victor made his own 12-inch and 15-inch speakers in 1963 under the name of 'Lafayette'. Victor formed the ETONE company in the late sixties to manufacture speakers.

In Brisbane, Tony Troughton, a former chief engineer for the Western Electric Company (U.K.), started building guitar, bass and PA amps under the name of VASE in the early sixties. Troughton had been a pioneer of active PA technology and recording equipment in England.

Brisbane was actually the 'rock capital' of Oz in those days and VASE sold incredibly well. His apprentice was a young man called John Burnett. Hans Overeem was also developing a reputation in Brisbane and was the first person to build an aluminium-extruded amplifier in the world.

If you're wondering what was happening in the lighting world around the late 1960's, the answer is not much. Strand made Pattern 23's and Pattern 45's, and the infamous Pageant Lantern. Some locals copied them with inferior designs. Lights at pop concerts were very, very basic.



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WILD! OUTRAGEOUS!

There was something wild and outrageous about working with a rock band. The generation gap was a huge canyon, anyone older than 25 did NOT listen to pop or early rock music. Blue denim was the uniform of a generation, and not seen on anyone else.

How times have changed!

Back then, we really did have a persecution problem. If you were a 'long hair', you could get beaten up or thrown in jail. Municipal Halls always had old authoritarian attendants who would make life very hard for young struggling roadies.

Try driving a very old car any kind of distance and then imagine how poor the roads were. We loved it, because we sure didn't do it for the money.

Back in the early 1970's, most-popular bands were accessible to huge audiences on a regular basis in local halls in suburban areas. Under 18 venues were numerous and promoters usually had a minimum of 4 bands on view per night at each location. A typical Saturday night dance might feature four top-line acts such as The Easybeats, Billy Thorpe and The Masters Apprentices etc. Each act would do a 30 minute spot, pack up everything and move on to another venue. They each carried their stage gear and small column-style PA systems.

Nobody shared equipment unless an emergency arose. If the band had a roadie, they were considered to be very successful and were accorded serious respect. Transport was usually the good old Holden station wagon or panel van.

The most-common PA systems were still 'column-style' boxes with either 4 x 12-inch speakers in each or 2 x 15-inch, sometimes with a tweeter or a small horn! The boxes were usually made from pine board. They sometimes exploded when wet! Lighting was still non-existent, with the standard hall lights left on all night! Local audio manufacturing was starting to get serious.

The self-powered mixer was well and truly invented by 1970! The Lenard version had four input channels, each with the dreaded high impedance input and primitive 2-band equalisation. It featured 150 watts of thumping power!

A very early international show at Randwick Racecourse (circa 1971) featuring Deep Purple, Free, Manfred Mann and Piranha (Oz support) had approximately 10 Lenard PA boxes per side mounted on trestle tables (you know, the ones with 'rocking horse' legs!) driven by 10 Lenard



'powered mixers' linked with guitar leads! No multi-cores, no huge audio consoles, no graphic equalisers; everything was done from backstage. You had to be there to believe it! But in those days, it was huge.

A Sydney venue in the early 1970's called 'The Arts Factory' unleashed 'psychedelic' lighting on stunned Sydney audiences, using overhead projectors and pyrex dishes filled with oil and water based dyes. Eddie Van Der Madden created fantastic lighting machines, based on old slide projectors. An example: he removed the heat glass, allowing the full heat of the lamp to melt slides and boil coloured dyes in tiny thin glass chambers. He found that sticky tape on polarised plastic would effect when you rotated another polarised disk across the optical chain. These were wild, weird, and colourful devices!

The McSpeddon brothers also ran psychedelic lightshows in Melbourne, at the T. F. Much More Ballroom.

Lenard, Vase and Nova battled for market supremacy in Australia with PA systems. Al Butler had taken over NOVA and he and Wyn Milsom (one time pop star guitar player, and these days a senior JANDS engineer) changed from using Altec to using JBL and made their own transistorised power amps in 1970.



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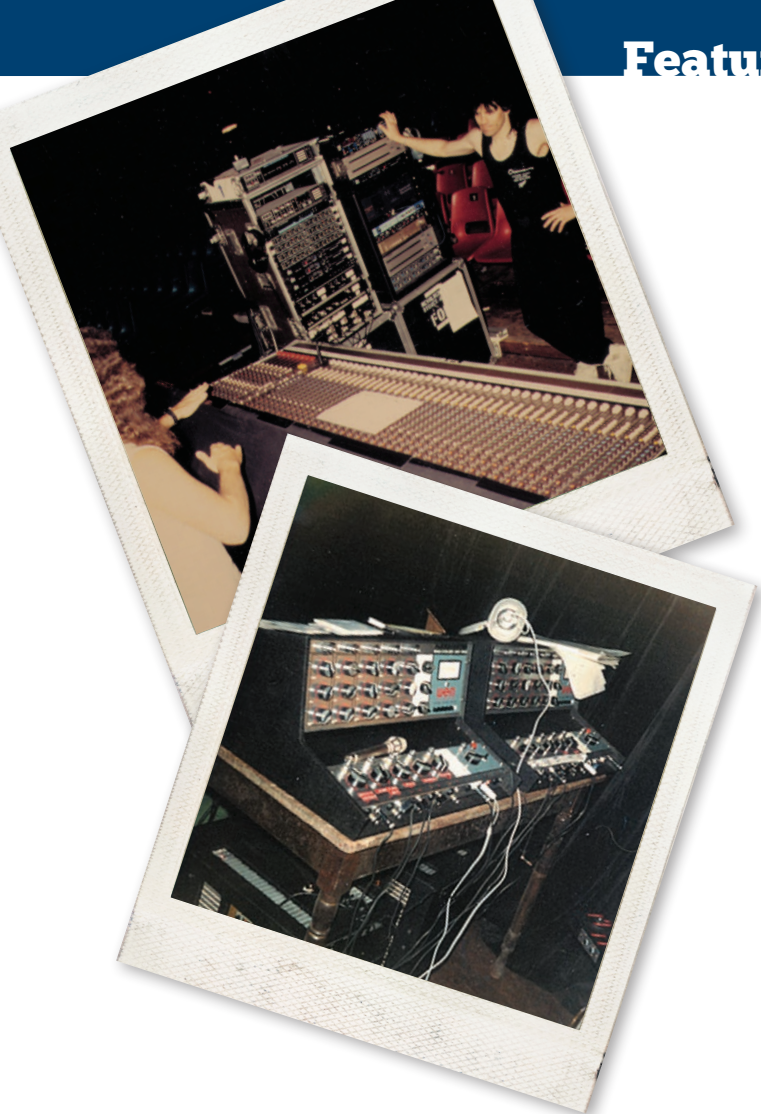
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NOVA were building large-scale horn-loaded audio systems for concerts and their first audio console appeared in 1973.

Henry Freedman was importing Dynacord PA equipment from Germany by 1969 and had opened a retail outlet at Ashfield. He sold truckloads of PA systems to local bands and even provided one of the first portable reverb effect units. Henry was a gentleman and happily passed on his knowledge to young roadies and musicians.

Dynacord had powered mixers and also sold column speakers. The build quality was (and still is) superb and these reliable little units were the mainstay of many bands. Many years later his son, Peter, achieved success with an Australian-designed studio microphone series called Rode. Dynacord survives today as a member of the EVI Group which includes Electra-Voice.

FROM THEATRE TO ROCK AND ROLL LIGHTING

Strand Electric ruled the lighting industry. The Strand hire department in Sydney was run for many years by the legendary Rob Nichols whose assistance to young people

was invaluable. The Pattern 243 Fresnel at 2000 watts was the brightest light in common use! Lights were operated by primitive switch boards, banks of ordinary household light switches set on a piece of wood.

The Strand SP 40 was the lighting controller of your dreams in theatre and on the road. Strand released a three-preset version. Strand also released tungsten halogen powered luminaires, the Pattern 763 and 743! The Miniset 10 was the standard dimmer in an era when dimming was a luxury and straight switching was normal control at rock concerts. Three phase power wasn't commonly available in rock venues and some adventurous lighting operators 'hard-wired' cables directly to power sources. This extremely dangerous practice was to continue for some time before venue operators finally got the message and installed legal outlets.

In 1970, Eric Robinson and Paul Mulholland purchased J & S Research. J and S stood for Jackson and Storey, who attended Vacluse Boy's High School together.

The Mulholland brothers, Paul and David, together with Eric Robinson and his brother, Eddie, joined forces with Phil Storey and Jands started operating from above a shop in Rose Bay. At the time, Jands specialised in lightshows, but they quickly turned to audio. Bruce Jackson ran off to America to find fame and fortune as soundman to Elvis, Springsteen and others. Bruce is another story, as he was widely regarded as a live sound guru and generally one of the top five live sound designers and engineers in the world. (Bruce Jackson died tragically in an aircraft accident in 2011).

Jands introduced the first locally manufactured strobe lights and colour organs which quickly became the new trend in dance halls.

Smart promoters like Phil Smiles (later to become a politician) and Donnie Sutherland were running new venues in youth clubs, surf clubs and community halls. The lighting in these halls was provided by small, part-time, independent operators like the fledgling MAC Lights (owned by Phil Cullen), Zapco Lighting (Julius Grafton) and Vibe Lighting (Colin Baldwin).

Rarely were the bands lit, illuminated instead by overhead light bulbs on the stage. The creation of the 'ambience' of the venue was considered to be more important. The Strand Pattern 23 and Pattern 123 were the basic lighting equipment along with moving colour-wheels and/or 'flicker' wheels. These wheels usually featured 5 colours and revolved using a small motor. The first 'moving lights'!

Rows of lights inherited from old theatres called 'groundrows' were often constructed from timber

utilising 150 watt coloured mirror back floods. They sat on the floor and were used to provide a lighting 'wash' for the stage and later for illuminating walls for effect. Police-style beacons, ultra-violet tubes and 'dry ice' in fuel drums (for a fog effect) enhanced proceedings. Strand introduced the Pattern 23 mark 2, which featured a faceted reflector!

THE PAR CAN ARRIVES!

English Lighting operator Phil Burkinshaw arrived in Australia in 1970. He had experience from touring in the UK. Phil visited the lighting operator for touring English legends, 'YES', at the Horden Pavilion and was amazed to find that the band had brought its own lighting equipment on tour in wooden packing crates!

The lights were Par 64 lamps (110 volt), commonly used at the time for lighting buildings. The band's sound engineer was former JANDS co-founder, Bruce Jackson, who had also brought the PA system with him.

Phil did a deal and bought 10 lights at the end of the tour. He wired them in series in pairs alongside each other to run at 240 volts and approached General Electric in Australia for more globes. They told him he was nuts and there was no future for 110 volt equipment in this country. It was difficult for anyone to purchase Par 64 lamps for years.

Phil formed Crazy Maze Lighting and manufactured the first Par Cans in Australia. These bright-orange coloured cans changed the lighting industry forever. Push-up lighting stands were still the only support method available, so in order to lift these lights into the air, Phil then imported 20 Genie pneumatic air cylinders from the USA.

Krazy Maze were momentarily the premier lighting company in Sydney (and probably Australia), using Par Cans while everyone else was stuck with feeble and fragile Patt 23 and Patt 123 500w, and Patt 223 and 263 1000w incandescent theatre fixtures.



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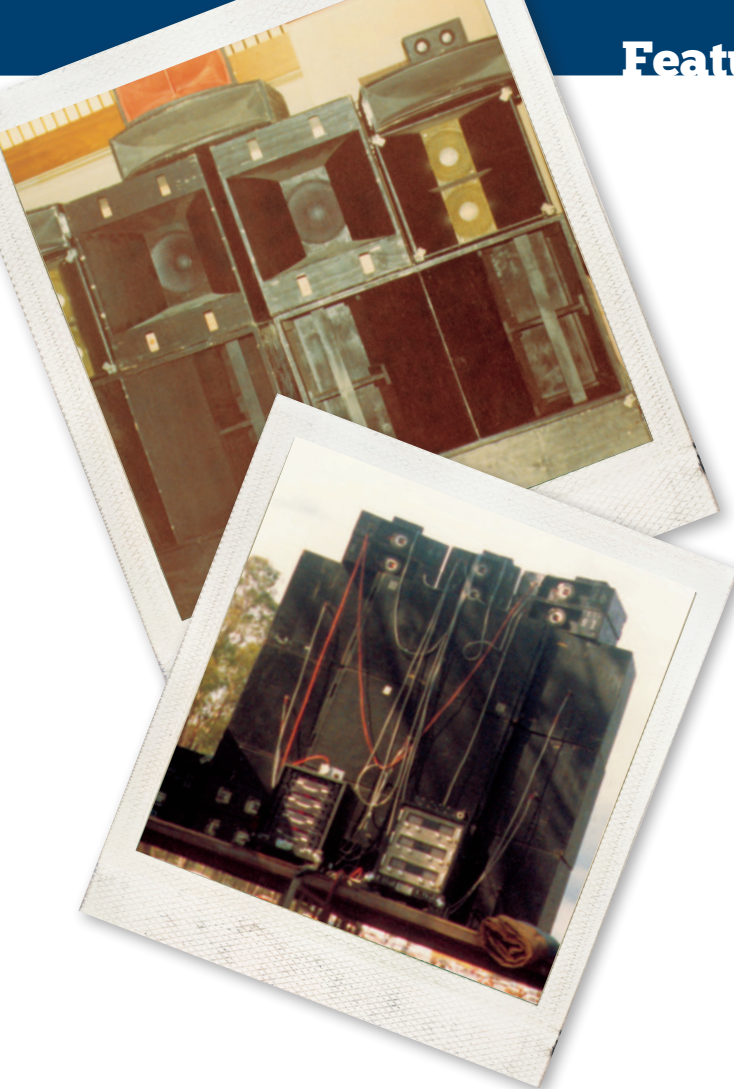
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significant lighting production achievement of them all. But, like so many pioneering innovators, Phil ran out of money and Krazy Maze faded to black.

Import duties put punitive loadings onto equipment made offshore, and like many industrial endeavours, much was made in Australia. The trade barriers of these times were responsible for some very ordinary manufacturing, but also spawned a new breed of manufacturer from whose ranks today's successful manufacturers grew.

By 1972, WASP had started making PA systems to complement their backline amps and boxes. Whistler's Mother and Buffalo both purchased WASP audio rigs to add to their inventories. The members of Whistler's Mother apparently still own their complete backline and PA system which is stored in Mudgee and works perfectly.

The first Sunbury rock festival in 1973 reinforced the need for large scale sound and lighting which barely existed.

If you went to a suburban dance, you'd see a lightshow, with great gear like Colin Baldwin's VIBE lighting inventory, above. Everything was built from pineboard, or chipboard, weighed far too much, and chipped easily.

Jands expanded into Chalder Road, Marrickville in 1974 and kept on adding JBL inventory. The stack at left is topped with ultra heavy radial horns powered by 2482 drivers that went to 8k - so the ring radiators at the top did the 8k -15k task.

The trucking of this era was totally atrocious, Ford 350 or D series pantechs, or Bedford if you were particularly unlucky, all petrol powered and all with 4 speed gearboxes without syncro on first. Heaters, demisters and radios were not usually fitted.

• This story originally appeared in 2002, and has been slightly ammended. Thanks to Jands for some of the images originally supplied.

Existing Strand Patt 293 follow-spots couldn't penetrate the power of the par cans, so Burkinshaw found a solution in America, the Strong 'Super Trouper' with a Xenon globe. It was huge and weighed a tonne or two!

Burkinshaw promptly had five shipped to Australia. By now, Burkinshaw had a host of talent working with him (including Colin Baldwin who purchased three banks of 8 par 64's and pneumatic towers) and secured the most prestigious hires including local bands and lots of international shows. Without a doubt, Burkinshaw's contribution to our industry was probably the most



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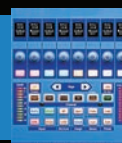
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WALL OF SOUND

MASTERING

By Andy
Stewart

Mastering

"It just keeps getting worse, and no-one's doing anything about it," I mutter to a colleague in simmering frustration. This line could relate to any number of things in the world today: politics, the environment, my left knee... but given this is CX magazine, on this occasion I was talking about the preposterously hot, out-of-control mastering levels we endure today – known to some as 'level wars', to others as 'the most boring topic in audio', and by most engineers in 2017 as 'almost irrelevant'.

But why the sigh? Why the shoulder shrug? Are we so far gone as an industry that we've collectively lost interest in producing decent material any more? Or should I stop using that disingenuous term once and for all and call the recording industry out for what it is?

This 'industry' of ours is actually just a bunch of independent, unaffiliated guys in their individual hidey-holes trying to outdo one another for a buck in an environment that's utterly devoid of rules, regulations or collective benchmarks.

That's why mastering wars persist, and why the topic is consistently met with ambivalence and disinterest. Because in the end it's one engineer versus all the rest, in every session in the world, every day. There are no 'standards', no collective protocols or conventions. Just an unhealthy, pointless obsession with loudness – a perversely irrelevant term in itself – that gets us precisely nowhere, and damages all the world's great recordings in the process.

And it's only getting worse. Listening audiences worldwide seem to care less and less about audio quality, and more and more about convenience and mobility. Together we've beaten an unhealthy path, via downloading, MP3s and reckless mastering levels to the bottom of the audio cesspool.

THE WAR WAS LOST?

Now I know it's one of the most tedious subjects on earth – mastering levels are like GST-related tax provisions or watching paint dry. But does that mean we're done caring about them? Am I destined to spend the rest of my working life mastering songs that, by the time I'm finished with them, possess barely a solitary decibel of dynamic range when they should have enjoyed 10? Why must I spend so much of my time trying to achieve this sonorously brutal outcome when there are so

many other aspects of a good master that should take precedence? Is the world really content to be pulverised with highly distorted audio for the foreseeable future? Am I?

The short answer is no, I'm not.

I'm not content to sit idly by any more, going with the ill-conceived, idiotic flow that is mastering today. It's getting to the point now where, during a typical mastering session, 95% of my working day is spent finding new (and old) ways to pin a song up against 0dBFS like never before. And for what, to allay the fears of my clients that their music will be 'competitive' in the marketplace; that their tracks will have been improved, when in truth they've only been given a savage crew cut and clubbed to death with look-ahead limiters? Frankly I'm embarrassed by what I'm forced to do to an audio file sometimes.

THINKING OUT LOUD

To understand the world of mastering these days it pays to look at the vocabulary used in a typical session to describe the production of final masters.

They have to be 'loud' of course... that goes without saying. They also have to be 'heavily limited' in order to 'compete' – that too goes without saying. Then, at the end of these fascinating musical journeys individual people have found themselves on, in a process that's breathtakingly ironic, musicians the world over are forced to (as the consumer term so aptly describes it) 'normalise' their songs!

Even though, up to this point a musician's journey has typically been about looking for new sounds, points of difference, and fresh perspectives that might help his or her production stand out from the pack, when it comes to mastering, everyone behaves like lemmings – pushing their faces up against the glass ceiling, convinced there's a way to rise above it to attain global nirvana. There isn't. Will the ceiling break and come crashing down at some point soon? I hope so.

Though no-one sees it this way right now, mastering should not be like this; not even close. It shouldn't be about trying to compete for the very last decibel of life left in a track's dynamic ceiling, but rather about the dozens of decibels of depth and dynamic range that lie untapped beneath. Mastering should be more like scuba diving – exploring the depth and breadth of three-dimensional space, where coincidentally, there are also... no crowds! Want to be different and stand out from the pack? Go low, not high! Add dynamic and true power to your mastered tracks; don't crush the life out of them.

Pinning your flattened face against the glass ceiling like everyone else is a mug's game. And to think it's been decades since digital technology provided us with massive signal-to-noise ratios! Like fools, we remain convinced there's more to be gained by crushing a file's dynamic range than exploring the forgotten dynamic that's been on offer all that time.

DOWN WHERE THE ACTION IS

I hate that we've collectively accepted that nothing can be done about this: that the war on levels is lost and the dynamic range of our workplace has shrunk at the same rate as our wages, down to almost nothing.

But of course, the dynamic range is still there. It's just that, like our brain capacity, it mostly goes to waste.

The problem, simply put, is that while the level wars rage and individuals mastering engineers continue to push harder and harder against the digital ceiling, it remains almost impossible for mastering engineers eager to offer a different, more dynamic product, to convince musicians and record companies to step outside the 'louder is better' paradigm.

As stupid as it is, everyone: record companies, producers and consumers alike, have been thoroughly hoodwinked by the simple bias of humans in favour of a louder sound over a quieter one. When you ask people which one sounds better: A or B, where B is 3dB louder, nearly everyone picks B.

But now that we're crushed against the digital ceiling, A or B are no longer the stark choices they once were. Now B isn't so much louder as just more distorted, and we've reached the point where more people are instinctively beginning to choose A without consciously knowing why.

JOINING THE CLUB OF ONE

So, though I may be in a club of one right now, this fact gives me hope. I refuse to admit that the level wars have been lost, and I'm optimistic that at some point sooner or later there's going to be a shift away from 'house-brick' mastering (see my screenshot of a recently mastered song file if you're unconvinced) across to more dynamic,

powerful hi-res audio files that people can listen to and enjoy on home hi-fi systems and audiophile setups. But I'm not a total "effin' thicky" as Ian Dury once so eloquently put it, nor am I advocating 40dB of dynamic range in commercial releases – I'm not convinced by a long shot that this will be something the vast majority take up any time soon.

If it happens at all it will only be a small group to begin with, but they won't be audiophiles per se (though perhaps some of the recent converts to vinyl will be among them). I'm hoping this shift will be more mainstream than that, made up of disparate individuals within society that never identify as a group, rather than just middle-aged rich blokes obsessed with audio quality.

I'm more convinced, as time goes by, that matching levels with other 'normal' commercial releases of 2017 is a path to audio destruction for the music my clients have worked so hard to produce.

I think the time has come to at least offer my clients a second set of masters that pull their music release back from this destructive brink, with a strong emphasis placed on education into the bargain: explaining why such masters might offer their end-listeners a better (dare I say it) 'audiophile' option, if that's their thing.

These would be hi-res (say 24-bit, 48kHz) files – or 16-bit in a pinch – the mastering characteristics of which would be primarily focused on the individual requirements of the album in question, rather than how mastering might force compliance upon it to help it 'compete' – an illusion in many respects anyway.

Dynamics and volume would be determined by the music itself in relative isolation, with very little (if any) direct level comparison to other commercial releases.

This would liberate the music from being compared incessantly to what everyone else is doing (rightly or wrongly) and bring about a far more sympathetic outcome. Then, if someone wants to turn it up, they can just go crazy old-school about it... and use the volume knob on their amps!

I have a dream...



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Guitar Award night held at Tamworth Regional Entertainment and Conference Centre (TRECC) showcasing the cream of Australian country music artists.

For the past few years HF Event Services, headed up by Colin Baldwin, has been supplying a complete production package for the event. Colin is the production designer and manager, working closely with the producer Peter Ross and Sean Costello, who created the video packages.

"We spend the three months leading up to the awards putting all the nuts and bolts in place such as coordinating the crew, venue logistics, and scheduling," said Colin. "The biggest challenge though is to fit within the budget, to make all the elements come together resulting in a quality show."

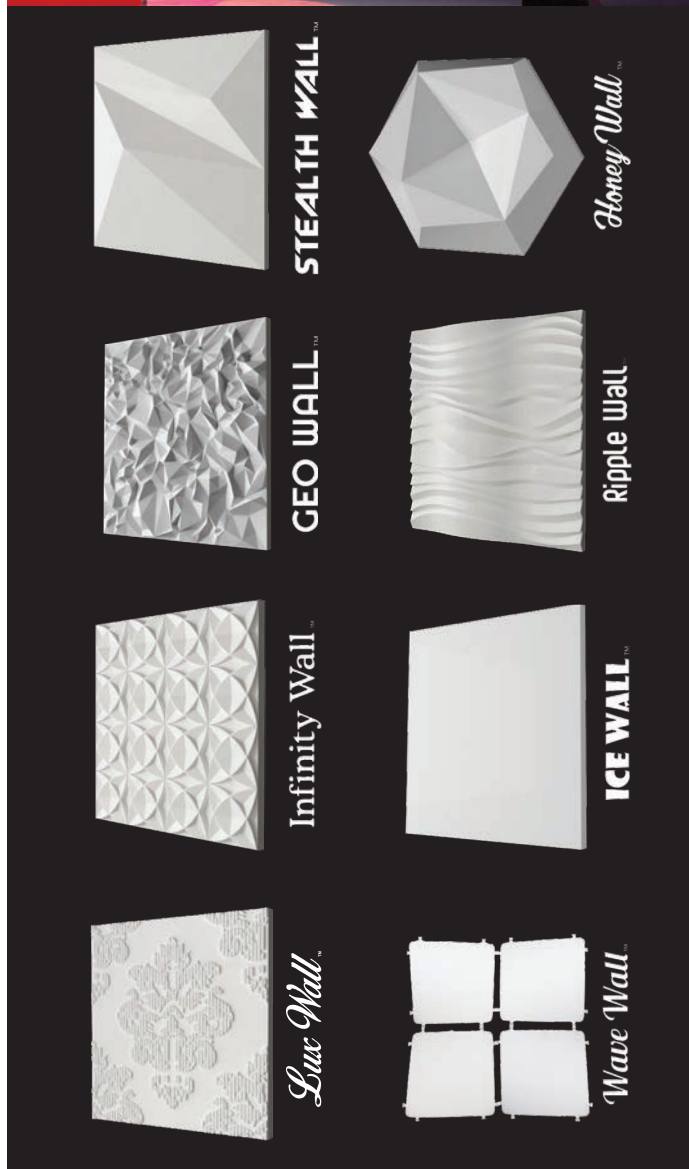
Two semi-trailers of equipment make the 5-hour trek to Tamworth from Sydney; one contains audio, vision and some lighting whilst the other is full of lighting, trussing and rigging gear from Chameleon. The P6 and P4-V2 LED screens are trucked in from ELS on the Gold Coast. Tamworth Regional

Toyota Golden Guitar Awards

By Cat Strom

Council has recently invested in new lighting product which was also utilized.

This year Colin designed a flown truss shaped in the form of a guitar, taking into account the low ceiling height of the venue and avoiding blocking the LED screens. Lighting director Francesco Calvi suggested using Ayrton MagicPanels to become the tuning pegs of the guitar whilst the truss is internally lit with ShowPro Truss Mates.



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This year Colin designed a flown truss shaped in the form of a guitar.

“ The biggest challenge though is to fit within the budget, to make all the elements come together resulting in a quality show ”



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L S C
LIGHTING SYSTEMS



**Bernard Fanning
and Kasey Chambers
rehearse.**

"I always discuss in advance with my LD what they think of the plot and make sure they are happy with what is being specified," added Colin. "I'm always happy to remodel things if required. Francesco did a great job, my brief to him was fairly simple – just make each performance look different than the previous one and as visually exciting as possible. Plotting the show is very challenging given there are many artists and such little rehearsal time."

The lighting was predominantly Martin with forty MAC Quantum Profiles and Washes as the main force backed up by MAC101's, RUSH MH3 and MH6.

"I often specify MAC Quantums as they are less power hungry and provide a decent punch for a LED mover plus the MAC Quantum Wash has a large face that looks good on camera," remarked Colin. "We also recently purchased some Martin RUSH MH7 Hybrid moving heads that I added to the rig. I'm very impressed with their functionality given they can

work alongside a RUSH MH3 Beam then become a Profile with gobos or a washlight."

**“ Plotting
the show is
very challenging
given there
are many artists
and such little
rehearsal time ”**

Francesco Calvi is no stranger to the CMA Awards having worked the show many times in the past and he had no trouble bringing Colin's design to reality.

Martin is Francesco's control of choice and he owns his own M1 console which was supplemented by an M6 console for the Awards.

"I love the Martin control although a lot of people don't get it as they're too busy with over the top technology," he said. "Martin has kept their consoles for the operators; it's an operator's console not, as I like to call it, an astronaut's console. I came in here Thursday night to set my presets and palettes, and we started the next morning to do twenty acts from scratch. To be able to bash in something that quickly, you have to have something you know and trust."

With limited time and so many acts to light, Francesco kept his looks big and distinct with accents wherever possible.



"If you try to do too much you could overcook the result. You have to work to your strengths and limitations. You can't be big, busy and brassy for every single act so you have to pick your moments."

HF Event Services provided a full audio system including an AT Blackbird TLA-312 line array set up driven by Linea Research 5K 4 channel amps via AT processing. Foldback included AT SCX-24 wedges and SMF-215 drum fill as well as Shure PSM1000 Personal Monitor Systems and Sennheiser G3 In Ear Monitors.

"The Blackbird line array is great value for money and very high quality, plus it's manufactured in Australia by Acoustic Technologies in Brisbane," commented Colin.

FOH engineer Cam Elias was actually involved with the guys from Acoustic Technologies when they were designing the Blackbird PA a few years ago.

"I was consulted by AT during the R&D, so I'm reasonably familiar with it!" he remarked. "For a mid sized box, it performs quite well - I just wish I had more of it at Tamworth! At this sort of show, it's important to get a nice clear vocal sound, which makes it a good choice."





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Cam Elias



Sean Costello



Francesco Calvi

Cam mixed on a Soundcraft Vi3000 digital console, favouring the sound of the Soundcraft Vi series consoles, commenting on how good the onboard dynamics and effects sound.

"It's one of my preferred standalone consoles," he said. "With so many different acts, rehearsing so quickly, the snapshot scene recall ability was obviously very useful. The Dante card came in handy to split off to the broadcast mix, although I'd feel more comfortable with some copper between us."

As for effects, Cam's approach was minimal: a Plate reverb, a Hall reverb, a Studio delay and a Chorus here and there.

"For this sort of show, I like to start with the pre

recorded packages and the presentation mics so I can try to keep continuity throughout the evening," Cam added. "That way nothing jumps out too much between the different aspects of the show, while utilizing the dynamics of the live moments to add to the atmosphere of a country music gig. It didn't quite work out that way with time constraints this year and I had to jump straight into artist rehearsals. However, I suppose that gave it a bit more of a live edge."

A Soundcraft Si Impact console, positioned next to the Vi3000, was operated by Hamish Langdon and was predominately used for playback of awards packages and podium mics. A Soundcraft ViOne console at monitors was mixed by Phil Kesby.

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Passenger

Young as the Morning, Old as the Sea

By Cat Strom

Singer-songwriter and musician Passenger toured in support of his latest album *Young as the Morning, Old as the Sea* with a production design by award-winning duo Okulus. Okulus is an English design company comprised of James Scott and Louis Oliver.

Photos: Troy Constable

Touring the show for them in Australia was Jake Venum who had to deal with quite a few fixture changes from the European tour. Gone were the Clay Paky B-Eyes, Martin MAC Auras and Martin MAC Viper Profiles with the new Robe Spiiders, Robe Robin 600 LEDWash and Robe BMFL Spots inserted in their place.

"Passenger has a long standing relationship with our lighting provider MPH Australia and decided to go with the replacements that they offered," explained Jake. "I hadn't used the Spiiders before and they're very cool. Nice and bright, although I haven't had the chance to use all of their functions. They're fast and very responsive to the console, plus the colours are really nice.

"In terms of a normal wash light, I think I prefer the Spiiders but they are a newer fixture and obviously anything newer is going to be better. Or it should be better in theory! I haven't used the 'flower effect' on them as it doesn't really work for our show, but the inbuilt macros look pretty cool. I do however miss the 'Beam shaper' offered by the B-Eyes."



Jake explained that he was using the Spiiders in Mode 4, running a pixel map across them through a Hippo media server. The media content is also run through the Martin Sceptrons, which are a key fixture in the design, resulting in a whole back wall of media fixtures.

Between the BMFL's and MAC Vipers, Jake does prefer the Vipers although thinks that the BMFL's are a brighter fixture and has been getting on well with them whilst using them in Australia.

"It was good to change to the BMFL to see how they compare as I do like working with Robe fixtures," he remarked.

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Touring the show for them in Australia was Jake Venum who had to deal with quite a few fixture changes from the European tour.

The Sceptrons add a whole new dimension to the stage providing big and powerful looks that are also subtle, as suiting the artist.

"The Sceptrons give massive scope to use some really subtle media content," agreed Jake. "You can run it across a few layers and transition between different bits of content and different colours. If you get the right content on them, it really looks good – low resolution patterned content works best for us."

Jake ran the show with an MA Lighting MA2 talking to the Hippo on MANet, and then outputting from the Hippo on ArtNet from where the Sceptrons pick up their signal.

"The Spiiders run over six DMX universes which we feed back into the console via an ArtNet input from the Hippo," he explained. "We then output the DMX to the Spiiders via an MA2 NPU. Basically we use the console to merge the Hippo control and MA control together so we can run media content across them and still have control of dimming, pan and tilt, beam at the same time. This allows us to choose whether to use them as a normal fixture or in pixel map mode easily."

Custom fabric drops, built by Hangman in the UK, are attached to individual clamps which clamp to twelve scaff bars in between the two trusses. The Robe BMFL's are used to colour the fabric.



The tour 'downunder' has had its trials for Jake – with some networking problems at the beginning, a couple of naughty BMFL's, and a poorly console in New Zealand, but he has taken it all in his stride.

"I'm here to make it work," he said. "I know what I'd like if I was touring the show for a long time in a

continent but when you come to Asia and Australia, it's just about making it happen. You have to be able to manipulate the equipment that is available to keep the design consistent with the rest of the tour. It's important to be able recreate the same design with a variety of systems."



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Bruce Springsteen

BY CAT STROM

and the E Street Band

named the top global touring act of 2016 by both Billboard and Pollstar, Bruce Springsteen and the E Street Band sold close to 2 million tickets in 2016 alone.

CX caught up with the production team when last on our shores in 2014, and we returned to Qudos Bank Arena to find out what had changed. The show is still designed by Jeff Ravitz with both Todd Ricci and Brad Brown on the road bringing his lighting design to life.

"The show has evolved in two main ways," explained Todd, lighting director. "We've upgraded the control to two MA Lighting MA2 consoles from a grandMA1 and an Avolites Diamond II. Fixture change wise, we went from a more washed out LED mover (Ayrton Wildsun) to GLP impression X4's for Australia and in the US Ayrton NandoBeam S9. It gives us a little more edge as those type of LED

fixtures get a little tighter and a little wider. It makes the show a little 'beamier' than in the past."

Another major change on this tour was the removal of all six followspot operators from the air with twelve PRG GroundControl™ Followspot Systems employed in their place.

"We first implemented them at the beginning of The River tour in January 2016, starting with five to see how we liked them," said Todd. "Everybody played with them and liked them, even the band guys, and they're great for insurance issues. You save time not having to have safety meetings, guys don't have to harness up and if there are any problems just before the show, the control is easily accessible on the ground. Things like intercom problems are much easier to troubleshoot when the follow spot controls are on the ground!"

Gone from this tour are the Morpheus Lights' BriteBurst that have been on Bruce's shows for many years as the technology basically ran out and parts were not available anymore. In their place, are Ayrton MagicRing R9s which were the only fixtures shipped to Australia for the tour with PRG supplying the rest of the rig.

The automated lighting package also included Clay Paky Sharpys on the floor, Martin MAC Viper Profiles and MAC Auras, Philips Vari-Lite VL3000 Spots and VL1100 TSD Spots, and Solaris Flare Strobes. For stadium shows, Claypaky B-Eyes are used for audience lighting. The rest of the rig had Chauvet LED Zoom PARs to light the front of the drum risers, Philips Color Kinetics ColorBurst 6s on the floor downstage, and two iW Blast TRs to tone the HammondB3. Two MDG Atmosphere hazers supplied the haze for the beams, especially the Sharpys.

"We do try to layer with depth so we have a lot of different colours from different angles," commented Todd. "Behind the band I have the Ayrton

Photos: David Youdell



Check out the Ayrton MagicRing R9s



BACK TO BASE-ICS

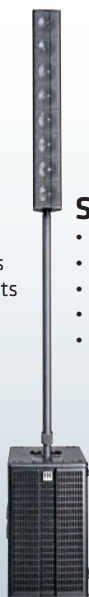
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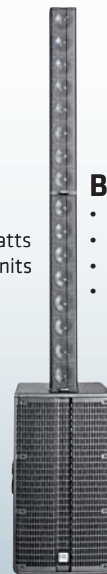
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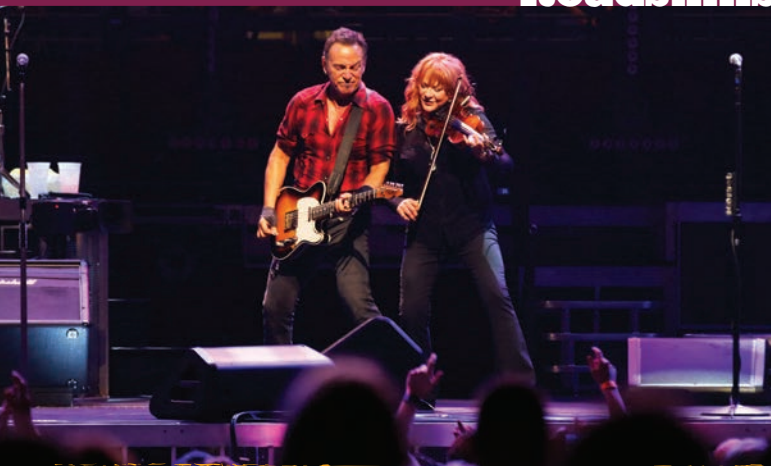
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Basically our show is still programmed from a 1999 Hog2!



MagicBlades, which we can do a lot of tricks with, and they become another layer. We up-light scenic elements, the drum has lights and the audience are lit for a lot of the show."

The guys operate the show very hands on,



Todd Ricci and Brad Brown

no hitting the GO button and sitting back with them! In fact it would be very hard for someone to step in for either of them.

Moving light operator Brad Brown controls position, colour and patterns whilst Todd looks after all the intensities.

"That's the best way to explain it although I do have other things that I can do such as movement cues on my console," added Todd. "We kind of share effects, accenting, drum rolls and the like. For years and years we had the Avo Diamond II and all the intensities were done that way. It was just something Jeff Ravitz loved back when he used to control the show; having the guy that controlled the intensity also be the guy that calls the followspot cues. That way everything happens on time and is more precise. It felt better for him and I have to agree, it's great to be the guy that has the intensity control and calls the spots so everything happens on a beat. I also have an MA onPC fader wing for specials.

"Basically our show is still programmed from a 1999 Hog2! We took that information onto the grandMA1, and took that information onto the MA2 so it's been quite an evolution and we retain many things from the Hog2."



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ADAMSON POINT 8 AND POINT 115 SUB POINT AND SHOOT

By Jason **Allen**

Adamson's aptly named Point Series of small to mid-sized point source loudspeakers consist of the Point 8, 12, and 15 two-way mid-high boxes and the 115 and 215 subwoofers. For this review, we looked at the Point 8 in combination with the 115 sub, as it's a pairing that will suit a wide range of applications, physically and sonically.

All of the Point Series mid-high boxes use Adamson's proprietary Kevlar cones in the woofers. There's a 1" HF driver in the Point 8s, working up to a 1 1/2" HF driver in the Point 15s. All horns are rotatable, with a dispersion of 60x90. All three top boxes have a 45

degree wedge profile, OmniMount 30 compatible rigging points as well as Adamson's proprietary rigging system, and top hats.

Sonically, the Point 8 delivers exactly what Adamson are famous for – incredibly good mid-range, perfect for handling vocals. That Kevlar cone tech of theirs seems to be the key, as you get a similar sound to their line source products. It's a sensitive and coherent response that makes mixing any live source with vocals a joy. You won't find yourself battling to get the vocal to cut through the band in any genre from jazz to metal.

What's really outstanding though is the SPL for its


Brand: Adamson
Model: Point Series
RRP: Point 8 \$3,840 inc GST,
 Point 115 Sub - \$3,891 inc GST
Product Info: adamsonsystems.com
Distributor: www.cmi.com.au



size. If you rig the Point 8 with the 115 sub using Adamson's rigging system (over or under hang), you get a speaker system that's just over 45 cms wide and 67cm tall. And out of that comes a whopping 131db at 1m. A/B-ing this combo next to a small format line array saw it hold its own. It delivers a ludicrous amount of headroom for the size and weight. This is an ideal product as fill and delay in conjunction with either a line array or larger point source system in performing arts venues. While the feature set skews toward installation, it could also be just as sensibly used for smaller temporary gigs, as you certainly won't have any problems getting the level and vocal intelligibility you need.

Adamson recommend lab_gruppen PLM or D Series amps with Lake processing, but still support XTA as well. If you're looking at installation, they can provide colour matching on request. While Adamson suggest in their marketing that the Point Series is suitable for high-quality playback (and they will certainly deliver that), I see them as much better suited for amplifying high-quality musicians in orchestral, theatre, and jazz applications.





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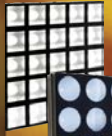
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DAW CONTROL FOR THE NETWORK AGE



By Jason **Allen**

In-the-box DAW production can be pretty uninspiring when your control interface is the same keyboard and mouse you use for word processing. Thankfully, there's a raft of more desk-like solutions on the market, but if you want to feel like you're driving a real top-end studio, the SSL Nucleus 2 is a premium option.

The original Nucleus DAW control and monitoring system was released back in 2010, and the new Nucleus 2 brings the unit into the networked audio era. It adds a 2x2 96kHz Dante interface, a second monitor out (for your Auratones, for example) and a dedicated talkback input, including a 'talkback

Brand: SSL

Model: Nucleus 2

RRP: \$8399 inc GST

Product Info: solidstatellogic.com

Distributor: www.ambertech.com.au



to network' function for addressing Dante channels.

It's a pro solution for the in-the-box producer that wants to shave a few seconds off each task, saving valuable time over the course of any project. Two banks of 16 100mm motorised touch sensitive faders paired with dedicated Select/Solo/Cut buttons per channel, high quality V-pots, a dedicated transport section and a raft of customisable function keys give the operator more than enough choice to set up the Nucleus 2 to suit any style of workflow. Functions like zooming in on a track or waveform, creating and naming tracks, or creating markers are easily mappable to the soft keys, and recalled by banks. User set-ups can be saved to SD card in the dedicated card slot on the rear panel.

Three individual DAWs can be controlled from the one surface, making this an ideal solution for the producer who's using something like Reason as a sound source and Logic as the main recording engine. MIDI CCs can be used to control any soft synth or sampler. Connection and control is by networked ipMIDI through your Ethernet connection, which also carries Dante. The Nucleus used HUI to control ProTools, and MCU for pretty much everything else, and also includes a keyboard emulator so you can programme your shortcuts or macros onto soft keys. Topping off the digital side of the Nucleus 2, there's two bundled Duende native plugins; the SSL Channel EQ & Dynamics, and Stereo Bus Compressor for VST, AU, or AAX formats.

On the analogue interface side, the Nucleus 2 includes two SSL SuperAnalogue mic preamps, identical to those used on SSL Duality and AWS consoles, for that 'Hit Factory' sound. They include TRS insert points, and hardware control of +48V, pad, and 80Hz high pass filter. Further analogue connectivity on the rear panel gives you a 3.5mm stereo in for those 'I've got this thing on my phone' moments, two headphone outs, and the XLR talkback in and it's slightly fiddly gain pot – use a jeweller's screwdriver to set your level.

The Nucleus 2 is a joy to drive, and as someone who spends all their time in-the-box with a solid repertoire of keyboard shortcuts and speedy mouse work, it feels like going from riding a bike to driving a Jaguar. It's a great centrepiece for the set-up of those who are working regularly in small to mid-sized production, and who could benefit from a bit of the SSL halo in their reputation.



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SOUNDCRAFT Ui24-R



SIMPLE BOX, COMPLEX MIXING

A few years ago Melbourne designer Danny Olesh sold his SM Pro Audio business to Harman, which relaunched his UMix product as Soundcraft Ui16.

Now a Product Manager at HARMAN Professional Solutions, Danny presided over the new Ui24-R, which while at first glance is a stretched Ui16, it is in fact a completely new product.

"The only similarity is the handles", he told me at ENTECH. "We designed it from scratch, with 20 Studer designed mic preamps and overall better signal to noise ratio."



Brand: Soundcraft

Model: Ui24-R

RRP: \$1,599

Product Info: www.soundcraft.com

Distributor: www.jands.com.au

Ui24-R is one of a new breed of digital mix engines with onboard patching, inputs and outputs, and no controls. The user connects their iPad, iPhone or Android device for touch screen control of 'virtual' faders and desk functions.

It's a more robust solution that avoids moving faders and push buttons, along with inbuilt screens on a 'console', things that will fail over time. While some engineers resist using systems like this, we see them everywhere and often hear how users are converted due to the robust reliability and ability to walk around a venue or a stage.

You control it using a web browser, not an APP. We like this because there are no updates to do – you just log on and use the latest version. Too many operating systems and app's disagree and updating either can be difficult or impossible over wifi at a gig.

Of note is the interoperability of the mix software with other Harman products, it automatically recognizes the AKG P5i mic and configures for it, as it will also do for a DBX Di1, and there is a digital relationship with JBL's PRX 800W loudspeakers. This is all part of the Harman Connected PA ecosystem.

Naturally there are more ins and outs than the Ui16, with 24 inputs and 10 outputs, the overall processing power is six times greater. This is evident on the GUI, where actions snap immediately into place with no appreciable processing and wifi lag.

There is dual band wifi that allows up to 10 multiple devices to connect, you can use Ethernet, or you can directly plug a touch screen into the device – something not everyone would do, but it is an option not available on many systems like this.

Danny and his team did a lot of work on the GUI, to keep it simplistic, intuitive, and quick. A lot of work went into the multitrack recording side, where the 22 inputs can record direct to a USB stick and also to your laptop DAW – where the auxiliary outputs and the master outputs can also appear.

At each channel are added selectable slopes on the EQ, a more comprehensive noise gate with depth, a full compressor limiter and a de-esser. There are four FX processors.

Every auxiliary can be used as a matrix, and each input can be delayed 250ms while each output can be delayed 500ms – very handy for delay rings or under balcony sends.

Danny showed me the AFS2 feedback suppressor which while it works, is a dangerous tool in the hands of a novice. If you point a mic at a stage monitor wedge, it will stamp on the offending frequencies – and show you on a graphic screen what it has done. It can be switched on and hover over the auxiliary 'monitor' output mixes.

So it's much more than a lower cost entry mixer, more like a solid 24-8-2 mixer of the past with a stack of effects and processors. If it were a manual analogue system (so last century), you'd need at least 4 x large racks sitting alongside to give you what is done with DSP inside the little Ui24R.

Harman's Connected PA concept begs for a test of a whole system of Ui24R, JBL's PRX 800W and AKG mics. Perhaps we can do that soon.

Danny
Olesh
Product Manager
at **HARMAN**
Professional Solutions
with the new
Ui24-R



Control your own destiny?

Self employment can be like



Biz Talk

March 2017



By Julius Grafton

In a moment of madness I bought a café in the big mall in a country town. It was soon apparent I wouldn't make much, other than rissoles and coffee. It was a thankless existence, shoving my arm into a cold bucket of mince before 7am, and cleaning up well after 6pm. Same, same, same, every day.

But compared to the family who operated the Cut Price Deli down the hallway, I was doing well. They were at the mercy of their corrupt franchisor, forced to buy everything at whatever price the chain dictated, and also forced to sell on special, often at a loss. They were there seven mornings, and seven nights a week.

My café experience was just before I started publishing, and it was a reaction away from my other trade, which is sound and lighting technical production. I had had enough of that, and didn't want more so I rushed into something I was ill prepared for.

Eventually I sold it at a loss and have never since harbored the slightest desire to get back into the food trade. You've no idea how hard it can be – everything broke down, including some of the staff. I caught one enormous obese worker gorging on my curried eggs inside the fridge. That almost made me puke.

I was at the mercy of a very lengthy lease with one of the mega huge retail landlords, a lease that cost a fortune for my lawyer to read, and a lease that gave them extraordinary power over me. Have you heard of 'overage'? It is "a percentage of the amount of sales grossed by a retail store that is paid under the terms of a lease in addition to a fixed rent."

In other words, if I sold well I paid more rent!

The lease required me to remain open for trading on Thursday nights and all weekend, present the store in a certain way, and to renovate every three years.

But if you think a retail lease or a franchise agreement are the worst kind of penury, then you haven't borrowed from a bank for business purposes. That is when you give away

almost all your rights, and can discover a whole new world of pain descending on you without prior notice. The Small Business and Family Enterprise Ombudsman told a senate estimates enquiry last month that there is a human cost to predatory banking practices. She said that banks should be prevented from making unilateral changes to agreements, and from foreclosure where the business had not breached any loan covenants. You read that right – the business does nothing wrong, but the bank just decides to step in and seize their assets.

This can be for reasons as opaque as deciding to reduce 'exposure' to a particular industry. Currently most loan documents contain catch-all 'material adverse change' clauses, where the bank can fit you up for non compliance.

Another common problem is the bank decides to revalue the security, usually the family home, and declare it is no longer adequate. The bank charges you for a valuation, and then does not show you the valuation. She says this needs to change, as well as giving the bank customer a choice of valuer.

Sometimes the bank sends in a bank friendly forensic accountant to terrorise the business and prepare a death report. Which is charged against the business, and which is never a cheap exercise.

There have been 17 different enquires into the banks since the GFC, and up to now little has changed.

CX knows of some small businesses that are funded entirely on credit cards and personal loans – an ultra expensive proposition, but one where there is no one central bank reviewing the business and having the power of God to shut it down on a whim.

It can be better to engage with a lender of last resort, like an organised crime cartel. At least you know what you are dealing with; and things get sorted out in a direct and transparent manner.

I'd rather die from a cap in my head than a slow death by a thousand bank cuts.



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history

1991: 2016

CX Magazine has been published in three guises **since 1991** maintaining a complete and unique profile of the Australian entertainment technology industry right to the present.

If you are new to CX or interested in a refresh, here's a snapshot of what we said 5, 15 and 25 years ago this month. Read these and every other edition for free at www.cxnetwork.com.au

➔ Magazine 1991



In March 1991 we published the 3rd edition of Channels. Jands released its Mosfet 107 for \$1695, the Vari*lite 4 was the latest addition to the 200 System, and we closely detailed the Soundcraft Spirit series - very cool at the time for a live desk as it featured a left and right master output along with a mono master output and channel assignment options (\$3,999 - 16chs, list). The Yamaha DMR-8 was also released that could write 8 tracks of digital 20 bit digital audio plus SMPTE.

We profiled lighting designer Frank Calvi, who among other advice said "This is a job, you do the work, get paid, get out of there." More invaluable advice in 'Power Users Tips' was how to tighten a mix using auxiliary sends when running subwoofers under a full-range system. Still good advice for smaller scale set-ups.

In 'Bangs and Flashes' James Reid raised

the issue of parts and supplier support for specialised lighting FX, citing the Rock Industries Space Beacon, 'a rotating collection of Par 36 pins' that would 'almost always cark out' necessitating two up a ladder to fix. James' point? Better spare part support including diagrams of internals to spare the angst.

A sample production for 1991 was Noiseworks touring a Jands Production Services JBL Modular system: 12 stacks each - W bin, mid bin and horn driven by Jands J920 amplifiers. FOH: PM 2000/32ch and a Yamaha 916. Monitor desk: Yamaha 2408, 8 sends. 15 wedges. 96 lanterns controlled by Celco Series II desk. Solar 250 projectors.

In Great Mistakes, an anonymous audio reader recounted how sweet silence greeted the audience when the band started - for a while that is, until the equalisers were re-patched. Problem was, desk faders were at full volume on a large pub PA. Wise advice was offered: RULE 1: Don't Panic. RULE 2: Turn Faders Down Before Fault Finding. RULE 3: Calm Down.

➔ Magazine 2002

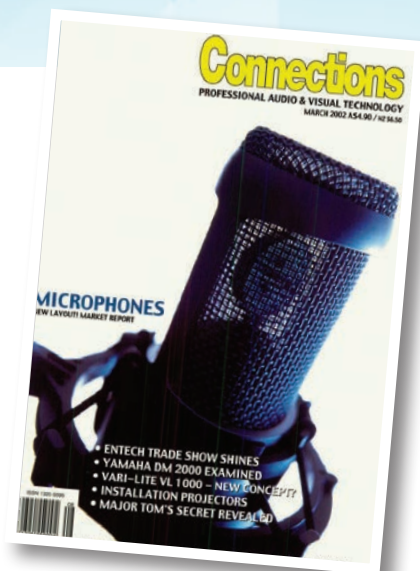
The Editorial in Connections #96, March 2002 raised the perceived snobbery in professional illumination circles about professional lighting design, and of price gouging by AV equipment and service suppliers in corporate theatre. The edition was a full feature of the February ENTECH tradeshow held at Sydney's Darling Harbour,

topping out at 5,143 visitors, 20 million worth of gear and about 130 stands.

In production news, we reported on Australian Concert Productions adding 'arena quantities' of EV X-line array cabinets for an upcoming Rod Stewart tour. A breakout story was Rod

Stewart's engineer Lars Broggard hitting the +10dB mark when we snapped a photo of his secret, looks-like-a-Soundracs-DS-3 console, estimated to offer 144 ch... Further up the live audio spectrum we reported on The Sydney Opera House's purchase of a Euphonix System 5 to replace its Amek SR9000.

MD of Australian Audio Supplies Dave Croxton wrote about a different type of audio gig, working with Ian McNamara of ABC Radio's 'Australia All Over' at Fitzroy Crossing, WA and in Reviews we looked at the Yamaha DM2000 Digital Live Console; Soundcraft's MH4 Console; Vari*lite VL1000; and Command Systems Joey Remote Control. Rounding out the edition, two useful Market Reports on Microphones and Installation Projectors (over 15kgs). At the time a Beyerdynamic M88 retailed for \$999 and the Barco iQ G300 projector (3.5k lumens) \$35,000.



➔ Magazine 2012

CX Magazine #68, March 2012 covered the first CX ENTECH Roadshow, how it works and why its a unique offering. The Roadshow seminar Stage Safety was well attended with disturbing reports of local government authorities and others unwittingly purchasing inferior stage and ground supports systems. In touring we profiled the How to Train a Dragon stage show, and Pink Floyd's The Wall, one of the biggest and smartest productions we have seen.

Tungstan vs LED? A debate that's rapidly cooling according to Jimmy Den-Ouden's profile of LED lighting in the industry and its increasing maturity, including a review of the PRG Foton LED fixture. We also reviewed the Atomos Ninja portable HD video kit, DPA's d:line series headset microphones, the Tascam DR-07 MkII hand-held recorder and Allen & Heaths GSR24M console.

And when is a lectern with two microphones a really bad idea? Most of the time, said John Maizels in his regular column, plus other useful advice including where to go tech shopping in LA. In another regular column The Installer, Paul Matthews wrote about the business of getting paid: "If you can't read and understand all three sections of the tax pack then business is NOT for you!"



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The Corporate Event Client

by Simon Byrne

As a freelance Technical Director/Production Manager, I've specialised in managing full service corporate event work for more than 25 years. I usually work directly with corporate clients and there is good money in the work. However, it is the area of the industry where the client has no idea what you do, unless it is not working!

In that context, we are selling nothing more than confidence and trust. They place their trust in us to ensure that they look and sound great, and their message is delivered with maximum impact with the minimum amount of fuss. We in turn give them confidence that their trust is not misplaced.

As a supplier for corporate events, it is critical to understand a few things.

An event is just a small part of their day job. That means that they are out of their comfort zone when putting an event together. They are looking for people to help them through the challenges of getting it right.

Corporate staff seem to live in a constant state of paranoia. They worry about what their bosses think, and how their management of the event will affect their career.

They don't know, what they don't know. This is a time when they are at unease. A good TD will step up and assist them in dealing with issues that are hard for them to understand.

They can have unrealistic aspirations. I once had a client ask me "Did you see Eurovision last night? Can we have something like that?" My client did not have even 1% of a Eurovision production budget so it was up to me to let her down gently.

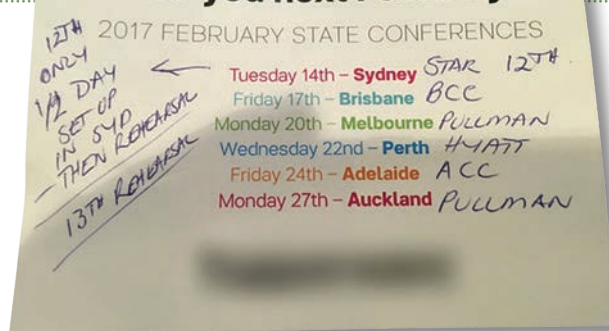
Stuff will get missed by the client. Try to plan and help your client through those challenges and don't make a big deal if the crew meals don't materialise at the right time!

A crisis of some sort is common. Don't be surprised and be ready to take a leading role in solving the problem.

Corporate clients have zero interest in the equipment and technology you use to deliver their event. They couldn't care less what brand of speakers you use. What they really care about is can they be heard and does it sound and look good (in that order).

The goal for a good TD is to position yourself as the person who makes your client, and their bosses look good. Corporate clients become faithful once you have demonstrated that you

See you next February!



can be trusted because the risk is high to them if they change and let's face it, if you have done a good job, they have no reason to change.

>> The Corporate Event Process

Most of the work is done in the planning stage

Get the brief from the client - particularly dates, venues and times. The brief will not be complete and it will change. I have one particular client who trusts me so much that all they give me is a list of dates and venues. This constitutes the entire brief for a major Australia/New Zealand Roadshow! It is the nature of the beast.

A site survey is the next step and it is crucial.

- **Measure everything** - If a floorplan has been provided, verify the dimensions as they are sometimes incorrect.
- **Photograph everything** - Include things like the access, rigging points, the walls, lighting controls, power outlets, even the carpet.
- **Verify rigging options** in terms of safe working load and location.
- **Establish** how much power is available.
- **360Panorama the room.** 360Panorama is a phone app where you can make a full 360 degree panorama which can be viewed on the phone, or can be uploaded to their

server. Because they capture pretty much every detail in the room, they are useful when planning the event and especially when talking to subcontractors.

- **Establish rapport with venue staff** - You are going to achieve much more if the venue staff feel that they can work with you easily. Your client has probably already signed a contract with the venue so until you demonstrate otherwise, you'll be seen by the venue staff as an interloper.

Once all the information has been gathered, the event needs to be planned carefully. **Planning is by far the most important step in the process.** A good TD will always do scale plans and leave nothing to work out on the day. This includes the guest seating. On dinners, as well as plans for the production, it is good practice to produce a version for the client with their logo and table numbers for them to use when planning their guest seating.

Next is to get the plans and concepts signed off by the client. Only then should you detail the design of the systems and send a written brief to your suppliers so they can do costings.

If the client is likely to be hit with Technician on Duty (TOD) charges, ensure that they are aware of these. (Check out The TOD Scam article in the June 2016 Edition of CX <http://www.cxnetwork.com.au/cx-magazine/cx115-june-2016/>). If you have established a rapport with the venue, you can sometimes get these reduced or even waived. Particularly if the house provider plays a part in the event.

If there is entertainment, the TD will be responsible for delivering the entertainer's technical rider, but in a cost realistic way. How shall I say this, entertainment riders for corporate events can sometimes be, well, "ambitious". Some performers will go for a much higher level of spec on a corporate event when compared to any other gig. Usually just because the client doesn't know any better and they can get away with it. Once again, your client will have signed a contract with them and will not have realised what they agreed to in terms of production cost. It is up to the TD to strike the balance between what the performers want, and what the client can afford (despite what they agreed to in the contract) whilst ensuring a high quality result is still delivered.

It is important to do a quote. Recall that the client has little idea as to what they are buying and have no understanding of how pricing can change. Therefore it is critical that the client is kept up to date with costs. Once the client has the quote and are happy with things, it is important that a written confirmation is secured. It doesn't need to be much, just an email will do. This is to protect you should something go pear shaped on their end.

Once the quote has been approved and the job confirmed in writing, get a deposit. Most corporates are slow payers but are used to paying a deposit to secure services. I do this to ensure that I can pay my suppliers. Sometimes I'll pay my suppliers a deposit up front even if they don't require it. It demonstrates good will and makes no difference to me.

Put together a written production schedule and set your expectations with the crew. The clients are responsible for the run order of the event itself, but it is important to do a schedule

for everything else which includes load in, setup, breaks, rehearsals and load out times. I'll give it to all the contractors, crew, the client and especially the venue. That way everyone has an understanding of how things are expected to pan out.

It is worthwhile reminding the crew of the standard of dress that is expected at a corporate event. That means dressing professionally, looking relaxed, yet neat and pulled together. Call times are the time that the crew is expected to be ready to work. Drinking alcohol on a corporate gig is definitely not on.

The key to a successful event is to leave nothing to chance. I once flew to Beijing, China for a 1.5 hour production meeting with the AV provider. It was worth it.

The gig itself should be just a matter of delivering the plan.

Run the gig to your plan but be ready to accommodate any last minute changes. The client is likely to be less organised than you or they would like. Just deal with it and go along for the ride.

By now your team and venue staff should have a full and complete understanding of what is expected. It is the TD's role to monitor progress and ensure everything is going to plan. Where there are issues, it is up to you solve them quickly.

>> After the gig

After about a week has passed, get feedback from the client - Good or bad. On the night, unless something has gone wrong, they'll tell you that it was fantastic and that in part, will be the alcohol talking. But after a week has passed, they have had time to think about the event properly and will have had feedback from their colleagues. This is the feedback that a good TD is interested in. The goal is to ensure that the client had a good experience but equally, you want to identify any areas where you could improve.

Keep good records of what was done. The client may phone in a year's time and ask to do the same again.

Always, always pay labour within 7 days and pay other suppliers within agreed terms.- Techo's and the crewing services cannot be expected to help fund your business. If you have an established track record of prompt payment in the industry, you become a valuable client. Also, if you find yourself in a temporary "cashflow challenge", suppliers are much more likely to work with you.

Every event is an investment in your business. As an independent Technical Director, I am always looking to build long term relationships with clients and suppliers. This means I rarely sweat the small stuff because if I take a hit on one event, I am likely to be rewarded with a long term client and many more events to come.

"That was the best event ever!! Thank you so much". I'm no better than any other experienced TD but I have heard that many, many times. I think it is because the client is relieved that we delivered on and in most cases, exceeded their expectations.



Isolation in a world of Instant Connectivity

One of the Emerging Challenges to be Addressed by ACETA in 2017

The first ACETA board meeting for 2017 held in Sydney on Tuesday the 7th February, defined some general strategies to address emerging trends that are negatively impacting our industry. A business plan is underway and will be presented in this publication when completed and approved, in the meantime we will briefly commentate on aspects of the evolving landscape that will stimulate initiatives and provide focus for the year ahead.

• **In a world where technology now offers convenient,** instant, easy communication and organisational platforms, why do many of our constituents feel more isolated than ever, an environment of course not just confined to our industry. Given a modicum of thought you may agree, for many the primary form of interaction today is with a screen

and in a virtual space, the ability to effectively communicate in real time and meet face to face is diminishing, by and large the emerging generation is wedded to a mobile phone, computer and a pair of headphones. The wonder, necessity and benefits of contemporary technology platforms are obvious, however there are negative consequences if quality human interaction is consigned to history. Let's not forget, human beings are analogue and social creatures, intuitive with individual sensitivities, which are neutralised in a virtual and isolated world. The overwhelming majority of individuals do not achieve their potential in isolation and nor do the organisations they belong to and represent. Over the last decade or so we have seen the rise of many constantly proclaiming how busy they are and the term 'time poor' has become entrenched in our vernacular, it would seem epidemic and some commentators even refer to it as 'the cult of busy'. Are we losing time management skills



and is this a by-product of a reliance on technology? One thing is certain, it is your achievements that you are known and measured by, not how busy you are.

• **Entertainment technology needs to be heard,** seen, experienced, serviced and supported for effective acquisition outcomes, usually not possible in the virtual and faceless domain. Most agree if we are to prevail in the face of borderless trading, the buying power of international competitors and questionable practises, our local industry needs to strengthen by addressing core skills and improve individual and organisational effectiveness. In addition, a number of progressive thinkers have suggested the potential in sharing resources with compatible organisations, some even see the wisdom in strengthening by amalgamation. This narrative will be of interest to most ACETA constituents be they manufacturers, distributors, retailers or service providers, as any individual or organisation is empowered by enhanced communication, organisational and time management capabilities not to mention effective strategic planning and the expansion of networks. ACETA has determined a pro-active response:

• **In light of the aforementioned landscape and to meet the expressed needs of the industry,**

all roads lead to the establishment of an Industry Convention one focussed on individual and corporate development. Therefore, ACETA is pleased to announce the inaugural Australian Commercial Entertainment Technology Industry Convention is scheduled to be held in May 2018, this will be confirmed along with more specific details at the ACETA AGM in May 2017. It is envisaged that this inaugural event will establish an annual staple on the industry calendar and a tool for prosperity. Whilst the exploratory process has only just begun, we can advise that the convention will take place in both a work and social setting and there will be no trade show (sell-fest) component, the focus is totally on personal and corporate development covering many topics presented in numerous and varied formats. Participation will be available to all ACETA members and associate members.

• **In summary, the Industry Convention is seen as the optimum and most progressive vehicle to assist employers,** employees and contractors achieve their potential. Please note this initiative is an additional ACETA program and does not supersede or take precedence over any other program. As we are in the formative stage we really welcome your comments at info@aceta.org.au.

All the best.

Frank Hinton
President
ACETA

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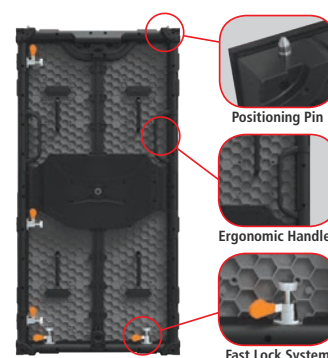


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Are you concerned about your mate's mental health?

FACT: Most Australian tech crew and roadies have attempted or considered suicide¹!

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Supporting the mental health of Australian entertainment industry workers

¹Passion, Pride, Pitfalls Dec 2014

Icy cold at the I.S.E.

Fun and games and frostbite in Amsterdam



his year, instead of exhibiting at the Frankfurt Pro Light and Sound as we have done for the last 20 years, my fellow directors and I at the ARX nerve centre in Highett thought we'd try the new (to us anyway) ISE Integrated Systems Europe show in Amsterdam.

"Ooh Amsterdam!" said my gf. "While you're wandering around the galleries and the Van Gogh museum, could you get me a couple of t-shirts with a print of 'Starry Night' or 'Cafe Terrace at Night' on them?"

"Yes, of, course," I answered, fingers crossed behind my back, "In my spare time...!"

It's a long flight; Melbourne - Sydney- Dubai - London - Amsterdam. Lots of flying and lots of waiting around airports, but there ain't no other way to get there. And it was winter. Not winter as we know it here in Oz - just a little bit cooler than summer - but the full blown bone-chilling icy coldness of a European winter, with winds that just slice right through our flimsy southern hemisphere clothing!

The things we do for the company!

So, 32 hours later, tired and emotionally drained, we stumbled out of Amsterdam's Schiphol airport into a rather sleek looking black taxi. All electric, silent and very powerful, it was in fact a Tesla taxi! We handed the driver the name and address of our hotel then relaxed in the lap of 'Looxury'.

A crash on the freeway exit leading to our town meant it was closed, so we had to travel another 40 Euros until we could get off at the next exit, do a u-turn and

drive back from the opposite direction. By

that time, of course,

the accident had been cleared and we could have used our original exit if we had been ten minutes later.

I think the taxi fare might have ended up slightly less than the cost of the Tesla, but it was a close thing!

Rob Yeo, our man in Singapore, had been coerced into coming to the show, and, coming from the land of permanent 30° C, he was suffering from the cold even more than us. He was sound asleep when we arrived at the hotel, and after a couple of glasses of cognac to warm us up, it wasn't long before we were too.

Regular readers from a couple of stories ago would remember that for the last ten years in Frankfurt we had stayed in a small town called Bad Soden, which was at the end of one of the suburban train lines with the hotel right next to the station.

We had been looking online for a place with a similar setup in Amsterdam; one that was far enough out to avoid the high prices of the inner-city hotels and restaurants, but close enough to get to the show in about 20 minutes.

Someone suggested that we stay in a little town called Abcoude, just four stops from the exhibition centre (the RAI), with a railway station to enable us to travel to and from the show in warmth and relative comfort.



Not being Dutch, we kept pronouncing it Abcoode, which no-one could understand unless we wrote it down for them.

It wasn't until we got on the train to go to the show the next day that we heard the woman's voice doing the 'next station' announcements pronounce it properly. It turned out the correct pronunciation was "Ab Cow Duh". Once we had mastered that then we had no trouble finding it at all.

I reckon if we travelled on the train everyday for a few months we'd soon be speaking the language like a native. A native of where, I'm not quite sure, but we'd certainly know our Amsterdam from our Rotterdam.

The next morning was setup day. We awoke bright and early, ready to check out the station and to time the journey to the show.

The station was not next to our hotel, as we had hoped, but was a couple of kilometres forced march away through the fields, down at the factory end of town. It was clean, new, and unmanned, a red brick blob in the middle of a freezing cold windswept plain.

And it was there that we discovered one of the quirks of the train system - the ticket machines only took coins or credit cards - no notes. And what did we have? Notes!

Hmm. As relatively seasoned travellers we were always wary of putting one's precious credit card into a machine in a foreign country, where an accidental jab of the wrong button with a cold finger might see the card swallowed up, never to be seen again. Col volunteered to put a toe in the water, so to speak, since he always seemed to have an abundant choice of cards in his wallet.

Luckily the machine spoke English, and after a couple of bungled attempts coughed up a few all-day tickets for us, returned Col's card, and we were on our way!

It's a big exhibition; one that takes up every hall of the RAI Exhibition Centre, but well organised and well signposted, and we soon found our stand. Minutes later Robert Pigeaud, our Netherlands distributor, arrived with our cartons of show stuff, and pretty soon we had the stand all set up, apart from

waiting for a few chairs that we had ordered to be delivered.

"Well, let's have a break and wander down to the old town," said Col. "There's not much we can do here for a while."

We walked back to the RAI train station, and caught the next train to the City Centre.

The trains were crowded but nice and warm, and we reluctantly left their warm cocoon to do some sightseeing. We valiantly braved the rain, cold, sleet and snow to wander around the little streets and take some touristy photos of us standing on the little bridges over the canals.

Rob had strained a muscle in his leg and was walking with the aid of a collapsible walking stick. Unfortunately he leant it against a bridge while posing for a photo, whereupon his stick leapt into the water and swam away down the canal!

It was so cold and dreary that all the windows in the red light district, where the ladies would sit advertising what they were renting out for half an hour, were closed and shuttered. Just one jolly lady smiling and dancing to her portable radio in her underwear. Col told me he'd booked me my own window, so that I could do the same thing and perhaps earn enough money for us to pay the taxi fare to the airport!

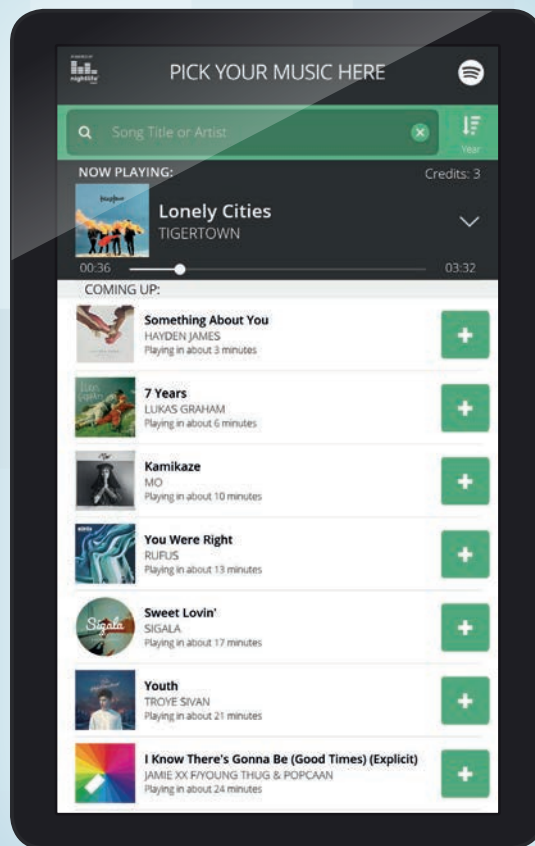
Many places around the old town had signs saying No Cash - Card Only. I guess that's what happens when you have people roaming around suffering the after effects of some "ba-a-ad we-e-e-ed, man". Not City Central but Hippie Central!

After an hour and a half wandering around, we agreed that we'd seen enough, we were freezing our bums off, we were cold and damp, snow was starting to drift down, and a nice warm train was beckoning us to the station.

My gf's dream of me bringing back a selection of Van Gogh t-shirts (of which there were none!) had totally evaporated as I shivered in the cold air, and it was time to do some work.

The exhibition turned out to be very successful for us. It was the busiest one we had been to for a long while, and now the hard part of negotiating next year's stand begins in earnest.

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