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**LIVE PRODUCTION SPECIAL ISSUE!**

**THE NEWS MAGAZINE FOR ENTERTAINMENT TECHNOLOGY**

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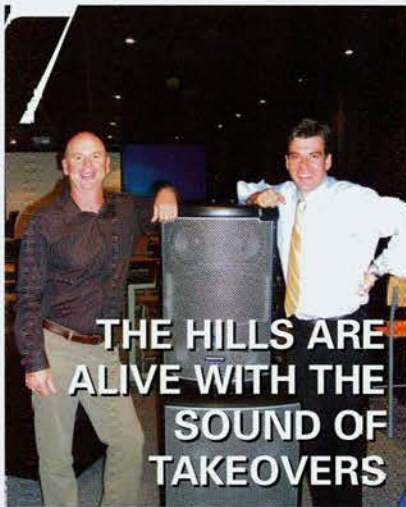
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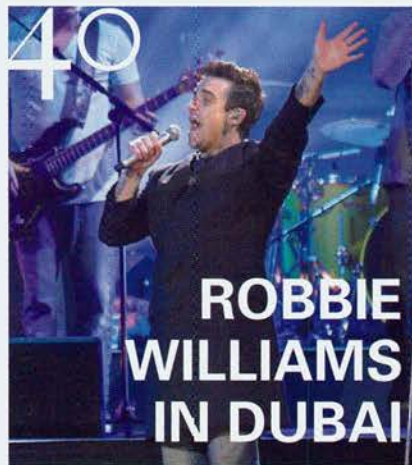


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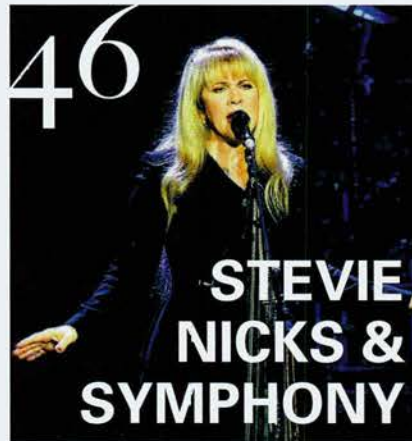
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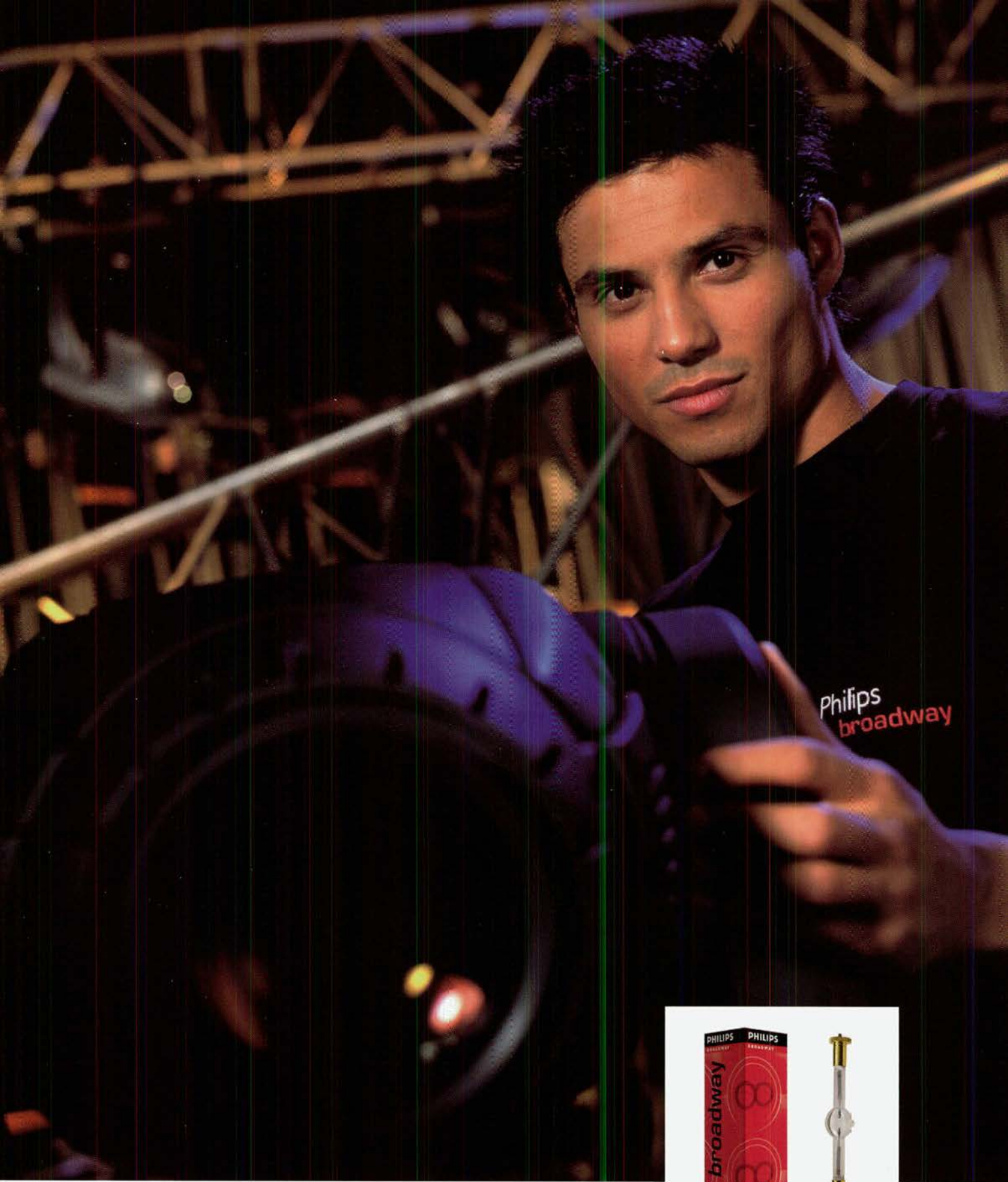
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# EDITORIAL

## TV VIA INTERNET

One of my favorite commentators, Alan Kohler, is usually right on the money. He says that in Australia, Telstra will shortly install a fibre network that'll bring real broadband to your door, not the slow thing that is our ADSL. The implication is massive for entertainment, because it will allow streaming TV.

At the moment, TV programs 'wash over' you at scheduled times. Kohler says the next generation of Microsoft operating systems will port your TV, music and internet into your home screen environment. This is all tremendously exciting for us in entertainment.

## IT'S A GOOD TIME TO BE HERE!

Diversity of delivery of TV, movies and music means bad things for existing TV networks and movie studios whose stuff will be pirated like music is now – which in turn is already bad for the record companies.

But this is all good news for those of us who make solutions, we install things, we operate at shows, and we do events. Because what we are in now is a content hungry environment, where more media is demanded for more outlets.

## THE MISSING 'V'

My news story about Hills talks about how they are yet to find the video side of their new and expanding business. There is a massive chasm between broadcast quality video and consumer video equipment – when it gets here the winners are not the people who sell boxes, but people who integrate it all into venues and homes.

The 'killer application' is the LED wall that comes at a reasonable cost. Think of a Barco i-Lite 6 LED module, for the price of a line array element.

Once that happens, pretty well every production company will rush out and sink half a million into large format video.

If you design shows, the prospect of access to considerably more LED modules at considerably less cost is like a ticket to paradise.

## LOT OF GIGS, HUH?

There's some great wisdom in here, usually not written by me. Nickelback espouse great attitudes, and it filters down to crew and audience. Diesel talks about getting back what you give. But before the inbox full of complaining emails start, this mag is driven by YOU. If you invite us to a show, or send us pictures or details, then of course we are more likely to run it. So if your genre of entertainment or installation or show isn't here, don't complain, do what the writers in the mag have done, and write something. However rough, give it a shot. We even pay money.... (sometimes).

## MOVING FAILURES

The Comm Games story contains a lesson for young players: when you put your rig of moving lights up in the air, you might have 6% of them fail each time you do it. Factor that into your planning, because even if it is something as simple as a lamp or module replacement, you still need to get the thing down out of the rig to fix it. That can involve a rigger, a truss coming down, at least 2 people to handle the things, and someone to fix them. Then put them back in the air again.

Field reliability of moving lights fascinates me. Please email me your experiences, and if there is a weak link out there, let's talk about it. [mail@juliusmedia.com](mailto:mail@juliusmedia.com)

*Julius*

# CUE03

**Entertainment  
Training  
Resource**

This magazine contains much information which is a direct resource for anyone studying from the new Entertainment Training Package, named CUE03. From 2006 we will start to map certain articles direct against the relevant Unit of Competency within the package. This makes CX magazine a very cost effective resource for schools, colleges, and universities. Note that we offer a copyright release where articles in CX Magazine may be photocopied and distributed to students within an accredited course.

# NEWS

## PRODUCTS AND GADGETS

### THE HILLS ARE ALIVE WITH THE SOUND OF TAKEOVERS

Hills SVL consolidates the 'S', now watch out for the 'V' and the 'L'

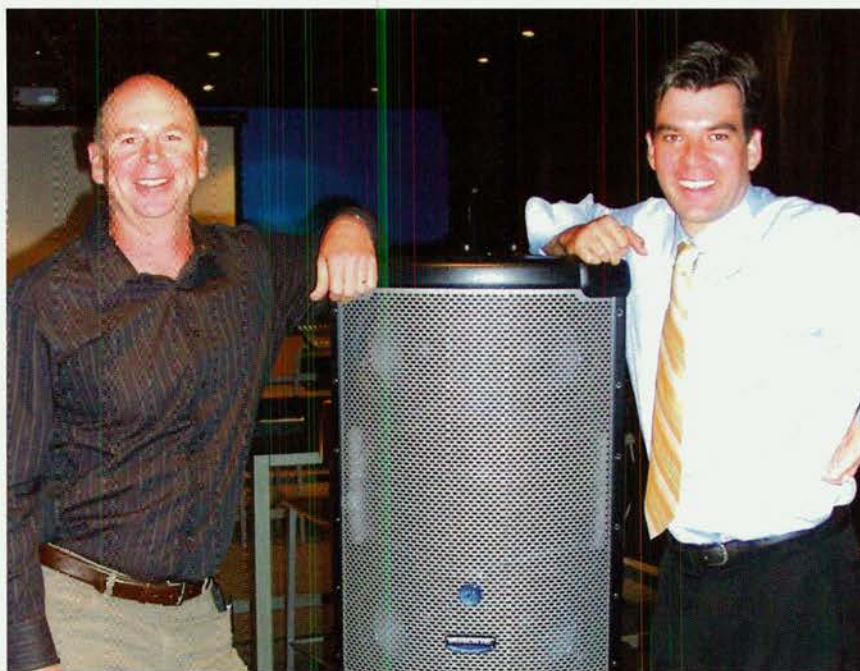


Hills SVL has emerged as the operating entity for the growing group of companies clustered around Audio Telex Communications after its sale to the publicly listed Hills Group last year. Hills SVL General Manager Stuart Craig told CX that before Audio Telex was sold, Hills Group wanted to know how the company could grow through acquisition.

The answers have started to appear with the takeover of AAS (Australian Audio Supplies), the company started by David Croxton that distributes the iconic brand Mackie. AAS is now a Hills SVL entity, although it continues to be run as a semi-autonomous unit.

A year back, and Audio Telex Communications was a \$25 million company, buoyed by the explosive growth of its Creston Control Solutions business, a line that tripled in the first year the company distributed it. Creston is a vision and audio integration and control system that allows high end consumers and commercial installers to integrate a lot of disparate equipment into a central or distributed control network.

Then Hills emerged and paid around \$24 million for Audio Telex



Dave Croxton and Stuart Craig.

Communications. The directors sold the company for a multiple of earnings, plus stock. They kept the real estate, which is leased back to Hills. Director Roy Morgan was retained by Hills as CEO. Stuart Craig was retained as general manager - he is the son of another Director, Rod Craig.

Hills Group is an \$900 million conglomerate that has extensive security and commercial arms, and

which observed and identified the growth in the Audio Telex business across the past decade. Audio Telex doubled in size in the last six years.

When AAS was added into the mix, the new master entity became Hills SVL, which includes Audio Telex, Creston Control Solutions, Australian Monitor, and now AAS. These businesses fit well together. Audio Telex is big in commercial audio, upwards from its traditional 100v line

type PA system market. It distributes top brands like Turbosound, Lab Gruppen, Renkus Heinz and Beyerdynamic.

Creston Control Solutions operates as a separate entity, formerly underneath Audio Telex and now controlled by Hills SVL.

Australian Monitor was a company 'on its knees' according to Stuart Craig. Audio Telex purchased the brand name, and the rights and designs to several amplifiers from the former owners of A.M., messers Lionel Krupp and Heymie Meyerson. Audio Telex revived the brand and today it sells product around the world.

Now Australian Audio Supplies joins the group, and everyone at Hills SVL is at pains to point out it is business as usual for the Central Coast based AAS. Founder David Croxton has been

retained as Sales Manager, and he had a veritable head of steam as he told CX how AAS clients would benefit from the move.

AAS will now be able to position some Audio Telex lines into its mainly retail customer base, where Audio Telex has a mainly contractor based roster of clients. "In fact, retail is only 1% of our business" says Stuart, "and 90% of mine", adds David. The distinctions between clients may be a little foggy, but AAS has mainly worked on shop front outlets where they have competed against a large roster of brands, many of which are part of a bundle offered by much larger distributors.

So what's next at Hills SVL? Clearly the addition of Vision ('V') and also Lighting ('L') that are in the SVL name. CX understands at least one large

lighting distributor has been in touch with Hills SVL, trying to exploit the value of their business.

Stuart Craig would naturally not be drawn into a discussion about where possible future acquisitions may lie, but has not ruled out investing in some brands and sowing lighting products into the existing – and comprehensive – customer base.

The firm will move HQ by year end, and is looking for space in Sydney to give it the warehousing and support facilities it needs. There is talk of a major training and demo space adequate for a line array.

Stuart Craig has the last word: "People's expectations (of sound, vision and lighting) have changed, across the board. The quality has gone right up. There's never been a better time to be in this industry". **CX**

## MIDAS ROLL OUT THE XL8



It's been long anticipated, and surrounded by strange rumours and conjecture. The XL8 is arguably the most important new digital live sound console, because its success or failure will redefine the top end of live sound.

It can generate 48 mixes. It has 96 mic inputs plus 16 auxiliary inputs. It interfaces using Midas Net on RJ-45 connectors and Cat 6 cable. There are 504 XLR connectors on the standard, baseline, system. And best of all, you can 'colour' group things, so that you don't have to read electronic labels.

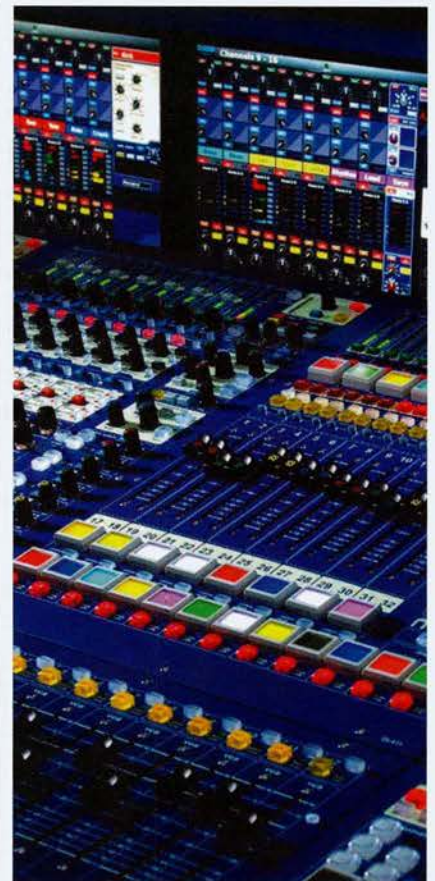
The wow factor was evident at the rollout in Frankfurt, where XL8 lived up to the promise that it had the features of two XL4 consoles,

without needing two forklifts to set it up.

The standard 5 module frame is about 1.8 metres wide, and about 1m deep.

The system configuration has routers, dsp units, and input and output modules. Many additional and optional things, like a lot of third octave equalisers using the Klark Teknik DN9331 Helix Rapide, can be optioned on, presumably via buying extra dsp units. The Rapide is a 6U 19" rack unit with motorised fader remote control for the XL8's onboard Graphic EQs. It connects using a single Ethernet cable and provides instant real-time control of all onboard assignable graphic equalisers.

Linux based, fault tolerant, and



allegedly: easy to use for people who are at home on an XL4. We can't wait to review the XL8! There is no price (yet) but expect to pay between a third to a half of a mega buck for a system.

In the meantime, feast your eyes on the website, at

[www.midasconsoles.com](http://www.midasconsoles.com) **CX**

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## SOUNDCRAFT DEBUT VI6

We saw the Studer Vista broadcast console at Frankfurt last year, and plenty of live sound guys and girls were being asked questions. It was obvious

that Studer, owned by Harman who also own Soundcraft, were preparing a live version. That is not a strange thing, since Digico is the spawn of the Soundtracs DFC, or digital film console.

64 in, 32 out, plus left, centre right. That puts Vi6 slap bang in the middle of

the market – PM5D territory – where the price point needs to be around 100k. The top of the market is D5, PM1D and now XL8 territory.

Vi6 comes as a fixed system, it appears Soundcraft will run out other Vi models that have more, or less, inputs and outputs. This one has a house rack connected by Cat 5 and a few audio cables, allowing 16 i/o's at FOH. The stage rack is connected by Cat 5 or fibre if the run is more than 100m. It has the 64/32/3 XLR connections, plus all the digital stuff.

A big benefit of the Studer lineage is that they claim to have minimised the BB factor – Brain Boggle. We look forward to meeting the Vi6 in a dark room sometime soon to confirm all this!

[www.soundcraftdigital.com](http://www.soundcraftdigital.com)



## VISTA S3 GETS NOD FOR DESIGN

Jands are pleased to announce that the latest addition to the Vista lighting control family, the Vista S3, is a finalist in the prestigious Australian Design Awards. Nominated by designer 4design, and entered in the consumer section, the Vista S3 is a product of 5 years development and a dedicated Jands R&D team of 9 people. The Vista S3 allows the user to build lighting designs visually on screen, and will be compatible with both Mac and PC.

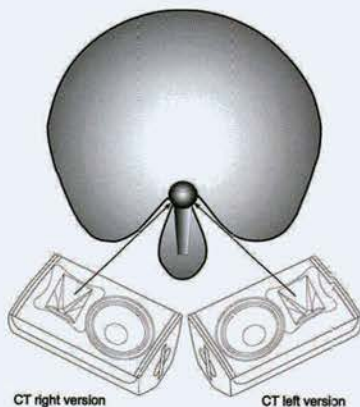
[www.jandsvista.com](http://www.jandsvista.com)



## RODE SCORES MIPA AWARD

The M.I.P.A awards are held every year at the Frankfurt Music Messe (the biggest show in our industry with 2300 exhibitors). The M.I.P.A is decided by a panel of people from 80 of the world's leading audio and music industry Press, so of course we at CX feel it is a very worthy award! This year the RØDE NT2-A microphone, designed and built in Sydney won the 'World's Best Studio Microphone' award.

[www.mipa-award.de](http://www.mipa-award.de)



## HK CONTOUR MONITORS LEFT AND RIGHT

The new HK AUDIO ConTour Series offers high-performance speakers for near-field sound reinforcement and on-stage monitoring. Models CT 108, CT 112 and CT 115 are now available as left and right versions. Having these left and right versions allows you to position balanced pairs of monitors in a large 'V' shape. In this arrangement, the mid and high frequency energy so essential for excellent vocal audibility has the shortest and most direct path to the performer's ears. When used as part of an FOH system in a "headstacking" arrangement (where two cabinets are stacked one atop the other, with the upper cabinet inverted so that the two horns are next to each other), a left-right pair will afford greater mechanical stability (due to the mirroring of the cabinet shapes) than two cabinets of the same type.

[www.cmi.com.au](http://www.cmi.com.au)



## ANOLIS LED RANGE LAUNCHED



Robe have introduced a comprehensive line of LED based architectural fittings branded Anolis. The line includes some clever and innovative devices, including little moving head fixtures, wall lights, strip lights, round ones, square ones, and professional control solutions. Worth a look.

[www.ula.com.au](http://www.ula.com.au)

## PHILIPS INTRO "FASTFIT"

This is a new rear load lamp base system, developed by Philips and Bender & Wirth, that makes it possible to replace and adjust the lamp in just seconds: very useful in difficult stage conditions. The overall lamp length, including the lamp holder, can be reduced by more than 25%. This makes more compact and lighter fixture designs possible. Furthermore, the FastFit technology will be used for both HID and Halogen lamps that brings about multi-usage of the fixture. Several leading manufacturers are introducing fixtures suitable for the new lamp base system for halogen and HID lamps.

[www.philips.com/broadway](http://www.philips.com/broadway)





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[www.ambertech.com.au](http://www.ambertech.com.au)

## ROSCO KEYSTROKE

Keystroke is a hardware/software solution to enable PowerPoint projections to be cued from any DMX lighting-based lighting controller to trigger keycard commands on a Windows XP based personal computer. Besides PowerPoint slides it can also activate sound cues and other PC applications used in theatre or live entertainment. The hardware is shipped with a USB A/B cable and a CD containing the software. A\$630.00 including GST.

[www.rosco.com](http://www.rosco.com)



## ANTARI EVOLVE THE FOGGER

The Antari range of foggers and hazers, foam, bubble and snow machines are distributed by LSW as part of its Industry Gear range. These new foggers employ Antari's ECO thermal control system that facilitates faster heat up times and produces steady continuous fog. The Z800II can be controlled via wireless remote, timer or stand-alone mode. The Z-1000II and Z-1200II models provide more output (10,000 & 18,000 cu.ft/min respectively). The Z300II fazer produces a translucent haze and operates silently. Prices start at A\$239 and range to A\$529.

[www.lswonline.com.au](http://www.lswonline.com.au)

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[www.philips.com/broadway](http://www.philips.com/broadway)

## FUEL SURCHARGE ADDED TO RENTALPOINT SOFTWARE

A fuel surcharge feature has been added to RentalPoint version 9 which has just been released, this assists user's of the software to recover some of the extra fuel costs associated with the current fuel cost spike by charging it on to clients. Companies are looking around for ways to recover unexpected increases in freight charges, hence the request was made to incorporate this feature in the software they use to run their

operations. RentalPoint Software Inc. responded immediately to this request and immediately incorporated the feature in their newest release update.

Given RentalPoint's wide use internationally it is likely that charging a fuel surcharge on top of hire/rental and production/staging may become widespread.

RentalPoint version 9 also includes support for portable electrical appliance safety testing, know commonly as P.A.T testing. V9 has the option to integrate with Safety first PAT software.

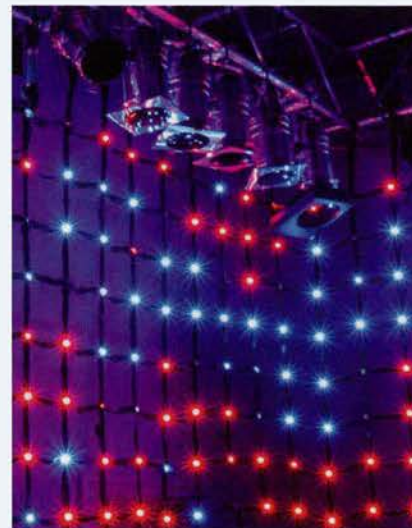
For more information log onto [www.rentp.com](http://www.rentp.com)

## CHROMAQ COLORWEB

The Chroma-Q ColorWeb provides unlimited flexibility and new creative possibilities for designers when it comes to displaying low-resolution visual effects. Featuring a unique modular design, each flexible 1m / 3'3" panel provides 16 individually addressable colour mixing LED cells with a pitch of 250mm / 10". Panels easily clip together on all four sides and can even be joined over distances using separately available interlinking cables, giving users complete control over the size and shape of their display area.

In addition, as only 10% of the surface area is taken up by the lightweight, flexible webbing, it offers unparalleled transparency for double hanging or multi-layering at distances. ColorWeb can even be lit through for maximum integration with set and other lighting elements.

The product is also extremely cost-effective as 10 x 1m / 3'3" panels with PSU would weigh less and be



size and cost comparable to a moving light.

The ColorWeb can be programmed using any DMX control device with each cell using 3 DMX channels (RGB), but is ideally suited to integration with a media server to unlock its full creative potential.

[www.jands.com.au](http://www.jands.com.au)

# KUDO

THE ALLIANCE OF 2 SOUND REINFORCEMENT INNOVATIONS



**KUDO** is **NOW** available for rental throughout Australia:

**Sydney** - Norwest Productions  
**Melbourne** - Norwest Productions  
**Brisbane** - Norwest Productions  
[www.norwestproductions.com](http://www.norwestproductions.com)

**Gold Coast** - Con-Sol  
[www.con-sol.com.au](http://www.con-sol.com.au)

**Adelaide** - Novatech Productions  
[www.novatechproductions.com.au](http://www.novatechproductions.com.au)

**Perth** - AAA Productions  
[www.aaaproductions.com.au](http://www.aaaproductions.com.au)

**Tasmania** - Frontline  
[www.frontline-tas.com.au](http://www.frontline-tas.com.au)



K-LOUVER MODULAR DIRECTIVITY UNITED WITH DOSC WAVEGUIDE TECHNOLOGY

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### JBL BOW VP SERIES POWERED LOUDSPEAKER SYSTEMS

JBL saw the new VP (Venue Performance) Series is a best-in-class powered loudspeaker system, integrating Differential Drive

transducers and a next-generation high frequency compression driver. The engine room is the JBL DrivePack technology platform, developed with Harman sister company, Crown International. At CX, we think this looks very much like a strategy to tackle Meyer. [www.jands.com.au](http://www.jands.com.au) CX



### ROBE DEBUT MEDIA HUB

Robe's new MediaHub has been designed for easy rig mounting, using a similar design to the Robe 575AT's base unit. The MediaHub has four parallel outputs to send video content

to plasma screens or LCD displays, projectors and other display devices. It combines 2 digital layers with a selection of up to 255 video clips or images per layer. Supported image and video file types are: MPEG1, MPEG2, PNG and BMP. [www.ula.com.au](http://www.ula.com.au) CX



### WOW - IT IS A SEXY BOX!

TC Electronic debut the Konnekt 24D- a 14 in 14 out audio interface that integrates TC's effects with front panel control of internal mixer parameters. TC's new audio interface was designed for recording and performing musicians seeking high quality sound from input through built-in real-time DSP effects to the recording application. In addition to the built-in DSP effects, Konnekt 24D

features two front-panel inputs that combine TC's new IMPACT (Integrated Mic Preamp Circuit Technology) mic preamps with true Hi-Z input circuits optimized for guitar. The non-DSP effects version, Konnekt 8, shares the same basic architecture and feature set with less I/O. Both Konnekt 8 and Konnekt 24D are optimized for use with active monitors, and come with Cubase LE software so users can start recording right out of the box. [www.ambertech.com.au](http://www.ambertech.com.au) CX

### AVSOUND FITS UP DOLPHIN HOTEL

The Dolphin Hotel, located in Sydney's trendy Surry Hills, has just had a major renovation. Avsound were contracted to design and install a multi zone AV system for the hotel by owners Icon Hospitality Group who commissioned a swanky interior design by SJB. It was important that the audio visual components blended into their classy surrounds.

Avsound installed a variety of JBL Control range speakers and went to considerable lengths to design custom mounting brackets including stainless steel rings to mount speakers onto poles. The speakers are driven by Crown amplifiers.

Control of the audio in all zones is by the dbx ZonePro 1261 which provides a complete suite of signal processing and control covering multi-zone rooms. Throughout the venue there are the easy-to-use multiple wall panel Zone Controllers that enable the staff select audio sources and volume control.

[www.avsound.com.au](http://www.avsound.com.au) CX



### MORE FAKE SHURE

Now the very clever copy product criminal community (look at a map, choose a very large country called China) have lifted the game with genuine fake SM58 manufacturer spam. They even sent photos.

**From: ZHENLIU CHEN.**

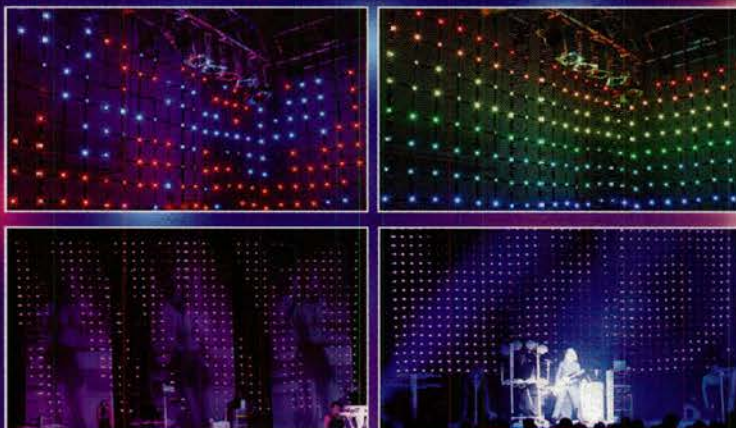
Dear Sirs, Please write to introduce ourselves as a supplier of original SHURE SM-58, wire and wireless microphone.

Our Fob price: SM-58(wire) USD13.80/PC. SM58 (wireless) USD34.50/set.

**No shame.** CX

# Chroma-Q Color Web

Shape your designs with  
**unlimited flexibility**



The revolutionary Chroma-Q™ Color Web provides unlimited flexibility and new creative possibilities for designers when it comes to displaying low resolution visual effects

- Modular 1m Square Panels
- Re-Configurable Display Area
- Pliable Webbing Material
- 80% Transparent
- Compact and Lightweight System
- Flexible DMX Control
- IP65 Rated
- Low Cost



 **CHROMA-Q**  
Color Block

## One Fixture - Endless Solutions

The Color Block DB4's modular design, comprehensive range of fixing options and advanced effects engine allows users to easily create a powerful and versatile LED system using stock or just one generic fixture type.

## The Building Blocks of Intelligent LED Lighting



Ask your nearest JANDS Dealer for details



## RETRO: NEUMANN TLM 49

Without hearing the TLM 49, from the design, inspired by that of the Neumann classics of the 1950s, you can gain an idea of the sound characteristics they say. "As is the case with the Neumann classics, the voice comes to the fore with no unpleasant overemphasis of the high frequencies". The TLM 49 employs the K 47 capsule, which was also featured in the M 49 and the U 47.

[www.syntec.com.au](http://www.syntec.com.au)



## SENNHEISER'S TINY BODY PACK TRANSMITTER

The new Sennheiser SK 5212 is one of the smallest professional body pack transmitters in the world. In spite of its miniature size, the SK 5212 in combination with Sennheiser receivers still allows more channels to be operated in a smaller frequency spectrum than any competitor product, they claim. It has a metal case – not plastic. Sound engineers will also welcome its backlit display and the convenient, menu-controlled operation.

[www.syntec.com.au](http://www.syntec.com.au)



## CROWN INTRO XTi SERIES

Crown have rolled out the XTi Series of amplifiers: the XTi 1000, XTi 2000, & XTi 4000. They are designed featuring Crown's extremely light switch-mode power supply. DSP is also integrated into each of the amplifiers providing users with all the tools necessary to setup their system.

The power ratings per channel for the XTi Series are as follows:

XTi 1000 is 500 watts per channel at 4 ohms

XTi 2000 is 700 watts per channel at 4 ohms

XTi 4000 is 1200 watts per channel at 4 ohms

The new line also provides computer connectivity via USB, allowing setup of the amplifier using a computer with the included HiQnet software. Built-in DSP allows users to set crossover points, graphic EQ, a limiter, and delay for time aligning loudspeakers.

[www.jands.com.au](http://www.jands.com.au)



## TANNOY PRECISION

iDP (Interactive Digital Programming) technology has now been incorporated within Tannoy's two new Precision monitors – Precision 6iDP and 8iDP. This brings together Tannoy's Dual Concentric and WideBand technology with the latest digital processing from TC Electronic. Built-in EQ capability of iDP allows precise room optimisation with the user being able to compensate for acoustic anomalies in the room. Loudspeaker positioning compensation in the software guarantees the same reference sound irrespective of their placement, whether in a corner, against a wall or on top of a console. Precise matching to the listening environment is possible as each monitor can be individually optimised, taking into account its exact position within the room relative to the room boundary, and



## MACSOUND ADD MOVERS

Northern NSW theatrical PA and lighting supplier Macsound have just taken delivery of an extensive range of lighting fixtures from LSW. They will use these to bolster their hire and theatrical supply department. The order comprised of 12 x PR Pilot Wash 575?s, 8 x Elation Powerspot 575?s and 4 x DTS Moon 575II Followspots. Here we see LSW Product Manager, Marshall Harrington and Technical Support specialist Andy Maher giving the moving heads the once over prior to their journey north.

[www.lswonline.com.au](http://www.lswonline.com.au)



its own performance relative to the acoustic properties of the room.

[www.syntec.com.au](http://www.syntec.com.au)



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Is your mic a compromise?

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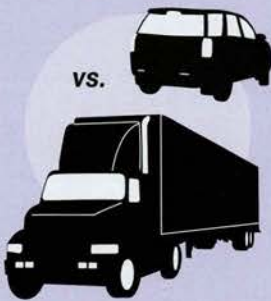
**RØDE**  
MICROPHONES



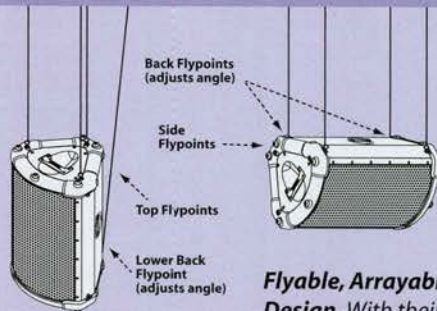
**Portable and Versatile.** S400 loudspeakers feature weight-balanced carry handles on both sides to make loading and flying a breeze. And their excellent pattern control makes them the ideal floor monitor.



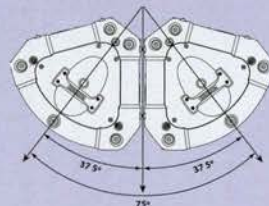
VS.



**Ready to Travel.** While most touring sound systems require truck rentals, a full S400 system with two S408 top-boxes and two S410s subwoofers easily fits into a full-sized SUV.



**Flyable, Arrayable Design.** With their trapezoidal shape and 12 integrated threaded inserts, the S408 HF/MF top boxes can be flown either horizontally or vertically. And two horizontally arrayed enclosures provide a whopping 150° of coverage per side!

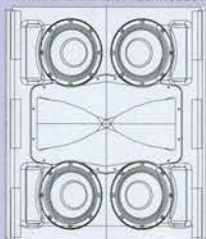


**Precision Crossovers and Power Handling.**

Because the S400 series was designed by the touring sound experts at EAW, it features a high-precision, expertly tuned cabinet, with superior HF/MF drivers and power handling up to 2400W.

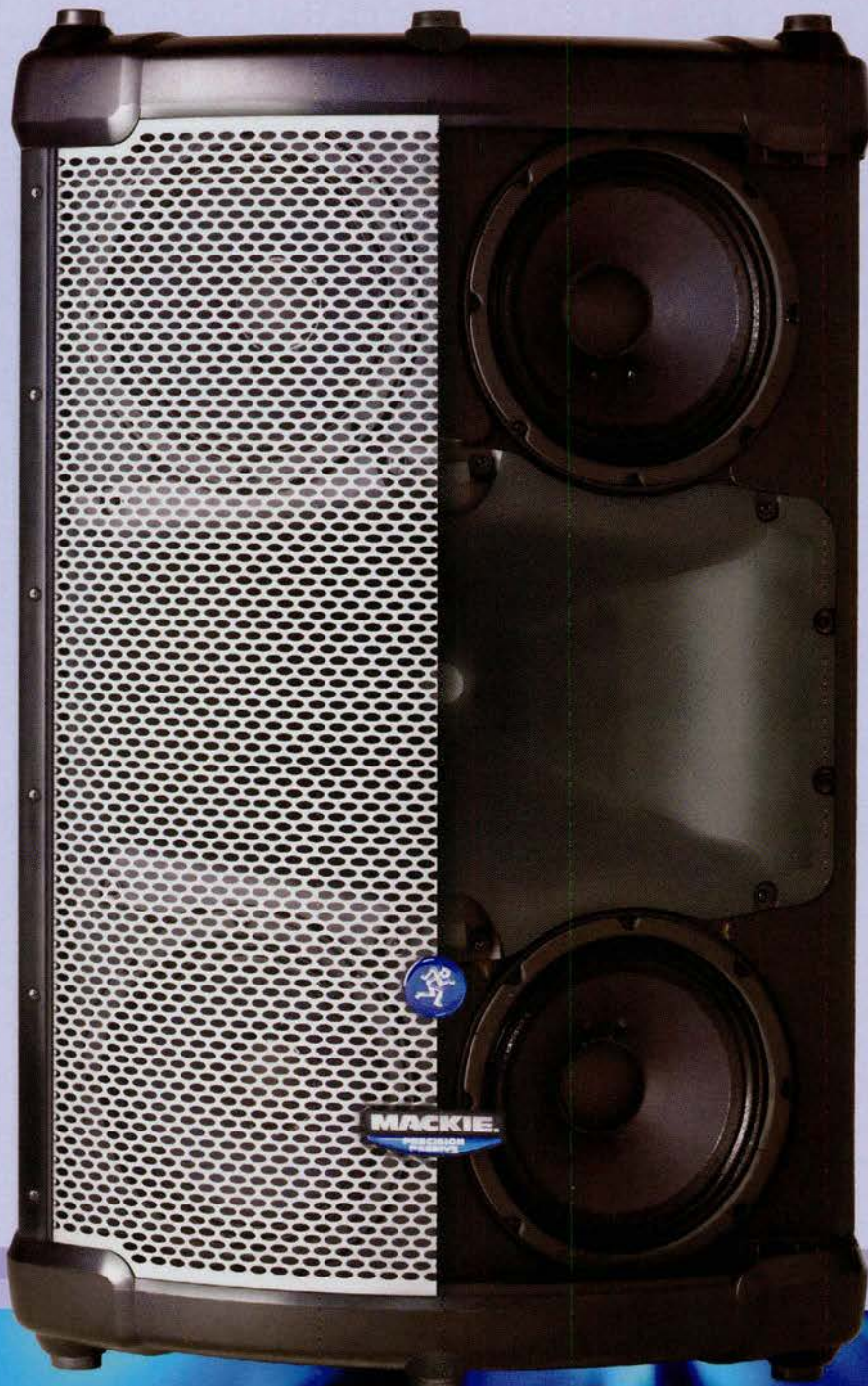
**TETRAD**

DRIVER ALIGNMENT TECHNOLOGY



**Four 8" Drivers.**

While most two-way loudspeaker cabinets this size feature a single 15" driver and small horn, our proprietary Tetrad driver alignment offers four 8" drivers. This does two things; it provides better transient response (i.e. "punch") than a single 15" driver; and it allows us to incorporate an oversized horn for far better midrange clarity and projection.



**Oversized Horn.**

When it comes to mid-range clarity and projection, the bigger the horn, the better. So the S408 features a 1" HF driver on an oversized 75° x 40° horn. In terms of vocal intelligibility, no other loudspeaker in this class even comes close.



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**BIG, WIDE-DISPERSION TOURING SOUND.  
NOW IN CONVENIENT TRAVEL SIZE.**



## **S400 SERIES**

**LOUDSPEAKERS w/  
TETRAD TECHNOLOGY™**

### **Introducing the S400 Series with Tetrad Technology.**

*As any live sound professional will confirm, the major difference between a "professional" loudspeaker system and a "semi-pro" system boils down to power, accuracy, and flexibility. Thanks to the use of flyable cabinets with multiple drivers, large horns and high power ratings, touring sound systems project farther, louder, and far more accurately than the "all-in-one" boxes purchased at retail shops. Until now.*

*Introducing the S400 Series Precision Passive Loudspeakers with proprietary Tetrad Technology. Developed by the touring sound experts at EAW—the same folks behind loudspeaker systems for everyone from Eric Clapton to the Super Bowl—Tetrad brings wide-dispersion touring sound technology to a new level of accessibility and portability.*

*If you and your venue are looking for touring sound without the touring budget, visit [www.mackie.com/tetrad](http://www.mackie.com/tetrad), or ask your authorized Mackie dealer for an in-store demo.*

**NO  
STOPPING**

9am  
Wednesday  
June 7th



9pm  
Thursday  
June 8th

**At Lots of Watts, Rydalmere,  
there'll be 'No Stopping'  
for 36 hours.**

Yes, it's that time again when Lots of Watts' Rydalmere store holds their huge 36-hour June Sale.

From 9am Wednesday June 7th, right through to 9pm Thursday June 8th, come and grab a bargain on ex-demo stock, ex-hire equipment, and traded equipment.

And while they're in the spirit of things, they'll even have some new stock on sale!

**The Lots of Watts 36-hour June Sale. From 9am June 7th to 9pm June 8th.**

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**Lots  
of  
Watts**



## NATHAN TASKER ON TOUR

Nathan Tasker is currently the number one Christian Artist on radio in Australia and the largest independent seller in the Christian music genre.

The dynamics in the five piece band range from soft acoustic through to full and powerful, so the system needed to handle that. Combined with Electro-Voice QRX218s subs, the an EV XLC system did the job, chosen as it is easy to fly or ground stack. Electro-Voice QRX112/75 boxes performed in-fill for the first few rows in the centre.

A Midas Verona V240/8/TP was used to mix foldback in Sydney, and a Midas Venice 240 was used for the rest of the tour. Michael McGlynn who plays keyboards for the band, mixed the monitors for all gigs except Sydney. Two Clark Teknik DN1248s were used to split between FOH and monitors and a recording send and the audio feed to each was crystal clear.

"We hope to turn the event into a live DVD, and because of the quality of the recorded sound, this should be an easy task!" commented Nathan. "The sound quality was impressive through the entire dynamic range. We appeal to a broad audience (both young and old) and we had nothing but positive comments from all who attended the concert. I think this is because the FOH could be loud without being harsh. This is a credit to the EV boxes. I could not have been happier with the any of the equipment we were able to use for the concert – it allowed me to do my job without any distraction" commented Nathan Tasker.

For more information on Nathan Tasker visit [www.nathantasker.com](http://www.nathantasker.com)



## AUDIO-TECHNICA EXPAND WIRELESS

Audio-Technica's new 3000A wireless systems include automatic frequency scanning and 200 selectable UHF channels. Up to sixteen units can operate simultaneously. Both dynamic and condenser hand held options are

available with the tour proven Artist Elite AE4100 dynamic and an all new cardioid back electret precision condenser. The hand held transmitter section is a robust metal construction with LCD screen and 6-8 hours of operation from a pair of AA batteries. The UniPak body-pack transmitter features a secure 4-pin locking connector compatible with Audio-Technica's huge range of miniature lapel mics, headsets (including the sub-miniature AT892 and fully waterproof AT889) and camera mount mics. Retail price of ATW-3000A handheld starts from \$1,395.

[www.tag.com.au](http://www.tag.com.au)



**marantz**  
PROFESSIONAL

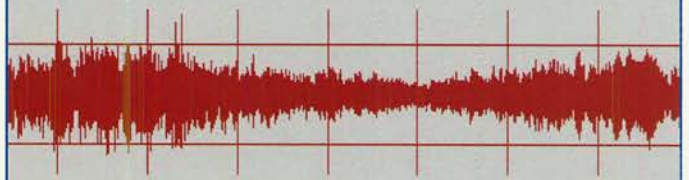


exceptional quality  
and versatility



PMD 660

Marantz Professional unveils a small, portable recorder, the PMD660. This solid state recorder can record audio files to affordable and widely available Microdrives or CompactFlash® cards with just the flip of a switch. Features include non-stop recording with 4 hours of battery life, and an EDL marking system for creating new files on-the-fly during recording for easy file selection during playback.



**marantz**  
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[www.audioproducts.co.nz](http://www.audioproducts.co.nz)

# PRODUCTION NEWS

## By GREENROOM GERTIE

### ACER ARENA

Sydney's once was Super Dome, now rebranded Acer Arena, has unfurled a \$250k curtain system that shuts the top row to make a more 'intimate' venue seating around 10,000. The system was first used with Korn.

### VECTOR A MINI WEMBLBY?

Auckland's Vector Stadium is the single worst job its builder has done, a press report alleges. Mainzeal CEO Richard Yan says they will not finish the 12,000 seat venue until at least July. The NZ\$80 million cost has resulted in a loss of NZ\$12 for the builder. NZ Herald reports: "The arena is being developed by a public-private partnership between Auckland City Council and Sydney company Jacobsen Venue Management. Yan said Mainzeal's dealings were almost exclusively with Jacobsen, which had little experience or knowledge about developing entertainment venues such as the arena." We at CX are sure the Jacobsen's know a little more about entertainment venues than Mr. Yan.....

### PRICILLA IS GO

Queen of the Dessert, the bus, even the ping pong balls. They're all in the new musical that goes on sale sometime in the life of this issue. Big things are anticipated, as long as The Boy From Oz doesn't vacuum too much public money across the same sales timeframe. There is talk of a long Sydney season for the new musical.

### DEEP NORTH

Brisbane is a lovely city, nestled on the river, with scenic hills and hinterland plus fabulous proximity to the Gold Coast. It's a fast growing part of Australia, and now seems to boast the greatest density of production suppliers south of the equator.

CX has infiltrated several, and can report these 'only in Brisbane' scenarios:

The great Impresario. This guy runs a production company where he will do the gig for a cut of the door. It's every promoter's dream – iron out risk, and throw it onto the broad shoulders of the production company. If only the

venues would do it too. Hang on, one large venue in Sydney does it this way too ..... but we digress. It seems our entrepreneur is doing OK with his percentage deal in Brisbane.

The great Houdini. Another guy, another unique approach, possibly affected by the heat and the beer. This dude makes a serial habit of simply Not Paying Bills. He has stepped over the line of late and decided not to pay his humans either, one of whom reported that his needs for money for rent and food were rebuffed with this comment from Houdini: "It's all about YOU", "All you want to talk about is yourself", and best of all, "I'll push you into a corner and do what I have to do".

The precise nature of defamation law prevents us naming Houdini, except once someone has a court judgment entered against him. Then we can reveal the reality.

### FLAMING THROWBACK DEPT

We were reviewing our archives in the CX video lounge again, those trips back down memory lane seem to get longer each time. While your team reclined in the Jason chairs with appropriate beverages served by the rostered wench / spankboy (delete whichever offends the most) we almost fell out at the end of Deep Purple at Summer Jam (DVD). The industrious special effects engineer had obviously heard about your editor's show stopper at Paddington Town Hall (refer CX 19, Gerry Georgettis story) and did a fabulous job of blowing up Ritchie Blackmore's Marshall. Naturally the charge was too powerful (memories, memories) and the docco brilliantly captures flying shrapnel that could have killed.

### FLAMING THROWBACK THE 2ND

Boy those really WERE the days, when no laws stood between you and I and a bag of powder. Things go better with flash powder. OK, so the guy in Brisbane (dang place) who brought on the wrath of legislation did, in fact, kill a girl at a concert with a flashpot that was engineered into an army ammo box. The lid slammed shut, the microswitch that was supposed to stop the thing if the lid

shut didn't work, and when the flash button was pressed the box blew up. The law stepped in.

Anyhow we were oblivious, and greatly amused with an error effected upon a band called The Geeza Rock and Roll Show who opened their set with a red telephone box, centre stage. Over the PA rolls the intro, a corny take off from Mission Impossible, where the mission is to rock Australia. "This phone box will self destruct in ten seconds", and boy it sure did. Instead of the silver glitter suited guitarist hidden inside kicking out the walls amidst a gentle flash, the thing blew violently and noisily apart and the muso staggered out screaming with his hair on fire.

Next issue hopefully we'll find and interview the guy in charge of Skyhook's giant exploding penis....

### AWAY SETS NEW TONE

Love the press adverts for Away by Michael Gow, at the Cremorne Theatre QPAC. Nice artwork, lists the director (Michael Gow), designer (Robert Kemp), lighting designer (Damien Cooper) and composer/sound designer (Brett Collery in nice big, bold type. With the cast below in much smaller type. Excellent!

### BLUE MAN BLUE

Maybe not a blue, but a no show at Sydney's Star City Casino. The hottest ticket in casino shows, the Blue Man Group was to occupy the Showroom, with a renovation to boost seating from 990 to 1100. It appears the Group instead decided to concentrate on the hottest evolving casino destination in the world: Macau. Undaunted, the Casino will probably push ahead with the new work early next year, to abolish the trust stage and establish a proper proscenium. The Showroom appears headed towards a fresh concept involving weekend concerts. Meantime the Blue Man organisation rake it in, with shows in multiple locations featuring multiple amorphous tall and shaven blue men. The 90 minute rock music based show runs twice a night, 12 times a week with one cast. That's lucrative.....

**HIT US with the News.....  
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*"Maximise your sound"*

# MAXIMUM

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# LETTERS

**EMAIL & FLAMES FROM OUR READERS**  
**Email CX now! [mail@juliusmedia.com](mailto:mail@juliusmedia.com)**

## MAD ABOUT LIGHTING

I am the unofficial Technical Director of the QUT Carseldine Performance Theatre in Brisbane.

Five years ago we purchased a couple of MAD 611AR moving lights - all that we could afford. Not long after, one failed and it was returned to Greater Union (the then importers) for service. The end result was that they apparently lost the light and it was only after numerous calls, a nine month wait and a letter of demand from the university's legal department that the unit was found, repaired(?) and returned.

The unit NEVER worked correctly after this, we later discovered that the transformer had been replaced by one from Dick Smith, one of the dichroic filters was scratched, the globe had not been re-set properly and had destroyed the lens coating, a wrong capacitor had been installed, etc.

During the time we had been without the light, we had contacted the manufacturer in the UK on about four occasions, requesting they do something for us, (so) they changed their Australian distributor.

Sometime later, the second unit exploded and this was forwarded to (the distributor) for service. They had it for more than 12 months, each time we phoned them we received a different story as to why it had not been serviced and returned. They did however loan us a temporary unit (not a rotating gobo unit), which we ultimately purchased at (I think) full retail price.

The end result is that we have three MAD moving lights, each one putting out a different light level, having different functions, etc.

Our experience has left us and our financial section with a very sour taste when it comes to moving lights.

**David Gibson**

## CERTIFICATION

I am writing in response to the article "Film, TV and Entertainment Industry Chases Certification" (April, CX). After over ten years in the audiovisual industry as a technician, supervisor and then account manager, I am now a teacher in the Diploma of Audiovisual Technology at RMIT (Melbourne).

I am on my way to getting my Masters

of Education looking at women (or lack thereof) in the Audiovisual Industry. I am new to teaching and I love it. I spend a lot of time passing on knowledge and confidence to our impressive new breed of AV technicians and lots of time encouraging others I know to employ these young people.

I encourage industry professionals to impart their knowledge as guest speakers in our classrooms. I have also been trying to get AV companies to assist me in developing a traineeship for the AV industry. So far I have had no luck.

It is fairly easy to set-up as RMIT is an accredited training institution and you as the employer can potentially get away with being paid to train your staff. The more companies that can support this venture, the more likely it will not cost you much at all. Plus you get trained staff with a Certificate 4 in Audiovisual Technology.

Now I know your crew already know how to do their stuff. Recognition of Current Competencies means they will be recognised for their skills and will get a piece of paper to prove it. This is great for OS work, career development and industry professionalism. This is not about replacing your current training methods, it is about adding to them. So please, consider this an opportunity and contact me at [rebekha.naim@rmit.edu.au](mailto:rebekha.naim@rmit.edu.au).

**Rebekha Naim**

## MAD ABOUT PARKING

Just a quick note! After paying our parking charges for 1 vehicle X 3 days at ENTECH, I happened to notice on my credit card statement that the SCEC Parking dept had actually billed me 9 (NINE) times.

**Kathryn Lindsay/Newey,  
The Look, Sydney**

## OUCH



and I am well used to Ozzie workplace standards and OH&S issues, but when I

I recently installed a rig of AV equipment for a permanent install in China. Granted it was a construction site

asked the site electrician for, and was given a 240v power extension lead and worklight, I nearly pissed myself! Half in horror and half in hysterical laughter. I did wonder where I stood with my insurance policies if I suffered an accident? Life is very cheap in China. Sorry about the photo resolution but I only had my phone camera with me.

**Brian Shirley**

## DS MODE FEATURES IN MAC250



Readers may know that Martin MAC250s may be aging stock to some production houses, but these work-horses of the late nineties have been given

a new lease on life thanks to an innovative new function.

The fixture can now work in an all new 'DS' or 'Door Stop' mode. When engaged in 'DS' mode the fixtures were found to be:

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'DS' mode has also been a breakthrough in resolving the long-term gobo indexing issues that have played havoc with these fixtures.

Best of all, activation of 'DS' mode does not require software or hardware upgrades or navigation through complex menu trees. Simply de-rig the unit, place in front of an object that requires propping, and watch in awe.

The fixture's sturdy construction and solid base (weighing in at 20kg) makes it ideal for a wide range of propping situations and even works as a counterweight for theatrical sets.

Beta testing continues, but to date the fixture has performed reliably over a 2 week period – a vast improvement on previous performance.

**Name withheld**

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mobile broadcast

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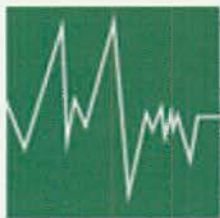
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# LEE HARDING'S PRODUCTION

Greg Suttle has the masterplan for a post-punk 'Idol' and one thousand screaming teenage girls.




Richard Vassillo, Greg Suttle, John Nelson and Dave Williams from Kv2 Audio.



Mixer, 2 x Sabine Power Q digital 1/3 octave graphics and Feedback eliminators.

**Microphones:** 2 Shure SLX SM58 radios, Beta 58's, Beta 57's, AKG C418 Tom Mics, Beyer M88, Boss DI's, etc.

Greg says: "Although this wasn't exactly a Sydney Entertainment sized production it is big compared to what I am used to. The punters were happy (judging by the screaming), the promoter was happy, and I'm happy. The system provided crystal clear sound with floor shaking bass. 

## By JULIUS GRAFTON

Greg Suttle is used to doing van size rigs at your corner Pub / Club type of gig usually by himself. Recently he was asked if he was interested in doing production for a small tour for Lee Harding (Australian Idol last year). The requirement was audio for up to 1,000 screaming girls and a small light show.

"Curiosity got the better of me so I decided to have a go", he told CX.

"A few phone calls later, I enlisted the help of a friend and with Richard my second operator I had a team of three. I planned to use my existing KV2 ES system but needed to double it up. Dave Williams from KV2 Audio kindly helped out."

There were 4 acts on the tour: Figg Kid (rap artist), Town Hall Steps, Kid Courageous, and the headline act: Lee Harding with Band Bedrock. The dates were: Newcastle Panthers, Revesby Workers (In House), Wollongong Town Hall, Evan Theatre,

Penrith Panthers (In House) and the Harvey Lowe Pavilion, at Castle Hill.

### Equipment used:

**Lighting:** 4 x I Colour 3000 wash lights at the front of stage, 16 Par 64 cans at the back of stage, hazer, controlled by LSC Axion Desk / Jands Dimmer Rack, 1 Colour Controller.

**Audio:** FOH: 4 x 18" Subs (KV2 ES 1.8), 4 x 15" Subs (2 x KV2 ES 2.5, 2 x KV2 EX 2.5 powered 1600w), 4 x KV2 ES 1.0 each containing 1x 12", 1x6" 1x 1.5"), 4 x KV 2 Epak amplifiers. Total power 13.2kW and not an amplifier rack in sight!

**Vocal In Fill:** 2 x KV2 Ex10 powered 500w box on a separate Aux send.

**Fold Back:** 6 x KV2 EX12 powered 12", 1" horn box, Drum fill: 2 x KV2 KX1.5 powered subs with a Mackie SA1521 Powered 15", 1" horn box.

**FOH Mixer/graphics:** Roland VM7200 Digital Mixer, configured for 40 Mic Inputs, 12 Aux sends, Digital 1/3 octave graphic in built.

**Foldback Mixer/graphics:** Roland 7200 Conso e in series with FOH

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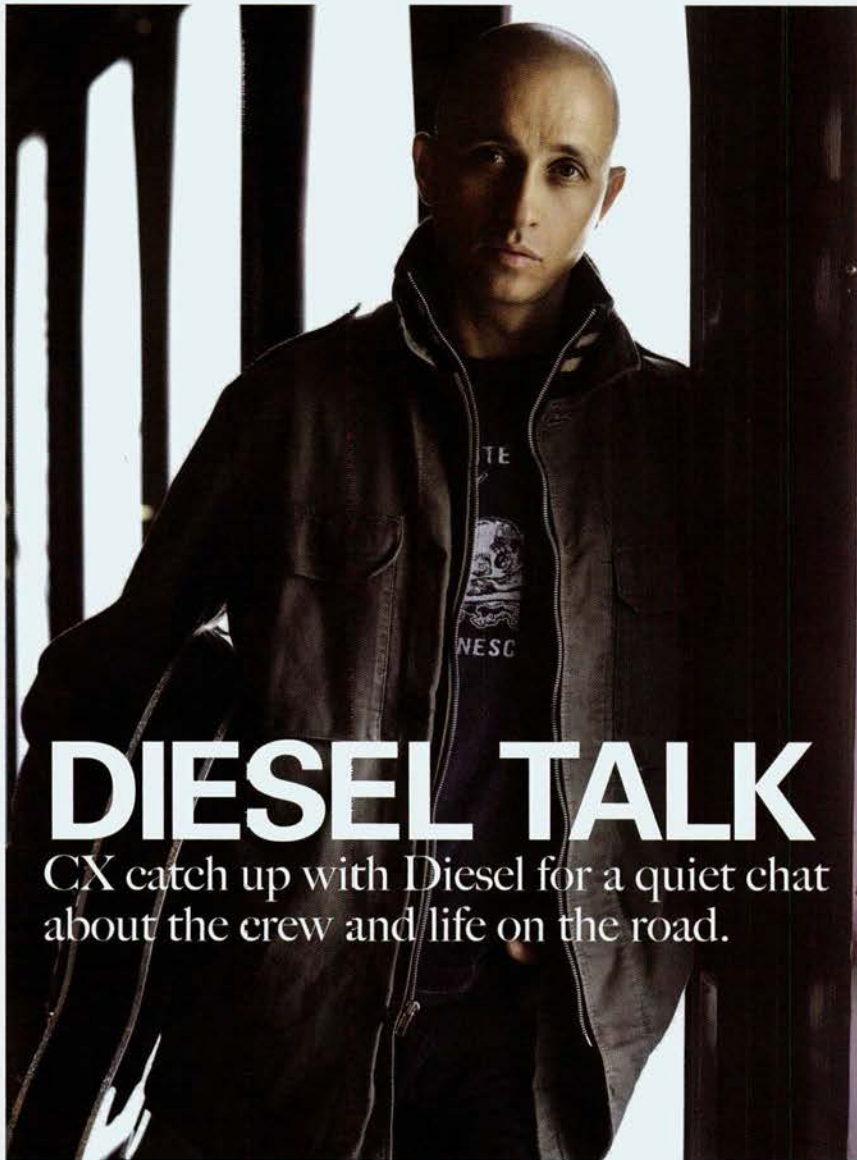
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# DIESEL TALK

CX catch up with Diesel for a quiet chat about the crew and life on the road.

By JULIUS GRAFTON

## What was the first year you toured Australia?

Probably 87' -88' although we (JD and the Injectors) had done some touring in the far north of WA before.

## Most incredibly strange town or situation you visited?

Staying in a hotel in Oslo, Norway, my room was full of stuffed birds and animals, one of which was an owl looking down over the bed. The room also happened to be the citadel section of a very old building complete with spiral staircase. Michael Jackson had apparently stayed there. I think I slept with the light on that night!!

## What do you say to the sound person in regard to how you want your main mix sound?

Compression can be your friend and everything should have its moment in the sun.

## And what do you ask for in your monitors?

It depends on what type of gig it is. I generally prefer to hear the front with just enough in my monitors to focus on. I'm not a fan of side fills even on big stages- I find it's all a bit out of phase sounding especially if you are like me- in the same spot most of the time with guitar/pedal duties. These days I'm loving wedges like the Nexo PS 10's. Less is more now. So much focus without the bark and boom of 15 inch drivers and 2 inch horns. As for what's in my monitors, equal amounts of Richie's (my bass player) vocal and my own. If it is an acoustic gig, some of the guitar, and if Lee (drummer) happens to be far from me a bit of the kit.

## Have you ever had your record producer influence your live sound mix, and how?

Producing my own records has made me want to re-create things on

stage. I try not to be too precious because sometimes through not having some element that you thought you couldn't live without, there is the unexpected process of invention.

## Who is mixing this tour?

It's been either Greg "G-Man" Harris or Warwick Newman

## And who is playing with you (your band line-up)

Richie Vez on bass and backing vocals and Lee Moloney on drums and percussion. We also have been using a string quartet comprised of some very fine players

## Do you remember your LOUDEST ever gig?

It wasn't a gig of my own. Motorhead in a pub in Perth. The tiles were coming off the ceiling!

## Do your ears ring after a show?

Sometimes. A lot less if we are playing outdoors

## What's on your drink rider?

A lot of water and sports drinks. Lee (drummer) and I are real sweaters. Of course the ever present beer!

## Do you know the names of all your crew, each show?

When it's a multi act bill it's sometimes hard to know who everyone is. The crew come with the system and you turn up with your crew and interface with the whole situation. I like to at least get the monitor op and lighting person's names right. That's where "mate" comes in handy! It's a good idea to make friends with the monitor guy on the day. These guys have got a seriously hard job to do. Think ahead — make simple notes for them. Even better get to know the frequencies by numbers that you want put in or out instead of saying "sounds like shit!"

## Favourite crew person?

It would be unfair to state any one person. I can honestly say I have been very lucky when it comes to getting great crew. I can count the mishaps on one hand! Some might use the theory of "you get what you give"

## Best moment on an Australian stage?

I have been blessed with many. Recently I did a solo tour of Tasmania. My dad tagged along with his tenor sax for the dates. By about the 3rd show he started getting his chops back and really blew me away!

\* Diesel is touring until the end of August.



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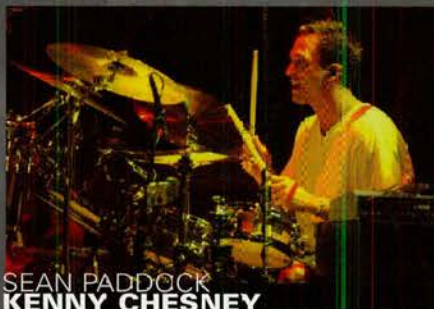
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# VERY DARKNESS

The Darkness toured in April. They claim to be the best rock band in the world.



By JULIUS GRAFTON

**CX** attended from a punters perspective, having purchased a ticket, to see whether this was correct and to see whether the production values supported the claim.

Our ticket was for the second show in Sydney's Luna Park Big Top, an interesting structure that appears to be prefabricated. It can have tiered seating running down from a mezzanine (like we experienced at the same venue for The Doobie Brothers) but for this gig it was GA, meaning stand and roam.

About 2000 people did just that, and the venue logistics were very proficient. If you wanted a drink, you got an armband after having your age checked. Then you entered a licensed area. On the other side of the barricade was the all-ages area, sans booze.

Inside and outside, venue security was efficient. I saw one fan stagger outside, deposit the contents of his pay packet onto the ground, and then be gently led away by the

bouncers, presumably to be dumped into the harbor out the back. Meantime a cleaner materialized and mopped up the residue. All done.

The support band were disposed of, and the Darkness cranked up. They are a four piece band, drums, bass, and 2 guitars. Sometimes a keyboard rig is rolled on. There was a big bunch of backline, no real set or stage design of note, no video, a Vertec line array for PA, and a respectable rig of movers, controlled by a Grand MA. The sound guy worked on a D5 DiGiCo.

Big sound bashed hard and far too loud, and once the trademark falsetto of lead singer and guitarist Justin Hawkins kicked in, it was just over the top.

CX stood and watched the sound guy for a while. He was rocking away, picking at the D5 with a flourish that would make a keyboard player proud. Quite a show. Best of all, occasionally he would turn and glance up into space and wave to an imaginary friend, or someone stuck on the roof who I could not see.

After the third song, I found

myself at the back of the mez, about as physically far away from the PA as possible while still in line of sight of the stage. By the fourth song I was outside.

I went in, and I went out, a number of times.

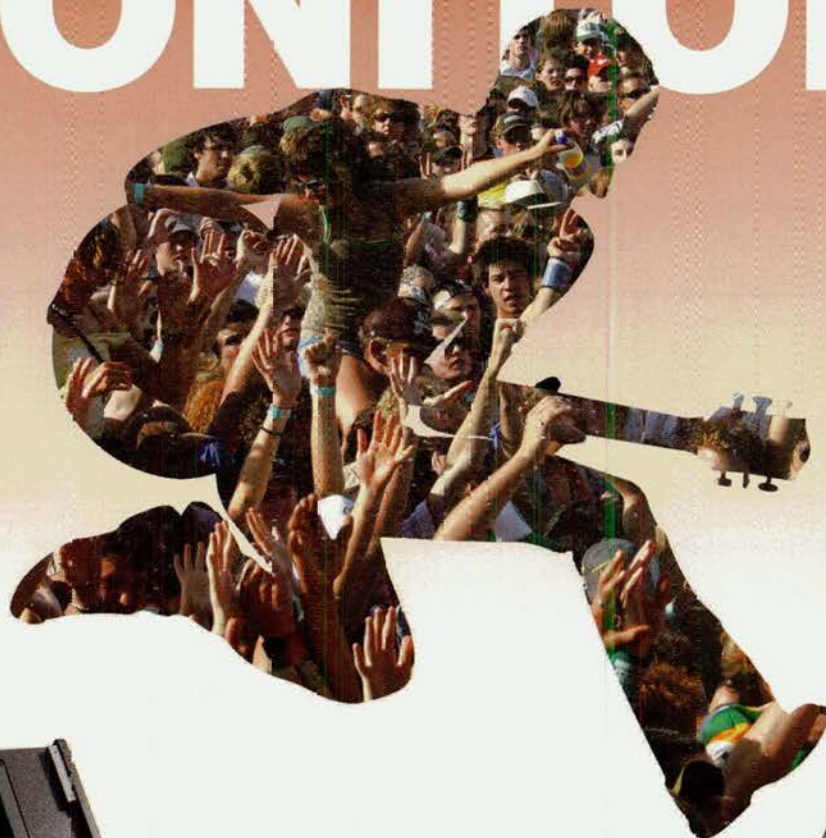
I don't have fresh young ears, my hearing is calibrated by 35 years of rock shows, so my tolerance is greater than most people in that venue. But I do have the knowledge that too much SPL is bad for me, which is why I went outside.

This show was mixed painfully loud, and the outcome was that the system was in limits and the actual sound was unpleasant and detracted from the performance.

The band themselves are very capable, and very entertaining. It is a good show, aside from the heavy hand on the master fader. The lights looked good.

Various people in the industry indicated the band are hard to deal with, none of our usual freelance photographers got access to any gig on the tour, and I would hazard a guess that someone needs to grow up and respect the paying public. **CX**

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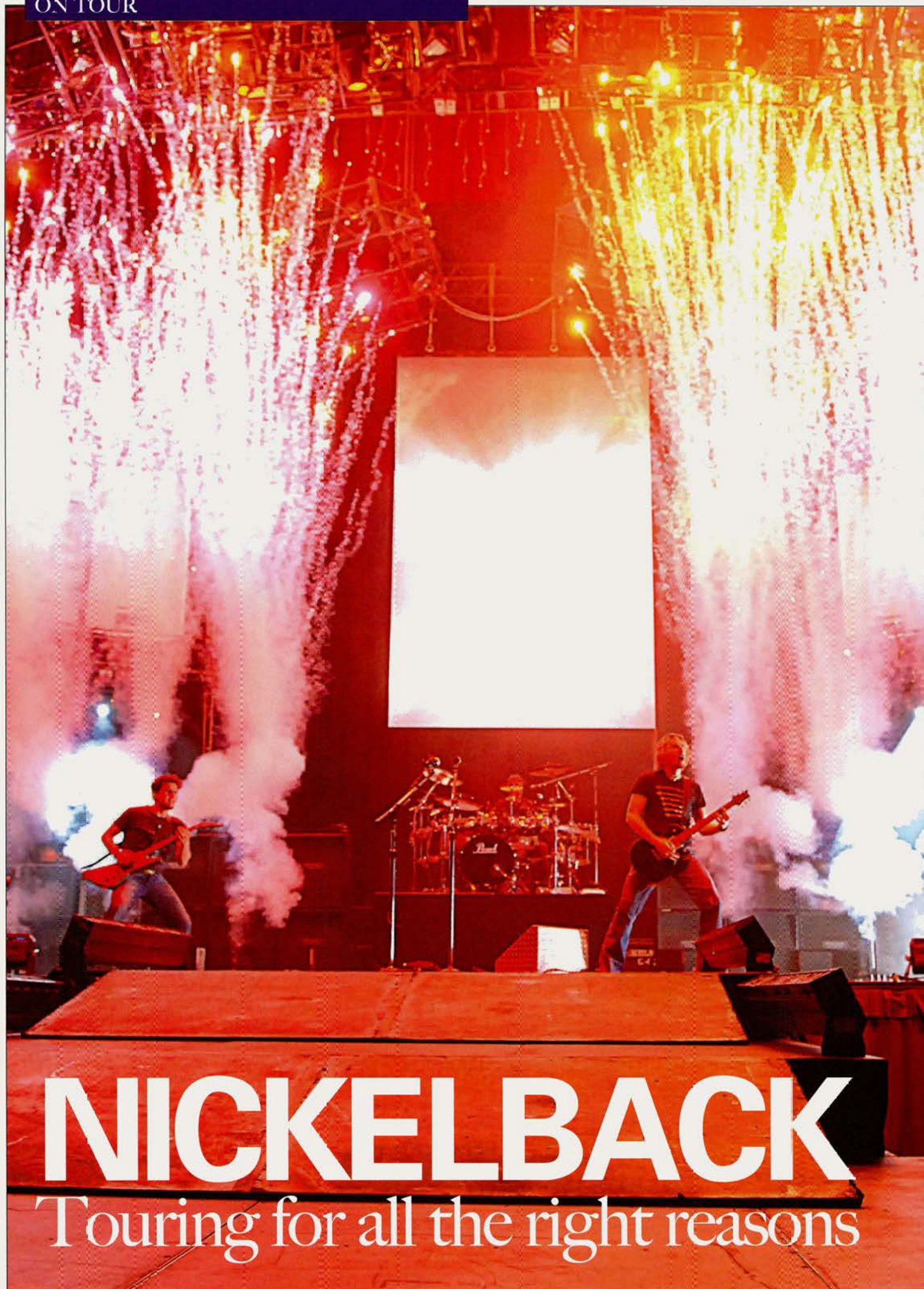
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ON TOUR



# NICKELBACK

Touring for all the right reasons



© Pic by Bob King

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Marvelous how a seasoned stadium band command a stage.....

## By JULIUS GRAFTON

I can usually tell within a few minutes whether a band are good people, ordinary people, or obnoxious. Nickelback's backstage vibe in Sydney is good. Very good. That infects the crew with purpose, and they stay.

Anthony Greenham was a slightly tired production manager the afternoon I called, he had just set up his office, complete with mood lighting, music, and neat little carpet underlays for his computer keyboard. The draws cases had just come off the truck from Melbourne where the band played the night before.

Melbourne to Sydney is a tight overnighter for an arena act, so Paul Dainty's local production manager Bill Richardson arranged a truss pre-rig of the 49 flying points for the morning at Acer Stadium (formerly Sydney Superdome). They duplicated the main truss and motors. This way, when the first truck materialised at 1pm, things were not impossibly behind schedule.

Anthony had seen the last truck doors closed at 1.20am, then made a morning lobby call for the flight to Sydney with the rest of the crew, who all went direct to the venue for lunch.

Setup went at an efficient and steady pace through the afternoon, Nickelback's overseas crew worked

alongside local crews from Chameleon (lights), Jands (sound) and TDC (video). The band brought 14.5 tones of equipment with them, including the thrust stage, considered necessary so the band would not have to deal with possibly different heights, as the thrust steps down into the front rows of the audience.

## FIRING

Naturally a swag of pyrotechnics came out as well, since a Nickelback show is not a show without flash bands, waterfalls and more propane gas than used by a large city on BBQ night. Pyro firer Steven Joseph was loading charges into firing boards when I extinguished the cigarette and stepped over the threshold into The Zone.

Like all surviving pyro guys he is cautious, and still has ten fingers intact on two hands. His repertoire includes air bursts, concussion blasts, gas accumulators, and line burners. "It's like Baghdad on bomb day" he said, and I think he meant it.

Each of 8 firing box trays had 15 devices in it, 30 waterfall sticks were mounted on each of 4 bars in the trusses, and there were 16 concussions hung in the rig away from the front row.

But it was the gas that impressed the most. 30' high columns of fire. Long gas trays atop the (set piece) line of quad boxes either side of the

drummer. It was HOT at FOH when this lot got going, so I guess the barbs are used to it.

I loved the way the pyro was orchestrated into the show, something that grows with each tour, they say.

Steven says his supplies come from MP in the USA, and that FedEx will ship what he needs. He thinks that Australian regulations are less stringent than those in the USA these days, with the exception of Perth where there is a different state code.

He had Martin Brady from Fireworks Australia on the road with him and his assistant, to iron out local issues.

## DETAILS

Every act has a different management structure, this band has a manager (Brian Coleman) who is not always around which is fairly normal. So on the road the business of Nickelback is done by The Chief, Kevin Zaruk. Chief has been with the band for ten years, and is the tour manager and also FOH engineer. That means he arrives and leaves with the band and their security guys, so the rest of the business is done by his assistant Laura Stahmann – an engaging former denizen of Chicago.

Laura describes her role as anything that needs to be done, between the band and everyone else. That includes working with the PR



Big screen.



Kaboom!

people, record company, merchandisers, crew, venue, caterers, press, promoter and ... arranging travel for a party of 40 people.

The travel part is the most daunting, "take New Zealand for example", she said. "I had to fill out all the visa applications – Dainty's people helped out – and send everyone's passport to the consulate for a stamp".

So the job involves a lot of paperwork, and the Chief and Laura have a touring office that rolls in and connects to the net. Travel arrangements are handled by Preferred Travel from Mountaintop, Pennsylvania (USA) who know how bands work, where to stay, and which airlines can be relied on for upgrades, and when.

"They work 24-7 and can get me things fast, like when Toronto was blacked out, and I needed to get a private jet with an hour's notice. They did it."

"This is a serious touring band", she continued, "and with this record, we'll be out for 12 to 18 months, up to 5 shows a week. The vibe from the top is excellent, every country the band host a sit down dinner for the crew somewhere. They are close to the crew. They have an open door policy".

Another aspect of the Nickelback policy that Laura enlightened me with: drugs are a sacking offence, no second chances. With the possible exception of pot, she whispered. Some of the local crew looked nervous.

## THE SHOW

Centre stage is a tall Barco LED wall from TDC, high on the other side is a video screen. These carry camera shots from FOH and on stage, as well as video packages

Chris Mauder's lighting makes big use of audience blinders with front in front of them, Atomic Strobes, and large slabs of static light. He drives it all from a GrandMA. Because it was an overnighter, and because lighties are always stressed when time is short, I left him to do his gig and didn't bother him.

Either side of the centre LED wall is a square truss with warmers, frostec blinders, and strobes inside

The band play around 2 hours, it is loud but clear so it doesn't hurt. The drum sound comes out and shakes you and then goes back again, like a giant elastic jungle. The feel is harder than the hit records, a little Metallica or Pantera or, as seasoned observer pointed out, a little like Kiss without the makeup. Kind of cheesy but.

The sell out crowd spans a few generations too, which is interesting. They leave happy.

## CHIEF OF SOUND

"It all starts from the source, take a great band with the best rock singer in the business, put them in front of great gear that sounds good. AND then let them play their songs that everyone is coming to hear and sing a song", THE Chief told me. "Bottom line is this, do not ever overmix a band.



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Anthony Greenham.



Laura Stahmann.



Kevin 'The Chief' Zaruk.



Jason Hameister & Nick Pincbeck (TDC).



Pyro guys, Steven Joseph & Martin Brady.



Twiadlers' wisdom.



Check out the pyro box!

## NICKLEBACK TOURING PERSONNEL

**Chad Kroeger** – Guitar & Vox  
**Mike Kroeger** – Bass  
**Ryan Peake** – Guitar  
**Daniel Adair** – Drums  
**Kevin Zaruk** – Tour Manager/ FOH Engineer  
**Anthony Greenham** – Production Manager  
**Laura Stahmann** – Tour Assistant  
**Chris Loudon** – Security Manager  
**Chris Wilmot** – Security  
**Donnie Floyd** – Stage Manager  
**Orris Henry III** – FOH Sound Technician  
**Chris Maeder** – Lighting Director  
**Roy Webb** – Lighting Technician  
**Olivia Polanco** – Audio Technician  
**Gordon Sran** – Pro-tools Engineer  
**David Guidish** – Bass Technician  
**Kris Dawson** – Guitar Technician  
**Tim Dawson** – Guitar Technician  
**Andrew Mawhinney** – Drum Technician  
**Michael Mule** – Monitor Engineer  
**Steven Joseph** – Pyro Engineer  
**Brandon Messersmith** – Pyro Engineer

## LOCAL PRODUCTION TOURING PERSONNEL

**Martin Brady** – Fireworks Australia Pyro Crew  
**Anthony Cairns** – TDC Video Crew  
**Antony Hulme** – TDC Video Crew  
**John Kearns** – Jands Sound Crew  
**Tristan Johnson** – Jands Sound Crew  
**Brendan Keane** – Jands Sound Crew  
**Jamie Centofanti** – Chameleon Lighting Crew  
**Danny North** – Chameleon Lighting Crew  
**Pat Clark** – Chameleon Lighting Crew  
**Johnny Streckfuss** – Chameleon Lighting Crew  
**Derek Weith** – Chameleon Tour Rigger

## AUSTRALIAN TOURING PARTY

**Paul Dainty** – Promoter  
**Luke Hede** – Tour Director  
**Bill Richardson** – Production Manager  
**Andy Mackrill** – Tour Manager  
**Fiona Gulin** – Marketing Director/Publicity  
**Mike Day** – Tour Accountant

So many engineers think that they are the show and people have paid a lot of money to see them mix. Not true, they have paid good money to come and hear the songs that they love to hear and sing along to on the radio. The best compliment you could ever hear is that the band sounded just like the CD".

"The other thing I never got is going to a concert and before the band hits the stage 10,000 people in the crowd all put ear plugs in. This makes no sense, loud is good, but clarity is better. I love to mix at a volume where people say, SHIT man is it ever loud, but it doesn't hurt at all and I don't need ear plugs. It is not supposed to hurt, just in your face and punchy."

*(Memo to The Darkness, see elsewhere in this issue. – Ed)*

At FOH is a Digico D1 console, with another used by monitor engineer Michael Mule.

The guitarists sing into a vocal mic plus a Shure Bullet mic mounted in a suspension cradle, "for that natural distorted AM radio effect", says Chief.

"We have one of the best rock drummers in the world, with that comes one of the best drum tech (Andrew Mawhinney) in the world that tunes that kit every night to make the tones sound amazing. Once you get a good drum that is tuned, followed by a great drummer, the rest is easy.

"Same goes with our backline techs, they have all been with the band for 6 plus years now and have worked very very hard in developing and perfecting great tones for each guy. Again all the guys are such great players, give them their finely tuned guitar the rest is easy. We do use a combination of Marshall and Mesa Boogie for the guitars, you really get the best of both worlds. We use Shure mics on everything, (they are) reliable, dependable and sound great.

"The guys use a lot of cool effects on their guitars but subtle, less is more. We also use both Fender and Tone Tubby for the clean tones, so really it is a lot of mixing and matching to try to get the best of everything.

"(I use) Pretty basic effects, reverbs on drums and vocals, Harmonizer on vocals, delays when needed and delays on guitars. We are using a Digico console which I love and it has some great internal effects on board.

So what was The Chief's best sound moment?

"Mixing in Australia in Adelaide 2 years ago and having Gene Simmons, (I'm a big Kiss Fan) standing over my shoulder the entire show asking me what I was doing and all sorts of technical stuff about the show. He loved the show and loved the mix, so that was awesome!"

Chief loves Australia. "The wine is retarded here, we are all massive Red Wine fans and you guys have the best wine in the world, hands down! We hung out with Russell Crowe one night, that was pretty cool. Nice guy, very polite and laid back, so don't always believe everything you read in the press about people."

Amen to that!

**Great band, great crew.**



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**ASHLY**

# 20 QUESTIONS

Nobody expects the Spanish Inquisition... join our first victim in the comfy chair for some fast and furious fun.



By RICHARD NEVILLE

We'd like to introduce you to a new regular feature in the CX lighting pages. 20 Questions will profile a different Australian lighting designer each issue by asking twenty short questions.

This edition's first designer (or victim) is Melbourne-based designer Richard Grenfell. If you would like to be next, email [richard@rsnlx.com](mailto:richard@rsnlx.com) to join the line.

## 1. Claim to fame?

Currently I do a fair bit of work at Crown Casino re design and reprogram special shows and events in their rather large atrium. Many years before that I looked after the Pan Command moving light system at CLS.

## 2. What are you currently working on?

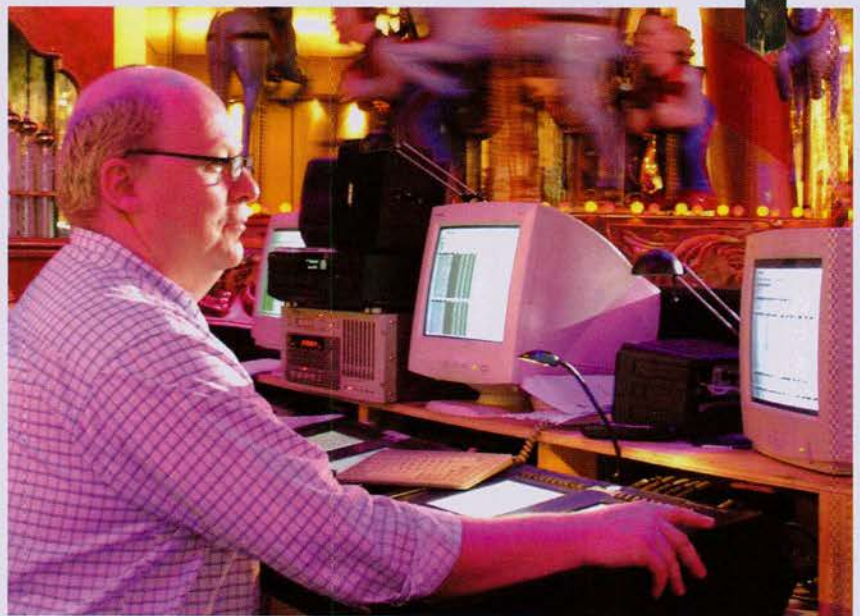
Numerous 1 off dinners and awards nights as well as doing pre production for my Christmas seasons of shows at Crown and the Myers Windows.

## 3. How long have you been working in the field?

Every since secondary school. Although my mother has distinct memories of me playing with light switches from my cot in hospital at 6 weeks of age.

## 4. Best ever gig?

Quite a few years ago a couple of gardening students came up to a company I was working for with a wild idea of projecting some rainbows through some mist. As skeptical as we were about the project they had funding and we were happy to relieve them of it. It turns out after a little messing around there concept worked and produced a 15ft x 15ft x 15ft solid cube of



Victim number one Melbourne-based lighting designer Richard Grenfell.

extremely bright rainbow. A3 sized picture was on the front page of "The Age".

## 5. Best artist to work for?

Some one who has a definite idea of what they want which will quite often push me in a direction I wouldn't have normally taken. When left to my own devices I tend to fall back to my own usual bag of tricks.

## 6. Favourite area of lighting to work in?

Whilst it's not strictly lighting I would say DMX controlled servo animation. Its amazing how much expression you can give an animated Character but a small change in level and timing.

## 7. Favourite venue to work in?

I tend to work in lots of venues which are not designed to be used for events. What makes the venue a pleasure to work in is having the staff and management wanting you there. If the staff are on your side, solutions can be found to all

problems.

## 8. Least favourite venue to work in?

A few years back when I was production managing Circus Oz on a regional tour - I arrived at 9am on a Sunday morning at a regional venue to commence pre-rigging the lighting and rigging. As a conversation starter I remarked at how cold it was and their crew chief replied " Well you organized the F—King time" To the crews credit they manage the pre rig the quickest as they wanted to get out of there as quick as possible.

## 9. Best thing about your job?

The 'oohs' and 'ahs'; you can get from an audience when some thing you have programmed comes off.

## 10. Worst thing about your job?

The long hours which are required before the opening of some of my major Christmas shows. Despite all the good intentions and skills I have I can not finish a lot of my work until people have finished theirs.

**11. Everyone has a favourite gadget or widget, what's yours?**

My laser tape measure. I saw them at this years Entech tradeshow and within a week of getting back I had one. I do a lot of site surveys and have to draw up plans and plots and its makes things a heap more accurate.

**12. Words of advice to the younger guys?**

Don't be afraid to ask questions. I remember a few years back there was a young kid who was on internet chat sites I visited who as a 15 year old knew more about Vari-Lites than most factory trained techs. I was up in Sydney working on an Amway convention and this kid invited himself along to the rigging day. He asked some questions about the Hog I was operating and within a few minutes I had taught him how to do some basic programming. Then I asked him to program some gobo looks for me. I went to catering for a few hours and he ended up programming heaps of gobo textures for me, many of which I used for the show. This kid now works for a major lighting manufacturer and I have little doubt that one day he will achieve his childhood dream of running that company.

**13. If you weren't in lighting, what would you be doing?**

Most likely computer programming or something arty.

**14. First show you ever saw?**

I guess it must have been a Moscow circus when I was a kid. The spectacle of the show captured my imagination. After that I couldn't see enough shows. My parents took me to see musicals and ballets and I looked at various rock shows.

**15. What worries you about the Australian lighting industry?**

Programmers over use of pre built "effect engine" effects I suppose a lot of this can come down to the lack of suitable education or mentors.

**16. What encourages you about the Australian lighting industry?**

The way that new technology is very cheap. This means that new designers can use moving lights to achieve many different looks easily. Later on that knowledge of color, angle, intensity and texture can be applied to convent onal lighting with a lot more success.

**17. How do you relax when not working?**

Being a coach potato and going out with friends.

**18. How do you survive the boring gigs?**

On one car tour a few years back we were so bored at being called in for heaps of speaker rehearsals we filled in time by re creating the truss rig out of trusses made out of satay sticks. We even sent out a production assistant to buy some fishing line so we could suspend the model truss grids above the lighting desk. The director was not amused.

**19. What's in your gig bag at the moment?**

A notebook, pens, floppy disks ( very cheap insurance ) and different colored making pens, desk tape. Its amazes me how many programmers arrive at a show and can not mark up their console.

**20. What piece of lighting technology couldn't you live without?**

Electricity and floppy disks.



## dBTechnologies: THE BENCHMARK

OPERA LIVE is the latest generation of high-quality active loudspeakers produced by dBTechnologies, specialists in active loudspeakers with professional audio performance and an unbeatable price-performance ratio.

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The unique performance the OPERA LIVE displays within its price category is courtesy to loudspeaker components especially developed for this series. It is also due to the use of the most modern output technology with integrated audio controllers for actively controlling sound-distortion, phase and operating time, an active crossover and effective soft-clip limiter.



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OPERA-SUB12



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# ROBBIE WILLIAMS

## WARMS UP IN DUBAI'S LARGEST GIG

Robbie Williams played Dubai's largest to date at the Nad Al Sheba Racecourse in Dubai in front of 23,000 wildly enthusiastic music fans, who were also responsible for making it the fastest selling out show ever in the United Arab Emirates.

The entire production lighting rig, including 150 Robe moving lights, 60 points of rigging and all necessary power distribution was supplied by UK-based HSL. They air freighted 36 tonnes of equipment - with the help of Mapcargo - from their Blackburn base to Dubai, to meet the specification for Al Gurdon's spectacular design.

The lighting deal was put together by Robbie Williams' production manager Wob Roberts, local production manager Peter Loh working for Midas Promotions and Robe Show Lighting's International Sales Manager, Harry von den Stemmen.

Sourcing enough lighting equipment locally for the show was proving challenging and costly. Von Den Stemmen was simultaneously alerted to an opportunity by both Tony Sawyer of V.V. & Sons, Robe's UAE distributor, and Louis Teo of Lighting & Sound Singapore where Loh is based. He immediately went to HSL, one of the UK's fastest growing lighting rental companies with a large inventory of Robe moving lights - where MD Simon Stuart jumped at the chance of quoting to service the Robbie Williams show.

Stuart comments, "The show was awesome! I'm extremely proud of the fact that we have worked alongside one of the best live production teams in the world and helped them produce such a great result". The show - artistically directed by Lee Lodge - amazed and enthralled everyone present with its high production values and characteristically superlative performance by Robbie.

HSL's crew chief and project manager was Mike Oates, who worked alongside hand picked crew



*Big LED vision is mandatory for serious performers these days!*

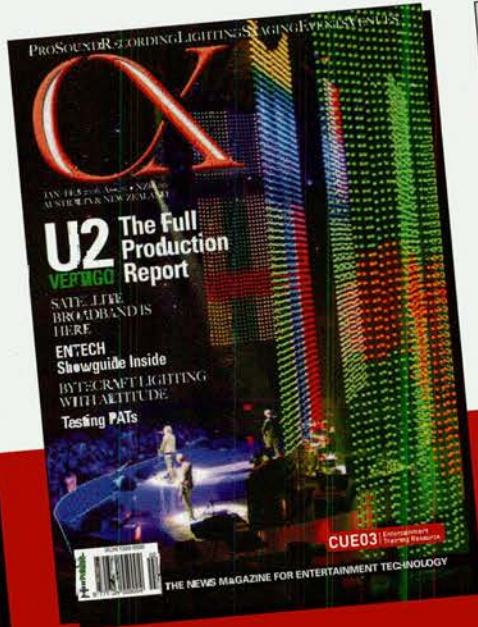
of 9 HSL A-Team regulars. On site they liaised closely with Robbie Williams' lighting crew chief Mark "Marky Mark" England, lighting director and show operator Richard Gorrod, site co-ordinator Tom Armstrong, Wob Roberts and Al

Gurdon. Oates comments, "It was an absolutely brilliant experience and a great exercise in teamwork and good communication".

Moving lights were absolutely integral to the lighting design. The rig was based around 8 structural 'ribs' -

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Previous (large) RW gigs have featured full LED wall backdrops, and have been lit almost fully in white light. This show reverts to more use of colour and gobos.

tall, hinged architectural set pieces originating from the "Intensive Care" album launch show at Berlin Veldorome in October, arranged in a gentle upstage curve. Designed by set designer Ray Winkler and constructed by Brilliant, each is edged with 288 Saco LED lights, and they also contain 48 Turbo Fuzz Lights that travel as part of the set.

Forty Eight Robe ColorSpot 1200AT fixtures – 6 per rib, were then added, along with 5 strobes per rib.

On the floor were 10 ColorWash 1200ATs sitting on the risers in between the ribs, with eight right behind the ribs, sitting on cases and shining through them. More ColorWash 1200ATs were used to up-light the set drape.

Rigged onto the sides of the offstage PA towers were five Robe ColorSpot 1200ATs and five Moles, with another 5 blinders on the onstage PA towers.

On a horseshoe shaped rear truss that followed the line of the ribs were another 16 ColorWash 1200ATs, plus four rigged above the central LED screen. Another two per side were hung off two individual front trusses, together with 3 Moles a side.

Under the set grill were twenty-four Robe ColorSpot 575ATs - their smaller size making them ideal for the space - shining upwards through

the grills, along with strobes and 8-lites. On the catwalk thrust around the floor were 60 Birdies, along with an additional 24 PARs, also utilised as up-lighters through the grills.

The moving lights were used for a whole variety of effects from tight pencil beam matrix patterns to colourful washes to the creation of enveloping walls of colour, and also for profiling Robbie in the moodier moments.

HSL supplied the six Robert Juliat Monaco onstage follow Spots, with the four FOH ones sourced locally from rental company Nemesis.

Richard Gorrod operated all the lights plus an EX1 digital media server from his Virtuoso console which tours with them. He commented "HSL have been fantastic, nothing has been too much trouble and the kit has been meticulously well prepared". Cates adds, "The Robes were absolutely brilliant – they were transported half way

around the world, came out of their crates and all worked first time. There's really not many other fixtures as reliable as this! "

The biggest challenge for everyone on site in Dubai was the short timescale in which they had to build the technical infrastructure. However this also galvanised everyone into action, firing up the "show must go on" spirit across all departments, who worked seamlessly together through some very long days and nights.

The Dubai show was part of a series of 4 'warm ups' by Robbie Williams (preceded by three shows in South Africa) all ahead of his massive European summer stadium tour that kicks off in June. This streamlined 'rest of the world' rig, 'bigger than a lot of people's 'A' rigs' as seen in Dubai and South Africa, will be used for shows in Asia and other territories in the autumn.

Robbie Williams' core production team is headed





*The key is that you can SEE the band at all times!*

oy production manager Wob Roberts, assisted by Lizzie Adshead, and including 35 touring personnel that travel to all shows. Site manager is Tom Armstrong, lead rigger is Steve Armstrong and the stage managers are Gary Currier and Padcy Fitzpatrick.

The South African and Dubai gigs used a 'rest of the world' or 'B' rig for technical production which dwarfed most people's A rig. This same rig and spec will also be used for further Asian and 'other territory' shows scheduled for the Autumn.

The B show is an integrally planned element of an initial three layered design concept by production designer Ray Winker from Studio Mark Fisher. It also included a similar looking 'one off' stage design for the launch of the "Intensive Care" album at Berlin Velodrome in October 2005. The full blown stadium tour expands the same base aesthetics to a vastly larger scale.

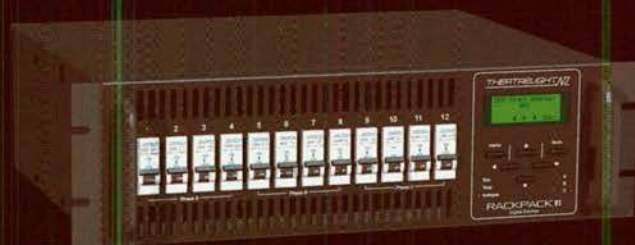
## AUDIO IN DUBAI

FOH sound engineer Dave Bracey specified a VDOSC system that was supplied by Gearhouse Dubai, coordinated on-the-ground by Andy Jackson, assisted by VDOSC's Gauthier Dalle.

Bracey's B system set up sees him touring his own Digico D5 console and desk of choice "By a long way" plus a rack of BSS Soundwebs used to zone the PA, for matrixing and for system EQ, and some special effects. The latter include a Manley Vox Box which he uses on Robbie's vocals and an old AMS reverb used on the snare which is temperamental but "completely irreplaceable". For the first time he's using a Waves MaxxBCL across the whole mix to boost the bass.

Bracey's own audio team includes VDOSC technician Sharif E. Barbari, Bart Schoonbaert, Chris Morrison and Stephanie Thompson, and the kit they are touring is supplied by Britannia Row.

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## ON TOUR

In Dubai they ran two main left and right arrays consisting of 10 VDOSC elements and 3 dVDOSC downfills a side, with 8 dVDOSC as front fills and twenty-four SB218 L-Acoustics subs. Two arrays of 9 Kudos outfills per side were subbed in from locally based Artistic Innovation, and all were powered by L-Acoustics LA48 amps.

Monitor engineer John "JJ" James is also touring his own Digico D5 for the B rig shows. At the stage end they also have their own line and Sennheiser radio systems, so all they have to do is pick up amps and speakers.

Robbie, the 6 choir, the bass player, keyboardist and MD all use in ear monitors, the two guitarists are on wedges and the drummer used a combination of both. The stage wedges in Dubai were a mix of Clair 12AMs and Nexo PS15s, and Robbie's mic is a Shure Beta 58A hand-held.

### VIDEO

Special video content for the 'rest of the world' shows was compiled by



*Crew, baking in the sun. Pick the Aussies....*

the show's creative director Lee Lodge.

Robbie Williams had not played either South Africa or Dubai before, so it was important that they had a full show, but without compromising or giving away

anything of the stadium show! While the screen content was completely different to the summer show, they did use these warm ups as a starting point to roll out the new 'RW' logo iconography, and also to try some other linking



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imagery and test ideas for potential future development.

The thinking behind the content creation was that the audiences were most likely to be most familiar with Robbie's music, image and work via his promos, Lodge took original rushes from 5 promos plus some other original content made for the 2003 tour and created totally new footage and clips. He didn't make a 'video show' as such, but ensured the set was punctuated with several strong and very memorable video moments.

The content is stored on two new Grass Valley TurboDrive hard disk machines that travel with the tour, supplied by XL Video UK.

Live video director is Ruary MacPhie. In Dubai he cut the mix from 5 cameras which, together with Barco R12 ELMs and two portrait format side projections screens, were supplied by Gearhouse Dubai. IMAG was concentrated on the side screens, apart from one song, while playback went onto the centre screen for 95 per cent of the show.

The portrait format centre LED screen, made up of Barco D10 modules was flown in between the central two ribs and supplied by Rave AV. The tour's video requirements are being co-ordinated by chief engineer Stuart Heaney and they are also touring their own cameraman, Darren Montague, to all the B shows

## THE REST

Pyro and flame effects were designed and produced by Nicolai Sabottka from the Robbie crew, who worked with 4 dedicated crew.

The entire Dubai lighting rig and all associated rigging was supplied by UK-based HSL (see separate press release) and air freighted from the UK. Robbie Williams LD is Al Gurdon and lighting director/operator is Richard Gorrod.

Staging, decking, ramps, the grandstand and other associated infrastructure in Dubai was all supplied by local company Al Laith.

The roof was shipped in from World Stages in Australia – it was the first time a full load bearing roof they had been required in Dubai – to take the 25 tonnes of production gear including the lighting, PA, video and set, all of which had to be suspended from it.

Five generators were supplied by



*RW's crew say they had zero failure rate with the moving lights - that's unusual, or maybe the latest generation fixtures are more reliable?*



locally-based Byrne.

It was a huge challenge staging the show in an unconventional venue. The Racecourse – and indeed Dubai – had never seen anything on this scale before. It proved a massive success and

talking point and has also ramped up the excitement levels in anticipation of the summer tour – which promises to be one of the most entertaining live performances and innovative productions of 2006.



# STEVIE NICKS

*goes out in Symphony*

Stevie Nicks and her band recently teamed up with the Melbourne symphony orchestra to play a concert spectacular at Rod Laver arena. The Event was a one off show to be made into a DVD. Trevor Cronin had a casual chat with the sound crew about what they use and how they do it....



*Stevie Nicks with the Melbourne Symphony Orchestra. Pic by Bob King.*

## Introducing Dave Kob front of house engineer

**T.C.:** It's not a bad sounding room

**D.K.:** One of the best in Australia, I like mixing in this room it is a really nice one.

We are touring the whole country but the symphony show is only here in Melbourne

**T.C.:** So you have been doing Front of house for many years?

**D.K.:** Ah for over 30 now. I'm an old man. An analog man living in a digital world. I've just started with Stevie on this tour. I've done 2 or 3 Fleetwood Mac tours over the last 25 years. This is the first time I worked with Stevie as a solo artist

**T.C.:** What's the line up of Stevie's band here?

**D.K.:** Waddy Wachtel is the lead guitarist and music director. He's played with Lynda Ronstadt for many

years. He played with the expensive Winos with Keith Richards for a while. He's a good rocker, he's the MD, and he's been with Stevie a long time.

We've got Darryl Smith on Piano, another seasoned studio professional.

Carlos Rios on the other guitar, he's been with Stevie for a long time as well;

Bret Tuggle who plays with Fleetwood and Stevie, on Hammond B3 and electronic keyboards

Taku Hirano on the big percussion setup back there.

Jimmy Paxton on Drums, and AL Ortiz on Bass.

Then on the right side the girls, Jana, Sharon and Lori Nicks (Stevie's sister) on backing vocals

**T.C.:** So what sized orchestra have we got up there?

**D.K.:** It's a 60 piece orchestra,

featuring some of Melbourne's finest I believe.

**T.C.:** That's a huge line up! What's the Front of House console you have here?

**D.K.:** The Yamaha PM5000

**T.C.:** An analog machine?

**D.K.:** Yeah, it's got flying faders, programmable mutes, bus sends and all that, ala Midas. It's a fairly much the latest technology analog desk and it's working fine. I have finished my last two projects with it, I took it out on this and it's working great. I spend a lot less time programming than my mate on monitors up there with the PM 1D all digital machine.

**T.C.:** I notice in your effects racks here, you've got some nice stuff, Summit audio?

**D.K.:** Yeah, Summit valve compressors on Stevie and the girls, they hold the vocal down really well



Nothing beats a Hammond organ!



Biran McMahon (Assistant to Ernie Rose), in the Metropolis Truck with a D1 Dcigo.



Monitor engineer, Rob Miller with a Yamaha PM1D.

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Sound check at the Rod Laver arena.

and are reliable, they warm the sound up a bit. I like Summit audio stuff - I'm a summit fan.

D stressors (which are really nice units) on Bass and acoustic. Then there is an assortment of gates and what knot, it's a pretty normal setup.

Not many effects, an Eventide and Lexicon 480L reverb on Stevie.

A couple of Yamaha reverbs on Percussion and drums.

It's a pretty straight ahead band in that regards, no special effects, no long echo's or any of that kind of stuff to deal with.

**T.C.:** What sort of microphone do you use on Stevie's Vocals?

**D.K.:** This is an Sennheiser evolution 935 which I've never used before, neither has our monitor mixer. He wanted to try it, he was using an Audio Technica 4054 on the last tour which sounds brilliant, but with the in ear monitoring stuff it was picking up too much ambience, making his life difficult. So I said I'd give the Sennheiser a go as it has a really tight pickup pattern.

**T.C.:** Is it a condenser?

**D.K.:** Yes and it doesn't sound as good to me as the Audio Technica, but when you consider the noise and all that crap it's working out OK. Keeping her happy, which is the number one thing in a microphone; make sure the artist likes it.

**T.C.:** Is that a radio or a cable system?

**D.K.:** It's on a cable. It's the first non RF lead vocal I've had in ages. Nice to have a cord mic back. They sound better...

**T.C.:** Jands are looking after you hear in Australia with the production?

**D.K.:** Yeah, Jands PA, Clair brothers i4 with i4B sub cabinets. The Jands system tech Andy is looking after us. He's a good man. In fact he's just come out of retirement for us, He's their shop manager I think. They are a bit short handed and busy at the moment so he's come out and do our big 6 date tour. He's been really good. I've met him a couple of times before.

**T.C.:** So we've got a main right left

cluster and some side fills/ side cabinets and the bottom end stacked down on the floor there.

**D.K.:** Yeah, not that we are going to need that bottom end indoors. We just kind of set everything up in here to make sure it all works. There is plenty of low in coming out of the flying PA. More than I need, but we are doing a lot of outdoor shows so we will need them there. So we just set everything up and check it out. There are not hooked up to the main left right mix it all. There accessed via a Aux send on the console, it's a special effects thing. I'll dial them up if needed. This is probably the only room I'll get any decent low end in in Australia, most of the other venues need some acoustic treatment work! I know we're outdoors in Perth. I've not been out there in 15 - 16 years.

**T.C.:** So your going to be in the Country what 3 weeks?

**D.K.:** Well we've been here two weeks already rehearsing. Then it's only just barely two weeks of touring in Australia then we've got three

shows in New Zealand. The end, the whole shooting match is over. Then it's time to go fly fishing!

**T.C.:** So during then during the show do you use console automation for scenes?

**D.K.:** Yeah I've set up presets for each song. I do 90% of my mixing with the 12 VCA's in this desk which is nice. I run through all my presets, very minor changes but they're there. Be easy to mix this straight out without any recall. Coz it's there we use it. It's the way with technology. I've got a VCA preset for every tune. Its handy it turns some effects on and off and groups on and off so you don't have to think about it, it does that stuff for you.

## CONTROLLING BIG SOUND IN 2006

**T.C.:** How is the speaker system controlled?

**D.K.:** We have got the Lake Processors for system control which are made in Australia, and are absolutely fabulous. It has a fabulous wireless system, that allows you to do anything with a PA from anywhere in the room. It's great, you can EQ each little section of the PA, bring levels up and down, change speaker delay times, phasing everything from the remote pad. Quite reliable; I have been using them since they came out with the Clair brothers in the States and I haven't had a failure, so they are quite reliable. They are well built. One of the leaps of new technology that makes a huge difference. Beats running up these seats and yelling down at your guy at the desk to turn the tape off so you can take a little - you know - 200 cycles out of the PA and then turn it back on and run around or try and hear a walkie-talky with the PA blaring. Now you can just do it yourself. Walk on down front and bring in the front fills and everything, it really simple. Saves a lot of time.

**T.C.:** Do you think this new technology is good at keeping everybody in the auditorium sort of happy?

**D.K.:** Yeah I mean the benchmark in the 70s was just make sure it sounds good at the mixer coz anybody important like the manager will be there anyways. No-one else really cared, they were just there to get stoned and have a good time.

They couldn't really hear much past the mixer! Now people expect when they buy a ticket to hear good quality sound. It's a change, for the good. The various line array PA's out there make that a lot more possible, especially in bad acoustic environments.

**T.C.:** Now I see a gentleman with a little Midas on the left here.

**D.K.:** Yeah Jim is mixing the symphony.

**Jim:** Every string player has a Countryman bug pickup. We have this technique where they fit in the F hole so the pickup is actually inside and there are various microphones on the other sections. We have Ernie Rose in the Metropolis mobile out back behind the stage. He mixes the orchestra with his offsider Brian McMahon on a Digico D1 console. He creates stems of all the sections of the orchestra, he also does headphone monitor mixes which go back to all the mixers on stage. So they have like a band on a fader, the orchestra on a fader and their section, and maybe something else all on separate faders. They can individually adjust their own mix.

**T.C.:** That must be really comfortable for everyone up there

**D.K.:** Yeah, its not too bad. So he's created 20 stems and he's recording that as well as Stevie and the band onto Pro-Tools. He also sends the stems out to me at front of house and I try to make something sounding half decent and give Dave a stereo mix of it. Ernie also will do a stereo mix of the orchestra to send to the bands monitors.

**T.C.:** That takes a load of weight off the Out front and monitor engineers!

**Jim:** It spreads the load a little bit.

**T.C.:** So you actually have 4 engineers on the show?

**D.K.:** At least! The more the merrier... I work with the orchestra all the time, so know the players and what they're doing. I have the charts here so I know what's about to happen. There are many wide-open microphones up there so I'm EQing to avoid any feedback

**T.C.:** So I've noticed there's not much in the way of overhead mic'ing. So it's all fairly spotted closely to all the players.

**D.K.:** Yeah

**T.C.:** And there is a plexy glass screen between the orchestra and

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Tasty outboard!

Stevies band

**Jim:** It covers the percussion and the kit, which is the biggest noise and Waddy's guitar amp. It's there to keep the band sound out of the orchestra mic's and visa versa.

**T.C.:** Name rank and serial number?

**Andrew Mitchell:** Andrew Mitchell, I work at Jands and looking after the system for this tour.

**T.C.:** How long does it take to put a show together like this from the audio side?

**A.M.:** Normally we will come in about 9 o'clock; everything will be done ready to go for line checking just after lunch and sound checking 3-4 O'clock in the afternoon

**T.C.:** How many trucks of equipment have you got here?

**A.M.:** We have about one and half semi's of audio gear which includes all the control and PA.

**T.C.:** Is this rig doing the whole tour?

**A.M.:** It does the tour here in Australia, we are using a Vdosc system in New Zealand just because of time and freight costs to get it over there and back again. So we are using a company over there called College Hill who have a Vdosc system that we own in New Zealand. They look after it, so they do a lot of our shows over there in New Zealand.

**T.C.:** Have you been using this i4 rig for a little while?

**A.M.:** Been looking after it for the last five years, it spends half of the year in the US and the other half of the year out here. When it's out here, I pretty much take care of it.

So it comes down here for our summer and heads back over seas and spends it time in America for their summer. It's a summer PA, it doesn't

like the cold weather. It's the dodge viper V10 of line arrays. Its not tuned like a Porsche but its got a lot of muscles. For a line array it's a very Rock'n roll PA in punch but it has just a quarter the boxes than what usec to be there up in the air. Just a lot more horsepower behind it.

**T.C.:** Powered by?

**A.M.:** It's a QSC 9.0 modified by Clair slightly to drive the low end, then a Crest 10004 driving mids and highs. Then we use Crown Macrotech 5000s to drive the 16 sub bass we have on the ground and Macrotech 3600's driving the front full cabinets. They won't be getting much of a work out plenty of headroom.

**T.C.:** Rob Miller mixes monitors for Stevie Nicks

So you have been working together for a while?

**Rob:** I have, since '87. I missed only three tours with her since then

**T.C.:** Wow, 19 years. Obviously you've got the trust and a great relationship most of the time I would imagine? That's very comfortable for an artist to have that situation.

**Rob:** Well yeah. I think so. I kind of know what she wants. I like to think that she's confident in my skills.

**T.C.:** I might get you to run through the monitor rig your using here in Australia.

**D.K.:** Basically, it's the same thing as we have here in the states. I have a Yamaha PM1D with the 5k-pre amps for the input side. We use Sennheiser ear monitor packs, so you have got a good quality sound. I like the stereo imaging is much wider than the Shure stuff. Just my preference.

**T.C.:** How many sends are you running?

**D.K.:** 26 stereo sends. Mix 1 and 2 are Stevie's left and right in ears. 3 and 4 are Stevie's back stage wedges, they're a back up kind of thing in case something happens with the in ears. Normally they're not on, there is a few songs where we add a little more kick, depending on the room and what it sounds like. Outdoors I may

run more of a band mix just for her to get the feel. 5 and 6 are Waddy's ear mix. Al, the bass player is on 7 and 8. Carlos the other guitar player 9 and 10. The three back up singers each have their own stereo mix. Then we go to Daryl the stage right keyboard player, again a stereo mix. Drummer we have stereo mix and two mono subs, just to get the feel. On Al I also

have a mono sub for him as well for kick and a little bit more low end. His bass rig is on as well. (There are) no live speakers on stage other than the bass rig, my subs and Waddy's amp and wedges. Everything else is just direct line. Percussion just has a mix, hard wired. Daryl, Taku and Jimmy, the drummer are all hard wired to mixers. Stage left keyboard player has a wireless mix as well coz he does some down stage stuff with Stevie. I have a second layer on the console that's just the reverbs sends and that kind of stuff.

**T.C.:** So did you load in a pre-programmed existing show setup into the console or have you programmed all this here in Australia?

**D.K.:** This is a template I used when we toured the States last year. I had it on my memory card, I just brought it with me and loaded it in and obviously, we've been making changes, especially for the symphony.

**T.C.:** You're getting and orchestra mix from the truck is that correct?

“Now people expect when they buy a ticket to hear good quality sound. It's a change, for the good. The various line array PA's out there make that a lot more possible, especially in bad acoustic environments...”

**D.K.:** For this venue yes. We just worked with the orchestra for the last few days and that was without being wired up, so let's just see what it sounds like today

They seem pretty well tooled up with the way they are doing this.

That's working well, I'm sending them a stereo band mix and a separate click track so we are all synced up and a separate mix of Stevie, just so they can mix these four channels however they want. That's pretty straightforward.

**T.C.:** Do you use any fancy outboard equipment?

**D.K.:** Nah, I try to stay away from outboard, using the onboard effects works fine and avoids extra latency problems.

**T.C.:** So I guess a man of your experience would have got in at the ground floor with in ear and wireless monitoring technology?

**D.K.:** I've been around it for a while. We had a pair of the Tandy ear buds plugged into a Crown head phone amp for Sharon back in 1987. Most of the band would rather not have the ears in, but



*Rob, Dave Kob, and Jands S.E. Andrew Mitchell.*

they work so well in these big rooms

**T.C.:** For ambiance, are you mixing in a bit of the room sound into in ear monitors for everybody?

**D.K.:** Yes I am, mainly it's just in between the songs, we like to hear people talk a little bit. Depending on the sound room once we get started, I either use it or I don't. Every application is different, obviously. So this room may sound

way different to mix so I'll bring them in or not. I have them here on a separate VCA, and I use them mainly on outdoor shows and stuff when I need some more ambience. I like to keep as much separation as I can, like imaging, you know it makes them feel like not so much closed in, when they've got things moved round in the right place.

For reviews of the show go to <http://www.nicksfix.com>



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# MTV VIDEO MUSIC AWARDS

Crazy big fast changeovers. What can possibly go wrong?



300 moving lights, 2 Kudo PA's, a 39m long video screen and crew for days. It's BIG!

By **JULIUS GRAFTON**

Last year MTV ran the first Video Music Awards at the Big Top venue within Sydney's Luna Park. The Big Top is a new-ish multipurpose venue that seats 2000 and with general admission, caters to considerably more.

That show went over so well that the network threw much more money into the pot, and hired Acer Arena (formerly Sydney Superdome) for the 2006 awards. What a show it was – televised LIVE on MTV in Australia, and relayed world wide. Acer is the second largest indoor venue in Australia, after Colonial in Melbourne.

This year 13 live acts performed and they were live – which means a lot of audio work, and zero tolerance for errors. To compound the number of acts, the shortest turnaround time was a blistering 2.5 minutes. That's under 200 seconds.

To make it happen, the audio contractor Norwest Productions devised a system where each of the

27 rolling risers was line checked off stage just before they were rolled into position and connected to the main PA.

Dave Rennie from Norwest explained the system: "We had a 16 channel console backstage with a multipin header. The guys plugged the rolling riser in; and could check each line, then roll the riser out and connect the multipin to the PA feed".

Of the 13 live acts, 11 had drumkits. There were numerous smaller rolling risers, called 'skateboards' and as much as possible was connected and mic'ed in advance. There were 180 microphones in use, on the job.

Behind the band stage was an area about double the size, necessary for all the rolling ordnance that needed to be marshaled. Think of an aircraft carrier, and you start to get an idea of what it was like.

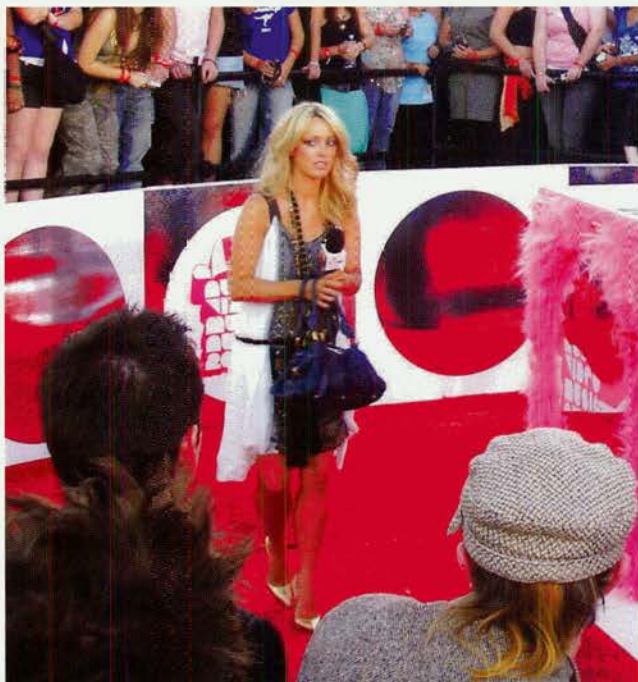
The 13 bands were only part of the story, but a big part. There was a Kudo line array system with subwoofers that more than did the

job, CX checked the house during rehearsals and it was nice out there. Ian Shapcott was enjoying doing the mix, after spending a very long time down at the Commonwealth Games, and returning just a few days before this show.

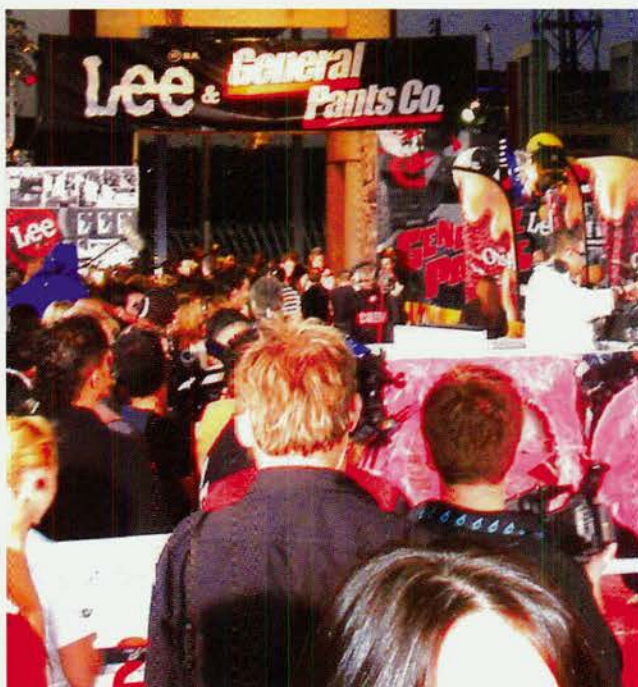
He mixed on one of Norwest's Yamaha PM1D digital consoles, and there was another PM1D backstage for monitors where Matt Dæbien was making sense of 13 different sets of monitoring demands, involving as many as 40 in-ear monitors and a slew of 30 Next PS15 wægges. PM1D is a great monitor console, as it can generate 48 mixes.

In between the live acts, was the rest of the show.

Along a catwalk and to the left of the band stage was a circular stage with a bunch of Plasma screens built under the floor. This is where the presenters, and the winners, walked on and off and did their thing. Behind it and further to the left was the celebrity bleachers, where the celebrities sat.



The 'stars' make their way down the red carpet.



They just keep on coming.

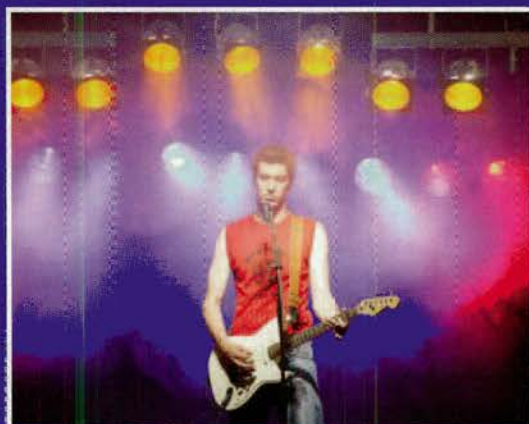
To make source for the circular stage, which was located in a different time environment, Norwest added a second, independent Kudo PA. Signal was sent to either PA from the PM1D, by Ian Shapcot, who probably worked harder than any source engineer we have ever seen. He had to: rehearse all 13 acts in the two days prior, and save their live settings on the PM1D. Then recall each act, and handle the cutover between systems.

All the packaged signals, things from video, like roll on and roll off music, and sound effects, plus the announcer microphones, were mixed by Ian Cooper on a Yamaha 01-V-96 console. This was fed to a stereo input channel on the PM1D.

All up there were 76 Kudo boxes, plus 24 EAW BH760 subwoofers and some KF730's used for frontfill.

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*Julio Himede's show design worked a treat*



*Circular stage, with inbuilt Plasma screens.*



*TDC's trademark: a massive, blended video screen with 9 x Barco projectors providing one seamless image.*

Norwest's involvement extended to the stage management, they worked with Darren Waide and Grant Pisani of Aztec Events, who made certain it all happened in the right sequence.

## PUTTING IT TOGETHER

Event Production Coordinator James Klein told CX that his job started with bringing together the stage design drawings, with the lighting designer and sound design. He merged various drawings on CAD, so that everyone could move forward towards production week.

The production was designed by Julio Himede, who created something that looked amazing on TV and also live. The main band stage was 21.5m wide x 12m deep x 1.5m high, and the back stage was 28m wide x 13.5m deep. The curved cat walk was 25m long and curved from a section of a 50m diameter circle. It joined up with a circular stage 12m in diameter.

The VIP seating area was 13.5m wide x 8.5m deep. A custom bridge 4.8m long joined the VIP seating with the circle stage.

The Lighting Designer Tom Kenny heralds from the USA, he is the MTV world-wide designer. He was aided by Sean 'Motley' Hackett and Mark Hammer who were assigned to the show by Bytecraft. Motley was off to tour the world with INXS immediately after; while Mark had just come back from a mammoth stretch as the LD for the Commonwealth Games.

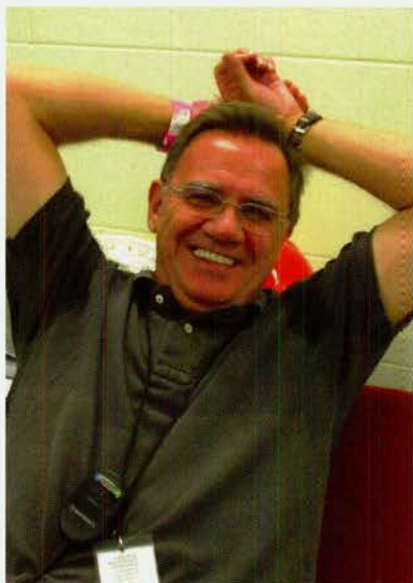
For the production companies, the MTV show came well timed off the back of The Games!

Live video was projected by Technical Direction Company onto a massive 30m wide and 9 metre tall screen, with seamless blends of nine Barco B12 projectors making one mother of all images. Olin Winton was the Video TD & Encore Operator for TDC.

Inside the Stadium it was a 12 camera shoot for Global, plus there were segments from the Red Carpet, and the Green Room.

The show featured a live cross to the roof of the MCA at Circular Quay, where The Darkness performed a number. All the equipment for that segment, sound, lighting, backline and the staging were lifted by crane, starting at first light. ESS built the stage and arranged the crane, the lighting director for the room segment was Hugh Taranto.

It was big, it was bright, it was bold. And it all worked, live and on TV.



Ian Smith, event manager.



James Klein, Event Production Coordinator.



Sound engineer, Ian Shapcott. Direct from Commonwealth Games to MTV.



Back dock at Acer, Outside Broadcast gridlock.

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# Crew list for the 2006 MTV Video Music Awards

## SHOW PRODUCTION

FIRST NAME	LAST NAME	POSITION
Ai	Tokuno	Supervising Production Coordinator
Allison	Haigh	Broadcast Production Manager
Andrew	Hoppe	Executive Producer
Ant	Horn	Writer
Ayesha	Muthalib	Art Department Crew
Ben	Perry	Art Department Crew
Brett	Brown	Camera Operator - Backstage crew
Cassandra	Keivins	Art Department Crew
Cat	Raven	Art Director
Chantal	Prud'homme	Co-Producer
Cherie	Spisso	Hair & Make up
Corey	Spence	Art Department Crew
Dale	Dorning	Hair & Make-up
Darren	Moore	Art Department Crew
Deb	Munday	Hair & Make-up Coordinator
Dina	Vanderelst	Accreditation Co-ordinator
Ean	Thorley	Producer
Elizabeth	Hayem	Art Department Crew
Fiona	Smith	Backstage Talent Supervisor
Gavin	Jarrett	VT Producer
Greg	Roberts	Communications
Hamish	Irwin	Art Department Crew
Helen	Gregory	Production Assistant
Hugh	Taranto	Lighting - Remote Stage
Ian	Smith	Event Manager
Imogen	Price	Stylist
Jade	Van Santen	Accreditation Assistant
James	Klein	Event Production Coordinator
Jen	Longhurst	Sound Recordist - backstage crew
Joel	McCormack	Production Assistant
John	Simpson	Broadcast Audio Engineer
Julia	Knowles	Director
Julio	Himede	Production Designer
Kate	O'Loughlin	Production Manager
Kelly	Martin	EA to Andrew Hoppe
Kelly	Kearney	Talent

## CO-ORDINATOR

FIRST NAME	LAST NAME	POSITION
Lily	Miller	Accreditation assistant
Lisa	Katis	Hair & Make-up
Lynne	Roberts	Accreditation Co-ordinator
Manique	Ratner	Script Supervisor
Matt	O'Neil	Art Department Crew
Michael	Grimes	Lighting Gaffer
Naomi	Neufeld	Vision Mixer
Nkem	Egbuchiri	Director's Assistant
Paul	De Heer	IT Support
Phil	Piotrowsky	Camera Operator
Robert	Lee	Voice Over Artist
Sharon	Masse	Hair & Make-up
Stephanie	Fyfe	Production Assistant
Steve	Bonanno	DJ Coordinator
Tim	Ryan	Production Assistant
Tira	Jaye	Hair & Make up
Tom	Perry	Art Department Crew
Tom	Kenny	Lighting Director
Verushka	Darling	Writer

## MAIN SHOW CREW - GLOBAL

FIRST NAME	LAST NAME	POSITION
Aaran	Creece	Camera Operator
Andrew	Barrance	CCU Operator

Andrew	Johnson	Hothead Operator
Anna	Jakovich	Communications Technician
Ari	Matkainen	Camera/cablehand
Barry	Armstrong	Camera Operator
Ben	De Paló	Camera/cablehand
Benjamin	Porteous	Jimmy jib Assistant
Conrad	Hendicks	Audio Director
David	Scorpecci	Field Technician
David	Levy	Camera Operator
David	McEvoy	Vision Switcher
David	Tinetti	Camera Supervisor
Emilio	Abonizio	Jimmy Jib Operator
Gary	Blair	Camera Operative
Garry	North	Floor Manager
Geoff	Southam	Broadcast Engineer
Gordon	Dein	Jimmy Jib Operator
Helen	Thompson	Autocue rigging
Ian	Dyer	Broadcast Engineer
Jane	Bowers	Technical Director
Jason	Holland	Camera Operator
Jeff	Archer	Camera/cablehand
Jen	Carmody	Assistant Floor Manager
Jim	Walpole	Camera Operator
John	Abbott	Camera Operator
John	Clarke	Field Rig Manager
Joshua	Tonkin	Jimmy Jib Assistant
Katie	Devine	CCU Operator
Kevin	Murphy	Camera/cablehand
Kyle	Crossling	Floor Manager
Lance	Denison	Technical Manager
Lesley	Kershaw	VTR Operator
Lisa	Fenley	Unit Manager
Marc	Segar	Technical Manager
Marcus	Trevor	Assistant Floor Manager
Maree	North	VCG Operator
Marinko	Kero	Audio Director
Mark	Edwards	CCU Operator
Matt	Barnes	Audio Technician
Matthew	Cleary	Audio Technician
Michael	Venables	Assistant Floor Manager
Michael	Burton	Camera/cablehand
Michael	Healey	Audio Technician
Michaela	Hannagan	EVS Operator
Mick	Tague	Audio Technician
Nathan	Fredericks	Camera/cablehand
Ngairé	Baker	Autocue
Nigel	Simpson	Unit Manager
Paul	Sumner	Camera/cablehand
Perry	Cooper	EVS Operator
Peter	Angus	Assistant Floor Manager
Peter	Leslie	Camera Operator
Peter	Mazzaferro	Camera Operator
Peter	Sheppard	Jimmy Jib Assistant
Phil	Drayton	Field Rig Manager
Rich	Walter	Camera Operator
Rob	West	Camera Operator
Robert	Smith	Camera/cablehand
Robert	Babekuhl	Location Facilities Assistant
Rohan	Charlton	Audio Director
Salvadore	Santos	Communications Technician
Shane	McInnes	CCU Operator
Stephen	Grace	Camera/cablehand
Steven	Forrest	Camera Operator
TBA	Camera Operator	
TBC	Dolly Grip	

Terry	Chigwidden	Camera Operator
Tony	Fahey	Camera/cablehand
Tristan	Wilson	Communications Technicians
William	Pfeifer	Camera Supervisor

## BYTECRAFT

FIRST NAME	LAST NAME	POSITION
Aaron	Thomas	Board Operator
Allen	York	Grip
Andy	Robertson	Grip
Beau	Moulson	Grip
Brian	Cole	Gaffer
Don	McGregor	Crew Chief
Fergal	O'Sullivan	Crew Chief
Jimmy	Page	Grip
John	O'Donohue	Grip
Kerry	Paff	Lighting Technician
Kylie	Towle	Lighting Technician
Luke	O'Neill	Lighting Technician
Mark	Hammer	Board Operator
Mat	Burden	Crew Chief
Matt	Faulds	Lighting Technician
Matthew	Walsh	Lighting Technician
Nicholas	Bryant	Lighting Technician
Paul	Rigby	Lighting Supervisor
Richard	Howorth	Lighting Technician
Rob	Osword	Lighting Technician
Rohan	Trundle	Lighting Supervisor
Sean	Hackett	Board Operator
Tim	Bull	Moving Lights
Warren	Donahue	Lighting Technician

## TECHNICAL DIRECTION COMPANY

FIRST NAME	LAST NAME	POSITION
Olin	Winton	Video TD & Encore Operator
Peter	Lynas	System Technician (inc plasmas)
Peter	Gibbs	Projectionist

## NORWEST PRODUCTIONS

FIRST NAME	LAST NAME	POSITION
Ian	Shapcott	FOH Engineer - Bands
Ian	Cooper	FOH Engineer - Hosts
Ewan	McDonald	FOH Systems Engineer
Matt	Debien	Monitor Engineer
Chris	Martin	Systems Engineer
Raoul	Plimer	Patch Technician
Ricki	Cook	Patch Technician
Gary	O'Berg	Stage Technician
Adam	Williams	Stage Technician
Peter	(Doc) Wood	Head Stage Tech
Amy	McDonald	Radio Mic & IEM Distribution & Fitting to Artists
Steve	Caldwell	RF Guru

## AZTECH EVENTS

FIRST NAME	LAST NAME	POSITION
Darren	Waide	Stage Manager
Grant	Pisani	Stage Manager

## BACKLINE TECHNICIANS

FIRST NAME	LAST NAME	POSITION
Billy	Hibben	Backline Technician
Ben	Jobson	Backline Technician



Julio Himede, show designer.



TDC in full flight.



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Olin Winton, from TDC.



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# QUO & PURPLE

## Digital vs Analog... and the winner is?



By **DUNCAN FRY**

Well, once again I've been suckered into going to an old fart's concert. I don't know why I do – I'm not a totally anal fussy budget but there's always something at these concerts that really spoils my enjoyment.

My phone rang, and it was a mate of mine on the other end.

"Hey – wanna go to the concert?" he asked

"What concert?" I replied

"Oh mate – it's Status Quo and Deep Purple. You gotta come along – I've even got a spare ticket you can buy."

"Where is it?" I asked. I usually keep a close eye on who's coming to town, but this show had kept a surprisingly low profile.

"It's on at the Palais in St Kilda."

Ah, the good old Palais. I hadn't been there for a long time. An Art Deco theatre on the St Kilda foreshore in Melbourne, next to Luna Park, it's been around a lot longer than I have.

The first time I went there was in 1964 to see the Rolling Stones and Roy Orbison, and again a year later when the Stones returned. It's a great venue – nowhere is too far from the stage, unlike bigger venues where binoculars or a big screen are essential.

It sounded like a great double bill though. I'd seen Deep Purple before, at Festival Hall I think, but I had never seen Status Quo live, despite them having been here more times than I've had hot dinners. Well, not quite – but close!

Still, like I said before, I always come away disappointed from these shows. The intervening 30 years have seen so much new product released to make concerts sound better, and yet they never do. But I wouldn't mind seeing Quo, so I wavered, and eventually said yes.

"Great," he said. I'll come around with the ticket. That'll be 145 bucks."

My heart skipped a beat. "145 dollars?" I exploded. "My goodness that is a lot of money" (or words to that effect).

But I was committed to go, and now I was looking forward to it.

I arrived with half an hour to spare, so I used the time to check out the production. The front-of-house speaker system was the obligatory line array, but this time, unlike the 'Who's Left' tour of '04, we were sitting right in the middle of power alley, about eight rows in front of the mixing position. So we'd be hearing the same as the mixer, just a few milliseconds before

There were 9 L'Acoustics Vdosc cabinets flown each side plus some infills at the bottom, and 6 of their subs ground-stacked each side of the stage. I was hoping it was going to be enough, because the onstage sidefill monitoring consisted of 3 of the same cabinets plus 2 subs, each side of the stage!

At the mixing position was a big Yamaha digital mixer for Status Quo (I could tell because their songlist was sitting on it!), but a separate Midas (XL4 or Heritage I think) for Deep Purple. So it was shaping up to be a battle between the analog champion and a digital contender.

I lasted about 3 songs with the support band, then got up and walked out to get a cup of coffee in the foyer. It wasn't that they were bad, but the sound was piercingly shrill and over-bright. It was as though all the truly aggravating frequencies were being boosted to a level that would make a dead man's ears bleed. All bottom end thud and sibilant, clipping highs, and I wasn't prepared to have my hearing rooted before either of the main acts came on.

I was rapidly joined in the foyer by

the rest of my musical buddies, apart from the drummer, which must give some indication of the state of his hearing!

We came back in during the break before Status Quo. A wall of white Marshall quad boxes spread across the stage, with the guitar tech getting his 15 seconds of fame by sound checking each of the guitars.

Then on came the boys, blasting their way through a one and a quarter hour set that included a lot of their hits (except for Down the Dustpipe), a couple of new songs, and a whole lot of fun. They were well-rehearsed and as tight as the proverbial fish's arse, and seemed to genuinely enjoy being there.

But the whole system sounded like it was being slammed up against a hard and very gritty sounding limiter. I've nothing against a mix that works the desk hard, and most live stuff benefits from some compression, but the excessive sibilance, lack of guitar and vocal midrange made it difficult to hear the vocals, and the guitar. The only thing that did come through well was (as usual) the kick drum, which did an excellent job of pinning us to the back of our seats!

Despite this, their set was a whole lot of fun. During the break we wandered out to the foyer again, all vibed up for a good time with Deep Purple.

When they came on, the difference was chalk and cheese. No excessive sibilance, very loud but not painfully so, just a big fat sound and the ability to hear individual instruments.

Unfortunately the good stuff ended there. The first forty minutes of their set was a turgid, plodding mixture of very old and very new material, with Ian Gillan forever wandering off backstage, either for a leak or a drink – it was hard to tell. Not until 'Lazy' did things start to arc up a bit.

And although Steve Morse is a

superb guitarist, he just doesn't have the Ritchie Blackmore fire in his playing. When he played a solo number he sounded like he was channelling Jan Akkerman from Focus, with the little finger on the volume knob trick. You guitarists know what I'm talking about! Well, I've seen Focus play several times, and I can tell you the real thing is better than the copy.

Even the crowd pleasing numbers like 'Smoke on the Water' were lacking in excitement and their whole set appeared to be a 'going through the motions' exercise - and I'm speaking as someone who's a fan of theirs! Ritchie Blackmore's Rainbow played several Deep Purple hits when they toured here, and I much preferred their enthusiasm and sound.

The problem for Deep Purple is all the audience really wants to hear is a combination of 'Machine Head' and the live 'Made in Japan' album reproduced onstage. None of this experimental new stuff. Status Quo obviously realised this, and wisely stuck to well-known, popular material.

It wasn't all bad, though. The keyboard player's solo was excellent, well up to Jon Lord standard, and the drummer did one fantastic trick in his solo, something I'd never seen before. It was a single stick drum roll. Just the left hand, starting off slowly and building to a single percussive blur at a speed most drummers would have a hard time matching using both hands.

At the end of the night the general consensus from my mates was: (a) Deep Purple won the award for the most annoying light show this century; any more blinders and I wouldn't have been able to see to drive home, and (b) Status Quo should have headlined and used Deep Purple's Midas. I don't think you can drive digital mixers the same way you can drive analog, without getting the harsh clipping artefacts as a result.

My buddies and I might be a bunch of old farts, but we're the target audience for shows like this. We're the ones able to cough up 145 reasons to go, and bad sound pisses us off. Promoters ignore this at their peril.

I'd be very interested in other people's thoughts on the analog vs digital mixer sound; after all, we're audio professionals - we're supposed to know what good sound is. Email me [dunk@dunkworld.com](mailto:dunk@dunkworld.com) if you'd like to comment.

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# LOOK AFTER YOURSELF

The occasional health and wellbeing page.



By JULIUS GRAFTON

Carrie Deane is a 26 year old event manager who was out on a first date last December 9th. The boy did the right thing, and dropped her off in a taxi after a group dinner at Manly that had gone well. It was 10.30pm.

She stepped from the taxi and woke up in a drug induced state some time the next day in the intensive care unit. A car had struck her, speed yet to be determined in court. Carrie had a lot of damage to the left side of her body, her jaw had hit the bonnet and her facial injuries rendered her unrecognizable. Every tooth except two had been smashed. In the emergency room they replanted them.

Part of the jaw, called the Condole bone, was rammed through her left ear cavity, leaving her partially deaf on that side.

Her head swelled to almost twice normal size, and she couldn't breathe. They performed a tracheotomy so she could breathe through a hole in her neck. Her jaw was wired shut for weeks. They kept mirrors away, cautioned her mum not to comment on her appearance.

The tibia and the fibula were smashed in her lower leg. A titanium rod was inserted in bolted into place. Steel was wired into her jaw. She was about to undergo a shoulder reconstruction when we met, in April.

Plastic surgery has restored Carrie as a pretty 26 year old. There are some traces, if you know where to look. Her legs have scars, but they work now. She spent three months on crutches, has had and will have extensive physiotherapy, and requires root canal work and capping on many teeth. In time the limp will go away, full shoulder mobility will return along with strength.

"I have had some flashbacks now,



Carrie Deane (left) still recovering from a serious motor vehicle accident.

the car lights, the boy yelling 'watch out'. He blamed himself, but really he shouldn't have. He spent time by my side in hospital".

It must have been appalling for him.

Four months and two weeks after that terrible night. Carrie was at Juliusmedia college doing her Certification, learning sound, lighting and video. As an events manager she felt she needed the practical skills, to help validate what others are doing at her events, and to give herself the option of doing base level technical tasks.

The lessons from this? "I'm actually happy the accident happened", she said. "I can see life much better, I enjoy life much more and appreciate things".

While strapped to an intensive care bed unable to speak she realized the young guy next to her had just been rendered a quadriplegic. There's always someone worse off than yourself, and if faced with the massive adversity Carrie faced and still faces (discovering, for instance

with the onset of cold weather that the steel in your body gets COLD!) then her story will inspire you.

What a girl.

## A VERY SCARY TESTICLE STORY

Sydney audio guy Randy Franz had a routine double Bilateral Inguinal Hernia repair. Many guys who are fit and active need this kind of road maintenance. Randy takes up the story: The hernias in question are tiny holes in your inguinal muscles through which your testicles can penetrate.

Most holes then close, but a lot of holes do not. So whenever you are putting pressure on you bowels with your stomach muscles the bowels will go through this hole and there you have a hernia. Once the bowel gets through it will go into your groin and if you wait too long, like me, it will eventually go into your scrotum.

There is still a small layer of tissue separating your bowels from your bells, but repetitive entry and exits from this area will cause the tissue to become

slack and thus forming a pocket.

The surgeons had closed off the hole with a mesh type substance but the pocket under the hole was still stretched. Which meant that my bowels were no longer able to go through the hole, but fluids are. And because I had some internal bleeding during the procedure I had some blood go down the hole.

This was not picked up on when I was discharged from the hospital. The same evening I noticed swelling in the same spot as where my hernia used to be. I called the hospital who in turn called the surgeon who in turn called me to let me know that this was normal and the fluid would subside soon.

He did not know that the fluid was actually blood.

Needless to say that after going to sleep with a small amount of blood in a stagnant place you will wake up to find the blood has clotted.

**Friday** = small blood clot, but I was still bleeding internally,

**Saturday** = larger blood clot, still bleeding.

**Sunday** = incapacitating size



Randy Fransz underwent a routine double Bilateral Inguinal Hernia repair.

blood clot.

**Monday** = admission into the emergency ward. When they finally operated on me on Monday night they ended up removing a blood clot the size of an average mandarin. I am the

only person I know with 5 stitches in his scrotum. I won't be showing it around though.

The moral of the story is that if you have something wrong with you, get it fixed. CX

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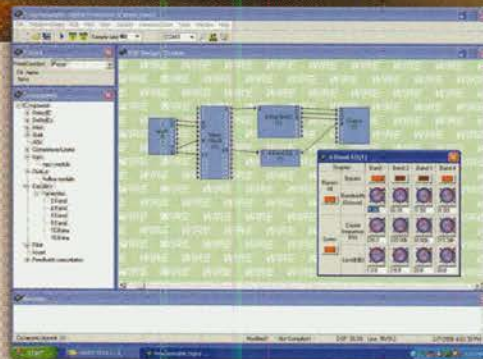
The PDP8 digital audio processor is a comprehensive system which integrates pre-amplifier, compressor limiter, equaliser as well as matrixing and delay functions into one unit. Useful features like automatic gain control, feedback killers, auto microphone mixers and crossovers are all part of the PDP8's impressive components library.

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# BIG, BIGGER, BIGGEST



Mass scale events need lots of equipment. So the Commonwealth Games in Melbourne didn't disappoint...



*Very large scale events consume massive amounts of lighting. Try 1001 moving lights.....*

## By JULIUS GRAFTON

There is a recipe for pouring a spectacular into a very large sporting arena, and it goes something like this: figure out roughly what the technical budget is, then design the systems and send out for tenders, and do the gig. Sound simple?

The Commonwealth Games Opening (and Closing) Ceremony were a "world class large scale event", a genre that appears to be getting more and more complex each time we see one. We remember them.

"There's a massive focus. The ceremony sets the tone for the whole Games, the Games can't afford a negative at the start. The Ceremonies are the opening and closing scenes"

said Technical Director Nick Eltis. Jack Morton Worldwide (Producers of the Opening and Closing Ceremonies) well understand this. They gather a world class team of professionals, and then put on the massive spectacles.

Melbourne's Opener was sensational on TV, more so due to the River sequence with fishes on barges and former AFL player Ron Barassi walking on water. The two discussion items were the flying tram, replete with flapping angel wings, and The Duck.

Much debate has been done about The Duck. The technical and event crew remain at loggerheads about the meaning of the segment, which is understandable since most readers of CX don't bother about what the content means, we just enable it.

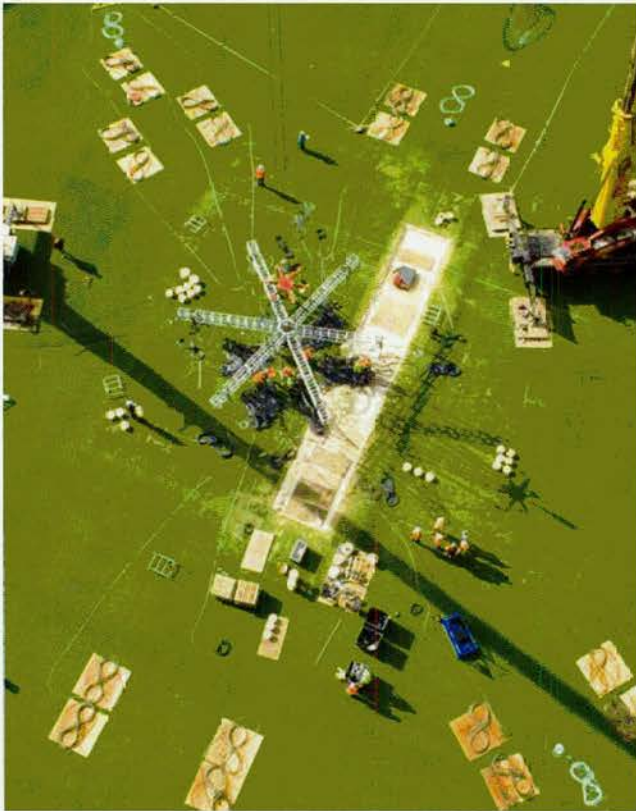
"We did a lot of work on The

Duck", confirmed Nick.

"Try to find a trained duck", added Philby Lewis, one of two Technical Production Managers. "It had to be acclimatized by visiting noisy building sites. They took it out on field trips. Research was done on what happens to a duck's hearing, how duck's ears work. You don't want to f--- your duck."

If you didn't see it, the Duck transforms into a girl. There is a metamorphosis scene where the duck goes in one end of a set piece and the girl comes out the other. Go figure.

Whatever the creative elements, whatever the message, the Opening (and indeed the Closing) delivered on what Nick says they needed to achieve. People talked, and people remembered.



Vertigo city.....

## IT STARTED

A year or so out, Nick and his initial team draw up the tenders for all the technology based on what they thought the event needed. "Well before any creative work is done it is obvious you need a lot of sound and lighting to fill up a space as large as the MCG (Melbourne Cricket Ground)"

"A year out, the basis of the technology can be done. We write specifications. I know we need 'x' amount of lights to light an arena and 'x' to do sound. Your budget is your limit. Preliminary stage plans are made. There is a lot of work to be done to ensure broadcasters' needs are catered to."

"We deal with engineering on roof loads, power, do lots of budget work. We look at rehearsal venues, audition venues, and do lots of consultancy work amongst the team."

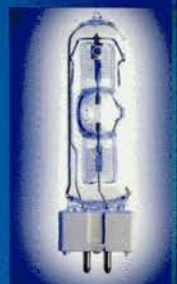
"As you select contractors, you refine specifications and get into detail about how you will do it in the venue. Then six months out things are starting to be locked in and we get down to the fine detail; we can start to think about things like addresses for each light. All the details get refined, reworked and hopefully more accurate."

"Three months out, you are on site. Philby and Baldy are dealing with site problems. Then the contractors are on site."

Philby Lewis was the Production Manager (Technica) in charge of lighting, rigging, PIGI projections and power. Ian Baldwin was the other Production Manager, for audio, communications, pyro, screen production and venue technology which was anything else that didn't fit.

The lighting system was designed from the top down, and the top was a space in free space that is directly above the centre of the field of play. Stand there, look up and try to imagine a hub about 2m in diameter, fown around 50 metres up. That's the place where it all came together,

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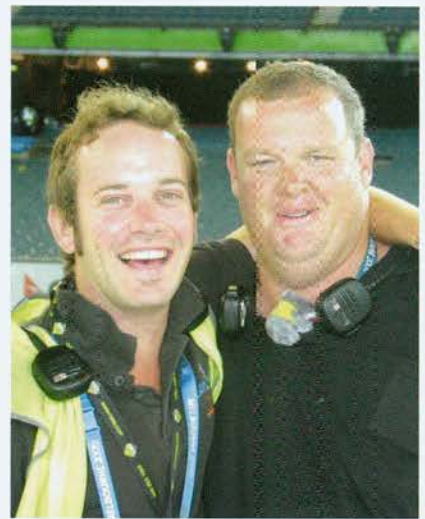
Scale is hard to imagine here.....



The 'Rain Day' - FOP under flood.



Ian Baldwin.



Craig Moca and Philby Lewis

and to get that hub up there required wire rope.

"We did a site inspection, and the first thing was to visualise how best to fly lights", says Nick. "We looked at the MCG lighting towers and thought they would take some load."

What a load it turned out to be – 115 tonnes, supported on thirteen almost horizontal steel wires, run in pairs from the six towers (one tower gets an extra one). That's engineer territory, and structural engineers did the math and approved the system.

The purpose of the hub is to centre the 13 lines, each made of 32mm steel. The structural stress on the thing was very high; doubtless the engineers checked the spreadsheet more than once. With lines cranked up and the hub wobbling gently in the breeze, the circular lighting grid could be attached via compact Trac wire winches that were attached to 7 of the 13 lines.

The lighting truss was 20 meters in diameter and was trimmed at 39 meters above the field. The truss was engineered for as few as three points, and any one point could fail without affecting the integrity of the truss. It wasn't a complete circle, as it had a 1.5 meter section missing to enable the Tram to be flown in on the 13th line.

There was 8.5 tonnes of lighting and cables up there, comprising 36 x Mac 2k washes, 36 x Mac 2k profiles, and 12 Atomic strobes. The truss could be lowered in 1.5 minutes in an emergency, and was whenever the wind approached the wind ceiling: 22 meters per second, or about 61 km/h.

"We had a weather station on a light tower, on the end of the noodle (a stage element), and in the middle of the hub. The control system would send a text message if the wind approached the limit. Plus we had

direct contact with the weather bureau, they would call and warn us if the weather approached our limit, as well as people monitoring our weather computers 24 hours a day once the system was in the air", Nick said.

Moving down, there were 29 trusses hung from the roof of the grandstands and the scoreboards. Each had 2 Mac 2k profiles, 6 Mac 2k washes and 4 VL 3000 profiles.

On the hand rail of level 5, 800m of custom balcony rail was installed that was then loaded with 120 Mac 2k washes, 100 Mac 2k Performances and 40 Mac 2k profiles. On level 2 on another 800m of custom balcony rail there were 114 VL 2000 washes.

Then there were 45 periphery wall boxes, each containing four Mac 2k profiles in each on a rollout dolly with a lifting lid. They were around the ring of the field of play.

Finally 22 Mac 2k washes were



Closing Ceremony stage.

built into the stage, which itself measured 97m in diameter and sat 3m above the field of play.

## THE STAGE

For the opening the stage had a centre lift system, which had the donut surrounding it, with some helix ramps to access it from underneath. The stage surface then sloped out towards the edges to ground level. Built into that were 5 slots, angled out so you could run out through the middle of the stage surface, that was access for cast, set pieces and crew.

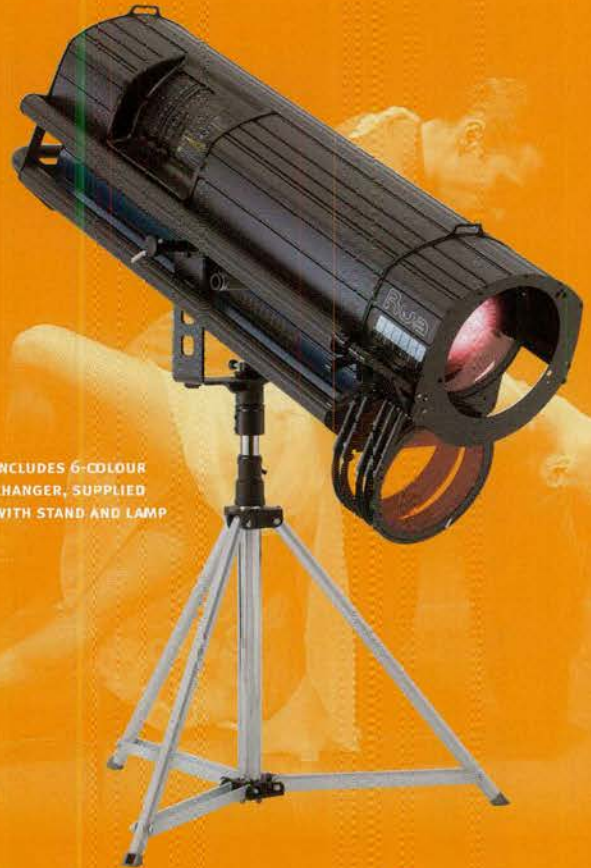
One of the major pieces of the stage was called The Noodle, 100m long and 10m wide, 6m high, with a hydraulic ramp that lowered the last 30m of the noodle from level one of the stadium to stage level, so the athletes could run in and onto the stage, then on to the field of play.

On each side of the Noodle ramp was an air filled tube, backlit with a ridiculous collection of 144 Chroma Banks (72 per side), with 102 Mini Strips inside as shin busters for the athletes. There were 32 Chroma Panels built into the end of the Noodle.

The noodle contained a trap system for the metamorphosis scene where the duck turns into a chick, if you get the drift. You had to see it, to understand it. The meaning of the duck still remains obscure.

A secondary 'Queens' Stage was used for just that purpose. The regal buggy arrived there, and dropped off Her Majesty. This was weight load tested via the van of Ian Baldwin, loaded with water ballast so it weighed the same as the armour plated Royal Roller. Mr. Baldwin had his brush with royalty.

There was also an orchestra stage.



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 And a duck!

**THE RIVER TEAM**

The River People were a separate  
 crew, on each barge was a Fish,  
 with moving lights mounted on the  
 barges. It was a BIG production in  
 its own right.

Technical director of River  
 Shannon Gobell  
 Phil Lethlean LD

Head programmer and op: Andy Edis  
 Lighting and water programmer:  
 Scott Snowden

Lighting programmer Peter Wilhelms  
 Production manager, river lx power  
 and pyro: Richard Dinner  
 Production manager of water effects:  
 Kerry Saxby

Bytecraft had this lighting contract:

140 VL2  
 46 Mac 500  
 80 Studio Color  
 80 PC Beams  
 16 Mac 600  
 40 Mac 2k profiles  
 40 CyberTight Turbo's  
 28 VL6C  
 6 Galdiator followspots  
 400 Par 64 MFL  
 2 Whole Hog 3  
 4 Whole Hog 2  
 432 DMX channels of water fountain  
 effects driven of Whole Hog 2.  
 Norwest did the sound, mainly using  
 EAW loudspeakers.

Lighting for the closing ceremony



Paul Collison and Spud Trooper.

## SET LIGHTING

There were 28 Robert Juat followspots, 12 around the arena and 16 on the ground for the opening. They were Aramis and Cyrano 2500w HMI units.

Then there was 300m of LED Neon around the stage perimeters, and the Queen's Steps, plus 1500 Pulsar MR 16 RGB heart LED colour mixing uplights built into the stage. They became the 'star path' along which the athletes walked.

Other lighting 'bits': 6 x Cyclo (dmx controlled dimmable fluoro units) were used to internally light the blow up 8m wide 'world' globe in the closing ceremony. Plus there were a bunch of foggers around the place for atmosphere.

## CONTROL

The event was driven by 2 Grand MA consoles, with another 2 as backup. It is judged prudent to do it this way, in the rare case one fails. The consoles were run in pairs, with each backup tracking its primary console, enabling virtual y seamless switchover.

There was also a Grand MA Lite operated by Megan McGaran, with a tracking backup (second console to drive the dimmers and any set lighting and any of the extra items like foggers and strobes).

A Grand MA was used for remote plotting. A software package called MA3D allowed virtual programming before the first light was hung, over 2 months was spent offline programming in a suite.

Paul Collison operated the first Grand MA, used for all trusses, the truss circle, and the level 2 balcony.

Jason Fripp was the second GMA driver, controlling the Level 5 Balcony, and all periphery wall boxes.

All that lighting control; and consider that there were over 1000 moving lights in there; was sent over Ethernet. The team deployed a rapid spanning tree protocol, where there is a closed loop of Ethernet and a break in the network will be self healed by the network by finding an alternate path to the node that drops off the end. If a node dropped off line, a text message was also sent to a Bytecraft guy.

A lot of work was done with the technical guys from Martin in Denmark, as well as with Show Technology in

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Sydney to design the control system. It was an extensive control network that performed flawlessly"

## COMMUNICATIONS

"It was a bigger system than Athens, because we linked the river and the MCG with fibre. There were 29 radio repeaters, 960 2 way radios, 76 comms panels, endless beltpacks. PA People also did a video surveillance system, with 13 cameras on Ethernet so we could monitor any camera, and record each camera for rehearsals for replay whenever we needed to."

The cabled comms were all Clearcom, which again performed well.

## PROJECTION

If the lighting appears mammoth; consider the projection system. 25 PIGI Projectors were used throughout the show to fill the large white stage. There were 11 on the Great Southern Stand gantry, 11 on scaffold platforms in the Northern stand, and 3 in the scoreboards.

"Lighting has to work in with the PIGI, you can't treat them as two separate entities" said Philby. "The stage was completely round, but the venue was anything but. So every projection distance was different, every angle was different."

Sydney firm The Electric Canvas produce large format projection shows; based on the large PIGI projectors; across the world. This was one of their larger shows.

These projections are painstakingly prepared on film; that is scrolled through the projector optics on cue, to produce fixed or rolling projections. Because in this case, (and indeed often), the projection is at an angle to the surface, keystone (correction) needs to be designed into the image.

There is a lot of math required before The Electric Canvas can make final film for each projector. They need to calculate how big the footprint of each image will be, the overlap points for each image, the angle of the projector, and the keystone that is built into the making of the film. All that math requires a zero point in the middle of the stage and stadium and in space – relative to stage height. To measure it, the stage needed to be built, and then to settle.

"We had surveyors on the site for 6 days, 24 hours a day, in rolling teams, to locate things at the start", said Philby.

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Nick Eltis and Joe Frisina.

## THE LOADIN

"Compared to an Olympic Stadium which is built with this in mind, equipment access was shocking, the MCG was not built for major events", says Nick. "There is only one way to drive a semi in. In advance, we are trying to guess crew requirements, catering, and figuring out how to get equipment from level to level."

In the construction phase, as the MCG was refurbished, they installed 35 kilometers of three phase mains backbone.

The bump in for lights started 6th Feb, and progressed for 10 days. There were 24 crew and 30 loaders working solid for 10 days. Plus the riggers.

The Comms (Communications System) started rolling in on 9th January.

Finally, Audio arrived as planned on the 20th of January.

"At the bump in we were very constricted by the (construction) Union," said Philby. "We had to use a lot of union labor for things we would not normally use. This was because the stadium was still under (re) construction. Then as soon as the games were over, the builders were back. They pulled up the Mondo (rubberized running track surface) and then cemented up the entire pit system. Complete with outlets and cables, which are now entombed"

"Before the games, the builders had constructed a very extensive pit and conduit system under the field of play. This was used to run power, data, audio, comms and lighting circuits, staging hydraulics power – you name it."

There were 24 lighting crew from the contractors, split into shifts, with between 4 and 8 loaders working with them on maintenance days. Plus 4 riggers working every day. The casual labour bill was humungous.

"When the lighting came in, there were 5 x semi loads of empty roadcases to go out. Once the lighting was rigged, the lighting team ran a night shift and a day shift. The night shift fired the system up and kept it running for programming, and the day shift swapped fixtures out and fixed them.

To ensure the best outcome, every fixture needed to start the production with a new lamp.

Philby explained what happened after bump in.....

"Over the 6 odd weeks, initially we were swapping 50 or 60 fixtures a day, and got down to 2 or 3. The system settles down, and moving light failures happen more often in wet weather. Paul Rigby told me it would crop down, and it did.

"The biggest part of the job from the lighting companies' point of view was the maintaining of the system so that a working system was delivered to the lighting guys to program every night.

"There was an external boneyard, outside the MCG on the perimeter, a bunch of containers. The maintenance was done at the internal boneyard, a bunch of lockable cages in the underground car park. 2 Procon crew, plus a bunch of Chamelecraft guys, spent days fixing lights. There was \$350,000 worth of spares on site in a container.

"When a fixture failed, the truss

came down, or the fixture got pulled off the balcony. If it was a truss fixture, someone climbs a truss ladder, removes two safeties, comes back down, drops the truss, pulls the fixture off, take it out of the seating bowl, into the lift, down the concourse, into the basement. There were spares, so there were some swap outs. There were a few we needed to sit and wait for, where there was a particular gobc.

"Niki Koumos ran the day shifts, and coordinated the swap outs.

"So initially 5 – 6% of fixtures failed per day, on those initial days and then when there had been rain – and it got down to 0.1 to 0.2% failure rate. Per day. Kids, please note.

"My normal day was 16 to 18 hours, 8am to midnight or 2. The lighting (programming) guys would start at 6pm and work until dawn."

And don't forget that after the opening Ceremony, we have 36 hours to turn the venue back into a sporting stadium – over 350 tonnes of steel work, several hundred lights and sound have to be removed so they can run and jump. Eventually we turn it back into a theatre for the Closing Ceremony in just 16 hours!

## THE TEAM

There is quite a roll call of contractors and team members. Many worked together on the Athens Olympic Games. For Nick Eltis this is his third major event in 3.5 years, starting with the Rugby World Cup, then the Athens Olympics, and now this – the Commonwealth Games.

"I finished the Athens Olympics, and was back in Australia early in

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- July 10 - 14. Advanced Live Sound Mixing Console operation. 5 full days. 9.30am - 4.30pm. \$875
- July 13. Lighting Basics, 3 full days. 9.30am - 4.30pm. \$550
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*The Heart and Soul - Replay - Trevor Beck.*



*Landing the tram.*



*The Queens Test Vehicle - Ian Baldwin's Van.*

December 2004. I saw the wife and dog, then went to Melbourne the first week in February, and was down there fulltime from 15th March 2005.

The initial flavor of the management team was established by Executive Producer & Artistic Director, Andrew Walsh.

Departments then build their own teams.

The two Technical guys, Philby and Baldy, were the interface with the contractors.

"I had Electric Canvas, Chamelecraft or Byteleon to deal with", said Philby. He is referring to

the unique and unusual union of two extremely competitive lighting companies – Chameleon and Bytecraft – who joined forces to handle the show. They combined inventories and imported some Procon gear from Germany as well.

Paul Rigby was the Project Manager for Bytecraft and Brad Gander for Chameleon.

"They are two very different companies in how they deal with things" continued Philby, "and they kind of complement each other. One is straight down the line and organized, with plenty of paperwork and the other one dealt with a lot of curve balls. They threw off each other quite well, and we got the job done. It was pretty smooth really".

Bytecraft were the lead contractor on paper, but the two companies formed a joint venture and hired the needed equipment into the venture. "To make it neat it had to come through the one funnel".

"It was my job to make sure the technology is delivered and it works and it is reliable. Then you leave it with the creative people."

## AUDIO

Norwest Productions supplied a Kudo system of 72 floor elements. There were 8 flown arrays, each with 6 KF730's and 1 x sub in the North stand, and the Southern stand had 14 Nexo PS15's flown singularly, plus 4 PS15's for the screens.

The console was a Yamaha PM1D (one primary and one backup that tracks the primary), and 2 x Yamaha PM5D consoles were used for monitors. As with the lighting system, the redundancy risk management policy for the event had a tracking backup for each console – this was not due to any known concerns about the reliability of the consoles, just to cover all contingencies.

All audio departed the mix area on Norwest's Optocore digital transport network. An extensive replay system was based on Pyramix driven by Trevor Beck, again with a backup system. There was also a SFX instant replay system.

8500 FM receivers across 5 different channels (standard off the shelf FM radio station frequencies are used), were consumed, used for performers.

There were 140+ Shure PSM receivers (in ears), and 24 Shure

UHF-R radio mics.

A company affiliated with Norwest called Figure 8 Audio handled the broadcast, from a truck. The broadcast mix was sent to the broadcasters and they added in the ambience, and the commentary downstream. That's how you end up with differences in broadcasts around the world – with different results, Foxtel's audio will be vastly different to Channel 9. "...and they were. At the end of the day, we deliver to the broadcasters a world class sounding mix that they then overlay their own commentaries; so while we have some control of most of the mix, we have absolutely no control over what finally goes to air. As usual, Norwest did a superb job with the audio, from live to broadcast. You could never fault these guys on their commitment or results." Nick comments.

## DETAILS, DETAILS

It didn't rain on the Ceremonies. It didn't blow a gale. If it had, there were contingency plans. The tram might not have flown; the duck might have had a night off. But a show would have gone on.

They second guessed everything they could. "What if..... and what if....."

Example: if something went wrong with the aerial performance, and a performer was stranded up high on a jammed line, how do we get them down? Answer: put two riggers on the top of the hub, with rescue gear, so they can descend to the stranded person.

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## COMMONWEALTH GAMES MAIN TECHNICAL CREW (OPENING AND CLOSING) AND VENDORS.

*Note: there were many other crew, far too many to list.*

### PRODUCERS OF THE OPENING AND CLOSING CEREMONIES

Jack Morton Worldwide

### Executive Producer & Artistic Director

Andrew Walsh

### Assistant to Andrew Walsh

Prue Holmes

### Opening Ceremony Producer

David Proctor

### Head of Production

Malcolm White

### Television Director

Adrian Dellevirgin

### Technical Director

Nick Eltis

### Assistant to the Technical Director

Amy Wee

### Production Manager - Technical

Ian Baldwin

### Production Manager - Technical

Philby Lewis

### Production Manager & Associate Lighting Designer

Paul Collison

### Assistant Production Manager

Lachlan Conquer

### Production Coordinator

Simon Olafsen

### Sound Designer

Scott Willscallen

### Lighting Designer

Mark Hammer

### Associate LX Designer (Broadcast)

Rohan Thornton

### Communications Manager

Ian Anderson

### Replay Engineer

Trevor Beck

### Lighting Programmer

Jason Frupp

### Lighting Programmer

Megan McGahan

### Pyrotechnics Design

Andrew Howard

### Pyrotechnics Safety Consultant

Tom Smith

### Moving Light Consultant

Vince Haddad

### Moving Light Support

Soren Storm

### Moving Light Support

Mark Ravenhill

### PIGI Consultant

Peter Milne

### Step Lighting Advisor

Tony Davies

### CAD Draftsman

Andy Mutton

### CAD Draftsman

Peter Neufeld

### Secondment

Paul Walton

### Technical Electrician

Andy Fewler

### LIGHTING SUPPLY

Bytecraft Entertainment

### Services:

Director

Stephen Found

### Account Manager

Durham Ritchie

### Project Manager

Paul Rigby

### Chameleon Touring

Systems:

Director

Tony Davies

Director

Greg Davies

Project Manager

Brad Gander

### AUDIO SUPPLY

Norwest Productions:

Director

Chris Kennedy

Project Manager

Adrian Riddell

### FOH Engineer

Ian Shapcott

### Technical Coordinator

Monitor Engineer

Ewan MacDonald

### COMMUNICATIONS SUPPLY

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Director

Chris Dodds

### Project Manager

Paul Barrett

### PIGI PROJECTION SUPPLY

The Electric Canvas:

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Peter Milne

Project Manager

Glenn Williams

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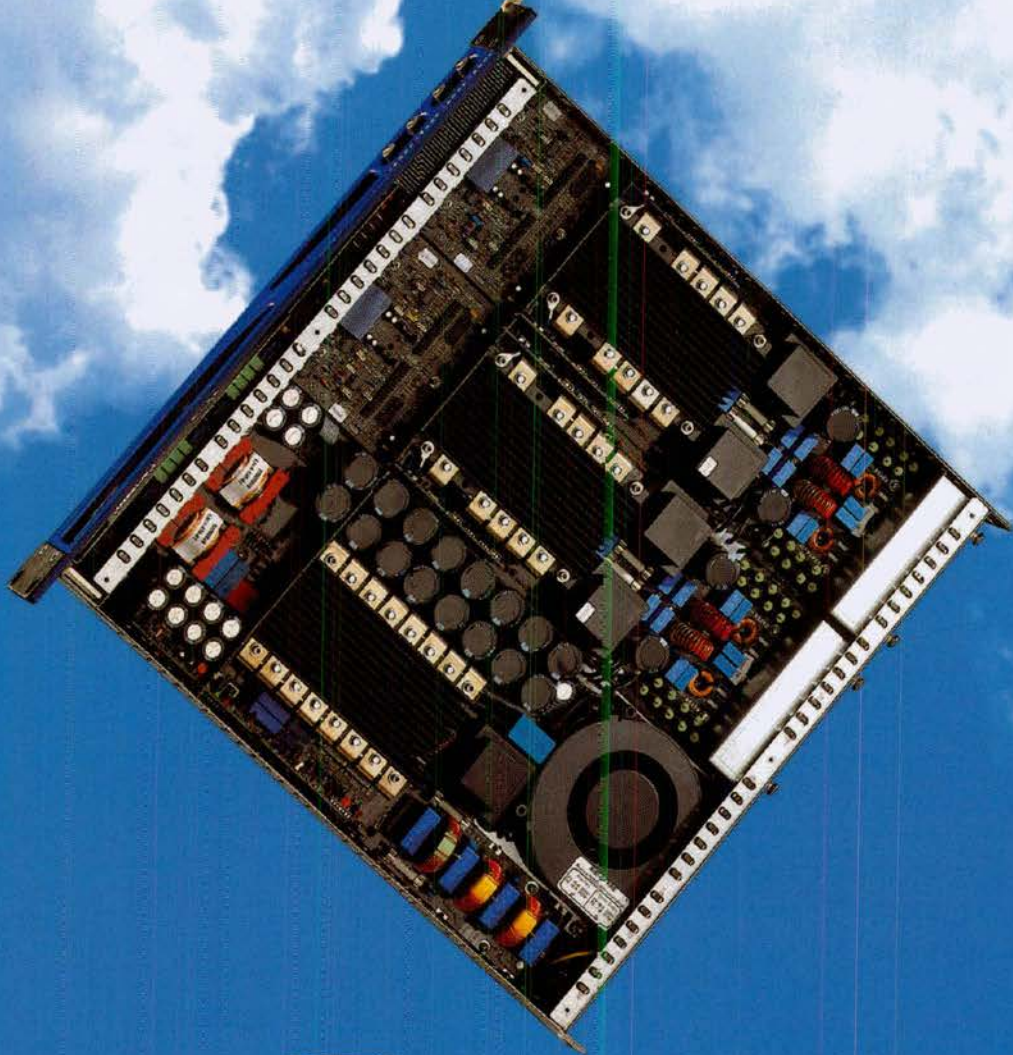
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