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Theatres for WA
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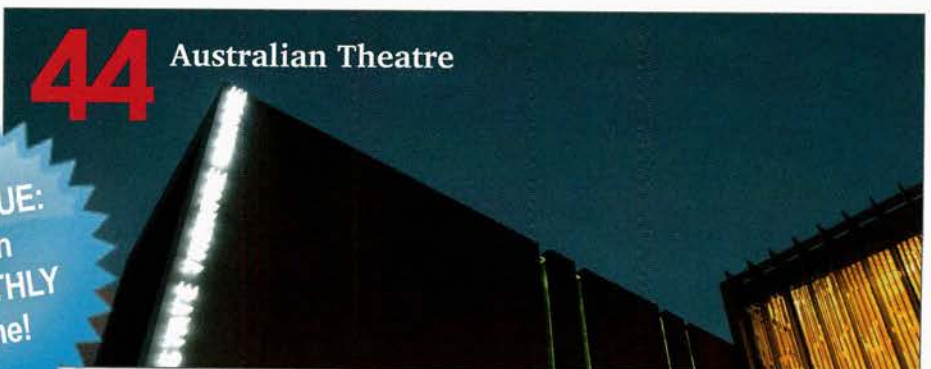
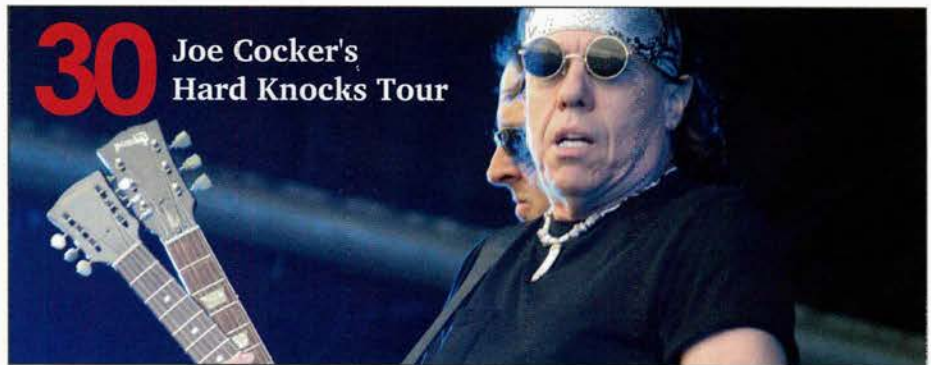
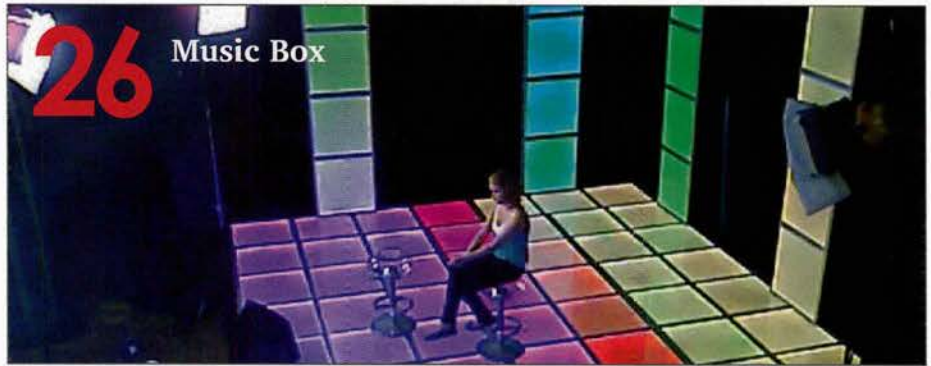
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April 15th
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CX EDITORIAL



While the last mag printed, I hit the road to see what has changed. Over 5 days in Melbourne I reacquainted with 20 colleagues, and had 20 different discussions. It felt fantastic!

This issue we've gone deeper into each story. That's the way it should be, and for eight long years our college distraction kept our magazine features shorter and forced more outsourcing than we would like. That's over now.

I like how when young Blake Harris from TLS (the events creator behind the Amway story in this issue) told me things, I had the time to go and see them. Which led me to Cliftons Productions. And Motley was gracious enough to engage with me over several days for the INXS story, which led to being reunited with colleague Stig Moor at Day On The Green.

Previously having two jobs and being pulled two ways was stressful. By contrast, in Melbourne this

February I had time to catch up with Frank Hinton and talk about the new trade association. This is an important initiative for our industry.

Pictured is most of our creative team. Young Creative Director Miriam Kirsh had great kudos from you for her first outing with the last magazine. You may know Sophie Pearson who presents CX-TV. I first met her when I mixed her vocals live in a kids ministry band somewhere.

Jimmy Den Ouden is no stranger to you, he came to us as a college trainer and ended up as our tech guru. Missing is Les Bishop who seems to work strange hours in the world of broadcast. Steve James, our publishing manager, took the photo. We are at our new place in Chatswood, just around from Syntec.

Speaking of CX-TV, we had 5,100 looks at Episode One then 3,000 the day we took Episode 2 live. We almost fried Vazzar, the high-def serving platform. Clearly this is a

medium that resonates, and we are having a ball doing it. Go to juliusmedia.com anytime to see it.

Which brings me to the new era. CX is now a Channel, or a Network. With this print magazine (by the way, we are selling more copies now Fairfax handles our newsstand sales) we have CX-E, the E-reader version. If you subscribe you should have it before the print version. CX-E has URL links wired up and could soon be your preferred launching platform into CX-TV segments and more.

For the past decade I've puzzled how to join this print mag into the web world, resisted a banner advert loaded web site re-write solution, and ended up here with our network. CX-E, CX-TV and CX-N email news. Alongside good old (new) CX in print! This must be CX-P. With new paper, better journalism and new looks from Miriam.

Welcome to our future, and long may it evolve!

Julius



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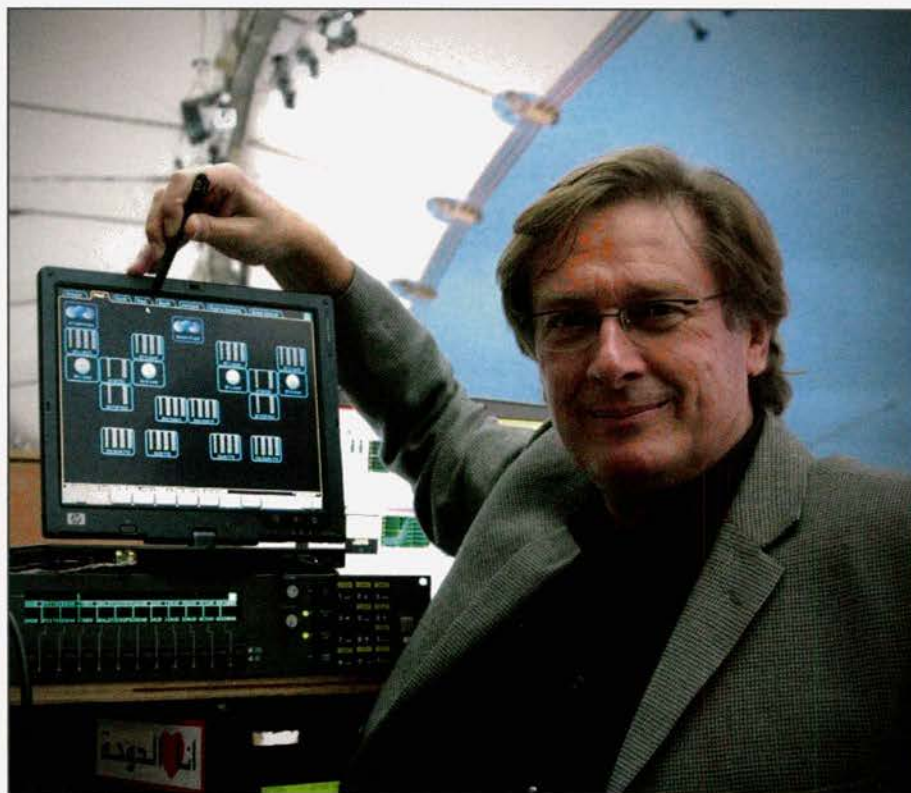
We welcome you to The Audio-Technica Lounge.



CXNews

DEVICES, PEOPLE & CONCEPTS

Date: 1 March 2011 - 15 April 2011 | Issue: Vol 3, CX58



THE FINAL DAYS OF BRUCE JACKSON

Mystery surrounds air crash, How could this happen?

DESPITE BEING OF 1978 VINTAGE, the Mooney M20J airplane was in excellent order when it crashed without obvious reason. Stranger still was the location: 6 miles from Furnace Creek in Death Valley.

Aged 61 and in excellent health, the Australian born audio engineer and inventor had spent the Christmas break in his apartment at Marina Del Ray, seaside in Los Angeles. He lived most of the year at Watson's Bay in Sydney.

Each year Bruce, his wife Terri and their daughter Brianna would leave Australia when school broke up, to reconnect with friends and stay in touch. Terri was from the USA, they met early in the 1990's when she was

P.A. to Marty Erlichman, manager of Barbra Streisand. Bruce had been coaxed into doing sound for the notoriously difficult diva.

His plane crashed sometime after 2.30pm local time. No one knew he was missing. No one knew he was there.

A whole day passed. Then on Monday morning at 8.30am a ranger drove along a dirt track on a ridgeline, and by chance spotted wreckage. It took several hours to hike through the dense brush and over volcanic rocks.

They found a single engine aircraft,

-----> Continued Page 10

ACETA NOW INCORPORATED

Industry Association formed

WHEN THE WIRELESS SPECTRUM shutdown proposal was announced, importers of wireless audio had nowhere to go. Each importer competed against others, there was no obvious peak industry association. Government will only talk to one association representing a majority of an industry.

Because the shutdown was so serious, affecting not just forward sales but more crucially everyday use of wireless on shows, the importers managed to overcome rivalry and form a group called AWAG. Under the auspices of the Australian Music Association, AWAG has been very successful lobbying for changes that promise to ease transition to limited frequencies and maintain use of wireless in entertainment.

It was the catalyst for a dedicated association, now called the Australian Commercial and Entertainment Technologies Association - more easily known as ACETA. More than a year in the making, the association stemmed from industry meetings held in Sydney, Melbourne and Brisbane. A constitution was circulated and amended.

Importantly the association will be professionally managed by Ian Harvey and Sara Hood, who also run the Australian Music Association. They have been successful and understand the dynamics of the industry. The success of AWAG is in part due to their connections with lobbyists and impartial role.

To date most large importers and local manufacturers have joined.



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-----> Continued from Page 8

and the remains of the pilot. His wallet gave up a name.

DELAYED

Bruce had intended to return home to Sydney days earlier with Terri. He had been up to San Francisco to visit the head office of Dolby, for whom he worked in Sydney. But he had some business that required paperwork, which was delayed, so he stayed on a few days when the family went back to Sydney.

He had a couple of phone interviews with a journalist from Back Streets, a Bruce Springsteen fan site. Bruce Jackson had mixed for The Boss across his glory years, and famously had been Elvis' sound guy before that. His aviation passion had started when he took the controls of the converted airliner that Elvis used to fly around in.

Late in the week Bruce made a dinner date with Ernie Farhadt, a realtor who had become a friend over the years. They were to meet that Saturday night.

Saturday January 29 wasn't as warm as it gets in LA in winter, but the minimum of 11 degrees C was great for flying. Lower temperatures mean less turbulence. Bruce kept his Mooney at Santa Monica and flew it each time he was in town, at least three times each year.

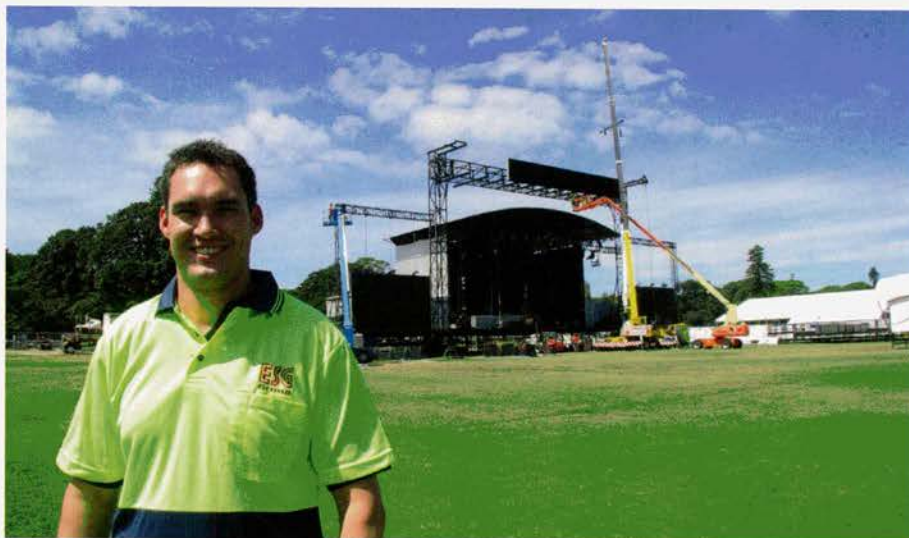
With thousands of hour's experience, and a personality that was rooted in perfectionism, Bruce was a flawless aviator with no incident history. Earlier in January he had flown the plane up to Santa Barbara, to visit Dolby.

He decided on a whim to fly up to Furnace Creek, alone and without filing a flight plan. If you worked the rulebook out of Santa Monica, it was a flight you could do easily in less than two hours.

THE FLIGHT

Private aviation in Los Angeles is an acquired taste. There are over one dozen airports, including three large commercial ones. It is the most densely flown airspace in the world, with the Sierra Nevada Mountains forming a barrier to the east that is too high to fly over without oxygen.

Although Bruce had an instrument



ESS NOW AUSTRALIAN OWNED

UK parent sells down, manager buys up

ESS AUSTRALIA HAS BEEN SOLD after the UK parent company decided to focus on its local markets and service a large contract associated with the London Olympics.

Australian managing director Iain Barclay (Pictured above) has emerged as the sole shareholder and has assumed all operating responsibility for ESS Australia - which is now the name of the firm.

ESS have over a dozen large stages, ranging from 24 metres wide down to 14.4 metres and a lot of associated infrastructure. They also maintain a specialist supplier network with The Mojo Barriers, and can field up to 1,600 metres during summer.

All staff remain with the company and ESS will operate from its Sydney and Melbourne headquarters, servicing festivals, concerts and major events at multiple venues around Australia.

Iain Barclay took CX for a tour of one stage at the Good Vibrations festival site in Sydney. This stage had a bridge

structure for a horizontal strip of video wall elements added on, capable of supporting 13 tonnes. The stage roof itself was rated to hold 8 tonnes. The whole structure was pinned to terra-firma with long Krinner ground screws, fixed into place by a consulting engineering firm.

ESS are big on safety. "We get the weather update before we go to sleep at night", project manager Mataio Alefosio told us. "And if need be, we can lower the video walls and the line arrays and drop the side curtains", said Iain Barclay. "We work on peak winds of 180kmph - once they get to 90kmph we batten down."

Mataio had a site manual for the show in Sydney, and the firm use independent engineers to ensure additional oversight and avoid mistakes. Thus far there are none to report, and they plan to keep it that way.

According to Iain, the life of a stage dude can be very sweet - "We are sometimes on site for up to nine days. Imagine how nice that can be if it is at - say - Margaret River in WA?"

He first got the gig with ESG by door knocking at their London HQ a dozen years ago. "I was a young Kiwi working my way around, and I didn't realize it was a public holiday. The managing director answered the door, and I told him I was looking for a gig". Which is always a great way to start. Knock on those doors, kids!



Mataio Alefosio, visiting lightie Jeff Pavey and Iain Barclay @ Goodvibes

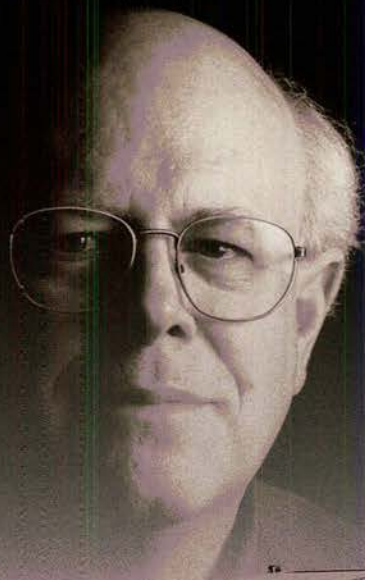
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BRUCE JACKSON

62 Epic Years

DOLBY IN DOWNTOWN SYDNEY WAS where Bruce Jackson mostly worked. Opposite Dolby Australia boss Chris Bennett's office was Bruce's corner office.

It was locked up at presstime, flowers in a vase wilting and the ornaments and order of a working life untouched. Sometime later on, Terri Jackson, Bruce's wife, and best mate David McGrath would clean it out.

Born eldest of five children to Bruce senior and Mavis Jackson, the family lived well at Rose Bay before moving into Altona, known as one of the prime harbourside residences in nearby Point Piper.

At Vaucluse Boys High School headmaster E. K. Harris remembered Bruce fondly, but not for the prank



Here's Bruce at ENTECH 2004, his second appearance at the show. In 1995 he told us about Elvis, and by 2004 the story had improved with age. The cheque for US\$615 - a fortune in 1976, covered a gig where Elvis wanted Bruce to fix the stereo in the jet. Bruce said, "sure, send the jet to me and I'll do it".

where his P.A. announcements were carefully recorded on a reel to reel tape recorder, edited and replayed - allegedly by Bruce. Harris dropped his cigar one Wednesday just before lunch as he heard his own voice announcing school was cancelled for the rest of the day and the boys should assemble in bus lines.

Teaming up with Phillip Storey, they built a radio transmitter in the loft above the assembly hall and inadvertently broke the law by broadcasting to half of Sydney. Their inventions remained in place when this writer attended the school just after they left to form J and S - Jands.

Continued Page 14 ----->

-----> Continued from Page 10

rating, he was out of time and would need a check flight if he were to fly on instrument rules. The weather was clear, so a flight under visual flight rules was easy.

He listened to the flight advisory on the radio, and then requested taxi clearance. When cleared to take off, he followed the assigned heading and climbed to 3,500 feet whereupon he was given a further clearance and a transponder code, so that he could be tracked on radar.

Radar tracking ended 55 minutes later when the plane went through the mountain pass, and eventually he joined the circuit at Furnace Creek and landed 230 feet below sea level.

Up here in winter it was cold, just over 1 degree C that morning but by midday it had reached 10 degrees. Bruce loved Furnace Creek, and had spoken of building a house out there.

He made two calls - one to Ernie, to firm up the dinner that night, and his last call was to Terri, at 2.15pm local.

Everything was normal. He took off, raised the wheels, reduced the manifold pressure, adjusted the RPM, and retracted the 10 degrees of take off flaps needed to deal with the short runway. Someone saw him depart, and turn to climb out of the valley. His plane passed out of sight, and the engine noise faded against the

silent desert. Just three minutes later he was dead.

MONDAY 31 JANUARY 2011

Terri was worried, as was Bruce's best friend and Dolby workmate David McGrath. It was not like Bruce to disappear. Ernie had waited a while, and then dined alone on Saturday night. There was no one at the apartment to raise the alarm when Bruce didn't arrive.

There was no flight plan filed, and no SAR (search and rescue) time had been lodged. If a flight misses a SAR time, a caution period kicks in and several hours on, a search is planned. No one searched.

Later Monday in Sydney Terri was at work and in touch with David each hour. By Tuesday he had called everyone he could think of, including the NTSB - National Transport Safety Bureau in the USA. They were polite but not forthcoming.

A Dolby H.R. person told him to have Terri notify the Santa Monica police he was missing, as that was where he had departed. David and Terri were less certain, but the Dolby staffer called again an hour later and insisted it happen. They knew how the system worked - not long after calling Bruce missing, the police called Terri back and told her there had been a plane crash.

It seemed certain, but there was still a small degree of doubt. It quickly sunk away, leaving Terri alone at home. Bruce's sister and brother in law, and then David and his wife rushed over.

THE MYSTERY

There was an autopsy. Aviation accidents are thoroughly investigated, and the investigation is ongoing. Much of what we have written here is conjecture. But what quickly became clear is that there was no medical reason for Bruce to crash his plane.

No heart problem. No aneurysm or stroke. No medical cause of incapacitation. And more mysterious, there was no immediately apparent reason for the aircraft to come down. The landing gear was up, flaps stowed, and it was rigged for flight.

Catastrophic breakup happens to aircraft when they fly into storms. Ice accumulation can destroy lift and create a stall. Human errors like running out of fuel happen to aviators who have a track record of incidents. And an engine failure is a textbook procedure where the pilot flips open the checklist that is ingrained onto the top of their conscious flight mind, and follows the procedures to glide the thing down. With a mayday call or three.

Eventually the FAA and the NTSB will make rulings as to probable cause, and the mystery will abate.

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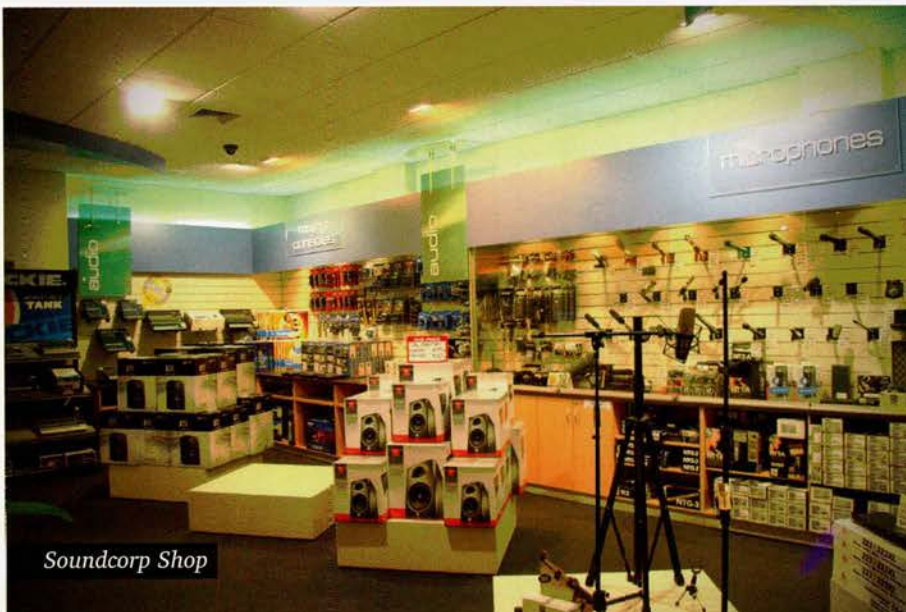
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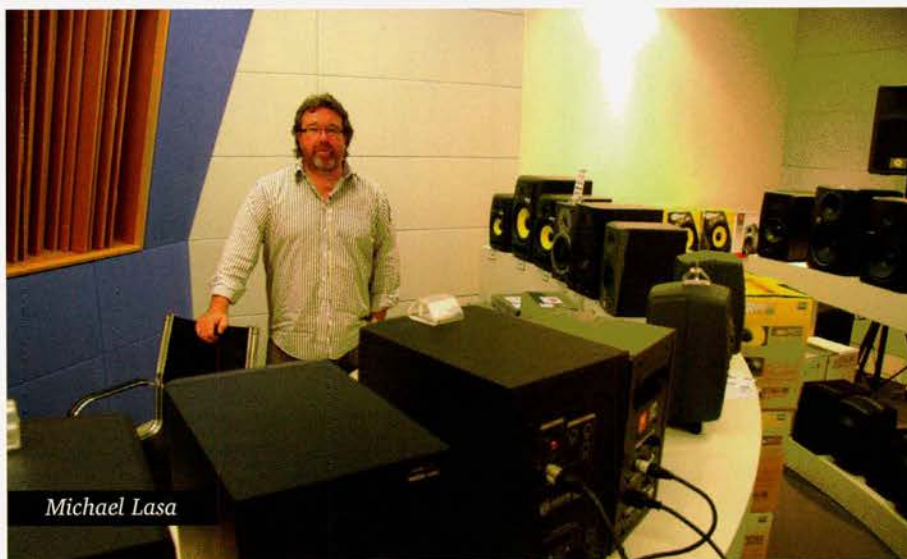
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Soundcorp Shop



Michael Lasa

-----> 62 Epic Years cont. from Page 12

The shop they rented in Rose Bay was looked at with admiring eyes as the old double decker school bus took me to school.

After making and selling strobes, colour organs and early transistorized PA equipment, they squabbled and sold the business to the Robinson and Mulholland brothers.

Bruce found himself in the USA and via a series of coincidences ended up as sound man to Elvis Presley. His recollections of those time are often hilarious. It seems Bruce was the only guy in the retinue of flunkies who could tell Elvis the truth.

One day Bruce was in the right hand (co-pilot) seat of the Convair, a four engined airliner fitted out as Elvis' flying pad. One of the Memphis mafia burst into the cockpit. "Brooce, come

quick - the boss is gonna shoot out the television.."

Elvis had developed an occasional habit in those days before remote controls, of emptying his hand gun into the TV. At altitude it would have led to decompression and certain death for all on board. Bruce told the boss to put the gun away.

“Brooce, come quick - the boss is gonna shoot out the television..”

Another time Bruce was summonsed backstage. The mob looked unhappy, the boss had a hard face on. "Candy tells me you've been putting your hand on her leg". She sat alongside Bruce during the shows. Bruce protested and got mad with Elvis, who broke into laughter at his 'joke'.

Long spells with Fleetwood Mac (Bruce's son Lindsay so named after the guitarist who was close to Bruce) and Springsteen cemented Bruce's reputation as one of the world's best live sound engineers. Since the early 1990's he has worked for Barbra Streisand, for whom he elevated live audio to new levels. Barbra's manager Marty Erlichman accepted Bruce's demands to spend vast sums curtaining off seats at the back of arenas and even installing carpet to help the acoustics.

Along the way Bruce was responsible for many innovations at Clair Brothers, the largest sound company in the world where founder Roy Clair regarded Bruce like a son. He helped pioneer the first flying systems after working with ground stacks in the round for Elvis. The fold out Clair console was mostly Bruce's work.

Continued Page 16 ----->

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PCE122 Features:

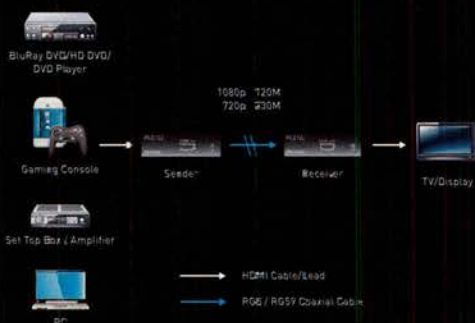
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1 to Many Distribution



Madison AV Expands Product Range & Specialist Team

Madison Technologies have recently expanded their range of HDMI distribution solutions to include a suite of products from leading manufacturer Aavara Innovation Corp. These include extenders such as the PCE122 featured above, the PB500C HDMI over IP Broadcaster, HDMI over Cat5 extenders, Splitter and Matrix products and a complete range of HDMI V1.4 Professional AV cables. These, in conjunction with the range of Hall Research Technologies solutions, and Madison's complete range of AV cable and connectors places Madison AV as the one-stop-shop for Hi-Definition AV infrastructure products.

Also new at Madison are products from award-winning Swiss Digital Signage manufacturer, SpinettiX. Featuring the innovative HMP100™ Hyper Media Player, Madison now offer digital signage hardware and software solutions, backed locally by factory trained product specialists.

For more information on this expanded product range, contact the specialist Madison AV team directly on **1800 00 77 80** or email av@madisontech.com.au

NEW PA AT HILLSONG CEMENTS CMI TRANSFORMATION



As a church Hillsong is renowned for very high production values, and now has a world class television facility to showcase their praise and worship. In February the largest Hillsong campus, in Sydney's Baulkham Hills, had a new P.A. system installed.

After a long evaluation the church team chose Adamson line source cabinets, powered by Lab Gruppen amplifiers. A process was agreed where various demonstration systems were compared, and measured for consistency of delivery to all seats in the house. Various team members assessed each system at low, medium and high volume. It was important that the system delivered accuracy with spoken word, right through to high spl for rock concerts - with Sunday church in between.

Adamson importer CMI arranged for Adamson Systems to assist with the design, and Norwest Productions in Sydney stepped up to install the demonstration system. The involvement of CMI changed the dynamics of the selection, as the Church had an evolving relationship with another brand of PA - d&b audiotechnik, whose J line array had been used for various events and loaned for demo.

Adamson offers various sizes of line arrays: Large and Medium sized Y-Axis Series with the flyable subwoofer extension T-21 Sub; to the compact sized SpekTrix Series - and the Ultra

Compact Metrix Series.

The main Speaker System selected at Hillsong consists of 34 x Y-10 Co-Linear Line source elements. These are a three way active design, loaded with 2 x 10" Kevlar Neodymium drivers, and one nine inch Neodymium Ferrite midrange element. The high frequency component is a JBL 2451 four inch compression driver (1.5 inch exit and it is loaded onto the back of the mid component in what Adamson call a 'co-linear sound chamber'.

The Y10 is said to be acoustically identical to the larger Y18 box, at frequencies above 250hz.

At Hillsong there is an under hang of 8 x Spektrix 15 degree elements. These are loaded with low and midrange 8.5" drivers, and a high frequency component.

Out at the delay ring in the auditorium there are 18 x Metrix elements, each loaded with an 8.5" low/mid driver and a 3 inch high frequency device.

Low frequency duties are fulfilled by 6 x T21's dual 21-inch subwoofers in a flown dual cardioid arrangement, with 2 additional T21 and Metrix subs beside stage. Plus a further 6 x Metrix subs are flown behind the main arrays for low frequency extension.

Peter Trojkovic from CMI Music & Audio stated "We are extremely privileged and excited at being awarded the contract to supply such a world class facility. It is extra satisfying that the contract has been awarded because of the overall performance of the system and system design as supplied by Adamson Systems and CMI."

CMI started as a musical instrument and backline importer, before adding a professional audio division in the mid 1990's. Co director Peter Trojkovic opened the pro division after selling down his Troy Balance Corporation live sound company.

Troy Balance had a first class reputation with major local and international touring acts through the 1980's and early 1990's, and Peter took that knowledge into CMI. Since then the firm has steadily added professional lines, including HK Audio, XTA and dB Technologies. Canadian firm Adamson joined the stable in recent years, and is considered one of the major emerging touring loudspeaker brands worldwide.

CMI's pro division includes Simon Tait (Adamson specialist) and Andy McIntyre (HK Audio and dB Technologies specialist). Both have extensive pro audio experience.

Adamson is now installed in several leading churches in Australia, and is well represented as the premium line array product at Norwest Productions who have over 100 elements.

The system for Hillsong was installed by Brad Law and his team at Cuepoint.
www.cmi.com.au



-----► 62 Epic Years cont. from Page 14

Bruce had a role in the development of Fairlight, with Kim Ryrrie.

Later he founded Apogee Electronics and designed the finest audio converters, eventually falling out with then wife and business partner Betty. His first two children - Lindsay and Alex - were with Betty.

The last phase of Bruce's product development career was the acclaimed Lake DSP, later known as the Dolby Lake Processor. This period spanned from the mid 1990's, and Bruce kept busy with live shows for Barbra and audio for the Sydney Olympics and various large events - often alongside Norwest Productions; a Sydney audio rental firm that was catapulted onto the world stage in no small measure because of Bruce.

Dolby took a hard decision to quit the live sound manufacturing business in 2008, but kept the research and development unit in Sydney that has continually expanded such that it is now moving to larger premises. Bruce worked alongside his Lake collaborator and best mate David McGrath.

He is survived by daughters Alex and Brianna, son Lindsay, wife Terri, step daughter Aja, two brothers and two sisters.

SEE TRIBUTE
TO BRUCE





Did you know that at Johnston Audio, 90% of the bigger overseas touring acts we supply spec digital consoles at Front of House and of those 90% spec VENUE Profile from Avid?

Unsure about buying a digital console because you don't know what to do with your existing analogue board?

Well this deal on Avid VENUE consoles is an absolute NO BRAINER!

Until March 18th 2011, you can trade in any live sound console with an original retail price of \$5,000 or higher towards a new VENUE live sound system and save up to 18% off retail. Choose from a VENUE D-Show System, Profile System, Mix Rack System, or SC48 and save up to 12% when you trade in a console with an original retail price of \$5K - \$15K, or save up to 18% when you upgrade a console with an original retail price of more than \$15K.

That's right, order now from Johnston Audio and get a 48 ch VENUE Profile system for under \$60k when you trade in your old console. But remember, it's not just the console. You also get access to hundreds of new and vintage outboard unit plugins without the real estate or maintenance issues normally associated with outboard hardware, via Avid's BF and partner plugin software.....onboard.



Don't miss this opportunity! Visit www.johnstonaudioservices.com



POWERSOFT M AMPS SHIPPING NOW 4 FAMILIES AND ALL LIGHT WEIGHT

PRODUCTION AUDIO SERVICES advise that Powersoft is now shipping the M Series line of power amplifiers. These lightweight single rack unit amplifiers have an internal DSP slot, allowing optional internal loudspeaker processing settings that can't be over-ridden externally. This feature promises to be popular with driveway rental firms.

Five models are offered in the M line; three dual channel and two quad amps. The smallest dual channel unit produces 700 watts at 4 ohms per

channel, the next goes to 1,000 watts and the top model delivers 1,500 watts. In the Quad models, one does 4 x 700 watts and the second 4 x 1,250 watts.

Weight is consistent at 7.6 kilograms, female combo connectors supply the input and Speakon's do the output.

Powersoft have four families of amplifiers, with the top model delivering 5200 watts at 4 ohms and 9000 at 2 ohms per channel.

www.powersoft-audio.com



VRS OFFER 3D SOLUTION

VR SOLUTIONS HAS SUPPLIED the visualization and simulation markets with DepthQ products for a number of years. The latest addition to their product portfolio is the New DepthQ Polarization Modulator from Lightspeed Design.

Mike Bosworth, Managing Director at VR Solutions explains the benefits of using the DepthQ Polarization Modulator: 'This new modulator will ensure that advanced users of 3D projection have greater accessibility to better image quality and of course flicker-free operation, comfortable viewing. The solution has no moving parts and is virtually maintenance free and requires less hardware than two projector solutions'.

The DepthQ Polarization Modulator is available in small or large sizes and works with any 3D-ready DLP projector up to 35,000 lumens. The unit can be free-standing or mounted to the projector. It works to electronically switch the polarization orientation of projector light for clear viewing of 3D images using passive stereo eye wear, replacing active liquid crystal shutter glasses and emitters.

www.vrs.com.au



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THE TRAINING DEBATE

“Maybe we need Industry Recognised Training...”

The following was submitted by Sydney technical identity Paul Matthews:

It's with sadness that I read about the sudden closure of JuliusMedia college. It's an initiative that I had quite a lot to do with in it's early years, teaching the Electrical Safety unit in the days when it was basically a "holiday camp" style course run at Riverside Theatres in Parramatta. Well before those dangerous words "nationally recognised training" appeared on the literature.

Being in the entertainment electrical contracting / installation field I can honestly say that I am currently experiencing the same level of frustration with vocational training which has now become an absolute joke. You kind of outlined the problems in the last CX so I won't dwell on it here other than to agree 100% with what was said and confirm that the problems extend well outside specialist courses (such as the ones JuliusMedia offered) and right into mainstream subjects like Electrotechnology Electrician which is the course our apprentices here are on.

What is going to happen (it's happening already) is that there is a quiet revolt amongst employers. In future years (unless the current confusing bureaucracy is completely dismantled and replaced), instead of hiring apprentices we will just hire labourers. Then we'll just train those labourers "in house" with what we need them to know to do their job and that's it. That's what happens overseas where no recognisable system exists and that's what will end up happening here - because the way things are going, we may as well not have any system at all such is the irrelevance and uselessness of it.

The advantage of "in house" training is that it creates an incentive to invest in a worker and then keep them. Because at the end the "qualification" is essentially not portable, a worker needs to "think twice" before they decide to quit after being trained by a particular employer. There will always be the odd one that will drop out but in most cases overseas, a large company who gets a kid from school and trains them "in house" is generally guaranteed a valuable worker for life.

So perhaps instead of the words "nationally recognised training", JuliusMedia college should aspire to change that to "industry recognised training". I would go as far as to say that had actually already happened, with JM students having high regard through the industry amongst employers - and that's where it counts! It's all about the reputation of the college. It never had anything to do with the course content. We don't have time to worry about all that. That's your job.

You've heard things all your life like "oh, she was trained at Harvard", or "yeah he did NIDA" etc. Nobody ever asks what these people actually DID at these places. They don't have to. Because the reputation of the graduates and the college precedes them. That's enough for 99% of employers. They've got the job. Anyone else has to prove themselves in the "school of hard knocks". Either graduation path leads to the same thing - a job.

XYZ college blindly protects it's reputation by making SURE it's graduates really ARE competent before they leave and by ensuring their courses DO remain industry relevant.

Continued Page 20 ----->



DVA Digital Vertical Array



RCF GROUP

DVA T4 Array

Active 3-Way Line-Array

- 1 x 8" (RCF) Neodymium Woofer, 64mm Voice-Coil, Bass reflex configuration
- 1 x (RCF) 6.5" Mid-Driver, horn loaded with Phase-Plug
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- weight 13.2Kg/31Lb
- Dimensions 580x240x327 incl. Flyware.

DVA Subwoofers



S-10
Active 18" Sub-Woofer



S-20
Active 2 x 18"
High Power Sub-Woofer

For more information: www.cmi.com.au



Smiling now but not in the loo queue

PLAYGROUND WEEKENDER AND THE REVOLT

When people don't get paid bad things happen

AS FESTIVALS GO, PLAYGROUND Weekender has stellar support from radio JJJ, the national youth broadcaster. Having a radio deal means invaluable free publicity, so the festival, held at Wiseman's Ferry 1.5 hours north west of Sydney can spend less on advertising.

Held over four days in February, the punters enjoy the camping and hire houseboats that can be moored just off shore in the Hawkesbury River. But arriving en masse means a long wait for the car ferry over the river, and this year many blogs claimed more than a four-hour delay. As few as one water taxi was on hand, depending on who you believe. Some artists complained of poor access across the weekend.

The 'who to believe' factor surrounding the festival hit new lows when the Sydney Herald reported a technical 'strike' on Sunday, where Perth performer Grace Woodroffe and her band were unable to play. The paper quoted festival promoter Andy Rigby as denying the incident, only to recant when told the paper had a journalist there.

"It happened alright", a tech told CX. "It wasn't Chameleon or Norwest

(lighting and sound vendors) but one or more employees or contractors who refused to go on until grievances were resolved".

Chameleon and Norwest confirmed they had been paid in advance for their work on the festival.

Various reports have emerged from the festival since its inception, with claims of slow or no payment made by several entities.

Of most concern is the consistency of reports of poor hygiene on site, the small camping ground swimming pool is pictured on the festival website looking decidedly murky after being overloaded with heat stressed punters. Forty-minute wait for a portalo, with reports of unspeakable conditions once a loo became available are common. Possibly inevitably, a foul stench is said to have pervaded some of the site.

Punters claim water was not available at a campsite for a period this year. Others claim bottled water cost \$5, and that poor bar choices included Cooper's Clear and low alcohol beer, and no wine.

The technical crew revolt on the Sunday was resolved.

-----> Continued From Page 19

No need for "nationally recognised" anything, or any stupid and irrelevant accreditations or review committees. XYZ college eventually gets "world recognised" status. And let's face it. In the entertainment industry today that's what it is really "all about".

Despite all you say about Tom Misner's SAE (most of which I agree with you), this was Tom's success - an international industry recognition. It took him a very long time to get this (20 - 30 years??). You only gave JM college 10 years, and burnt most of that chasing this utopia of supposedly having a nationally recognised course which could be taught anywhere and result in the same qualification regardless of the college where the student did it.

In reality in a situation where you should have sold to the world what made JM college DIFFERENT to all the other TAFE's, High schools and colleges, you instead chose to align yourself with these same organisations to the extent that it eventually became impossible to determine the difference between JM college and the "others" which we all know were offering an inferior product.

In many cases graduates from "a reputable college" would get jobs simply because it's likely whoever was doing the recruiting also attended the same college 20 years earlier - and they knew the content because they also did the course. JuliusMedia college was just entering that golden age when it's reputation was starting to precede it. Graduates from those first years now sit in decision making positions in companies and are on the hunt for quality employees. Where do you think they're going to start looking?

Rather than close the college altogether, perhaps it may have been better to take a few steps back, withdraw completely from the unworkable and bureaucratic national system and get back to running those short independently developed ad relevant courses that started it all.

After all that's what we employers want. Somewhere we can send our employees for a short sharp hit that will leave them with a good grounding in the basics which we can then continue with ourselves "in house". Throw all this "certificate II, III and IV" crap. We don't understand it, we don't want it and we don't need it.

There's a huge demand out there for

small venue operators (particularly in conference centres) who have existing employees and want to get their own staff trained in the basics enough to run and troubleshoot their own gear. They'll pay \$300 per student for a 2 day intensive course which will leave their employee ready to run their rig for their clients without having to pull in an outsider. I have three who have been begging me to run my old weekend course for them for the past year but I just haven't got the time and it just isn't viable to do it just for three or four students.

"I would wager there would be more people knocking on your door to do 'your course' than there would be takers for the 'Certificate III in bollocks and bullcrap' or whatever.

And most of all - NONE of these employers give a DAMN about "nationally recognised training" "tests for competency" or anything else. They don't even understand what they are or have even heard of them. They just have a problem they want solved and would much rather invest in their trusted existing employees to get it solved rather than bring in outsiders.

Instead of closing the college you should have seriously given consideration to the option of just cutting free from the bureaucracy and running your own course, developed by your own people for an industry you obviously know much better than these so called "committees". I would wager there would be more people knocking on your door to do "your course" than there would be takers for the "Certificate III in bollocks and bullcrap" or whatever.

You run a risk of alienation from your own industry if you don't do something fast. The withdrawal of Juliusmedia College was sudden and unexpected. Many influential people have thrown lots of support your way in getting the college up and running over the years, providing premises, gear and expertise to make things happen. Just "shutting shop" isn't likely to look very good for you in the face of these people who will be much less likely to support your future ventures for fear that they too may suddenly just "disappear". It's not too late for a rethink.

So get real, stop crying and get things together. Don't waste ten years' hard work. Your real enemy is the system - in an industry that has never wanted a system anyway and (as you have so well pointed out) doesn't use it. Drop the things that don't work (like trying to compete with TAFE's) and concentrate on the things that DO (like short weekend courses for crew and conference centre employees).

* CX response to this is general agreement, except the 'crying' part! And there's no easy way to close down a business - you can't have a 'going out of business' sale at a college! The 'Nationally Recognised Training' tag wasn't our invention, it's the framework you are legally glued to if you want to issue a Certificate or Diploma qualification. There is no barrier to running training where you issue a completion document without the words Certificate or Diploma. The only problem is finding enough people to do the course. - JG



Your eyes won't believe your ears



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KR400S

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www.k-array.com





RYCOTE ROADSHOW

RYCOTE WAS FOUNDED IN 1969 by John Gozzard, a film and television sound recordist dis-satisfied with the then available wind shields for microphones. Since then their product line has expanded to include shock mounts, book poles, camera mounts and other microphone accessories. Australian distributor Syntec hosted a demo tour at AFTRS in Sydney.

Stefano Pucello, Sales & Marketing Maganer at Rycote gave a brief presentation which began with a little company and product history, then moved on to discuss newly introduced products.

Stefano explained Rycote's shock mounts now use their Lyre technology - the Lyres are more robust than traditional elastic mounts and do not sag over time. They also prevent sideways movement of the microphone while still allowing some flexibility back and forth. New products introduced included the Universal Studio Mount with Pop shield, Windjammers to suit Digital SLR cameras, and the Universal Camera Kit. The new pop shield is also available by itself and suits many other suspension mounts.

A demonstration video was shown detailing correct use of the Rycote Full Windshield Kit, including discussion of correct placement of microphones inside the Windshield. Stefano explained that the new Lyre mounting system is backward compatible with existing Windshield kits - this news was welcomed by the audience.

Next up was a brief demonstration

of some of the shock mounts - done live using the venue's installed sound system. Rycote give wind reduction ratings for their windshields in db so you can tell how effective each type of screen is. Finally attendees were given the opportunity to meet, ask questions and inspect the new product line. 

For further information
please see

<http://www.rycote.com>.

Rycote is distributed by Syntec in
Australia

<http://www.syntec.com.au>.



CLAY PAKY RETURNS DOWN UNDER

IT MAY WELL BE BACK TO THE future for the long established and well regarded Italian lighting manufacturer, Clay Paky. After some distribution turbulence the brand is back, with a new entity known as Clay Paky Australia.

Hosted by Andrew Brajbisz and Simon Barratt, the firm is under the umbrella of Show Technology - where Clay Paky was first established in the Australian market in the 1990's.

New to market is the Sharpy, which has won numerous awards in short time since release. CX hopes to review it soon.

sbarratt@claypaky.com.au 



ARX 4 IN, 12 OUT

The new MSX-12 4 in, 12 Out ISO-Transformer Microphone/Line Splitter was designed in response to requests for a smaller format version of ARX's MSX-48 16 channel splitter.

With four channels of three way splits the MSX-12s compact 1 RU package is ideal for applications including Houses of worship, Conference centres, Educational facilities and Broadcast splitting.

The MSX-12 is a fully passive unit with no AC power required and the units Inputs and Main Outputs are hard wired to pass Phantom Power from Mixing Consoles.

www.trc.com.au 



BIG COMMS DU RIGOR FOR GAMES

THE MODERN ERA OF GAMES Ceremonies really did start with the Sydney Olympics. Since then, there's been a race for spectacle and virtually no stuff ups known to the public. Which means each spectacular can be funded properly, without organizers worrying about failure.

An example comes from Riedel Communications, one of the leading manufacturers of real-time networks for video, audio and intercom. They installed a full tilt communications system for the Asian Games in Guangzhou. Riedel provided the venue communication system as well as the intercom for the opening and closing ceremonies, combining wired and wireless technologies.

The system for the ceremonies furnished an Artist digital matrix intercom system consisting of two mainframes connected via fiber, about 20 Artist 1000 series control panels and around 75 Performer digital partyline beltpacks.

To provide the infrastructure for venue communications, Riedel equipped the venues with a

Performer digital partyline systems offering a versatile and easy to use communications system with high quality digital audio and more than 500 beltpacks.

Riedel also handled the installation of the analog radio network that was also integrated into the wired intercom infrastructure via RiFace interfaces. The radio network that covered the whole venue during the opening and closing ceremonies consisted of 16 semi-duplex channels for 720 conventional Motorola radios. Five FM-transmitters were used to address the 3,000 radio receivers at the events.

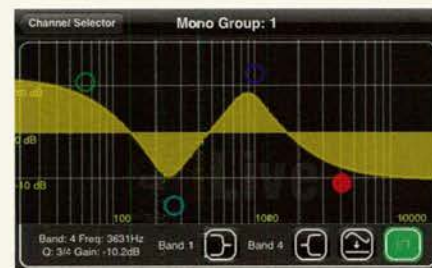
Furthermore a Riedel RockNet installation provided the routing of the audio at the opening and closing ceremonies over the fiber infrastructure of the event. Ten RockNet 300 input and output modules each offered the needed connections for the events. To bridge the large distances four RockNet fiber converters were used.

Riedel employs over 250 people located within 9 locations in Europe, Australia, Asia and North America.

www.riedel.net



ALLEN & HEATH LAUNCHES FIRST IPHONE APP FOR ILIVE



Allen & Heath has launched iLive Tweak, its first iPhone app, to provide real time mobile control of the iLive digital mixing range. The release adds yet another option to iLive's array of remote control possibilities, which includes laptops and touch tablets running iLive Editor control software, and the PL Series of controllers.

Available to download free of charge from the Apple store, iLive Tweak opens up new control possibilities for iPhone-using sound engineers, enabling them to remotely browse and select channels on their iLive MixRack, and adjust Levels and Mutes, PEQ, GEQ and Delays.

iLive Tweak is compatible with iLive's latest software release, v1.7, and runs on the iPhone 3, 3G, 3GS and 4, as well as the new iPad.

"iLive's flexible architecture has enabled us to pioneer the use of remote control devices instead of the traditional control surface, and our first foray into iPhone apps is only the start," explains A&H MD, Glenn Rogers. "iLive Tweak is the perfect tool for engineers to access all the key functions of the iLive input and mix channels, and we plan to launch several more dynamic apps for other aspects of iLive control."

To download iLive software v1.7 visit

www.ilive-digital.com



KOVA SOUND TAKES MORE EV

Western Australian production company, Kova Sound, has added to its EV inventory with the addition of 12 x XW12A Stage Monitors.

Kova Sound's Rental Stock already

includes E-V P3000 power amplifiers and E-V X-Array speaker systems

Founded in 1993 and headed by Louie Kovaceski, Kova recently moved to larger premises in Osborne Park to house their expanding business.

www.kovasound.com.au



JOHNSTON AND JANDS – TOGETHER

CX visited the Melbourne HQ of Johnston Audio Services, to see how the recent merger with Jands Production Services has changed life down south.



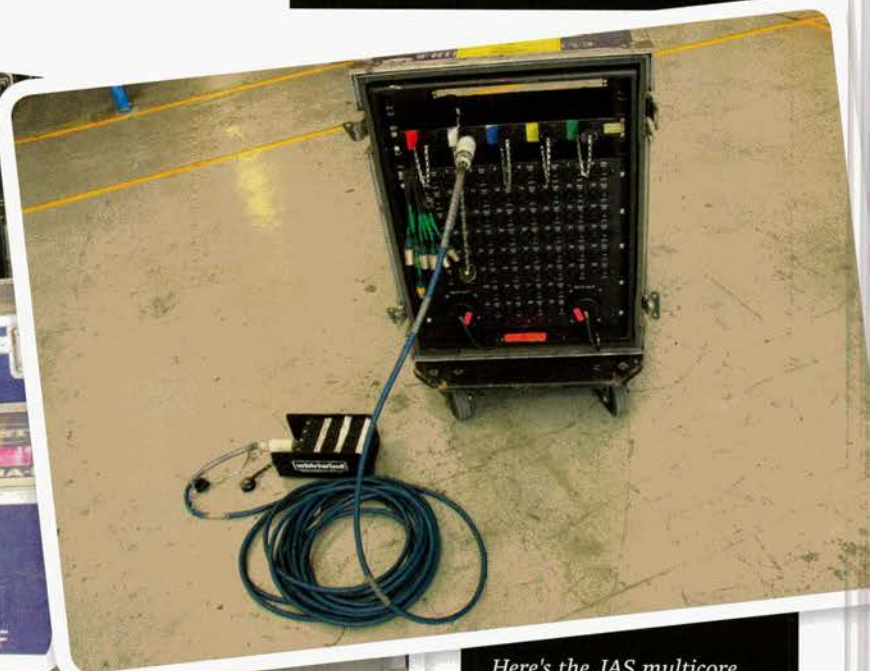
Jands have supplied new chain motors, to harmonise rigging between the two firms. 'They do rigging really well', says Bruce.



Once unthinkable, now the two rivals are one. But the brands live on - JAS in Melbourne, Jands Production Services in Sydney. The common holding firm is JPJ.



Paul Gould, senior production manager, and Bruce Johnston show how their cases and racks all fit a standard truck pack by sharing common dimensions.



Here's the JAS multicore splitter system. Bruce thinks it is very efficient.



Busy! New mezzanine decks inside have expanded capability. Jands have also introduced new power distribution systems to JAS.

ARKAOS FOR ULA

ULA Group is pleased to announce their appointment as the new Australian and New Zealand Distributor for ArKaos and will be launching the new range of show and lighting media server products during a Road Show in March.

ArKaos is a leading provider of technology for live visual performances and the ArKaos' product line offers software and hardware combinations that allow those working on shows of all scales and budgets to incorporate video, projection or LED control into their productions and integrate them with the show's lighting.

The range starts with the ArKaos Media Master Express software, allowing smooth integration of video into light shows, theatre productions and other performances. The ArKaos LED Mapper allows the video output to be mapped to drive LED panels. ArKaos' MediaMaster Pro brings uncompromised control to twelve layers of high-definition video, including LED panel output and DMX controlled. All of ArKaos' software solutions are compatible with both PCs and Macs. For those preferring

an integrated hardware and software solution, ArKaos' A-series Media Servers are optimized and pre-loaded with a vast library of high-quality digital media from the world's best visual content providers.

"We are delighted to welcome ArKaos to the ULA Group family of products," says ULA Group's Managing Director, Cuono Biviano. "ArKaos software is a world leading standard of media management technology and complements our VuePix LED screen range. The brand

is well established and has a great reputation throughout Australia with its media server technology being utilized for many high-end productions and projects. We are glad to have the opportunity to work alongside ArKaos to drive the limits of LED technology higher."

Those wanting to experience the new ArKaos line can see a road show visiting major Australian cities from 14th to 18th March. Email events@ulagroup.com for more.

www.ulagroup.com



Production Works, based in Hobart, Tasmania, has become the first in the country to upgrade its Midas PRO6 digital audio system to a Midas PRO9. The PRO9 package, supplied by Victoria-based Midas distributor National Audio Systems, tops the Midas PRO Series and features 88 inputs and 35 buses, with the dual stage boxes offering placement flexibility up to 200m apart and 500m from the FOH position.



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MUSIC BOX

sails under the radar

By Julius Grafton

What happened to Vic Leto and his brother? Someone asked CX and we said we thought they were out there, doing good things in live production. So we went around to have a look...

In the early 1980's a gold rush of sorts was underway. Without exaggeration there was a boom where rock bands played all over towns every night of the week. Suddenly the demand for live production led to a lot of bands buying trucks, PA systems and lights and even more independent operators hitting the road.

As many did, young Vic Leto got an old milk truck and carted his double four way PA from gig to gig. Back then the demand saw you start with a single PA, then add on more boxes, then add on more stage monitors. Your light rig could grow from the 24 can base system to 48 cans, 72 cans with a 36 channel dimmer system.

16 mixer channels became 24, then 32. The only limits were money and business acumen. Many operators got too close to the bands, and restricted their own availability by waiting for bookings. Smart guys like Vic played the field.

Fast forward to now.

Their place is 8km from Sydney CBD. I drive up Liverpool Road Ashfield looking for the building. Days earlier I'd seen their work at an Australia Day concert at Garrison Point in Sydney's west and met up

with Patrick Withers, their young production manager.

SPEAKER HOSPITAL

The building is modern and L shaped to meet up with a side street loading dock. Out front the light box sign looks like a medical centre, which it is if you count loudspeakers needing repair as a medical situation.

Vic shows me shelf upon shelf of neatly labeled coils, cones, formers and diaphragms for every brand of professional speaker and lots more besides. Hifi and guitar amps come in as well, and Music Box assert they are the leading repairer of loudspeakers in Australia.

Out back I meet Ross Reitano who has been the chief speaker surgeon since he started his career with the firm decades earlier. He utters with a smile "DON'T DESPAIR JUST REPAIR", the speaker hospital motto.

*“Don't despair
Just repair”*

But speaker repair is small beer in the scheme of things in this asset based company. Music Box is owned by Vic and his brother Greg, and they have played smart. They do live production, audio visual, lights, concert audio and staging with several mobile stages and hundreds of Sico professional staging decks with over 500m of cable trays to support outdoor events. In the warehouse are high bay racks completely loaded with equipment?

They have LED floor and panel systems for fashion parades and exhibitions, kid proof fences for shows, drapes and accessories for every possibility. This is an Aladdin's cave of production.

In earlier years they had several locations with a total of 15 rehearsal studios as well, but vacated that line of business when the writing appeared on the wall about bands not having so many venues to play in.

LIVE EVENTS

Vic Leto has a strong customer focus as does his brother Greg, who handles the Speaker Hospital and money side of the firm. They say they have long term customers who keep returning, and a wide stable of work.

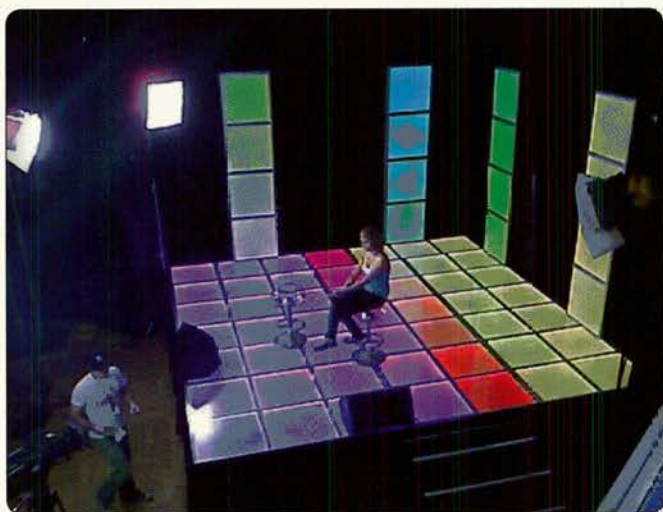
2011 Australia Day celebrations saw 8 trucks and mobile stages leave the factory for different events, creating work for over 30 crew on the day. The Garrison Point concert is a good example. While Music Box didn't supply the stage there, they did the lights and sound. Out front Patrick Withers looked after a Yamaha M7CL console, and the show ran through some mature but efficient Deltamax boxes stacked on risers either side of stage.

Electro Voice is a recurrent theme through the inventory which includes some large Midas consoles. "Col Formston (former CEO of EV Australia) looked after us", says Vic. "No, he BACKED us", corrects Greg. The brothers never forgot, so they have a more modern Cobra line array system as well.

Out at Garrison Point, some vertical trusses carried LED pars with Mac 250 enTour movers on top. The stage roof structure (not supplied by Music Box) precluded any rigging. The lights were appropriate for the event with the use of upright free standing truss array.

Onstage plenty of large Deltamax wedges did the foldback thing, with another M7CL side of stage providing

Continued Page 28 ----->



Vic Leto



Patrick Withers and Greg Leto



Australia Day Stage at Garrison Point

AKG

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Continued From Page 26

mixes. Damien Leith, Doug Parkinson and Diesel were some of the better known acts performing.

I observed for a while. Things were neat.

Sydney audio identity Michael Orland was operating foldback - a surprise since he has his own audio firm, TPAC. "I had a show booked and a price agreed and the guy started making demands. I held firm and then told him to get someone else!"

It transpires the demanding dude paid 2.5 times more for an audio visual rental firm to supply 2.5 times less equipment - an outcome that left Michael happy. He is not about to dance for anyone, and frankly I agree since I know how very reasonable he is.

"I called Vic to see if he had a gig on, and here I am today! And by the way - they (the Leto brothers) run a really good company".

"I called Vic to see if he had a gig on, and here I am today! And by the way - they (the Leto brothers) run a really good company".

TIGHT SHOP

I was impressed at the neatness of the warehouse, and amazed at the lean staffing. Aside from two guys in the Speaker Hospital, there was an electronics technician hard at work and adding on the brothers and Patrick, that's about it.



Mark Drew and Michael Orland



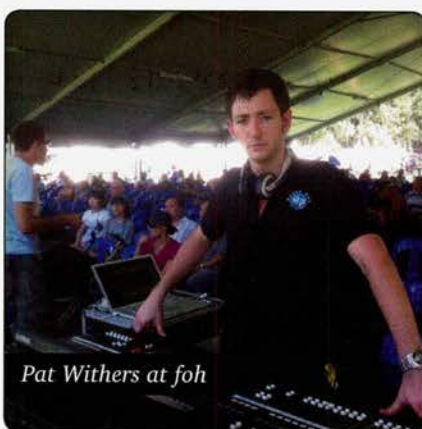
Concert stage @ Opera House

"It's about relationships", Vic says in that classic respectful Italian way. "We have a stable of contractors we use, and they know where everything goes".

Patrick Withers backs this up. He was asking me about casuals last year, and he mined the better graduates from our tech production college. A tech called CX to affirm the firm, so to speak. "The standard of production and execution of events is excellent. I think you would be hard pressed to find anyone in the industry with anything negative to say about the company", says Michael Thiele.

Greg Leto is an old school accounts guy, who firmly believes in settling accounts in short order. He is telling me how he had to call some other production firm to get an invoice - and he is seriously professional about settling. "You can't borrow from Peter to pay Paul, it will catch you eventually".

They bought the warehouse a dozen years ago. Vic stops outside next to his big mobile stage to light a ciggie.



Pat Withers at foh

"It was near Christmas and there was a lease sign outside. Greg and I we walked in and he looked at me, and we knew it was what we wanted. We made an offer to buy, on the spot. The guy, he was fighting with his partner. An extra ten grand here and there and we got it!"

They recently put 54 solar panels on the roof, which is a good commitment to the future.

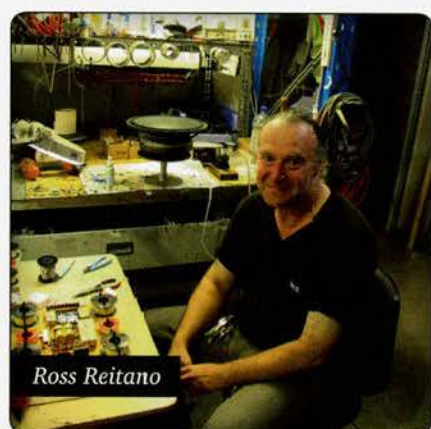
As I leave, more people come in with sick and injured speakers. A concerned specialist comforts them, and the job is booked in.

α



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Ross Reitano

Regent Theatre

Venues

- curse of the name

Driving through Mudgee in Central Western NSW recently I stopped to peer through the windows at the empty Regent Theatre in Church Street. When the Suttor family (Dave Suttor owned Orana Truck Rentals when it was a full powered rock band

truck rental joint in the 1980's) ran the place, they hired me to replace the sound system. I got to know the old theatre by crawling through the roof in the middle of summer.

Now empty and with a layer of dust on the foyer carpet, the building

faces an un-certain future. So too does Wollongong's beloved Regent Theatre in Kiera street, which is presently owned and used by Gateway Church. They bought the property some years ago, only to have a heritage listing applied to the property shortly afterwards. Despite listing the 1,500 seat venue for sale in 2009, the theatre remains in their hands. They say they have no pressing need to sell it.

In Mudgee the Regent was also listed for sale, again in 2009, but without a sale eventuating.

Perhaps the Australian Government could initiate the Heritage Lottery Fund concept as used in the UK. That fund has not only saved but also helped refurbish many fine old theatres.

All that stands between both the Regent Theatres and demolition is heritage listing. We need more than that. - Julius

CX



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JOE COCKER'S HARD KNOCKS TOUR...

with a little help from George Thorogood and the Destroyers

By Brian Coleman

Joe Cocker's 'Hard Knocks' tour certainly doesn't refer to the smooth production that Cocker and George Thorogood and the Destroyers seem to be enjoying on the tour's Australian leg. Maybe the curious and continuous pounding by Thorogood's sound technician on a button to the top right of the Venue Profile digital console could be construed as a hard knock. Or maybe it's a hard knock when that spotlight hits Cocker like a particle beam, dematerialising his facial features and sending digital photographic equipment into overload. But otherwise it's all a tour de force.

It is unclear if the Venue Profile's button is offending in any way or if the aggressive prodding is just a high-energy excitement thing in keeping with the mettle that has kept Thorogood and his Destroyers touring since the 70s. But after the soundo sends up the faders and hits you in the chest with bass and kick-drum bursts on 'Bad to the Bone', you're not really in the mood to question him about it.

It's impossible not to draw now-and-then production analogies, considering the hard knocks that the 61-year-old rocker and the 66-year-old Cocker would have experienced on the road to future-world 2011. And if gigging in the new millennium is all too 'freaky' for the stage veterans, a quick glance at the

Marshall JCM2000 amps, the ageing Gibson Les Paul guitars or Cocker's SM58 microphone should realign the continuum of a party that was supposed to last 6 months but kicked on for over 40 years.

There is that rack in the bio box that apart from power amps looks starkly bare to those we saw in live music production when the world was in black and white. And sadly, a pair of flat-lined third-octave analogue graphics that have lost their smiley faces sit idly in the rack just in case something goes wrong in digital world.

Effects racks that used to bloat with compressors, graphics, noise gates, reverb and delay effects etc have been replaced by plugins for the Profile console.

Sound wise, it would be a callous scrutineer that would criticise the brilliant audio emanating from the speaker arrays that the sound engineers are delivering. And the players seemed more than comfortable with what looks like a modicum of foldback wedges and side-fill pumping away in today's audio world of power and efficiency.

The show does seem to exhibit that lighting has become a little too efficient though, and a little too theatrical: there is so much achieved with an economy of Martin Macs



George Thorogood 2 Guitars



lighting guy
William Bennyhoff



Cocker



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and Clay Paky Alpha 700s etc that some stage scenes look starkly bare, leaving you at times staring at blacks and trussing. Gone, it seems are the days when profiles and kickers sliced through stage washes, courtesy of banks of par cans amidst a haze of fog. Yeah, everything's lit, just like a theatre or a movie set, but is it too pedantic to say that it just doesn't look like a traditional rock concert any more? Maybe.

It's even hard to attain 'dirty-old-man' status given the era of the sexagenarian rocker: the more risque invitations Thorogood threw at the ladies in the audience, the more takers he got.

Contrastingly, Thorogood's lighting engineer nice-guy William Bennyhoff

packs a punch in his pants pocket that is benignly just a show file stored on a flash drive, which contains the entire lighting show. Bennyhoff, from Toucan Productions, Okalahoma City, has toured with Thorogood and the Destroyers for just over a year. As he punches up scenes on the Road Hog lighting console he explains, "Even though you have a rehearsed show to load, it's up to the operator to time in the various passages, like phrases, verses and choruses of the songs, and you have to punch it in just right. It's not like you've just loaded an audio click-track that's going to run on automatic."

Thorogood and the Destroyers get an encore, then Cocker's crew spills on stage to meticulously prepare it for

the legend. Something's wrong with a lighting bank and one of the crew can be seen in dumb-show mouthing expletives but it all comes together.

The lights dim and an eerie silence ensues. The master is suddenly in our presence. His soulful delivery combined with his brilliant timing and phrasing, which earned the 1969 Woodstock Festival stand-out the praises of the great Ray Charles, are all intact. And who cares if at times the hoarseness of Cocker's trademark voice makes you wonder if those nodules are about to mount a vocal obstruction at the anterior. This is Joe Cocker; he's a legend; he's taken the hard knocks of over 40 years on the road and he's still delivering with a little help from his friends on this great tour.

Cyclone Running for Cocker with ATS

Nathan Brooks drives a Kenworth K104B pulling a 48 foot pan for Australian Touring Services but the Joe Cocker run is one to remember. On the way to start the tour in Cairns, he had to circumvent Cyclone Anthony, which hit Bowen.

"It's been exciting", he said. "I almost needed a change of underwear! They had three foot of rain".

But that was small change, because while the tour loaded in at Cairns, Cyclone Yasi was on the way. The show in Townsville was cancelled for the next night, as many were evacuating that city. The tour management made new plans.

"We did the Barry-bolt out of Cairns at about 2.30am. After the load out. We were the last trucks allowed through. It was weird, an eerie brown sky and wind. Then the wind would stop. My other driver Rohan Turner, he said his body ached. There was an uneasy feeling in yerself."

"You could feel something would happen". It did.

They ran south through the rain and hit Townsville with its exodus at first light. By the time their driving hours ran out, they were safe in Rockhampton. The band and crew flew out of Cairns on a charter jet, also the last to leave.

It was a wild week; the Joe Cocker show at Rochford Winery was postponed when torrential rain flooded much of Victoria. It was moved out to the end of February.

CX



Nathan Brooks and Rohan Turner ATS

By Julius Grafton

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THE BEST INXS SHOW

Band Kicks the wineries as X marks the spot



By Julius Grafton

In the song Suicide Blonde, INXS keyboard multi-instrumentalist Andrew Farriss plays a short sharp mouth harp solo. The lights blast in on him in searing white, flashing a message in time.

Through the tight two hour set the band swap instruments and places, two backup singers appear and disappear and hired vocalist JD Fortune adds a new vim instead of carrying the weight of superstar Michael Hutchence (may the Lord rest his soul).

Everything coming off this busy stage loaded with instrumentation is channeled onto the Profile sound desk in front of Tim Millikan, who is ready and ahead of each part. He pulls off a brilliant live mix that fuses the hit songs from 11 albums with the live edge of a band that know the stage.

Stage left monitor engineer Paul Kennedy - with the band a long time - sends wedge mixes and in-ear mixes, 26 in all, from a venerable PM 5D console. Some of the band play with one ear out, preferring to hear what they have always heard in more than thirty years playing as one line up. The different singers being the only interruption to that lineup.

"I'm slowly losing wedges", he says with a wry smile. 'Hopefully even more will stay in the truck this tour'.

There's nothing more exciting than a live band that mesh seamlessly together, and this one does. JD Fortune has the right shtick for the material, sounding like the original vocalist but with his own skew. He lopes and twists about, looking 110% rock star and maybe a bit sexy - offsetting the obviously middle aged band around him.

"I'm slowly losing wedges", he says with a wry smile. "Hopefully even more will stay in the truck this tour".

Where you have successful chart bands you also have creative tensions - INXS' roster of contracted vocalists have from time to time blown up in the media - but the band themselves seem forgiving.

NEW DAYS

There's something of a back-story here, since the original band manager from the grind days, Chris Murphy, has returned to the fold. He told TMN that the band had their master recordings returned at the

end of a recording contract and they immediately called him. His record co now handles releases, and when he went to a live gig he knew he had to manage the band as well

Various media versions have him leaving during their career heights in glory days; to them sacking him at that time. Media loves to contrive 'a sacking'. He told media he left after fifteen years because his family needed him at the time.

The new INXS strategy is a long-term plan; to return the band to arenas within a few years.

This summer's run of winery concerts was preceded by several weeks rehearsing in Fisho's at Manly, and then an expensive production rehearsal in Sydney's Big Top venue at Luna Park. While school holiday punters had the run of the theme park in the sun, inside Big Top it was dark and a fully rock show vibe with everything set up. For those unfamiliar - in Sydney, Luna Park is just adjacent to the Harbour Bridge and heavily muddled in Government oversight.

LAYOUT ASIDE

Luna Park is a small theme park in an impossibly magic place, with a venue plonked inside called Big Top. Luna Park is squarely an endangered place. The NSW Government is just now undergoing a painful departure

to an inevitable change at an election. Over history this poor little corner of prime waterfront has been propped up - there are historical elements here - and the most recent prop-up appears to be in trouble. Luna Park lives on under a mysterious deal with a property developer where they got to build whatever they could get approved (final attempt pending), and thus keep the park going in the meantime. Then, when the development profits are exhausted, who knows?

The Big Top is a temporary shell of a thing, with an apparently vinyl roof on a steel frame. But it works as a venue, especially one next to the Sydney Harbour Bridge with absolute waterfrontage to die for.

In between rehearsing songs, the band cluster together in front of the stage, laughing with Murphy. A closed-door rehearsal often shows the real deal in relationships. Some bands have members who just don't talk to each other, only through others. Read the books - Keith Richards is very entertaining. He never goes to Mick Jagger's dressing room. His lack of relationship with his lifetime songwriting partner is so bad that Richards makes comment on the



hidden anatomy of Jagger. The term 'small tcdger' still has us in debate here at CX.

Backstage the band known as INXS are at ease.

Towards the end of the second day of rehearsals, they run the show from top to bottom. The song list was locked in and doesn't change, which makes it easier for Millikan, Kennedy and Motley to sequence their newly created

and saved scenes.

The stage had risers left and right for each backup singer - blonde Ashleigh Leef (stage right) and brunette Wendi Sue Hall. Keys were stage right of centre with drums on another riser to the left. A lot of equipment is onstage, and this is a band who actually need all of their backline techs; Matt Byrnes, Lindz Mackay, Frank Iskara and Richard Netes.

Continued Page 34 ----->



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Godzilla the video screen



-----> Continued From Page 33

A DAY ON THE GREEN

Now in its tenth year, these winery shows are happening all over Australia and New Zealand. The brain child of Anthea and Michael Newton, the shows now outnumber those run by mainstream promoters on concert tours. It is a blindingly successful format.

I drive west to Mudgee. "This is our smallest stage", says production manager Stig Moor. "And this is my world, nine months a year".

Stig has oversight of the shows, and knows production having cut his teeth in the 1980's with bands like Hunters and Collectors.

Mudgee is baking hot, the country a lush green from the early summer rains. Robert Oatley Winery is about five clicks north of town, traffic is efficiently funneled into parking and the punters walk into a flat area with the winery building on a small rise.

There's free water. It should be mandatory, those outdoor shows that profit from water can't get much goodwill, can they? A mist tent of spraying water is popular. Blanket and picnic areas are designated on the grass and video between bands tells how to be sensible with your blanket and not hog too much grass. A lesson many outdoor shows need to heed.

Concessions along the east fenceline sell steak sandwiches, gourmet baguettes and everything in between, with wine (of course) and strangely mid strength or low alcohol beer. No full powered stuff.

These shows have a nice cross section of audience too, young through to not so old. Some shows of late featuring bands of the 80's have appeared to only pull people who were there at the time - INXS seem to have bridged new audiences with the TV show and the younger singer.

The shows are a quad header with Sean Kelly reprising his Models hits, then Baby Animals carving up the stage. Train do a really up-vibe set, and the main act come on at sunset. Day on the Green had a DJ/MC as well, and the whole package was well balanced for the punters.

So was this just a nice (hot) day that went well, or is ADOTG consistent? I decided on spur of magazine moment to see more. Karen and I drove up to Bimbadgen Estate in NSW's Hunter a few days later to see.



Stig Moor



Tim Millikan at FOH

Minus the heatwave it was just a divine Summer Saturday. Stig's crew had things very tidy, and the site management was excellent. Signs, porta-loos, concessions, shade, and space ratios were all well thought out. Unlike a ridiculous outing we had recently with the kids to a theme park, where everything was overcrowded.

While Mudgee had 5,000 punters, Bimbadgen hosts 8,000. In between the winery tour, INXS did a hot show at an estate in Bowral, south of Sydney. The band chartered a 32 seat plane to fly to that one the day after Mudgee, avoiding a six hour drive. Tony Woodhall is the INXS Tour Manager.

The ADOTG trucks went through the night from Mudgee to meet up with the stage, and a second PA and lighting trusses already in place.

A DAY ON THE GREEN PRODUCTION

These winery shows usually have a dome type angled roof, supplied in NSW by Butlers Hire. Motley designed the rig so the three trusses are hinged to follow the roofline.

"We often use Phaseshift for lighting because they 'get' how our shows work - witness the hinged truss which makes the most of a relatively low roof trim height", says Stig Moor who is also at pains to stress that he has no formal or specific tie to any one lighting supplier.

"The same goes for audio; we often use JAS because, again, they get the whole ADOTG concept but we have also used Jands, Norwest & Powa Audio in recent times with great success".

The INXS series of shows had a J-Line system from Johnston Audio Services, which is still called Johnston Audio Services despite having merged with Jands Production Services.

"We leap from 'stacks & racks' (speakers and amps installed on a stage ahead of the production gear arriving) and we often do a duplicate light show (or at least truss & rigging) which allows us to come into the second shows with just backline, FOH control & monitors which takes a huge weight off the overnights."

Bytecraft supply super screens for ADOTG - these 37 sqm screens are affectionately called Godzilla and Frankenstein.

They are supplied truck mounted and can hydraulically unfold, elevate to 2.8 metres and slew 360 degrees which make them ideal for events like ADOTG where rough terrain and difficult landscapes are more common than not.

Godzilla can also lift itself off the truck and stand on its own four feet, for this reason Roundhouse usually choose to take advantage and have Frankenstein truck mounted and Godzilla freestanding.

Bytecraft Entertainment supply two crew (Tom Donaldson and Tom Lupton) to most ADOTG events.

In 2010 Godzilla had a major refurb and now contains Lighthouse Pi10 ER panels whilst Frankenstein currently contains Lighthouse 503 panels. The Bytecraft screen team are so pleased with the results that Frankenstein will undergo a similar refurb in 2011.

Continued Page 36 ----->

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-----> Continued From Page 35

STAGE DESIGN FOR INXS

At the rear, six Martin LED screens drop in 1m wide columns with lights in between - one mover, a JARay (French designed 25 lite PAR 30 DMX effect) and a 5k Fresnel on a stand at the bottom.

The band bought the following design pitch from their long time designer, Motley.

"There are a bunch of moving lights up there that change colour. To keep it interesting I have a few different styles of light for my white light looks".

"On the back truss is a classic par can white beam light curtain. Strung between trusses are festoon strings, these can glow like stars of flash; like a party atmosphere. Around the floor I have white foot lights to up light everyone during the white light moments".

"Each person on stage has their own white Leko (spot) from the front truss. (There are) plenty of audience lights so you can see them when required". Long throw followspots did the job from out front.

There were plenty of audience lights and the movers (all Mac 2000's, except in Perth where Frontier were the provider) punched out into the audience. The lights for all the Eastern States shows came from Lawrie Videky at Phaseshift Productions. They in turn are based in Melbourne, with an office in Brisbane.

IN THE COOL OF NIGHT

It's amazing how the audience went off. Everything worked so very well, and the winery crowd left happy. Value for

money - you bet. Great production values? Very much.

As for INXS, their run of shows wound around the wineries on both sides of the country. Then they went to South America and Canada for some shows.

The plan is in place.

CX

ADOTG CREW CREDITS:

ADOTG PM:

Stephen "Stig" Moor

ADOTG SM:

Cam Batten

Phaseshift LX crew:

Rob Oswald

Levi Boes

Matt Spiker

Chris Tacknell

Johnston Audio Services crew:

"Aussie" Mark Crawley (Touring Systems Engineer.)

Graig Gordon & David "Scooby" Beshman

("A" rig - Systems techs

Otavio Santos "Guto" & Gavin Murray

("B" rig - System techs)

Cairellie video crew:

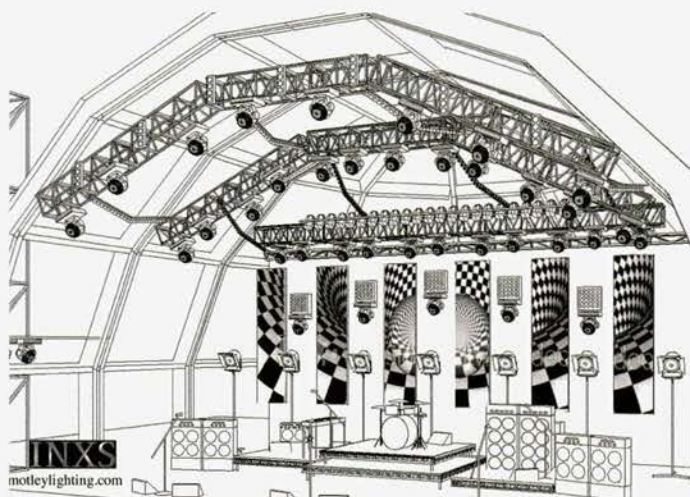
Jerome Parker

Andy Carson

Bytecraft Super Screens:

Tom Donaldson

Tom Lupton



Motley's original show design



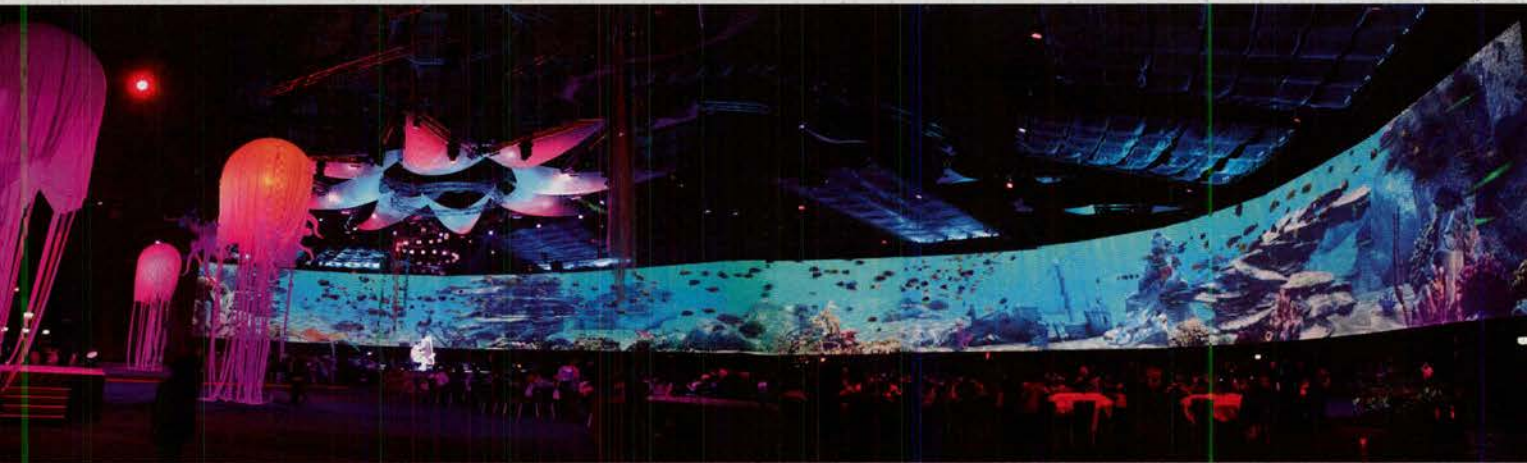
Sean 'Motley' Hackett



Mark Crawley (JAS) & Paul 'Kenno' Kennedy INXS monitors

AMWAY China takes over Sydney

This must be the biggest international corporate gig of 2011!



By Julius Grafton

AMWAY China brought their convention to Sydney in January. It was so big they did it four times. Delegates spent days in Acer Arena, where Stcging Connections provided massive audio visual.

The highlight was the Dinner, held across the road at The Dome. This was different. CX went inside to see.....

When event producer Blake Harris sat tensely waiting to pitch in Shanghai, he didn't know the massive Amway China 2011 Gala Dinner would require 652 lengths of lighting truss and 217 chain motors. But he did know it would have, if his creative bid won, the largest video screen yet assembled in Australia.

Blake heads TLS - Triumph Leisure Solutions - based overlooking Sydney harbour. They do a variety of things

including designing exhibition stands and organizing Australia Day concerts for council clients. In fact they have a broad resume. But the Amway dinner was something else.

TLS won the bid against some other Australian event producers. "They may have even been there that day", Blake says of the moment back in August. "I had the pitch finished and then decided to do a second different concept. It went down to the wire and we had two concepts to show them. But I'll keep the second one secret because I want to use it again".

Research saved the day because the Amway team had been here before and seen a lot of creative.

“They had milked spiders, had horses, Tap Dogs, you name it. I needed something new”.

Blake had experience in the Chinese market as well; having worked for some time with Paul McCloskey's Laservision, itself a big fitter in what Blake calls 'fixed attractions'.

He doesn't know how many ideas the other guys had. But he won the contract and it was a big one. Very big.

THE EVENT

Amway China is a powerhouse. The top achievers attend key events around the world, and after a gap of some years they returned to Australia in January. Last time they met in Melbourne. There were four identical events, one after the other, to cater to the large number of guests. Each batch of guests did a range of activities in Sydney including walking across the bridge. There were so many walkers that the government agreed to shut some traffic lanes.

But the dinner is the main social event, and impact is required. The scenario followed an underwater theme. TLS were supported with the creative by Ignatius Jones and David Atkins and drew on Jason Coleman for choreography.

On entry to the Dome, a vista of beach panoramas was projected onto a curved 130 metre wide by 9 metre high video screen that curved 180 degrees through half the Dome. The familiar sounds of waves, seagulls and surfing music filled the space.

The room lights fade and show began.

The giant video screen showed a 20 metre humpback whale with its calf swimming past the audience. Acrobatic dancers followed the whale

as it exits back into the oceans' depths. Forming a human pyramid they allow a character to climb high enough to bang on the screen which activates an enormous ripple across the water and takes us all into the mystical world of undersea life.

The smoke-filled room is hit with 6 lasers. The laser ceiling lowers and a giant turtle leads the audience down and down until the bubbles cleared and they realised that they were in a spectacular Australian coral reef.

As a thousand skilfully animated sea creatures come out to play in the beautiful reef on screen, the audience is treated to a symphony of brightly decorated ocean puppets, some dancing amongst them, some flying from the ceiling above.

Euphoria momentarily shifts to drama. Night falls and the reef begins to glow with its mystical fluorescent presence. Puppets and ocean plant life around the room glows with internal lights and sparkles with strong ultraviolet special effects. 60 performers and puppeteers manoeuvre around the central stage to form the living reef. The music builds and we saw ascending from the formation an unmistakeable mermaid creature that begins to conduct a crescendo of lasers, lighting, bubbles and spectacular pyrotechnics as the reef begins to spawn. Then a sudden blackout and the stage was set for the formal opening.

The rest of the evening had a non-stop audio visual feast of spectacular video images interacting with aerial dancers across the screen, an extraordinary performance at a facsimile Opera House by a seven year old Chinese pianist prodigy, flying violinists, high-octane fire dance acts and a medley of turbo-charged dance routines synchronised across all 8 stages.

At the end guests were treated to a surprise performance; Jonathan Lee and his band flown in from China.

MAKE A VIDEO

Imagine a 130 metre wide screen 9 metres tall. The aspect ratio is ridiculous. On your computer screen it would be a long, thin strip. A fish swimming on screen would be like a 6 point full stop.

Now zoom to high definition. This is the world TLS worked in ahead of the event.

"We had a render time of days", says Blake. "It was quite horrific so we used PC's which are grunter than Macs for this work".

Pete Dowson was the media producer, who hired in additional animators to join the fixed team at TLS. "We had a virtual render farm going", he says.

The eventual vision was downloaded to 5 Coolux Pandora's Box media servers for Big Picture to project.

EPIC PRODUCTION

Sydney Showground Dome is a striking structure with exposed timber roof framework - more than 40 metres high at the centre. Big enough for 3,000 people at dinner with an extensive set, it is a little slow to rig since each return trip to the top can take 15 minutes.

Blake selected Clifton Productions for rigging, scaffolding for the wall dancers and for lighting. "It gave me a seamless single point of contact", he says. "I want to give them a big rap as well!"

Dale Stewart and Darrell Gunn were key staff for scaff and



Leila Khiev, Cierwin Newell and Blake Harris



Blake Harris and Jason Coleman

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-----> Continued from Page 38

rigging along with Aaron Humber.

Cliftons in turn suggested Andy Mutton as the lighting designer. TLS were unsure; Andy is an understated and methodical guy who doesn't blow his own trumpet. But afterwards Blake is raving about him. "He understands the fusion between creative and reality, nothing was a problem", he told CX.

Andy looked at the brief and came up with a specification, and it was a heart stopping moment. Aside from the astronomical amount of rigging, there were 150 Robe moving lights, and 80 Robe Ledwash fixtures.

"For the ultraviolet night water scene, the red and blue LEDs in the Robe 600's produce a slightly

different, more lavender UV. The movers have a UV filter which is slightly darker". It was mind bending.

There were eight setup days with the first three just devoted to rigging. "It was noisy in here as the trusses were bolted together", Andy says deadpan. The cable runs were staggering.

In execution, Andy and Francesco Calvi operated Grand MA and Full Board desks.

Norwest Productions supplied the audio, serving multiple stages and the band at the end.

Blake has the last word. "Everyone came away with something. Everyone was happy".

A VERY BIG PICTURE:

That screen was illuminated by

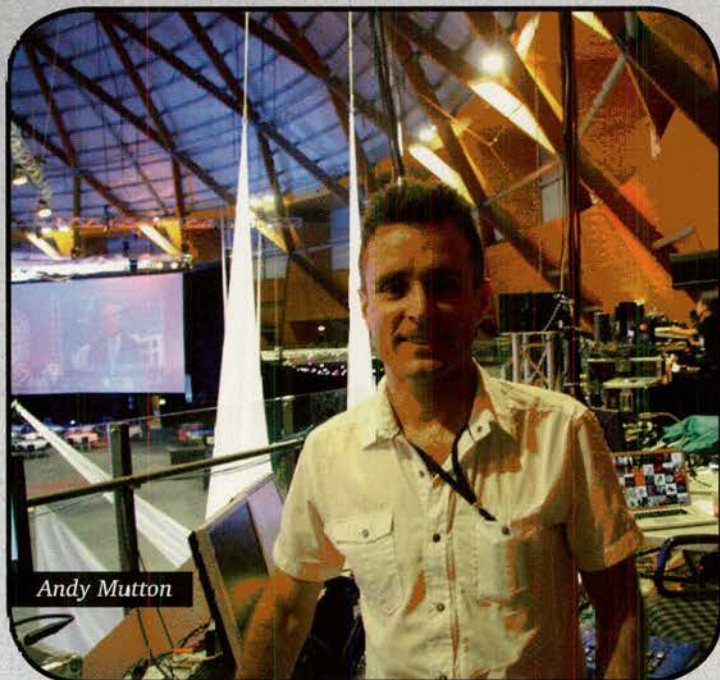
9 x Barco FLM HD 20 Projectors. Big Picture were the suppliers, and they had 5 x Coolux Pandora's Box media servers addressed by Coolux Media Manager Pro. The imagery went out HD SDI over fibre to the projectors via 9 telecast rattler fibre transceivers kits.

Nick Hemingway was the Big Picture Account Manager, and the crew were:

Nick Bojdak, Systems Engineer
Dave Hendy, Director
Paul Collison, Pandora's Box Programmer
Kim Louey Gung, Pandora's Box Operator
Phil Pieridis, Head Projectionist
Christian Brantes,
Matti Byrne, Projection/Cameras
Mark Walkden, Cameras

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Andy Mutton



Francesco Calvi hides



Warren Maher

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Massive truss capability at Cliftons



Clifton Productions welder Phil Bond

MEANWHILE, across Olympic Boulevard at Acer Arena the business end of the Amway convention was run all day every day with breakfast, lunch and afternoon tea all dished up.

The Arena conference was also a very major audio visual event, contracted to Staging Connections. Mark Shepard and Stuart Buchanan were in charge for Staging, and they had a raft of contractors on site including Bytecrafft and Norwest.

CLIFTON PRODUCTIONS

It's one of those stinking hot summer days when I drive up to Clifton's head office in Preston. As owner Warren Maher gives me the guided tour, I comment how the warehouse is well insulated. It transpires the building was used by the Public Works Dept, who went to great lengths to make things nice inside.

If Cliftons don't have more rigging, motors and truss than anyone in Australia then I would be surprised. The warehouse is absolutely full of it from floor to roof. Turn a corner and whoa - hundreds and hundreds of cases of Robe moving lights and LED fixtures. Another corner - hundreds of iLed screens, 6mm, 10mm and 18mm.

Power distribution in stacks and racks, cages of three phase, thousands of cables marching up a wall of hanging pegs. Crates and cases, thousands of static luminaires, follow spot chairs, stages, risers, rostrums and an endless trove of valuable lighting, power and staging assets.

In a corner of the facility is a roadcase manufacturing operation, today churning out a batch of cases for Big Picture. Upstairs a theatre drape workshop. Another corner has a metal fabrication workshop that can produce up to a dozen lengths of truss per day.

In less than twenty years the firm has evolved from exhibition work and electrical contracting to arena, festival and large scale TV jobs.

So who is Clifton? The original factory was located in Clifton Hill. As the business expanded they moved to Chifley Drive. But you don't change your name every time you move, do you?

Cliftons also have substantial operations in Sydney and Brisbane, with a joint venture in Perth.

α



Cliftons have a LOT of lights

Norwest Productions supplied the audio and comms for the event.

Given the tricky flying arrangements in the Dome, with almost all the structure dominated by the truly gargantuan lighting and video rig, the audio crew needed to redesign on the fly.

This is the equipment list:

Main PA (Flown)

- Main L/R - two arrays of 8 x Adamson Y18 with 4 x Adamson Y10 underhung
- Centre Fill - two Arrays of 4 x Adamson Spektrix with 1 x Adamson Spektrix wave underhung
- Delay left - 8 x Adamson Y10's
- Delay Centre - 8 x Adamson Y10's
- Delay Right - 8 x Adamson Y10's

Main PA (Ground Stacked)

- Sub Left - 6x Adamson T21's
- Sub Right - 6 x Adamson T21's
- Lip Fill - 6 x EAW JF80's
- Front Fill - 4 x EAW JF260's
- Out Fill - 4 x EAW JF260's

Surround Speaker System

- Surround - 16 x RCF 322I's
- VIP Tunnel - 16 x F52S

Monitor Systems

- Stage - 6 x Adamson M15 wedges
- IEM's - 8 x Sennheiser G2's
- Band - 8 x AVIOM pods
- Flown Monitoring for aerialists - 4 x RCF 322a's
- Foyer System - 6 x RCF 322I's

Control Systems

- FOH - Yamaha M7CL
- FOH - Yamaha O1V96
- Mon - Yamaha PM5D
- Mon - Yamaha O1V96

All speaker systems processed with XTA 448's and 226's with Dolby front end

Radio Microphone System

- 10 x Shure UR4D receivers
- 6 x UR2 hand held transmitters
- 14 x UR1 Beltpack transmitters
- 2 x Shure UA845 Antenna distributor's

Communications System

- Matrix - 10 x Clear Com ICS-92 Matrix plus station
- Hardwire - 1 x Clear Com MS440 master Station with 10 x RS501 beltpacks
- Wireless - 6 station HME system and 8 station BTR system
- Show Two ways (Duplex) - 20 x Motorola GP328's (interfaced)
- Client two ways - 8 x Motorola GP328's (stand alone)

Rigging

- 4 x 2Tonne Chain motors
- 8 x 1Tonne Chain motors
- 4 x 1/2 tonne Chain motors

Crew

- FOH operator - Ian Cooper
- Monitor operator - John Watterson
- Systems engineer - Scott Harrison
- Communications Technician - Justin Arthur
- Stage Technician - Simon Pritchard
- Stage Technician - Ai Leen Quah
- Project manager - Nick Hutchinson

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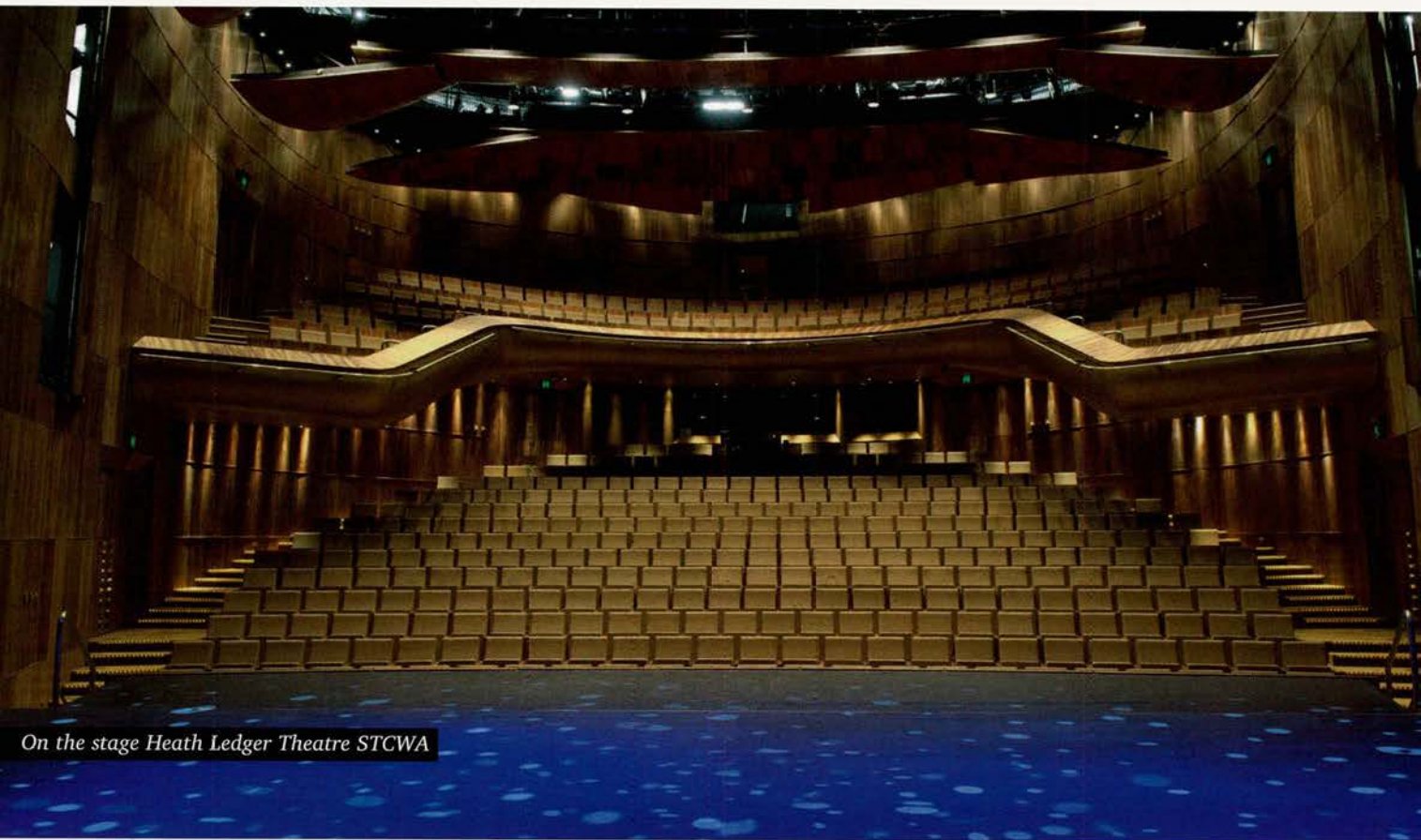
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TWO NEW THEATRES RAISE THE GAME IN PERTH



On the stage Heath Ledger Theatre STCWA

New theatres take a long time to come to fruition. In WA two new theatres have just opened, the result of 18 studies going back as far as 1985. The trigger was the need to replace the 427 seat Playhouse, the lease for which it was known would not be renewed, the site being required for another purpose. The function of the new venue was to extend the core use of the old, being drama and contemporary dance, and it is an achievement that the new provides more seats but, with the back row closer to the stage than in the old.

By Graham Walne

The new building is on the corner of the existing Cultural Centre and across the road from the main railway station: its entrance will in future be on the corner of a major new CBD square.

In 2004 I was retained by the WA State Government to create and monitor the design brief. Initially this was only for a straight replacement proscenium theatre but consultations with 51 WA arts organisations indicated a strong need for an additional flexible studio space and so the budget and complexity increased. The final cost is estimated at \$100M.

The Design Brief became a highly respected document: because the government had the wisdom to ask architect Ian Wilkes to put it into architects' language for a two-

stage Design Competition. This resulted in more than 40 entries and was won by award winning Kerry Hill Architects.

Their design team subsequently included some famous names; acoustician (now Sir) Harold Marshall (for Marshall Day Acoustics) and theatre consultant (the late) Denis Irving (for Marshall Day Entertech) who sadly was not to see the building completed. A backstage lift to the winch rooms for which he fought will soon carry his photograph and be named as 'Denis's lift'.

KHA's design was classical in its elegance and provided all that the brief required; a 575 seat proscenium arch theatre, a flexible 234 seat studio underneath, a versatile courtyard, 2 rehearsal rooms, 2 meeting rooms and offices for the AEG Ogden theatre management and Black Swan State Theatre and Perth Theatre Companies

In the early days WA's isolation restricted many Perth theatre practitioners from having first-hand experience

of some of the latest technology being envisaged. A first in Australia is Cablenet - the UK based tension wire grid system which was installed over 60% of the studio theatre, and a first in WA - a full powered 58 line Stage Technologies flying system by Jands. Other state-of-the-art equipment includes: wireless DMX, Pathport, 2 Digidesign Venue SC 48 digital audio consoles and 20 Vari*Lite and Robe moving lights.

A focus group of LD's attended a shoot-out of movers and its deliberations (including: light source contrasts, use of movers on catwalks, use of colour changers) all helped to make the final decision which was delayed as much as possible to take advantage of generational change. Other debates ranged over centre or stereo clusters (the main venue can provide both) and patching versus dimmer per outlet (we opted for the latter, the main house has 408 dimmers working to an EOS console and the studio 180 dimmers working to an ION console. Altogether both venues have a stock of 400 conventional lighting instruments with 80v Pacifics and Source Fours featuring strongly.

One of most widely respected focus groups studied the naming of the building and agreed not to name it after any individual, a decision promptly overturned by the (then) premier who named the main house after Heath Ledger who had just died.

Placing the studio under the main house created special challenges for design and construction. The studio floats on its own pad, as does the neighbouring rehearsal room and yet another floating pad supports the connecting space between the two. Above all these the main theatre sits effectively on a bridge unconnected to the spaces below.

Continued on Page 46 ----->



View of the flytower from The Courtyard STCWA

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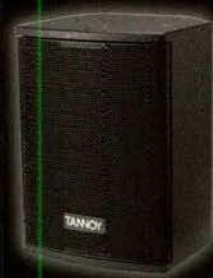
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Consequently, the acoustic separation between spaces is excellent and will facilitate busy programming. The architects provided a useful bonus, not in the brief, the ability to open two sets of acoustic doors and make the studio and the rehearsal room one vast space capable of housing 500.

Following the official opening by the WA Governor and the Premier, VIPs were treated to two gala performances of WA talent with guest artists William McInnes, Paul Capsis, Tim Minchin and James Morrison. The multifaceted 90 minute production with 70 actors, dancers and musicians, front and rear projection and complex lighting, spot, flying and sound cues tested the venue and its staff but demonstrated its potential.

The venues have excited much praise in Perth for their quality design and equipping and it is clear that their impact on the performing arts in Perth will be significant. The long planning process has been worth the wait.

For those planning future buildings here are a few lessons learned on this project:

- The building will be more

successful if it is designed for a specific purpose rather than distorted to meet a range of long-standing (and often opposing) needs.

- Initial budgets need to have a wise contingency, perhaps higher than 50%, if the end cost is not to be a shock and result in cuts.
- Design competitions will provide the client with more choice but, the quality of the chosen entry will depend on the quality of the feedback provided prior to shortlisting.
- The chosen competition entry should be seen as a basis for more

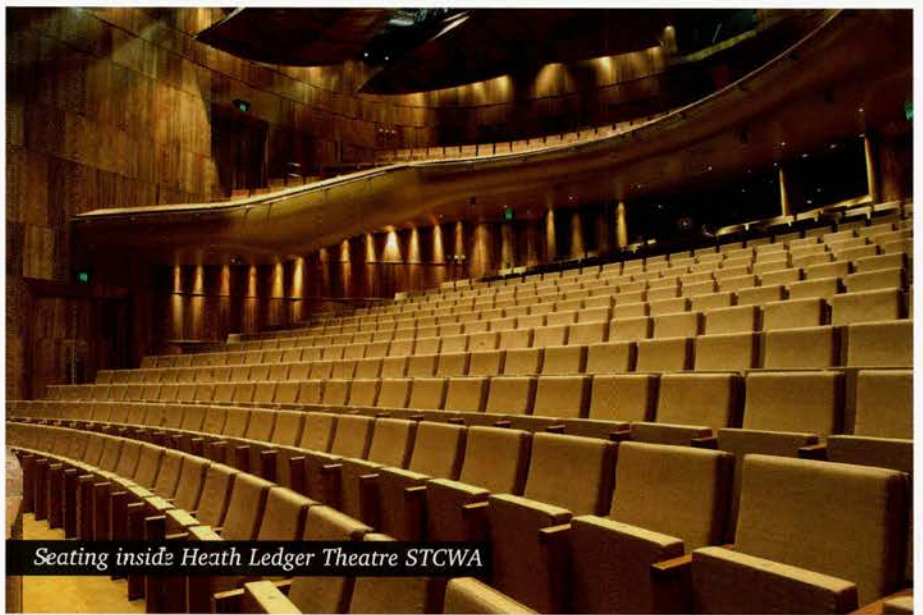
development and not as a fixed design.

- Before tender documents are finalized take all client and design team on a tour of theatres the client aspires to.
- The kind of management of the project needed towards the end is different from that at the beginning.

Photography By: Eva Fernandez.



For further information on the WA State Theatre Centre visit:
www.statetheatrecentre.dca.wa.gov.au



Seating inside Heath Ledger Theatre STCWA



Entry to STCWA at night

K-ARRAY LYZARD

Finally, a speaker small enough to stir your coffee with...



By Jimmy Den-Ouden

Lyzard is a miniature line array system comprising KZ10 array elements, a Kobra Bass module, and in the case of our test system a KA10-10 amplifier.

Let's begin by discussing the KZ10. The first thing to strike you is its size. It's very small. Seriously, it fits into an espresso cup. If you don't believe it, look at the picture.

We've looked at K-Array speakers in previous issues of CX and generally been quite impressed. The KZ10 represents their smallest creation yet. I tried to pull it apart but all my screwdrivers were too big for the job. The KZ10 forms the mid-high component of a system which includes an amplifier and a "Kobra

Bass" module, both of which are considerably bigger units. The KZ10 to Kobra ratio is 4:1 - 4 KZ10 elements to 1 Kobra Bass unit.

The 4 drivers in the KZ10 are about half an inch in diameter, which is quite small. Yet somehow this tiny little thing is specified to produce 92db. Not earth shattering, but then that's not its intended purpose. The Kobra Bass drivers are a moderate 4 inches. It's specified to run down to 60Hz, though this is at unspecified efficiency.

The KA10-10 amp is a custom job with internal processing for all the K-Array speakers. It's also the top end amp K-Array make - you can use a smaller one if you like. Changing the speaker type is pretty easy - press the "preset" button to cycle through until you hit the right setting for

Continued Page 48 ----->



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your speaker combination. Size wise the amp is about 2RU high and very deep, yet only half a rack unit wide. This means if you're installing lots of them in a rack you'll save some vertical real estate, but the trade off is that you need a deeper rack. The amp is really nicely set up for install - there are loop through connectors on the inputs as well as a PowerCon input with loop through. Speaker outputs are NL4 Speakon with all pins active. There's even an RS422 data bus with loop through to allow computer interfacing (eg for firmware upgrades).

How on earth does it work?

We don't know. But it does work, and work well. The Lyzard system sounds good. You can tell that

the mid-high element is separated from the bass module, but it's not offensively noticeable. The system is totally designed for install use - the included mounting brackets and double sided tape are the giveaway. Yes, you can stick the KZ10 up with tape. The Kobra Bass module has an NL4 connector, but the KZ10 just has solder/screw terminals. Presumably they didn't include the Speakon connector as it would triple the size of the speaker.

I stacked the Lyzard up against a studio monitor for comparison. Perhaps not a fair comparison, but I wanted to hear how the projection worked. They didn't sound the same, but then again I wasn't expecting them to. The nearfield monitor sounded nice up close, but moving several metres away the Lyzard worked a lot better. At 6-8m listening distance the Lyzard system still sounded nice. The bass module doesn't go down real low - I reckon it rolls off closer to 80Hz than 60. But it sounds nice. The website says this system suits "restaurants, bars and museums" - and it would. Anywhere you need inconspicuous installed audio the Lyzard would work. Up close (<1m) Lyzard starts to sound a bit harsh, but since you're unlikely to install it next to anyone's head this is

pretty inconsequential.

Coverage of the KZ10 is stated as 140 by 20 degrees, and while there is a good degree of directionality evident, it doesn't quite have the same refined pattern control of its larger K-Array counterparts. The physics of achieving complex pattern control on something this tiny are mind bending, and the reality is that it sounds good over a distance so all this is largely elementary anyway.

I plugged in a mic and talked through the system - vocal reproduction is really good on this speaker and it would work well in paging applications as well as musical ones. The winning way to use this system would be lots of it - the Lyzard would make a really nice distributed sound system. It's definitely not one of the loudest things around, but it might be one of the coolest.

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What and Where

Brand: K-Array

Model: Lyzard / Kobra

RRP:

- KZ10 Line array element - \$546,
- KKS50 Kobra Bass - \$1588,
- KA10-10 Amp - \$4056.

All prices inc GST.

Product Info:

<http://k-array.net>

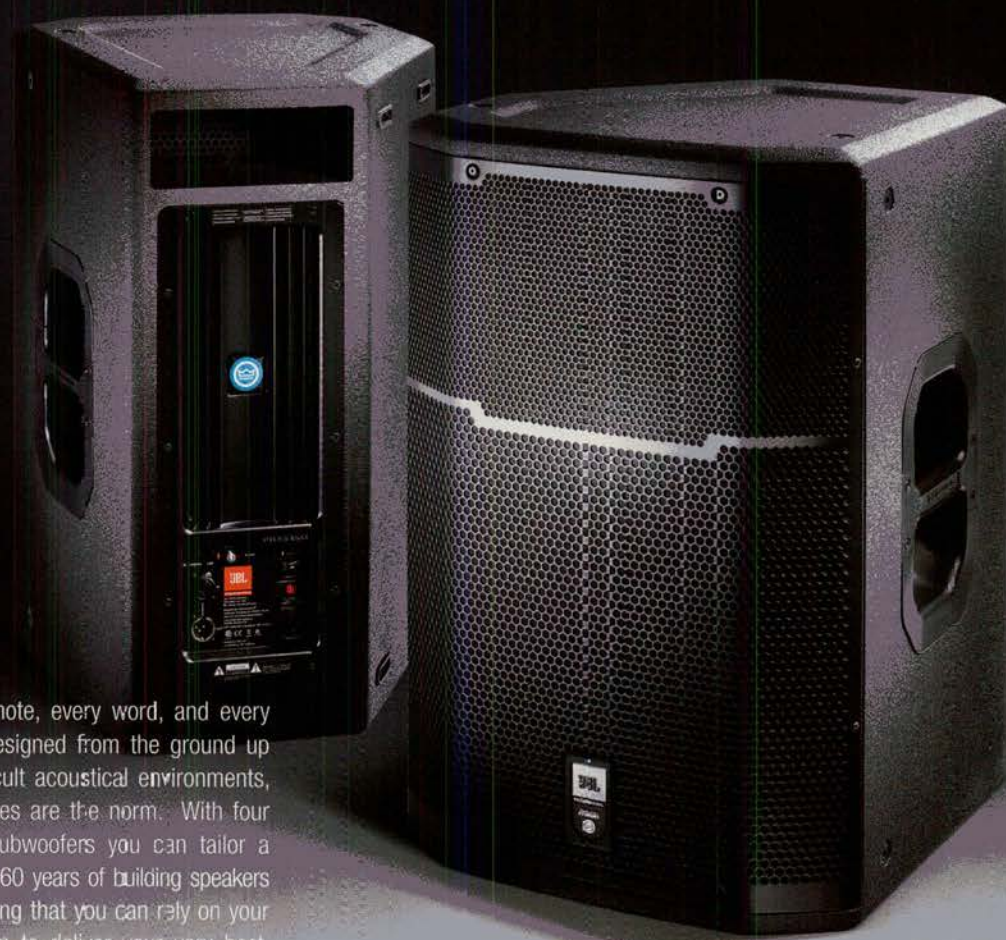
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ROLAND VR-5 AV MIXER & RECORDER

So long as you have a nice strong basket, it's okay to put all your eggs into it.



By Jimmy Den-Ouden

The VR-5 is modestly touted as an "AV Mixer", but really it's a lot more than that. It represents something of an amalgamation of several technologies Roland have mastered over the past few years. Looking at the device it's quite compact - smaller than its distant cousin the V-440HD and a bit lighter too. There's an external power supply and the unit switches between PAL and NTSC, so traveling it internationally isn't a drama. The surface comprises faders and buttons, all orbiting around two central touch screens. The important buttons are big; the less important ones are small. Just how it should be.

What does the VR-5 do that's so great? Lots... First up, it's a video mixer which accommodates 3x composite or S-video sources, plus a PC input. Composite goes in on BNC connectors as all good composite video should, and there's an HD15 D-sub for PC input. Each of these sources has a corresponding audio input - unbalanced RCA for the video sources and 3.5mm mini-jack for the PC. There's a fader level control for each source, and you can choose to turn AFV (audio follows video) on or off. Video outputs from the device as composite / S-video as well as HDMI. The only vaguely annoying omission is loop-through outputs for the video input connectors. Balanced XLR and unbalanced RCA sockets provide audio output, which is also

embedded in the HDMI signal.

So straight off the bat, you can switch between multiple video sources and have an output which will work on any decent projector or flat screen (Remembering HDMI has some distance limitations). The switching setup is quite intuitive - there's a large key for each input. You can mix, cut or even use one of eight wipe patterns. The left screen can function as a setup menu display, media browser (more on that later), or a 4 way/PC preview screen. In preview mode you can just tap an image to put it to line. There's even tally in the form of a red border around the active video source(s). Picture in picture (PIP) is simple; just choose a "sub-source" from the keys to the right of the audio faders. You can also choose to do a two-way box, which the unit will do by centre-cutting each image and then stacking them adjacent to each other. There are other two way box options available in the setup menu, and if you don't like the PIP location you can just drag it somewhere else using the main output touch screen.

More media options

The fourth video source option is the internal media player, which runs off an SD card (slotted in the front face of the mixer). You can also plug a USB drive into the slot on top of the mixer with additional content, and the media player can record the output of the mixer as well (it can't do both simultaneously). I'd probably load some test patterns into the

player so I could use it for projector line-ups. Browsing content is done via the left preview touch screen and there are hard buttons to instantly access the selection of audio, video or picture files. The HDMI port can be switched to show the 4 way preview display, so you needn't lose this while searching for media.

Selecting the computer input overrides whatever video source is currently active, and you can also do luminance and chrominance keys between various sources. So for example, you can film an interview on a chroma key blue set, then drop a different background in behind from the PC or media player inputs. A pair of balanced XLR inputs with optional phantom power, mic/line gain and individual faders complete the picture in this application. Each channel can be panned left, right or mono. Setup functions provide a good array of audio output options to make the final signal more transmission friendly. There's even an assignable headphone socket.

The VR-5 hits the video conferencing mark solidly, with in-built USB audio and video device compliance. We tested this by plugging it into a Mac running Skype, and it showed up as an available video and audio source straight away - we didn't even install any drivers. One little point was that the image was flipped - perhaps some kind of hangover from using the internal webcam on the laptop. I think it's more a software thing than a problem with the VR-5. Video quality was great on all outputs.

You need to use a USB A to USB A type lead and plug in on top of the mixer to interface it to a computer, which is a shame since it slightly mars the otherwise beautiful appearance of the device. A better option would be a USB B type socket on the back - even just wired in parallel with the other port. USB A to B is an easier cable to source and it would look tidier.

It's clear that lots of thought has gone into the design of the mixer and user interface. It has the capacity to replace at least 4 devices in a rack making for lower technological impact on gigs. We figured out everything we wanted to know about the machine in about 15 minutes. This is part of why it works so well - it's easy. Little things have been thought of, like a frame adjustable lip-sync delay. The VR-5 will fit in very comfortably in corporate environments where multiple cameras, PC and media playback are required for video conferencing. It would be equally at home in a church for instance, where services could be live streamed to the internet and at the same time fed to a big-screen. We think it's a winner.

CX



USB Audio & Video Compliant



Dual touch screens



All the right connectors

What and Where

Brand: Roland

Model: VR-5

RRP: \$7495

Product Info:

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MYMIX PERSONAL MONITORING SYSTEM

myMix is a new player in the personal monitoring arena - we took a look and a listen.



By Jimmy Den-Ouden

myMix is a bit like the Borg from Star Trek in that it sort of has a collective consciousness. Sounds weird, but it works.

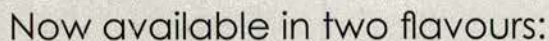
The myMix personal mixer station looks like a decadent MP3 after 6 days in the gym. The focal point of the unit is the large and very bright LCD screen, below which sits a backlit rotary encoder. The screen isn't a touchscreen - there are 4 buttons to the right which allow you to navigate the various options in conjunction with the encoder. A main mute button sits below to the left, and a record button to the right. There's an SD card slot on the right side and a 3.5mm headphone socket on the left.

The back panel comprises a power socket and switch, an RJ45 ethernet port, a pair of TRS output connectors and two combination XLR/TRS input sockets. The power input has no strain relief, but since the system will run off a POE Ethernet switch it's basically a redundant connector - good for standalone mode. Notionally any decent managed POE switch will do, but there are a couple of Cisco units which are recommended by myMix.

myMix runs on a collective audio data bus. Each unit can inject up to 2 signals into the bus and access up to 16 channels to generate a mix. Not the same 16 channels either - the bus supports more than this so each user can have different stuff. Each mixer unit can be given a name, as can each of its inputs. Inputs can be stereo linked too. Once an



Continued Page 54 ----->



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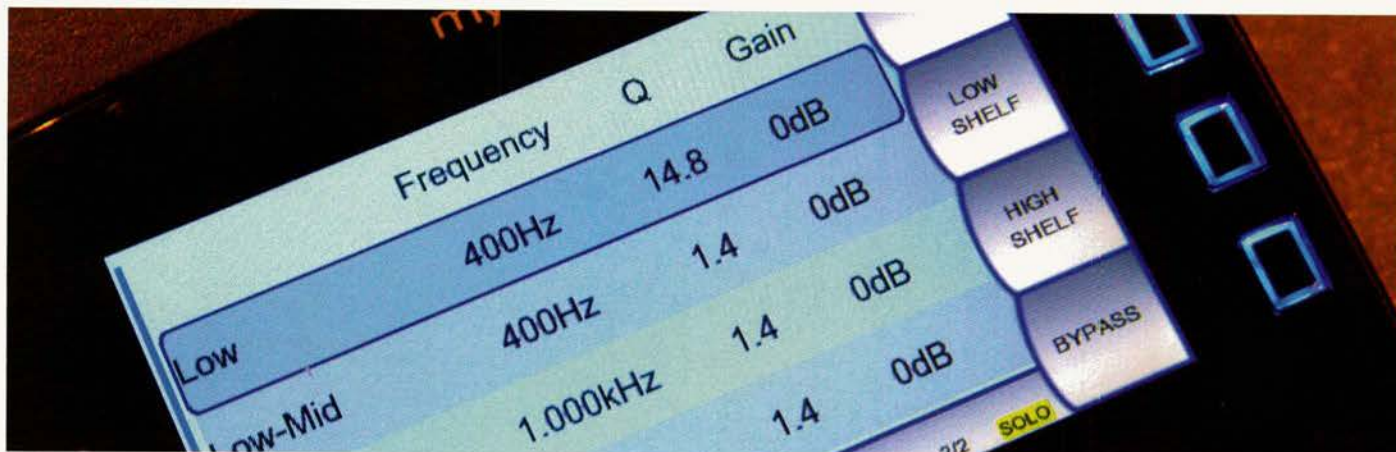
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Continued From Page 52

input is enabled and given a name, it's available to all mixers on the network. Once your inputs are setup, it's time to select which 16 channels you want on your personal mixer - this is just another setup function done via the nav wheel and on screen menu.

The main thing users will be interested in is of course how to generate a mix. It's pretty easy - from the main screen dial the nav wheel until you land on the channel you want, then press the wheel inward. This brings up the channel parameters, defaulting to volume. The side buttons allow adjustments to pan, tone and effect send level as well as providing mute and solo options. Soloing a channel allows you to hear it with the effect applied. Effect is selected in the setup page and ranges from small room to large hall, as well as basic delay.

Want more inputs?

Or do you want all your inputs in one place? No problem - bring on the

IEX-16L input expander. This device allows up to 16 channels of line level audio to be input to the audio data bus. The IEX-16L looks really boring from the front - there aren't even any buttons. That's because it can be configured from any of the myMix personal mixer units - don't fret though, there's a password lock option to prevent unwanted changes mid-show.

The back panel looks equally, er, functional. Power input is via a DC socket and 2x 25 pin D-sub connectors provide audio input in standard Tascam 25 pin configuration. Adjacent odd/even channels can be paired.

Now the downside: the inputs will accept mic or line level happily, however there's no hi impedance option to connect for instance, a guitar directly into the unit. myMix state this is because they find most guitarists will want to use an amp, or amp simulator but it would be handy to be able to plug in a straight acoustic guitar without needing this. A keyboard will work fine. A digital mixer card input option for the

system would be a really cool option.

Each myMix unit can make an 18 channel multitrack recording straight onto an SD card. You get whatever 16 channels you have selected on the mixer plus the stereo mixed output. You can also play this back, remix it in the unit, and even play along using the unit's inputs.

Ultimately, myMix has a lot going for it. The power over Ethernet makes life simple, configuration is straightforward and the price is right. It even includes an adapter plate to mount the myMix unit directly onto a mic stand.



What and Where

Brand: MyMix
Model: myMix Personal Mixer
RRP: myMix personal mixer - \$849.00, IEX-16L - \$1699.00

Product Info:
<http://mymixaudio.com>

Distributor:
<http://nationalaudio.com.au>



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TC ELECTRONIC IMPACT TWIN

TC Electronic make more than just outboard gear - we took a look at one of their latest products.



By Jimmy Den-Ouden

Many readers will be familiar with the TC range of outboard processing such as the M-One, D-Two and the classic 2290. What they may not realise is that TC Electronic make more than just boxes with rack ears. The Impact Twin is a Firewire audio interface compatible with Mac and PC, designed to work in several different applications. It makes a high quality audio bridge for use in small studios, or you can re-configure it to take it on the road for mobile recording. It operates 24 bit at up to 192kHz, so is likely to please the fussiest of bit-heads.

The front panel is populated by a range of pots, encoders and connectors. Inputs 1 + 2 are on Neutrik combination XLR/TRS jacks, with gain controls adjacent. Phantom power can be applied simultaneously to both channels. There's also a PAD/INST selector for each of the front inputs. Next up is a rotary encoder and button which allow adjustment of compression and reverb parameters. Finally the output level and monitoring buttons sit next to a pair of headphone sockets.

Around the back is the power switch and supply connector. The Impact Twin isn't bus powered; presumably the amount of internal processing requires more juice than the humble Firewire port can deliver. A pair

of FW400 connectors allow input and loop through to other devices, and using the included adapter the Impact Twin can run on a FW800 bus. Next to these are a pair of optical ports which can run in either TOSLINK or ADAT mode, allowing up to 8 channels of digital I/O. Another 2 channels are supplied on RCA S/PDIF inputs and outputs. 4x TRS input jacks and 4x TRS output jacks complete the analogue I/O side of the device. All up the device is 14 in and 14 out. There are also MIDI ports which will be more valuable to some users than others.

Get a Route

The Impact Twin is supplied with Ableton Live Lite 8, which is good,



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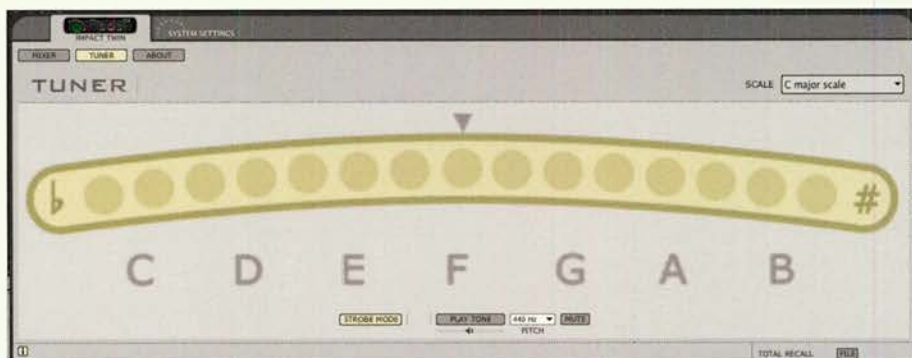
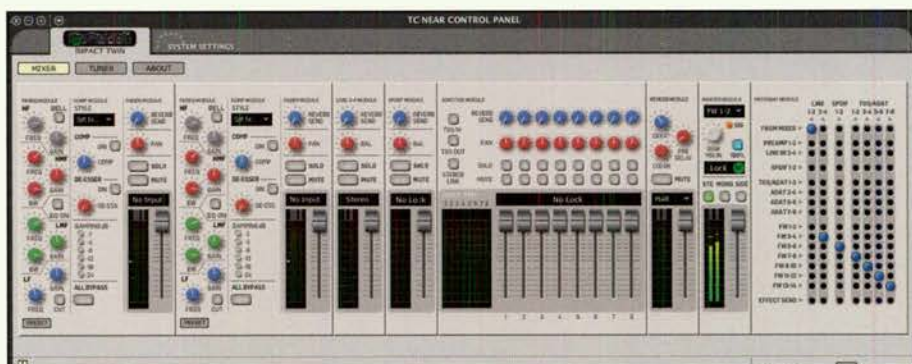
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though I tested the unit on my existing DAW setup. The device itself requires driver installation, and while these are supplied on a DVD in the box it's advisable to get the latest version from the website. Upon running the "TC Near" software I discovered a firmware update was available for the device, so I installed it. Quick and painless. The TC Near control panel has 3 tabs - one is just an "about", one is a tuner (a nice little "value added" inclusion), and the third and main is the mixer.

The software has some presets which allow the device to be quickly re-configured for mobile recording, live performance or studio use. You can save your own presets too. Inside the software mixer are input parameters for each channel on the front panel - level, 4 band EQ including 2 parametrics, compressor, de-esser pan and reverb send level. All processing can be bypassed. Level controls, pan and reverb sends for line inputs are next, including S/PDIF and ADAT modules. Adjacent to these is a reverb return level and master module. It's almost like looking at a mixer - if your mixer has a patchbay at one end. The mixer is really about monitoring - other

routing happens via the patchbay. It's simple, elegant software which works well - just like the device.

The Impact Twin is quite heavy for what it is - I've used interfaces which are far lighter. The line lump power supply is a bit of a hassle, but if you're already carrying the interface itself it won't make much difference. I'd like to see a cable strain relief on the power connector if using the device for a live application. Then again, guitar pedals are often held together with far less and weigh less too.

The mic pre-amps are good, and the SIDE monitor mode is really cool. It seems to be some kind of subtractive mix, and it shows up all sorts of stuff you can't normally hear. I listened to some streaming audio and heard all kinds of nasty compression artifacts I previously had no idea were there. You hear more on the Impact Twin than you expect. It's not the cheapest interface around by a long shot, but this price difference is evident in the quality and feature set of the device.

α

What and Where

Brand: TC Electronic

Model: Impact Twin

RRP: \$799.00 inc GST

Product Info:
<http://tcelectronic.com>

Distributor:
<http://ambertech.com.au>

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KME VL750

The once humble active loudspeaker has made some significant advances over the past few years.

By Jimmy Den-Ouden



KME is a German manufacturer who specializes in loudspeakers and amplifiers. The VL750 is both of these in one box. It's a two way active loudspeaker, internally bi-amplified and DSP controlled. It weighs in at 21kg.

The VL750 comprises a 12" LF driver and a 1" HF driver, coupled to an 80 by 60 degree waveguide. The dual class D amplifiers output 600W and 150W RMS respectively to the low and high frequency components.

This is one of the most advanced self powered speakers to hit the market, especially in the price bracket within which it sits. The amplification is only one side of the unit - the internal DSP is the other.

The blue backlit LCD display allows the user to control a host of parameters relating to speaker operation. Adjacent to the display are the input and loop through sockets (XLR), which not only accept analogue line level audio but also AES digital. This kind of makes sense when you think about it - if you're processing in digital inside the speaker and originating from an AES source to start with, AES input allows you to remove one set of D2A and A2D conversions from your signal chain. There's also a lockable input attenuator and a set of menu navigation keys. Power is via PowerCon with loop through, and there are flying options available.

Different presets can be recalled on the internal DSP and these modify EQ, roll-off and even delay. The internal delay means the VL750 can be used as a delay stack with no extra processing required - it even allows you to set delay in metres, thus simplifying the process. Menu navigation is really easy - you don't need the handbook to figure it out. Some of the parameters are

a little unclear, but most people will probably just recall one of the factory presets and leave it at that. The "full" and "linear" presets sounded much the same to me. The "monitor" preset seemed to shift the LF roll-off up a bit higher, and this gives the amp more breathing room and ultimately lets you get more level out of it in the useful frequency range. Maximum rated SPL on the spec is 128dB.

Out of the box

I took delivery of a pair of VL750s and had a cursory listen to some music at low level. The specified frequency response is 55Hz - 19kHz, but there's no info given as to whether this is flat or plus/minus x dB. I think it might be the latter - the VL750 will get down to the low 60 Hz area but not without some prodding. My ears say it's comfortable down to 80ish, below this response falls off pretty rapidly. This is actually fair - remember it's only a 12" driver. The unit would handle FOH duties for a straight up vocal/acoustic gig easily, but for anything bigger I'd definitely want a sub.

Straight out of the box the VL750 works well as a wedge. If you possess the requisite torx screwdriver bits you can rotate the horn to maintain correct dispersion, though 80 by 60 would be relatively forgiving even if you neglected to do this. I probably wouldn't bother. I plugged a common vocal mic into a mixer, connected this up to the speaker, and turned up the level. The vocal reproduction was smooth, and the EQ was bang on for feedback rejection. I managed to hit the amp limiter without making it feed back. This is a seriously valuable point for smaller PA companies and musicians alike - the

VL750 would be extremely forgiving of inexperienced operators.

Bang for buck

It's hard not to initially feel like the VL750 is a bit underpowered, but then you need to compare apples with apples. The wooden construction gives the cabinet the appearance of a speaker box from a much higher price bracket. In my head I keep comparing it to a 15", because it feels like one. Next to units in its own price bracket the VL750 stands up pretty well. It doesn't quite have the bollocking low-end brutality of some of the bigger plastic 15" cabs, but then it requires no EQ to sound usable, a far less simple claim to make. I really like the mid-range on this cabinet - vocals just sound like vocals. The unit doesn't exhibit the "mid-hole" and "super-sibilance" which seems to have become the fashion for some speakers.

The VL750 will never work on a concert stage - it sounds really nice, but it's simply not loud enough. Where it will work is on small acoustic gigs, corporate AV shows and theatre. It's just a guess, but I reckon there are more of these gigs, which means the future for KME looks bright.

α

What and Where

Brand: KME

Model: VL750

RRP: \$2500 plus GST each

Product Info:

<http://www.kme-sound.de>

Distributor:

<http://proaudiotechnology.com.au>

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ROBE ROBIN 600 LED WASH

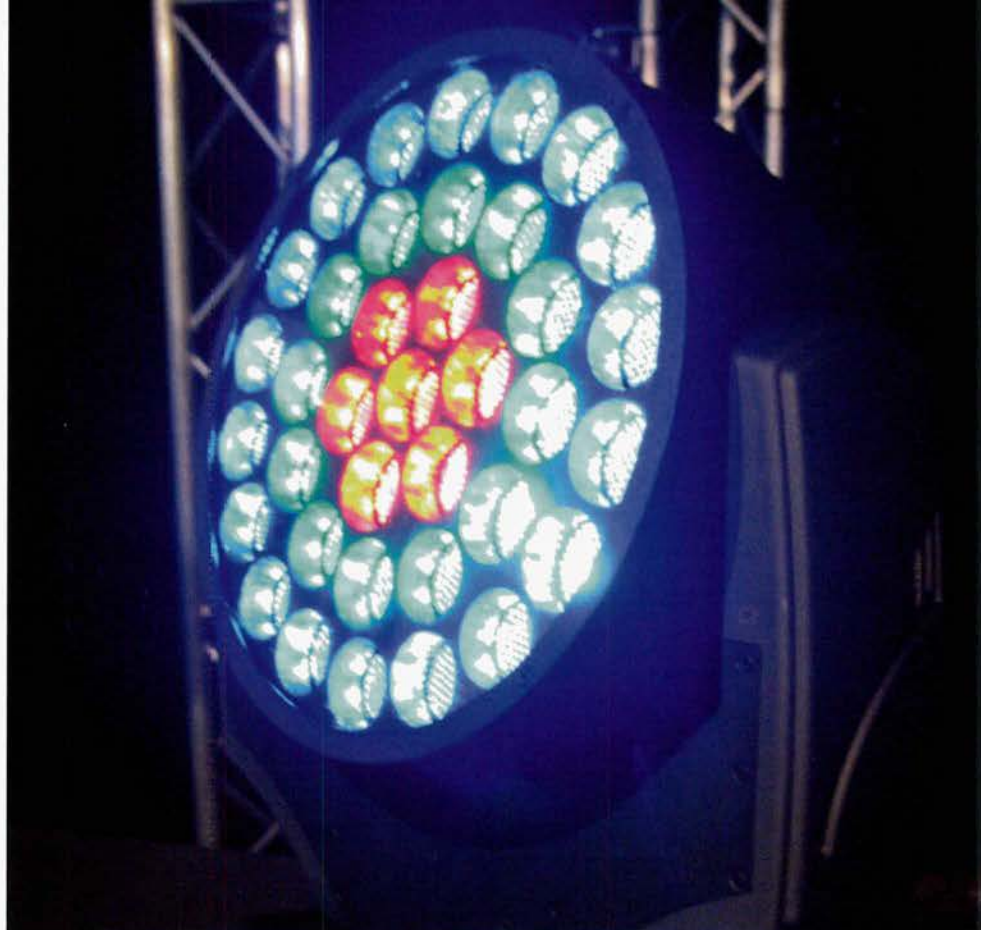
By Jimmy Den-Ouden

The Robin 600 arrived on our doorstep in a rather solid roadcase. We've observed previously that Robe seem to take casing their gear very seriously. Despite weighing only 10kg (seriously lightweight), the fixture basically doubles in weight once cased. Still, the case has a retractable handle and wheels, which make it easy to drag about the place single handedly. So that's the case - built like a tank as usual.

Now the fixture itself. Josef Valchar (CEO of ROBE) explained to me some time ago that "Robin" is short for Robe Innovation, and the 600 LED wash seems a good example of this. It comprises 37x 10W RGBW LED modules constructed into a moving head fixture. The modules are arranged in concentric rings, with each ring individually controllable. This means you can use it not only to light stuff up, but also as an interesting visual effect in itself.

Pan and tilt are 450 and 300 degrees respectively, and it's seriously fast. It's quiet too - we fired it up in the studio and the noise floor was negligible. Dual cooling fans are integrated, and they only run when they need to. Maintenance is a simple affair - basically just keep it really clean.

The unit requires anything from 11 to 37 DMX channels to operate, and other control protocols supported include USITT DMX 512, RDM, ArtNet, MANet, and MANet2. Interfacing is via 3 or 5 pin XLR or EtherCon and setup is easy with the RNS (Robe Navigation System) touch screen. Much better than the navigation wheel seen on previous models, though perhaps not as resistant to knocks. If it's in the case it shouldn't matter. A nice side note is that it's possible to navigate the menu using hard buttons adjacent to the touchscreen, so even if the screen goes pear you can still setup the fixture. It's also RDM compliant so there's a third setup option.



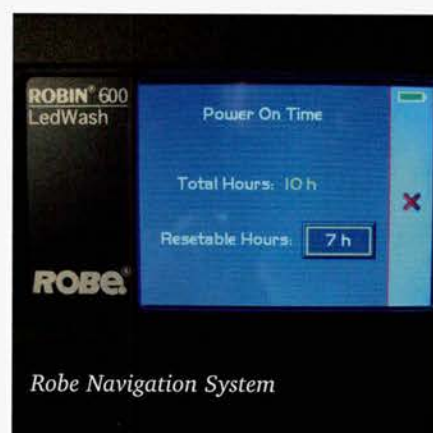
Beam me up

The beam is adjustable between 15 and 60 degrees using the integrated motorized zoom. The zoom is super fast and the beam remains pretty flat across the entire range. It's also very quiet. It's pretty obvious the fixture has been designed to hit the broadcast market as much as live performance. Further evidence of this lies in the colour temperature control - it's critical to get this right in video applications. Robe have made this very easy with the 600 LED Wash - there are preset colour temperatures (2700K, 3200K, 4200K, 5600K and 8000K) which can be recalled as macros within the fixture. You could actually do a very decent job of lighting a set or person for TV using a bunch of these fixtures - not really something which could be said of many LED units on the market.

Theatre mode reduces pan speed from 2.1 to 3.4 seconds and tilt from 1.1 to 2.5 seconds - presumably this is a noise control thing. I didn't find noise level to be much of a problem even in standard mode. At just over 10kg weight and a bit under 4A power consumption there are a lot of places the 600 LED Wash could be used. Especially in great quantity - less weight means you can rig more of them. The concentric rings can be colour controlled individually to create some cool looks - individual zoom on each ring would have been nice touch but probably an engineering nightmare.

Another point worthy of mention is the very good manual and comprehensive on-line resources relating to the unit. Life expectancy on the LEDs is around 50,000 hours.

The output of the fixture is really

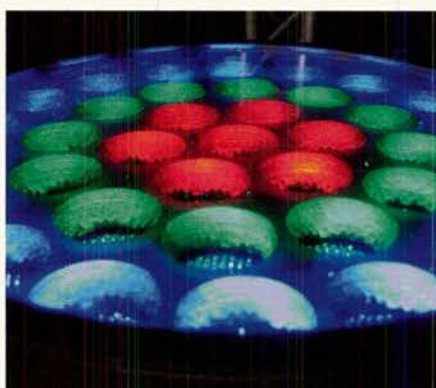




Seriously light light

nice - solid rich colours which pack serious punch. It's really hard to take a photo which shows the output of the fixture at the same time as illustrating the actual unit itself. On the other hand, dropping it into 11 channel mode it would be really easy to create a decent looking live light show using a handful of these fixtures. It wouldn't take very long either. Maybe I've been playing with too many media servers and data projectors, but this all just seems really easy. I like it. I like that I can lift it on one finger. While it's on. The 600 LED Wash is how LED lighting should be. It certainly isn't cheap, but as someone I know says "I can't afford to buy cheap gear".

α



What and Where

Brand: Robe

Model: Robe 600 LED Wash

RRP: \$7650.00 ex GST (not including flight case)

Product Info:

<http://robe.cz>

Distributor:

<http://ulagroup.com>



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10 Things Every Stagehand Should Know About Computer Networking



By Richard Cadena

“I got in this business so I wouldn't have to read.”

- from the television show "King of Queens," spoken by the character Doug Heffernan (a delivery truck driver) when he was told to read a booklet in preparation to take a test at his place of employment -

In 1965, Intel co-founder Gordon Moore predicted that computers would double in power approximately every two years. His prediction became known as Moore's law. Later on, Intel CEO Andy Grove coined his own law, with his tongue planted firmly in cheek, predicting that networking speed would double every 100 years. Grove was lamenting the fact that, at the time, networking speed had not kept up with computer power.

That was then.

Today, computer network technology has improved to the point where we are able to transport huge amounts of data over copper, wire, and fiber. That's why we can stream videos to our laptops using Netflix and Hulu, and why new televisions can connect to the internet. It's also why the live event production industry is being inundated with network technology. You can hardly swing a disconnect switch by its feeder tails without hitting a network-connected console, media server, or computer. If we're going to be in this business for long we had better get comfy with the technology.

The Ubiquitous Computer Network

The first time I ever heard the term "DMX universe" was in the early 1990s. Until then, 512 slots of DMX was plenty. Then things got more interesting.

As automated lighting grew more complex and full-featured it started chewing up more DMX slots. At the same time, lighting rigs were expanding. What was once considered a "large" lighting rig was dwarfed by the Michael Jacksons and Britney Spears rigs of the world. Then along came media servers and LEDs, and suddenly the industry realized that if we didn't want to be running wads of DMX cables from FOH to dimmer beach or to the dimmer closet then we had better come up with a better solution. That solution was right under our collective noses, in our homes and offices, courtesy of the computer industry, and it was the computer network.

Now when you go to a show, you need only sniff the air and you'll find it's teeming with 802.11, 802.3, TCP/IP, and Ethernet. But what does it all mean?

1. TCP/IP: TCP/IP is a suite of communications protocols including transmission control protocol and internet protocol that is commonly used for computer networking. Most entertainment networks, including the ones used with most lighting and automation consoles like Art-Net, ETCNet, StrandNet, etc., are TCP/IP-based networks.

2. Ethernet and Wifi: Ethernet is one of the physical embodiments of TCP/IP networks and Wifi is another. These are standards that describe the infrastructure of a network, like the cable type or the transmission frequency. Ethernet and Wifi are two of the most common types of

networks in the live event production industry. They are borrowed from the computer industry so that we can use the same hardware we use with our networks at home and in our offices.

3. IEEE 802.3 and 802.11: Technically, Ethernet is a standard called IEEE 802.3. It was originally developed by Xerox, Digital Equipment Corporation (DEC), and Intel from 1973 to 1975 and it was formally standardized in 1985 by the Institute of Electrical and Electronic Engineers. Wifi is IEEE 802.11, which is the standard for wirelessly transmitting TCP/IP-based networks.

4. Ethernet, Fast Ethernet, Gigabit Ethernet: Several different flavors of Ethernet have been developed over the years based on the speed of transmission. The earliest has a transmission rate or "baud" rate of 10 megabits per second (Mbps). Later on when cabling and networking techniques were improved another standard was developed called "Fast Ethernet," which runs at 100 Mbps. Still later, a standard called "Gigabit Ethernet" came along, which runs at 1000 Mbps or 1 Gbps, and today we have 10 Gbps and 40 Gbps Ethernet. Someday we'll have 100 Gbps and 1000 Gbps, or Terrabit Ethernet. (Did I really just say that? Terrabit per second? Wow!)

5. 8-Pin 8-Conductor, a.k.a. RJ45 Connectors: These different types of Ethernet use the same connectors and similar cable. The connectors are technically 8-pin 8-conductor (8P8C) connectors but you know them as RJ45 connectors, those clear plastic connectors with the little plastic tab that breaks off at the mere thought of taking one on any touring show. I was once on a tour where the production company sent these to connect a laptop at the front of house to DL2s on stage. They

lasted exactly one load out and then it was run the cable, connect to the DL2s, gaff tape it in place. For that reason, manufacturers have developed "ruggedized" connectors that look like a regular 8P8C connector with an XLR outer shell and ruggedized cable, which looks much like DMX cable. Much better.

6. Cat 5, Cat 5e, Cat 6, and Beyond: The cables are standardized according to categories. You may have heard of Cat 5 cable, which used to be the most common type of twisted pair networking cable around. Today, Cat 5 is hard to find and it has being replaced by Cat 5e and Cat 6 cable. These are different categories of cable as defined by the Telecommunications Industry Association. Cat 5 cable can be used for Fast Ethernet networks while Cat 5e and Cat 6 cable can be used for Gigabit Ethernet.

7. Collision Domains: Networks run fastest when there is little traffic on the wires; that's why the internet slows down at your house when everyone in your neighborhood comes home from work and jumps online. Limiting traffic on a network helps maintain its maximum speed and there are devices that help accomplish this feat. It's done by physically segmenting networks with routers, switches, and bridges.

8. Routers, Switches, and Bridges: A bridge is a single input, single output device that filters data on a network to reduce traffic. It does this by only passing data intended for a computer in the network as indicated by the media access control (MAC) address, which is a sort of electronic serial number programmed into each computer. A bridge divides a network in two parts; the part before the bridge and the part after the bridge. A switch also filters data according to the destination MAC address, except it is a single input, multiple output device. It only sends data to the output link on which the matching computer is located by physically connecting the input and the output port. A router also filters data on a network except there is no physical switching. Instead, data is routed to the correct computer with software using the IP address of the destination computer.

9. IP Address: Since you asked, an IP address is kind of like a street address on an envelope; it's a number that helps data find its intended destination, except an IP address is usually temporary. Most computers currently use version 4 IP addressing, which is a 32-bit number, but there are so many internet appliances today that we are quickly running out of addresses. Version 6 IP addressing uses 128 bits and it will soon be more common than IPv4.

The more astute among you will note that mention was made of 10 things that every stagehand should know about computer networks, yet only nine of them appear in this list. The last thing, and perhaps most important thing that every stagehand should know about computer networks is...drum roll please...where to find more information about them. One of my favorite networking primers is "Rock Solid Ethernet" by Wayne Howell.

Like Doug Heffernan, a lot of us got into this industry so we wouldn't have to read. And a lot of us have been displaced from this industry because we chose not to read much. Don't be a Heffernan.

α

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"Make that half a song," says Biffa.

"Hey, this guys wants us to stop playing," yells the lead singer, pointing at Biffa "What an arsehole, eh?"

Biffa shrugs his shoulders and walks off to let the headliners know the news, figuring it's a lose-lose situation and not worth the brain damage.

The headline band comes on eventually, and after checking everything on stage, Biffa walks down to the Front of House console.

The band goes down really well with the crowd, and after the set Biffa joins them in the band room for a PGR (post-gig rap).

The support band is also in there, greasing up to the headliners in an attempt to score more gigs with them. As Biffa walks in, the singer, who was half in the bag before but is now as pissed as a newt, calls out

"Hey, here's that f**kin' arsehole who tried to stop us playing!" and proceeds to call Biffa every name under the sun, liberally sprinkled with more expletives that have no place in a family magazine such as

towards Biffa's head. Biffa ducks to avoid it, and responds with a monster haymaker punch, still holding his can of VB. His fist and can collide with the singer's face, a king-hit that promptly lays him out flat on the floor. As the boxing commentators used to say 'Ah, the boy's suddenly lost interest'.

The room goes quiet, then the support band collectively make a bolt for the door, dragging their singer with them, blood pouring from his now broken nose.

Biffa picks up a new can of beer, takes a long swig, and goes over to

"Look," he says patiently, "You finish your set late, forcing us to cut short our set, you and your mates give me a hard time down at the console, and now this. Just what is your problem?"

Just as the band starts, there's a commotion behind him, and it's the support band and their cronies yelling abuse at him. Then the girlfriend of the singer starts up too.

Biffa turns around, puts his hands up in the air and says "Hey - that's enough, alright!" then turns his back on them. The rest of the audience turns to the support band and yells at them to shut the f**k up. Since there are many more in the audience than in the support band, they reluctantly accept this helpful advice and slink off to the bar.

this.

Biffa grabs a can of vitamin VB and wanders over to him.

"Look," he says patiently, "You finish your set late, forcing us to cut short our set, you and your mates give me a hard time down at the console, and now this. Just what is your problem?"

The support band singer glares at Biffa while his brain slowly takes in all these words, and then he snaps.

With a scream of "Yaaaaaargh!" he sends a drunken punch straight

the drummer of the headline band.

"Look, I'm sorry about that" he says. "I shouldn't have lost it the way I did."

The drummer looks at him with newfound admiration.

"Mate, that was AWESOME! Just fantastic! You de man, Biffa"

As Biffa told us the story, I said to him "Well, you're assured of keeping that gig, aren't you."

Col chimes in "Yes, and you can charge them more now - for mixing and for personal security!"

α



Duncan Fry



TIME GENTLEMEN PLEASE

© 2011 Duncan Fry

Bad boys brawling in band room blowup

Whenever you combine loud music plus people shaken and stirred together with copious amounts of alcohol, you're bound to get a degree of violence. People with diminished inhibitions and social skills pushing their way into the personal space of others in the same condition. Trouble brewing, you might say.

It's part and parcel of working in live music. A few connoisseurs of fine music slugging it out on the dance floor are part of the whole experience. Even more fun is a catfight in the girls' dunny, the combatants spilling out into the main room clutching at each others hair, the screams of "You bitch" cutting through the sound of the megawatt PA system without any trouble at all.

However, this is what I would term 'punter-to-punter' aggression, and by and large it doesn't affect band members at all. Rarely seen is 'punter-to-band' aggro, unless the band has gone out of their way to antagonise the crowd, in which case you, as the person mixing, are seen to be the nearest member of the band to pick on. A wise career move would be to resolve to never work with that band again! Stuck out there in the crowd right in the middle of it, you are a lone liferaft adrift in a sea of drunks, the multicore your only lifeline to sanity.

Still, despite doing more gigs than I've had hot dinners (..wait a minute, that's a lot of hot dinners!) I've never had quite the same experience as happened to a friend of mine the other night. Let's call him Biffa - not his real name, but close enough for

rock 'n' roll.

He popped into the factory to return a piece of gear he had been beta testing for us, and over a heartwarming cup of infamous ARX coffee, he told Col and I the following story.

He had a booking for a gig at an inner suburban club that had a non-negotiable curfew of 11pm, which means both the headline and support bands have very definite start and finish times which must be adhered to.

So, the support band is playing away on stage, and Biffa looks at his watch and sees it's 2 minutes to the end of their set. He goes over to the side of the stage and gets the lead singer's attention

"One more song" he says, indicating his watch.

The singer looks away and says to the audience "OK folks, we've got 2 more songs to play before we go..."



“Hey, this guys wants us to stop playing,” yells the lead singer, pointing at Biffa “What an arsehole, eh?”

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