



CX

MONTHLY TECH NEWS

AUDIO · LIGHTS · VIDEO · STAGING · INTEGRATION

**Margaret Court Arena
New Gigs, New PA**

CX105 JULY 2015 \$5.99

**Roadskills
Spandau Ballet
Human Nature
The Pretures**

**Medical Simulation Labs
Northern Health's Hi-Tech AV**

**Suits & Tech Collide
Understanding The Business**

GEARBOX REVIEWS: Martin MAC Quantum Profile • Meyer Sound CAL • Luminex GigaCore
• Vari*Lite VL4000 Spot • CTP Systems dBbox 2
CX NEWS: PSAV To Acquire Staging Connections • Hills Start To Rebuild • Presonus Shifts
• Case Co Sells Up • Hire Management Expands • Moves



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PR Lighting Introduces

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The new LED wash luminaire houses 7x20W LEDs (4 in 1 RGBW) and features a 6:1 zoom, from 7° to 42°. The seven cells of the XLED 3007 are individually controlled, with animation effect and endless rotation of both pan and tilt.



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Cover Image: THE PREATURES
Photographer: DANIEL BOUD



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EDITORIAL BY JULIUS GRAFTON

FUNNY MONEY

My feature this month started as a history of Ted Pretty's era at Hills, and somehow grew into a roundup of corporate stuff-ups since the late 1960's. Doubtless someone will remember some I have left out. No matter what your creative bent or role, money makes the world go around. When people who don't understand what we do come in and try to impose management theory, you get the outcomes in the story. Are we precious? Are we difficult? Are we unmanageable? Yes and no, and maybe.

AV MAG

We were sad to see founding editor of AV Mag, Andy Ciddor, leave the title last month. He put seven years into the magazine, and clearly had a firm handle on the industry for whom he wrote. It made me think how hard it would be to replace almost anyone here at CX. Talking about it the other day at our social club meeting in the public bar of the Willoughby Hotel, we decided no one person can be directly replaced. If someone departs, their job will inevitably be shared out, and everyone's roles will change. See item one, above. Are we precious?

HISTORY

I stumbled over one of Bob King's photos on Facebook and realised it was of a gig that I did in 1982. Bob had a series of shots, including the setup! It opened a massive window into my memory, and I've written a feature over on cxmagblog.com with all the relevant pictures. What's interesting is the obvious differences from the time - most clearly the equipment. There was no real definable workplace health and safety culture either, as the pictures prove.

MORE HISTORY

In the Blog, I talk about paying the crew cash in hand. The going rate in 1982 was \$40 a day or \$250 a week. Paying cash back then wasn't to avoid superannuation, because there was none. Workers Compensation existed but wasn't widely known. It was all about the cash economy as it existed - the vast majority of gigs were paid in cash. I would always have an envelope of cash in my case, and I would be banking most of it every week to buy more gear.

RELAUNCH TIME

As we head towards our 25th publishing anniversary since the first edition of Channels, then Connections after it, we are working on a relaunch for CX. Much will change, while much will stay the same. It's all focussed on you, and those of you who have been in our focus groups have helped shape the new CX. Thanks to all!

- Julius

PUBLISHERS PANEL

CX Magazine is published in Australia by Juliusmedia Group Pty Ltd (ACN 134170460)
under license from CX Network Pty Ltd (ACN 153165167)
Web: www.juliusmedia.com

LOCATIONS

SYDNEY OFFICE & STUDIO

Email: juliusmedia@me.com

Phone: +61 2 9638-5955

Mail: Locked Bag 30 Epping
NSW 1710 Australia

MELBOURNE OFFICE

Email: jason@juliusmedia.com

Phone: +61 407-735-920

PEOPLE

Publisher: Julius Grafton

Business manager: Steve James

Technical editor: Jimmy Den Ouden

AV editor: Jason Allen

Creative director: Lee Murray

Accounts: Emily Lim

Digital content editor: Jack McSweeney

Codger at large: Duncan Fry

Printer: Printed in Australia

CX-TV hosts: Meg MacIntosh,

Sophie Eshman

CX-TV is at www.cx-tv.com

Coffee Supplier: Rob Forsyth

Happy hour: Willoughby Hotel

Accountants:

Kieren Martin, Watkins Coffey Martin

Official airline: Virgin Australia

Lawyers:

Gibert + Tobin (Defamation),

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Up to five chassis and 10 receiver units can be linked and used simultaneously in a stable, easy to set up system featuring 24-bit/48 kHz operation, clear, natural sound quality and three levels of diversity assurance: frequency, time and space.

More info on System 10 PRO and Audio-Technica wireless? www.audio-technica.com.au

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NEWS

CX INDUSTRY NEWS



PSAV to acquire Staging Connections Long campaign finally pays off

Following five years of asset sales and consolidation, leading Australian events audiovisual supplier Staging Connections is set to be sold to US based firm PSAV.

Staging Connections Group Limited has entered a Scheme Implementation Agreement with PSAV under which PSAV would, subject to shareholder approval, acquire 100% of SCGL. The Scheme must be agreed by the shareholders and ratified by a court.

"This partnership will be truly an exciting next chapter for our company and team members. The board and management unanimously support the proposed transaction as it opens the door to broader technology offerings, resources and professional expertise. The agreement will provide the Staging Connections Group business with the capability to offer our clients an international solution to all their event needs and an improved offering domestically", CEO Tony Chamberlain told cheering staff.

Staging staff have endured years of consolidation after an ill-advised expansion drive that faltered in 2007 and led



IT ALL STARTED WITH SLIDES, WAY BACK WHEN

to the departure of former CEO Michael Gardner. The resulting debt mountain was slowly paid down by asset sales, but remained a burden.

PSAV's services include audiovisual support, as well as video mapping, creative services, digital support, stage design, production, rigging, power distribution, virtual meetings, simultaneous interpretation, internet and network support. PSAV employs more than 5,000 full-time crew in 1,400 destination resorts and hotels throughout the U.S., Canada, Caribbean, Mexico, Europe and the Middle East.

The firm was started in the 1980's, and

went on to be acquired by a private equity fund called Kelso & Company. In turn Kelso purchased a long established and smaller firm called Swank Audio Visuals, and now claim a 78 year heritage.

In 2013 Goldman Sachs took over PSAV for a reported US\$900 million. Adding Staging Connections will give the firm reach over Australia. "We will not be the poor cousins in this", Tony Chamberlain told CX. "PSAV have already seen things here that they can use elsewhere. It is very positive for the staff".

More on the 'growth through acquisition' strategy that hobbled Staging Connections, along with a slew of other examples.

See 'FUNNY MONEY' on page 36.





Hills start to rebuild Mistakes were made



PICTURED:
GRANT LOGAN

Hills Limited has entered a rebuilding phase with the abrupt departure of prickly CEO Edward ‘Ted’ Pretty last month. The tech firm now has two main lines of business; distribution of ICT, Security, and Audio Visual equipment to installers, and a projects arm serving the health tech industry.

As staff breathed a sigh of relief over the news, the Hills board said they had provided five million dollars in costs against due diligence for acquisitions that would not now proceed. It appears Ted had been burning up the miles lining up at least one offshore purchase relating to the health services portfolio.

Ten years ago Hills purchased Audio Telex Communications, at the time the best performing audio distribution company in Australia. They left it alone after renaming it Hills SVL, and manager Stuart Craig lifted the division to become one of the best inside of Hills.

Three years ago the board hired Ted Pretty and he directed Stuart Craig to sack staff and slash costs. Stuart did as he was told, then left – eventually heading Crestron Australia, which is now handling the most lucrative part of Hills SVL business. The loss of the lucrative Creston business earlier this year led to profit downgrade, which in turn slammed the share price. All completely foreseeable.

Last year Hills purchased Audio Products Group (APG) from Ken Dwyer, and didn’t listen to his suggestions on how to integrate the firm. Like many before him, he walked away. Ted Pretty had form, whilst at Telstra he presided over one of the largest single loss making deals in Australian corporate history, worth A\$3.4 billion at the time.

Hills customers complained loud and long when their reps were fired or driven out, replaced with a generic call centre staffed by innocents with no product knowledge. Wholesale destruction of brand value has driven away clients and suppliers alike. Staff went to the competition, and in at least one case started another firm – Audio Brands Australia, led by Don McConnell. The exodus of staff stopped around the time of the APG acquisition, except for some senior staff.

On the audio visual side, there are a lot of experienced and passionate people left in Hills.

Now former APG general manager Richard Neale, new head of sales for the Building Technologies Division (David Lenz) and newly promoted Hills CEO Grant Logan will work on improving service and performance. Staff morale has improved considerably, according to insiders. Whatever happens next cements the destiny of the firm.

FUNNY MONEY: WHAT HAPPENS WHEN SUITS BUY A BUSINESS THEY DON’T UNDERSTAND. A POTTED HISTORY OF SCREW-UPS, STARRING GUITAR CENTRE, STRAND, RANK, KLARION, SAMULESONS, BILLY HYDE, HILLS, AAV AND STAGING CONNECTIONS. SEE PAGE 36.



Presonus Shifts New Distributor is Link Audio

Presonus have been handled in Australia by NAS for some years, and last month they announced they would no longer represent the range.

Michael Jago’s new company Link Audio will handle all Presonus products, covering digital mixing, software, monitoring, preamps and processors, recording and live sound.

Included in the live sound offering is Worx Audio, which produce a wide range of top end line array and installation loudspeakers for pro audio. NAS were unable to represent this part of the Presonus offering due to their current representation of d&b audiotechnik. During their years handling Presonus, NAS won several awards for high performance as a distributor from Presonus.





Lid Closes Case Co Sells Up



For years Michael and Julie Malgo have built a huge variety of roadcases from their Chatswood factory. Now they are selling up, and the business represents a great opportunity for someone who is good on the tools.

They make custom cases for virtually anything, and specialize in welded cases which come in rigidised, stucco or diamond finishes. Samuelson have regular clients in film, TV, photographic, mining and medical industries.

Custom cases for unique applications keeps things interesting – last year they were asked to make two cases. One was for a male SIM (right) and the other for a female (and pregnant) SIM.

A SIM is a medical simulator, which is in effect a fake body. It weighs the same as an average male, or an average pregnant female. It contains plumbing for the purposes of injection or the taking of samples. Opening a case to find a SIM staring blankly up at you would be an unusual experience.

Michael says they have found a lot of competition from pre made Chinese cases, yet most of the cases they make are custom by nature. They have extensive capability with machinery for every occasion.

The Malgo's are selling out at a reasonable cost, and are just keen to see the business in new hands.

Have a look at their excellent website, at www.samuelsoncases.com.au and contact them here: admin@samuelsoncases.com.au or call 1300 554 600.

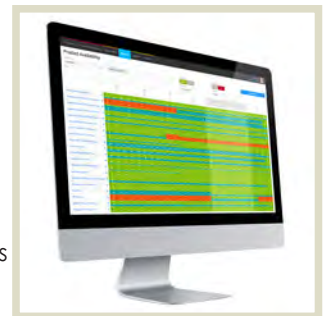


Hire Management Expands

Cloud hire management software, Current RMS, have partnered with leading Cloud accounting company Xero. The partnership allows Current RMS users to post invoices and credits into Xero, and for bidirectional customer contact sharing.

Current RMS lets users create jobs from enquiries; through to the quotation and order stage. It manages equipment availability, and can produce barcode labels.

The user interface uses icons, images and colour to help illustrate important information in a simple, easy to understand way. Since launch last year, Current RMS has over 350 user firms around the world.



www.current-rms.com

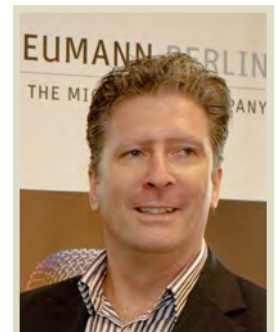


MOVES

Jono Perry has joined Sydney Theatre Company as Director, Technical and Production. He has spent recent years based in Brisbane, where he worked on technical production for Brisbane Festival, and the recent G20.



David Claringbold leaves Sydney Opera House in August, after nine years in senior technical roles. Most recently he was the Director of Theatre and Events. Previously he was the Technical Director, responsible for much of the recent infrastructure upgrades across audio and lighting.



NEWS CORRECTION In last month's CX, we incorrectly named Dave Croxton as the Australian distributor for KV2 Audio, when in fact his correct title is Global Sales Director. We also incorrectly described KV2's new VHD5.0 loudspeaker system with the specification of the older VHD2.0. VHD5.0 is driven by eight 10" speakers, six 8" speakers and two 4" compression drivers. CX Magazine apologises unreservedly for any confusion caused.

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EDITED BY JASON ALLEN



Soundcraft Si Impact

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

The 40-input **Soundcraft Si Impact** offers powerful live sound digital mixing with ViSi iPad control and built-in Stagebox connectivity for I/O expansion. In addition to its live sound components, the Si Impact has a 32-in/32-out USB recording and playback interface that provides easy multitrack recording and playback directly from a DAW, shipping with a free download of Ableton Live 9 Lite. The Si Impact provides 32 mic/line inputs, 40 DSP input channels (32 mono inputs and four stereo channels/returns) and 31 output busses (all with full DSP processing and GEQ) with 20 sub-group aux busses and four mono/stereo matrix busses. Eight XLR/quarter-inch combi-jacks are available for line inputs and instruments, while a 4-band fully parametric EQ is available for each channel and bus. The Si Impact also offers studio grade effects and dynamics from Soundcraft's sister companies BSS, Lexicon and dbx.

Martin RUSH Club Smoke Dual

The **Martin RUSH Club Smoke Dual** is based on the Magnum Club Smoke system. It is a multi-head system which utilises up to six heads across three zones via DMX or an on-board digital display. This feature allows the user to install either fog or haze heads, or a combination of both, using a specially formulated fluid. This means that fluid changeover is no longer required for the desired atmospheric effect. The separate base unit, which can be installed in a convenient remote location, contains a 10-litre fluid reservoir which will ensure continuous use throughout busy nights.



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

Clay Paky Scenius

Scenius is the new moving head spotlight at the top of the **Clay Paky** range. Its advanced optical unit and the new 1400W Osram discharge lamp provide a much higher light output than with previous generation 1500W lamps. Thanks to its wide 8°- 55° zoom, Scenius is perfect for every use: from large open air shows to TV studios or exhibitions. The zoom movements are so smooth and accurate they can be used as effects in their own right. A modern focus tracking system concentrates maximum luminous efficiency precisely on the effect you wish to project, and the focus may be set to be fully automatic. The new Osram lamp produces a 6000 K color temperature that does not vary over time; while users can count on a CRI=95. The lamp can be run in energy saver mode at 1,200 watts.

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



Meyer Sound Leopard and 900-LFC

The latest addition to the LEO family of **Meyer Sound** line array product, LEOPARD is the smallest and most versatile member, optimised to run with a hang of six or more elements per side. Each element consists of two 9" drivers and one 3" compression driver, measures 68cm x 28cm x 55 cm and weighs just 33.6 kg. It can be run as a standalone system or easily hung under other LEO family products as fill.

Released alongside LEOPARD, the 900-LFC brings the low-end control and impact of its larger sibling, 1100-LFC, to a compact package. The 900-LFC features one 18-inch dual-coil, long-excursion cone driver powered by a newly-designed class D amplifier which lowers distortion while reducing power consumption and operating temperature. In addition to pairing with LEOPARD systems, the 900-LFC integrates easily with other Meyer Sound loudspeaker systems, including LEO-M, LYON, and UltraSeries. The 900-LFC is available with or without Meyer Sound's QuickFly rigging.

Meyer Sound Compass Go

Combining the key functionalities of the Compass software and the simplicity and mobility of the iPad, Compass Go makes system setup and tuning much easier and more intuitive. Simply download the app for free from the Apple App Store, connect it to a **Meyer Sound**



Galileo or Galileo Callisto processor on the same Wi-Fi network, and you can adjust and control settings such as system delay, gain, and parametric EQ filter sets, as well as recall snapshots of prior user settings, create, edit, and store new snapshot settings in the individual processors, all while moving freely as you listen for the array coverage and quality from different seats.

Australian Distributor:
Meyer Sound Australia
www.meyersound.com.au
or 1800 463 937

Roland V-1200HD

The new **Roland V-1200HD** features a new 'hybrid' engine that combines a 4:2:2 / 2 M/E switcher with a 4:4:4/10-bit multi-format processor presentation switcher. M/E modes are selectable and a configurable bussing structure allows up to six video layers of composition and two independent auxiliary video outputs ideal for broadcast applications. The multi-format processor enables RGB 4:4:4/10-bit processing best suited for computer formats with full scaling that allows for splitting content across two screens. A 4K switching mode simulates a routing switcher by combining four SDI inputs or output to achieve a single 4K source. Installing the XI-SDI



expansion card enables 4K routing of up to three inputs and two outputs. The V-1200HD's 'hybrid' engine and affordable price point makes it ideal for many markets including broadcast, streaming, corporate events, worship, education, and production rental.

Australian Distributor:
Roland Corporation Australia
www.rolandcorp.com.au or (02) 9982 8266

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ETC
Source Four LED Fresnel Adapter

The **ETC** Source Four LED Fresnel adapter attaches to the front end of a Source Four LED Series 2 or Series 1 light engine, turning it into a superior washlight. Its highly-tuned optics help create smooth light with soft edges. Blending light evenly and uniformly from fixture to fixture, it allows barn-dooring and the addition of 7.5-inch accessories. The introduction of the Fresnel adapter also expands the practicality of the Source Four LED light engine; by adding an adapter, attachment or accessory, it can become a cyc light, a zoomable spotlight, a fixed-focus profile, or dozens of other fixture options.



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

Redback
A 4422



Redback have released the new A 4422 mixer designed for the commercial public address market. This new four channel model is based on Redback's flagship A 4425 eight channel mixer with individual bass and treble adjustments. The new model is aimed toward smaller commercial PA installs which still require the flexibility of individually tuned input sources. All four inputs are fitted with a four-way DIP switch for selection of options, including phantom power on/off, mic/aux input, 100mV/1V sensitivity and mic/aux operation of vox muting. Each input is equipped with dual stereo RCAs and mic input via screw terminal block. A balanced output is also provided via screw terminals.

Australian Distributor: Altronic
www.altronic.com.au
or 1300 797 007

ShowPro
LED HEX16 Strip



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

The **ShowPro** LED HEX16 Strip is a one metre long LED bar featuring 16 RGBWA-UV chips and a total power consumption of 160W, with the UV chips alone providing almost as much UV output as two 400 watt UV floods. With a beam angle 32 degrees and field angle of 36.9 degrees, this flexible LEDBAR allows you to flood almost any area with light, while mixing the broadest range of colours possible. Control is available in stand-alone or via 6, 8, 12, 96 or 101 channel DMX modes, both as master or slave.

Phonic
Wireless Microphone Systems

Phonic have announced three new wireless microphone systems, the single channel PR-800 (RRP \$299.95), dual channel PR-900 (RRP \$499.95) and dual channel plus AutoScan PCT-1000 (RRP \$649.95). Each system offers level switches allowing contouring of output signals to external devices, whether they be professional mixing consoles or consumer-grade



recording products. Operating between 606 and 631MHz, each model utilises UHF for maximum range and PLL-synthesized technology for RF stability. Both lavalier and headset options, plus different frequency ranges, will be available soon.

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



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- MEYER
- PHONIC
- REDBACK
- ROLAND
- SHOWPRO
- SOUNDCRAFT
- VOID ACOUSTICS

**Electro-Voice
EVID Ceiling Speakers**

Electro-Voice have added two new models to their popular EVID ceiling speaker range; the PC6.2 (6.5" two-way) and PC8.2 (8" two-way). Each self-contained unit features a dedicated compression driver for enhanced high-frequency performance and coverage control in comparison to current EVID ceiling speaker offerings. Simplified wiring and innovative new integrated mounting hardware allows for quicker installation into a wide range of ceiling cavities and construction formats. Both models add increased power handling (100 W), higher output (115 dB / 116 dB), and wider coverage angles (120° / 105°) complimenting the EVID range as a new, high-end option.



Australian Distributor:
Bosch Communications Systems
www.boschcommunications.com.au
or (02) 9683 4752

**Clay Paky
Spheriscan**

Clay Paky has leveraged the huge technological developments of recent years to "reinvent" the scanner and make it future-ready. The first scanner feature we all care about is definitely the speed of the mirror, and it is here that the Spheriscan is truly extraordinary: its pan rotation does not have an end-stop! Its mirror goes on turning endlessly beyond 360 degrees in both directions, which creates an absolutely original swirling effect. Its speed may be adjusted as desired and reach a maximum of 280 rpm, that is more than four revolutions per second. This speed is four times faster than the pan speed of an old scanner, and more than eight times as fast as the most lightweight moving heads.

The movements are ultra-precise with sixteen-bit control and may be slowed down linearly to a minimum speed of two revolutions per hour. The Spheriscan is without a doubt much more powerful and brighter than any of the other scanners that came before it, with a new 1,200 watt OSRAM lamp. The luminous efficacy of the light is extremely high at 85 lm/W.

Australian Distributor:
Show Technology
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**Ayrton
Dreampanel Shift**

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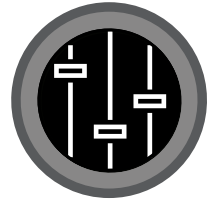
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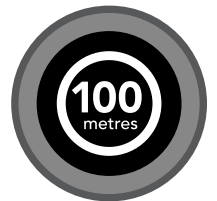
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MCA

Margaret Court Arena

John Alekna
of Marshall Day Acoustics

BY JASON ALLEN

Outside In

Margaret Court Arena, in Melbourne Park, started life in 1988 as an open air tennis court known as Show Court One. Thanks to the \$700 million Melbourne Park Masterplan, the outdoor court was brought inside with a retractable roof, just in time for the 2015 Australian Open, and renamed after the legendary Margaret Court, winner of more Grand Slam titles than any other tennis player in history. It now boasts a capacity of 7,500, and hosts not only tennis, basketball and netball, but a huge range of concerts by international and local touring acts.

Graham Alderman
of Australian Sound



Team Sport

A team involving NH Architecture, specialist stadia architects Populous and services consultant Aurecon got to work. The Melbourne-based office of Marshall Day Acoustics was contracted by Aurecon to work on the new sound system, which would need to accommodate a much broader range of duties to service Margaret Court's new capabilities. John Alekna, Associate at Marshall Day Acoustics, got down to the business of designing the new systems.

"Marshal Day Acoustics was engaged to provide room acoustic design, noise control to external areas and building services," said John. "Everything was being refurbished. There were new foyers, and lots of new infrastructure. Working with Aurecon, my role was sound system design; we were designing for public address. Their biggest event is the Australian Open, so it had to be clear and loud. It's a reverberant space; we measured a time of 1.5 seconds when it was empty, so it required a loudspeaker system with good pattern control. We chose the Electro-Voice EVH system, which exhibits good control down to 500Hz due to its horn-loaded design."



"We were limited by load on the gantry because of the retractable roof and a counterweighted Spidercam system."
- John Alekna

In The Zone

With as many solutions to stadia sound as there are stadia, we asked John Alekna why the Electro-Voice EVH Series were the way to go at Margaret Court. "The EVH Series were chosen because they deliver controlled coverage in each seating zone. A line array wouldn't have had the right pattern or be as cost effective, the directivity of front loaded boxes wouldn't have delivered adequate intelligibility and the retractable roof precluded a centre cluster. We wanted a punchy sound to get over the crowd noise, and the EVH's horn loading means they're good at providing direct sound in reverberant spaces. The EVH range has a large range of coverage angles, so there are different loudspeakers that suit different areas."

Far from a straightforward installation, integration of the PA into the building's emergency systems and the physical limitations of the roof meant there were some tricky problems to solve. "There was a requirement to cover the court, mainly for evacuation, as it tied into the EWIS," John continued. "We had put end-of-line monitoring on the bowl system to meet the statutory



"We had six 90 foot cherry pickers"
- Graham Alderman

"Everything had to be fitted up high." - John Alekna

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requirements. We also had restrictions regarding aesthetics. We were forbidden to hang loudspeakers under the gantry - everything had to be fitted up high. We were also limited by load on the gantry because of the retractable roof and a counterweighted Spidercam system."

EV Let Your Hair Hang Down

The design evolved to include 38 units of Electro-Voice EVH Series across four models, including six EVF-2151D subwoofers, distributed around the bowl. 12 Electro-Voice CPS 4.10 four channel power amplifiers run the system, with 12 Electro-Voice RCM-810 IRIS-Net remote control modules providing control and monitoring across the site-wide network. Bosch Communications Systems provided EASE modelling, the design went to tender, and Melbourne integrator Australian Sound won the contract to supply, install and commission.

"The bowl PA system is part of the evacuation and paging system that runs through the whole complex," explained Graham Alderman, Director at Australian Sound Systems. "A BiAmp Vocola paging and evacuation system runs everywhere from ground level to level three. With EWIS, Australian Standard 1670 stops at the main fire panel, which is installed by the fire company. We interface from the fire panel to the Vocola. Because the system runs on a fibre network, the fibre cable had to be fire-rated. All the cables coming out of the main rack are fire-rated to the first speaker in a zone. All the drive equipment is kept in two-hour fire rated compartments. All cable coming in is fire-rated. It's a hybrid; a conventional system in the bowl, but the feed to it from Vocola is a fire-rated network, with fire-rated cable, from a fire-rated room."

All Systems Go

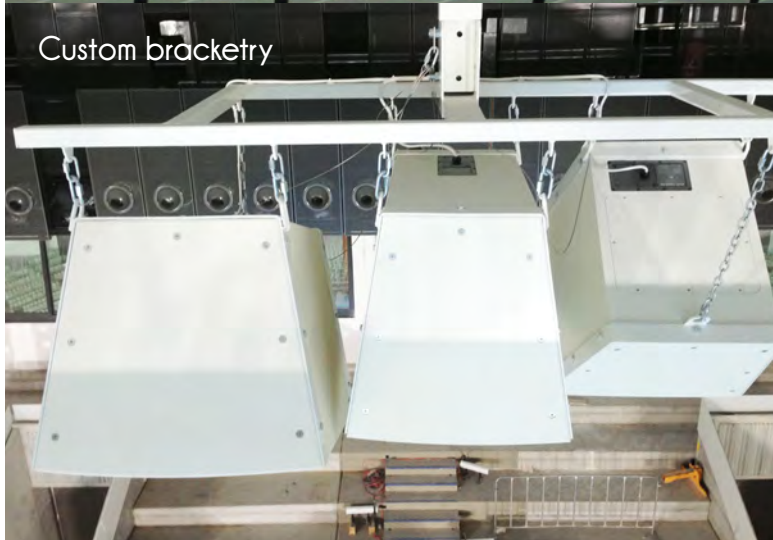
Vocola's signal network backbone is run on the tried-and-true CobraNet platform, but that didn't stop a little bit of CobraNet's modern replacement, Dante, from sneaking into the building. "We supplied a digital mixing desk, a Yamaha QL5, for the control room," Graham added. "Sporting clients like basketball use it to mix their events, while concerts bring their own production. The QL5 is currently patched into the bowl PA system via analogue cabling, but it has a Dante interface built-in. We've installed a complete structured cable network in the bowl for productions coming in with Dante gear."

Sennheiser radio microphones, Denon CD players, Crestron control and hearing augmentation from Listen round out the system. And what was the hardest element of the install? "Because the bowl loudspeaker design was very precise in the units used and their coverage angles, we had to have customised brackets fabricated to hang them from the roof trusses," Graham elaborated. "At one point, we had six 90 foot cherry pickers working. It was difficult to get the boxes hanging on the brackets at the right angles to conform to the EASE plot, but we got there in the end. Bosch came in and assisted with tuning, alignment, and measurement. Everything's on the network, you can drop in anything and connect it to anywhere, and it's all run really well."



"The EVH's horn loading means they're good at providing direct sound in reverberant spaces."

- John Alekna



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THE MILL REPORT

HALF BAKED IS HALF BAKED

WHEN A SONG PRODUCTION LEAVES HALF ITS MUSICAL POTENTIAL ON THE SHELF, EVERYONE GETS DISAPPOINTED. "IF ONLY THEY'D ADDED X, Y AND Z" PEOPLE SAY... "THE SONG WOULD HAVE BEEN AMAZING!"

Some musicians don't have this problem, of course. They throw every conceivable overdub at a song, hoping something will stick... and sometimes things do... so well that the mix engineer is left with a complete mess on their hands.

But others just come up short, either because they fail to have things stick or they're reluctant to throw things at all. One problem is as bad as the other in some respects, although, like a builder constructing a house, as a mix engineer I know which problem I'd rather have.

A lot of songs come across my desk down here at The Mill. Some are notepad sketches with their entire musical journey still ahead of them. Others are fully mixed productions ready for mastering.

Of these, a significant portion have had the kitchen sink thrown at them. Some have been in the pipeline for months or even years, and in that time had every conceivable overdub – from the

crucial to the downright obscure – added to their burgeoning waistlines.

But there are less of these productions than you might think. What dominates the Australian musical landscape still is an even larger proportion of songs that lack even the most basic musical arrangement and production detail.

When left to develop on their own, these tawdry productions often wind up sounding like uncooked raw ingredients, arranged ever so neatly for the soon-to-be-tortured hapless listener like vegetables on a caesar-stone bench top. Do none of these people think to bring the elements together as a decent meal?

FOOD FOR THOUGHT

When it comes right down to it, it's as if no-one involved in these productions realises that having the basic ingredients marks only the start of the musical journey, not the end of the road. You can't be content with acquiring fresh ingredients and then think the cooking is done. If you do, you'll nearly always wind up frustrated and bored by the results. Your work will sound incomplete... which, I assure you, it is!

The only cure for this frustration is, of course, experimentation. Trying things, even when you have

BY ANDY STEWART

Andy Stewart owns and operates The Mill in Victoria. He's happy to respond to any pleas for recording, mixing or mastering help... contact him here: andy@themillstudio.com.au

absolutely no idea what the outcome might be, is nearly always worth the attempt. 'Fortune favours the brave,' as they say.

Actually, I'd go so far as to say that musical (or mix) experimentation should play a part in every song you produce, even if it's but one element. Sometimes the most incredible music is produced where the outcome is unknowable. Using only the rational side of your brain to conjure up every element of a production can leave you with fewer flavours in the mix that you'd hoped for.

THE RAW DEAL

Getting back to our cooking analogy for a moment; have you ever known anyone to go to their favourite restaurant expecting a meal of raw ingredients presented in their original state? When you order an eye fillet steak, for instance, do you get a nicely cooked, well presented cut of meat poised jauntily on a bed of mashed potato with a fancy sauce drizzled delicately across it Jackson Pollock-style, or does the chef walk over to your table with a bag of potatoes in one hand and a cow in the other?

Even when the ingredients are raw, they're never plated as such. There's always artistry involved in their presentation in some form or other.

So it should be with music.

Here are a few tips that can help prevent a production from winding up sounding like the unremarkable sum of its parts.

WHAT LIES BENEATH

Truth is, even when you're producing a song with a simple arrangement that's exquisitely played, there are often secret ingredients required by the production and mixing processes to bring out what's best about the song, a bit like spices in cooking.

Far too often musicians and amateur producers mistake the subtle complexity in the work of others for plain old simplicity, the 'spices' overlooked even though they may be playing a significant role.

They'll say things like: "Oh I love that song because the mix is so dry," when in fact it's laced with all manner of delicate spaces that create an almost invisible three-dimensionality. Or they might say: "I can't believe how beautiful he sounds, raw like that; just the one vocal and a guitar," when in fact the song has two guitars, a harmony, a soft organ pad, reverb and double tracked vocals in the chorus. Time and time again people misuse their reference tracks in this way, falling far short of the mark with their own efforts as a result.

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SIMPLE, NOT SO

One of the most crucial things to consider when recording something 'simple', for instance, is that clarity and exquisite detail aren't necessarily always your best allies. Sometimes the sheer lack of mystery in a production leads to stark, sterile atmospheric outcomes, where the artist sounds like they've been recorded harshly under a brightly lit microscope.

This is not the fault of mic choices or compression ratios, but rather the context into which the artist is placed.

Not everyone wants their blemishes and wrinkles to show, you understand. Sometimes a disguise, even though it may be subtle, can go a long way towards creating atmosphere, mystery and intrigue – like the difference between eating at a softly lit restaurant or under fluros. Even when the food is the same, context can make the experience quite different.

SOME EXAMPES

Guitars, for instance, particularly simple strummed acoustics, can often sound better double tracked and panned, than the single mono recording equivalent. So too can rhythm elements like snares and tambourines, when strength and width are lacking in a production. Two tambourines for example, will often sound less obtrusive than one, and sit less aggressively in the soundstage as they blur one another around the edges.

Tambourine is, in fact, perhaps the perfect example of a misunderstood production element. Often they're recorded tight, dry and bright, when more often than not they should be recorded dull, back from the mic and hit at an almost vertical angle so they jangle waaay more than you think they should. That way they can be almost dry in the mix without sounding too short.

Vocals, however, are arguably the most commonly misunderstood element of a production. They're obvious candidates for treatment in virtually every musical context, even when it's a bare bones production. Extra vocal layers can always add mystery and depth without necessarily robbing the main vocal of its intimacy.

If you want them to, additional vocal elements can be all but inaudible to the naked ear, adding mystery and tonal complexity without adding more 'parts' to the arrangement. Indeed, some of the most in-your-face vocal performances ever recorded – that an average listener might attribute to a single vocalist – are made up of three or four.

And if you want to frustrate the hell out of a mix engineer, just present them with a 100-track song to mix, with only one vocal channel.

In many cases, if a vocal sounds too exposed and stark in a mix, there may be call for adding subtle harmonies to key phrases, or double tracking here and there. If extra vocals are out of the question, delay can work wonders, adding depth and mystery in any quantity you choose. More often than not, a vocal delay that's had some bottoms and a significant amounts of tops removed from its tone can go almost unnoticed by the vast majority of listeners while at the same time creating an invisible atmosphere for the singer to occupy. Think of it like a subtle drop shadow in Photoshop. It goes almost unseen in most contexts.

THE DELICATE BACKDROP

There's a whole universe of production techniques that can be added to a simple song arrangement that help give it a unique fingerprint, and for obvious reasons I can't possibly begin to illustrate them all.

But if the final mix of your latest creation is sounding ho-hum, ask yourself this question: "If I mute four of the song's key elements, what will I be left with?"

Better still, don't ask yourself; try it and see.

Call up the mix and mute four of the main elements (assuming the songs has at least that many). Now have a good listen to the music you're left with. Assuming there are things like room mics, extra instruments, mixing effects, side-chained element etc, you will find yourself confronted with a reinterpretation of the song that may surprise you. Perhaps now it's an instrumental – who knows. Either way it should now sound quite different.

Next, ask yourself this: "Is the new version of my song still fascinating in some way?"

By creating this fairly arbitrary sub-mix, have you suddenly discovered that the song has a parallel universe running underneath it? If you have, great – that's an encouraging sign.

What this exercise should do is now encourage you to hear the song from a different perspective: one that's more concerned with the detail of the background elements than what's out front. If, by temporarily muting some of the main elements, you're inspired to add some subtle new components to this new 'version' of the song, these will go a long way towards adding that extra spice your mix previously lacked.

FIVE VERSIONS IN ONE

Most things I work on tend to have this capacity – the ability to surprise me when I remove some or all of the main elements. My favourite productions are those that can be sub-mixed in several different ways, and where each new version seems capable of becoming a musical piece in its own right.

To me this flexibility is a sign of a healthy arrangement, though not always. Sometimes it only proves that there are too many elements! But for the most part, when the background elements on their own have a certain vibe about them, you know you're on the right track. I'd be far more concerned if the song sounded plain and lifeless with the main elements removed.

If the song your working on is a simple one, with a confident main vocal, imagine the outcome like a portrait painting. The person in the picture may seem amazing – the detail in the eyes etc – but that's not the whole picture is it? The portrait won't be complete without its visual surroundings. The singer's performance is only either going to be enhanced or undermined by the context you then place them in. Put them in a bad one and the song falls apart.

So don't be fooled – underworking your next production can be as bad, or worse than, overdubbing it to the brink of collapse. And if you're referencing other people's tracks during the construction of your next masterpiece, always remember: some of the ingredients will be obscured from view no matter how carefully you study it.

There's always more to a production than superficially meets the ear... the best have backgrounds worthy of their own track!

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Northern Health Teaching & Training Research Precinct

Converged AV brings Health to Life

Northern Health is one of Victoria's busiest public health services, covering a local community of approximately 728,000 people. Already operating across several sites in the northern suburbs, Northern Health have recently opened a hi-tech teaching and training facility in Epping, partnering with The University of Melbourne and LaTrobe University to train their students. AV and IT plays a major role, powering advanced medical simulation technology that brings mannequins to life. Jason Allen checked in...

A medical simulation lab, if you've not been in one before, can be unsettling to the outsider. Built to look, feel and act like a real hospital facility, a typical simulation lab will house a high-tech human mannequin, eerily lifelike, lying on an operating table, prepped for surgery. Underneath its plastic skin, sensors, machines, a computer and a WiFi link connect it to computers in a control room, reporting its vitals like a real person, and enabling the clinician running the simulation to trigger actions

like seizures and heart attacks. The purpose of these realistic environments is to enable current and future health professionals to develop their skills in safety. Recording and distributing video and audio of the simulations is paramount to the educational outcome, and involves some heavy-duty video and audio capture, switching, encoding, and editing.



Kollen Sussman
Director of Education Research

Mary De Gori
Acting Director of
Capital Planning &
Development

Faking It, For Real

Sitting down with Northern Health's Kollen Sussman, Director of Education Research, Mary De Gori, Acting Director of Capital Planning and Development, and Todd Mason, Simulation Manager, I began by asking about the design philosophy behind the multiple simulation laboratories on-site. "They're simulations of a consulting room, a four bed ward-type room, part-task room, and two rooms designed as operating theatres, one simulating an ICU and another an emergency department cubicle," said Mary De Gori. "It gives you the breadth of a whole hospital."

"The simulation labs are built to simulate a patient's flow from consulting to operation

to recovery," added Kollen Sussman. "They're also designed to serve two audiences; existing Northern Health staff from across the service, and students in the field of allied health, medical and nursing. One purpose of the facility is, as a centre of excellence for education and research, to attract and retain staff to the northern region. Another is to increase the number of students we can train and support."

Practice Makes Perfect

Research into the nature of clinical education itself is a third goal of the centre. "That's one of the exciting things that the partners here want to do that's a bit different," said Todd Mason. "The most obvious application for simulation in research is using it to determine

its role in education itself. We need to make sure time in the simulation centre is valuable time. We can also test new procedures and practice and improve them. There's a focus on intra-professional training where we explore new things with the different professions working together. It gives you a test bed to try out new ideas."

Manoje Indracharan, Operations Manager at CHW Consulting, became involved as a specialist AV consultant to the project. "This is CHW's ninth medical simulation project," he reported. "Each project is unique. It's like a collaborative classroom in that it needs to be designed to meet the client's vision of how they'll use it. But there are some aspects they have in common; all simulations need to be recorded, and you need to find an easy way to control the cameras, and start/stop recording."

Todd Mason
Simulation Manager

Manoje Indracharan
CHW Consulting



Back Of House

To this end, a formidable range of AV equipment is installed in the surgical simulation rooms. Three Sony EVI-H100V/W PTZ cameras are fitted unobtrusively in the corners of each room. Four Audix AUD-M40W-6 ceiling microphones combine with Revolabs HDMICWEAR microphones worn by students to capture audio. A Samsung LCD screen in each room is used to display instructions to participants, or emulate the patient's vital signs monitor. Tannoy CVS6 ceiling speakers can relay the instructors' 'Voice of God', spoken through Shure SHR-MX418D/C gooseneck mics. All audio is processed through BiAmp Tesira DSP.

In the control room's rack, an AMX Enova DGX 16x16 digital media switcher handles incoming video and audio, scaling and routing to and from the network via Extron DTP HDMI 230 HDMI Twisted Pair Transmitters and Receivers for distribution and recording. The clever addition of an Extron SME 100 H.264 Streaming Media Encoder enables visitors to the lab to connect a USB hard drive to simply record all of their activity, ready to take away, without having to connect to the facility's network. An AMX Modero S Series touch panel at the operating position ensures simple control of what is a very complex set-up.

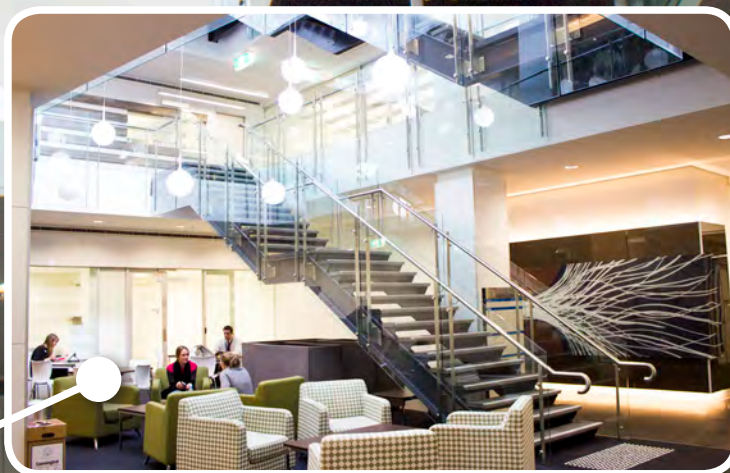
Studio Quality

Medical simulation recording and editing software is a highly specialised, yet competitive, market space. "We evaluated five different software packages," continued Manoj. "Studiocode ticked all the boxes. It's the most flexible package we've come across. It allows you to record and stream multiple video and audio signals simultaneously, tag them and set markers to come back and review. It's made for these environments. For ease of operation, we included joystick controls for the cameras so they're easy to pan, tilt and zoom, and touch panel control that's clearly labelled to start and stop record on Studiocode."

Anthony Millar, Project Manager for Victoria at ProAV Solutions, helmed up the team responsible for installing the project. "ProAV Solutions have installed into many simulation labs," he observed. "The point of difference at Northern Health was incorporating the Studiocode software with a fully integrated, easy to use, AMX control interface. Instead of a DVR or streaming box,

Studiocode really helps review the output, with four independent recording streams per lab. It's recording three cameras, all the mics including the 'Voice of God', and telemetry from the mannequin. Not only that, the system can stream live into the debrief room and both lecture theatres by either DX link, or from the network stream encoder for external audience review."

Anthony Millar
ProAv Solution's

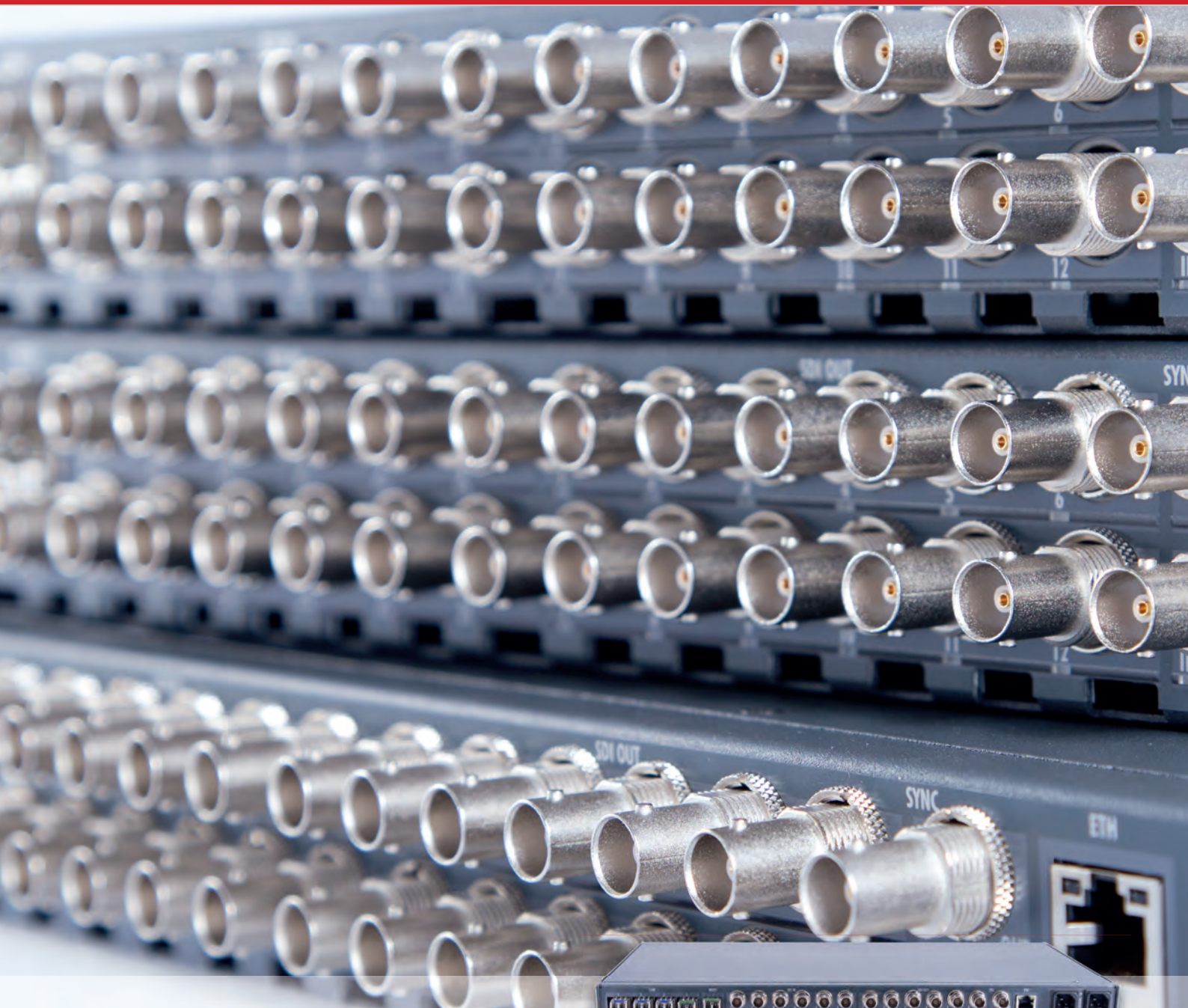


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Clever Collaboration

Beyond the simulation laboratories, the Northern Health Teaching, Training and Research Precinct is equipped with a range of spaces that you'd find in other educational institutions. Two identical lecture theatres can be linked together to form one. Four different screens and Panasonic projectors, operated independently, are matrix switched to service the space in any configuration. They can link directly to the streams from the simulation lab, or video conference to the campuses of partner institutions. A Collaboration room uses four 70" Panasonic displays and a Panasonic projector, enabling four groups to work separately then share their work to the central screen from their PC or laptop. The Collaboration room is also capable of videoconferencing, served by a Cisco codec, Extron distribution, and AMX switching and control.

With so many different institutional users operating in the facility, coming up with a common control interface for the AV systems was a challenge. "We wanted all the different partners to find any space they'd walk in to be familiar and useable," said Mary De Gori. "In the implementation phase we ran design sessions and user group sessions with ProAV Solutions, who helped us develop the final user interface." In addition to the regular tenants, external hirers also had to be taken into account. "We've had a few community groups come in and use the spaces," added Kollen Sussman. "The ease of which they connect with the tech and use the spaces is amazing. People rent the spaces and ask how much for a technician, but we tell them they don't need it. It's just really simple and straightforward."



Simulation lab control rack



The recovery ward



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BY ANDY STEWART

DISTANCE EQUALS DEPTH

Ever wondered why the real estate between your speakers gets so crowded so quickly? It's not just because there are too many instruments jockeying for position. It's because everyone is standing shoulder to shoulder at the front of the mix.

Ever thought to let a few people stand back a bit?

Andy Stewart owns and operates The Mill in the hills of south Gippsland. He's happy to respond to any pleas for recording or mixing help... contact him at: andy@themillstudio.com.au

Whether you're recording or mixing, producing or performing, one of the most crucial things to be mindful of during the recording process is that *distance equals depth*. Above all else, this is arguably what commercial recording studios offer as their greatest asset – large, quiet spaces – that allow producers and artists the freedom to create three-dimensional sounds with nought but walls and mics.

Unfortunately – at least in this respect – the vast majority of 21st century recordings take place in people's bedrooms and lounge rooms, where the ability to explore this distance principle is compromised, mainly because the spaces are too small, ordinary sounding and corrupted by environmental noise.

To be more specific, what I'm talking about here is the relationship between a sound source, its environment and the microphone (or microphones) used to capture them both. It's a fairly simple principle, but one that's put into action less and less frequently to the detriment of many recordings. People are generally content to record things up close these days and worry about the space later by recreating it artificially.

Problem is, the outcome of this approach is never quite the same as when acoustic spaces are incorporated into your recorded sounds from the outset. Artificially replicating the space around a sound later – let alone 100 sounds in a large mix – can become both confusing and impractical.

In reality, what tends to happen with large modern productions where every overdub involving a microphone has been recorded three inches away, is that the mixes ultimately come out sounding processed and unnatural, at least to the extent that they no longer just sound like instruments played in a good acoustic

space. This is not a negative trait per se, just an observable fact. It's only a problem if the outcome was *intended* to sound like performers recording in a good acoustic space.

Spatial detail and depth are hard to replicate artificially. There's far more to it than simply sending a sound via an auxiliary send to a reverb or delay. Frankly, most reverbs are hopeless at creating the illusion of genuine space anyway, and typically fail to incorporate even half of what happens to a sound when it's recorded 40 feet from a microphone.

So if you're looking to add depth and tangible three-dimensionality to your next masterpiece – as well as engineering and production skills to your CV – look no further than the distance relationship between a mic and its source.

TAPE MEASURE TIME

When a song is recorded with three-dimensional depth in mind, and the different instruments are captured at varying distances from the mics, the results are immediately apparent. Rather than jostling shoulder to shoulder at the front of the mix, the sounds now occupy different spatial depths. And all you've done is push up the faders.

All the technical know-how and complexity behind being able to artificially replicate space later has barely been relevant. You've simply use the air in the room to generate the sounds you require. Letting nature do what it does best – transform sound – can be a liberating and exciting experience, given the right environment.

All the subtle changes that inevitably occur to a sound's tone, dynamic range and detail are left to the vagaries of the space itself. You don't have to necessarily understand how it all happens, only recognise that it does.

Then, as long as you have a basic plan about what sounds will be placed up the back of the soundstage – i.e., far

away from the speakers – what sounds will be up close, somewhere in the middle, to the left or to the right and so on, the recording process will start to construct itself.

There will be far less work to do during mixdown because as soon as you push up the faders the sounds will settle into their natural place on the soundstage like never before, because you orchestrated their positions during the recording process. If you get it right, the results can be pure magic.

EXPLORE THE SPACE

If the opportunity arises any time soon, try experimenting with a song production from the ground up using the *distance equals depth* relationship from the get-go.

If you have nowhere to record, find a space somewhere. It could be an abandoned church down the road, the infrequently utilised local hall, a surf lifesaving club... or frankly, all three. There are spaces everywhere, and as soon as you go looking for them they will appear in front of you.

The next thing to do is experiment with the distances between sound sources and mics. Listen to the space you're in and get to know what recording something from 4, 14 and 40 feet sounds like.

The vocals in your experimental recording may be six inches away, the backing vocals a combination of two feet, four feet and 40 feet away. The drums might still have some close mics on them but also have room mics in front of them that are placed 25 feet away. The tambourine overdub might be recorded from say 12 feet away (not six inches), and the electric guitars recorded with a combination of a close cabinet mic and a room mic that could be anything from 10 to 100 feet away, depending on how epic you want the echo to sound.

Once you have a plan like this in place for the basic instrumentation, the recording itself will then tend to guide you through how and where to record the remaining parts. You don't have to be a genius with the foresight of a wizard to predict the precise distance for every instrument. You just need to plan a few things from the get-go and then trust your instincts after that.

This is one of the great benefits of applying the *distance equals depth* principle to your mic technique. The space in the song doesn't need to be imagined or mocked up temporarily. It's immediately recorded and you'll be able to hear where any extra overdubs need to be placed in the soundstage because the song itself will make that clear to you.

EACH WAY BET, ANYBODY?

When experimenting with the *distance equals depth* principle there's always the temptation to have your cake and eat it too by placing close mics in front of everything at the same time. Though you might have decided to record that big backing vocal 50 feet from the mic, you've also recorded a close mic as a safety measure.

There are two schools of thought about this idea. The first tells you that you should have faith in your decisions and resist the temptation to have a bet each way on your choice of mic position. The other school warns you against betting your house on being able to choose the correct spatial position each and every time, and argues that a close mic is your safety net against disaster.

I'm torn about what to advise here. I think as you grow more confident about utilising spaces and break free of the temptation to always record things from point blank range, you tend to get the results you want quickly and the need for backup mics becomes a genuine waste of time and effort.

Moreover, the longer you persist with the each way bet principle, the slower your progression will be towards understanding how the technique works. I think diving in the deep end is probably more effective and educational than having two bob each way, but I can also see how, in some circumstances, a backup plan might be wise.

Once you start recording with depth in mind, not just detail, you may have the same epiphany I had 25 years ago. All of a sudden I realised how all those great Beatles and Led Zeppelin recordings were made. They recorded the space, not just the instrument, and the further back they wanted a sound to seem, the further back the mic was placed. Easy peesy.



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



SUITS & TECH COLLIDE

DON'T BUY A BUSINESS YOU DON'T UNDERSTAND

BY JULIUS GRAFTON

The ructions at Hills Limited last month, and the proposed sale of Staging Connections are symptoms of the chaos when big business goes where it should not.

Guitar Centre in the USA is a golden example. Raped and pillaged by vulture fund Bain Capital, the massive US music store chain will never make a return on the US\$2 billion paid. The suits never understood if you trample on guitarist staff, they will go find another gig – and the clients can always find another place to buy.

Thirty years ago Rank Industries, a UK based conglomerate was in the middle of wrecking an esteemed lighting manufacturer called Strand Electric. They had bought the hundred year old firm, steeped in theatre traditions, in the late 1960's.

Through the 1970's the Rank suits went out of their way to dislodge and disenfranchise Strand staff, customers, and the theatre industry. Rank introduced layers of management and processes that were totally at odds with Strand.

Previously a customer would ring to order a light, and call it by what it was. 'I'll have a Pattern 45, please', they would say. Thanks to Rank, a call centre drone somewhere deep in the bowels of a Rank subsidiary, would require its code: 2003008. The Pattern 45 had become a seven digit number.

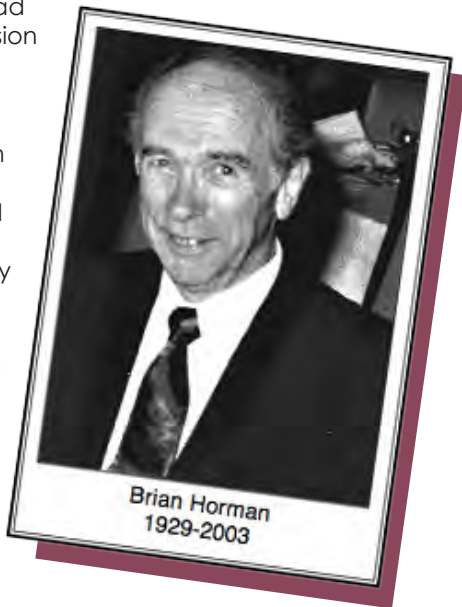
Rank had their grubby fingers in many pies, including manufacturing colour TV sets in Sydney.

RANK EXPANDS INTO AUDIO

Not content with abusing the Strand diaspora, the Rank suits started importing audio into Australia and had built a reasonable suite of brands by the mid 1980's. Across town was Klarion Enterprises, a large privately owned distribution company run by Brian Horman.

Deciding to retire, he sold Klarion to Rank, spawning what was sometimes referred to as Klank. Immediate problems arose that were exactly akin to what long suffering Strand staff had endured. Brand confusion was rampant, with what seemed like an entire constellation of mixing consoles thrown together, like Allen & Heath, Soundcraft and Soundtracs (precursor to Digico) all offered by the same reps.

The audio industry pushed back, opening up opportunities for other importers like Jands and new start-ups like AR Audio Engineering (now TAG).



Brian Horman
1929-2003

Rank Electronics as it was then known was flogged off to Abe Goldberg's Linter Group, which soon found infamy through a 'bottom of the harbour' scheme. A disgruntled manager peeled off some of the brands and started his own import firm called Hyphon.

In 1987 the whole thing crashed (including Hyphon) and from the ashes rose Amber Technology (now a major audio distributor) and Bytecraft (now PRG Australia). There were perambulations and variations but that's the potted history of Rank Electronics in Australia – an epic failure.

SAMUELSONS BUY JANDS CONCERT PRODUCTIONS

By 1984 the publicly traded Samuelson Group in the UK had taken over Zenith Lighting, Rainbow Lighting and Theatre Projects. They changed their name to Samuelson Concert Productions PLC.

In 1985 they bought Jands Concert Productions. It was an interesting era. JCP head Eric Robinson moved to London to organise the diverse cluster of businesses. At the time, they had an A-list of touring acts like Bruce Springsteen and Tina Turner.

Australian Eric galvanised the London public company suits. An anecdote from the time had Eric inspecting a warehouse where he discovered a vintage Rolls Royce gleaming away under the highbay lights. 'Get that (expletive) thing out of here', he is rumoured to have yelled. The chairman, who owned the excellent conveyance, was not impressed.

Another story had the suits rounding on Eric and calling him a convict swine, or some derivative. He had a suitable retort, not fit for publishing in this family magazine.

Frustrations mounted and Eric returned to Australia. Eventually Samuelsons realised they had no idea, that a personalised services business like live production needed persons prepared to provide service.

They put the business up for sale, and Jands repurchased the JCP business in 1992 – for half the price they were paid.

AAV BECOMES STAGING CONNECTIONS

There's a bit of faint lineage from the Rank era here, because Brian Horman's daughter Fiona retained a family business (from the sale of Klarion) called Regency Recordings - which was later acquired by post production firm AAV.

Before the Global Financial Crisis, AAV Limited was riding the sharemarket as a public company and raising easy cash from investors. Then Staging Connections was rolled in 2003 for around \$36 million, paid in cash and shares. Staging at that time was a national cluster of partner firms controlled by management in Sydney.

'We are a world-wide event services business', the then CEO Michael Gardner said in 2006. He had just announced the acquisition of 51% of Gearhouse South Africa by Staging Connections Group Limited, which by then AAV had become named.

Staging Connections went on a mind bending strategy of growth through acquisition, ending up owning Bytecraft, Exhibitions & Trade Fairs, and a slew of offshore firms. Six acquisitions were made in seven months. At one stage they were talking to almost everyone who ran a business and had a pulse. They were even mad enough to seriously contemplate buying Julius Events College – and would have, had we been prepared to sell!

Gardner lasted three years at Staging, during which amazing money was paid out, most significantly the \$42.5 million Bytecraft deal. For that Staging Connections got a well managed stage lighting company, whose staff were completely allergic to the idea of synergies with Staging Connections. While Staging Connections did lighting, it was nowhere near the scale or level that Bytecraft achieved.

Management at Bytecraft adroitly resisted head office ideas, directives, entreaties and offers, and preserved their company culture. Bytecraft was eventually sold to PRG in 2011 for between \$9 and \$15 million, depending on how you read the numbers.

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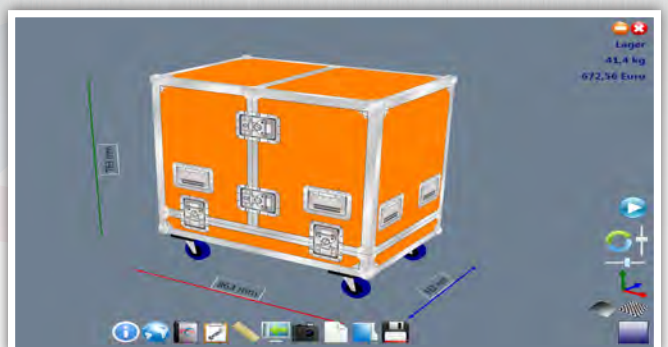
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Gardner left a share price smashed down to almost nothing, and Tony Chamberlain was hired to sort out the mess. He remains at the helm today, having paid his dues with five long years of cost cutting, asset sales and consolidation.

Nine years later the Staging Connections omelette has been unscrambled with the sale of the remaining core Staging Connections business to PSAV, a United States based supplier of event technology services within the hotel, resort and conference center industry.

The voyage cost the shareholders a staggering amount.

ALLENS BILLY HYDE

In 2005 The Brackenbury Group headed by Tim Mason and John Helm bought Allens Music, Australia's oldest chain of music stores. Mason and Helm were accomplished retailers, and initially the business worked well, until it merged with music chain Billy Hyde in 2010.

Hyde came with associated firms. Music Link was a growing importer of equipment which was trading well. The Stage Systems company (known as Billy Hyde Stage Systems) was also part of the package.

The Hyde owners wanted out. Investment mob Crescent Capital had also bought into Hyde and Music Link, and they wanted cash.

Once all merged together it was known as The Australian Music Group. The venture had 28 stores, and in no time at all it sailed into difficult economic circumstances in 2011. The Australian dollar was rising and consumers took to the internet to buy offshore. Retail was hurting.

A white knight known as Revere Capital popped up and injected funds into the group in 2011, and then called in the loan in 2012. The chain was put into receivership and commenced a very long sell down of stock. The 500 staff were poorly informed and badly treated, and many suffered a terrible Christmas.

Eventually the Stage Systems business was sold to AJ Maddah, the mercurial Persian promoter behind the once successful Soundwave Festival. Some stores and the trading names were sold to Con Gallin who heads Gibson Australia. Music Link was closed down.



**TED
PRETTY**

HILLS BUYS AUDIO TELEX

In 2005 Australian industrial firm Hills Industries purchased Audio Telex Communications from the founders, Rod Craig, Roy Morgan and Alan Clarke.

It seemed too good to be true. Once Hills got control, the big Australian listed company did what it promised. They left the successful audio firm alone, albeit renamed Hills SVL.

With access to capital and big company muscle, Hills SVL actually expanded and prospered, unlike other divisions within the greater Hills conglomerate. When convivial CEO Graham Twartz retired in 2012, the board hired Edward 'Ted' Pretty.

Things went wrong immediately; at least they did at Hills SVL. Despite the unit performing well, it was directed to sack staff and lower costs. Hills SVL head Stuart Craig did as asked, and then - predictably for anyone who knew him - resigned.

The SVL name disappeared as Hills merged everything together. Non tech parts of the conglomerate were sold off, as was much of the real estate. Debt was paid down.

SVL staff were relentlessly pruned, with the highest paid fired first. The same thing was happening over in the Security tech side of Hills - good staff would be sacked or walk out, and go straight to work for the



**STUART
CRAIG**

competition. Initially the share market loved it. Ted Pretty had a narrative about a fresh new Australian technology company, with innovation centres and new ways to do business. Back end operations like warehousing and customer support were merged together and a controversial call centre was established to centralize all customer support.

HILLS DETACH FROM TED

The chaos accelerated after Hills purchased Audio Products Group last July.

Itself brilliantly managed, APG and Hills were mashed together. Ted ignored integration suggestions from APG founder Ken Dwyer, who walked away after the three month transition period.

Inevitably some important brands detached - like Aiphone.

Meanwhile Crestron, the star brand in the SVL stable, set up their own operation in Australia – led by Stuart Craig, former SVL boss and son of founder Rod Craig. Stuart is and was always well regarded across the industry. Crestron represented as much as \$30 million in business, which hurt Hills when it departed.

A downgraded profit announcement earlier this year saw the share price tank.

The wheels fell off Hills in May, when Ted Pretty suddenly left and the board announced a five million dollar impairment to cover 'due diligence expenses for acquisitions that would not proceed'. It appears Ted had been wracking up the travel bill negotiating to buy offshore firms.

Ted has an interesting demeanor, and he said in an interview that he was now Ted 2.0, since Ted 1.0 was, umm, a little obsolete. Of his days as a senior executive at Telstra, he told The Australian newspaper he had a temper.

"I did a culture change program for the staff and I used to keep a sheet of paper that had a red side and a green side. And when I felt that I was going to lose it, I would turn it over to green and just remember to calm down," he said.

The article says he was an ambitious deal-maker who was big on ideas but poor on execution. He is credited with one of the largest bad deals in Australian corporate history, an alliance with Richard Li's Pacific Century CyberWorks in Hong Kong that cost Telstra A\$3.5 billion.

But Ted's time at Hills came to an end last month, after

the board pulled the rug. He was there less than three years.

That day, a former Hills staffer Daniel Edwards wrote an op piece in Adelaide Independent News.

"Dear Ted Pretty, I am sorry to hear that you lost your job. During your employment with Hills you took a company that was turning over \$1.1 billion dollars (down) to \$400 million."

"I was on the often delayed phone call that told the team we no longer had a job. Myself and two other colleagues missed a work anniversary by three weeks that would of had us receive another weeks severance pay but you and your manager of 'people, performance and culture' made it clear that you would not pay that extra week despite our dedication and blood, sweat and tears we put in to the company. The whole team had a terrible Christmas."

"You probably do not even know me but I was the employee who asked you the questions that you had trouble answering and who you ridiculed for being respectful and calling you Mr Pretty."

Hills will certainly survive, but pay the cost for a long time to come.

History will repeat itself of course. Eventually another large company or vulture fund will try its hand at something it doesn't understand. Then another chapter will be added to this story. The engineers of chaos, those captains of industry, will glide out with golden handshakes while displaced staff suffer stress, loss, and sometimes ruin.

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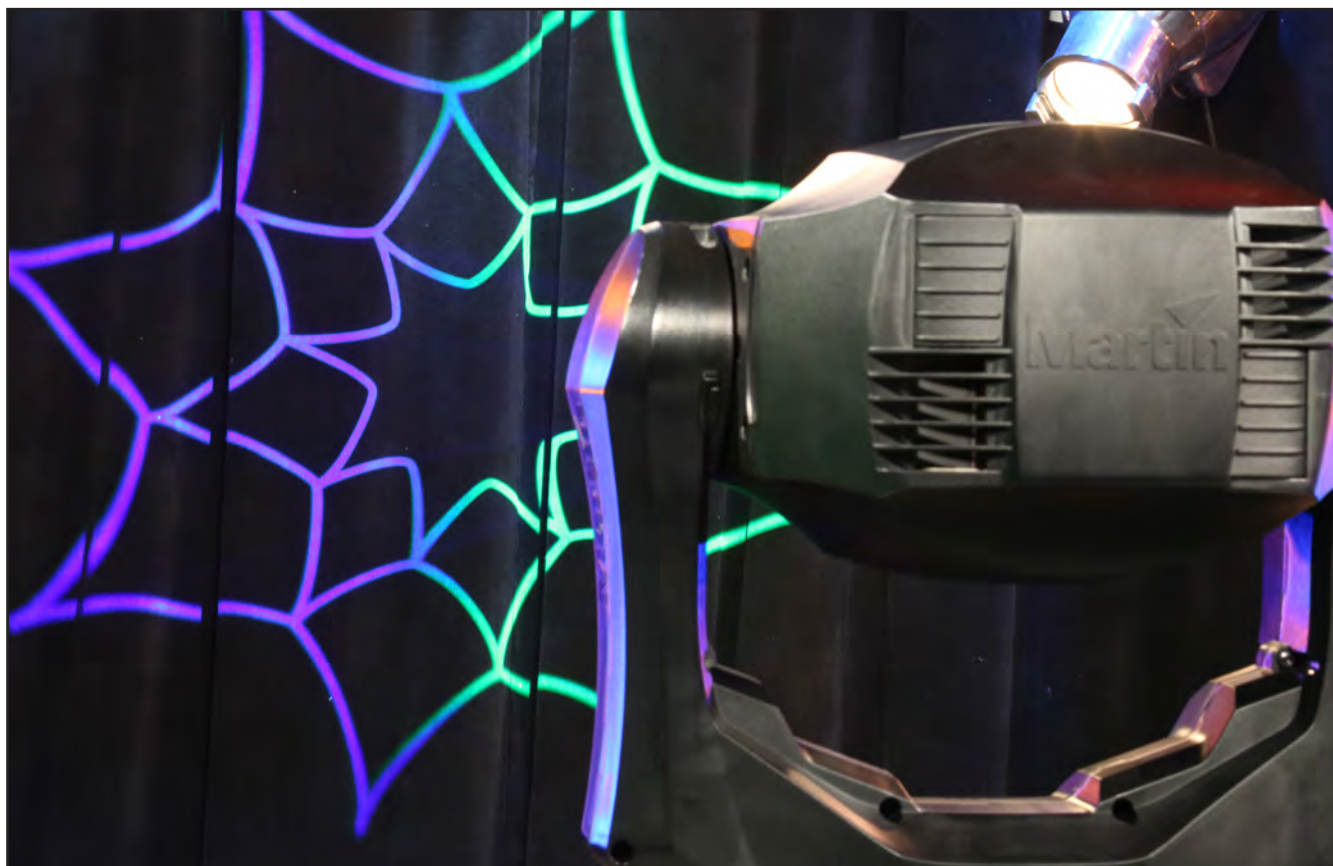
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Martin MAC Quantum Profile

Raising the bar for LED



BY JIMMY DEN-OUDEM

I ran an LED lighting demo early this year – it wasn't a shootout because I had a number of very different types of fixtures. The Mac Quantum Profile was one of them, and because it's been quite a busy year, I'd forgotten just how much it impressed me at the time. The review unit landed in the office, I fired it up, and remembered all the reasons I like the thing so much.

In my own head I can't help but compare the Quantum Profile with the Mac 2000, which I know is wrong and ridiculous. Taking aside that they're both flagship products of their time, they've otherwise not got much in common. Photometrically speaking the 15 year old Mac 2000 had the Quantum a little bit outgunned and it retailed for around twice the price, so why do I keep coming back to it? Maybe because the Quantum is just so damn good. It's touted in the literature as a viable replacement for a 700 or 800W discharge fixture, and I think it's certainly good enough to claim that title.

The Quantum Profile is a moving head fixture with a 475W white LED engine. Pan and tilt are typical, as

is DMX control implementation. Beam features include full CMY colour mixing plus 6+1 position colour wheel. Two gobo wheels provide 6 positions for rotatable indexable shakeable gobos, plus 10 static ones. There's a 12 to 36 degree zoom, 0-100% iris with pulse effect, and electronic dimming with four curve choices. A three facet prism adds to the feature set, as does the electronic focus with zoom tracking. All cool, if a little predictable.

DMX control occupies 19 or 27 channels in your universe, depending on the level of finesse and precision you require. 16 bit control is available on dimming, gobo indexing, zoom, focus and position. It sounds a little fussy, but I'll come back to this point in a little while. The fixture is RDM capable and can be software updated directly from a USB memory stick or via a Martin interface box.

Quantum Profile draws 2.4A at 240V, which means four of them will run quite happily from a single 10A circuit. By comparison the same circuit would power a pair of Mac 700s, or barely just one Mac 2K. Next big difference is weight – at 23.2kg the Quantum is around half the



There's no metal on the outside of the Quantum Profile, and yet for a 'plastic' light it feels precise and well-constructed. My demo took the fixtures around the country in a semitrailer, and in every city the truck was emptied and re-packed by the local loaders. The Quantum was well cased and made the entire trip without incident. I do like that the roadcase is also compatible with the Quantum Wash fixture without any modification.

While you'll never need to change the lamp in this fixture, you will need to clean it occasionally. The good news is that Martin has put serious effort into making this as easy as possible as an incentive for people to actually do it. The air filters can be removed without any tools required, and it only takes a couple of minutes to access any part of the optical path for cleaning.

Light output from the Quantum Profile is more than you'd expect from a 475W LED. Output is one thing, but quality of the light is another. There's none of the customary green tinge normally associated with discharge lamps. Colours, gobos, and all the other beam features are delivered well as expected. Because it's not very heavy, the head moves quickly and with a minimal amount of noise. As I mentioned, the lightsource is white and the

weight of the 2K, and 10kg less than a 700. I put this down to the IP20 high impact flame-retardant thermoplastic construction. 'Back in the day', fixtures were almost exclusively built from bits of metal. Also, no discharge lamp means no chunky ballast in the base. Either way, less weight also makes for easier handling and better rigging opportunities.

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mixing is conventional which means you can achieve all those really saturated colours (think congo blue), which just don't look the same out of an RGB chipset.

I'd like to make special mention of the optical path, which is phenomenally good. Gobo projection especially is sharp and a very high contrast level makes it extremely clean. The light-field is lovely and flat. I mentioned the 16 bit control seeming fussy, but when you have a fixture with this level of accuracy it would be a waste not to offer an equal level of control precision. The Quantum Profile is basically just quality all over.



BRAND: MARTIN
 MODEL: MAC QUANTUM PROFILE
 RRP: \$11,599.00 INC GST.
 PRODUCT INFO:
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Meyer Sound CAL

Smarter than your average column speaker

BY JIMMY DEN-OUDEM



Something I really like about Meyer Sound is that their solutions to challenging audio problems are founded firmly in science, not marketing. Every functional design decision is made for a reason based on actual physics.


CAL, or the Column Array Loudspeaker from Meyer was designed with the specific purpose of vocal reproduction in acoustically difficult environments. It doesn't do anything much at all below 125Hz – not because they couldn't have made it work, but because that's not what it's designed to do. It was designed for speech, and the majority of human voices don't have a lot going on under 100 or even 200Hz.

While CAL provides a horizontal coverage angle of 120 degrees, the cleverness of it lies in its vertical coverage, which can be electronically steered. The vertical coverage can be switched between 5, 10, 15, 20, 25 and 30 degrees, and it can also be steered up or down in one degree increments by as much as 30 degrees. A common misconception about how this works is that the drivers inside the cabinet physically change angles to adjust the vertical coverage, but this is not the case. The coverage is altered by changing the timing relationship between the transducers.

CAL is available in three different sizes – CAL 32, CAL 64, and CAL 96. The larger two models allow the vertical coverage to be split into two sections, meaning you can use one CAL to cover a floor and balcony area. The model numbers reflect the number of transducers in each unit, and there are effectively three 20mm tweeters for every one 4" driver. Each driver has its own DSP and digital amplification channel. Little wonder that at just over 3m tall, CAL 96 weighs 78.5kg – not actually very heavy at all when you consider how much stuff is jammed inside!

Meyer Sound isn't the only company to make a steerable column speaker, so it's important to address the points that distinguish CAL. First up, CAL is AVB capable and AVnu Alliance certified. It has dual AVB ports on EtherCon connectors, and you can input up to three AVB signals. If you don't want to input AVB, CAL also has three analogue inputs with loop-throughs as well as AES/EBU input, all on phoenix connectors. Also on the same type of connector are GPIO terminals for mute and override, logic inputs to change presets, and even NC and NO fault contacts. It's perfectly setup to integrate with 3rd party control systems or paging systems.





BRAND: MEYER SOUND MODEL: CAL 32

RRP: \$23,547.00 EX GST, INCLUDING BRACKETS, WEATHER PROTECTION AND COLOUR MATCHING.

PRODUCT INFO: WWW.MEYERSOUND.COM

DISTRIBUTOR: WWW.MEYERSOUND.COM.AU

The steering is quite phenomenal to experience. We setup four presets – one with a 5 degree vertical and another with 30 degree, both exiting at 0 degree. We made another preset with a 5 degree splay angled 30 degrees downward, and switching between them the change was very obvious.

The spec says that the CAL 32 we tried is good for 106dB at 30 metres. This distance extends to 60 metres for CAL 64, or a whopping 90m for CAL 96. Frequency response is 105Hz – 15kHz +/-4dB (free field 1/3 octave resolution @ 4m).

Who has a room 90 metres long? Well, airports do for a start, as do some churches, sporting complexes, and many other public spaces. Of course you don't actually need a room at all, since straight out of the box CAL is weather proof and ready to install outdoors. It's not even an option, it's already included in the price, as is custom colour matching. Also included in the price is full RMS monitoring and even data logging right there inside Compass. The level of detail available in the monitoring is staggering – you can see exactly what each part of the speaker is doing.

CAL does exactly what it says it does in the spec elegantly, and precisely. It sounds good, and more importantly provides the user a fantastic tool to achieve high level speech intelligibility in difficult spaces, with the flexibility to adjust coverage on the fly as the application or audience size demands.



The way CAL will work in a space can be predicted using Meyer's MAPP system. Once it's installed, CAL is controlled by Compass software. Compass provides a visual representation of what the vertical coverage is doing, as well as access other features such as the on-board parametric EQ. Four "preset" configurations can be built and uploaded into the CAL. The upload takes several minutes, but once it's done, switching between configurations is fast – less than a second. The CAL mutes its output briefly while it switches from one config to another.



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Luminex GigaCore



Connecting the bits...

BY JIMMY DEN-ODEN



We often take for granted how multiplexing has changed the way we do things. Now instead of running lots of analogue audio multicore, we can run a data cable. Instead of running lots of lighting control multicore, we can run a data cable. Instead of running a bunch of video cabling, we run (wait for it), data cable. We operate live production in a data heavy environment. This is great if you understand networks, but here's the thing: not everyone does. That's pretty scary when you consider just how heavily we rely on them working right!

Luminex has recognized the need to simplify deployment of reliable data infrastructure, and come up with a product which does exactly that: the GigaCore range of network switches. They're a bit like the ones your brainiac IT mates have, but you don't need a pocket protector or a fancy certificate to use them.

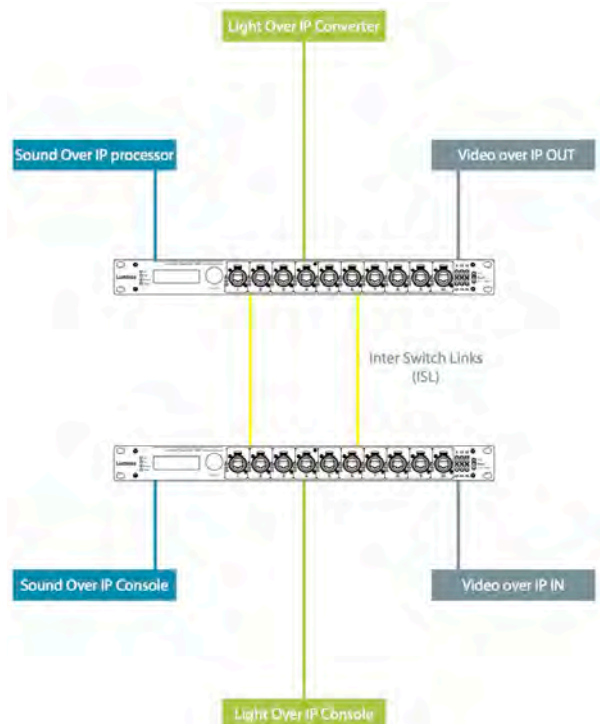
The range comprises four models, each of which support up to 32Gbps throughput. We were fortunate enough to be handed a pair of the top end 16RFO units for our review. The 16RFO features a total of 12x 10/100/1000Mbps ethernet ports, all on Neutrik EtherCon connectors. Ten of these are on the front panel, the remaining two are on the back, and they all auto-uplink so you won't need any crossover cables. In addition to this, the unit supports up to four D-type rugged fiber connectors, and you can install these on the front or rear panel, or even a combination of both. The unit will support four Duo or two Quad fiber ports.

With an optional power supply, the 16RFO can even support up to 150W of PoE with three definable service levels on a per-port basis. The 16RFO has dual power supplies with PowerCon True1 connectors. The redundant cooling fan is another nice little piece of insurance.

The GigaCore range is designed specifically to support protocols like Dante, Ethersound, REAC, sACN, MANet2, and ArtNet among others. The really cool part is that it can handle more than one of them at once. Normally

you wouldn't go mixing a layer 2 protocol such as REAC with other network devices, on a single switch, but GigaCore is designed to do exactly this. Also, it's rack mountable and doesn't use a wall-wart power supply – two more very good reasons to like it.

If you're using only one switch, setup is very simple. Turn the unit on, then define which ports belong to which "groups". Every port will link with every other port in the same group. So you might define audio transport as group 3, lighting control as group 5, and a video stream on group 8. The first two groups are reserved – group 1 for switch management functions, and group 0 for ISL or Inter Switch Links.





Once a port is a member of Group 0, it then becomes a link to other GigaCore switches. Ports on these remote switches can be defined as part of the same groups, and will automatically route through the available links between switches. While fiber port bandwidth is limited to 1Gbps, it's possible to use multiple ports to increase this. Of course you can link switches together using the Ethernet ports, however if it's distance you want then fiber is a better option – Cat5 cable tops out at around 100m.

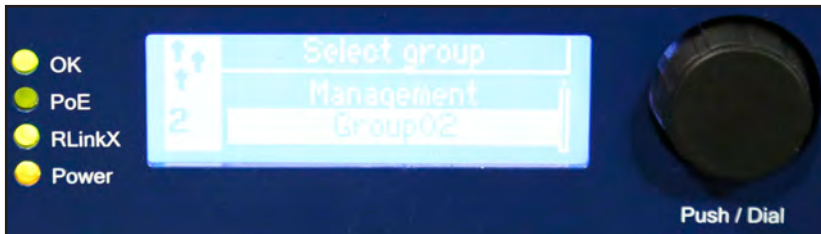
I had a play around using a console and IO box running REAC each plugged into one switch. I ran dual links between two switches - one a 200m roll of fiber and the other a 5m Cat5 cable). GigaCore has a feature called RLinkX, which automatically establishes redundant paths through available ports.

Pulling either link didn't cause any interruption to audio passing through the switches. I even tried unplugging the power supply, which caused a warning light to flash on the front panel but had no effect more adverse than this. In practice if your entire show control was running through one of these units, you'd be a fool not to run one supply from a UPS. I think Luminex recognizes that failure for a device such as this isn't really an option, and consequently the build quality, feature set and performance all seems quite robust.

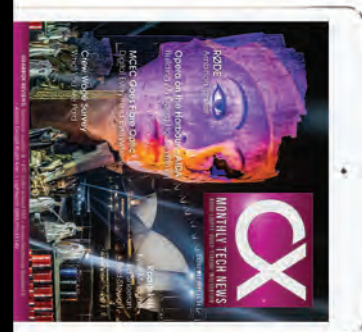
Basic configuration of mapping ports to groups can be done via a rotary encoder button and LCD interface on the front panel. For more advanced configuration you can call up the web based interface, which lets you do all the basic stuff as well as define individual port speeds, change the name and IP address of the unit, and perform firmware updates. You only need to make one port on one switch a member of the admin group, and from here you can admin all the switches.

The web interface is nice and all, but in a live situation you don't necessarily have time to use it. The front panel makes perfect sense, and gets the job done quickly. My only gripe with it is that to escape a menu level you need to press on the encoder then turn it left, which is not intuitive. If you can't figure that out, it times out back to the home screen after a little while.

Ultimately, GigaCore is designed to provide rock solid connectivity from FOH to stage (and even other areas such as broadcast trucks) without requiring a degree in networking to setup. With GigaCore, if you can plug in connectors and count then you can do some pretty complex networking - you just might not have known it until now.



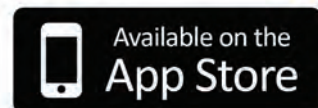
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Vari*Lite VL4000 Spot

Proof that everything's bigger in Texas



BY JIMMY DEN-UDEN

The VL4000 is a mawkish brute of a thing, weighing over 40kg and requiring a minimum of 52 DMX channels to control. The VL4000 uses a 1200W Philips MSR Gold lamp to achieve an output of 33,000 lumens in standard mode. 'Standard' mode sees the 1200W lamp run at 1400W, and in the same way that overclocking your computer CPU requires a ridiculous amount of cooling, so too does the lamp. If the fixture itself wasn't made by the same company who makes the bubble I'd be mildly concerned about this, but I figure since it's all fundamentally made by Philips they probably know what they're doing.

If this concept troubles you on some deep and meaningful level, or you just want the fixture to operate a lot more quietly, or even if 25,000 lumens is enough output for your show, then you can run the VL4000 in the more sensible but still very bright 'Studio' mode, where the lamp ramps back to 1200W and the fans slow down accordingly.

The VL4000 features a veritable smorgasbord of beam features. There's literally at least one of everything, and two of most things. CYM colour mixing, two 5+1 colour wheels, 5:1 zoom (allowing 9 to 47 degree beam angle), iris, four blade framing shutters (each shutter can be tilted and the whole framing assembly rotated +/-50 degrees), two gobo wheels each with 7 rotatable indexable slots plus open, two animation wheels with rotatable indexable patterns, three facet rotating prism, frost, and dual blade strobing system. See? Everything. RDM compatibility too. Little wonder it's so damn big.

You'd imagine that with so much going on inside there would be plenty of opportunity for things to fail, and indeed as much as this is true of any moving light you'd be right. They all combine electricity, heat and mechanics into one place – really the only way to make a moving light any less reliable would be to add water and steam, but that would make it a coffee machine.

Recognising the need for serviceability, Vari*Lite has done a reasonable job of making the various sections of the



optical path modular to assist the process. Undo a few tiny connectors and two captive screws, then you can slide out a whole section of the optical path – or at least that's the theory. I suspect you need to read the manual and follow a procedure when removing modules, since I found each one fouled on its neighbour. I suspect if you know what you're doing it comes apart very quickly. The side casings of the head itself are plastic and again all the screws are captive so you can't lose them.

Each side casing has a safety wire which clips to the internal chassis of the head, so it's safe. All the tiny cables are labeled too, which is another big help.

The full colour backlit LCD screen is easy to navigate, the menu providing all the obvious configuration choices as well as more advanced options. Test mode allows you to check functions individually, which is good since waiting for the entire sequence takes ages simply because there are so many parameters to test! Other noteworthy physical aspects of the fixture include the tilt and pan locks which allow the head to be fixed in place for transit, as well as the PowerCon True1 power connector. The power supply in the VL4000 accepts anything from 200-240V and pulls up to 11A under these conditions. The unit operates happily in any physical orientation.

Re-assembling and firing the unit up, I plugged it into a console and made some scenes. I used the framing shutters quite successfully, and was pleased to observe that the position recall was accurate even after repeated movements of the head and changes to the beam features. Repeatability and accuracy are pretty important for a fixture at this level, and the VL4000 passes on this note. The beam feature buffet is very much an 'all you can eat' deal, with reasonable output remaining even after I simultaneously engaged every gobo, colour and other beam function possible. It passed a test it would never encounter in the 'real world', which is pretty cool.

I think the VL500 was the best looking moving light that anyone has ever made, and personally I reckon the VL4000 is just ugly by comparison. But that doesn't matter, because at the end of the day the VL4000 is at its core a very competent and flexible fixture. Its only real limitation is the minimum size show on which you could or would deem it a sensible thing to deploy.



BRAND: VARI*LITE

MODEL: VL4000 SPOT

RRP: \$26,715.00 INC GST

PRODUCT INFO: WWW.VARI-LITE.COM

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the internal speaker and mic allow the dBbox 2 to act as a 4 wire transceiver – you'll know the true value of this if you work on outside broadcast gigs as a comms tech.

There are a few other aspects to note – gain for the mic pre-amp is adjustable, there's an internal 3 band EQ, 2 wire listen mode, and of course a cable test function. The way in which the menu is structured makes it quick to get to each of these functions, and the backlit LCD screen lets you see what you're doing when you get there. The dBbox 2 runs off a single 9V battery, and intelligent power management shuts down the parts of the unit not required for the selected function in order to prolong battery life.

There's not too much more to say really – the dBbox 2 does the things it's meant to do. It isn't cheap but it is a very versatile tool, and I think the savings are to be found in the long-term efficiency and time savings it affords.



BRAND: CTP SYSTEMS

MODEL: DBBOX 2

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JULY
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ROAD SKILLS



Editorial by Cat Strom

*Photography: Spandau Ballet - Troy Constable
· Human Nature - Troy Constable
· The Pretures - Daniel Boud*



One of the most successful and influential British bands of the 1980s, **Spandau Ballet**, brought their 'Soul Boys of the Western World Live' Tour to Australia in May.



ITZ



SPANDAU
BALLET

Spandau Ballet's ongoing revival as a live touring band continues with this elegant arena production designed by Woodroffe Bassett Design. A series of stacked rectangular lighting grids play over the stage, with the centre one flying in for a ten minute musical set celebrating the band's early performances at the Blitz Club in the 80's. Custom Elidy lighting frames from PRG surround the three video screens and also form the front of the stage-wide band riser.

Programming and lighting direction is by long-time WBD associate Roland Greil who tours a few versions of the show. In Australia we got the B-version which is not quite as fancy as the A-version but way better than the D-version!

"The basic idea was to create a clean and classy look resulting in the rectangular truss design," commented Roland. "We have three screens upstage; a centre screen and left and right portrait size screens which are all used for IMAG footage as well as content designed for the tour. We wanted the screens to look unique so in the A-design we have frames around them made out of Elidy tiles however there were not any available in Australia so we substituted them with Jarags. In front of the upstage screen there is a classy heavy drape on a tab track which adds to the sophisticated look."

When it came to fixture choice it was decided to make it as simple as possible and so there are only two main fixtures. Thirty-six Vari-lite VL3500 Washes for the main wash light and thirty-six Clay Paky Mythos for a versatile beam as well as spot effect light. Again, having only two fixtures in the main roof adds to the sleek look as there are no colour temperature variations or housings.

"The Mythos is an interesting product and is very versatile as it has all the advantages of a Sharpy as a beam light but you can also use it as a spotlight for back lighting or aerial effects," added Roland. "I think it's the direction all manufacturers will be heading; creating small powerful lights that are versatile and can do multiple jobs. It works perfectly here and they're a great combination with the VL3500's."

Also in the rig were GLP X4S, 4-Lite DWE linear molefay, MR16 Birdie, ColorBlast TRX, Martin Atomic Strobe and a large mirrorball that drops in on a Kinesy system.

Control was by a MA Lighting MA2 which Roland says suits his style of programming an efficient manner, handy as this show was programmed in two days.

At FOH behind the helm of an Avid Venue console was Robbie McGrath, a veteran of the music industry who has worked with AC/DC, Simply Red, The Rolling Stones, The Stone Roses and many other well-known musical acts.

"This is my first tour ever with Spandau Ballet, "I'm really a qualified brain surgeon," remarked the ever-jovial Robbie. "However, the Virgin Mary appeared to me in a dream and told me to give up the surgery & go out with Spandau Ballet as their sound guy. She gave me their manager's phone number so here I am!"

Robbie commented that he views Spandau Ballet as a funk/disco/R&B/rock band rather than an eighties sounding new romantic band although their music in the eighties was produced to sound that way.

"However the musical frame work that it sits around is real good shit," he added. "I like them a lot so it's been great to tour with them and help them put a 21st century spin on their performance. They're playing it that way anyway so all the big reverbs and new romantic drum sounds are kept to a minimum. Their music has defiantly stood the test of time incredibly well. It's great to be able to mix it now years later and not have to put all that eighties over produced bubblegum snot on it."

Of course Robbie does use some effects; in particular for the acoustic guitars a Roland Dimension D Chorus, an effect he dragged out of the history books of analog,



Roland Greil



Robbie McGrath



Nick Lythard



plugged into digital and says it's working well – I'm still impressed!

"Sometimes you look back into the analog world of yesteryear and think that it all sounded great but when you plug-in certain things they just let you down as the past can be viewed through rose-tinted glasses," he said. "I use Lexicons for vocals and drums as well as Yamaha SPX990's for toms. I like the SPX because it's a very dirty reverb and drums have to have attitude. The Lexicons are smooth and posh so are used for vocals, keys and guitar but when you get down to the engine room where your kit lives you need a bit of grunt. It's nice to have a bit of nastiness and the SPX990 definitely delivers that."

Robbie has always been a huge fan of Midas and Klark Teknik gear but recently felt it was time to move on and so he switched to using the Avid Venue.

"I love all of the Waves Gold plug-ins and the sound that they bring to the console," he remarked. "Most digital consoles have a sound that is very cold and correct. With the plug-ins on the Venue I find I can get things to sound how I want, a little bit warmer around the edges, and you can put a nice personal analog feel to your vocals and guitars."

"I put all the drums into a sub group then into a VCA. From the Waves package I insert across the groups the Ultra Maximiser which gives me an amazing powerful rounded hard hitting sound, that then goes into the

Waves C4 multi band compressor introducing an incredible dynamic control across the softer late night FM radio sounding numbers to the more R&B hard hitting rock tracks such as Chart No1.

"I'm not pushing the sub mixes around all night as the processing looks after a lot of that movement for me. I then round it all off with an onboard graphic. I use a V-EQ4 analogue EQ on most things, they are amazing I can't recommend them highly enough. As soon as I heard them I was back in the studios in Dublin in the late seventies EQ-ing drums that were all tightly squeezed into little drum booths, it was like meeting an old friend for a pint!

"For the lead vocal I also use the onboard EQ on a heavy cut around 1K and by shifting the cut either up towards 3k or down towards 800hz enables me to soften or harden the vocal depending on the song or even from



chorus to verse, it's an old trick I managed to keep while falling head long into digital. For vocal reverbs I either use Halls or Rooms with a few different delays just tucked in for colour."

Robbie describes the band as very slick on stage because 'they come from the days where if you didn't know how to play well, you didn't get the f***ing gig'!

"Nowadays you can go onstage with the backup of Pro Tools and half the time you could be miming," he added. "I don't think you should complicate live sound too much as it's coming at you fast and you only hear it once. In a studio, you can listen to it repeatedly and in doing so, can hear and understand a lot of tracking but I believe a large show should be powerful, should have good attack and be in the moment. If you bring too much to the table, you lose all of that and it becomes a bit karaoke."

The PA was an L'Acoustics K1 system which Robbie loves stating that it doesn't deliver just one type of sound, you can get whatever energy you want out of it.

"A lot of the rigs are processed so they'll only give you one sound and it's very hard to bend it," he said. "The K1 is a very unforgiving rig but beautiful to work with."

Microphone wise Robbie used a Sennheiser 5000 Series SKM5235 Handheld for Tony Hadley's lead vocal, not his first choice but the monitor guy really likes it. On the drums there were a pair of AKG 414s for overheads,

Sennheiser 604s on toms 1&2 and 609s on 3&4, with Sennheiser 421 on both floor toms. For both kicks there was an E901, snare Beta SM56A and Neumann KSM 104's on ride and hi hat. For percussion there were AKG 414s and Shure Beta SM56's. The bass guitar was DI'd and for guitar cabinets the Sennheiser E906's and DI's for all the acoustics. For saxophones, there was a Shure Beta 98H and for backing vocals Shure SM58s.

"It's all live, there's no tracking, only a few sequences and definitely no Pro Tools play back," Robbie commented. "That makes it great because little mistakes here and there seem to subconsciously keep the audience dynamically interested. If it's all coming at you 110% correct you start looking at the person's jacket or hairstyle that's in-front of you. When it's truly live, there's a certain amount of hypnotic energy involved."

Some of the band use in-ear monitors, although Tony Hadley is half in / half out as he doesn't like to feel isolated from the audience.

"The drummer doesn't want to know because he's a f***ing amazing powerful drummer and he doesn't want any of this wimpy in-ear nonsense!" said Robbie. "We have side fills and wedges so there's still a good old racket going on up there."

Nick Lythard is Robbie's system tech on the tour and he reported that the mains and subs were quick to align in the Qantas Credit Union Arena, a room that he says presents itself well.

"Being an L'Acoustics system all of the amplifiers are networked via Network Manager and that's where I do most of the system adjustment such as time aligning and delaying, he revealed. "I don't tend to do much system EQ-ing as Robbie takes care of that from the console. I present Robbie with a coherent system and Robbie takes over the EQs from the console.

"I'm driving the system with Lake Processors which I do very little with other than basic system management and distribution, distributing the digital signals to the amplifiers. I tune the system with Smaart and an old program called WinMLS, an impulse response software from Morset Sound Development that hasn't been updated since 2004 but is still very powerful. Between the Smaart and WinMLS I time align and phase align the system.

"I tend to start with the main hangs and the subs and I phase align the subs to the main hangs using Smaart. I then switch between Smaart and WinMLS for everything else."



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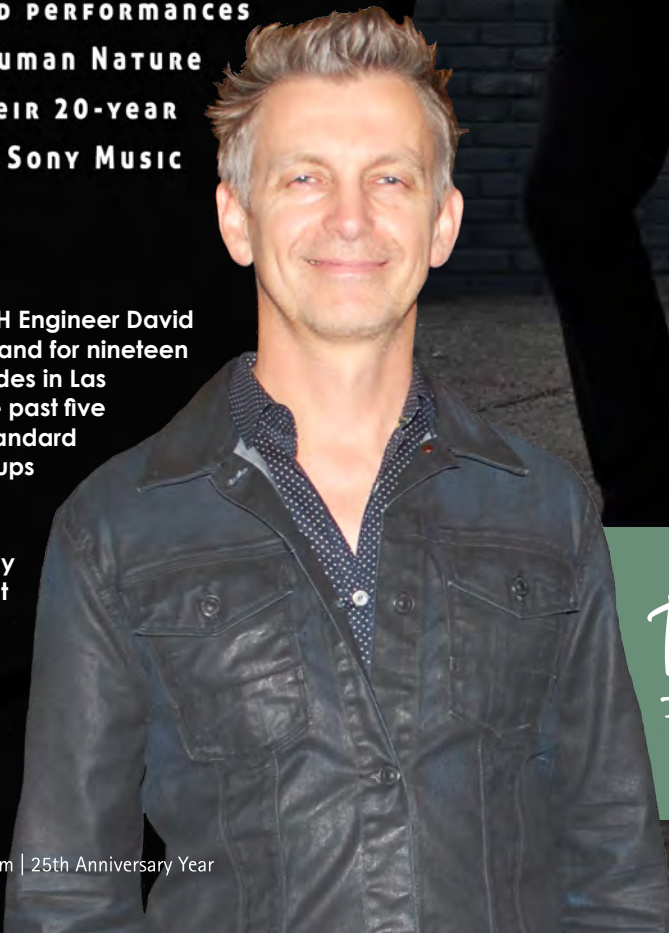
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Production Manager and FOH Engineer David Rudder has been with the band for nineteen of those years and also resides in Las Vegas. Based in America for the past five years, the group have set the standard for international vocal male groups in Las Vegas, notching up over 1,000 shows on The Strip.

For this tour David stepped away from the security of playing night after night in a room he is very comfortable in for the perils of the road.

"I'm effectively the fifth wheel in the cog as I am the technical and creative director of the show too," said David. "This



David Rudder
FOH Engineer



show is split into two, with the first part revisiting their past and the second half concentrating on the Jukebox songs. We wanted to visit the stuff we haven't done for years and the guys spent a lot of time working on the concept."

If the production was to revisit the past, then it had to show the past and so a video element was a necessity in the show. The problem with the tour is that all of the dates were fly in dates with no trucks on the road.

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"I had to think long and hard on how to do this and still have it look like a set that has been created and not just thrown together with a couple of pieces of staging!" commented David. "I went through some different concepts with Andy Walmsley, who designed our set in Vegas, but ended up purchasing a PixelFlex video system which I had shipped over from the US."

The thirteen pieces of PixelFlex 12mm FlexCurtain pack into two roadcases to be flown around the country. Flexible in all directions, the curtains are able to bend and shape around structures to adapt to any stage or setting for an imaginative display effect. In this case the FlexCurtain supplies a main screen, riser facades and wraps for the upright truss pieces.

"We're thrilled with it and it really does the business plus one guy can install it in under half an hour," added David. "We actually have Frank Madzin on the road as our video tech and he controls the FlexCurtain with a PixelFlex SU-401. However, he doesn't actually run cues as the cues are all from Qlab 3 which I programmed, and it runs from Midi timecode."

In house PA systems were used throughout the country with David requesting an Avid Profile for mixing. However, being a busy time of year in production world, at The State he was given a Digidesign D-Show instead and that was quite an adjustment for him.

"It has the same number of faders but over a larger surface area so I've had to tag it so I can remember where things are!" he said. "It's like being back on an analogue console where you have to walk from one end of the console to the other to get to your channels. To get from your effects to your kick drum is a bit of a hike! It all works fine though and I have no problems, it was just a bit of an adjustment."

In Vegas David runs the show on a Yamaha PM5d, which is not his preferred console, however once he incorporated a Waves SoundGrid System he was pleased at how it progressed the show and the sound of the band's voices. Consequently he has a Waves Diamond Bundle with his Digidesign console on this tour.

"I always use a Lexicon reverb and it's become my signature with the band," he added. "It's a must have piece of equipment. LA-2A compressors on their voices really works well too."



Human Nature were one of the early adopters of in-ear monitors, getting their first set in 1997 and preferring to only have one ear in at all times. For this tour they used Shure PSM900's whilst the rhythm section used Shure PSM600HW's however for simplicity reasons, the horn section had Clair 12AM wedges. There were also a couple of Meyer CQ sidefill cabinets. "In Vegas the whole band has radio packs for their instruments and in-ears so they're all completely mobile however when we've tried to travel that, we tend to run into a lot of RF problems," said David. "You spend your whole day trying to solve those problems and the one thing I don't want to ever do is compromise the lead guys having clean RF."

To ensure consistency on the road, and especially as the PA systems would differ from city to city, David was careful to specify an audio list that could easily be met. A few specific items such as heads on microphones, brass clip on horn microphones and some cabling travel in the work bags.

David has a healthy outlook to touring a variety of venues; if it's all there and it's worked for somebody else, there's no reason why we can't make it work.

"We've been fortunate to have good quality suppliers and gear around Australia so nothing has been a big deal," David remarked. "The reality is that there will always be a few seats where physics come into play and the audio may not sound as good as it should.

"The Vegas show is a perfected show so to come out on the road is a bit of a shock," he said. "It's never going to be perfect, you're always working to make it as perfect as possible – I have to trim down my own expectations and OCD and realise it's as good as it's going to be."

Kez (Phillip Kesby) was on monitors using a Yamaha PM5D.

Providing big, strong lighting states with a minimum lighting rig is what lighting designer Jeff Pavey does best.

"Minimalist is where I'm at," commented Jeff. "You just can't get any depth out of layers and layers of lights. I'd rather have just three trusses and have the show layered properly. It really is all you need. People put hundreds of lights in a roof but you can get the same effect out of fifty."

As house rigs were used on the tour, lighting varied gig to gig with Jeff having to program at each new venue. At the State Theatre in Sydney, Jeff had his three straight trusses with the front truss supplying stage wash, the mid truss four washes and five profiles and the upstage truss has five washes and four profiles.

For wash Jeff had sixteen Martin MAC Auras and for beam work he had his workhorse fixture; nine Martin MAC700 Profiles. Martin MAC Auras also up-lit the vertical trusses.

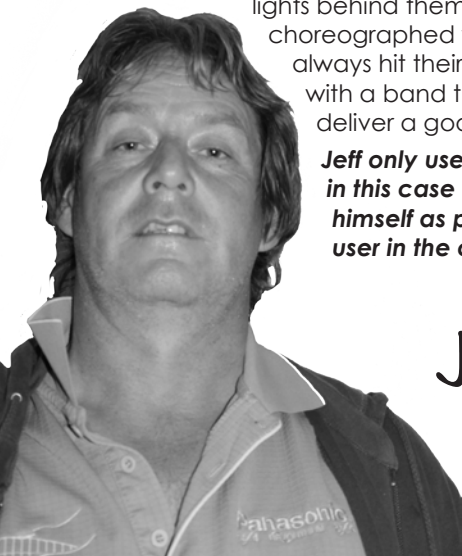
"I try to keep the profile fixture consistent on tour as they act as a keylight for the band," said Jeff. "I can work with just about any washlight. There's not a lot of movement in the show lighting rather a lot of big looks. Some songs just have the one look for the whole song."

Five Clay Paky Sharpys were placed on the floor between the main screen and the riser which the band spends a fair amount of time on. From there the Sharpys could fan out to give a "god effect", as Jeff calls it.

"I've worked with Human Nature for many years and they are one of the best acts at working with lights," added Jeff. "They love that big silhouette look with lights behind them. The show is tightly choreographed with the lighting and they always hit their spot. It's easy to work with a band that love light and also deliver a good show!"

Jeff only uses Hog lighting control, in this case a Hog4, and described himself as probably the biggest Hog user in the country.

*Jeff Pavey
Lighting Engineer*



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Clinton Stagoll wears many hats for the band including production manager, tour manager, FOH engineer and bus driver.

"It's that Australian thing doing multiple roles to keep the costs down but my stress levels up," he laughed. "I work with their management company doing the day to day routine stuff such as sorting out accommodation and travel, but my heart is really with production, particularly live sound for the band."

For the Vivid LIVE show Clinton used the Opera House's d&b V-Series PA system which is fortunately his favourite PA.

"It was definitely interesting mixing in a room which is designed for acoustic instruments to be amplified naturally - so taking a rock band into that environment was challenging," he commented. "Despite that, I believe it turned out pretty good. At one point I found myself trying to mix at a low volume around the inherent nature of the room but I got sick of that and thought 'bugger it, I'll turn it up louder!' It was better."

Front of house Clinton had a Midas PRO 9 for mixing, a console he really likes although he admits he has been changing his mind a bit recently.



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"My console of choice by default nowadays is an AVID Profile mainly because I use Waves plug-ins and it's very easy to use that format," he added. "However I'll probably switch to DiGiCo for my next tour as they sound great and I have spent a fair bit of time on one recently in preparation for Alpine's next tour. I'll be using a DiGiCo SD11 running all six sends of ears from the front of house console while I mix FOH as well. We'll be running it split so I can have my

LIGHTING DESIGN BY LYNDON GARE

monitors split from my FOH for greater control. It's just a little power house compact rig that I can fly with me everywhere we go."

For The Preatures show on the Midas PRO9 console, Clinton used a Hall reverb on the drums, a Hall and a Plate reverb for vocals, which he fluctuates between, a Slap delay for the vocals and also a Tap delay. Occasionally he adds a pitch shift to the vocals just to double them up.

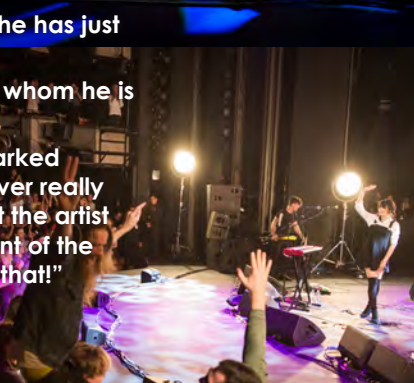
"We want Isabella's voice to be rich and full and not too strained," said Clinton. "We work to try get it rocking and thumping with enough room left for her voice to breathe. It doesn't matter who you are mixing for, the vocals are always the most important element and you have to build your mix around that."

The band are tentatively stepping towards using in-ear monitors and Clinton is sure they will all be using them in the near future. At the Vivid LIVE show Nicholas Brunney was mixing monitors on a Yamaha PM5D.

"Nicholas is a beautiful Italian man who is a great monitor guy but unfortunately he has just moved to the UK so we've lost him," lamented Clinton.

Clinton also works with The Rubens, Spookyland, Cloud Control and Alpine, with whom he is about to embark on a national tour.

"I've always said that mixing for rock'n'roll is like controlling an explosion," remarked Clinton. "Everything changes from night to night, from room to room, and you never really know what you're going to get. My role as front of house engineer is to take what the artist gives me and reinforce that in the room. Ideally, you just put a microphone in front of the source, lift a fader and there's your job done but we all know it doesn't work like that!"



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JANUARY 1982

Here is a run of Sydney beach gigs for Radio 2SM.
CX publisher Julius Grafton had a production firm with his then partner Caroline, and fielded a quad 4 way PA. Note the fancy OH&S - no crowd barrier, no tie down straps. Those were the days!

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PICTURES BY *Bob King*

THIS MONTH WE THOUGHT WE'D GIVE YOU A MULTIPLE CHOICE QUIZ, JUST TO MIX IT UP A LITTLE!

TECH QUIZ TIME!

JUNE EDITION

1 What is the most appropriate crossover point for a subwoofer?

- a. 15Hz
- b. 100Hz
- c. 1kHz
- d. 10kHz

2 Which amplifier should drive the subwoofer?

- a. 600 watt
- b. 900 watt
- c. 1,000 watt
- d. 8 ohms

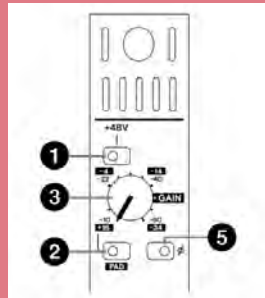
3 The speaker is rated at 1,000 watts RMS. Which amp is preferable?

- a. 500 watt
- b. 1,000 watt
- c. 1,200 watt
- d. 2,000 watt

4 Which dimmer rack did not support DMX?

- a. Jands HP12
- b. Strand Minipack
- c. LSC Redback
- d. Jands GD 12

5 What does the switch labelled 5 do?



- a. Phase reverse
- b. Phantom power
- c. Pad
- d. Direct

6 Which of these microphones would be the most common choice for miking a guitar amp?

- a. PL 88
- b. AKG D112
- c. SM 81
- d. SM 57

7 What does an Aural Exciter do?

- a. Make you excited
- b. Boost subsonic frequencies
- c. Add system enhancement
- d. Adds additional system gain

8 What system processor has two BNC connections on the front panel?

- a. Lake Contour
- b. QSC Basics
- c. Dbx Drive Rack
- d. TC M-One XL

9 What lamp drives a Vari-Light VL 4000

- a. Philips 1,400 watt MSR
- b. Osram or Philips 1,000 watt
- c. Philips 1,200 watt MSR
- d. Osram 1,500 watt

10 How many lines in a PAL video signal?

- a. 525
- b. 625
- c. 500
- d. 600

11 Which console uses AES 50 protocol?

- a. Roland
- b. Soundcraft
- c. Lawo
- d. Midas

ANSWERS - PAGE 72

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BIZ TALK

with Julius Grafton



AMAZING EXPENSES Car guy clocks up costs

Fiat Chrysler Australia's former boss misused more than \$30 million in company funds, the firm alleges. Now the car company (FCA) is taking action in the Federal Court against former CEO Clyde Campbell.

Amazingly the guy lifted sales fairly significantly and presumably the 30 mill was all counted as cost of sales – until they discovered a lot of it was for stuff that should not have been. Like club memberships, and travel. Plus a bunch of cars were loaned to celebrities in Australia and somehow in the UK.

First, the sales growth. For three years to December 2014, Alfa Romeo sales grew 129.0 per cent, Chrysler by 185.7 per cent, Fiat an amazing 982.3 per cent, Fiat Professional 22.1 per cent and Jeep a massive 251.6 per cent.

That's awesome, and if the guy was clocking up 30 mill to do it, clearly no one noticed at the time. This isn't to say he hasn't broken some rules inside the firm, but CX wonders why the motor giant would expose itself to so much bad publicity.

One amazing aspect of the case is the internet marketing levy that the firm made the dealers pay. As we are in the biz of media, we were highly impressed to discover dealers were paying \$4,100 a month for web services. Clearly we have missed our calling here!

Best of all, it seems Mr. Campbell had a secret stake in the web marketing company called Motortrak. When Mr Campbell was appointed managing director in October 2010 Motortrak was engaged to supply web services for the 59 dealerships at a rate of \$690 a month each. As of May this year, the 184 dealers were forking over \$4,100. We guess the sales increases masked the pain?

As a result of the publicity arising from the case, the dealers now feel aggrieved and are suing FCA. They are saying publically that FCA has not properly supported them, or their customers.

The court cases are multiplying, and media reports now link others who earlier worked alongside Mr. Campbell at Mercedes Australia.

THE ADVICE GIVEN HERE IS GENERAL IN NATURE. YOU ALWAYS NEED TO SEEK PROFESSIONAL ADVICE BEFORE MAKING COMMERCIAL DECISIONS.

PAV CANED IN COURT Music Label Guy 'self confessed liar'

Universal Music Australia ran a court action against the founder of Modular Recordings, Stephen 'Pav' Pavlovic in the Supreme Court Of New South Wales. The case was complex and revolved around royalties for Tame Impala sales overseas.

Tame Impala frontman Kevin Parker said he has never seen a cent, yet the royalties amount to around one million dollars. Universal won the case against Pav.

Notably the judge John Sackar had a few things to say. "I formed a most unfavourable opinion of Mr Pavlovic. He is a self-confessed liar who, it seems, effortlessly resorts to mendacity if he thinks it will suit his commercial ends.

"Mr Pavlovic is an experienced businessman in the entertainment industry. He has negotiated many contracts over many years. He gave an explanation for the misrepresentations to the plaintiff, namely that he felt under great pressure and wanted to avoid conflict with the plaintiff.

"In general terms the deed negotiated was an effective walk-away exercise. Mr Pavlovic was not required to pay any monies, rather the plaintiff was going to release him from liability, and pay some monies. He obviously got cold feet, perhaps on the basis that he felt he could have done better in the negotiations."

It's a complicated matter, but essentially a story old as time. Musician kept in the dark, back room guy(s) create paper empire. Money goes missing. The end.

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Perhaps the most famous 'trust mark' and one that is recognised by people all around the world is the Royal Warranty of Appointment, the mark that suppliers to the royal family put onto their goods that demonstrates the prestige and quality of products. The Coat of Arms and the words by Appointment to HM The Queen also demonstrates that suppliers authorised to use the Royal Warrant not only offer quality products but are known to be trusted and reliable suppliers.



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The use of this very special trust mark has been in existence since Henry II awarded a royal charter to the Weavers Company way back in 1155 - that is 860 years of quality and trust!

While we don't expect the ACETA trust mark to ever be as widely recognised as the Royal Warrant, it has been introduced to serve a similar purpose - to identify suppliers of products that demonstrate quality, reliability and trust. Suppliers (and their products) that operate in accordance with Australian laws, in particular in relation to consumer, occupational health and safety, product safety and employment law. ACETA's constitution (**available here - <http://www.aceta.org.au/uploads/1/2/0/1/12012511/constitution.pdf>**) makes this clear and agreeing to be an ACETA member includes a commitment that members will comply with these laws and standards.

It would be reasonable for customers purchasing commercial and entertainment technology products in the 21st century to assume that any company operating or supplying goods into or in Australia would do this, but the reality is that there are an increasing number of sources of supply that don't or can't comply with our laws or standards either through ignorance or intention.

The use of the ACETA trust mark identifies to customers products and services that they can rely upon and know that both the company and the products meet the standards expected of them and that they can trust. These companies are identified by their use of the ACETA logo.

Compliance with Australian laws and standards largely falls into four areas:

- **Product compliance: such as compliance with RCM and other Australian product safety standards**
- **Installation, rigging and electrical safety compliance: which includes installing and/or rigging gear in a way that will not endanger workers and others**
- **Trade practices compliance: such as making accurate and honest representations about product performance, design, price, safety, service and warranty, and manufacturing standards**
- **HR compliance: including providing a safe workplace that complies with OH&S guidelines, trains their staff and pays, at least, award wages and entitlements**

BY FRANK HINTON

Why is this necessary?

Tales abound of companies or products that have failed to comply with one or more of the above. They are the minority, but they give our industry a bad reputation and have the potential to endanger the safety of their own workers and others. The reality is there is no amount of insurance that can provide 'coverage' for the loss of a life or a serious injury to a worker or customer.

Part of the issue is that there are next to no barriers to entry. Almost anyone can claim to be an A/V or lighting supplier, can import goods from China or elsewhere and sell them, or rig and run them at the local festival or install them into a boardroom or broadcast or post production suite. Often we deal with experienced purchasers but equally often we supply individuals and organisations with comparatively little knowledge or skill in the design, set up or use of our entertainment products. Buying the wrong product or selecting a non-compliant supplier is potentially a recipe for disaster.

Those goods must be tested and certified, suppliers must have the experience to know how to rig and run the gear, and they must be ensuring that their workers are appropriately skilled and paid, and doing the work to the required standards.

By purchasing from an ACETA member, companies automatically agree to comply with the relevant laws and standards. If they fail to do so, they are removed from membership. ACETA regularly reminds key customers, event organisers and venue owners of the importance of safety and that the ACETA logo is an indication of a complying organisation.

Make trust the first consideration in your purchase process and the best place to start is to look for the ACETA logo.

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- d. 2,000 watt
- b. Strand Minipack
- a. Phase reverse
- d. SM57
- c. Add system enhancement
- a. Lake Contour
- c. Philips 1,200 watt MSR
- b. 625
- d. Midas

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Let's do the timewarp again?

NO, LET'S NOT. PLEASE, JUST LET IT GO

There are a lot of revived old musicals currently either playing or coming up in Melbourne.



I won't be going to any of them, since I heard quite enough of old showtunes when growing up with my parents. Not only did they insist on dragging me along to things like High Society, Carmen Jones, South Pacific, Porgy and Bess etc. etc., and if that wasn't enough they also insisted on playing the soundtrack albums of the shows each and every weekend. It was enough to quite put me off musicals for life!

Now I hear advertising for the umpteenth revival of the Rocky Horror Show. Who's going to see it this time? Surely there can't be anyone left in Australia that wants to see it and hasn't already?

It's not that I didn't like it at some stage about forty years ago. I'm sure I did. But how many times can people go and see it, yelling "Let's do the timewarp again." Yawn. No, let's not. "Let's just leave it alone," get a life, and "Let's never speak of it again". Whenever that song pops up on a playlist at a party or social gathering, with all those people leaping up off the couches and waving their arms screaming the chorus in your face, well, "That's when it's time to be leavin".

Reminds me of the medical gig that I worked at a long, long time ago where 'Hit Me With Your Rhythm Stick' was on high rotation from the DJ. A very drunk senior registrar wearing only a kilt and some braces was leaping around, dribbling and yelling "Hit Meeee..." in people's faces, until one of them got tired of it, took him at his word and punched him out cold. Naturally it being a medical function, expert help was at hand, which consisted of fellow doctors stepping over him and laughing.

But I digress.

It's not that I don't like theatre and live music, because I do. I think it must be fairly well known to regular readers of this column (who they? Ed) that I like live music. I like its immediacy, the 'now'-ness of it, the fact that there's no safety net, no second chance. If there's a stuff-up, everyone knows about it. But luckily the stuff-up only lasts for a few seconds, then it's gone; the fluffed solo dribbles to an end, the song finishes, the caravan moves on.

I also like live theatre for the same reason. Amateur or professional, I'm not picky; I enjoy them both. So if live music and live theatre can be combined without

Rogers and Hammerstein or Stephen Sondheim getting involved, then I'm all for it!

In New York a couple of years ago, I went to see Rock of Ages at the Helen Hayes theatre. I don't know much about Helen Hayes, but she must have been very short, because the seats in the balcony had a great view and sound, but were designed for legless dwarfs. Without a word of exaggeration I spent the whole show folded up with my knees under my chin. And despite this, I still enjoyed the performance, which just goes to show how well it was done!

The movie, on the other hand, did nothing for me at all, because you can do anything in a movie; there's no challenge. Unlike a play, the change from one scene to another can go across town or across the world in a split second.

What makes a play work for me is how well it disguises its stage limitations – each scene change and set change takes you to another place, with nothing really more than clever lighting. There are no re-takes, just actors at the top of their game and a live band playing great music.

Back home, I went to a first-run performance at St Kilda's Theatreworks, (the local equivalent of an off-Broadway theatre) of Flower Children, a play featuring the story and songs of the Mamas and the Papas. A very simple, minimalist production, with each of the actors playing a band member, telling their story, and singing the songs while we in the audience waved our flowers. Great fun, very moving and sad, ideally suited to this smaller, more intimate theatre. And, once again a great live band as well.

I actually did sound for a play at Theatreworks myself. It was an independent production of a dark drama called Sunset Rising. At the production rehearsal the producer told me he wanted all the sound effects to be loud, especially the final gunshot. Hmmm. Never tell the sound guy you want it loud. As Oscar Wilde said, "Be careful what you wish for, in case you get it" Well they sure got it all right! As the audience trooped out at the end, nursing their bleeding eardrums, the director came up to me and whispered in my ear "Maybe not quite so loud next time, Dunk!"

Last Saturday, my gf and I went along to the opening night of a local production of Monty Python's Spamalot, at the Phoenix Theatre in Elwood, a suburb of Melbourne. This is my kind of show. When I used to drive up and down the back-blocks of Victoria and NSW ferrying PA systems for a succession of bands, there were two things we liked to have playing, in order to keep us awake. One was the tape of the previous night's gig, usually laughing at the band's mistakes. (Did I say

before that any stuff-ups were fleeting and gone in a few seconds? Hah. Not when the crew has a recording of it!) The second was the complete collection of Monty Python albums on cassette.

So I already knew what I was getting, and I wasn't disappointed! What I was surprised to see was a full orchestra in an orchestra pit with a conductor!

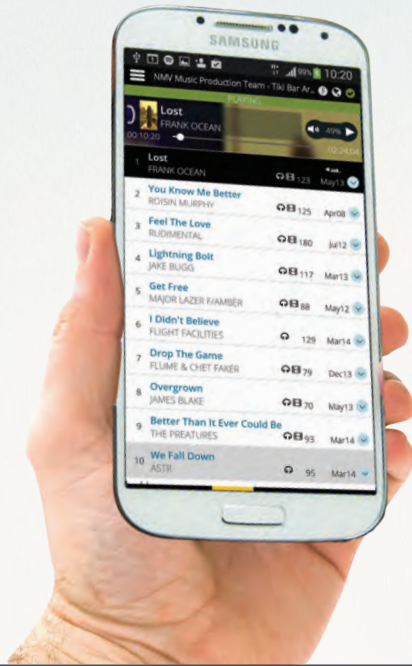
The story is a loosely re-told version of the Monty Python and the Holy Grail movie, but referencing many of the classic sketches as well. The audience was full of fans like me, laughing in all the right (and wrong) places! The best thing about doing a show like Spamalot is that no-one in the audience really knows what's a mistake and what's not; sometimes the whole thing looks like a silly mistake, and that's what makes it funny!

At interval time I looked up at the mixing bunker to see my old mate Les Marton, sound mixer to the aurally challenged. Damn. If I'd known he was doing the show I would have asked for free tickets! Always up for a bit of a challenge, he was not only miking up the orchestra, but he and his partner Trish were running seventeen wireless mics on stage. Talk about gluttons for punishment, but it all worked well. Some standout singers, actors and dancers made it a truly fun night.

Next big show for me is definitely going to be The Book of Mormon. Written by the South Park team, what's not to like?

By the way, rumour has it that there is a website featuring musicals for Jihadists. Popular titles are Seven Brides for one Brother, Brigadoom, and the most popular - Ain't Misbeheadin'!

And now I hear that there's something bizarre on its way called Sing-a-long-a Sound of Music, where the audience goes out to watch the movie and sings along with it while waving their bunches of Edelweiss! Aagh. Spare me. I've only heard it on the radio ad, but that's enough to scar me for life. No truth to the rumour that 'How do you solve a problem like my rear' is sponsored by Weight Watchers!



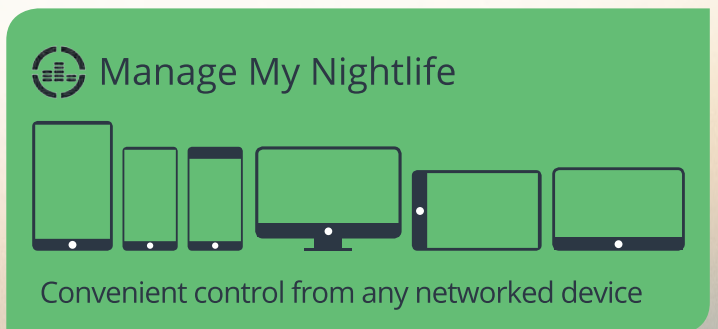
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