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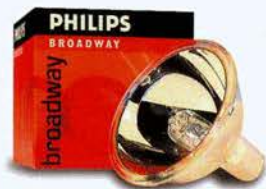
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• See page 50

EQ



Our Cover model is Bambi, former (briefly employed) receptionist at Juliusmedia. She is pictured dressed for her other job, serving up drinks at our nearest pub. The dude hanging on to the tray is from TCP, where it appears height is not an issue. The Clay Paky A photo was shrunk in our lab to fit on the tray. Bambi is one strong girl, huh?

Winner!

Tony Hystek from Action Sound has subscribed and wins a training course worth \$2,625

Another winner next issue.

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Welcome back!

(Or, welcome for the first time!)
CX is back on newsstand shelves this issue, the first time for this magazine. Our predecessor, Connections was there for 10 years exactly.

In December 2002, we said goodbye and published the 10th anniversary - and final - issue of Connections.

In March 2003 we launched this magazine, CX, which has appeared each second month since then. CX wasn't ever out on newsstands, we sold it direct by subscription, and through industry outlets, like sound and lighting shops.

Late last year we had an approach from the people who publish EQ magazine. They convinced us that their relaunch some months earlier in the USA had paid big dividends on the newsstands in the USA.

We always wanted to carry more content like you find in EQ - studio audio material - but the weakness here is that we didn't have several writers expert in that field.

Now we have a whole stable, and the EQ material fits in here like a glove.

It was a little like the tail wagging the dog - to afford to licensing deal with EQ, we would need to sell more magazines. And since the EQ material would make us more saleable, the place to do that is in a newsagency.

Welcome back!

New reader?

Please allow me, your editor, the indulgence of sharing with you our mission statement.

In one form or another, we've been publishing this magazine or one like it for fourteen years.

We stand against mediocre puffery, bias, advertorials, and being bullied into writing things.

We like to put things right, to fill an information vacuum that lets rumours persist.

We ascribe to the journalists code of ethics (www.alliance.org) and assert that journalism should be an honourable vocation.

We are committed to the growth and the strength of the entertainment industry and supportive of all who participate within.

We do and we will correct any error in this publication, quickly and fairly.

We enjoy what we do!

Training: feedback

As well as CX Magazine, we also run Julius Media College - the first college dedicated to vocational training from the Entertainment Industry Training Package.

We sold our ENTECH trade show earlier this year, and sunk the money back into our new college facility at Rydalmere - in Sydney's inner west.

Owning a college really helps us to produce this magazine, because we have a facility where we can properly appraise equipment; and we have plenty of smart students and teachers passing through the place every day.

Establishing the college has been an eye-opener, it has brought us to places we would not normally go.

Readers from our Connections days will remember we tended to publish quite a few negative letters. In fact, anyone who wrote anything negative about the magazine or one of its writers would usually find their letter published.

Now that we've proven something to ourselves, we've stopped running these letters. Where there is something said that is meaningful, it'll get run.

Meantime I will share a couple of comments received in recent weeks.

Complaint: "CX is not fair to other colleges because Julius Media owns a college and a magazine".

Complaint: "CX has too much material about Julius Media college in it".

To answer both these, please consider that there is no other non-government college running numerous courses from the Entertainment Industry Training Package.

Career Development

Part of our training activities include assessing skills and awarding qualifications to existing crew who don't need to sit through a course.

This work is taking us all over Australia, and giving us terrific feedback.

It's worth noting that a very small proportion of people working in entertainment have a relevant qualification, and this situation must change quickly. It's being pushed by insurers, and by government owned venues, where work method statements require that crew be, or be supervised by, qualified individuals.

Anyone working freelance is urged to have an assessment, if not by us (\$180), then by a Government TAFE or similar.

- Julius Grafton, Editor



Night school wrapped up, thanks to Jands, Chameleon, TCP, LOW, PAS and EVI Audio

Julius Media college night school students are pictured above with a Jands Hog 1000, and a G-Spot. These dudes and six others who were running late that night, have all worked hard towards a Certificate III in Sound or Lighting. Jands loaned a Hog 1000, TCP loaned some G-Spot moving lights, and Lots of Watts and Chameleon donated lighting rigs. Sound students learned on a variety of kit including a Verona console, Crest HP3, and a pile of hire gear from Lots of Watts. The course concluded with a concert at Parramatta Riverside Theatres. Thanks to them as well. Students and college management thank all donor firms! Next night school kicks off July 26.. www.juliusmedia.com

New Japanese Sounds

Discovery Firm Inc. announce two new Japanese sound libraries, suitable for people outside Japan needing ethnic sounds as a spice in their music. Check them out at www.discoverysound.com

JTS Microphones

There has been a change in the distribution of JTS Microphones across Australia. Musiclink Australia will now be distributing this line, plus all accessories. Info: www.jts.com.tw Sean Humphries is the Audio Products Manager at Musiclink. www.musiclink.com.au

Austage go Perth

AUSTAGE has announced its new staging facility in Perth is open for business, supplying the local corporate market, interstate and international clients.

AUSTAGE, Managing Director, Joe de Abreu said "AUSTAGE's client base has grown substantially, particularly in Western Australia and we recognised there was a strong need to service our corporate clients in Western Australia with a dedicated team of professionals and state of the art equipment."



Connector Cattle dog

Amphenol Australia has recently released the second edition of its comprehensive Entertainment Interconnect catalogue.

Updated for 2004, it features over 800 different connector products. Please contact Amphenol Australia for your free copy today. Note that terrific bonus: Free! Stephen Richards put the thing together. Web: www.amphenol.com.au Phone: 1 800 674 559

InFocus signs IDT

Projection system manufacturer InFocus Corporation has signed image Design Technology (IDT) as a distributor for its commercial projectors to the AV channel.

Under the new agreement, IDT would carry the InFocus LitePro, and X Series range of digital projectors, from wireless-ready ultra-portable cross over projectors to meeting room, installation and integration projection systems, the company said.

IDT joins Tech Pacific, B&H Australia and International Dynamics on the company's distribution books. Tech Pac is moving its projectors predominantly to the IT reseller channel, while International Dynamics covers off its "ScreenPlay" home projection systems.

While IDT will service the audio/visual channel and AV dealers had in the past preferred to deal with AV distributors they assert that this will soon change.

Audio visual equipment is now starting to penetrate the mass market retail channels, they say. Phone +61 2-9417 4924 —www.idt.com.au.

Important Technical Bulletin: Power- Jands Lighting

From July all Jands 3 Phase dimmer and power distribution products fitted with a 2 pin input lead will be manufactured with a 40A plug, with the exception of the HP6 which will be manufactured with a 50A plug.

If you have any queries please do not hesitate to contact Jands through www.jands.com.au, emailing info@jands.com.au or by calling +61 2 9582 0909.

Rainbow for Showcraft

Europe's most specified colour changer is now available in Australia from SHOWCRAFT. Further enquiries to Lee Conlor; +61 2 9698-3009 www.rainbow-colour-changers.ce

Tripp pushes levy

AustralAsian Music Industry Directory publisher Phil Tripp often referred to as a music business analyst by media- is pushing a change to the Copyright Act. This would allow consumers to legally copy their purchased music for personal use only and also compensate recording artists & songwriters through implementation of a blank media and digital music player levy system.

"It's time consumers are legally granted the right to make personal copies of music for backup of original CDs, making their own personal CD or digital music player compilations, making tapes for their car or recording songs from older vinyl albums-all of which are presently prohibited under the law." Tripp explains. "They can't play CDs on a computer to transfer them to iPod, other digital music players, recordable CDs, DVDs or cassette.



Peavey Changes to APG

Audio Products Group Pty Ltd (formerly Audio Products Australia Pty Ltd) has been appointed Australian distributor for Peavey PA and MI products.

Peavey MI products will be available from Audio Products Group in Australia from August, and will be re-launched into the Australian market at that time.

APG have also resumed direct distribution of AKG microphones into the music retail channel, this business was shared with previous Peavey distributor, Australis. Australis have had a strategic change in recent years, distributing their Ashton brand worldwide.

Luke Dixon at APG has been appointed Peavey product manager, call + 61 2 9578 0112. — www.audioproducts.com.au

Cadac Appoints ATT Audio

Cadac Electronics Plc has appointed ATT Audio Controls as its new representative in Australia, with the objective of raising Cadac's profile in the country.

Cadac is already well-known in the region for its J-Type Live Production Consoles (below), which are widely used on major musical productions, introducing a wide cross-section of operators and designers over many years to Cadac's design approach.

With the appointment of ATT Audio, the company is targeting a new tier of users, reflecting the broader range of products in Cadac's current portfolio.

ATT Audio Control's Frank Hinton is confident that the Cadac brand has a great deal to offer to the Australian market: "Cadac fits into our product portfolio perfectly, with its authentic engineering and design approach. We are very proud to be associated with this name". Call +61 2 9379-1511.

Stolen Strand 300

Any person with information regarding the location of a Strand 300 lighting control panel stolen from Circus Oz in Melbourne is requested to contact Crime Stoppers or 1800 333 000 or Senior Detective BERTONCELLO at Melbourne Crime Investigation Unit on +61 3 9247 5413.

Recovered DM 1000

Sydney sound and lighting identity 'professor' Michael Orland got more than an outstanding deal at the recent Lots of Watts 36 hour sale. He was approached by a gronk who wanted to sell him a Yamaha DM 1000 of all things. The one that had been stolen, along with the professor's van, months earlier!

The police suggested to the prof that he needed to physically site the serial number, so the learner one arranged an appointment at gronkville.

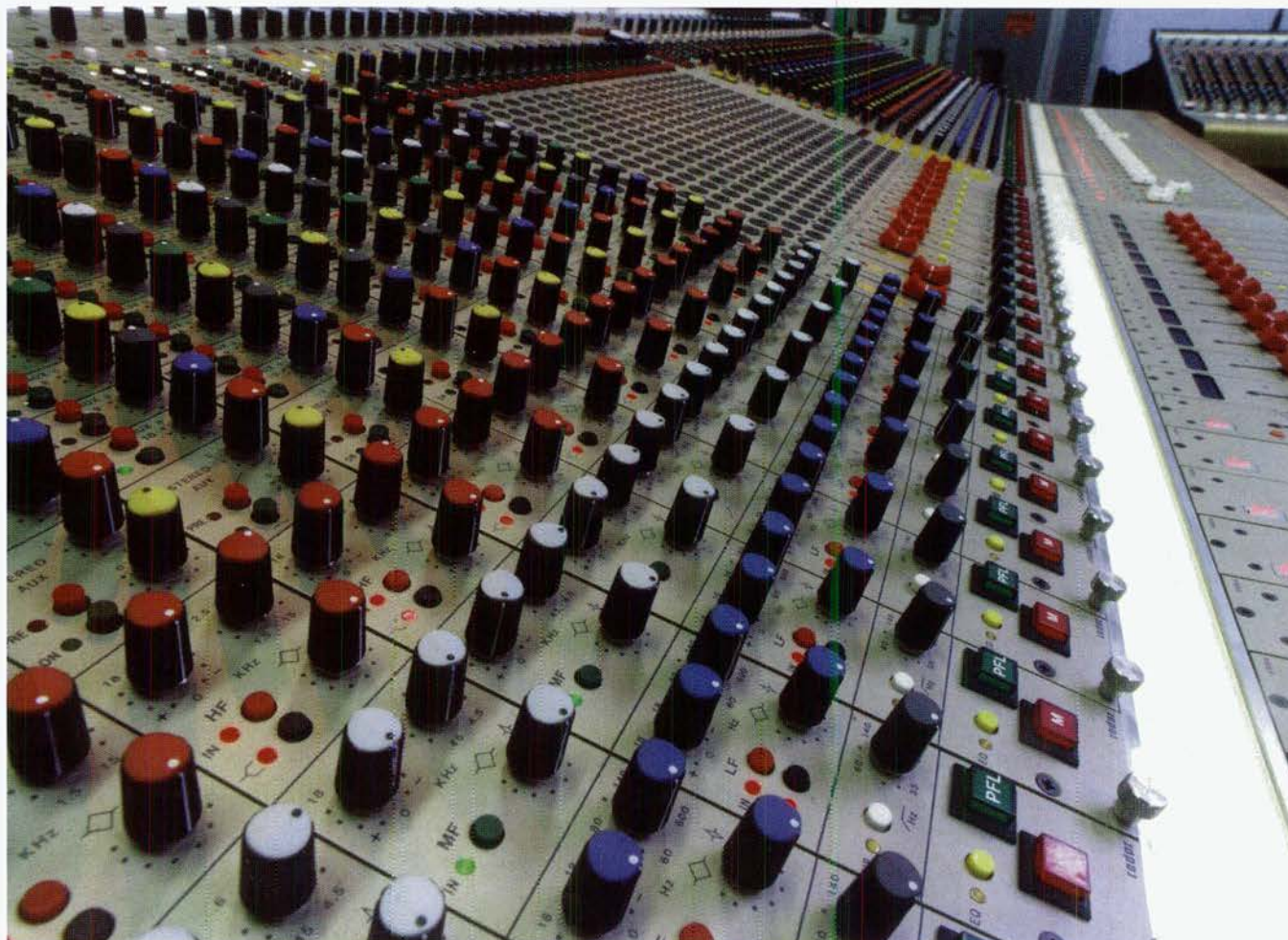
The police arrived later and collared the moron, Michael got his gear back. Case solved!

Test and Tag automated

Test the appliance, print the test tag, peel it off, stick it on the appliance and automatically save the results. That's the promise of the new Seaward ProTag System from Emona Instruments.

The system allows 40 or more items to be tested and tagged per hour. It comprises of the Seaward Supernova XE 3760 Testing Instrument, the ProTag Test Tag Printer, PATGuard Record keeping software and a bar code scanner.

The Supernova XE features a large LCD screen and simple menu driven operation. Enter the appliance number via the QWERTY keyboard or swipe the appliance bar code, select the appliance site and location, choose the type of appliance from a menu list and conduct the test. All test values are recorded by the Supernova XE and are added to the history of the tested appliance when the results are downloaded to the PATGuard software. —www.emona.com.au



Push hard now dept.

Australia and New Zealand will see much more of Crestron, with the American firm establishing a new partnership with Audio Telex Communications. Crestron is a product that can control almost anything - turning on, off, and remote operating lights, sound, vision, screens, doors, airconditioners, machines - and things.

In the USA, and the rest of the world, Crestron battles AMX - with both firms having roughly equal market share.

Australia has been dominated by AMX - until now - which is a shame, since Crestron does some things better and for less money. Many insiders consider that AMX have enjoyed an easy ride in recent years down under.

Audio Telex Communications is a fast growing distributor of audio and now ancillary products.

● www.audiotelx.com.au



Lexicon is an iconic name in studio audio, and live sound. They make the benchmark 960L multi-channel digital effects system, which is used by serious professionals. At the other end of the market, they recently launched the Mega desktop recording studio (pictured left). Mega has all the connections you need for audio in and out, plus software for Mac or PC. It has a Lexicon Pantheon reverb plug-in bundled as well.

Lexicon's distribution has moved over to Jands Pty Ltd, who are the leading pro audio distributor in the region. Jands have leading brands like JBL and Shure, but until now have lacked a product like Lexicon.

Expect increased exposure.

● www.jands.com.au

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CW1-8V Single 18" Subwoofer (300W) RRP \$1695

CW218V Dual 18" Subwoofer (600W) RRP \$2495

Flyable Models

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MG24/14FX 24 input channels (16 mic + 4 stereo line inputs), 14 busses & dual SPX digital effects RRP \$2275

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F7000S 700W + 700W at 8 Ω stereo RRP \$1995

Weird Sounds

I can't believe it's pop. The Dissociatives tour Australia

By Julius Grafton

Saturday morning, 9.30am. Last nights show was at Shellharbour, about 1.5 hours drive south. The band came off at 11pm, and the semi was ready to roll at 1.30am. Today's load in is at The Enmore Theatre, where Lock and Load crew transfer some lighting into a three tonner (below). It's cold - a cigarette sets the tone.

Bruce Johnston answered the phone half a world away, which was hard to believe because I saw him mix The Dissociatives just a night or two earlier at The Enmore Theatre. Transpires he took leave from the tour and shot over to London, to do a show at Glastonbury Festival with Oasis, the brat rock band who prefer an Australian to mix their house sound.

Dissociatives is the side project of Daniel Johns and Paul Mac. Johns is a rock guitarist and musical genius of tender years who we at CX envy because he is married to Natalie Imbruglia, who we reckon is a good sort. Mac is a dance music legend, who seems to know how to manipulate his genre.

Together this collaborative duo have come up with an album, and they toured to support it with sold out shows all over the eastern seaboard of Australia.

On stage this is nothing like silverchair, Johns' foundation band. Dissociatives are just plain weird as far as I am concerned, but then again I was the oldest guy there. The audience at the Enmore were very touchy-feely, kissy-huggy and about 300 of them were packed onto a dance floor. This allowed some to light up, and the rancid aroma of Acapulco Gold split the air.

Lighting Designer Chris Upjohn worked the music, with lots of moody looks. The stage set was made up of some frames with old speakers and dials welded in. From a distance they just looked strange.

I asked Bruce about The Sound of The Band..... "No one sent me a CD beforehand. I had heard that it was a pretty weird sounding record. So I went into the warm up shows deciding to take it as I heard it. After that first gig it became evident just how weird it was. I'd characterize it as a 70's flat dry drum kit sound, with crazy vocal and



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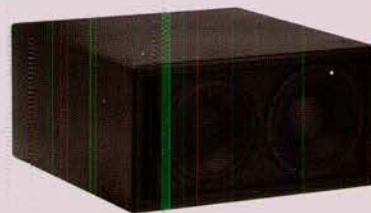
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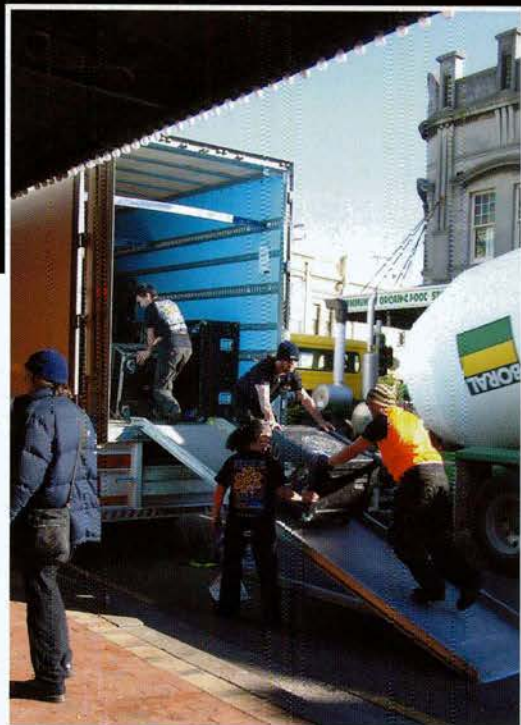
VR21 Premium 2-way installation speaker



VRS18 Premium sub-bass enclosure



VRM12 Premium vocal monitor



Dissociatives

"I'm glad I have the safety dry there always! Just in case all hell broke loose or the effects broke down".

"Apparently the album has some pretty radica vocal effects, after mixing the show live I don't want to ruin my perception by hearing it!"

Moving along, Paul Mac uses an upright piano which is real miked. He and the second keyboard player have Juno 106 synths, along with some other rack mount boutique stuff. Bruce ran them through the auto pan function on a couple of

Yamaha SPX

990 effectors at

FOH - two

units circle

panning left -

right - left.

Paul Mac had

things running

through old wah

wah pedals, "It's

all mashed up",

laughs Bruce. "I

think the piano

was going thru

10 pedals

These guys have

too much time

on their hands!

That show - the

keycard effects."

To enhance the crazy vocal effects, Johns spent a lot of time with his Everide H3000SE harmonizer and found a lot of pitch transposing functions and effects.

"He runs his own effects, with the mic running into a little Yamaha digital mixer. He has a footswitch for dry or effects. I took a left/right feed out of the Yamaha, and got whatever he was sensing. After the first show, I took a split off before the effects - so if it got crazy, I could go back to it!"

Johns would sometimes send two words of a verse dry, without effects, then switch in the effects. "The clicking and popping (of switching them in) is part of the sound", enthuses Johnston.



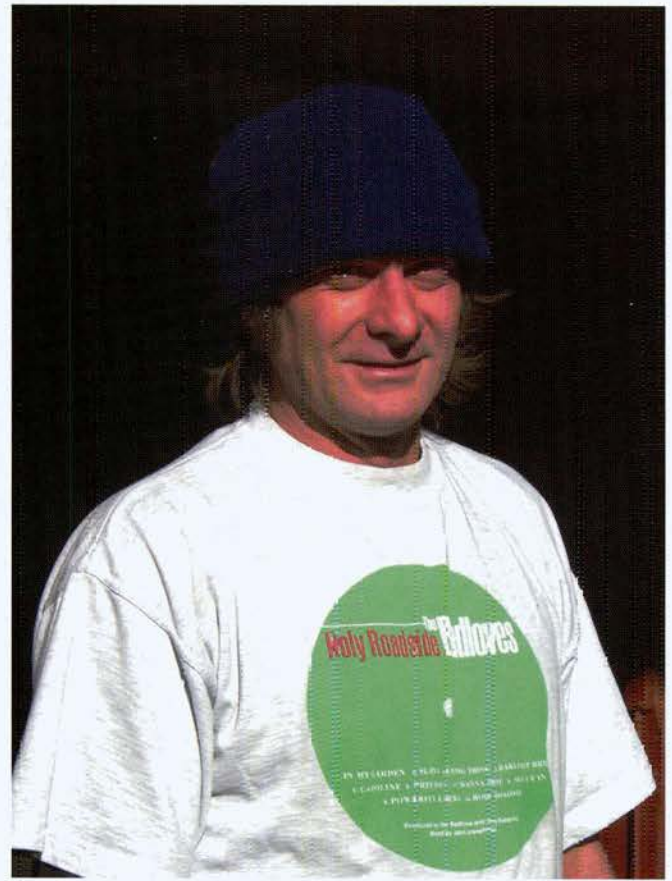
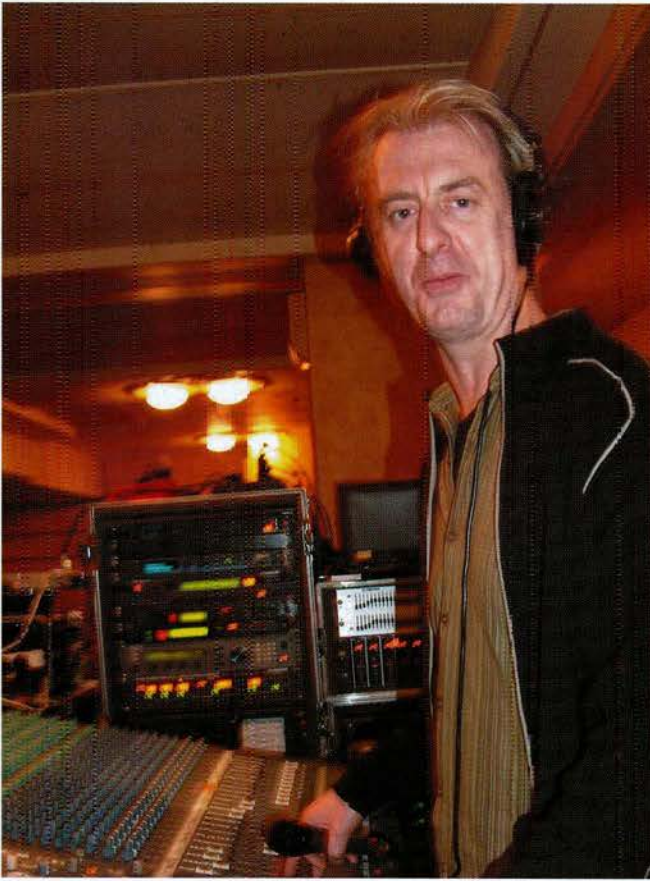
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Dissociatives

CFEW:
FOH Sound: Bruce Johnston (above)
Monitors: Rod Matheson.
Lighting Designer: Chris Upjohn
 (pictured at right)
Production Manager and Guitar
 Tech: Bailey Holloway (top right)
Drum and piano tech: Ben Lyons
Stage manager, bass, key tech:
 Casey Hillard
Audio rigger: Brent Gray
Monitor rigger: Saul Skourides,
LX rigger: Danny North
Truck: Eric Morgan

Dissociatives toured with a JAS Alpha system, and a lighting rig from Chameleon Touring.

Weird set piece (right)

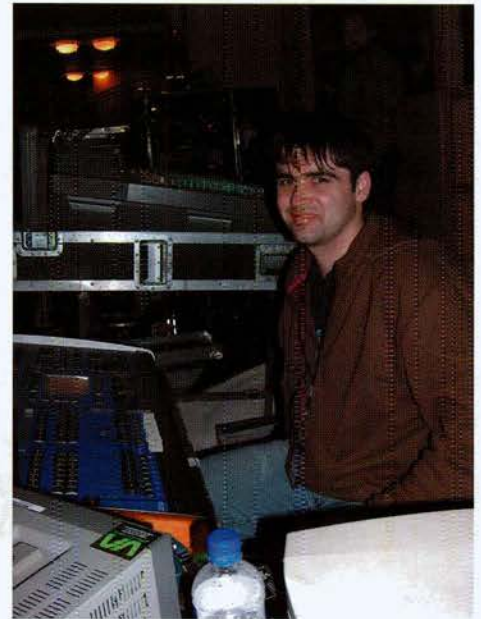
Enmore – was amazing, it was the standout gig (of the tour), the music worked. Strange y!”

We had a normal crum kit, I used no reverbs, I had compression on kick and snare, and just left it. I had to tell myself; ‘don’t add reverb. It’s just the 1980’s in me! Every time it got monstrous I had to stop myself! But I broke in the last song, it’s the dark evil side of me!”

Daniel Johns played a Fender Telecaster, making for a thinner sound than one would normally equate to him. “There was no big silverchair chunky sound”, says Bruce – who should know, since he mixed the most recent silverchair tour. “The parts are there to suit, and it’s not overbearing. The drummer had vibes, and a xylophone up the back. I shoved a couple of condensers on it.”

“Finally, the Bass was straight, I took a pre and post (amp) feed, he had a few effects – like an Octaver – it splits the octave, makes it darker, deeper”
 Apart from that, it’s just complicated music, straight up! A bit of Split Enz about it, craziness, and a bit loopy. There was a drum machine in a couple of songs”.

“I normally do listen to a barbs records beforehand, but in the end I work better if I haven’t heard it all before. This first tour is all refreshing – it’s almost like a relationship”.



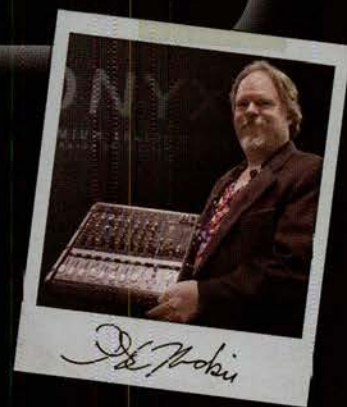
While the other guys were busy adding switches and knobs, we reinvented the whole thing.



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Instant Stagehands

Lock and Load introduce skills training

Things have changed in loader-land, as Julius Grafton discovers

Stagehands and crew for hire is the business at Lock and Load, one of roughly a dozen labor hire firms across Australia. Lock are the largest, with an established arm in Melbourne, as well as a revived Brisbane branch supplementing the head office in Sydney.

These days stagehands are expected to work safe, and most crewing agencies now also offer experienced crew alongside pure loaders and laborers. But it didn't always work like this, CX recalls last decade a now defunct crewing agency that had a lucrative sideline in drug running. The decade before that, shows would just call the Commonwealth Employment Service and get some farmhands wearing thongs.

Lock was established in 1992 by Tony Harrison, Adrian 'Oggy' Ward and Andy 'Bluey' Laidler, when the trio – all loaders – realized they were the 'AAA' team for another agency. Not only that, but they were arranging other crew for shows. So they struck out as Lock and Load.

They got a big break with the Rolling Stones Voocoo Lounge tour, putting 200 crew on the job. That was followed by Madonna, then U2. These days L & L do the Big Day Out every summer in Sydney, and virtually all major tours on the east coast.

The business works as a business, which sounds straight forward, but is in contrast to some less than professional crewing agencies of yesteryear. Best practice, according to Lock and Load, means crew in uniform, properly inducted, and bussed to the show in a

company vehicle if required.

They work around the clock – operations management is shared between Matt Maurer and Simon Chappell, who can field calls at 1am. "It's amazing, but it happens", says Matt. "Someone has had things go wrong all week, then they get to a point and realize they need more crew. They call. I have to make a split second decision, and if I say yes, they've pushed their stress on to me. Sometimes it all falls into place – we might have another crew somewhere just finishing, and can bounce them on".

"It's not just work for a lot of these guys, it's the stigma of working on shows. Being involved, being part of a huge event".

L & L went through a trough just after the Olympics, when Tony – by that stage the sole surviving partner – was misdiagnosed with a chronic illness. His doctor advised correctly that stress was triggering the ailment, which prevented him eating – and sent him up the coast to relax for a couple of years.

While away, L & L ran under management, which is never ideal for a business like this, and then Tony was rushed to Hospital when his condition worsened. When he woke, he discovered he was missing his Appendix, and the problem had been related. Cured and revived, he returned to Sydney and is now expanding the business.

"We put human resources out to almost any work", he tells me, "films, shows, landscaping..... Matt spent a week holding a reflector on the set at The Matrix!"

Finding and managing a large temporary

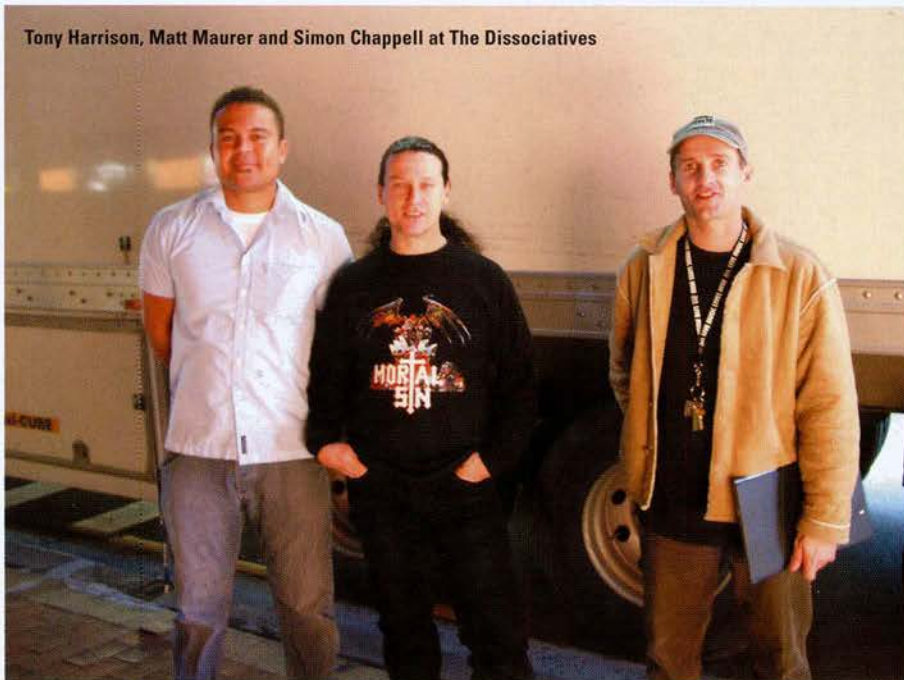
workforce is a logistical nightmare that Lock and Load have mastered. They are now introducing training linked to the new Certificate III in Entertainment, with crew to be divided into qualified and unqualified categories – and paid accordingly. The training will see crew obtain lighting or audio skills, along with a stage OH&S unit. Some crew will work up to, and attain the new Certificate III.

The firm can now offer clients base crew, or trained crew, at a price differential. The move reflects the new industry move towards all crew being qualified, now that there is a new national qualification - the Certificate III - for stagehands, sound, light and vision technicians.

"Some clients still complain that the basic crew don't know much", laments Matt, "but if you hire - and pay - someone to push boxes, that's what we give you".

— www.lockload.com.au

Tony Harrison, Matt Maurer and Simon Chappell at The Dissociatives



Lock and load crew on the job at The Dissociatives



Andrew 'Love God' Chandler (top)
Elizabeth Olliver (above),
LeGrand Roberts (above,
right), Adam Sabe (right),
Adrian Poulton and Nat
Watkins (below)



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Clay Paky Alpha

All singing, all dancing 575 movers

By John Grimshaw

Clay Paky are going head to head against Martin with the Alpha Spot HPE and Alpha Wash. We took a couple for a test drive to see what the fuss at ENTECH was all about...

Clay Paky are one of the original lighting manufacturers. Based in Italy, they have had a long tradition of turning out high quality, and extremely reliable lanterns. The Golden Scan is a classic example of a lantern that just won't die. Since its introduction in the late 80's, it has remained so popular that Clay Paky have announced the release of the third forth updates to the design of this classic light – the Golden Scan IV and Golden Scan HPE.

In these days with a few extremely inexpensive lanterns in this same performance category, Clay Paky needed to produce a unit that either cut back on features for price competition, or offered cutting edge technology.

Clay Paky have aimed for the latter, and are certainly proud of the results.

Before plugging in the Alphas for the first time, the first step was to take a look at the DMX allocation for each of the lights.

As you can see on the DMX table, both units require slightly more DMX channels than you might expect at first blush. For both Alpha models, the control channels for lamp on/off,



DMX Ch	Alpha Spot HPE Action	Alpha Wash Action
1	Cyan	Cyan
2	Magenta	Magenta
3	Yellow	Yellow
4	CTO (linear fade)	CTO (linear fade)
5	Colour Wheel	Colour Wheel
6	Strobe	Strobe
7	Dimmer	Dimmer
8	Iris	Light Frost (linear fade)
9	Fixed Gobo Select	Heavy Frost (linear fade)
10	Rotating Gobo 1 - Select	Zoom Lens
11	Rotating Gobo 1 - Rotation	Pan
12	Rotating Gobo 2 - Select	Tilt
13	Rotating Gobo 2 - Rotation	Reset
14	Graphic Disc - Select	Lamp ON/OFF
15	Graphic Disc - Rotation	Pan Fine
16	Prism - Select	Tilt Fine
17	Prism - Rotation	
18	Frost Filters	
19	Focus Lens	
20	Zoom Lens	
21	Pan	
22	Tilt	
23	Reset	
24	Lamp ON/OFF	
25	Pan Fine	
26	Tilt Fine	
27	Gobo 1 Fine	
28	Gobo 2 Fine	

reset and strobe control all have their own discrete channels (other brands use one or two channels). The distinct advantage of this in the strobe function is a greater variety in the speeds of the strobe – almost the full range of 0 to 255 is used to determine the speed, with 0 closing the shutter and 255 (100%) leaving it fully open. Plus, for those that are using these devices on 'less capable' desks, or with less skilled operators, they do not have to scroll through functions on a single channel to find the function they need.

ALPHA WASH

The Alpha Wash has all of the features you would expect on a wash luminaire these days, though some of the features are provided with a significantly wider range of options than has been the norm. CMY colour mixing with a



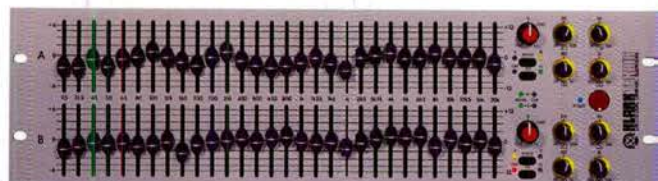
DN370

Analogue EQ - for the 21st Century

In the last twenty years, digital technology has revolutionised live sound - and Klark Teknik has been at the forefront of this technology with products like the innovative Helix digital EQ system. At the same time, for many applications the speed of operation of the classic analogue graphic equaliser reigns supreme. For this reason we have developed the all-new DN370. Optimised to provide exceptionally precise control in the context of today's more accurate sound systems, DN370 truly brings analogue control into the 21st Century.

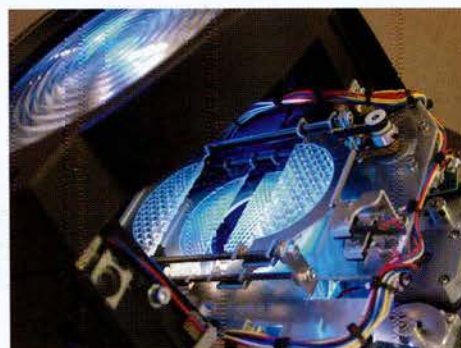
- > New proportional-Q filters with curves optimised for effective, musical control of problem frequencies
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- > Swept high and low-pass filters provide accurate control of the frequency limits - ideal for combining in-ear and wedge monitors
- > Selectable ranges of $\pm 6\text{dB}$ or $\pm 12\text{dB}$ with long-throw faders for maximum control resolution
- > Illuminated rings around the controls for "at a glance" status indication
- > Exemplary sound quality - as you would expect from Klark Teknik

DN370: dual channel graphic equaliser



KLARK TEKNIK

Clay Paky Alpha



separate colour wheel are exactly what you would expect if you are used to other wash lights like the MAC 600.

One thing that really stands out for the Wash light is its ability to zoom the output – just like a conventional fresnel. The specification says there is 4 to 80 degrees of "electronic linear zoom". This is achieved through a number of controls.

The dominant zoom control involves controlling the light path from the lamp through a narrow beam path – just like any moving light profile. This light path is then passed through a hemispherical lens inside the unit. When the light passes through this lens, it is spread out evenly in much the same way as if that was the actual light source. So when the motorised fresnel lens is moved closer to hemispherical lens, the beam spreads out. This beam system also allows the colour filtering and mixing to be done before the internal lens, while the light is in a tight and controlled path.

The other elements to the "electronic linear zoom" are the two beam spreading dispersion filters. These can be progressively added, in tandem with the movement of the fresnel lens to give the full 4-80 degree spread.

The internal build of the lantern is very well thought out. There is good access to all of the user serviceable parts, making changes to the fixed colours a breeze. The wiring harness is all very accessible, and all of the electronic controllers are located under a protective housing on the lamp housing. There needs to be plenty of space around this area to maintain the ventilation of lamp base

and the electronics.

The Wash unit uses the HMI 575W/SE Lamp, which is a single ended bubble. While this type of bubble takes a bit of physical real estate to accommodate, there is plenty of room in the unit to make it work well.

Finally the actual light output from the wash unit appeared extremely flat during testing. Certainly the colour mixing was very evenly distributed over the beam, and the fade was smooth and controlled. The light output was very punchy for a HMI 575W.

ALPHA SPOT HPE

Looking at the Alpha Spot HPE (High

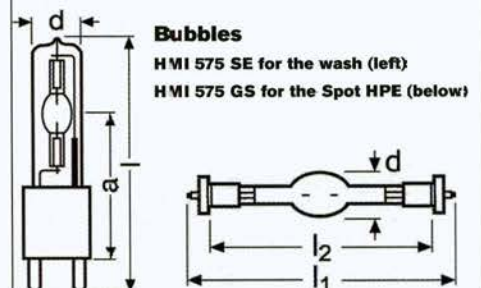


Performance Equipment), this is clearly a very sophisticated device. From the DMX channel list, you will be able to see that it is a CMY capable lantern, using "zoom profile" optics. Although roughly a similar size to the Martin Mac 550, the internal real estate has been thoroughly packed with features.

The first thing that you will quickly notice when you open the cover of the Alpha Spot is how little room the lamp housing takes up. Clay Paky opted for the double ended bubble so they could compress the lamp housing space significantly. This has obviously had other flow on positive effects of being able to better manage the heat dissipation, increased room for optical elements, and far easier serviceability when the technicians are working on the internals of the unit.

The fade/blackout control paddles and the colour mixing CMY section are adjacent to the lamp housing. The CMY is a system of glass slides that are gradually introduced to the light path to colour the light. All of this fits within the first quarter of the length of the unit.

The remainder of the back half of the fixture is where all of the optical effects like gobos, iris and ripple wheels are located. The fixed gobo disc is held in place using a magnetic lock, so replacing/changing is as



The New Generation of Allen & Heath MixWizard

Allen & Heath's MixWizards have been the best-selling compact multi-function consoles in the world for many years, and are as popular now as when they were launched in 1997. They've been used all over the world, in hundreds of different applications, from church and theatres to pub bands and DJs.

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New MixWizards: WZ³ 16:2, WZ³ 12:2 and WZ³ 14:4:2

Performance improvements with new mic preamp design and more responsive EQ.

Extended PA possibilities with control of aux fed subs on new mono output fader.

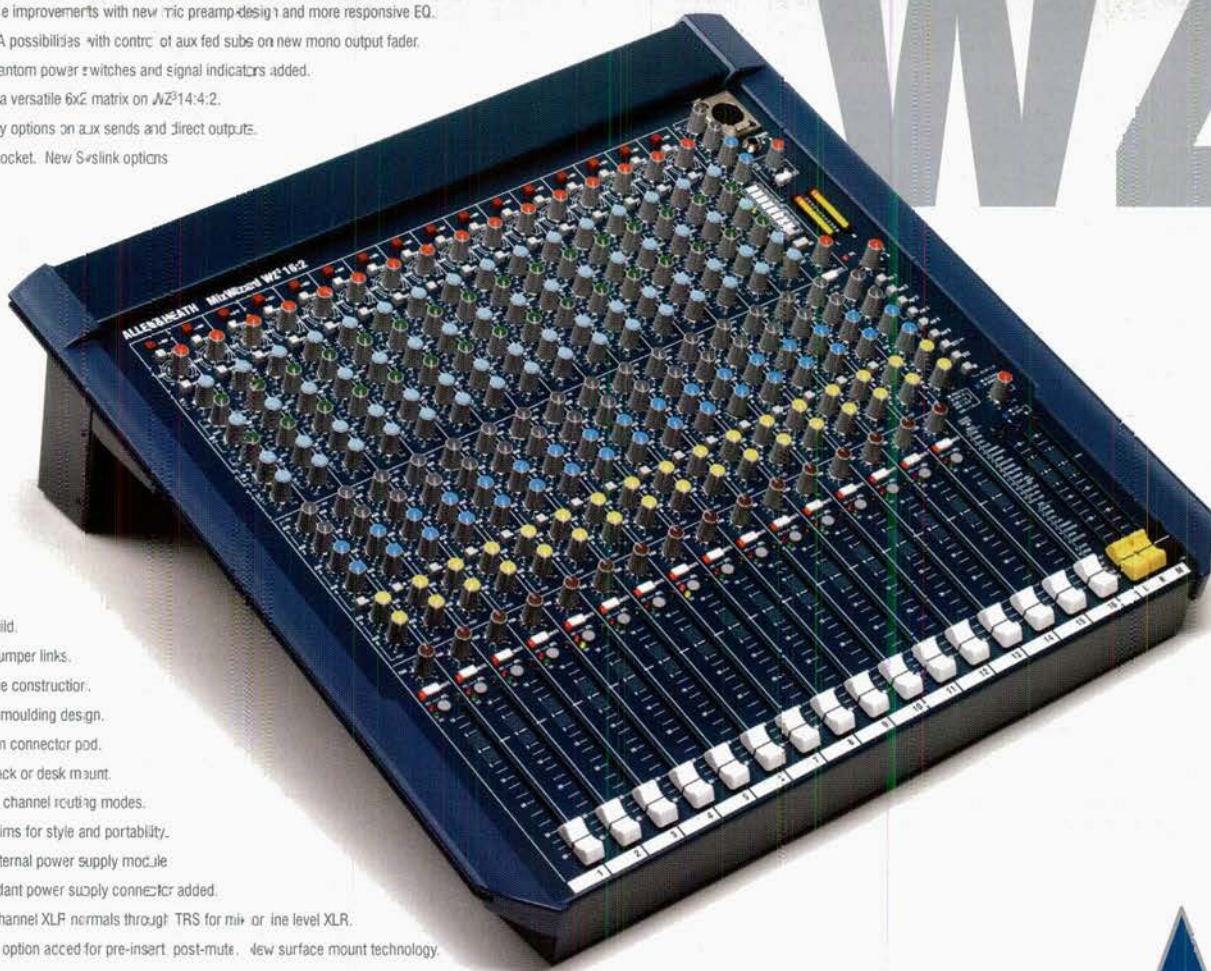
Channel phantom power switches and signal indicators added.

Addition of a versatile 6x2 matrix on WZ³ 14:4:2.

User friendly options on aux sends and direct outputs.

XLR lamp socket. New S-slink options

WZ³



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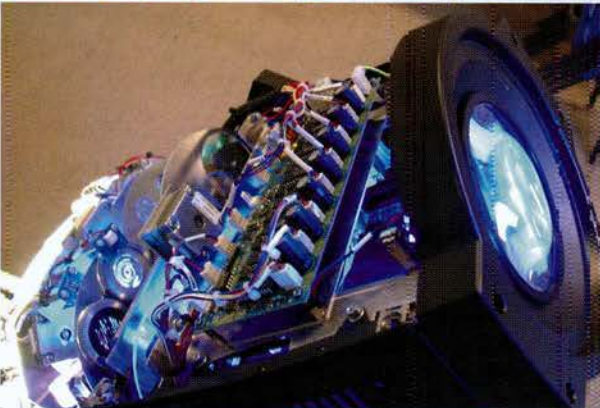
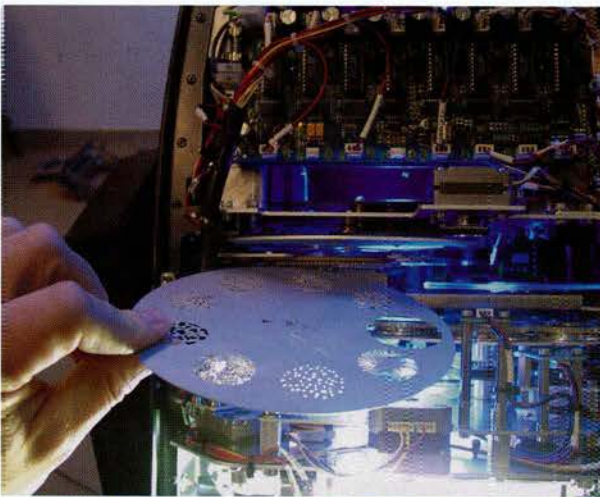
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Clay Paky Alpha



simple as pulling out the old disc and inserting the new. The rotating gobos are also easy to service and replace. Held in place by the typical locking ring, each gobo holder has a specially shaped 'notch', to allow extraction of the gobo without tools (if you have good fingernails), or with a small screwdriver.

The area from the half way point (where the yoke attaches to either side of the main body of the lantern) to the front end of the device is devoted to the zoom control and frost effect. The full zoom breadth is 10 to 40 degrees, and this is achieved using a combination of the focus and zoom lenses.

Just like the wash, a great deal of care has gone into the design of the internal layout. With the lamp housing compacted at one end, the control circuits have been moved to the other end making servicing this section very easy (and quite a bit cooler than the wash). Again the complex wiring harness is easy to inspect for wear/damage, and a great deal of care has been made to ensure that user changeable parts are easy to access.

The Alpha Wash and Spot HPE both have identically shaped power supply bases, with all of the controls and interfaces located on the one surface. The unit has both 5pin and 3 pin XLR in/out, with an Ethernet port marked for future use. The underside of the base shows eight individual locking pins for rigging points as well as attachment options for safety chains.

The pan and tilt run at identical

speeds for both units, with a timing of roughly 4 seconds for 540 degrees of Pan, and 2.8sec for around 270 degrees of Tilt.

Clay Paky can also supply specially moulded road case inserts, making the local production of road cases extremely simple, especially when it appears that the insert is designed to fit both the wash and the spot with no modification.

The light output from the spot unit again appeared extremely flat during testing (no adjustment to the peak controls was needed). With the colour mixing controls between the lamp housing and the beam shaping controls, it was possible to pull the focus lens into an extreme position and get a very faint impression of the colour slides projecting. This 'image' is lost or flattened out to the "even wash" you would expect (and need) as soon as the focus was moved from the extreme. Again, a very punchy light output that would be hard for others to out-perform.

Conclusion

These are very well designed and solidly built fixtures that will last a long time for their owners. Both units give lighting designers a suite of visual options they have not had before in the fitting of this size. In particular the spot would be an extremely impressive tool in the hands of a capable designer.

As a new fixture, there are many people taking a close look to see if the Alpha will sit in their respective lighting inventories. Time will tell.

—www.totalconceptprojects.com

Look Ma, no power!

One of the neat features of the Alpha series is that you can set the DMX and other onboard parameters before you plug in the devices. We have not been able to do this since the reliable "flip switches" have departed us. The Alpha allows the user to operate the LED display, and make setting changes because an onboard rechargeable battery can power this section of the electronics. Just hit a button and off you go. This might seem like a small thing to some people, but the big advantage of this will be for the hire companies and the ability to begin prepping equipment without actually firing it up.



Symphony Sound

By Julius Grafton



Sydney Opera House hosted The Lord of the Rings Symphony in June, to a sellout season. Acclaimed maestro Howard Shore wrote the score to the movie trilogy. He won awards and accolades. Then he came to Sydney to perform the work, as six movements.

The Sydney Symphony Orchestra, Sydney Philharmonic Choirs and the Sydney Children's Choir made up to 250 people on stage. Shore conducted, and diva Katie Noonan sang the hit song from the movie.

It was to be a theatrical event – a spectacular, staged in the Concert Hall, with projected imagery of illustrative designs from the movie projected behind the stage. Moving lights were installed and laboriously programmed by Opera House crew, with more than 200 lighting cues set. The Sydney Opera House threw everything enthusiastically behind the project – a terrific example of generosity of spirit on their side.

The audio was designed up from the premise that with Barco projectors and moving lights aplenty, the normally very quiet noise floor at the symphonic concert would be substantially raised. It was inevitable some amplification would be required, which can be unusual for a symphony.

Given the broad appeal of the concert, it was thought surround sound could be added, and this was easy since the Sydney Opera House Concert Hall has one of the first Euphonix System Five audio consoles used in live performance. The console has just been installed to compliment the Opera Theatre installation of two years ago. This console type is prolific in movie post production, and is designed to send surround sound at the push of a button. Until very recently it was a rare inclusion in a performing arts venue.

CX spoke with Bruce 'Bunny' Cook, the audio designer and operator for The Lord of the Rings Symphony, just after opening night in Sydney.

"We knew we needed amplification, to get over the noise floor. Plus the Concert Hall defies the laws of design for a venue like this – it is back to front, with a big void above the stage tapering down towards the rear. The strings would be lost in there".

The question of what to amplify in the orchestra was solved by miking everything, then mixing in what was needed during the performance. Rehearsal time was narrow, due to schedules and costs. The orchestra are available for two and a half hour calls, twice a day, making five hours of rehearsals. In all the show was rehearsed five hours with the orchestra alone, then five hours with the choir. Not a lot of rehearsal.

The most telling effect of the System 5 on the set up was the complete lack of processing racks required, indeed the audio department were able to hand back 4 extra seats for sale from the normal allocation. This was achieved by using the on board equalization and dynamics to cover the mics and foldback sends while a wireless tablet PC controlled the newly installed Lake Contour system handling the sound system processing. A Lexicon 960 simply rested under the console frame.

"We simply ran out of time to get to the surround sound", sighed Bunny. The rear speakers – Meyer UPA's with M2D subwoofers – were in place. All that was needed was to actually send programme back there. "I could send brass there at the push of a button", Bunny said.

The symphony is written as six movements for orchestra and chorus, and after intermission Katie Noonan, famous for her work with the rock band George, came on to add dimension.

Because the symphony started life as a film score, it wasn't written around the constraints of a live performance, where brass totally overpowers strings, which end up simply filling out brass passages. Instead the performance had lots of fast running figures from the strings, difficult to balance acoustically.

A left – right PA system was installed, which was based on Meyer products. Meyer have a vice grip on performing arts work like this, and the Opera House have invested in new M2D and M1D line array boxes, along with M3D subwoofers. Bunny is a fan: "the M3D sub is cardioid – there's enough of a bottom end problem in the venue, but to be able to aim bottom end at an audience is amazing."

This is the new buzz for sound designers, Meyer and most recently Nexo have adopted patented and complex methods of steering low frequency out of a speaker system. Until now, the assumption was always that directionality of sound diminished as the frequency got lower.

Because this show featured projections, the screen trim caused a compromise in the flown left and right PA array. Instead of 10 x M2D line array boxes, only 6 could be flown each side under the subs. This necessitated a left – right stage stack of 8 smaller M1D line array boxes, and 5 UPM-1P boxes were placed along the front centre of the stage for near audience fill.

Having two main systems – flown and either side of stage – meant decisions on time alignment needed to be made, and for this the 'House team were thankful for the

> please turn to page 28

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CROWN

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Symphony

Continued from page 25



assistance of Justin Baird, of Lake Technology. Lake are Sydney based, and are now a division of Dolby. They made the Contour controllers used for the show. Justin previously worked at Meyer Sound in the USA, and knows the project backwards. He dropped in and helped out with the system settings.

"We ran up MAPP", says Bunny, referring to the new predictive software program available free on the Meyer website. "Then we found the point where the high frequency pattern from the stage stacks met the pattern from the flown line arrays – about half way down the auditorium. We aligned both systems to that. It was very well behaved, we had coverage everywhere. We didn't really need much in the way of system equalisation."

Time alignment is a subtle holy grail of live sound, and this show took Bunny to a new plain. He chose the time zero point as the front of the stage, then was able to time offset each instrument according to how far back it sat. In the case of the choir, whose front row was 12.5 metres back from the lip of the stage, up to 40 milliseconds of delay was wound in to their microphones.

Being able to time delay each channel is something that the System Five, along with other upmarket digital sound consoles, can do. It opens up a new world for fussy sound engineers!

With the system installed and checked, the orchestra came in for rehearsals, and the delicate game of what can be done started. The composer/conductor had an assistant who knew what was desired by the maestro.

Bunny understands the process better than most, having spent the past 34 years working in theatre sound – both at the 'House, and for System Sound on a variety of musicals over a decade.

Essentially a conductor is a control freak. So is a sound engineer. The two must come together, and forge a bond of trust.

"They were reticent to let a little control go. The assistant sat next to me. It's not un-usual", says Bunny."

"It was accepted that the strings would be amplified, and they were miked, one mic to each desk (music stand, shared between two players). A mixture of Neumann KM 140 (cardioid) and KM 150 (hyper cardioid) microphones were used.

The first step in orchestral sound is to just listen to the orchestra with the PA turned off, says Bunny. This is not different to any musical sound reinforcement job, rock band included. "It's all about subtlety and presence", says Bunny.

Bunny was assisted by the composer, whose assistant sat alongside and relayed the wishes of the maestro. This process is fairly common with shows of this magnitude, and makes a tight rehearsal period tighter still.

The American party didn't appreciate the efforts of Damien Cooper, whose lighting design included lots of cues and looks. Many were rejected, which must have been crushing for this excellent young professional. Also for the 'House crew, who labored long and hard to get the system in the air, and to programme all the cues.

In execution, the production was simply excellent.

I enjoyed the naturalness of the sound, reveled in the placement and spread of the orchestra and choir. Nothing beats true symphonic sound, with its massive dynamic range. The compromise created by the higher noise floor from the obvious fan noise from up high was acceptable, and the subtle amplification of strings and signature instruments by Bunny was just that – subtle.

The only time the sound image appeared to shift from the stage to the flown arrays was in the final number, when Katie Noonan moved in close to the mic, and started singing like a rock singer does – moving in; and out; to control the dynamic. That was the wake up moment, when yes, there was a PA system.

And no, it was just fine by me – it all sounded wonderful.

Production Concepts and Reality

In selling this performance much was made of the projected imagery of Alan Lee and John Howe. In reality, the slowly panning, static black and white sketches were nothing to write home about, and were a waste of resources to present. They didn't fill the 4:3 screen, having been created for a 16:9 aspect ratio. The by-product of the projection was a wall of noise from the Barco's – and also from some of the moving lights.

Microphones

Strings: 28 Neumann KM 140 (cardioid) and KM 150 (hypercardioid). These were 'Y' split, each 2 mic's shared one console input channel.

Woodwind: (Flutes, oboe's, clarinets, bassoons). 2 x KM 143 – wide cardioids.

Brass: 5 Neumann TLM 170 wide cardioid; about 1 metre in front.

Percussion: 4 x Sennheiser MKH40 on stands along the front, 'just pointing in there'

Harp: 1 x AKG 414

Piano: 1 x AKG 414

Cymbalom: 1 x Sennheiser MKH 40

Dulcimer: 1 x Sennheiser MKH 40

Flute one: 1 x Sennheiser MKH 40

Flute two with pan pipes and Irish whistle: 1 x Sennheiser MKH 40

Guitars: 2 x Sennheiser MKH 40

Choir: Front row: 4 x AKG 747 mini shotguns, to pick up women and front row of children. Shotgun chosen to try to keep the percussion out. Back row: Neumann KM 140 cardioids.

Specials: 3 x radio mics for soloists in choir, since their standing position was decided until late in rehearsals.

1 x Neumann KM 150 hypercardioid mic for lead soloist Natie Noonan.

• Thanks to Alistair Dewar & Max Twartz (TAG); and David Claringbold (SOH) for assistance with this story.



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Specifications:

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Weight:
9kg

Driver complement:
Twelve 2.25" drivers per speaker

Maximum acoustic output:
113dB - SPL @ 1m

Impedance:
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Long-term power handling:
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Sensitivity:
88dB - SPL @ 1W, 1m

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Horizontal coverage:
160° (-6dB average, 1 - 4 kHz)

Panaray® MA12
Modular Line Array Loudspeaker

Fighting Adversity the Woodie way

Men avoid talking about some things. Then they die.

I want

to apologise to all my customers, and explain what's been going on", starts Ian Woodhouse, owner of ASM – Audio Sales

and Marketing in Sydney. Ian has fought a grueling battle against cancer for the past year. He didn't want people to know it at the time. Now he does.

2,500 men die in Australia of the 10,000 diagnosed every year from Prostate Cancer, and not too many understand the condition, says Ian. He had a brush with it, some years ago, and then collided head on, with a terrible diagnosis in June 2003. "The urologist said it was a very aggressive cancer, and there was a chance I could kiss my ass goodbye", the 59 year old father of two told CX.

At ASM things got tricky. Despite the best efforts of staff, no one could step straight into the shoes of Ian, "Woody" to his friends in the industry. Woody had micro-managed the daily activities of his company – ASM are a wholesaler of audio and presentation products - which had a rocky start when his founding partner, Andrew Horman passed away suddenly. Woody then needed to pay out Andrew's family, something not usually planned for in a partnership.

Then a growing business representing several product lines across Asia came to a dead stop when the Asian currency crisis struck in the late 1990's.

But nothing was as bad as the past year.

Diagnosis was a terrible shock. While the specialist appointments were lined up, treatment options were laid out. They ranged from dreadful options like 'do nothing, then die', surgery to remove the prostate (not possible due to the spread of Woody's cancer) or aggressive treatment with radiation. The latter option was chosen.

Meantime Woody went through the emotions. Pity. Tears. Fears.

The doctors prepared Woody for HDR – High Dose Rate Brachy Therapy, which is the big radiation treatment and in its infancy as a treatment option in Australia. First came a run of hormone treatment to arrest the spread of the Cancer. This created side effects, not dissimilar to menopause. It also stacked weight on, something a former athlete does not appreciate.

TREATING PROSTATE

Weeks after Woody told me his story, I still felt squeamish about prostate and its treatment. But like anyone who has had a horrible disease, Woody just dealt with it. My brother in law had most of his bowel removed, and I felt uncomfortable hearing the whole story when he told me. But these survivors deserve to be heard. And the rest of us need to be situationally aware.

The specialists treating Woody advised that the radiation treatment was appropriate, so they started treating him

with hormones to stop the spread of the cancer while the treatment was booked.

Hormone side effects are known to women going through menopause, and vary from hot and cold flushes, muscle degeneration, inability to concentrate, difficulty to make decisions, through to weight gain.

The radiation treatment is called Brachy Therapy, and involves 2 days in hospital attached to an unpleasant device. If you'd like more, log on to www.brachytherapy.com and check it out. The Brachy Therapy is then followed by up to 24 doses of External Beam Radiation requiring daily visits to the hospital for treatment and again in Woody's case, continuing hormone treatment.

Ian Woodhouse is not out of danger, but he is hopeful. After a year or so of this, he is facing the future optimistically. He is counseling other men who have been



diagnosed with prostate. His message is to overcome the natural fear of the examination, and have it checked regularly.

Meanwhile, Audio Sales and Marketing is rebuilding itself after a slow down caused by the main guy being half there in mind and body. The fact he went to work most days right through the last year speaks volumes.

Good luck!

- By Julius Grafton

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VISTA: the view is good!

TESTED BY JULIUS GRAFTON



Jands Vista is a top end lighting console designed to simplify the relationship between the operator and the rig. That relationship has become strained as moving lights have proliferated, and programming times have blown out. After a two hour inspection I can confirm that Vista will reduce time spent on the job.

Vista comes in two hardware formats, T4 as seen at ENTECH and T2 with less modules. Some hardware improvements have been made on the production models, I appraised one of the first ten units to ship.

Confronting the Vista you see a compact and attractive console that has had some serious industrial design poured in. It's tough feeling, the rake and reach are very good, and it has some nice form and function features. The full sized T4 variant has five modules, the most dominant houses the Wacom 15" pen tablet. This is a 1024 x 768 LCD screen with exceptional off-axis viewing.

Much that is unique about Vista can be

seen on the pen tablet screen.

My Vista session started one bleak winter morning in the warm Jands boardroom with Dave Harding and David Mulholland demonstrating some of the more complex features. All I wanted to do was choose 24 moving lights, and operate them. After half an hour watching them digging deep into screens and features, and listening to Vista-talk, I was still not getting it, so the two Dave's gave me the pen and let me do my worst.

I rebooted the desk, waited a short time, then went to the 'patch' screen. I chose the first of four DMX universes, and its 512 channels popped up. Over in 'fixtures', on the same screen, I dialed up some classic Golden Scan HPE's, because I remembered you need 12 dmx channels for these. Did you know Clay Paky still sell HPE's? The moving mirror has unbeatable pan and tilt time, and plenty of designers like THAT idea!

Using the tablet pen, I dragged an HPE over and plonked it on channel 1. It expanded

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Source Four Revolution, new from ETC.

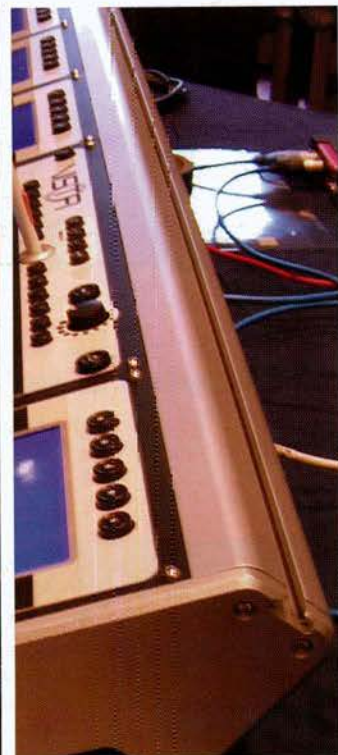
For more information on Source Four Revolution, go to www.etcconnect.com/revolution/



Jands Vista



David Mulhol and - Vista project leader - and David Harding (right). Vista 'sump' back panel (below). Captive rail (right, below) for possible attachment of external monitor.



modules, plus the master tablet and keyboard module.

A T2 console has one of each module, that is: a master module; a playback module (with 2 groups of 5 playbacks) and a hybrid playback/programming module (with 5 playbacks without faders). Got it?

BACKGROUND

Let's talk about the build. Jands have been making control desks of one form or another since the 1970's, and have an impressive command of the processes. The firm has managed to retain key staff (and thus knowledge) over the decades, as opposed to the revolving door mentality we often see from other firms, typified by the flood of 'new appointment' press releases we get here at the magazine.

The Vista is ever so sexy, with a cute fire engine red 'sump' that houses the CPU at the rear. It contains the connections, including mains, MIDI, SMPTE, DMX, USB, Ethernet, Audio and external monitor.

Up top is a captive rail that allows addition of peripherals such as an external monitor on a bracket. Over at the front is a hinged lid/armrest where you can stash your tablet pen for transit. In normal use, the tablet pen inserts into a receptacle above the tablet.

Inside the armrest cavity is a USB port – additional to the 2 on the rear – which would be most useful for inserting a USB key in a way that it is kept secure. There is also a CD Writer (for show backup) down there.

The console fader knobs, buttons and jog-shuttle wheels are all custom designed by Jands for feel, durability and appearance. In particular, Jands spent a lot of time working on the weighting of the wheels, by adding steel slowly until the wheels 'just felt right' as you spin them. And they do.

Jands are quietly optimistic about Vista, and have stage managed its launch in a most faultless manner. It was revealed at PLASA last year, and then at a series of shows, with controlled demonstrations. At ENTECH it was formally launched, then the first ten consoles were shipped in May.

THE FUTURE

The timing of Vista is most excellent, it arrives on the market at time when lighting designers and directors are grappling with more and more moving light types, when typical console topography has hit the ceiling. A direct Vista competitor, the GrandMA is a classic case.

That particular console is so user definable it has become overtly far too complex. I can relate to this in training terms, where we have seen first hand at Juliusmedia how new students relate to lighting boards.

On the 'other side' of lighting is theatre, where users are accustomed to using a keypad, and punching in values when programming. A theatre show in replay mode then comprises a lot of stop and go actions. Vista can penetrate theatre by virtue of the fact that the moving light is getting silenced, so theatre designers are specifying new and quiet designs into shows where static lighting once ruled.

The current crop of theatre consoles from Strand and ETC don't relate to moving lights anywhere near as elegantly as the Vista. In fact, I'll stand on a limb and assert that Vista is the most user friendly moving light console I've seen, of any complexion- large or small.

Overall this is a world class product.



Crestron is the world's leading designer and manufacturer of advanced control and automation systems for the commercial and residential environments. Crestron has opened a new office in Silverwater, Sydney, backed by the commercial audio industry's biggest player in Australia and New Zealand who is determined to make Crestron number one in the region.

National Sales Manager - AV Control and Integration Systems

The dynamic individual will be responsible for developing and managing marketing and sales strategies, distribution channels and technical support personnel for our commercial and residential markets. Essential to this position is experience in at least one of residential and commercial audio visual markets, previous successful managerial experience in this field, the ability to give oral presentations and a solid knowledge of IT.

A business or marketing degree would be preferable.

We are a dynamic team and offer excellent salary package and working environment.

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We are looking for an experienced programmer/engineer to provide top quality technical support to our customers.

Specifically, our role would include the programming of projects, dealer support, software development and various customer and product service related tasks. We are looking for a person with a keen interest in integrating audiovisual and IT applications and that person should have a strong competency in graphic design due to our leading-edge touch panel and xpanel design requirements.

Experience with problem solving and troubleshooting, a computer science or electronic engineering degree, A/V installation, networking and GUI design experience would all be preferable.

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We are looking for an experienced internal salesperson.

The successful candidate shall be a team player who has a solid understanding of AV Control systems and the AV Market. Supporting your sales/brand manager and on road sales representatives you will need to be highly organised and highly motivated. Previous sales experience in the audio visual or pro sound markets is essential. We are a dynamic team and offer excellent salary package and working environment.

Sales Representative - AV Control and Integration Systems - Sydney

We are looking for an experienced on road sales person.

The successful candidate shall have on-road sales experience in this field and an excellent understanding of AV/IT.

This position will cover both NSW and QLD so will require some travel. We are a dynamic team and offer excellent salary package and working environment.

Sales Representative - AV Control and Integration Systems - Melbourne

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Contact Details:

Email marketing@crestron.com.au or call Stuart Craig on 02 9647 1411 for more details.

Buying Moving Lights

BY John Grimshaw

Things to look for:

- Noise! Measure it.
- Cost! Measure that, too
- Pan time
- Tilt time
- Even beam spread
- Lamp replacement cost
- Hourly cost
- Weight
- Size
- Lumen output
- Warranty
- Strength of local support
- Location of service centres
- Reputation
- Marketing: will YOUR clients want to use it?
- Place of origin
- Build quality
- Behaviour when mains supply fluctuates

Are there other considerations with purchasing moving lights? Send us your thoughts and what you have done in your workplace. mail@juliusmedia.com

For the average venue, the concept of buying moving lights to add to their stock remains a challenging question. Balancing the money saved from constantly hiring lights against the ongoing resourcing and servicing costs is always a headache. However, if one was no object, what should you be looking for in a moving light to suit your needs?

Why could moving lights be a better solution than conventional ones?

Limited or Difficult access – it may be extremely inconvenient, not possible or even dangerous to regularly attend to conventional lights in the required position. Of course, you will need to be able to get access from time to time for service, but maybe that is significantly easier than a daily/weekly access for refocusing etc.

Quality or Type of show – they may be some types of shows where the audience is expecting to get the quality or type of show that moving lights are used for. Audiences are getting very used to having these devices moving about and doing their thing, even in some theatrical shows. This may be a very important consideration for some events.

Few or No personnel available for set up – There are plenty of 'one person' operated installations and venues around the place. For these situations, the only real way to offer the flexibility of lights (where you want them and how you want them) can only be realistically achieved using moving lights.

When is buying going to be better than hiring for moving lights?

On simple economical grounds, if you hire often then you have justification for buying. However, there are some other advantages worth considering.

You will know the history of the lanterns – and know that they haven't had a hard touring life. With each of the lamps in your system being roughly the same age and same types, you will be in a far better position to monitor the ongoing use of the devices. When one device has a minor failure (maybe a motor gets tired), this change will be noticeable at an early stage, and you can make plans for an early service. It stands to reason that a device in a venue will last longer than the same one in a hire environment.

In addition, the lamps inside the units will wear out at roughly the same rate. That means you stand a greater chance of having the colour temperatures match across your rig.

How often are you going to have to have the lamps serviced?

This depends largely on the amount of dust, air movement and smoke effects used in the room where the devices will live. If you are a regular reader of CX you would have seen the article we published on servicing moving lights back in issue

number one. In a nutshell, this article tells you that moving lights seems to gather dust and gunk like politicians gather journalists. Dust is the great enemy of the moving light, because a build up of this can change the colour of the light, stop motors working, make belts wear out, and render limit switches useless. Luckily, the article mentioned previously showed that any reasonably skilled technician can actually perform a service on a moving light using a vacuum, paint brush and a bunch of lubricants.

As to the frequency of service, you will just have to identify this yourself during the initial stages of your new installation. It could be every three months for a dirty, smoky nightclub, it could be every five years for a less frequently used room. It could be simply as the lamp hours run out on your fixed life discharge lamps. By the way, don't be tempted to run these lamps over their life span, or otherwise – boom, time for a MAJOR service! They may explode.

If your installation is in a location where it is difficult to access and check the lamps hours off the display, consider adding a time counter to the power circuit wherever you switch it on. While it won't be a precise match to the time the lamps are running (lamp off and cooling down will add the variation), it will be close.

Another consideration is the warranty period, and possibly a service contact with your supplier when you buy new moving lights. Ask them about service costs and a servicing contract. They may be able to throw you some incentives to buy their products.

Finally, get an understanding of what the realistic life of the device is going to be. This is essential for amortizing the cost - if you're assuming you'll get four trouble free years and the thing is dead in the air after three, then you've done your money.



Above is a picture of a simple hours timer from RS Components. At \$87.70, the model number 243-588 device is activated by a simple contact closure. Your electrician should be able to connect this to the power supply line running to your inaccessible moving lights. However, put the device behind a piece of Perspex, otherwise you will have people accidentally resetting it!

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NEW

VOICELIVE

TC-Helicon has released VoiceLive (right), the latest addition to their range of leading-edge vocal processors.

VoiceLive is every live vocalist's "dream machine". Fast & simple to use, it can massively expand a vocal performance with stunningly real 4-part harmonies, pitch correction and lead voice thickening plus true TC reverb & dynamics technology.

VoiceLive contains all the tools necessary for creating a complete, perfect vocal performance with everything easily accessible in a live situation. TC Reverb, 3-band EQ, Compression and Delay algorithms are all there together with the best 4-part Harmony, Pitch Correction and Voice Doubling algorithms from TC-Helicon's acclaimed studio rack-mount systems. On-stage control of all internal processing is simplified through eight footswitches, various switch-modes and an optional expression pedal. — www.ambertech.com.au



IDEA moving heads

SGM introduces the X-LINE, a new family of moving heads which offer great reliability and a stylish and modern design. IDEA line is made of four models, fitted with 250W or 575W

discharge lamps: IDEA Spot 250, IDEA Wash 250, IDEA Spot 575 and IDEA Wash 575.

The IDEA Spot 250 has a 3° beam angle (8° and 21° on request); IDEA Spot 575 has three selectable beam angles (13°, 18° and 21°).

IDEA Wash 250 and IDEA Wash 575 are equipped with a motorized zoom which allows linear beam adjustment between 13°-23° (Wash 250) and 16°-28° (Wash 575). The IDEA moving heads combine high-quality projection with high luminous efficiency:

3.500 Lux / 4 m. with 13° angle (Spot 250)
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11.000 Lux / 4 m with 13° angle (Spot 575);
12.300 Lux / 4 m with 16° angle (Wash 575).
—www.jle.com.au

Redback PA

Atronic Distributors announces the release of a new REDBACK PA speaker range, aimed at club, stage and PA hire users. They are available in 8", 10", 12" and 15" variants, plus powered 12" and 15" models. The enclosures are manufactured from tough nylon fibre and ABS, are designed to stack and include carry handles. There is also a top hat adaptor for stand-mounting and rigging points for suspension installations.

—www.alfronics.com.au



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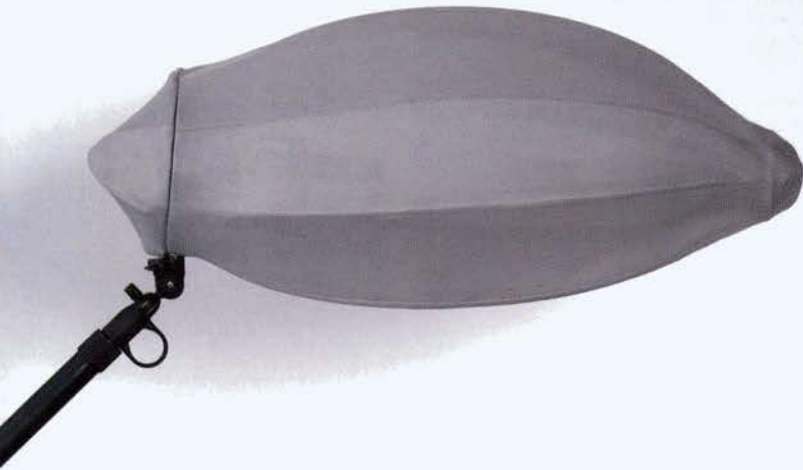


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NEW



WINDPAC

The DPA WINDPAC is an ultra-lightweight weatherproof solution for location recording. Fully wind-resistant and simple to operate, the WINDPAC weighs in at just 250g - 50% less than any other windshield system - with space-saving benefits to match thanks to a quick and easy dismantling function.

Comprised of just two components - a shock mount and a collapsible windshield - the WINDPAC is unique in a number of ways. Firstly, the shock mount cradle is universal and can be used with any microphone without the need for numerous fittings. This 'one size fits all' feature is accomplished by the use of adjustable elastic straps with different settings to accommodate any microphone.

The collapsible zepplin-like windshield is made from an innovative fabric which blocks wind noise in gusts of up to 100 kmh (70mph) while allowing accurate sound reproduction and audio transparency. This fabric, which DPA subjected to rigorous tests, is so effective that only one layer is required to shield microphones from the strongest winds.

www.d2a.com.au

ACOUSTILYZER

NTI has now further expanded the Minstrument range with the addition of the AL1 Acoustilyzer - a powerful palm-sized acoustic analyzer and audio test system.

The AL1 offers an outstanding combination of acoustic & electrical measurement tools to create an ideal all-in-one tool for sound/system contractors, installers and multi-media specialists. AL1 acoustic measurement/analysis functions include:

- Sound Level metering with LEQ, SEL and short time LEQ
- Real-time frequency analysis in 1/1 & 1/3 octave bands
- FFT analysis down to 1Hz resolution
- RT60 reverberation time measurements
- Delay measurements
- Optional complete STI-PA speech intelligibility implementation (to IEC60268-13 2003)

In addition to familiar instantaneous and integrated Sound Pressure Level measurements (SPL), the repeatable short-time LEQ & Sound Exposure Level (SEL) test functions complete the event monitoring requirements. The AL1 visualizes the actual audio spectrum (RTA) or a chart view of the SPL/LEQ history without interrupting ongoing sound level measurements. The RTA also permits relative sound spectrum measurements against previously stored references and stored spectra may be averaged or combined. The "Max-Min" display is particularly helpful for finding dominant room modes and characterisation of listening areas. All measurement results may be logged to the internal memory for further investigation.

Since the AL1 has been developed from NTI's already successful ML1 Minilyzer palm-top audio analyser, an optional AL1 firmware upgrade path will be available for all current ML1 owners.

— www.ambertech.com.au



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ARX Systems, the Australian based Pro Audio manufacturer is pleased to announce the release of the new AudiBox range of precision tools designed to perform essential professional audio functions in an ultra compact, flexible package. Little black boxes' for every audio toolbox!

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A transformer isolated 1 input to 2 outputs splitter for splitting 1 Microphone or Line Level input 2 ways in applications where complete Galvanic isolation is required.

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Using Training to grow a business

CX meets Peter Hassall, creative director, company owner, and Mr. Events in Cairns

Cairns is a unique market, and Peter Hassall should know. He owns the two main production outlets there, and has weathered heavy incursions by the two heavyweights of the staging and events production industry - Staging Connections - the national leader) and Gearhouse (the failed events company, not to be confused with Gearhouse Broadcast).

Peter was in partnership with Staging some years ago in a Cairns outlet, when Staging withdrew. A little earlier, Gearhouse had purchased Pro Gear Events Services in Cairns from Danny Sale. The collapse of Gearhouse put that business back into local hands.

Now Peter Hassall owns them both, and he retains Danny Sale as managing director of Pro Gear.

CREW QUALIFICATIONS

Stageworks Australia recently undertook a skills assessment of its key crew, who were assessed for a new Certificate III in Live Production, Theatre and Events (Technical Operations). This process allows experienced crew to obtain a qualification, either Units of Competency on a Statement of Attainment, or a full Certificate III.

The assessment, against Recognised Current Competencies (RCC), was conducted at Stageworks premises by Juliusmedia (publisher of CX), in its role as a Registered Training Organisation. Six crew and

staff (pictured right) undertook the assessment, and they presented as very well skilled and motivated.

STAGWORKS TODAY

The firm now see their business split about half staging and production, and half theming, sets and design. This has shifted up in recent years, allied with the powerful effect that conventions and meetings has on a town like Cairns.

Cairns is three hours flying time north of Sydney, and is roughly double the distance from Brisbane than Sydney is from Brisbane. Put another way, it is a very long way north.

"We see a lot of crew come up from the south looking for work", says Peter Hassall, who was the technical director at Cairns Civic Theatre for 8 years. He has had extensive performing arts experience.

Peter's direction at Stageworks is to embrace training, and to grow and develop skills within the company.

Now that he has introduced a qualifications framework, starting at Certificate III, he can offer his crew a career path with Nationally Recognised Qualifications as outcomes.

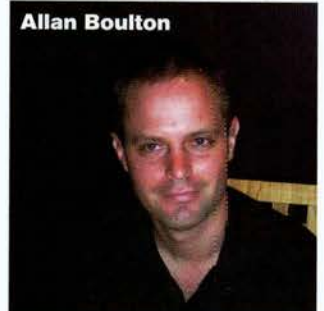
He has already put some crew through Rigging courses and heavy vehicle driving courses.

Stageworks is a neat, clean, efficient and friendly place to visit.

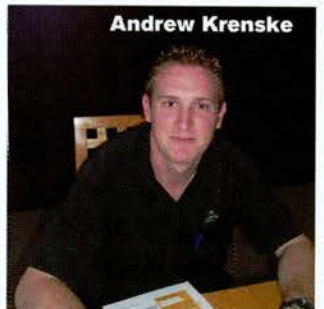
—www.stageworks.com.au



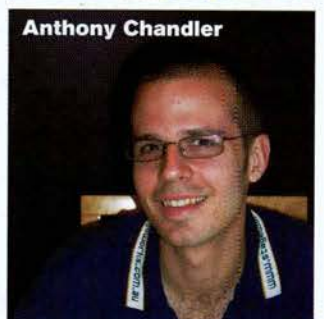
Adam Rumble



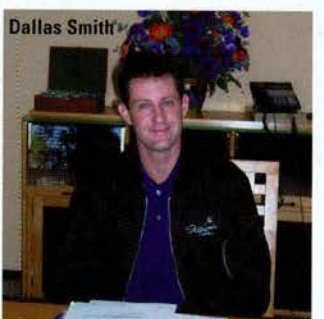
Allan Boulton



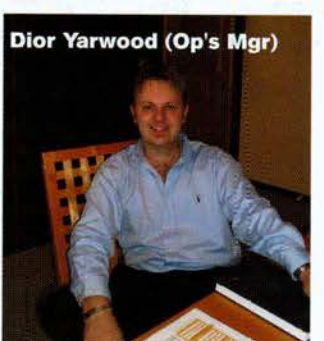
Andrew Krenske



Anthony Chandler



Dallas Smith



Dior Yarwood (Op's Mgr)



Peter Hassall (left) owns Stageworks Australia and also Pro Gear Event Services - a separate company, managed by Danny Sale. Well known audio identity **Mick Privitera** (below) has relocated himself to Pro Gear, where he is contracted to take the firm harder into touring and sales. Mick flies home every 10 days or so to see his wife and 5 kids in Brisbane. He is happy, looks well and is working hard.



THEATRELIGHT

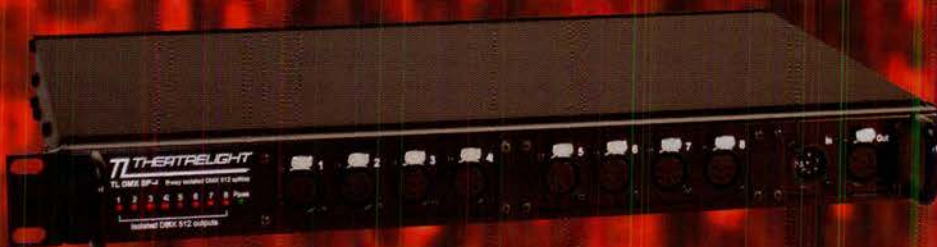


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Doing well in amateur land

Brett and Katie Wheeler are members of Holroyd Musical and Dramatic Society in Sydney's west. Brett did the sound and lighting- his other job is at Riverside Theatre. Katie played a leper and a dancer in the show.

Holroyd recently staged Jesus Christ Superstar with five performances. The 200 seat venue is a civic centre, without fly tower and with a strangely high stage. The society, managed by Malcolm Webb (who also works at Riverside), is successful - they stage four shows yearly, and have been going for around 30 years.

For JCS, Brett had a \$4000 lighting budget, and was lucky enough to get what he needed within that. He got 6 Mac 250 Krypton movers from Richard Neville, and 4 Mac 300's from Chameleon. Allied with other, limited, fixed lighting, he managed to make it all work well.

The sound budget was \$2200, and once again a sympathetic supplier in the form of Simon Keonig rode to the rescue.

Congratulations Holroyd!



Simon's Road Food

After my last food column here, I asked myself a couple of questions. How healthy do I want my recipes to be, and how difficult?

If you want to be cooking 95% fat free dishes, then I suggest that you go out and buy a specialist recipe book. Cheese is cheese.

Chicken and Chips:

(Quantities are for one person, since I had no one to cook for this time..... see sidebox!) Although this one might seem a bit tricky. It isn't. You just need to put a bit of time into it.

Ingredients:

One Chicken Breast
One rasher of Bacon (Rind removed)
One "finger" of Cheese (I used Jarlsberg, but feel free to use your own favourite)
Cup of thickened cream
Basil (I used the tube variety, available from most supermarkets.)
Three potatoes
Quarter Onion
Two cloves of garlic
Rosemary
Fresh vegetables (ie: Carrot and Zucchini)
Oil, Salt and pepper

Method:

- Cut potatoes in half and boil for about ten minutes (you want them slightly undercooked)
 - Cool and cut into wedges
 - Slice onion and garlic (do not fine chop)
 - Slice vegetables
 - With a short, thin knife make a "pocket" in the Chicken Breast. Insert cheese.
- * Use a tooth pick/skewer to close the hole.

- Wrap Bacon around the Chicken
- Brown the Chicken in a frypan. Place onto a baking tray, cover in foil and put into a hot oven (220c) for about 20 mins
- Use the same frypan, and fry the onion and garlic. Add the potatoes and Rosemary
- Fry till nice and brown
- Place the cream into a pan and bring to the boil, turn down and allow to reduce.
- Add the basil
- Boil the vegies for a few minutes. Strain and toss in some butter and salt and pepper
- Put it all on a plate. Four sauce (yumm... lots for me please) over Chicken and eat.

Notes:

As with last time, please keep everything clean and cool. Keep the Chicken away from everything else, when preparing.

Please do not follow my recipes "slavishly". Things vary.

Feel free to play around with my recipes. Try different herbs! You may want to make it easier, ie: Oven bake wedges and frozen Vegies from the supermarket. Just enjoy making, and enjoy eating. That's the main thing.
Bon Apetite!
- Simon Main



Girls, alert!

Simon cooked this ALONE, and had no one to share it with! The ferral: CX team too: particular note, and suggested he might be worth getting to know. Simon is the Op's Manager at Norwest Productions in Sydney. He has just turned 39, and lives at Ermington. Likes: Most of the usual. Dining out, movies, picnics. Rugby. The beach. Travel. Reading. Red wine and cheese. Dislikes: McDonalds, getting out of bed in the morning, "People who are power freaks, and blah blah about it". Enjoys life, but sensible. GSOH. Enjoys the finer things in life (typical Tarean, he says)

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LSC MAXIM



By John Grimshaw

User Comments.....

I recently had occasion to take my Maxim MP back to the factory for some minor repairs. It was sent back to me using a well known freight transport company. When I opened up the road case I found the pat pad smashed. I was on LSC's doorstep at first light the next morning and when I opened up the road case lid they were as shocked as I was.

They had the desk out and into their workshop straight away and I was walking out the door with a fully repaired desk inside 20 minutes. Service like that is very hard to beat. I want to thank LSC and staff publicly they have made a very fine lighting desk and stand by their product.

- Garry Boast

LSC's Maxim is a two preset lighting desk, with manual faders for each channel of control. We tested a Maxim L with the optional PatPad (more about the PatPac later).

Anyone with basic experience in two preset lighting desks should be able to quickly drive this desk. As you would expect, there are a couple of modes of operation. Preset - the top and bottom rows of faders control the same channels. In this case it would be DMX outputs 1 to 36.

Wide - the top and bottom rows of faders control the different channels. In this case it would be DMX outputs 1 to 36 on the top (yellow bank) row and 37 to 72 on the bottom (red bank).

Scene - the faders and flash buttons control pre-recorded scenes. There are 9 pages of scene masters used by the "yellow" bank when in Scene mode, so this desk with 36 faders in the yellow bank allows for 9 x 36 = 324 scenes to be recorded.

As an added bonus, this desk has a "blue bank". These are dedicated scene masters as described above, making a handful of preset scenes available even when the desk is in Preset or Wide modes. Plus there is a separate "page" button for the blue bank, making 9 pages of 6 scene masters available separately.

The maxim comes with a Quick Reference Manual, which details recording a simple scene (hit record and then the button for that scene master), and a complex scene involving fade times. Importantly, the reference

also shows that editing a scene is relatively easy. It also talks the user through recording a chase and a stack.

Moving Lights

Every moving light desk has a unique way of controlling lights.

I did not find the PatPad operation particularly intuitive, but once you get started things do get a bit easier. The control surface is made up of numerous touch-sensitive buttons and horizontal sliders, very similar to a laptop 'scratch pad' style of mouse control.

However, these surfaces are also interactive, with text displays and other indicator lights embedded into the controls.

Just like any moving light desk, the controller relies on you telling the desk what sort of lights you have, and patching those into the DMX stream before any kind of operation can take place. The internal fixture library for our test desk was empty straight out of the box, however the desk is supplied with a floppy disk with a fairly impressive library of 185 of the more common moving lights. It looks like the intention is for the user to only load the parameters for the moving lights that the desk actually needs to control. The desk can 'remember' the parameters for 64 moving lights at any time.

When we added our test fixture to the library, initially a little guess work was involved. The supplied disk contained 185 fixtures, each as a text file with an eight character name. This was displayed over 31 pages - not an easy thing to scroll through on a lighting desk that only shows 6 entries at a time.

As we scrolled through the list we initially adopted a hit and miss approach to trying to find the library entries for the Robe 575 Spot and a Robe 575 Wash to be used as the test fixtures. After looking at the entries that started with "R" and not finding a match, we took a punt on the "SPOT5753" - success! This suggested the "WASH-5753" was the companion fixture.

Probably a far better way of identifying the correct profile to load would have been to put the disk in a computer first, and work out which were the correct files and transfer these to a new disc. The files can be opened using any old text editor (we used Notepad), and this showed all the information needed to identify the library item.

With the library loaded, then it is on to patching the fixture to an output. The Maxim L has two DMX outputs, and to make things easier it we patched the moving lights to the second output (because normally you might want to leave the conventional lights on the first output).

Once patched, you will be able to fully use the PatPad for the first time. It is this point where you discover the horizontal displays are used as slider controls. It is a very cool concept - if the display says "pan" then that is what you are controlling if you slide your finger along the panel. I found it a little difficult to get very precise control as quickly as you could with a tactile thing like an actual wheel, but with practise it would be possible.

There are numerous other features of the PatPad, like selecting attributes quickly, storing features and "looks" etc. Interestingly, the Maxim does not have a built in effects generator, but as a basic desk with moving light abilities, it is well worth a look. -www.lscighting.com.au



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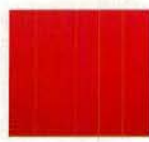
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Secret Shopper

Starring: The Sleuth

Our mission: to find a humble, innocent, inexpensive MIDI KEYBOARD. We need four of them, to connect to PC's running Cubase SX. Sleuth decided to let his fingers do the walking, so he could cover some serious geography.

We called four stores, starting with Eagle Music in Dee Why. The dude didn't identify himself, and he went through the motions. His suggestion was a Yamaha CVX-K1 keyboard which sells for \$195 – if we wanted four units (which we do) he was happy to sell it at \$170.

Mr. Eagle sounded authoritative. He told us that this keyboard doesn't come with a MIDI connection cable, so to connect to our PC he suggested a USB to MIDI interface – at \$195 again! Naturally you need one for each keyboard.

We asked him if there was another way to do it, without the interface, he said you needed to be a computer genius to make it all work. He had one in stock, and it would take about a week to get the others in.

Next stop was a call to Brisbane Concert Sound, where the sales dude who identified himself as Lee was courteous. He suggested an M-Audio 49E, which retails for \$249 – but we

could get it for \$179 if we bought four. Best of all, the unit comes with a connecting cable – nothing else to buy.

They don't keep them in stock but he said if it was available from the wholesaler, he could get it in two days.

He was friendly, with a good phone manner and knowledgeable.

Third we blasted over to Adelaide, to John Reynolds Music City. Katie answered the phone, she had a good phone manner and was friendly. She didn't seem to have a great understanding of the subject when it came to cables and connections and cost thereof. She recommended an E-Keys by Evolution, which costs \$99. The best discount if we wanted four of them was free freight to us (in Sydney) from the supplier in Melbourne.

But did it come with a connecting cable? Katie was not sure – but she thought so. How much does it cost for a cable? She didn't know, because they don't sell them. Asked where I could get one, she wasn't sure. She also wasn't sure about the warranty – whereas all the previous dudes had been emphatic about this.

Finally, we zapped over to the frozen tundra at Allans Music at Ballarat, where Ben answered the phone. When we asked him about this

subject, he asked if he could look into it, and call back.

Exactly five minutes later, Ben called back. He suggested the Evolution E-Keys for \$99 – and said it did come with a connecting cable. Pressed for a price on 4 units, he agreed to \$85 each.

Sleuth asked him about the next Evolution keyboard up in the range, and he knew all about it, and quoted \$299.00.

Asked about a USB to MIDI interface, he said they could do this for \$95 – a far cry from the \$190 at Eagle Music.

Ben also gave me the website address so I could look up the product, which was very helpful. He was very courteous and knowledgeable. What struck me was that he was keen to find the best solution to the situation, rather than just sell me a product.

Armed with a buying decision backed by research, Sleuth booked a Greyhound ticket and left Sydney Central Station at 8pm. The bus was full of Norwegian backpackers. Sleuth tried his best lines on Elka who even had blonde ponytails. She feigned lack of English and/or interest, and went to sleep after eating (and not sharing) a packet of mixed nuts, keeping as far away as possible. He arrived in Ballarat at 8.50am, somewhat bleary eyed.

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Midas Verona



■ New mass market professional mixing console from Midas. Sits above the VENICE, and under the LEGEND.

■ Comes in 24 - 64 input frame sizes including 8 stereo channels

■ Has exceptionally strong EQ stage with 4 sweeps

We've had a new Midas Verona mixing console on long term test here at the Juliusmedia college, down in the live mix room. This is where our certificate students learn how things work. We can plug in multitrack feeds of a live gig, and play it all out on different 'real world' PA boxes. It's just like a studio control room, but without the fancy acoustic finishes and Genelec monitors.

Verona is a very professional Midas console with lower price points. Midas has done what every premium manufacturer attempts to do: BMW struggled for years to make an entry level car that matched the 3 series. Mercedes launched the little A series, and the press flipped one on its roof avoiding a moose during a test drive.

Verona has no moose factor. We have enjoyed using it.

It comes in 24, 32, 40, 48, 56 and 64 channel versions. The 64 channel model is for the USA market where size is important. I agree with the idea. I am thinking of purchasing a huge Ford 250 pickup, 7.2 litres of

turbocharged V8 diesel. I'll rendezvous with a tanker on the way to work.

The 40 channel desk on test had 8 stereo channels, so the layout has 32 x regular inputs, plus 8 stereo which each have a mic pre-amp so you can use them how you like. In the middle is the output section, with 8 subgroup faders, plus left-centre-right master outputs. Each group of 8 channels is a module, with the rotary faders recessed into the front plate. This seems to make reading the labeling easier, and it sure helps the ergonomics.

USP

Verona has more equalisation (EQ) than any console selling between \$25 and \$40 grand. There are four bands of EQ each with a sweep, plus a variable hi-pass filter. It has a very Midas bitey EQ with a very real 15dB of cut and boost. You can switch the EQ out of the auxiliary path, which is great if you are sending stage monitors from auxiliaries while using the console for front of house (FOH).

TESTED BY JULIUS GRAFTON



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 **SENNHEISER**

A big Unique Selling Proposition (USP) is the channel assignment, where you can send a channel to an individual sub group (instead of a pair), PLUS the left-centre-right combo. Verona features unrivalled channel assignment for the price. For more on this, see the sidebox about using SIS - the Spatial Imaging System - on the Verona.

There are 8 stereo input channels which all have an XLR for a mic input, plus a pair of 6.5mm jacks for stereo line input. The picture below shows the difference between a normal mono input channel on the left, and the stereo channel to the right of the output section.

Midas has reasoned that many people may

not have 8 devices like effects units or stereo playback sources and being able to use the stereo input channel for a microphone helps. The main limitation is a reduced EQ section on the stereo channel - it has a 4 way EQ stage, with sweepable EQ points on both midranges, exactly the same EQ as featured on most mid-priced consoles. This is only a compromise when viewed against a normal Verona mono input, where there is a fully swept 4 way EQ section - almost a luxury!

Where Verona is slightly limited is the auxiliary bus dept, where we have just 8 auxiliary outputs.

If you want VCA masters, or more auxiliary



Whole lotta EQ (above). A Really cool idea: you can switch the EQ out of the auxiliary chain. Most excellent if using an auxiliary for stage monitors from the front of house console.

sends, get a Midas Legend 300C.

FEATURE SET

Starting at the top of the input channel; you get a +48v phantom switch, a pad (to dampen the input sensitivity), mic phase reverse switch, and an insert on/off switch. That is a nice touch!

Hence the EQ stage, with a variable hi-pass filter switch and a rotary control to select where you want the low frequencies to cut out - from 20Hz to 400Hz.

Auxiliary 1 to 6 present as globally pre or post fader - this is set over at the output area. Aux 7 and Aux 8 each have a pre/post switch.

Above the 100mm fader are the 8 subgroup switches, plus mono, stereo groups pan, and SIS. There is a mute button with Red LED, and a solo button with a yellow LED. Alongside the fader are 4 mute group switches.

At the output module are four matrix outputs, group/auxiliary flip switches (so you could use Verona as a 19 bus monitor console) and a raft of neat features.

A slightly British eccentricity (or a pragmatic touch) is the way the back panel is labelled (below). It is labelled and featured the same way, whether the channel is a mono channel, or a stereo one.

See how below in the photo I've put white tape over the channels left of channel 32? That was to illustrate that channel 32 is a stereo channel, while 33 and above are mono.

If the channel is a mono channel, you may use the XLR for a mono mic input or run a stereo pair of signals into both the 6.5mm jack sockets which are normally used for direct out and line in on a mono channel.

Midas have labelled the stereo inputs in the white box, which I've covered over (below) so as not to confuse anyone in our mix room.

In a very kinky manouever, Midas let you run a mic input (with its own input gain) AND/OR a stereo pair (with own gain) together into one stereo channel. As to the versatility of the console, we think.

Verona 40 ch and larger sizes has 2

inbuilt power supplies, with the option of an external one.

THE TEST

We flogged the console as hard as we could, and discovered typical Midas traits like a soft and forgiving input pre amp. Push the input gain +20dB beyond peak and it still sounds semi-intelligible. Try doing that on a low cost console!

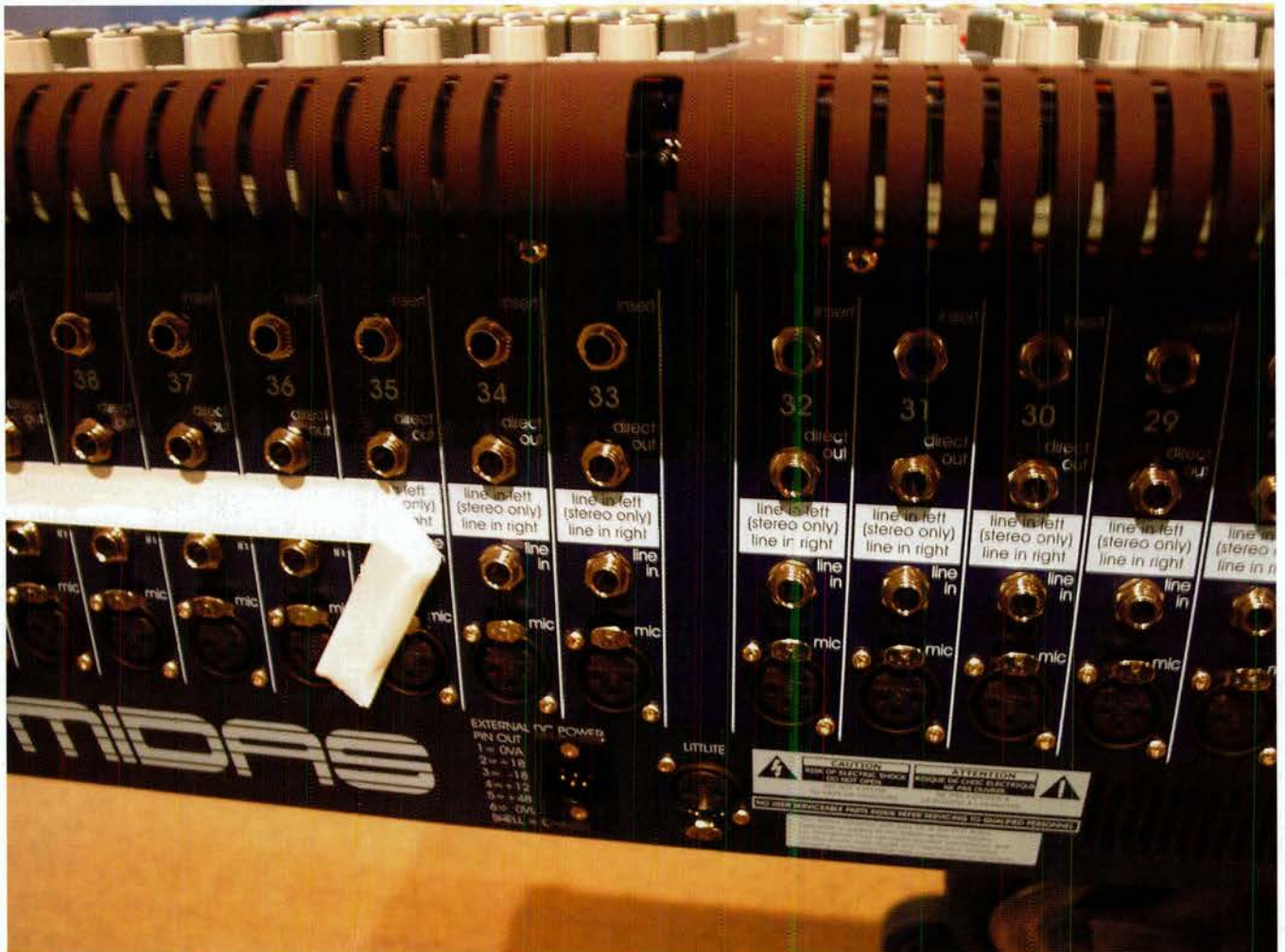
We ran all the faders up full with nothing connected to the inputs and heard less noise than you would expect. Some cheap consoles make a big whoosh noise.

The main attributes of Verona are massive EQ, clean preamps, and low noise. Couple this with mechanical integrity (we could not flex the console) and apparent construction quality, and that's difference between Verona and something cheaper.

Things we would love to see on Verona are VCA groups and more auxiliaries.

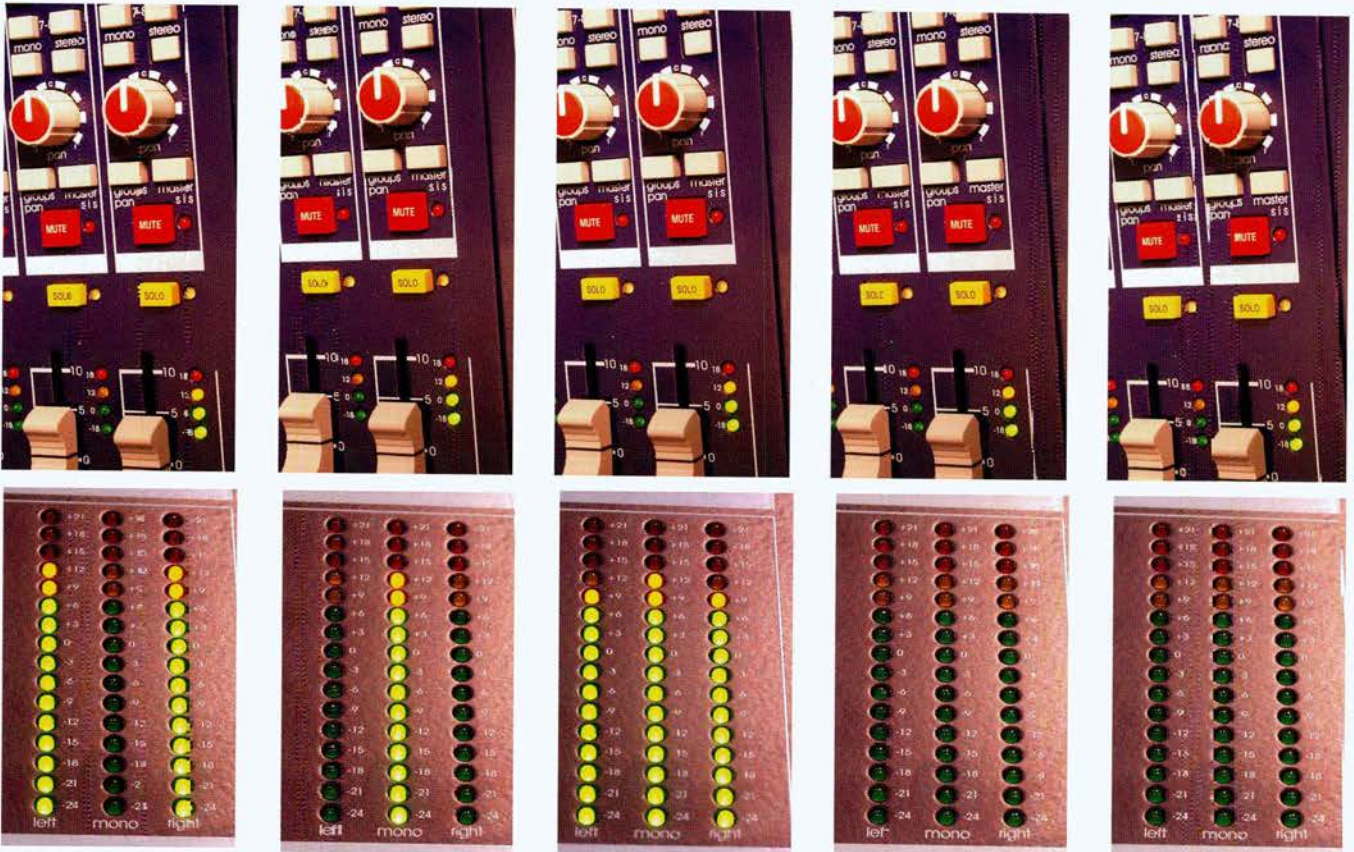
WRAP

- Cost from about \$25,000
- www.midasconsoles.com



What th...?

How do I use SIS on the Verona?



- 1** Normal stereo operation as we know it. The Stereo switch is down, the Pan pot is centred, and signal flows to the left and right master outputs. No worries.
- 2** Engage the MONO switch, and signal flows to the CENTRE, no matter how the Pan pot is set. This is the no brain way to get sound out of Verona.
- 3** Now hit the STEREO switch (as well as the mono), and signal flows to all 3 outputs. Pan left, and it reduces signal to the right output. Mono stays constant.
- 4** Houston, we have a problem... the mono and stereo switches are not selected. Nothing is leaving the channel. Even with the SIS switch enabled. How does SIS work??
- 5** Still nada, zip, zilch. Even if the stereo switch is enabled. The SIS switch is also enabled, so with the pan pot centred all signal SHOULD go to the centre output. 'Please explain.....!'

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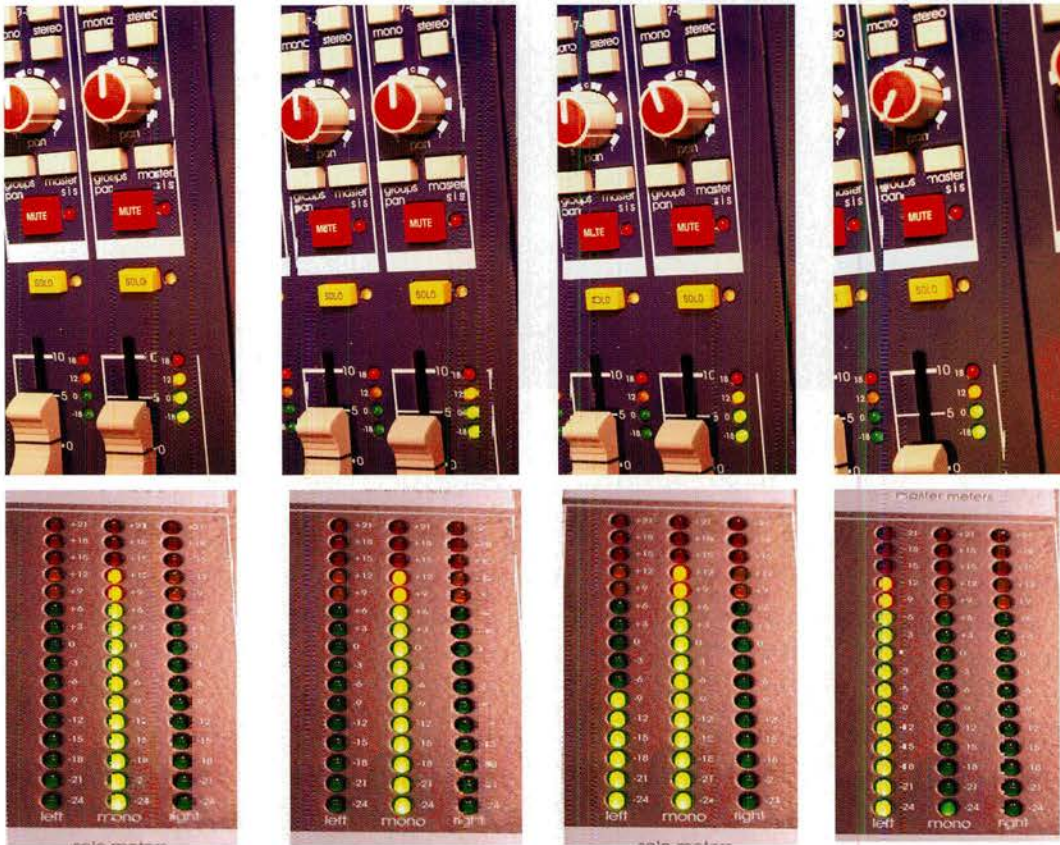
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SIS could stand for 'send it somewhere'! It is a L-Centre-R function



SIS stands for Spatial Imaging System, and it is not dissimilar to other left - centre - right assignment systems on newer consoles.

Knowing what happens when you hit the SIS switch is mandatory before driving Verona anywhere with an audience.

Our pictures show pink noise running into the channel, and the corresponding master output displays.

Picture 5 shows the worst case, where you are happily doing a stereo mix and you accidentally hit the SIS switch. Because the Pan Pot is centred, the signal vaporises from the left - right master outputs. Ooops.

Picture 7 is the normal mode for using a left - centre - right system. Pictures 8 and 9 show the outcome when panning the signal to the left.

Centre signal can be where you place vocals, eg: a centre cluster is used in theatre to 'locate' a signal, and the various perambulations of SIS make snappy effects possible like shipping a solo to the centre just by hitting the SIS switch.

SIS could also stand for 'Send It Somewhere'!

6 Hmm. Now we have centre output with the SIS switch down - because we enabled the MCNO switch too, and opened that pathway.

7 You want to use the SIS, you need the Stereo AND the Mono switches in (down selected). Now you have Centre output only, 'cos the pan pot is at 'C' - centre!

8 Doh - I get it! As I pan slowly left a little, the signal moves to the left side, and out of the centre cluster!

9 When I pan hard left, the signal has virtually departed the Centre cluster. So THAT'S how the SIS works.

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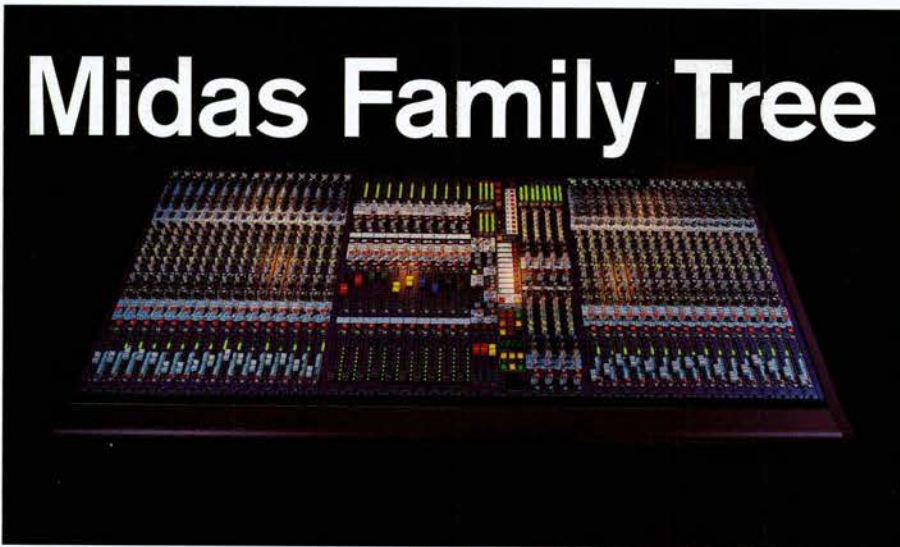
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Midas Family Tree



gives you two signal paths, one for FOH and the other for stage monitors. Frankly, we like the idea here at CX. It would be most useful in a venue installation, like a church or a theatre.

The monitor path has two bards of EQ, which can be combined with the standard 4 bard EQ - which also has 2 parametric 'Q' controls.

There is also EQ on the auxiliary outputs. About A\$75k.

Midas first came to our notice with the legendary XL 3, now out of production. We had one in our mix room for a month or so recently, we fell back in love with its equalisation (EQ) section. But about the 340kg weight...

The XL 3 was followed by the XL 4, a very highly featured concert and theatre console with an external automation option. It is high on rider lists worldwide. The XL 4 continues in production, as does the smaller XL 250.

More recent additions are the Legend, and the 4 Heritage consoles. At the bottom of the range is the little Venice - a small console with shorter (70mm) faders and fairly limited feature

sets. It starts at less than AU\$ 10,000 and has sold really well.

The H1000 (top) is essentially a theatre console, with 10 VCA groups, 10 aux sends, and 10 subgroups. It has fader flip (so it can do monitors or FOH) and a smallish footprint. About A\$120k.

Brother console H2000 (top right) is a dedicated FOH console with 12 x aux, 12 x subs, and 10 x VCA groups. About A\$150k.

H3000 (right, middle) is a multifunction desk with 24 busses that you assign how you like. It is the most direct successor to the XL3, and is the friend of many a production co.

The new Heritage 4000 (right, bottom) is on steroids. It has busses for days. Essentially it is a

40 send monitor console, which is exactly what you need when you have a serious project with a lot of people demanding in-ear monitor mixes.

Expect little change from \$200k.

The dark horse in the family is the Legend (below, left), which is the first and only console on the planet to feature 2 faders on each input channel.

This unusual arrangement

Next....

MIDAS have a digital console development team lead by John Oakley and Simon Harris in the UK. They have a lazy \$5 million or so in R&D funds, and have in house experience from Klark Teknik, who understand a thing or two about digital.

Expect something sensible before too long.

- Thanks to Phill Webb for assistance with this story.



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WORSHIP (&) TECHNOLOGY

The sound challenge

Sound people in church fight multiple challenges. Because they are servants or volunteers, they do it for love and to serve. It helps to understand what they are trying to do, and why.

Their job is to reinforce the word, whether that word is spoken or sung. Every ear in your church needs to hear that word intelligibly. You need to get the word comfortably over the top of anything else that is going on, and to deliver it with crucial midrange octaves intact. Most importantly you need to avoid feedback, that most worldly of botherment!

The enemies you fight are several, and talking to colleagues everywhere, these are common problems.

THE ENVIRONMENT

Almost every church is an unfriendly place for live audio, due to reflective surfaces like glass, stone, and wood. A church is usually very reverberant, whereas a cinema is the opposite. Clap your hands in an empty venue to see how 'live' and slappy the sound is.

Highly reverberant spaces create confusion for perceived intelligibility, and lower the threshold of feedback, due to more sound bouncing back to the microphone. I'm still amazed to see reverb effects dutifully used by church sound people, when the entire acoustic environment is usually far too

reverberant to start with.

There are three things the sound person can do to improve life in a reverberant space. Thing one is the easiest, but the toughest solution, because most people would prefer you didn't hang sound absorptive drapes, or carpet the floor, or spend money on new soft finishes. But without doing something about the space, you will be at a major disadvantage.

Thing two is to reposition or replace your loudspeakers. A speaker cabinet has a directivity factor which is usually expressed as horn or high frequency dispersion. A typical box might give you 90 degrees of horizontal (side by side) dispersion, and 45 degrees of vertical (up and down) dispersion. But the manufacturers measure this at one given frequency, usually somewhere in the mid to upper midranges – maybe 1.5 to 3kHz. They plot what the high frequency horn should be doing, and measure it at a convenient frequency to validate the design.

What I'm trying to say is that the speaker box is not really emulating a light, and neatly splaying an oval of sound that is clearly defined. It may be squirting an oval of sound at one given frequency, but it might be projecting a cone or a blob at other frequencies. This is all in the directional domain of the high frequency horn. The woofer, or low frequency components, will become progressively less directional as the frequency gets lower. At frequencies less than 150Hz your speaker box becomes almost omni directional. Understanding what is coming out of the box helps minimize waste – we live in a new era of

minimising waste. So let's not send waste sound to places we don't want it – like walls, and ceilings. This waste sound will just bounce back at us, and confuse our intelligibility while lowering our feedback threshold.

My recommendation is to get an outside professional with real world experience. Then call a working bee, and spend a day experimenting with repositioning your speakers. Get some wind up stands, so you can do temporary experimentation. Try hanging them so they point sharply down at the audience. Monitor the coverage. Often spending a few hundred dollars having an engineer weld a custom frame or bracket will produce substantial improvements in performance.

It may come to pass that you find the box angle is so acute that the back rows are getting missed altogether. The result everywhere else might be so good that you adopt the new positioning, and invest in some cheap and cheerful small speakers for the back row. Maybe little powered examples, with amplifiers built in.

Audio theory says that we need to delay our speakers serving the back rows. You would usually apply about 1 millisecond (one thousandth of a second) delay for every foot (imperial measurement) of distance these speakers are from the stage. This jives with the speed of sound, which is 340 metres per second, at an ISO standard day. This is a day where the temperature is 15 degrees, and you are at sea level density altitude. Add heat,

Large format audio systems in church follow the demands of consumers who now expect high fidelity. CX recently saw and heard a comparison test between the new NEXO GEO-T line array system (right of picture) and Meyer Sound Milo (left). These new line array systems and subs are shown flown at Hillsong's 4,000 seat auditorium in Sydney. Part of the Hillsong house installation, the left and right flown EAW KF 760 line arrays, are also shown in the picture.

The comparison was conducted by Coda Audio in Sydney, who were doing what all serious audio production firms do - they were comparing technology.

Coda principle Michael Wilkie, and chief sound engineer Brad Law put the systems through their paces. Nexo system expert Adam luston hovered nearby with helpful commentary, like: "The Nexo sounds soooo good, huh?". Adam is a former Coda staffer, who now works for Group Technology, the Nexo agents for the region.

Hillsong production manager David Watson came in for a listen. Interesting!



A new regular feature for people serving God while wrestling with worldly technology

humidity, and change the density altitude – and the delay time changes.

Anyway, could I respectfully suggest you try the back row speakers without delay first? It may be that you have found big improvements in a horribly echo riddled church, and the small psycho acoustic problem of a 20 or 40 millisecond sync problem at the back three rows is something you can live with. Plus those people need to get to church earlier anyway!

So while step one (above) involves convincing the elders and the minister that you really DO need to hang d apes and change the ambience, step two is a lot easier to implement – although you really do need a lot of physical help to manoeuvre the speakers while testing. Part of step two might be to chuck out the existing speaker boxes and replace them with something better behaved. If you are going to all the effort of repositioning what you already have, you may as well audition several alternative boxes or systems at the same time.

Step three involves levels of confrontation with the musical director or worship leader. This is the part of the trick I enjoy the most, because it usually brings the most predictable responses. I've always believed that the sound person is the boss of the performance environment when it comes to sound. And sound is what musicians make when they strike or strum.

My radical solution to problem number three is to understand the problem, and to minimize it.

Choose tomorrow as the first day of the rest of your church sound career. Make an appointment for a soundcheck, and make sure the band understand that soundcheck is not rehearsal. Have the band play one song with the PA system turned off. If at all possible, get the musical director or leader to walk around the church with you. Stop the band, and be ready, because you are about to tell them what they never, ever want to hear.

Your job is to get the word over the top of the band. You can't do that if they are too loud, and given most church audiences prefer moderate to quiet sound pressure levels, it is likely the band have just become enemy number three. The noise floor has gone through the roof.

Here are the solutions, all unpopular with musicians.

Problem: electric guitars and bass produce too much level.

Solution: Lots of foldback sends. Then DI the guitars straight out of a guitar synth, and do away with all the amps. DI the bass and do away with the amp. Get the players into in-ear monitors, so there are no foldback wedges or monitor speakers blasting away. This is the dead-quiet band solution, as used by many touring pop bands.

Compromise solution: Put the guitar amps under the stage inside soundproofed boxes, and mic them. Maybe turn them sideways, angled back towards the player, so they don't blast into the audience and front line microphones.

Problem: Drums.

Solution: Electronic drums. These now let you do rim shots and offer cymbal sensors with full motion and feel. It is never a popular suggestion with many musicians who are biased and content with the status quo. Force it on them. Then the drums are virtually silent. You can send very fat low frequency programme through subs, and move the floor – while the whole PA is working at modest – and clean – levels. A revolution!

Roland lead the world with this technology, if the band are dead against it, convince a friendly music shop to loan you a V-Pro Series kit. The band will be impressed if they are honest – and faith is all about honesty. Isn't it?

Compromise: Put Perspex screens around the kit.

The virtual band scenario is best if everyone is using in-ear monitors, but this may not be possible. Consider also that in-ear doesn't need to mean expensive. A pair of \$25 closed headphones will be more than adequate for players who are reasonably stationary, like drummers, brass and keyboard players.

-By Abimelech

WORSHIP SOUND is the name of a new course run at Juliusmedia college in Sydney. Held across five Saturday mornings, the course aims at expanding the understanding of audio within the church environment. Lecturer Tony Moffat is pictured at left with a Midas Verona console (kindly loaned by Phill Webb from EVI Audio), with (from left) Steve Hawkes, Keith Hutchins, Liam Bray, Paul Fail, Phil MacAulay and Ostbill Adikarta. The next Worship Sound course starts November 6 in Sydney.



CREST have launched an affordable 8 group, 10 auxiliary professional console the: H8, which is suitable for larger format church work. The H8 has four band EQ with 2 mid sweeps, five additional inputs (seen at the top of the output module, below) and enough connectivity to suit most people. It comes in 24 channel (A\$13,795); 32 ch (A\$16,335); 40 ch (A\$13,895); 48 ch (A\$21,295) and a whopping 56 channel version (A\$23,635). More from Production Audio Services, www.productionaudio.com.au



Fix WHAT in the mix?

Tough love at the PA frontline

RATED MA 15+ ... contains swear words

BY DUNCAN FRY



The trouble with small gigs is that it's not you, the mixer, who sets the overall level of the band – it's the drummer. The problem then is getting the vocals above the level of the rest of the band who set their volume to match the drums.

The other night a guitarist friend said to me, "My son's band is playing down at the old Cochlear and Tinnitis pub down the road. He's the singer - why don't you come and have a listen? There's a new house system and you can give me some tips on mixing!"

Hmm. My experience of such things has taught me that such an invitation usually means I'll be mixing all night. But, hey, it's winter and at least I'd be keeping warm and plied with the odd beverage or three.

So down I went. The band had started by the time I got there, in a room about twice the size of my lounge at home. And it was loud, really, really loud. Five guys, all excellent players, cranking it out at a volume that would make a dead man's ears bleed. I like music loud, but it has to be good and loud, not painful.

Making my way through the audience cowering against the back wall, I could see the singer pouring his heart and lungs out into a vocal mic, but I couldn't hear him. Every now and then, though, I'd catch a smattering of words whenever the music dropped below the level of a top fueller doing a burnout.

Looking around, I couldn't see much sign of a speaker system. Then in the gloom I saw two small plastic boxes on stands, one each side of the stage, and could see my mate wrestling with the complexities of a little mixer placed about a metre in front of one of them. Even standing next to him I found it hard to hear any vocals.

"What have you got running through the system," I asked in the lull between songs.

"Oh, just the vocals," he replied, "but I'm having a hard time getting much level, even though the desk's got 4 way EQ."

I got out my keyring LED torch (only \$2 from Bunnings) and shone it on the desk, and then started laughing.

"You bloody idiot," I chuckled, playfully whacking him on the back of the head. "This isn't four way EQ – it's 3 way with sweepable mids."

"Huh? He looked blank

"Look, this second knob here – it's not level, it's frequency; and you've sucked out..." I peered closer, "all the high mids, and the highs. No wonder I can't hear the vocals."

"I was trying to stop it feeding back," he explained. I could see that I'd have to take charge.

"OK," I said. "Highs – this is just your tish, tish sound, right? And Low, this is just your doof, doof control. And you can cut or boost any frequency you like in between them with these two knobs."

A light bulb went on inside his head. "Oh, now I get it," he beamed. "Don't tell the guys I stuffed up, will you?"

I should have smacked him on the back of the head again, but it was getting too much like a Benny Hill sketch.

The song finished, and the singer announced a short break, then they wandered over to the desk, as bands do, and asked how it was going. I gave them the good news first.

"Well, it sounds great." Their faces lit up. "But, there's just one thing wrong."

Their faces fell. "What is it?" they chorused.

"It's too fuckin' loud!" I yelled. "You've gotta turn it down or everyone will go home! What's the point of your dad here working his fingers off trying to make your vocals sound better when he's only got these two pissy little boxes to compete with all your equipment. What hope has he got?"

They looked around at their stage gear. Two Marshall combos (probably both set on 11) a Fender combo, and a Bass rig with an 18 and four 10s. Plus a drumkit that Keith Moon would have envied.

I put my arm on my mate's shoulder. "Look, he's doing the best job possible, but unless you all turn down he might as well go home and have an early night. And you," I pointed to the drummer, "play softer. Play good,

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but softer. Got it?"

They nodded and shuffled off. I turned to my friend
"OK, now we've pulled your nuts out of the fire, let's get this desk sorted out."

I flattened out the EQ on the lead vocals. "Let's start from the beginning. Maybe a little tweak of the highs, just a couple of dB to cut through the cigarette smoke. Now, since we've got sweepable mids, lets pick a frequency that might help cut through the onstage sound. Male vocal, let's say around 3K, and boost it just a couple of dB. We can fine-tune the frequency once he starts singing. Lows, well there's no doof doof in vocals, so lets cut that back by about 3 dB – we'll save some amp power."

"Won't it sound a bit thin without some bass?" he asked

"Not much 80 Hz in anyone's voice," I replied, "and these little speakers might just get to 10dB down at 80 Hz on a good day with the wind in the right direction. Let's make the most of the frequencies they can reproduce, and settle for that."

He shrugged his shoulders, which I took to mean total agreement. We applied the same changes to the other two channels, and he said "What about the reverb?"

"Have you got one?" I asked. "I couldn't hear it."

A little generic digital effects box was plugged in next to the mixer. I found a Plate setting and looked at the wiring.

"We'll bring it back into a spare channel since you've got thirteen of them to play with. This way you can EQ out some of the boing and control the level with just one fader."

"Oh, is that how you do it?" He looked relieved. "I was twisting all three send knobs up and down each time in between songs. I thought there had to be an easier way!"

The band came back on, and the level had dropped a smidgin, from painful to exciting but, surprise, surprise you could hear the vocals! Even the band looked surprised. The audience slowly peeled themselves off the back wall, came down to the front and started dancing. A big smile spread across my friend's face.

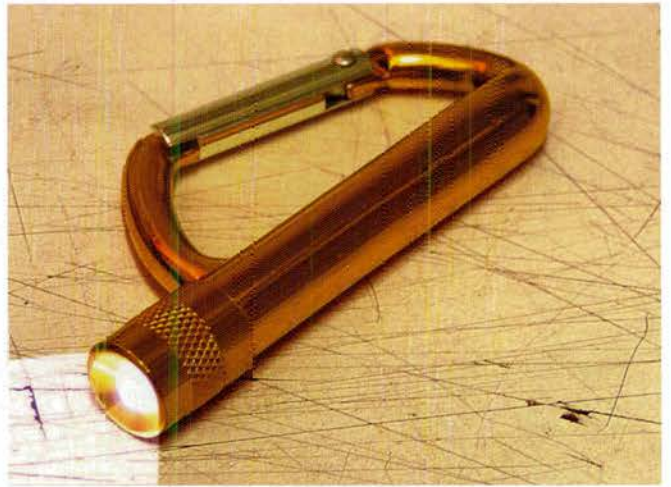
"Wow, that's great Dunk. Look, they're here again next week; do you think you could come down again and set it all up?"

I put my hands up and said, "My work here is done, grasshopper. You alone must carry the flame."

Actually I said "Pig's arse – not unless you've got a hundred bucks to spare!"

"Piss off then, you old grogan," he replied.

Mixing is like magic tricks. Once you give away the secrets, everyone thinks they can do it!



Pic: \$2 LED torch and ceramic. Also great for shining through people's front door peepholes when they come to see who's knocking! "Аззз, my eyes..."

Footnote

Essential things to have on your keyring. 1: A clip to hook it to your belt loops. Yes, it's sc 80's but it works. 2: A small torch. Could be a mini Maglite, or if you're a tight arse bargain hunter like me, you'll get one from Bunnings which has its own carabiner type clip built-in. (Julius - possible sponsorship deal here? I need some new tools to fix the kitchen. Dunk)

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EQ: Tool Box

BY KEVIN OWENS



PSP Nitro Multimode filter plug-in

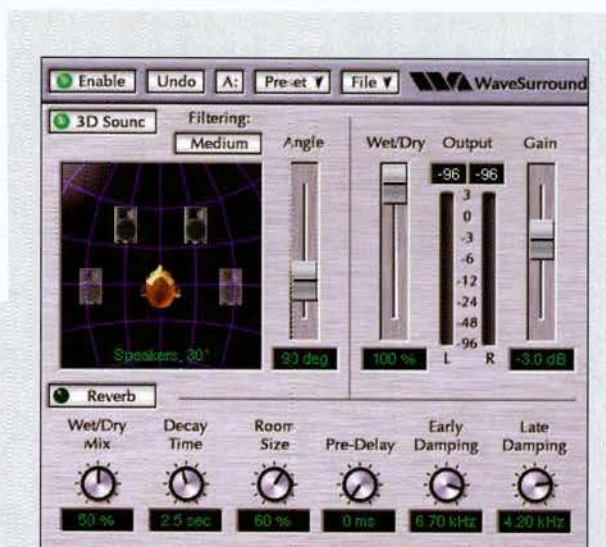
PSP's new **Nitro (A\$250)** filter plug-in for Mac (VST) and Windows (VST/DirectX) offers a wide variety of analog-inspired filters, as well as other effects such as a phaser, a bit-crusher/downsampler, a waveshaper, and more. Features include four sound processing operators, flexible internal routing, two LFOs with sync possibilities, advanced MIDI control, and virtual cables for connecting modulation sources to processing parameters. RTAS for Windows and AU and RTAS versions for Mac are in development.

PSP, www.pspaudioware.com.

Furman PowerFactor Pro Power conditioner

The PowerFactor Pro (A\$690) instrument and amplification power conditioner is designed to protect your equipment — and precious digital presets — from voltage spikes and other bumps in the AC road. PowerFactor Pro's Clear Tone technology continuously delivers over 45 amps of instantaneous current reserve to your amp or instrument, and its Linear Filtering Technology (LiFT) lowers AC line noise to unprecedented levels.

Furman, www.asmaust.com



Wave Arts WaveSurround Pro v4.0 Spatial enhancer

WaveSurround Pro 4.0 (approx A\$149; \$30 upgrade) is a spatial enhancer that uses binaural processing and crosstalk cancelling technology to create virtual speakers around the listener, expanding the conventional stereo field. Highlights of version 4.0 include built-in spectral shaping filters, a reverb module based on Wave Arts' MasterVerb plug-in, full automation of controls through compatible host apps, a new user interface, undo and A/B buffers, and a cross-platform preset manager.

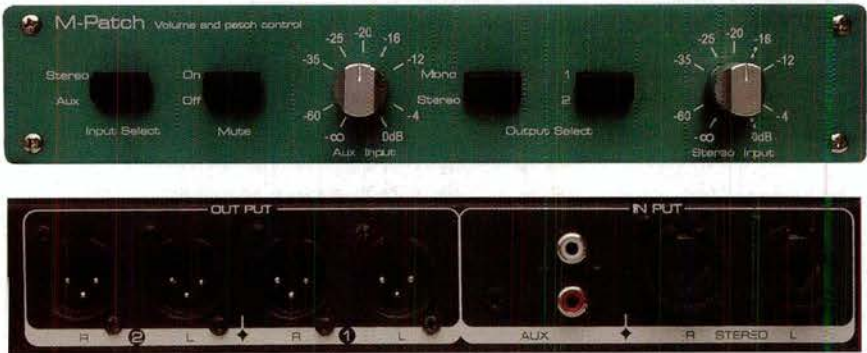
Wave Arts, www.wavearts.com.

Audio Damage Mayhem VST plug-in package

The **Mayhem** VST plug-in suite (**US\$149**) is a collection of four different effects designed exclusively to abuse your audio. Included weapons are: Filterpod, a lowpass filter with LFO; Crush, which the company hails as "the world's most dangerous compressor;" Master Destructo, a plug-in featuring four distortion algorithms; and TimeFnk, a delay unit with sample rate reduction and LFO-driven panning.

Mayhem is available for Mac (OS 9, OS X) and Windows.

Audio Damage, www.audiodamage.com.



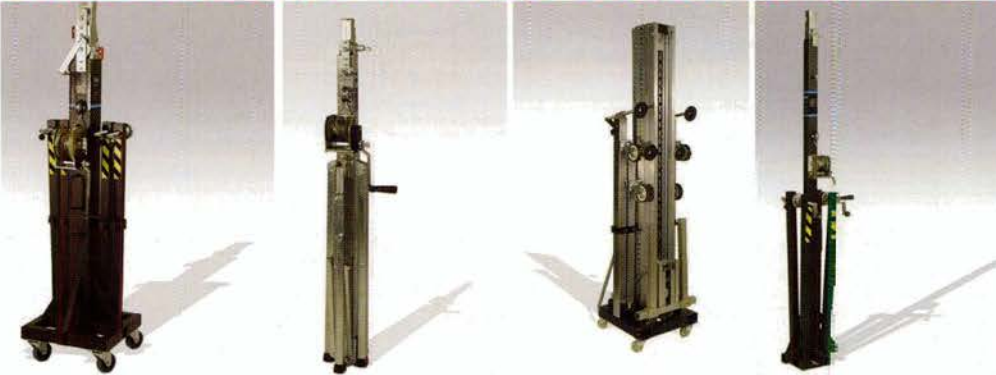
Violet Audio M-Patch Passive volume control

Violet's M-Patch (around A\$349) is a passive volume control device for mixerless DAW and nonlinear video production environments. The half-rackspace unit features rotary controls for two input sources (combo XLR/TRS, RCA), and features two stereo output channels with an A/E selector switch. The M-patch's controls allow adjustments from 0 to -43dB with ±5dB inter-channel accuracy to -60dB.

Violet Audio www.violetaudio.com.

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Steinberg Cubase SX

Liven up dull tracks with a dose of harmonics

Objective: Create more "air" and "brightness" without traditional EQ

Background: Some sounds (particularly electronic ones) tend to sound dull compared to other instruments. "Exciter"-type processors are the usual answer, but you can use Cubase SX's existing processors to create a similar effect. If you put the processors in an FX Channel, you can edit the amount of the effect for individual tracks by using their Send controls.

Step by Step: Any tweaking will likely be done by going back and forth between steps 5 and 6.



1

1 Create an FX Channel by going *Project > Add Track > FX Channel*.



2

2 Name the FX Channel, then click on the FX Channel's "e" icon (Edit Channel Settings).

3



3 Click on the 7th or 8th insert slot (so that the effect is post-EQ — very important!) and go *Distortion > DaTube*.

4 Set all the DaTube parameters values to maximum (100% Drive, 100% Balance, 0.000 Output).



5 Adjust the FX Channel's EQ settings as shown to remove everything except the highs (see tips).

6 Turn up the FX Channel's fader (shown far left). For each track you want to enhance, assign one of its sends to the FX Channel. Then turn up the track's Send control (shown above the three right faders) to the FX Channel until you hear the desired amount of boost.

5



4

tips

- This technique works with just about any host program that lets you put a distortion effect post-EQ. Send only highs to the distortion.
- For a more obvious effect, in step 5 change the third EQ stage's frequency from 350Hz to 100Hz. You'll likely need to bring down the FX Channel level to avoid excessive brightness.
- A little goes a long way! Your ears get acclimated to the brighter sound pretty quickly, so be careful not to make everything sizzle.
- To hear a comparison of a straight drum part and the same version processed with this technique (highly emphasized to make the difference easy to hear, even with an MP3), go to www.eqmag.com.



6

by Craig Anderton

Propellerhead ReCycle 2.1

From loop tool to music toolkit

Type: Time/pitch-stretching/looping software

Platform: Mac OS X, Windows 2000/XP

Price: A\$499 (free upgrade to registered 2.0 users)

Contact: Music Link Australia
www.musiclink.com.au

Minimum requirements: (Mac) Power Mac G3, 128MB RAM, Mac OS X 10.2.8; (Windows) 300MHz Pentium, 128MB RAM, Windows 2000/XP

Copy protection: Serial number provided with CD (or download)

Version reviewed: 2.1

Demo: Downloadable Mac/PC demos

Hosts with REX file support: Reason, Logic Audio 6, Cubase VST 5 and SX, Nuendo 2, Digital Performer 4, Project5, Mixman Studio

Samplers with REX support: EXS24 and EXS24mkII, HALion, Mach5, Kontakt, Intakt, Kompakt, Battery, Orion, Unity Session, AS-1, SampleTank, Akai S-5000/6000/Z-series

ReCycle 2.1 creates time-stretchable loops of digital audio files, particularly percussive material, by "slicing" the file into discrete sections of audio (e.g., kick, kick+snare, hi-hat, etc.). The faster you play these back in sequence, the faster the loop; playing back more slowly slows the tempo. With the right audio — no ambience, clean percussive transients, and no sustained sounds — the results can be indistinguishable from the original over a fairly wide range (pitch can also be transposed, albeit less successfully regarding fidelity).

The program generates REX2 format stereo files, which are compatible with a growing number of host programs and samplers. Although overshadowed a bit by Acid's seemingly effortless time-stretching abilities, the REX2 format is gaining support as users discover that with the right source material, the fidelity can be better than "acidization."

WHAT'S NEW

ReCycle hasn't changed much since v2.0, although OS X and 24-bit audio support is appreciated. 2.1 also offers multiple undos (and under XP you can now "float" windows across dual monitors), but some "wish list" items — offset multiple slice markers by a certain amount, or create a short attack/decay around a slice for "problem" files — remain fodder for future updates.

ReCycle 2.1 bundles Reason Adapted, a ReWire-compatible, "lite" Reason variant with three Dr. Rex Loop Players, one RV7000 reverb, 14-channel stereo automatable mixer, sequencer, and a decent-sized sound bank. This is more than enough to get you going with loops, but lacks Reason's synths, drum machine, and matrix sequencer.

You also get ReLoad, which converts Akai S1000/S3000 sample CDs to NN-XT format (with WAV audio files suitable for other programs); you can save these in any folder or in a new Reason ReFill. If you already have Reason, ReCycle 2.0, and have downloaded Reload, ReCycle 2.1 may leave you yawning. However, as 2.1 is a free upgrade to 2.0 users, it's worth upgrading if for no other reason than the 24-bit file and Mac OS X support.

CYCLING AROUND

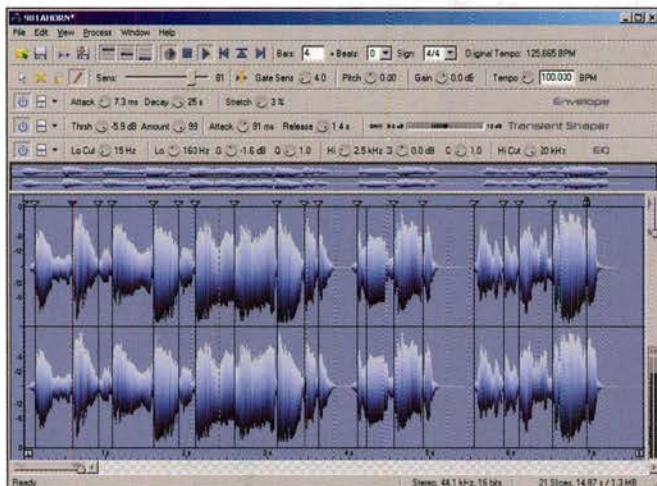
I've put in a lot of time on ReCycle over the years while creating REX files for my various sample CDs. Like other Propellerhead programs, about the only way to get it to crash

is a direct lightning strike to your computer, and its set of tools — greatly expanded in the jump to 2.0 — does the job, and then some. But creating a REX file that will stretch over a truly wide range can be a time-consuming undertaking for sound sources other than percussion. Horn stabs and guitar notes are relatively easy to do; sustained sounds verge on the impossible, because of the difficulty in finding clean splice points.

For those who think outside the box, ReCycle can be a useful signal processor. For example, I was about to give up trying to REX a guitar power chord when I added slices at every eighth note, then trimmed the decay time to about 250ms (this affects all slices). The result was a pulsing, throbbing sound, accented by the onboard Transient Shaper (basically, a dynamics control).

Bottom line: If you create loops, this program is essential. Try the demo and you'll see what I mean. **EQ**

RECYCLE'S INTERFACE IS PRETTY SIMPLE — ADD SLICES WHERE NEEDED, AND SET TEMPO AND PITCH AS DESIRED. BUT WITH MOST FILES, TWEAKING IS ESSENTIAL FOR BEST RESULTS.



Strengths:

- Does more than just create loops from audio files
- Includes Reason Adapted and Reload
- Growing number of compatible programs
- With the right files, can preserve sound quality well
- Handles 24-bit files and OS X

Limitations:

- Not suitable for all types of audio material
- Few functionality improvements compared to 2.0
- Better for speeding up material than slowing it down



Emagic Logic ES2 vector+wavetable synth

Demystifying this interesting soft synth

Objective: Come to grips with how sounds can be shaped in the ES2.

Background: As of Winter NAMM 2004, Apple/Emagic will be bundling all of their formerly optional plug-in synths with Logic. One of the instruments — the ES2 — differs from traditional subtractive synths in that it offers wavetable and vector control for shaping its raw oscillators and filters. Because of its graphic interface, the ES2 can be tricky to program. From this first installment of a two-part column you'll learn the basics of how sounds can be controlled. In part two (CX Sept/Oct) we'll explore the wave sequencing section, which can be used to create step sequence-like patches that sync to BPM.

Step by Step: Start sculpting the ES2's tones into your own creations with these techniques.

1



1 Start by initializing the ES2 by choosing Default from the patch menu.

2 Now select a different waveform for each of the three oscillators, as shown in step 2 (left). Drag the center point to each tip of the triangle located just to the right. Notice how the timbre changes as you get closer to each tip — from this triangle you can mix (blend) the oscillators (these moves can be recorded as automation data).

3 The square along the right-hand side of the plug-in is a similar graphic controller, but is freely assignable to modulate any ES2 parameter, not just the mix of the oscillators. From the Router section choose Pitch 1 as a target, and Pad X as the source.



4 Drag the small green triangle along the side of the Target/Source window down to a value of -0.43. This will create an interval of a major third between the pitch of Osc 1 and the remaining two oscillators.

5 To hear the interval, drag the control point from within the X/Y square to the extreme left or right. Notice how the pitch of one oscillator changes as you drag. This motion can also be recorded as automation data.



tips

- Now that you've seen how the triangle and square control pads work, try assigning other parameters such as filter cutoff, FM amount, attack time, etc. as targets.
- The X and Y axes values can be modulated from an external source, which means you can assign a controller such as modwheel to change the X value and a rotary encoder knob to affect the Y value — a tweaky-yet-powerful realtime performance technique.
- Pick a patch you like and deconstruct it by bypassing each modulation routing one by one, making notes as you go along. When the patch is reduced to its basic elements, rebuild it from your notes — you'll learn a lot about how each parameter can be controlled to shape the sound.



LinPlug Albino 2 Virtual synthesizer

Released as a follow-up to the "dream synth" co-developed by LinPlug and sound designer Rob Papen in 2002, **Albino 2 (approx A\$279; \$79 upgrade)** for Mac (OS X 10.2) and Windows (95 or higher) features a 32-step arpeggiator, a new preset browser, more than 1,100 presets, chord memory mode, an oscillator sync option, new digital spectrum waveforms, and a new GUI. Other key features include 32-voice polyphony; four individual LFOs; up to four oscillators per voice; a modulation matrix with eight routings, 27 sources, and 33 destinations; eight envelopes; and more.

LinPlug,
www.linplug.com.



Audix I-5 All-purpose instrument mic

The I-5 (A\$250) is a dynamic, moving-coil microphone with a frequency response of 50Hz-16kHz that can handle sound pressure levels in excess of 140dB. Intended for stage and studio use on a wide variety of instruments, the I-5's cardioid polar pattern allows it to focus on the instrument that is being miked without picking up other instruments or unwanted ambient noise. It is to Audix what the SM 57 was to Shure. The mic features a cast zinc alloy body and a black finish, and ships with a heavy-duty mic clip and a carrying pouch.

Audix, www.productionaudio.com.au



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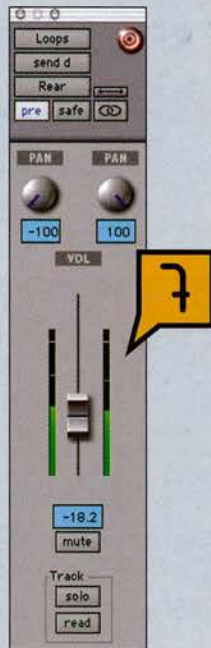
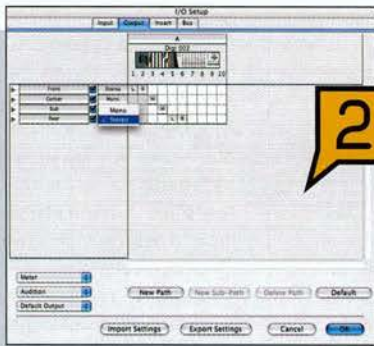
Digidesign Pro Tools LE

You're Surrounded

Objective: Perform surround mixing in Pro Tools LE.

Background: Pro Tools LE doesn't have built-in surround support. If you have an interface with six or more outputs, here's how to make the leap to multi-channel.

Step by Step: You're just steps away from surround mixing in Pro Tools LE.



- 1 Connect your interface to your surround speakers. Route outs 1/2 to front left/right, out 3 to center, out 4 to sub, and outs 5/6 to rear left/right.
- 2 In Pro Tools, go *Setups > I/O Setup*. Create four paths. Label one "Front," make it stereo, assign to out 1 and 2. Label one "Center," make it mono, assign to out 3. Label one "Sub," make it mono, assign to out 4. Label the last one "Rear," make it stereo, assign to outs 5 and 6.
- 3 Create four master faders, two stereo and two mono. Label the stereo ones "Front" and "Rear," label the mono ones "Center" and "Sub."
- 4 Assign the master faders to the paths that match their names. Now any tracks that you route to the various master faders will feed the respective speaker(s) in your surround rig.
- 5 Group the four master faders.
- 6 Assign your tracks to the masters. I assign the main track outs to Front, then create three sends on each channel: one each for Center, Sub, and Rear. Make sure the sends are pre-fader.
- 7 If you raise a track's fader, it will come up in front, and can be panned as normal. Raise a send, and the track will come up in the corresponding speaker or sub. By balancing the fader and the sends, you can pan anywhere in the surround field.

tips

- You can change the output or send assignment for all tracks at once by holding *Option* while you change the assignment for any track.
- Moving pans can be done using automation to simultaneously increase and decrease complementary levels and pans.
- Level changes for tracks sent to more than one speaker may require automation to adjust multiple sends simultaneously.

by John Krogh

Triple P Designs Pyramid Speakers

Price: Approx A\$599

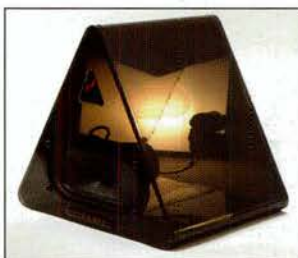
Contact: Triple P Designs,
www.triplepdesigns.com

Strengths:

- Small footprint
- 2-year no-questions-asked warranty
- Reliable broadcast reference

Limitations:

- None to speak of



Most production and music houses have relied on Auratone speakers as a "real world" reference since the late '70s. But times have changed: Auratones are hard to come by, and modern TV sets don't sound much like those speakers anyway. Which is why Triple P developed the Pyramid speaker.

They're squarely aimed at supplanting Auratones as the *de facto* reference for anyone mixing music and audio for broadcast. A variety of television sets, boom-boxes, and other lo-fi consumer products were researched for the Pyramid design, which isn't fashioned after any one particular device. Instead, it's something of an "average" of all the various speaker models Triple P tested.

As a composer of TV commercials, I've worked

with Auratones, and over the last year I've been relying on two TV sets equipped with RCA audio ins for additional references.

When the speakers arrived, they posed a challenge: They're passive, which meant I'd need a power amp (something I haven't needed in years). Fortunately, I had an old Crest power amp available, but the lesson here is that if you don't have a spare amp, you'll need to purchase one for the Pyramids — something to factor into the cost.

I cued up six mixes (all of which have been on the air in the last year) and played them through the Pyramids, which, true to their intent, sounded boxy and exhibited a forced midrange. Okay, so it sounded like a TV set. But how would mixes translate that were made using the Pyramids?

I loaded the

corresponding sessions and remixed the tracks, working primarily with the Pyramids. Then I burned a CD of my original tracks and the new mixes. I A/B'd the mixes on two TVs, plus a JVC boom-box with Hyperbass, and my car stereo. I was impressed by how well kick drum, piano, acoustic guitar, and vocals translated, especially on the TVs.

You could spend 300 bucks on a TV from Best Buy that would work equally well as a consumer reference, but it comes down to this: Pyramids have a smaller footprint, have a longer lasting warranty than most TVs, and represent a "standard" reference that's easy to purchase from a variety of music retailers. So if you're looking to outfit your facility with a reliable "real world" broadcast reference, Triple P's Pyramids are the best game in town.

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Troubleshooting in Mac OS X

Even the latest audio and MIDI workstations can develop problems from time to time. Inevitably, disaster strikes on the weekend or during a late night session. Tech support is closed, and the client is looking over your shoulder. Instead of pulling your hair out, try troubleshooting the problem yourself. We'll cover Macintosh OS X in this installment, and deal with other systems and specific programs in upcoming columns.

PREVENTIVE MEDICINE

Troubleshooting begins before the problem starts, by being prepared. Adhere to guidelines set by software and hardware developers including compatibility, system requirements, and settings. Tweaking OS X settings can help reduce problems, as well as stop problems when they occur:

- The "Sleep" low-power state can interrupt audio and MIDI devices. Disable Sleep options and schedules in the Energy Saver panel. You may also want to disable Screen Effects.

- Software Update allows your Mac to automatically check online for OS updates. This can cause conflicts with some DAW software. Disable this feature in the Software Update panel. Disable the similar setting in the Quicktime panel as well.

- The Classic environment allows some Mac OS 9 applications to run within OS X. Make sure that "Start Classic when you log in" is turned off in the Classic panel and enable "Warn before starting Classic" to keep Classic from launching unexpectedly.

ERROR, ERROR, ERROR. . .

When a problem arises in your DAW, it often generates an error message. Carefully document such messages. Be sure to check for error message solutions in manuals and online.

WEEKEND UPDATE

Be sure to check for software updates online. Developers are posting software updates at a faster pace than ever, so don't assume that your version is always the latest. Before you install new software, check online first for updates.

BAD MEMORIES

You may want to test for defective RAM modules. The most effective way to test RAM is to carefully remove one module (or a pair if necessary, as in G5s) at a time. Test the system without various modules in the system to determine whether the problem follows a particular module. Always handle RAM carefully!

DRIVEN

Make sure there's plenty of un-fragmented space on your audio drive. Even if you intend to make a short recording, many applications require large expanses of disk space to ensure proper recording. Disk utilities such as Norton Speed Disk from Symantec can help create as much contiguous free space as possible.

Formatting drives using "low level" or "zero all data" options is a great way to make sure a drive is in good shape. It's not a bad idea to back up and format your recording drive every few months. In most cases, you can use Apple's Disk Utility (included with OS X) to format drives. Look for the "Zero all data" option in the Erase section. This takes much longer, but scans and erases the entire drive instead of simply erasing the directory.

PERMISSION GRANTED

Because Mac OS X is based on UNIX, access privileges — permissions — are taken seriously. Every doc, app, and folder on your hard drive has permissions that state whether that file can be read, written to, and so on. Problems can occur if permissions for files or folders are incorrect. To make sure permission settings are correct, use the Disk Utility First Aid to verify then repair permissions. Some techs recommend repeating this process. It's also recommended to do this after updating software.

PREFERENTIAL TREATMENT

Applications, including DAWs, keep preference files that contain settings for the software. These files can occasionally contain incorrect or corrupt information. Deleting preference files by dragging them to the trash forces the application to automatically create a new preference file. Check manuals, online, or tech support for specifics on trashing prefs for your DAW.

CORRUPTION

In some cases, your DAW software can be corrupted. If other things don't help, try uninstalling and reinstalling the application. Most OS X applications include Uninstall options on their installation discs. Some applications may require that you use the OS X finder to search for key words such as the application or manufacturer name, and then drag the found items to the trash.

LAST RESORT

If, after all that, you can't solve the problem, contact tech support. You'll still know a lot more about your system and the nature of the problem, which will allow you to report the problem more clearly. As a result, tech support will be able to help you find a solution more efficiently, and you'll be back up and running soon. **EQ**

Todd G. Tatnall is the Senior Tech in Sweetwater's Technical Support department.

by Craig Frnderton

Peavey Kosmos Pro

What do Led Zeppelin's "How the West Was Won," "Hulk, The Video Game," and Dream Theater's "Six Degrees of Inner Turbulence" have in common? Kosmos bass enhancement, which adds low-end power *without* EQ or compression. The secret: It tracks a narrow range of prominent bass frequencies, and synthesizes subharmonic content one octave lower.

Compared to the original



Kosmos, there's a new look to the 1U device that owes more to a sleek Emagic soft synth than the typical no-nonsense Peavey style. Kosmos Pro retains a flexible, balanced analog input structure, but adds an output control and S/PDIF I/O.

Bass-enhancing controls remain mostly the same (subharmonic level, "Thud" EQ that adds definition to the subharmonics, Shift switch to compensate for driving bigger or smaller speakers, and a switch to send the enhanced lows only to the mono subwoofer out). However, a Deep switch can now reduce some of the highs added by the Thud control, and the new Dynamics control is outstanding — it changes the bass envelope for a "looser" or "tighter" sound.

For high frequency processing, the Xpanse control (boosts the upper-midrange/treble and expands the stereo image) has been joined by a Barometrics control that determines whether the Xpanse's treble boosting or phase manipulation pre-

dominates. A final control, Stratos, boosts highs above the Xpanse range — basically, a highly effective "air" control.

Although designed for stage/studio use, Kosmos is also a great mastering tool, particularly for adding a "you are there" vibe to live recordings. The effect needn't hit you over the head; it's possible to get subtle high- and low-end improvements. But of course, if you kick up the throttle, the bass can shake the walls while

the highs sizzle like July in Houston.

If you're familiar with Kosmos, you already know this is one of those rare boxes that does *more* than expected, whether applied to individual tracks or program material. And the Pro version? Well, it's even better. **EQ**

Price: A\$999

Contact: Audio Products Group
www.audioproducts.com.au

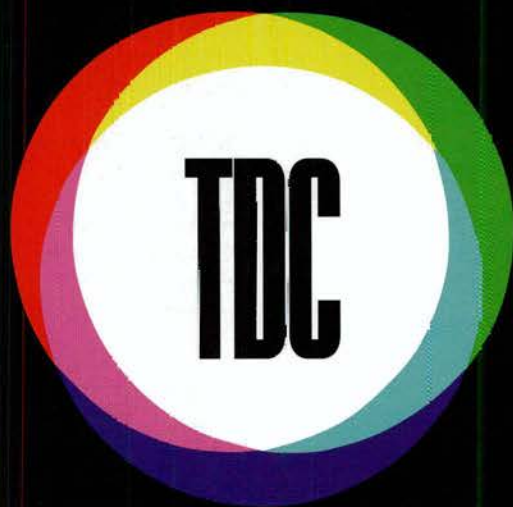
Strengths:

- Unique effect works exceptionally well
- More sonic control options than the original Kosmos
- S/PDIF and balanced analog I/O
- Useful mastering tool

Limitations:

- 48kHz max for digital I/O (no 96kHz)

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by Mitch Gallagher

Digidesign Impact

A new source of punch for your Pro Tools mixes

Type: TDM dynamics plug-in
Price: US\$695
Contact: Digidesign,
www.digidesign.com

Format: Pro Tools Accel TDM
Platform: Mac OS 9/OS X,
 Windows XP
Version reviewed: 1.02 and 1.1 Beta 1
Supported sample rates:
 44.1–192kHz
Copy protection: iLok authorization
 (iLok not included)
Input: mono, stereo, multi-channel
Output: mono, stereo, multi-channel
Controls: Ratio, Threshold, Attack,
 Release, Make-up gain, External
 On/Off, Sidechain listen
Compression ratios: 2:1, 4:1,
 10:1, 20:1

For many styles of music, compression is a vital element in creating the sound, the vibe... the *impact*. Various types of compressors are available, but especially when mixing down, pro engineers often use the compressor built-into a certain large-format mixing console to glue the mix together, to add punch, and to raise the average level. Now Digidesign has created a virtual version of this well-known compressor, aptly

naming it "Impact."

STRAIGHT ON

Impact is straight-ahead and simple. If you've used a compressor before, it will make instant sense to you. The controls are standard compressor fare: Ratio, Threshold, Attack, Release, and Make-up gain. There are also switches for turning the sidechain on and off, and for monitoring the sidechain.

Metering is quite good. There's a gain reduction VU

meter that's linear to -20dB, non-linear to -40dB. For mono and stereo instances of Impact, there are separate input and output level meters with clip lights. If you instantiate Impact on a multi-channel track or Master Fader, there's only room to show one multi-channel level meter; you can switch it between input and output level display.

That's it, simple and easy!

I loved Impact for punching up electric guitar tracks, especially crunchy rhythm tones with some chunky low end.

THE SOUND

If you're looking for a transparent compressor, Impact may not be your cup of tea. Likewise, Impact isn't a

IMPACT PROVIDES ALL THE CONTROL YOU NEED TO DIAL IN ADDED PUNCH FOR YOUR MIXES. GAIN REDUCTION AND INPUT AND OUTPUT LEVEL METERING ARE AVAILABLE. STRAIGHT-AHEAD, BUT EFFECTIVE.



YOU CAN TRIGGER IMPACT'S COMPRESSION USING A SIDECHAIN. THE SIDECHAIN CAN TAKE AS ITS SOURCE EITHER A PRO TOOLS TRACK OR AN EXTERNAL INPUT SIGNAL. A HANDY FEATURE IS THE ABILITY TO LISTEN TO THE SIDECHAIN SIGNAL SO YOU CAN VERIFY EXACTLY WHAT'S TRIGGERING COMPRESSION.



Digidesign Impact

"clean" level maximizing processor like Waves' L1 or L2 or Digidesign's Maxim. (Although Impact can certainly be used to cleanly crank up the level if that's what you really want. . . .) Rather Impact is a compressor with some personality. You'll find that it adds punch and tightens up the bottom end.

I loved it for punching up electric guitar tracks, especially crunchy rhythm tones with some chunky low end. It also worked well for me on drums; kicks tightened up and had added, uh, impact. Likewise, snares and toms tightened up and came forward in the mix. On gentler acoustic tracks, I found Impact to be less effective. Classical guitars were tough to dial in, and steel-string fingerpicking sounded compressed, even with small amounts of gain reduction. For hard strummed acoustic guitar parts Impact worked fine, but on delicate tracks there are other compressors

I'd reach for first.

As much as I liked Impact on tracks such as electric guitar and drums, I was even more thrilled with it as a mix-bus compressor. For rock 'n' roll, it adds that punch and tightness we're often searching for in our mixes. Even on softer acoustic-based songs, Impact adds a drive and presence that's nice — I'm not just talking about an increase in volume (which you may or may not choose to add) but a tonality that jumps out of the speaker more.

While you can squash tracks and mixes with Impact, I preferred using it more discretely; for most applications, I dialed in around 5dB of gain reduction on the peaks and compensated by using Make-up to raise the output level a suitable amount.

Given how well it works, Impact is surprisingly DSP efficient. Of course, it was also coded from the start to take full advantage of

Accel DSP cards (see sidebar), which helps. At 44.1 or 48kHz, you can run 25 mono instances of Impact on a single Accel DSP chip; in stereo you'll get 19 instances. These counts drop roughly in half at 88.2 or 96kHz. At 176.4 or 192kHz you can get five mono or four stereo Impacts on a single chip. With multi-channel instances, the counts are predictably lower. You can, for example, get twelve 5.1 Impacts per chip at 44.1 or 48kHz. Since there are seven Accel DSP chips per card, suffice it to say that you can run a *lot* of instances of Impact if you want or need to.

COUNTDOWN TO IMPACT

If you're an Accel-user looking to add punch to your mixes and to tighten up the lows, Impact is going to make you very happy. It's not a do-everything generic compressor, but what it does it does extremely well. Highly recommended for those mixing rock, pop, country, blues, or any style of music that would benefit from added "jump out of the speaker" factor. **EQ**

Accelerate

The latest DSP hardware from Digidesign is the Accel card — long-time Digi-philes can think of it as a Mix Farm or HD Process card on steroids. Like the earlier cards, Accel provides processing power for running TDM plug-ins and for the virtual mixer in Pro Tools. The Accel card offers significantly more DSP power than the previous HD Process card — almost twice as much — and four times the power of a Mix Farm card.

The HD Core card remains the same; you can either purchase a new Accel system, which includes a HD Core and one (Pro Tools|HD 2 Accel, \$10,995) or two (Pro Tools|HD 3 Accel, \$13,995) Accel cards, or you can add Accel cards (\$4,995 each) to your existing HD system. All existing HD-compatible interfaces will work with Accel systems. Mac OS X or Windows XP and Pro Tools v6.2 or higher is required to run Accel sys-

tems.

The Accel card has two "legacy" chips that can run HD-compatible plug-ins, but to take full advantage of the more powerful DSP, plug-ins need to be updated for Accel compatibility. In addition to providing more power for running plug-ins, the Accel card also doubles the track count at all sample rates — you can now max out at 192 voices at 44.1 or 48kHz, for example. Like the HD cards, Accel cards can handle up to 32 channels of I/O.

I added an Accel card to my existing Pro Tools|HD 2 system; installation went without a hitch — the new card plugs right in and connects to the old. I updated several of my plug-ins, including those from Digidesign as well as the Massenburg Design Works EQ, Waves Diamond bundle, and others.

While you won't notice a sonic difference just by adding an Accel card to your

system, you'll definitely notice the difference in the plug-in count. What previously took a full HD Process chip now only requires half a chip. You can load *tons* of plugs that support plug-in sharing. Plug-ins designed for efficiency can get a lot of mileage from Accel: I could load 39 of URS's A series EQ or 30 N series, for example.

And while it's wonderful that older plug-ins are being updated to take advantage of the increased plug-in counts, what I'm most anxious for is to see what developers come up with now that they have all that dedicated DSP power to play with. The first "ground-up" plug-in available exclusively for Accel is Digidesign's Impact (see main review); I'm sure we're going to see lots more as developers sink their teeth into the new cards.

Strengths:

- Adds punch
- Tightens up bass
- Glues mix together
- Easy to dial in

Limitations:

- Only works with Accel-equipped TDM systems

If you're an Accel-user looking to add punch to your mixes and to tighten up the lows, Impact is going to make you very happy.

by Craig Anderton

MOTU MachFive

Software sampler goes surround, but doesn't stop there

Type: Virtual sampler plug-in
Price: A\$795
Contact: www.intelliware.com.au

Platform: MacOS 9/X 10.2 or higher, Windows 2000/XP

Minimum system requirements: 256MB RAM, Mac 500MHz G3, Windows 800MHz P3

Copy protection: PACE iLok dongle
Versions reviewed: 1.07 (Mac), 1.00 (Windows)

Internal resolution: 32-bit floating point

Supported sample rates: Up to 192kHz (16- or 24-bit)

Plug-in support: (Mac) MAS, VST, HDTM, RTAS, AU; (Windows) VST, DXi, HTDM, RTAS

Included effects: 28 delays, 22 reverbs (including gated types), 6 choruses, 4 flangers, 8 phasers, 3 tremolos, 3 autopans, 7 rotary speakers, 4 auto wahs, 9 filters, six 3-band EQ, five 2-band EQ, 10 drive, 13 dynamics (limiters, compressors, gates), 13 non-standard (decimators, ring modulators, "robotizers")

DSP: Normalize, volume, reverse, fade in, fade out, silence, truncate, clear, crop, crossfade

Soundbank import: Akai S1000/3000/5000/6000, Akai MPC2000/3000, E-mu SoundFont, Kurzweil K2xxx, GigaSampler/Studio, Digidesign SampleCell, Emagic EXS24, Creamware STS, SoundFont, SoundFont 2, Kontakt, VSampler

File import: AIFF, WAV, and SDII; all support standard or interleaved files, and multi-file (2, 4, or 6) formats; also RIFF ("acidized") WAV and REX/RX2

Sound library: 4.3GB DVD-ROM (keyboards, guitar/bass, drum kits, 192kHz percussion, surround church organ, synths, loops, mini GM bank, others); 470MB Bosendorfer piano on installer CD

Tested with: MOTU Digital Performer 4.1 with dual G5 Mac/OS X 10.2, Sonar 3 (DXi plug-in) and Cubase SX 2 (VST plug-in) on dual Athlon/Windows XP

Aside from live performance — where hardware still rules — samplers have joined the virtual world. MOTU's entry, MachFive (M5 for short), is billed as a "universal" sampler that plugs into just about anything, can read several sample formats directly (and convert others through the included UVI-Xtract utility), and even does 5.1 surround with high resolution audio... but there's more to the story.

THE BIG PICTURE

The GUI is *big*, and takes up most of a 1024 x 768 screen — a few show/hide controls for interface elements would be welcome. The upside is you get a unified interface where everything is accessible without page-flipping. M5 looks *très cool* too, in a graphic novel kind of way (although some of the type is hard to read).

But there's also a question of philosophy. M5 is clearly meant to be a "production"

type of sampler where you can load up just about anything (assuming sufficient RAM — even with streaming, it's necessary to pre-load part of the sample into RAM), add effects, and create lots of parts. The unified interface encourages that kind of approach, with M5 acting like a program of its own within the host program.

THE JOY OF SIX

There are six main screen ele-

EXPANDING THE KEYGROUP WINDOW MAKES IT EASY TO SEE VELOCITY-SWITCHED SAMPLES, AND SAMPLE MAPPING ACROSS THE KEYS.

THE LEFT STRIP IS ALL ABOUT SOUND SELECTION AND CREATING PARTS. THE MIDDLE HAS DISPLAYS FOR WAVEFORM EDITING AND SAMPLE MAPPING, WITH SYNTHESIZER-TYPE PROCESSING PARAMETERS BELOW. THE RIGHT STRIP INCLUDES MASTER CONTROLS, LFO MODULES, AND THE EFFECTS SECTION.



MOTU MachFive

ments (see screen shot). The File Browser chooses sounds, which end up in the Part section (M5 is 16-part multitimbral). The display does waveform editing and keymapping, but also shows the included spectrum analyzer and tuner.

The master section provides various global functions, while the FX section adds extensive processing to M5. You'll also find the expected synthesizer-type parameters for any selected keygroup(s) — filter, VCA, envelopes, LFOs, etc.

EFFECTS

There are lots of effects and ways to apply them. For example, there are four insert effects; each keygroup (or even each sample) can insert any *one* of these in its output (furthermore, the same effect can appear in multiple keygroups or samples). Each keygroup also has four send controls for four aux send effects. You can process entire Presets with up to four series effects (which can be different for each Preset and saved with each Preset); finally, a chain of four master effects processes the overall output. That's a lot of options.

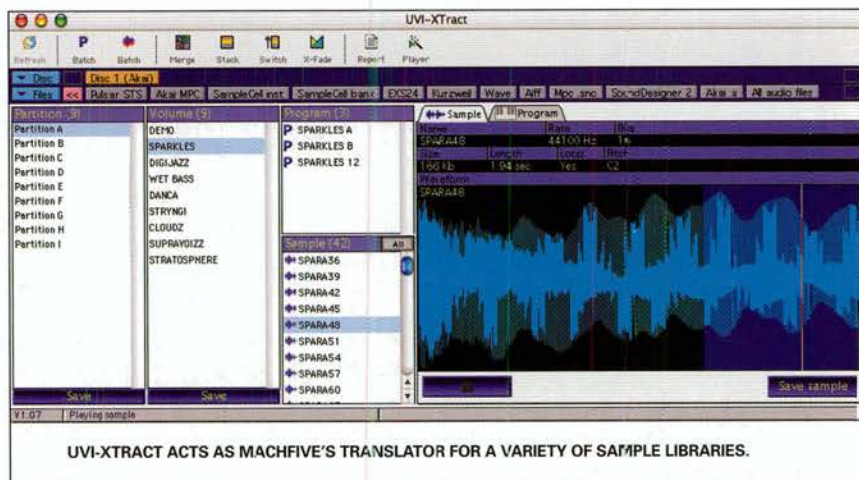
If you want to add plug-ins not included in M5, you can simply send the individual outs to busses/auxes, and process within the host program. But frankly, there's enough in M5 to satisfy most of its processing needs.

MIDI CONTROL

Only crucial parameters are controllable by MIDI continuous controllers (and therefore, also automatable): volume, pan, part volume, filter resonance, filter frequency, overdrive, coarse tune, fine tune, LFO1 rate, and LFO2 rate. There's no "learn" mode; controller assignments are fixed to specific numbers.

PERFORMANCE

Given a fast computer, M5 has a responsive feel. Streaming on the Windows platform



was transparent; the Mac version I tested didn't incorporate streaming, so all sounds had to play back from RAM. However, an update is imminent that will bring the Mac version in sync with the Windows version. Note that streaming can be enabled or disabled for each part (the default is RAM playback), so if your hard disk gets too stressed out, you can switch some parts over to RAM. You can also experiment with several streaming-related preferences, although the defaults worked fine.

UVI-Xtract is very effective. I used it for successful Akai, Creamware, SoundFont, SoundFont 2, and Giga sample CD conversions on both platforms. The Windows version offers additional translations for Kontakt and VSampler format sound banks, as well as REX format samples (which are mapped across the keyboard), but the Mac version will reportedly include these too with the next update. There are also some advanced extraction features, such as merging programs during conversion, or separating out programs into different velocity ranges.

M5 is very well behaved about file management. An imported sound bank gets saved to a dedicated sounds folder, so M5 always knows where to look for its

sounds — even when plugged into a different host. Although the manual advises you to choose the "MachFive Sounds" folder location wisely, you can move the folder anywhere you want and simply reselect the folder's new location.

THE COMPETITION

So how does MachFive compare to "virtual ROMplers" like Steinberg's Hypersonic and IK Multimedia's SampleTank 2? Actually, they're very different animals. The ROMplers are optimized to provide the same functionality as a sample playback synth, such as a Korg Triton or Yamaha Motif. Although these keyboards sample, their main function is to provide a lot of sounds at your fingertips, with instant access.

The danger, of course, is that you may like some sounds and not others, or some sounds might become dated over time. This is why both programs have "trap doors" — Hypersonic's "Hypermolecules" are conceptually similar to "expansion cards" in hardware synths, while SampleTank 2 can load Akai sounds and lets you create your own sample presets, albeit without M5's flexibility.

M5 is more like the software equivalent



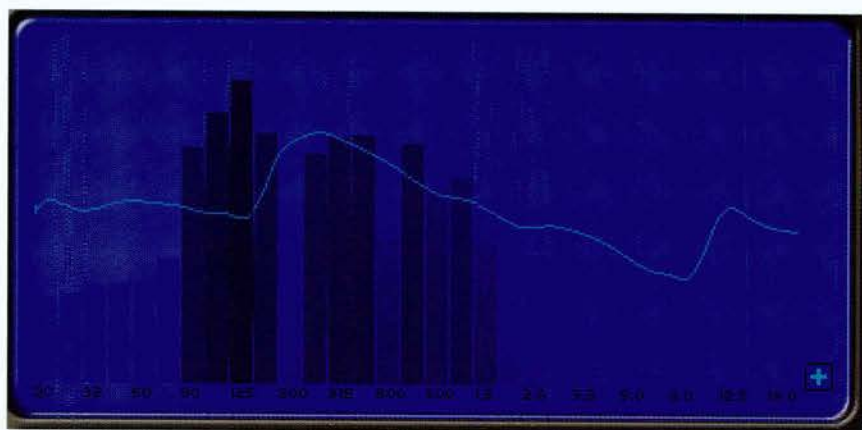
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MOTU MachFive



THE BUILT-IN SPECTRUM ANALYZER TELLS WHAT'S UP WITH A SAMPLE'S FREQUENCY/AMPLITUDE RESPONSE.

lent of something like an Akai S-series sampler or E-mu Emulator, which are designed as much for the creation and importation of samples as for playback. Toward that end, M5's "expert" mode restores much of the sophistication previously lacking from software samplers, and the looping and crossfading options also recall pricier hardware devices. It takes a little more work to get ME set up than a virtual ROMpler, although it's not hard to create a general-purpose, recallable performance that loads up to 16 parts with your favorite sounds. Also, given M5's ability to import just about anything, it's highly unlikely to wear out its welcome over time, and is adaptable to changes in musical genre and even platforms.

Comparisons to other virtual samplers are more difficult, because each follows its own muse and has a different feature set. Native Instrument's Kontakt has many more sound design possibilities and more automation/MIDI control options, but is more complex to use. SpeedSoft's

VSampler has much to recommend it, yet the haphazard interface is a major drawback compared to M5's tightly organized workspace. Steinberg's HALion 2.0 is a fine general-purpose sampler that also does 5.1 surround, the filters sound excellent, and it supports 96kHz. On the downside, it imports fewer formats than M5 and doesn't come with as much content. The interface is less cramped, but that's because it's spread over multiple pages.

THE BOTTOM LINE

Like most software samplers, M5 doesn't sample. And while it seems (again like other soft samplers) it can't do positional crossfades so keygroups fade into one another, expert mode allows crossfading between presets to accomplish this, and much more. Kudos for including this important feature, and expert mode in general — you can make thick, complex, atmospheric patches if you put a little effort into it.

For those working with high-resolution

audio, at 192kHz M5 is the sampler to beat. Too bad there's only one included surround preset (organ) — it's impressive. The synthesis options are comprehensive, and the effects, expert mode, waveform editing, and extra goodies (spectrum analyzer and tuner) lift M5 out of the ordinary. The bundled sounds are useful, and given the price and import abilities, having this much free content (especially the dynamically responsive piano) is a nice bonus.

I remember spending thousands of dollars for hardware samplers that couldn't do a fraction of what M5 does. Times have certainly changed, and in this case, for the better — M5 is an impressive production tool with a creative slant.

Strengths:

- Compatible with just about anything
- UVI-Xtract utility accommodates lots of sample libraries
- Large number of built-in effects
- Expert mode allows techniques such as positional crossfading
- Decent waveform editing, DSP, and looping tools
- Useful content included in package

Limitations:

- No stand-alone mode
- Few parameters respond to external MIDI controllers/automation.
- No show/hide options for various interface elements



THE TUNER MAKES IT EASY TO TWEAK SAMPLES FOR PERFECT PITCH.

Tool Box

Primera Bravo II Disc duplicator

Bravo II (Around A\$4000) is designed for hands-free, automated production of up to 25 CDs or DVDs per job. Bravo II sports a robotic mechanism that automatically transports blank discs into the built-in 52x recorder (or optional Pioneer combo DVD/CD recorder, A\$750 extra) and then to the unit's full-color, direct-to-disc printer. New features include a USB 2.0 interface, faster throughput, and AccuDisc technology, which uses advanced LED optics instead of mechanical components to eliminate disc-picking problems.

Primera, www.primera.com.



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
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by John Krogh

M-Audio FireWire Audiophile

Audio + MIDI interface

Type: FireWire audio and MIDI interface**Price:** A\$699**Contact:** Electric Factory

www.elfa.com.au

Audio driver compatibility: ASIO2, CoreAudio, WDM, GSIF**Audio I/O:** 2 analog inputs, 4 analog outputs (all RCA), 1/4" stereo headphone out; S/PDIF input and output**MIDI:** 1-in/1-out

With the Audiophile audio/MIDI interface, the folks at M-Audio thought of everything — almost. Two FireWire cables are included (one with a 4-pin connector on one end for PCs that have a smaller FireWire port), an AC power adapter (the Audiophile can run bus-powered, but an adapter is provided for those computers that don't support bus-powered devices), and CD-ROM installers for "lite" versions of Ableton Live and Propellerhead Reason.

Unfortunately, there wasn't a user manual with the unit I received. Fortunately I was able to download the manual from M-Audio's website. Good thing, too, because there's some clever functionality in this box that I might have missed if I hadn't read the docs.

One of the coolest aspects is a virtual mixer/control panel where you can control output routing and levels from host programs to the Audiophile's physical outs, as well as set monitor levels of live input signals. This kind of control isn't anything new, but what's special about Audiophile's mixer is that it supports ASIO direct monitoring. With direct monitoring, an input signal is patched directly to the Audiophile's output instead of passing through a host's virtual mixer. The result is zero-latency monitoring. The downside is that it's not possible to process incoming audio through your host's plug-ins, which would allow you to add reverb while tracking vocals, for example. To address this, the Audiophile has two virtual aux sends. A live input can be directly monitored, but also routed to the virtual aux channels, which can feed an external effects processor and be monitored along with the dry signal. You could monitor a singer without latency, and add reverb for tracking.

Aux sends can also be used to set up a separate headphone mix — handy for small live gigs. What's more, the headphone jack can be switched between two sources — a must-have feature for DJ gigs where you'd want to cue up the next track in your set.

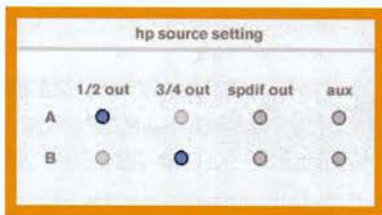
Installing the Audiophile took only minutes, and within no time I was playing Reason synths from a MIDI controller. I then synced the Audiophile to an external clock

via S/PDIF — everything worked without fail. As I was setting up a headphone mix, I was surprised to learn that when left and right mixer channel levels are set separately, they'll maintain their relative balance when linked. Impressive for a box in this price range.

The only problem I had was with audible RF and internal computer noise when the Audiophile was connected to a PC laptop. I've always had problems with unbalanced audio interfaces and PCs, so I wasn't surprised — just a little disappointed that there weren't balanced audio jacks, which would have eliminated the noise. Fortunately, I didn't have this problem with my Titanium G4.

While the audio/MIDI interface world is crowded with competitors, M-Audio's FireWire Audiophile separates itself from the pack. For less than you'd expect to pay for a decent soft synth, this 1/2-rack interface combines an impressive amount of signal routing flexibility with a fun-yet-highly-functional set of software production tools. Add to this a respectable list of supported drivers (GSIF, ASIO2, WDM, CoreAudio) and you have a winner. If you're looking for a portable audio+MIDI solution, the Audiophile is hard to beat. **EQ**

TWO SEPARATE STEREO SOURCES CAN BE MONITORED FROM THE HEADPHONE OUT VIA THE A/B MONITOR BUTTON ON THE AUDIOPHILE'S FRONT PANEL. HERE I'VE SET OUTPUTS 1/2 TO THE "A" MONITOR BUS, AND OUTPUTS 3/4 TO THE "B" BUS.



ROUTING ASSIGNMENTS OF LIVE INPUT AND HOST OUTPUT SIGNALS CAN BE SET FROM THE INCLUDED SOFTWARE MIXER/CONTROL PANEL.

**Strengths:**

- Flexible interfacing
- Cool bundled software
- Can be powered via FireWire or the included AC adapter
- Software mixer/monitor control

Limitations:

- Unbalanced analog audio connectors

by Mitch Gallagher

JLH Products AxeTrak

Price: US\$339 plus shipping

Contact: JLH Products,
www.axetrak.com

Strengths:

- Awesome tones
- Compact and lightweight
- Nearly silent in the room

Limitations:

- Best for distorted sounds

My studio is one room — no separate tracking space. It's a room over the garage with no soundproofing (although it's well treated acoustically). So electric guitars can sometimes be a problem. I try to track at moderate levels and socially acceptable times; I've also grown fond of several amp simulators. But there's

nothing quite like a tube amp set to face-melting volume.

A number of companies have offered isolated/soundproof cabinets to address this problem. I've never been thrilled with them. Now JLH Products has taken a stab at creating the

ultimate guitar isolation box.



AxeTrak is small (11x10.5x13.25"), carpet-covered, and light (16 lbs.), with a handle on top.

AxeTrak is simple: 1/4" speaker in, mic-level XLR out, level LED, fuse. A "Deep Port" on the side opens to increase bass response. The unit contains a custom speaker rated to 120 watts RMS.

I used AxeTrak with my hot-rodded Marshall JCM 800 and Mesa/Boogie Mk IIb. You're instructed to turn up your amp until the level LED glows brightly. Drive it too hard, and you'll pop the fuse — I managed to do so quite quickly. Fortunately, a spare is included.

I plugged in, began listening... and I think my jaw may have hit the floor. This thing sounds great. I was

amazed at the thick, punchy, crunchy tone coming from AxeTrak. It's designed for distorted rhythm and lead tones, but I found it capable of decent clean and semi-clean sounds as well. The overall tone is similar to a miked-up 4x12 cabinet. Opening the Deep Plug adds low-end thump to the sound. With the Plug open, isolation isn't as good, but AxeTrak is still very quiet.

AxeTrak provides a great solution to almost any electric guitar situation — in the studio, on stage, for rehearsal, and for late-night practicing. Crunchy, heavy, smooth, raw, AxeTrak can provide it, while staying whisper quiet in the room. I'm completely impressed: **AxeTrak rocks.** EQ

AustralAsian Music Industry Directory

Listings for the Jan 2004 edition now being accepted. Free listing deadline Oct 10. Details: www.immedia.com.au/amid

Published in July the 31st edition of the AustralAsian Music Industry Directory is a complete, concise and up-to-date music industry source book that contains all the audio & lighting service contacts you will need, plus many more. It's the ultimate contact book.



Edition 31 | July 2003

Available in both print and online mediums both are published every January and July with the online version updated every fortnight.

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With GarageBand, Apple has managed to pack a surprising amount of music-making power into an unassuming app that costs far less than the competition.

by John Krogh

Apple GarageBand

The ultimate music scratchpad

Type: Multitrack audio/MIDI recorder with built-in software instruments

Price: free with new Macs

Contact: Apple, www.apple.com.au

Platform: Mac OS X (10.2.6 or later)

Minimum system requirements:

G4/5, 256MB of RAM, 4.3GB free HD space for instruments and loop library; optional: audio and MIDI interface, MIDI controller

Plug-in compatibility: AU

Audio driver compatibility:

CoreAudio

Max. number of audio/software

instrument tracks: CPU dependent

I love adapting consumer-type gear for studio use. I'm not talking about being cheap when it comes to critical applications. But if I can get a cool or unusual sound from a "Radio Shack special," or make my life easier through the use of some computer accessory that can be found at any Comp USA, I like it. So when Apple sent me a copy of GarageBand, I had ideas of taking a toy audio workstation and abusing it for my own purposes. Turns out GarageBand is not a toy. Okay, sure — GB isn't loaded with all the "pro" accoutrements we've come to count on from a DAW, but would you expect it so cheap? As one of five "prosumer" apps in Apple's

iLife bundle, GarageBand is on par (pricewise) with shareware programs. Feature-wise it's a different story.

Apple has a giant on their hands, and the millions of users who purchase iLife probably don't even know it. Savvy musicians, however, will recognize GarageBand for what it is: the ultimate musical scratch pad and practice partner. Though no press release will cop to it, GB is built on the technology in Logic Audio. The modeling instruments, the effects, the sampler. It's all sitting behind GB's simple interface. When you go to lay down a MIDI Hammond track, for example, you're playing the same sound engine from Emagic's EVB3 tonewheel modeling organ.

When mixing down a song, the master channel is employing the same processing smarts of Logic's Multipressor.

GB isn't about the last stage of production or finalizing a mix, though. It's about getting a song off the ground. More than just an updated "four-track" concept, it has just enough of everything to put an idea across, without overloading you with options that could ruin momentum. That's its charm.

OVERVIEW

GarageBand is a combination multitrack recorder and a well-stocked software instrument. The number of "real" and software instrument tracks is CPU dependent, which is interesting, when you consid-



er that other lite versions of programs typically have a limit to the number of recorded tracks.

When GB is first launched, a dialog prompts you to name the song, and set the key, time signature, and tempo. Once this is done, you're presented with the main Timeline work area, which is a familiar take on conventional DAWs: track names along the left-hand side, recorded track data to the right, and transport controls along the bottom.

MIDI I/O assignment is handled automatically, which was a bit of a head-scratcher for me. At first, I searched for a place to specify my MIDI interface. However, GB had already detected an interface. All I had to do was play my controller. I didn't have to worry about channel assignment, either. Whatever track is selected in the main window is what will be triggered from incoming MIDI data.

Track-related settings such as audio input assignment, soft synth selection, and effects are made from the floating Track Info window (see Figure 1). When a track is selected, its attributes are displayed, and you can change them on the fly. I was shocked to see how quickly I could switch instruments and add effects. It was much faster than any pro DAW I've

worked with, where I'd normally be forced to insert effects one at a time. Here it's a simple matter of turning the effect on or off and choosing an instrument from a list. Nice.

You won't find lots of effects parameters, or the ability to apply them pre or post fader. Heck, there isn't even a mixer. It really isn't missed. Volume envelopes (*i.e.*, "rubber-band-style" automation) are used to adjust levels over time, and tracks can be panned. If you feel the need to get tweaker, you're probably missing the point of this program.

WORKING WITH LOOPS

Apple has its own loop format called Apple Loops, which is essentially an enhanced AIF format with key and tempo information embedded into the file. Compatible hosts use this data to automatically time stretch and transpose loops to match the current song settings. It's not unlike Sony Acid or Ableton Live.

Over 1,000 royalty-free Apple loops are included to help you build an arrangement. A variety of styles and instruments are covered, and the quality is generally quite good. As you can imagine, weeding through that many loops to find what you're looking for could be a huge time sink.

Soundtrack vs. GarageBand

These two programs rely on the same time-stretching and loop engines. Soundtrack costs about 150 bucks more and is targeted at music-for-picture types. Here's a quick look at how the two stack up:

Loops	ST comes with over 4,000 loops; GB has a little over 1,000
Effects	both support AU plug-ins, and include a number of effects ported over from Logic; ST supports plug-in automation
Software instruments	GB only
MIDI sync	ST only
QuickTime movie support	ST only
QuickTime export	ST only
Ability to create Apple Loops	ST only
Audio resolution	ST: up to 24-bit/96kHz; GB: 16-bit/44.1kHz

Fortunately, it's possible to perform sophisticated searches based on several criteria such as key, instrument, style, scale, and so on. In most cases, I had good luck finding what I was looking for within one or two searches.

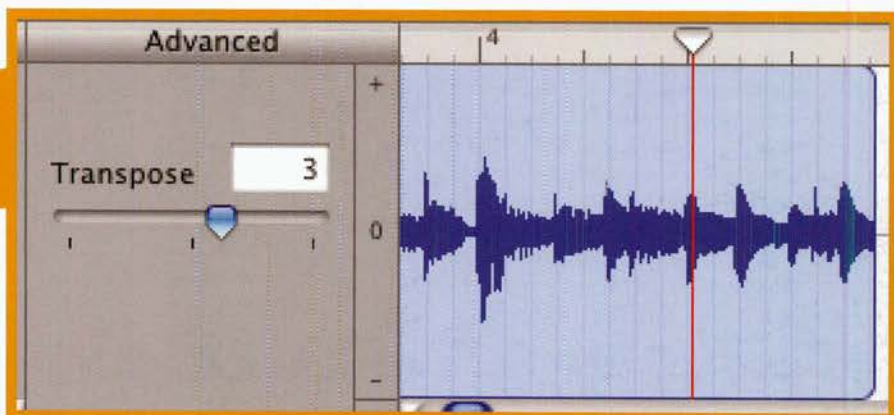
Loops can be audio or MIDI, but they're treated the same from the Loop Browser. If you click on a MIDI loop, it plays back as it was originally intended, complete with soft synth and effects settings. If you drag this to the Timeline, a new MIDI track is created — instrument and effects settings are made automatically. By itself, this is a cool feature. It gets better: If a MIDI loop is dragged onto an audio track, the loop is automatically rendered as

an audio file.

Unfortunately, GB works only with Apple Loops — you can't load your own samples, unless you record them in as audio. Thankfully, GB users can download the free Loop Utility, which is used to tag audio clips with Apple Loop data. This makes it possible to add loops in other formats to GB's library after they've been converted. The utility can be downloaded at <http://developer.apple.com>.

IN USE

My musical personality is split. Part of me spends a lot of time in the studio working on tracks for TV commercials and industrial videos. I'm used to working with tight deadlines, deal-



AUDIO LOOPS CAN BE SLICED INTO SMALLER SECTIONS AND TRANSPOSED TO CREATE NEW MELODIES. HERE, I'VE RE-PITCHED AN ACOUSTIC GUITAR RIFF TO FIT THE KEY OF MY SONG.

GarageBand

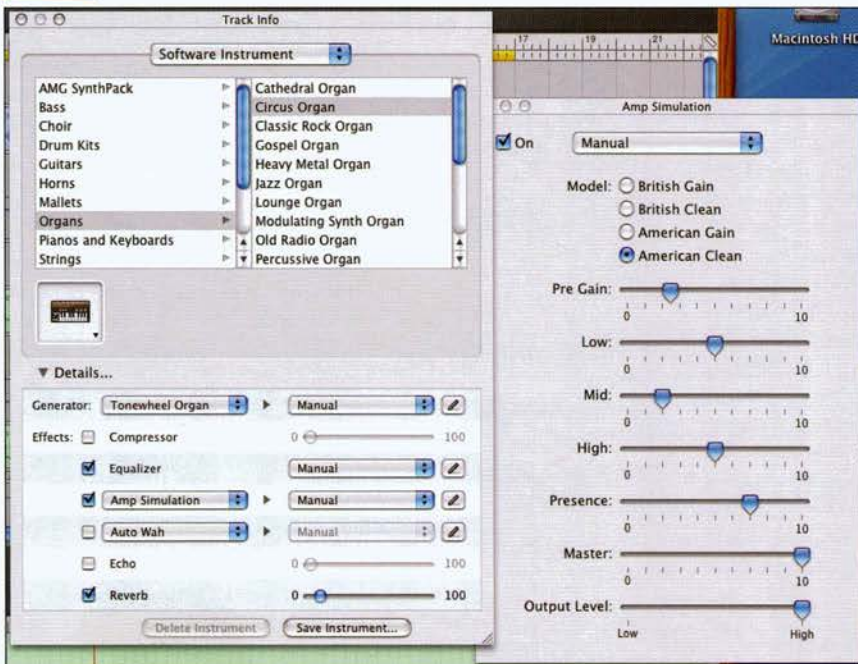


FIG. 1. GARAGEBAND TRACKS CAN BE "REAL" (AUDIO) OR ASSIGNED TO A SOFTWARE INSTRUMENT. BOTH TYPES CAN HAVE UP TO SEVEN INSERT EFFECTS. I'VE APPLIED EQ, AMP SIMULATION, AND A BIT OF REVERB TO THE ORGAN (SHOWN). I'VE ALSO OPENED THE AMP SIMULATOR PARAMETER WINDOW BY CLICKING ON THE PENCIL ICON.

ing with clients, rewrites, and all the other responsibilities this kind of gig entails. It requires a lot of juggling, technically and logistically. Another part of me is devoted to being a better musician — play-along records, technique books, and other practice aids litter my home studio. GarageBand proved to be effective in both worlds.

When I wanted to try an idea for a spot, I performed a quick search for some drums. I was going for a roots/Americana vibe at around 90 bpm. Within minutes, I had an acoustic guitar riff, acoustic drum groove, and shaker happening that I could tell was working. I patched in my Strat knock-off and dialed in a tone with the built-in amp simulator. A few takes later my song was taking shape. I was able to put together a sketch in less than half the time it would have taken me in my pro DAW. A big part of my success came from being able to quickly find loops and have them match my song's key and tempo.

Feeling pleased with my track, I decided it was time to shed. Again, I pulled a few loops together, added a MIDI bass part, then sat down to play. I lost track of time as I jammed on one of the electric pianos.

Then annoyance set in. It dawned on me that this cheap little app was more fluid and had better looping tools than my beloved Logic, which at version 6.3 doesn't even have an amp simulator! I felt

cheated. To make myself feel better, I started taking stock of all the things GarageBand doesn't have. Here's a list of highlights:

- Track export. Individual tracks can't be easily exported for use in your favorite DAW. As a workaround, you have to solo a track, then render the entire song as an iTunes file. From there it's a matter of finding the track on your hard drive and importing into whatever program you choose.

- CPU management. Songs can quickly become CPU intensive — it's way too easy to start piling on effects and virtual instrument tracks without realizing how much you're asking of the computer. Sadly, GB doesn't really let you relieve any of the strain. Sample buffer settings can't be adjusted manually, and tracks can't be "frozen" to reduce the load.

- MIDI editing. You can choose to fix the timing according to preset straight and swing percentages, or not. You can't, however, create a groove quantization template from an audio or MIDI clip. Admittedly, this isn't a huge deal breaker. And fortunately, velocity, sustain, modulation, and pitch-bend can all be edited, which should be enough for most casual users.

- Loop recording. Only with soft synths, not with audio tracks. This is a serious omission for a program built around looping as a way of making music.

CONCLUSIONS

With GarageBand, Apple has taken the process of music making in the digital age and made it accessible to millions. In my book, this is wonderful. Will it compete with "real" audio programs in your studio? Nope. However, in the hands of a musician, GB isn't the music-by-numbers app it's made out to be. This is seriously powerful software. The instant gratification factor is off the scale, but to dismiss it as some toy you'd get bored with in five minutes would be a mistake.

I was blown away by how much I could get done with such a seemingly simple program. Obviously, there's room for improvement. Track freezing and audio export are two important items on my wish list. Even without these features, GarageBand has a lot going for it. And Apple seems to be taking it seriously — as we went to press we learned the latest update to GB supports ReWire, so any app that can host ReWire clients can work with GB in a tight, integrated way. This is huge!

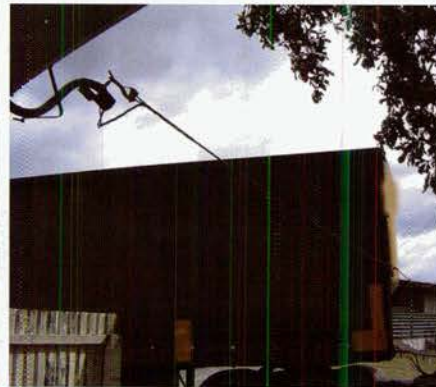
Once you get past the "cute" persona, the light will go on. If you're a Mac user who does anything related to songwriting or recording, you'd be foolish not to have GarageBand sitting on your hard drive. **EQ**

Strengths:

- Excellent time-stretching and looping capabilities
- Quality virtual instruments and effects
- Wide range of loop material
- Future version of Logic will support GarageBand session import
- Integrated loop browser
- Remarkable bang for the buck

Limitations:

- Can't freeze tracks to conserve CPU resources
- Individual tracks can't be easily exported
- Only supports Apple Loops



Luke Mulligan sent these pictures up from Tasmania, they pretty well speak for themselves, huh? The truck snagged the power line, and blocked the only access road to the oval where Luke was waiting to load in his gig. Resulted in a 1.5 hour delayed setup, and as Luke says, extra stress. That's an OH&S issue in itself!

BAN THE PAR 64?

LAST ISSUE Joe Doe wrote about whether the Par 64 had outlived its safe life. Paul Matthews wrote a good response thus.....

- PAR Cans are not illegal, and (like most appliances) are not dangerous when used as the makers intended.

I agree with the article that supposed rear cap metal fittings that engage with the lamp holder can be more dangerous than just an exposed lamp holder.

Lewis Splitters are not dangerous or illegal either when used as intended. All components need to be rated at 250v (which they usually are) and plugged in such a way as to prevent connection of a 240v source. There is no mention in any of the standards anywhere to state that series connected appliances are prohibited. Splitters should not

have two cords entering one plug (as many do) as this breaches the intended use of the plug by the manufacturer and prevents the cord clamp working properly. The series connection should be made in a suitably small and sealed junction box with effective cable clamps on all flexes.

In general PAR cans are no more dangerous than 1200kg of metal moving at 80kph on a slippery road with a "P" plater at the steering wheel. Except that the latter has killed and maimed far more people than the PAR can ever has. Common sense, staff training and general risk reduction measures will suffice.

I would suggest that as part of a Work Method Statement for PAR can use should read as follows;

Risk: Risk of electrocution when hand is placed inside can to focus.

Control: Ensure can electric is in good condition before use. No exposed live parts inside. Earth effective on all metal surfaces including cover. RCD "Safety Switches" used on all circuits. It may be appropriate to specify "double" RCD protection (i.e. two units in series) to eliminate the possibility of one RCD unit failing in a fault condition.

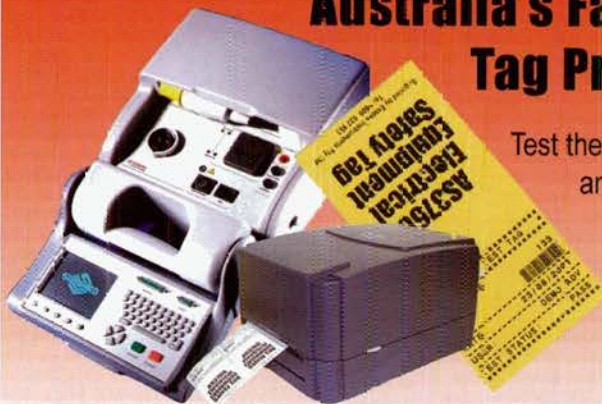
All can electric to be subject to a regular testing and visual inspection regime. There should include a dated test tag where responsibility for safety of the appliance is passed between users

Risk: Risk of burning when hot lamp holder is touched during focusing.

Control: Ensure can is cool before touching. Staff training during focus, set dimmer racks to 30% maximum on all channels. Modern racks have this feature.

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How To.....

Install Lighting Bars!

Here's the scoop. We needed lighting bars in a classroom here at Juliusmedia college. We didn't need to go too far for a solution, since our landlord is Lots Of Watts, the Sydney based sound and lighting conglomerate who sell, rent and install stuff. We went and saw Carey Leghorn, the installation director and partner who very kindly offered to do the job in between other work.

The classroom has a false office type

ceiling, hung off steel roof purlins above. The bars would need to be hung direct off the roof steel.

We specified 2 x 6m lengths, and 4 x 3m. The picture above shows the end result - we are very pleased with it!

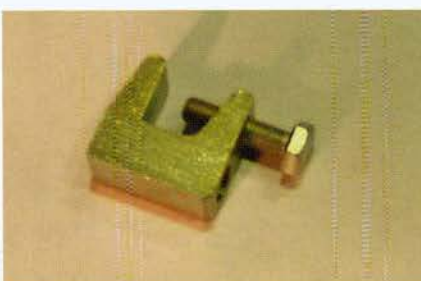
Spot bar needs to be 50mm outside diameter. I'm still amazed to find variations on this theme - a bar that is more or less than 50mm will just not work, since all lighting hooks are optimised for 50mm (2 inches).

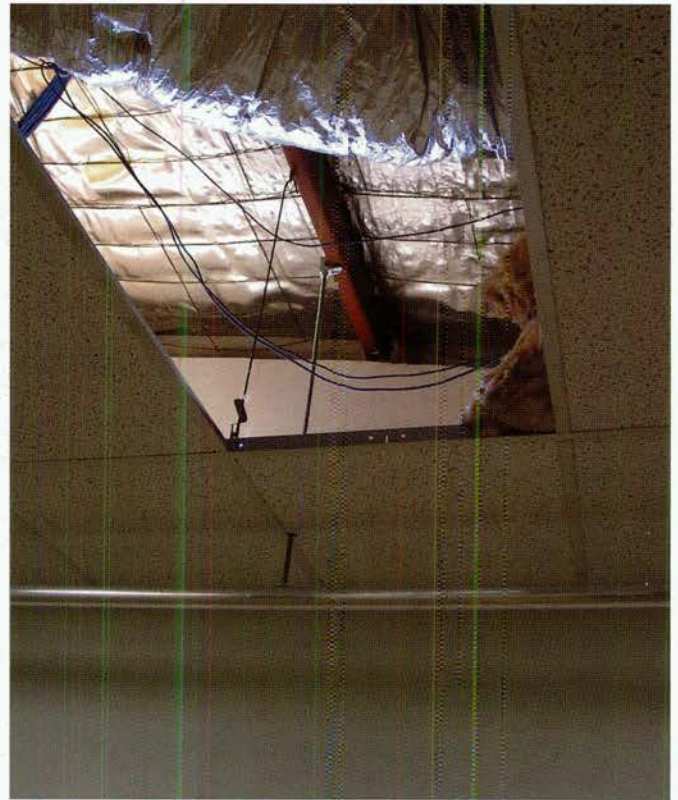
Carey had this cool extruded bar which is more like a 'C' channel (below). He says they routinely pre-wire lengths of this stuff, plus it makes for easy fitting, as you can see from our example.

The job sequence needs to start by obtaining engineering advice about your roof load bearing capacity. An engineer can come and inspect and prepare a report. Get some quotes, because a simple upstairs addition I recently did drew a range of engineer quotes from \$300 to \$900 - just for an A4 plan, with a page of specifications. No guessing which engineer got the job!

Then we settled on using these neat little F3 FSJ hooks (bottom left), which sit over and bolt on to the roof beam. Our RSJ style beams, or 'purlins' are a standard C section. Using a hook means no drilling into the beam, which would weaken it.

Then we could turn a plated (so it doesn't rust) threaded 12mm rod





(booker rod) up through the crumbly fragile ceiling tiles, and bolt it off to the FL3 hook at the purlin.

On the morning of the installation, Carey sent Dion and Simon over. They took about 9 hours (18 man hours) to do the job, including cutting and fitting all the materials, and cleaning up afterwards.

The booker rod was threaded into a channel nut (above), which is designed to twist in to the bar channel and then lock against the direction the rod is being threaded.

Simon and Gavin (up ladder, right) earthed the end caps to the bars (top picture), in case we decide to permanently wire circuits to the bars in the future.

The picture at top shows the cross section of the job and the ceiling. Mission accomplished!

• Thanks are due to Tony Davies at Chameleon, who loaned us the lights shown in the main picture for our Certificate III Lighting Course. He has a commitment to training, as do Lots Of Watts.

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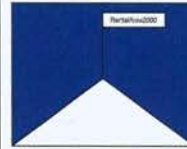
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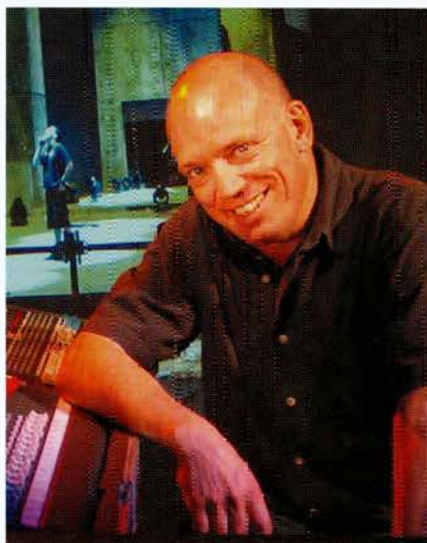


COURSE CATALOGUE JULY-AUGUST 2004



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Julius Media is an Australian Government Registered Training Organisation, specialising in entertainment and music production. We recently moved into a college facility at Rydalmere, near to Sydney's geographic centre.

We train small groups, to a high standard. We are audited by VETAB, and operate at or above TAFE standards.

Julius Media courses come from National Training Packages, developed in conjunction with the industry.

We have partnerships with a variety of industry organisations, suppliers, manufacturers and associations.

Typical of these is our relationship with Riverside Theatres at Parramatta, a professional performing arts complex located just a few minutes away.

We invite college inspections, and would be delighted to address classes or groups interested in our perspectives on training for the entertainment industry.

College owner and founder Julius Grafton has 31 years experience within the entertainment industry.

To borrow a popular saying:

"The best is yet to come!"



COURSES ON OFFER IN 2004

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(One day)

Worship Sound

(5 Saturday mornings)

Jands Lighting Consoles

(One day)

WYSIWYG Essentials

(One day)

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(Five days fulltime, or part time)

Live Sound Eng. Basics

(Five days fulltime, or part time)

Audio Visual Basics

(Five days fulltime, or part time)

Music Production Basics

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(15 days fulltime, 16 weeks part time)

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Learn how to use WYSIWYG, the show design package. With Alex Mair. Saturday August 28. 9am - 4.30pm \$145

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Learn the essentials from the ground up, for effective Church sound. Held across five Saturday mornings, 9.30am to midday. Juliusmedia will help demystify the complexity of acoustics, equipment and techniques. These small classes will allow participants to detail their own challenges, and will draw on solutions provided by audio professionals all too familiar with the compromises presented by low budgets and large reverberant spaces.

Class schedule: Saturday Nov 6 for a total of five weeks. 9.30am - midday.

Price: \$290 per person for the full five weeks, or \$250 each if three or more enrolled together.



College student computers feature dual flat screens and DVD burners.

STAGE OH&S

Our one day Stage OH&S course has proven very useful and popular since we first ran it in April 2002. You earn a formal Unit of Competency from the Entertainment Industry Training Package, and get a Statement of Attainment to reflect this.

The Juliusmedia modules you will cover in the one day course are:

OHM-01 Height Safety: Details kinds of safety equipment, arrest and rescue requirements, ladders and high reach devices. What is acceptable, what is not.

OHM-02 Manual Handling of Show Equipment: With practical component. What is your legal lifting limit? Shows the best and safest methods for handling large, heavy or un-usual items of equipment.

OHM-03 Show Electrical: Starts with basics, what is three phase, what is single phase, relationship between watts, amps and load, earth leakage breakers, and power essentials.

OHM-04 Show Practices: Jargon of the industry, glossary of terms, which is 'prompt', etiquette of the stage, etc.

OHM-05 The Induction, The Laws, and You: Gives individuals the shocking realisation they can be heavily fined, along with their employer. Details what to look for at a venue, or with a new show.

STAGE OHS COURSE DATES:

Sydney:

Monday July 5. 9am - 4pm.

Melbourne:

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Cost: \$130 including notes, morning and afternoon tea.

BASICS. 5 days full time or 5 weeks part time (2 nights, 6.30 - 9.30pm)

We offer a one week (5 full day) course, in Stage Lighting basics, Vision Systems basics or in Live Sound (Engineering) basics. You can also do the Music Production Basics course, part time, 2 nights weekly.

All 'Basics' courses are the first third of a Certificate III. Doing one of these is an excellent way to 'taste test' our training. Plus, you earn units of competency, which are nationally recognised.

The price of a one week BASICS course is \$875, or \$650 if you enrol three or more people at once.

Stage Lighting Basics (code LXB) is an intensive 5 day course that is also delivered part time, 2 nights per week. It is designed to take a beginner from the start to having a working understanding of stage lighting. DATES: Jan. 3 - 7, 2005. (LXB-0301) Part time from JULY 26 (LXB-2607-PT)

Live Sound Engineering Basics (code SEB) is an intensive 5 day course that is also delivered part time, 2 nights per week. It is designed to take a beginner from the start to having a working understanding of live sound. DATES: Part time from JULY 26 (SEB-2607-PT) or Jan. 3 - 7, 2005. (SEB-0301)

AV- Vision Systems (with Staging)

This is the new, one week course which when combined with Lighting Basics and Sound Basics, makes up one whole Certificate III - Audio Visual.

DATES: JULY 12 - 16 (code AVB-1207) Part time from JULY 27 (AVB-2707-PT)

Music Production Basics

Learn how to use Cubase SX and various other music production tools. This is the start of the Certificate III 'Big project studio course'.

DATES: Part time from July 27 (MPB-2707-PT)

~ Assessments ~

YOUR SKILLS ASSESSED

All registered training organisations are obliged to recognise prior learning or existing skills – whether from previous training, or skills obtained 'on the job'. At Juliusmedia we are happy to undertake RPL and/or RCC assessments.

You can get a formal qualification without having to do training.

RPL stands for Recognised Prior Learning, while RCC stands for Recognised Current Competencies. In the jargon heavy world of vocational training, they mean something quite similar.

An assessment can produce a trade qualification without the need to do a course. The full qualification you are assessed for is a Certificate Three, specialising in Sound, Lighting or Audio Visual.

You choose which one when you book your assessment.

How are you assessed?

It will depend on your previous skills and experience, and the recency and

nature of your qualifications (if you have some). The form of assessment could be a practical self assessment process on paper, followed by a brief written test, then a written project. We allow about 20 minutes for the first part, then after a break 2 hours for the project. After another break we may do some physical job tasks and trouble shooting. Finally, the assessor sits with you and discusses your assessment results. It's a positive experience.

What are the standards?

In the Entertainment Industry Training package there are a range of things called 'Units of Competency'. Each of these is a 'standard' that you need to meet. It may be as simple as: "hang a profile spotlight on a bar, and properly connect", or as complex as "equalise a stage monitor wedge with due regard to tonal balance and gain before feedback".

There are a variety of standards in each units of competency. It's our job to ensure you are deemed 'competent' in each one. If you are not, then you are 'not yet competent'.

What if you are deemed 'not yet

competent'?

The assessment will produce an outcome. You may be assessed as competent in a range of units, but not in others. Each unit in which you are competent, is completed – and you obtain a Statement of Attainment for that unit. You don't have to re-do the unit.

Where you've fallen short of a standard, your assessor must tell you. You then understand what it is that is deficient, and you can attempt to address this with additional training. The assessment will highlight which lesson modules at Juliusmedia you should do, in order to be assessed again.

Can I have an idea about the range of subjects covered in the assessment?

You can see all the modules in our Sound, A.V. and Lighting Certificate 3 courses on our website. There are descriptions there for each module. Reading them should give you an idea of what level you need to be at.

What are the logistics of the assessment?

The assessment process (with a few short breaks) usually takes around four hours. There usually are some other people undergoing assessment at the same time.



NEXT ASSESSMENT DATES:

Sydney: Mon July 19. 10am - 2pm

Melbourne: Monday Aug. 2nd,
10am - 2pm.

Brisbane: Tues. 14 September.
10am - 2pm.

Adelaide: check
www.juliusmedia.com

Perth: check
www.juliusmedia.com

COST: \$180.

Book now, call +61 2 9876-3530

~ Certificate III ~



Certificate III in Live Production, Theatre and Events (Technical Operations)

This is a new national qualification from the new Entertainment Industry Training Package (CUE03). *Juliusmedia deliver the C3 in around 100 hours.*

Juliusmedia have structured their Certificate III (C3) so that you choose a specialty: Lighting, Live Sound (Engineering), or Audio Visual (*see next page*).

A Certificate III is THE starting point for working in the technical or management side of the entertainment industry. In times now gone, you used to just hammer the doors of employers until one of them gave you a job. These days with the implications of insurance and occupational health and safety in the workplace, they often won't even talk to you unless you have TRAINING.

A C3 will give you the actual hands on skills and background knowledge that employers will EXPECT you to have. A formal Certificate III is proof that you really do know - and care about - what you are doing.

C3 is the gateway to further training: it forms the foundation for Certificate IV and Advanced Diploma. The units of competency in the C3 are fully transportable and are recognised nation wide.

EMPLOYERS: All our C3 courses are registered for TRAINEESHIPS under the New Apprenticeship System. You can employ an indentured trainee, and attract government subsidies. It's easy! Call Juliusmedia, we arrange the paperwork.

C3 Lighting Specialisation: c3LX

The broad overview of lighting that is delivered in the Lighting Basics Course is applied in the Cert III to give the students the confidence of working professionally in the real world. Recognising the technology is one thing, actually knowing how to get the best out of it will be the outcome of completed this specialisation.

Some of the aspects covered by this Cert III specialisation include in-deck desk use and operation in various different performance environments. Bump-in skills like interpreting and installing lighting designs as well as performance skills like Followspot operation – all to professional standards - will be achievable by the successful student.

DELIVERY: 3 weeks full time (5 days weekly) or 15 weeks - 2 nights weekly.

COST: A\$2,625. GST exempt.

DATES: JULY 5 - 9, SEPT 27 - OCT 8.
MON - FRI, 9am - 5pm daily. (3 wks)

Part time: Start July 26, Mon and Wed nights, 6.30 - 9.30, end Dec 2nd.

C3 Live Sound Engineering (c3AU)

We start with Basics, and go through equipment recognition, microphones, effects, theory, mixing and equalisation. Then in the advanced section of the course we dig deep into show structure, planning, use of equipment, and the ultimate delivery of different styles of performance.

Like all Juliusmedia courses, there is a balance between event types: corporate, concert, touring, theatre. We teach that every show is the same: a professional environment for the sound technician.

The course features 'hands on' modern equipment, and at least one field trip to see and hear a very large rig. We try to have fun as well!

DELIVERY: 3 weeks full time (5 days weekly) or 15 weeks - 2 nights weekly.

COST: A\$2,625. GST exempt.

DATES: JULY 12- 16, SEPT 27 - OCT 8.
MON - FRI, 9am - 5pm daily. (3 wks)

Part time: Start July 26, Mon and Wed nights, 6.30 - 9.30, end Dec 2nd.

* UNITS OF COMPETENCY:

CUE 30203. Lighting

CUFSAF01B: Follow health, safety and security procedures

CUECOR01B: Manage own work and learning

CUEIND01B: Source and apply entertainment industry knowledge

CUECOR02B: Work with others

CUELGT09A: Apply a general knowledge of lighting to work activities

CUFLGT02B: Prepare, install and test lighting equipment

CUELGT05B: Record and operate standard lighting cues

MEM 18.1A B: Use hand tools

CUESTA05A: Apply a general knowledge of staging to work activities

CUELGT03B: Install and operate follow spots

CUFLGT05B: Repair and maintain lighting equipment

* UNITS OF COMPETENCY:

CUE 30203. Live Sound Engineering

CUFSAF01B: Follow health, safety and security procedures

CUECOR01B: Manage own work and learning

CUEIND01B: Source and apply entertainment industry knowledge

CUECOR02B: Work with others

CUESOU07A: Apply a general knowledge of audio to work activities

CUSSOU05B: Install, align and test audio equipment

CUESOU09A: Manage and compile audio replay material

CUESOU03B: Operate professional audio equipment

CUESOU08A: Select and manage microphone and other audio input sources

CUESTA05A: Apply a general knowledge of staging to work activities

MEM 18.1A B: Use hand tools

** NOTE: These are not lesson modules. Juliusmedia deliver a variety of lessons that map against these national units.*



NATIONALLY RECOGNISED
TRAINING

~ Certificate III ~



Certificate III in Live Production, Theatre and Events (Technical Operations)

C3: A.V. TECHNICIAN (C3VS) -- NEW!

This is our NEW C3 option for 2004, and it is very popular.

This qualification is broadly pitched, we have been able to combine Live Sound Basics, Lighting Basics, with Vision Systems to make one qualification provide a balanced set of skills for a workplace trainee.

Within this C3 you get basic sound, lighting and vision skills - combined with our Stage OH&S modules, and the Apply General Knowledge of Staging module.

This means you can buy this qualification in bite sized chunks! Simply combine three BASICS courses - sound, light and vision - and you get the Certificate III. Enrol in one, do the rest later.

TRAINEESHIPS: All our C3 courses are currently eligible for government funded traineeships. Employers can hire a trainee, who is indentured for 2 years. Juliusmedia provide C3 training, and the trainee works full time for the National Training Wage. (See www.wagenet.gov.au)

DELIVERY: 3 weeks full time (5 days weekly) or 15 weeks - 2 nights weekly.

COST: A\$2,625. GST exempt.

DATES: First 2 weeks: JULY 5- 16, then come back for the final one week component: Jan 3- 7. These are all MON - FRI, 9am - 5pm daily. (3 wks) OR, do the final component at nights, from July 27 to August 25.

Part time: Start July 27, Tue and Thur nights, 6.30 - 9.30, end Dec 3rd.

C3 A.V. TECH (C3VS) CUE 30203 UNITS OF COMPETENCY:

CUFSAF01B: Follow health, safety and security procedures

CUECOR01B: Manage own work and learning

CUEIND01B: Source and apply entertainment industry knowledge

CUECOR02B: Work with others

CUEAUD06A: Apply a general knowledge of vision systems to work activities

CUEAUD03B: Operate vision systems

CUEAUD02B: Prepare, rig, test and modify vision systems

MEM 18.1A B: Use hand tools

CUESOU07A: Apply a general knowledge of audio to work activities

CUELGTO9A: Apply a general knowledge of lighting to work activities

CUESTA05A: Apply a general knowledge of staging to work activities

Certificate III: Music Industry (Technical Production) CUS 30201 (C3MP)

-- **NEW!** This is from the Music Industry Training Package, CUS-01. It is our newest Certificate III course, and it runs part time - 15 weeks on Tuesday and Thursday nights.

This is the BIG project studio course!

Using MIDI, Digital Audio and Samples you'll learn how to quickly produce and master high quality professional standard demo's and music tracks. Learn what's out there - plus the practical basics of audio theory, electrical maintenance and music industry specific OH&S.

The first section is a 'basics' component. An intensive introduction to understanding the basic theory to operate modern digital audio software audio applications, microphones, mixing consoles and electronic music. It also deals with the safety issues essential to the music industry and planning audio recording production at demo standard.

This section gives participants a strong introduction to understanding the current music industry climate of 'project' computerised studios and production.

The rest of the course is made up of units and modules which show the operation of current, state of the art digital audio software. Learn microphone types, placement, selection and mic plots. Participants will use software based audio programs to create music using MIDI, digital audio samplers and 'real' multitrack music tracks.

A project is run, which allows students to mix multiple sources to a master stereo recording. The college has dual screen workstations with DVD-R, utilising Cubase SX and other great software. We also have a live mix room.

COST: A\$2,625. GST exempt.

Part time: Start July 27, Tue and Thur nights, 6.30 - 9.30, end Dec 3rd.

C3 Music Industry (Technical Production) CUS 30201. UNITS:

CUSBGE01A: Develop and update music industry knowledge

CUSADM07A: Establish and maintain work and contractual relationships

CUSSAF02A: Follow health, safety and security procedures in the music industry

CUSSOU12A: Edit sound using digital systems

CUSSOU05A: Install, align and test sound equipment

CUSSOU06A: Lay soundtracks

CUSSOU09A: Mix sound sources

CUSSOU11A: Operate sound mixing console

CUESOU01B: Repair and maintain audio equipment

CUSMPF07A: Plan, prepare and perform for a demo recording

CUESOU08A: Select and manage microphone and other audio input sources

CUSMGE09A: Use MIDI devices or software to perform music



NATIONALLY RECOGNISED
TRAINING

~ Certificate IV ~

Certificate IV in Live Production, Theatre and Events (Technical Production)

- **Full time course**
- **Enrol for February 2005**

CUE 40303 from the all new Entertainment Industry Training package.

This is the fast track to professional entertainment work.

The Certificate Four is the new national qualification for a Technician working unsupervised. It follows on from the Certificate Three, which is the new minimum trade qualification.

Our Certificate Four courses is nationally accredited - as far as we are aware, Juliusmedia are the first registered training organisation to offer this new qualification, which was formally endorsed by ANTA in February 2004.

We have chosen to incorporate sound, lighting and vision units so we are delivering a superior technical qualification loaded with hands-on experience. The Certificate IV includes our Certificate III (A.V.) - if you already have units from this course, we will grant you a credit.

The Certificate IV is a full time course, spanning almost six months. You start July 26, and work Monday -

Friday, 10am to 2pm daily. In addition we farm you out for internships and work experience - some of which will be paid. The course finishes Friday December 10. There is a course break between 25 Sept and 17 October inclusive.

The really exciting thing is that this Certificate IV is the first HALF of all of these Advanced Diploma's:

CUE60203 Advanced Diploma of Live Production, Theatre and Events (Technical Production)

CUE60303 Advanced Diploma of Stage Management

CUE60403 Advanced Diploma of Venues and Events

This means that you may have the opportunity to articulate into one of these Advanced Diploma qualifications at the end of your course.

COST: A\$6,600 (this course is not available for overseas students).

APPLICATION FEE: A\$300 (included)

ENTRY REQUIREMENTS: Year 10 equiv. completion, and a keen desire to work in the industry.

PRE-REQUISITES: None. This course starts at Basics and works up.

CERTIFICATE IV UNITS, CUE 40303

CUETEM01B: Coordinate production operations

CUEOHS01B: Implement workplace health, safety and security procedures

BSBFLM404A: Lead work teams

CUETEM06A: Organise and monitor bump in/bump out

CUEIND01B: Source and apply entertainment industry knowledge

CUEFIN01B: Develop a budget

CUEFIN02B: Manage a budget

CUESOU07A: Apply a general knowledge of audio to work activities

CUELGT09A: Apply a general knowledge of lighting to work activities

CUESTA05A: Apply a general knowledge of staging to work activities

CUEAUD06A: Apply a general knowledge of vision systems to work activities

CUEAUD03B: Operate vision systems

CUEAUD02B: Prepare, rig, test and modify vision systems

MEM 18.1A B: Use hand tools

** NOTE: These are not lesson modules. Juliusmedia deliver a variety of lessons that map against these national units.*

COLLEGE LOCATION:

10 Bridge street, Rydalmere. Walk to railway station or Victoria road.

FACILITIES:

Small cafe, student kitchen, free capuccino, library, computer lab, mix room, lx programming room. Practicals are held at Parramatta Riverside Theatres.



NATIONALLY RECOGNISED
TRAINING

~ The Advanced Diploma's ~

CUE 60303 Advanced Diploma of Stage Management

- **Full time course**
- **Enrol now for Feb 2005**

This is a new Qualification, from CUE03 – the Entertainment Industry Training Package. It is designed to produce a multi-skilled stage manager, who has obtained Lighting, A.V. (vision), Staging and Sound units as part of this qualification

The course is taught with equal emphasis on theatre, events and concert.

Aside from formal lessons and classes, many of which are conducted within a working performing arts centre, students are given internships with a variety of leading venues and producers. A work experience component is required to complete this qualification.

Generally, students would be expected to complete the course of study plus the internships within the year allocated.

Our Advanced Diploma's from the new Entertainment Industry Training Package include extensive management modules, including H.R., Strategic H.R., Show and Facility budgeting and accounting, and teamwork. The 'UNITS' shown on our website (www.juliusmedia.com) are statutory titles, and are not totally indicative of the content of the academic year. We choose to show them so that you can obtain credits for any existing units that you have attained.

This Advanced Diploma also features a full Certificate III - Audio Visual. The units for this qualification are completed at the start of the Advanced Diploma, to give every student a well rounded understanding of basic lighting, basic live sound, and vision systems. This trade qualification alone is a superb vocational outcome, and it is usually achieved within the

first term of study.

Classes occupy five days per week, between 10am and 2pm.

The academic year comprises two 17 week semesters.

This advanced diploma may be combined with one other, and the duration to obtain both is reduced to 18 months – due to units in common. If combined with our other two Advanced Diploma's, the duration for the entire curriculum is 2 years full time.

To become an even more effective stage and production manager, combine this Advanced Diploma with

- CUE 60203: Advanced Diploma of Live Production, Theatre and Events (Technical Production).

Then in addition to the Advanced Diploma's you have the equivalent of a Certificate IV - plus you will have three Vision units, making the equivalent of a Certificate III in Vision (AV).

- For the ultimate skills package, do the final Advanced Diploma; CUE 60403 Advanced Diploma of Venues and Events - and obtain management skills.

PRE-REQUISITES: Minimum age 17 (Australian student), or 18 (overseas student). Higher School (leaving) Certificate or equiv, unless extraordinary case.

Portfolio of work, experience, and evidence of a prior interest in entertainment generally and stage management specifically.

Entry interview - face to face for Australian students, video-conference (via ip) for overseas students.

DATES: This is a full time, full year course. Start February 7, 2005.

Timetable: for July - December 2004 is 10am - 2pm, Monday to Friday.

* *Times may change to 9.30 - 1.30.*

CUE 60203 Advanced Diploma of Live Production, Theatre and Events (Technical Production)

This is a new Qualification designed to produce a multi-skilled production manager who has both Lighting and Sound speciality plus units in vision, staging and flying systems, as part of this qualification.

The course is taught with equal emphasis on theatre, events and concert.

Aside from formal lessons and classes, many of which are conducted within a working performing arts centre, students are given internships with a variety of leading venues and production companies. A work experience component is required to complete this qualification.

Generally, students would be expected to complete the course of study plus the internships within the year allocated.

Our Advanced Diploma's from the new Entertainment Industry Training Package include extensive management modules, including H.R., Strategic H.R., Show and Facility budgeting and accounting, and teamwork.

This Advanced Diploma also features a full Certificate III - Audio Visual. The units for this qualification are completed at the start of the Advanced Diploma, to give every student a well rounded understanding of basic lighting, basic live sound, and vision systems. This trade qualification alone is a superb vocational outcome, and it is usually achieved within the first term of study.

PRE-REQUISITES: Minimum age 17 (Australian student), or 18 (overseas student). Higher School (leaving) Certificate or equiv, unless extraordinary case. Portfolio of work, experience, and evidence of a prior interest in entertainment generally and stage management specifically.

~ The Advanced Diploma's ~

Entry interview required.

DATES: This is a full time, full year course. Start February 7, 2005.

Timetable: for July - December 2004 is 10am - 2pm, Monday to Friday.

* *Times may change to 9.30 - 1.30.*

CUE 60203 UNITS:

CUETEM01B: Coordinate production operations

CUEFIN01B: Develop a budget

CUSADM06A: Develop and implement an operational plan

CUETEM03B: Establish and manage production requirements and resources

BSBFLM503A: Establish effective workplace relationships

CUEOHS01B: Implement workplace health, safety and security procedures

CUEFIN02B: Manage a budget

THHGLE22A: Manage risk

CUETEM06A: Organise and monitor bump in/bump out

CUETEM08A: Realise productions

CUEIND01B: Source and apply entertainment industry knowledge

CUESET11A: Develop set construction plans to meet design requirements

CUSADM10A: Establish and manage contracts

BSBFLM404A: Lead work teams

THHGLE16B: Manage physical assets

CUESTA03B: Operate flying systems

CUEAUD03B: Operate vision systems

CUEAUD02B: Prepare, rig, test and modify vision systems

CUSSOU05B: Install, align and test audio equipment

CUESOU04B: Mix live audio

CUESOU10A: Operate wireless audio equipment

CUFLGT02B: Prepare, install and test lighting equipment

CUELGT07B: Record and operate lighting using advanced techniques

CUELGT05B: Record and operate standard lighting cues

CUESOU11A: Set up and operate stage monitor systems

CUELGT06B: Set up, record and operate lighting cues and effects

CUE 60403: Advanced Diploma of Venues and Events

- **Full time course**
- **Enrol now for Feb 2005**

This is a new Qualification, from CUE03 – the Entertainment Industry Training Package. It is designed to produce a multi-skilled events manager or assistant venue manager who has obtained Lighting, A.V. (vision), Staging and Sound units as part of this qualification.

The course is taught with equal emphasis on theatre, events and concert.

Aside from formal lessons and classes, many of which are conducted within a working performing arts centre, students are given internships with a variety of leading venues and producers. A work experience component is required to complete this qualification.

Generally, students would be expected to complete the course of study plus the internships within the year allocated.

Our Advanced Diploma's from the new Entertainment Industry Training Package include extensive management modules, including H.R., Strategic H.R., Show and Facility budgeting and accounting, and teamwork. The 'UNITS' shown on our web site are statutory titles, and are not totally indicative of the content of the academic year. We choose to show them so that you can obtain credits for any existing units that you have attained.

This Advanced Diploma also features a full Certificate III - Audio Visual. The units for this qualification are completed at the start of the Advanced Diploma, to give every student a well rounded understanding of basic lighting, basic live sound, and vision systems. This trade qualification alone is a superb vocational outcome, and it is usually achieved within the first term of study.

Classes occupy five days per week, between 10am and 2pm.

The academic year comprises two 17 week semesters.

This advanced diploma may be combined with one other, and the duration to obtain both is reduced to 18 months – due to units in common.

To become an even more effective Events and Venue Manager, combine this Advanced Diploma with CUE 60203: Advanced Diploma of Live Production, Theatre and Events (Technical Production). Then you have the equivalent of a Certificate IV plus you will have three Vision units, making the equivalent of a Certificate III in Vision (AV).

For the ultimate skills package, do the final Advanced Diploma; CUE 60303

Advanced Diploma of Stage Management- and obtain stage management skills.

PRE-REQUISITES: Minimum age 17 (Australian student), or 18 (overseas student). Higher School (leaving) Certificate or equiv, unless extraordinary case.

Portfolio of work, experience, and evidence of a prior interest in entertainment generally and stage management specifically.

Entry interview - face to face for Australian students, video-conference (via ip) for overseas students.

DATES: This is a full time, full year course. Start February 7, 2005.

Timetable: for July - December 2004 is 10am - 2pm, Monday to Friday.

* *Times may change to 9.30 - 1.30.*

E&OE. All course info correct at presstime. Prices, units, dates, times all subject to change without notice. Check website for more info, updates.

Moved

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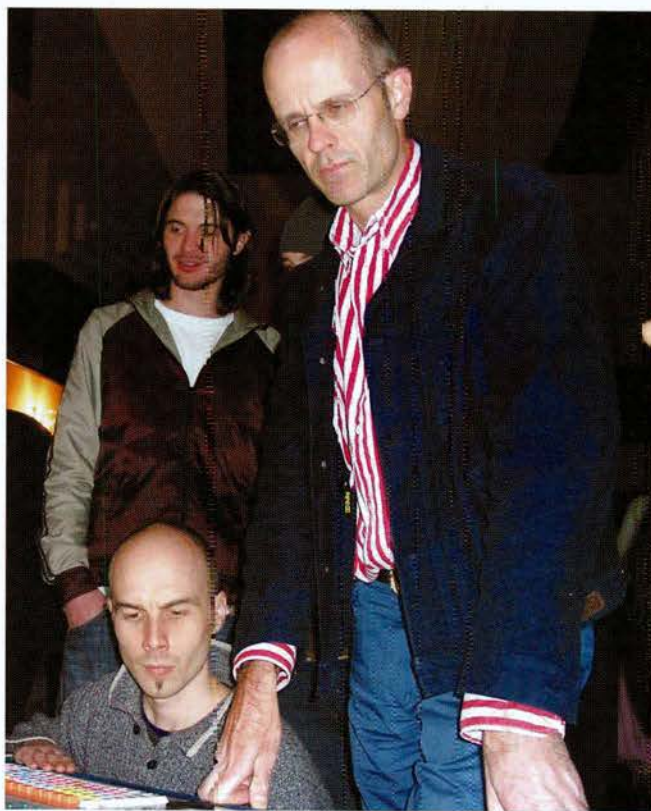
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CX was delighted to be invited to the Australian launch of the Digidesign ICON console recently. Held at Studio 301, it gave us the chance to catch up with the titan of the studio industry, the icon known as Tom Misner. The Tom, owner of the SAE college colossus, was in place at the door when we arrived, looking unruffled after Business Review Weekly took a red pen to his net worth. The Richest '03 listing marked Our Tom down to a measly \$300 million or so, and really waded into the poor guy with a two page article that alleged all kinds of unkind things. Actually, the journo just quoted slabs of Tom's infamous book, The Misner Factor. How can people be so cruel? The book, by the way, has become a must read, and is strangely hard to get. Meanwhile we were very well fed and watered before The Big Reveal (above). These dudes are very impressed with the Icon, huh? It didn't look THAT complicated to us...

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CX

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Media kit, mechanical specifications and rates: go online at www.juliusmedia.com and go to 'CX Magazine'.

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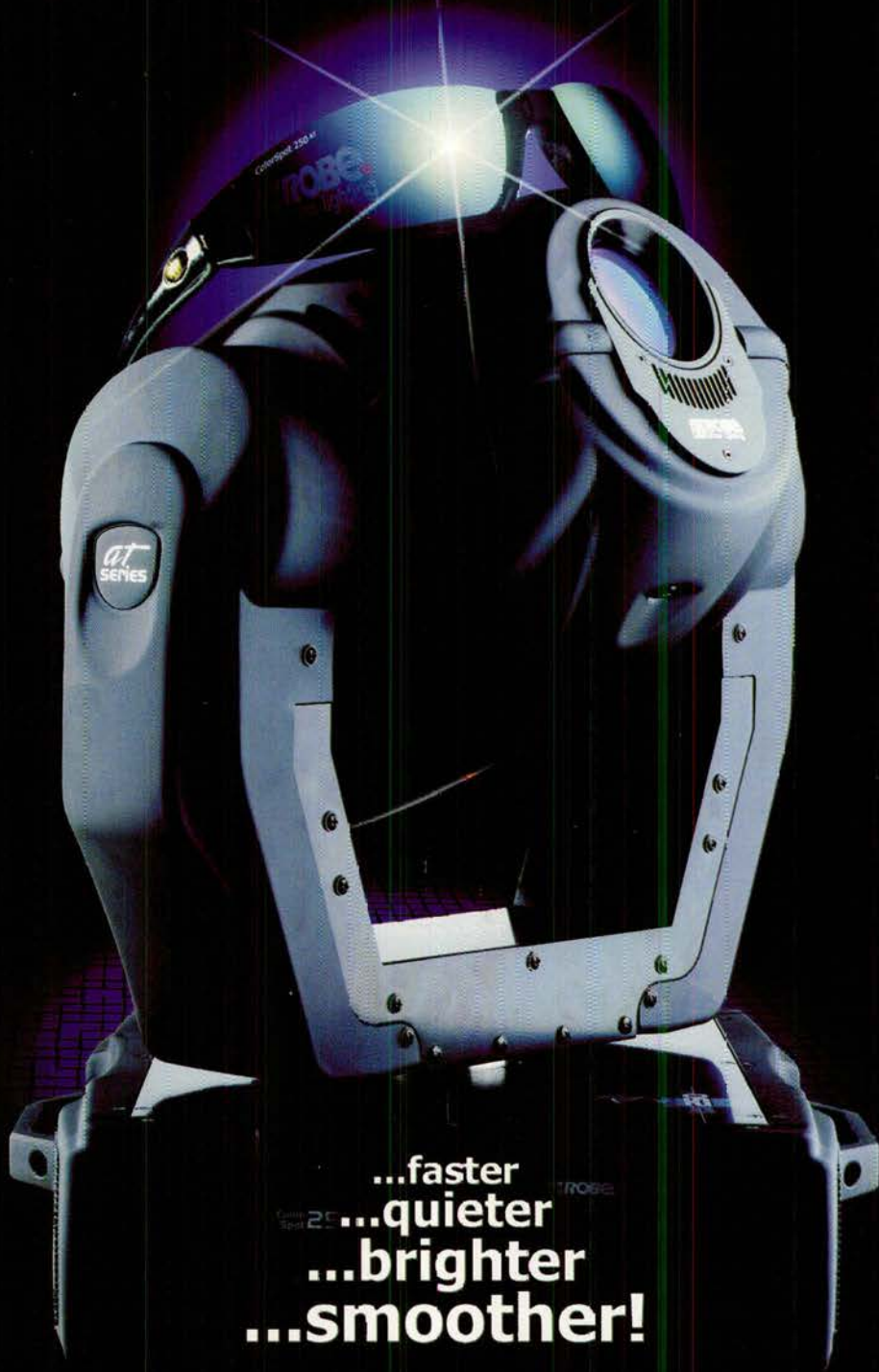
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