# Lighting as out of the Entertainment Technology Monthly

# King of the Castle

- Elton John at Leeds Castle, Kent

# Marine Inventions

- De Man in de Boot in Antwerp

# Cafe Culture

Denver's newest themed venue, Cafe Odyssey

# The World is not Enough

Unusual Rigging and the latest Bond movie

# Wit & Wisdom

Deep Purple and Status Quo

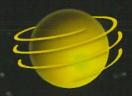
# A Lizard's Tale

celebrating the 1999 Solar Eclipse

# PLASA'S Heart & Soul

All the action from Earls Court 1

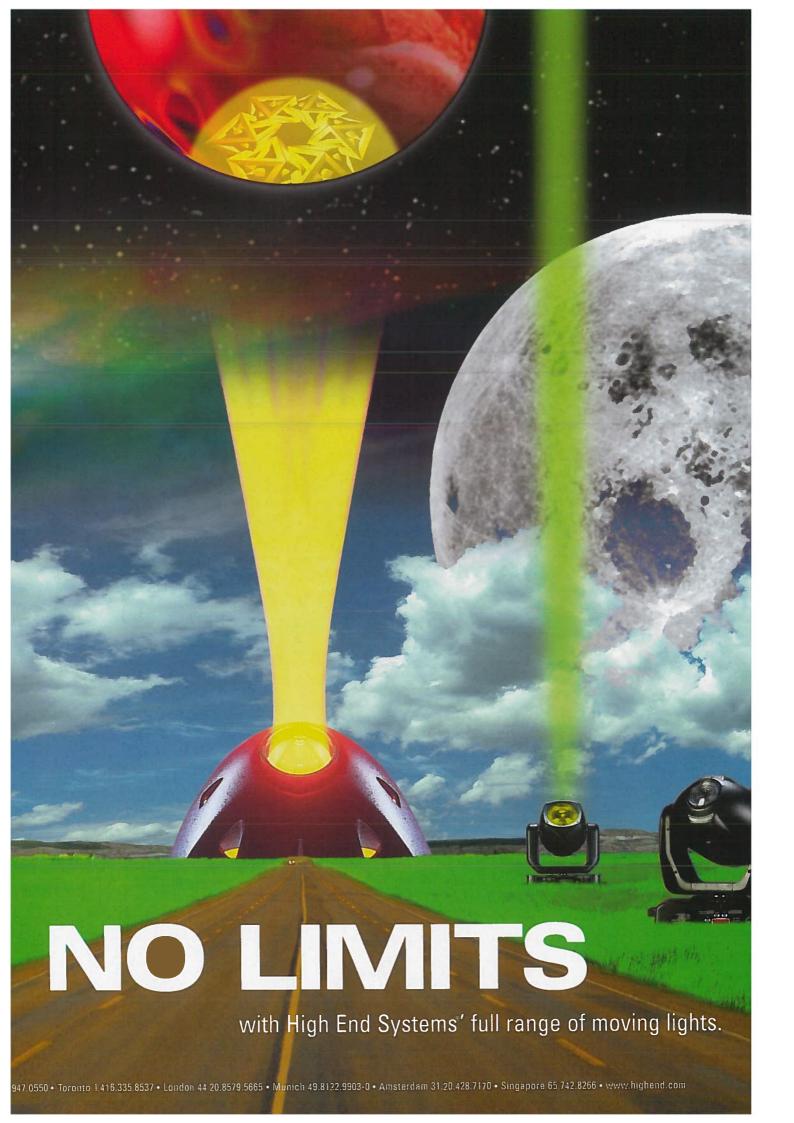




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# International News Round-Up

# PRG Moves Further into Europe

The Production Resource Group has announced a major expansion of its UK and European presence. Midnight Design and The Spot Co - both London-based lighting companies - have joined the PRG Lighting Group. In a related move, Alan Thomson has also joined the PRG Lighting Group as a director of Light and Sound Design Ltd.

Nick Jackson, president of LSD, who is responsible for all PRG Lighting Group European operations, told L&SI: "Midnight Design, The Spot Co and LSD each have their own individual strengths, and by combining these we will be better able to meet the needs of our cllents." The addition of Midnight Design and The Spot Co is the clearest indication yet that PRG is looking to broaden and strengthen its capabilities in Europe.

A full service lighting company with longestablished credentials in corporate theatre, Midnight Design will continue to be run by its two principals, Dave Bryant and Mike Townsend: "The deal with PRG is perfect," said Townsend, "as it enables Midnight Design to expand its operations on a truly global scale."

The Spot Co specialises in providing a broad range of lighting services and equipment to the



PRG's Jere Harris and Nick Jackson at the PLASA Show
when the deal was announced

special event market. Directors Ben Sullivan and Michael 'Jaggy' Scullion will remain with the company.

The PRG management team in Europe is being augmented to support this expansion beginning with the addition of Alan Thomson, formerly with Theatre Projects. Thomson has a lengthy background in the lighting industry, with extensive experience developing and guiding company growth.

His first task will be to integrate Midnight Design and The Spot Co into the PRG Lighting Group. "I'll be incorporating and assisting in the development of both businesses," added Thomson. "We will concentrate on the corporate theatre markets, with expansion into theatre - a market where PRG and I have our roots - via Midnight Design.

Additionally, we will continue expanding The Spot Co's particular niche of movie launches, festivals and high class events."

# PLASA 99 - Hub of the Industry

Confirming its position as the world's leading entertainment and leisure technology exhibition, this year's PLASA Show saw the highest ever number of exhibitors bringing the latest products to the industry.

New innovations included feature areas highlighting the expanding market for architectural lighting in a like-for-like comparison, and a new display area (sponsored by AV Magazine) which allowed the visitor to compare a range of display equipment in a realistic environment.

Also new was the introduction of training workshops, and an expanded seminar and conference programme, which were all a great success and well attended. Seminar topics ranged from Lighting the Millennium Dome to Technology on the High Seas. The PLASA Show was also home to the NSCA (National Systems Contractors Association from North America) and AV Magazine conference programmes which ran alongside the exhibition.

Despite the unseasonally high temperatures across the UK, just over 13,500 visitors made the journey to Earls Court. Of this, nearly a quarter had flown in from overseas.

A full review starts on page 75 and highlights of the show can be found at www.plasa.org



#### No-Worries TC is the ultimate DMX512 Record - Replay product There are five operating modes: Timecode Playback: Simply record the show, enter **Automatic Show Backup** Simply record the final a start time and connect the MIDI cable. No-Worries then tracks the timecode and plays the show. rehearsal, up to 12 hours of Whatever the show controller does - pause - rewind, 2048 channels. At show time, No-Worries tracks the lighting console the DMX512 playback will stay Locked. It's just like and takes control in the event of a DMX512 failure. Canned Show Control: In many applications, such DMX Merge: No-Worries also operates as a 4 input as museum and exhibition displays, the lighting DMX512 merge with options for either htp or itp priority console is only needed for show programming. The completed show is then recorded by No-Worries and Data Fix: Finally, No-Worries can be configured to operate played back by remote trigger or time of day cues. as a DMX512 error fixer. The front panel provides an LCD and keypad user interface. Sophisticated remote control and playback timing options are simply selected from the front panel. An optional VGA monitor output is also available.

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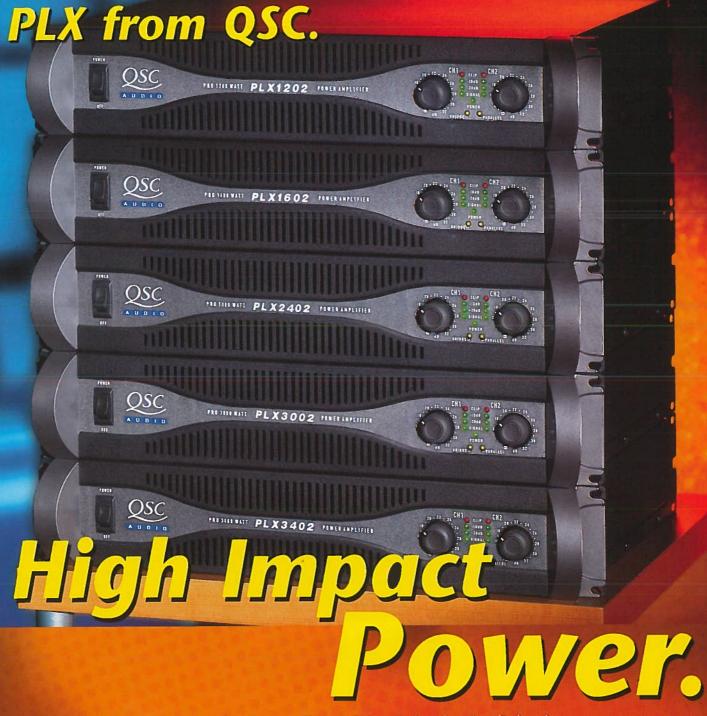
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## **Court Re-Enters Injunction Against Martin**

In August we reported that the Federal Court of Shermann, Texas, granted Vari-Lite a preliminary injunction against Martin Professional.

Martin defended the action and the ruling was appealed to the Federal Circuit Court in Washington. That court has now re-entered a preliminary injunction against Martin. The court has ruled that certain of Martin's products infringe a patent held by Vari-Lite Inc.

As noted earlier, this now prohibits Martin
Professional from selling four products - the MAC
300/500/600 and Case Controller (only when sold
in conjunction with the listed luminaires) - in the
American market until July 5, 2000. The earlier
injunction by the same court was vacated on

August 16th because the appeals court believed that the lower court had not explained its original decision fully enough. In its new ruling, the lower court provided a more detailed explanation for its injunction.

According to Martin, the injunction does not affect the use or sale of, the affected products by independent Martin dealers and other customers in the US who have previously bought the MAC 300/500/600 and Case as the injunction only covers sales in the US market by Martin Professional.

Martin have referred the Court Order to the Court of Appeals for the Federal Circuit in Washington DC. The case is expected to be decided within the next two to three months.

# Pfatt Stage Technolog

#### **PCM Donate to PSA**

PCM, European importers and distributors of the CM Lodestar hoist, presented the PSA (Production Services Association) with a cheque for £2,500 at PLASA 99. PCM's John Jones hand the cheque over to Brian Croft, chairman of the Trustees of the Welfare & Benevolent Fund of the PSA.

This was the second instalment of PCM's 'sponsorship' of the PSA Fund which was launched in February at the Live! Awards with an initial cheque for £2,500. The deal is linked directly to the sale of Columbus McKinnon Lodestar hoists - for every Lodestar hoist purchased in the UK through PCM, £10 is donated to the Welfare Fund. If sales continue at their current rate, the target figure of £6,000 will be exceeded by the end of the 1999.

#### - FEATURES IN THIS ISSUE -

"Many of the dates had been re-scheduled but the itinerary was relaxed enough to allow a single system to make it to all the venues. Even so, the confusion arising from Leeds Castle being in Kent rather than Yorkshire nearly resulted in a 300-mile gap between performer and equipment!"

Mike Mann - Elton John - page 43



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# **Avalon Debuts in Ireland**



Sound Dept's Mike Case (left) and Steve Badham (right), flank Kevin McCarthy with the Avalon system

EAW's new club sound system,
The Avalon,
makes its
European debut in a nightclub in the Irish
Republic.

MD Brendan Moran first contacted AVL to fit out the venue in Its original incarnation, as Club LA. Four-and-a-half years later, he returned to Kevin McCarthy's

company - now EAW's exclusive Eire distributor - in planning his 1 million punt conversion of the 9,000sq.ft space into the Rhythm Room. AVL also installed the lighting and video in a contract worth 160,000 punts.

The dancefloors, which are split level on the first floor, are complemented by a mezzanine

dance floor/stage and the entire club is built over the

ground-floor Junction feeder bar. One pair of EAW Avalon DC2 enclosures is sited flush to the ceiling on the ground floor, along with a pair of SB1000 subs, and this configuration is repeated up on the balcony.

The mid-high section contains a large format 1.4" exit compression driver on a Constant Directivity horn.

Kevin McCarthy has also specified
12 Community CPL27 full range
Contractor boxes - also supplied by
Sound Dept - to handle the peripheral sound,
and a further pair for the DJ monitors. AVL
also ordered a complement of Crest CA
series amps, assigning a pair of CA18s to
drive the bass bins, CA12s to drive the mids
and CA9s powering the tops, with two Crest
VS1100s running the peripheral speakers and
a VS900 the DJ box.

The other major feature is a circular 2 x 18 videowall, hanging from the ceiling, through which a winched lighting effect can travel to deliver a spectacular lightshow.

# PLASA News Site Relaunched

PLASA Publishing has relaunched its news website. The aim is to provide visitors to the site with an informative news service which will be constantly updated by the PLASA publishing team and its worldwide

network of journalists in the field. Make sure you bookmark this site to keep up with all the industry news as it breaks. News can also be submitted to the PLASA Electronic Centre by following the instructions. You can also expect new developments in electronic news gathering and the addition of many new feature areas.

Navigation of the site is straightforward. The main headlines appear top right of the screen with the news features listed to the lift and categorised into People, Business or Product. All the news that appears on the site will be archived and there is a simple search facility to help you find the item you are looking for.

# www.plasa.org/new

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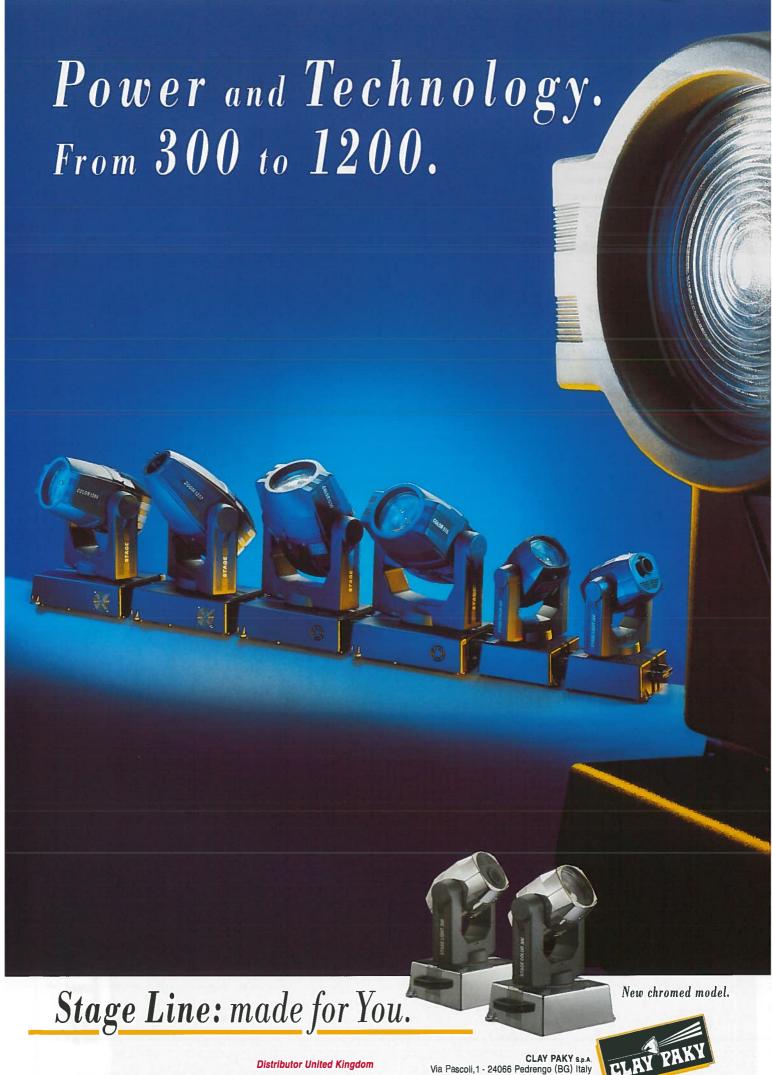
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PROFESSIONAL SHOW LIGHTING

After 12 years of planning, the Dream Factory finally opened its doors officially for the first time last month. The permanent Warwickshire home of the Playbox Theatre, the Dream Factory is the first purpose-built young peoples' theatre in the UK.

# A Dream Come True

Sceno Plus, the design arm of Cirque du Soleil, was responsible for the theatre design, the technical aspects of which were put into practice by Northern Light. Project manager Eddie O'Hare professed himself pleased that the project had run so smoothly. "We really just breezed in and out again - it's been a great project for us," he said.

Lighting is Strand throughout, with an LBX console controlling 72 channels of LD90 dimmers. Of these, 58 circuits are wired to the grid, with the rest available at positions around the stage. Strand Brios, Cantatas and Quartets have been installed in quantity, and the system is augmented by a few Coda 1Ks and 500s and a clutch of Par cans.



Like the lighting, sound is simple but effective, with a variety of Crown-powered Martin Audio cabinets available for productions in the main theatre or the adjacent studios. In the spacious control room, a 24-channel Soundcraft K1 provides the control surface, with a compact rack containing CD and MD players from Denon, as well as the customary outboard effects and EQ. FOH and backstage paging amps are from TOA, and a Baldwin Boxall induction loop system has been fitted to the main performance space.

The Dream Factory is only the second theatre in the UK to have a full trampoline grid installed - this was supplied by Scarborough-based Pickering and is based on a lattice of tensioned steel cable. Playbox Theatre's future plans include the addition of technical courses to its expanding education programme; another step forward for one of the UK's most progressive young peoples' theatres.

Mike Mann

## **GAE Changes**

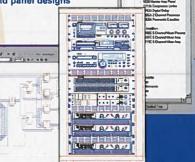
GAE Sales UK will no longer distribute GAE Loudspeaker Technology in the UK.

MD Peter Barnard was informed by Opal Audio continue to distribute Optocore Digital Optical Multicore systems and the Audio Toys' Paragon

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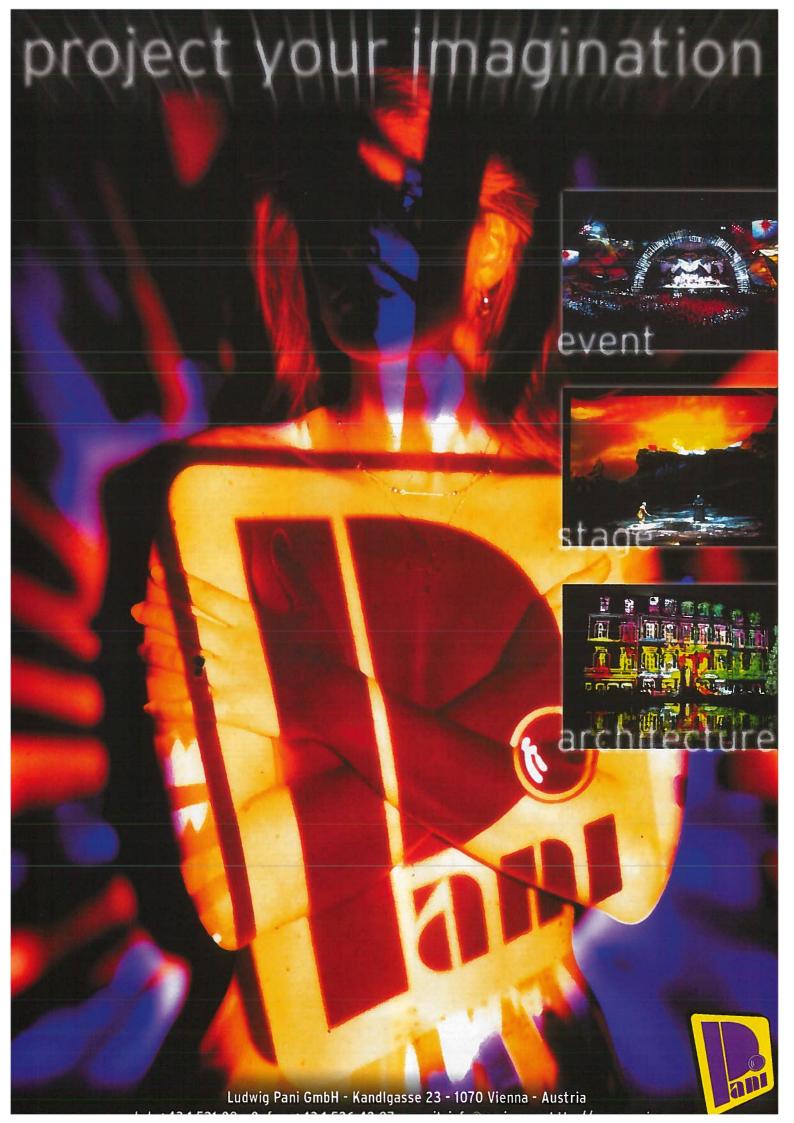


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# Shead Wins World Light Jockey Title



The final of the World Light Jockey Contest sponsored by Clay Paky and Pulsar - was staged at the Hippodrome, London, on Tuesday 7th September.

Each contestant performed a five-minute lightshow, which resulted in the UK champion Chris Shead winning the title

of new World Light Jockey Champion. The runnersup were French champion Benjamin Prot and Dutch champion Amir Barbel. Disco International's A panel of international Clay Paky and Pulsar distributors acted as the jury. Pulsar's Derrick Saunders and Clay Paky's Enrico Caironi presented the awards in front of a capacity crowd. Chris Shead is pictured centre, with Benjamin Prot on the left and Amir Barbel on the right.

# 10 out of 10 Cornwall Office

IO out of 10 Productions has opened a new office in Cornwall. The company has recently taken up residence in the old Glass Works in Par near St Austell, providing 1,500sq.ft of storage and office space. Pauline Menear, who is currently based at the London office, will run the new operation. The company was formed in 1989 and supplies lighting, sound and and video equipment for theatre, outdoor events, conferences, exhibitions and trade shows.

10 out of 10 - Tel: +44 1726 816610

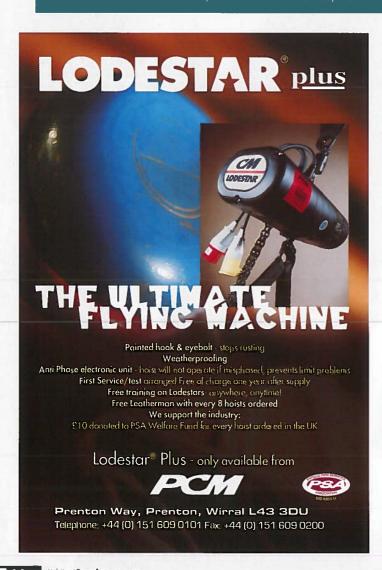
# Fullpower Showcase

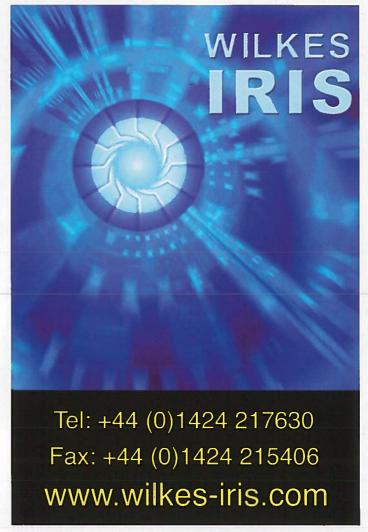
Fullpower is once again running its Showcase Event which brings together manufacturers and DJs. The event, which will feature a star DJ, takes place at the Red Lion Hotel, Milford Street, Salisbury, on November 4th - doors open at 7pm. Companies participating include Lamba, Batmink, Gemini, Numark with Fullpower representing Martin Professional.

Fullpower (UK) - Tel: +44 1722 718331

# KayteL Work with Altman and KATIE

Bob Altman, president of Altman Stage Lighting Inc and Tom Folsom, partner in The KATIE Group, Inc have appointed Kaytel. Lighting (UK), and its managing director Terry Abbs (formerly with Strand Lighting), as their exclusive sales agent for stage, studio and motion picture lighting products in Europe, the Middle East and Africa. Kaytel. Lighting will also be expanding sales of Altman Architectural Products in conjunction with the KATIE Group Inc.





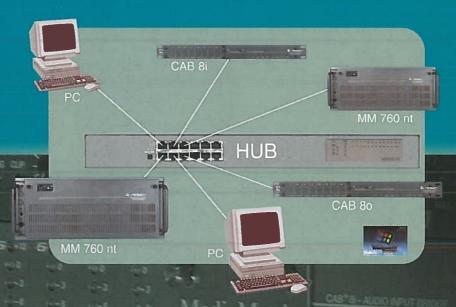
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# Designers on Colour



Totalisant 60 années de métier à eux deux, Christian Brean et Jacques Rouveyrollis, ces deux grands complices, ont bourlingué a travers le monde pour apporter leur touché de la lumière à la Française. Ils ont ainsi éclairé des Opéras, des Ballets, des scènes de Music-Hall, des Evènements, du

Sport-Spectacle, des pièces de Théatre. Le monde de la Télévision comme celui de la Vidéo ne leur sont pas étrangers non plus. Audela des grandes productions pour lesquelles ils sont si souvent appelés, ils aiment apporter leur experience à des spectacles peut être moins prestigieux mais tout aussi intéressants.



Max Keller hat sich in Deutschland stark

für den Beruf des Lichtgestalters eingesetzt. Mit seiner Bildersprache, die sich vor allem in e i n e r Kombination

Nombination
von Lichtquellen mit unterschiedlichen
Farbtemperaturen vermittelt, prägt er die
Aussagekraft des dramaturgischen Lichts.
Er entwickelte seine Lichtgestaltungen für das Schauspiel an den Münchner
Kammerspielen, aber auch für Opern an anderen
Bühnen, vor allem in Europa. Als Autor des einzigen deutschsprachigen Fachbuches über Lichtgestaltung im
Theater trug er viel dafür bei, dass die Arbeit mit Licht stärker als künstlerisches Gestaltungsmittel akzeptiert wurde.

Widely regarded as the dean of lighting designers for both the West End and Broadway, Richard Pilbrow also heads Theatre Projects Consultants. His second book "Stage Lighting Design - The Art, The Craft, The Life" was named LDI Product of the Year. "When I began lighting only about fifty shades of Cinemoid were available. I



often used them two and three to a frame seeking new possibilities. Then I discovered Rosco and first brought this wonderful range to Britain. Now the possibilities are almost limitless. Colour brings life, texture and vibrancy to the stage. I love it."



Gianni Mantovanini nato a Milano, dal 1963 al "Teatro alla Scala". Nel 1975 firmo per la prima volta le luci di uno spettacolo messo in scena nella allora "Piccola Scala", dove dal '75 all'80 ho svolto il ruolo di Lighting Designer. Nel 1981 passo a collaborare alle produzioni del "Teatro

alla Scala", affiancando il lighting designer e mio maestro Vanio Vanni, assumendone il ruolo nel 1991.

Hans-Åke Sjöquist has worked as a lighting designer in his native Sweden for almost 30 years.

From 1978-79 he studied in the USA at the Yale
University School of Drama. He worked at the Royal
Opera House in Stockholm for



Stockholm for six years as Resident Lighting Designer from 1980 to 1986, lighting over 20 major productions during this period.

For the past 13 years he has run his own lighting consultant company, Candela Design Limited, designing numerous drama, musical and opera productions in Scandinavia and throughout Europe. Mr Sjöquist also designs architectural lighting for indoor and outdoor environments and has just lit two major permanent exhibitions at "The Museum of Natural History" in Stockholm, introducing the largest fibre optics installations ever made in Scandinavia.

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# Texas AdLib It



AdLib Audio confirm the purchase of a major Wavefrotn system. Pictured left to right are Martin Audio's Richard Rowley and AdLib's Andy Dockerty, Dave Kay and Mark Roberts Following on from the success of the 1997-98 Texas White On Blonde tour, Liverpool-based AdLib Audio has been retained to service the band's forthcoming The Hush Arena tour which begins this month.

Due to an incredible autumn/winter workload, an additional Martin Audio Wavefront system has been added to the company's hire stock. The Wavefront system comprises 56 W8C high units and 18 WSX subs (including MAN I.T. flying systems), with the

addition of 12 PCM Lodestar motors. Further upgrade purchases include four BSS FDS-366 Omnidrive Compact processor units, 10 dbx compressors and a 48-channel Soundcraft Series Five Monitor console.

# **New Martin Facility in UK**

Martin Professional is expanding the manufacturing capabilities of both Jem smoke machines and Martin lighting in the UK with a new factory at Louth in Lincolnshire.

The new site will house identical production facilities to those found in Martin's main production plant in Fredrikshavn, Denmark, giving the company the capability to produce not only Jem products, but Martin lighting as well. In addition to large production and assembly areas for both product lines, the 2,300sq.m facility contains an R&D department complete with lab and heat room.

Heading the new facility will be managing director Søren Kjær and production planner Birgitte Jakobsen. Also based there will be Nick Scully, head of R&D and Jon Petts, Jem product manager.

#### **FEATURES IN THIS ISSUE**

"News studios have become sobering places these days, unmanned save for a few frantic souls, anonymously dubbed technical assistants, who have put their specialities in television behind them in order to stay in salaried employment."

John Watt - Second Take - page 60







# **LIPA Students Get Hog**

Thanks to a donation from High End Systems and Flying Pig Systems, students at the Liverpool Institute for Performing Arts are now studying the design of shows on a Wholehog II lighting console.

Welcoming the Hog to its new home are (from left to right) Flying Pig's David Catterall, LIPA's Paul Kleiman and Mark Featherstone-Witty, High End's Lowell Fowler, and LIPA's Matthew Twist and Ruth Jackson.



## **Fusion of Light**

Lightfusion, formerly e-lite (uk) lighting ltd, has introduced a new CAD studio in the heart of London.

Recently appointed an official WYSIWYG service provider with a colour plotter up to A0 size and pipe printer for accurate positioning of the luminaires on a lighting bar. Lightfusion has invested in 3D modelling/animation software 3D Studio VIZ and mini-CAD for presentations. The company is currently working on a number of projects including The Persuaders Ltd. a Music Awards ceremony and a Swiss Television production for Vari-Lite dealer Scenetec.

# Autograph to Steer AXYS into the UK

Duran Audio has appointed Autograph Sales as the sole UK distributor for its range of self-powered loudspeaker systems, including the Intellivox Series of controlled loudspeaker arrays.

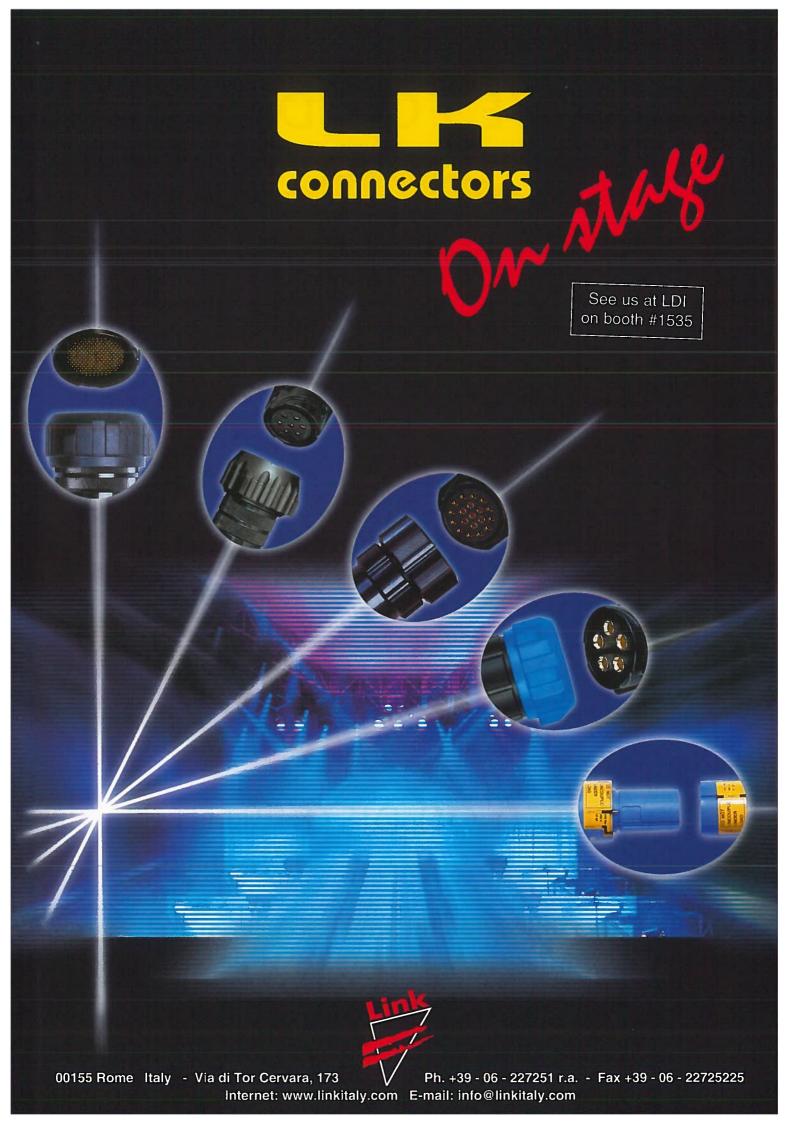
Manufactured in The Netherlands, the AXYS Intellivox has taken the old-fashioned column concept and created a loudspeaker system with highly specialised characteristics. DSP technology has been implemented so that the loudspeaker array can be electronically aimed, enabling the consultant to define a sound system that achieves high speech intelligibility.

# KAM/Penn Alliance

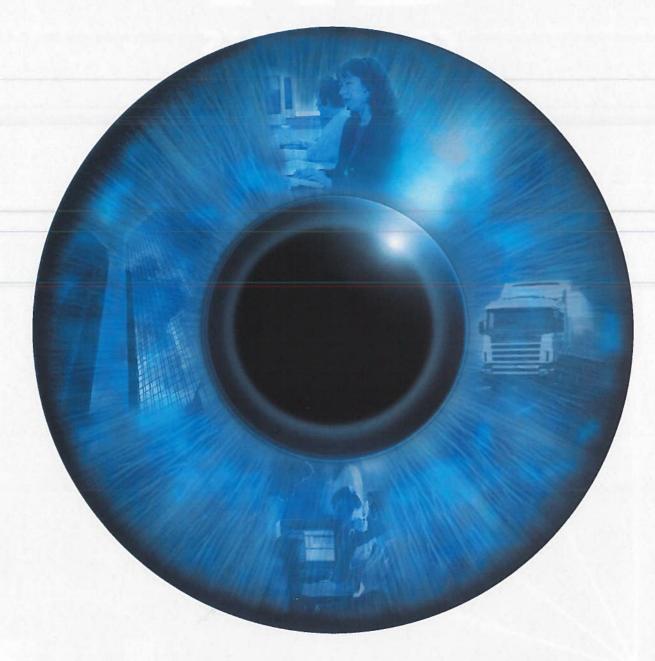
In a return to the origins of the company, Lamba has set up KAM Accessories - a joint venture with Penn Fabrications - to market cables, rack accessories and connectors. It has already produced a cost-conscious price list not only from the Penn Fabrications range, but other established names such as Neutrik and Bulgin.







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# Letters to the Editor

#### Is the Industry the Victim of PLASA's Success?

So PLASA '99 has come and gone . . . and it was all very impressive (again) in its way. But what of those of us out here in the provinces, working in the bread and butter of the industry, how did it affect us?

Well some of us grabbed a day off to go up to town to see what might be new in the glamorous world of show business, but the real work carried on, shows were lit, equipment hired and sold, and so on, or it should have done.

Unfortunately, over the years PLASA has achieved a place of such importance in the calendar of manufacturers and wholesalers that it now occupies the entire staff of many of these companies for at least a couple of weeks each year. In '99 the effect of this on my own small company has been as follows: two major quotations I was in the process of writing have been delayed due to the inability of a wholesaler and a manufacturer to supply me with pricing details on certain items "until after PLASA," a minor constructional job for a customer who is a mobile disco operator had to be postponed for a week, due to another wholesaler's inability to supply an item "until after PLASA" and here in the provinces we are suffering a chronic shortage of manufacturers' literature for customers for many types of equipment.

My company used to exhibit at ABTT, so I'm pretty familiar with the tedium and backache of spending several days on a stand. But I have to comment too on the generally off-handed way in which the average visitor to PLASA now seems to be treated by exhibitors. We walked round the entire show systematically, stopping at the exhibitors that were relevant to us (a pretty wide range as we do both stage and disco lighting and sound sales and hire, as well as induction loops, stage management systems and a whole host of associated items) and were struck by how universally exhibitors failed to offer to help, demonstrate or even engage in casual conversation.

Honourable exceptions to this criticism, in no particular order, were Teatro, Zero 88, Anytronics, UV Light Technology, Ohm and Lycian; a tiny handful out of the large number of companies represented. Many firms simply ignored us, even when we waited for attention for some time, whilst some stands were simply not attended.

So I ask myself, is it for this that the industry is disrupted every year? My small firm makes strenuous efforts to provide customers, and potential customers, with prompt and personal attention, and I know many other companies like ours, that deal with end users, do the same. Come on you big boys, if you can't hack exhibiting without a loss of service, then don't exhibitsend out a mailshot instead, because if you aren't going to bother to talk to us at the show, blurb through the post would be just as useful to us, and would save us all time money and inconvenience.

Cliff Dix, Phosphene cliff@phosphene.freeserve.com



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# £26million for Royal Court Rebuild

The Royal Court Theatre in London's Sloane Square is in the final stages of a massive rebuild programme, costing in the region of £26m.

In recent years the theatre had become dilapidated and it looked at one point as if it might close. But with the advent of the National Lottery in 1995, the Royal Court had a once-in-alifetime opportunity to restore its crumbling stage house and make safe the structure.

Following a major feasibility study the theatre submitted a tender to the Arts Council of England for capital development and in the first wave of grants, was awarded £15.8m. Work on the rebuild commenced in March 1996, with vital restructuring above and below ground level creating a brand new infrastructure. Once that was completed, the grant also allowed improvements to be made backstage, with the provision of wing space to enable scenery storage, as well as modern flying equipment and a flexible stage which can be adjusted during performance; there are also better get-in and scenery handling facilities, and the improvement of acoustic separation between performance spaces and the outside.

Bristol-based Stage Electrics won the competitive tender to supply and fit the production lighting, sound and communications systems worth around £I million, to a specification originated by the Royal Court and their consultants, Theatre Projects. Faced with the task of developing a sophisticated networking system for the production lighting, to extend throughout the expanded building, they turned to Strand Lighting's catalogue of dimmers, control surfaces and newly-launched SL profile luminaires for the solution.



The performance areas comprise the 400-seat auditorium (the Theatre Downstairs), a 100-seat space (the Theatre Upstairs) and a third foyer/restaurant area, for which excavation into Sloane Square itself was required. "All that has been retained of the old theatre is the listed facade of the building and the structure of the auditorium," explained Stage Electrics' project manager Jonathan Porter-Goff.

The Strand Lighting system is thus designed into three separate zones, based around 500 Series consoles running CommuniquePro, Tracker and Networker applications. Downstairs, Stage Electrics has used five EC90 Supervisor digital dimmer racks, with the Reporter option, together with 530i and 510i control surfaces and a large quantity of ShowNet nodes. The information from the SV dimmers is reported back over the network

so that wherever the desk is attached it makes an Ethernet connection without the need for separate cabling. In the

Theatre Upstairs, there are a further two EC90 Supervisor racks, with a 520i and 510i for back-up, and in the front-of-house five LD90 racks and a bespoke control system, including a Strand Premiere operating the architectural lighting.

"The whole network is designed so that the building can operate as one complete system from any one control surface," continued Porter-Goff. "In the foyer we are not merely talking about production lighting circuits but the architectural circuits, including neon signage and fibre optic uplighters." To give an indication of scale, Stage Electrics itself supplied in excess of 500 facility boxes as part of the installation package.

A critical part of the installation is the Howard Eaton DMX scroller infrastructure, which allows easy use of the scrollers and moving lights (where applicable) from the desk - as it had also done at the Manchester Royal Exchange, where the same team were in action.

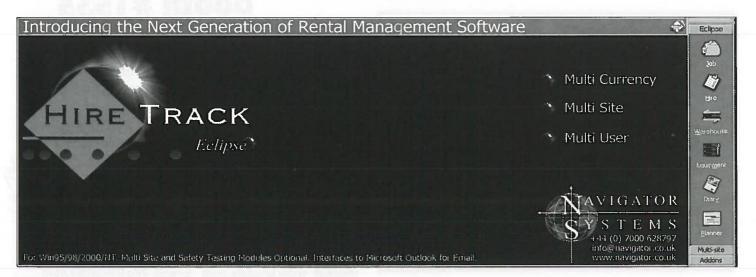
The Oxford Sound Company, with Richard Eliot as project leader, was awarded the contract to design and supply a full digital sound production studio. The studio will be used for in-house production of music and sound effects for its wide range of productions. The sound production studio equipment list includes a large Pro-tools workstation; Yamaha 02R mixing consoles and Akai S6000 samplers with monitoring though Genelec loudspeakers. The company also designed and supplied a custom furniture layout for the operating surfaces and the 19" rack equipment.

The theatre will reopen this Autumn.

#### FEATURES IN THIS ISSUE

"Driven by a small motorbike engine, this device is a set of one metre diameter rotating buzz-saw blades - all real steel I might point out - with sharp pointy teeth. "So some precision is required then?" I asked Honeywill, doing my best to raise a suitably non-plussed but quizzical Brosnandian eyebrow."

Steve Moles - James Bond - page 58



# Introducing a new professional live sound console for people with more sense than money.





If you thought you couldn't afford a fully-featured, professional live sound console with classic 3-tier raked styling, prepare to think again. With prices starting at just £3750 and 3 frame sizes including 24, 32 and 40 channels, Soundcraft's new Series TWO is a powerful, flexible console from a company with an impeccable heritage in live sound mixing.

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# Spirit Night 1: A Star is Born

The first 'Spirit Night', the monthly collaboration between Spirit by Soundcraft, Community Music and ADFED (Asian Dub Foundation Education), successfully packed London's Rock Garden and Gardening Club on September 6th with a diverse range of live bands and DJ sets.

Representing one of the few times in club history that the public and private sectors have joined together in support of young artists, Spirit Nights aim to provide emerging, un-signed talent with a platform shared with established artists. Throughout the evening a Spirit Digital 328 was FOH console for the main stage, with its snapshot ability easily negating any of the potential problems of having different bands and DJs on stage in rapid succession.

The Alex Wilson Band, London's leading Latin Jazz group, played a show-stopping set on the Rock Garden Club stage, ably supported by Hip Hop duo Maad Ethics and Community Music Tutor and saxophone virtuoso, Simon D'Sousa. On the Gardening Club stage, the evening's highlight was a live-wire performance by Invasian, a group of five young drum'n'bass DJs and MCs who originally learnt their skills through ADFED.

DJ sets on the night included eclectic sets from Asian Dub Foundation members Pandit G (pictured) and Sun-J and, from Community Music, drum'n'bass sets from Spirit Night residents Filthy Dirty Rich and Aktarvata. Candy



Selecon has announced major changes to its UK distribution arrangements. In making the announcement, MD Jeremy Collins paid tribute to the efforts of Adrian Sant and his team at AJS and ELX, for having established Selecon as a leading brand in the UK theatre market.

Selecon sees the UK as one of the world's leading centres of entertainment lighting, and a major growth area. In order to get closer to its customers and provide a higher level of user support, it has formed Selecon UK Limited. This operation is headed by Graham Eales, Selecon's international sales and marketing manager, assisted by Andy Trevett as sales manager. The essential logistics support, customer help line and stock holdings will be managed by Zero 88 Lighting Ltd from their South Wales base. Zero 88 and Selecon see numerous synergies between the two companies and regard this development as the first of a number of potential co-operative ventures. The full range of Selecon luminaires will be available from Zero 88.

For further information the Selecon UK customer support number is -+44 (1) 633 838 294



Davies, marketing manager for Spirit, was delighted with the evening's performances: "It's great for Spirit to be involved with up and coming young talent. Everyone from Spirit had a great time on the night and we're looking forward to continuing our support of all the artists at Community Music."

It was a view shared by Community Music's Alison Tickell: "It was a great night which managed to convey the variety of music and audience which Community Music Ltd represents, and the need for events of this kind in one of the world's culturally richest cities."

Spirit Night 2 will take place in the same venue on Monday, November 1st and will feature performances by the ADF Sound System and a host of special guests.

# On surplus value.

d&b has shamelessly harnessed the amassed wisdom gained over two decades of electroacoustic relations, uniting user requirements with the wishes of the listening masses, into a comprehensive range of loudspeaker systems. Trustworthy, solid components and durable materials are carefully fabricated into robust finely tuned harmonious systems, creating a surplus value to the advantage of all: guaranteeing functionality over five years; satisfying logistical management requirements; and representing a lucrative, solid investment to the benefit of all who can listen. Surplus value turned from its head onto its free market feet!

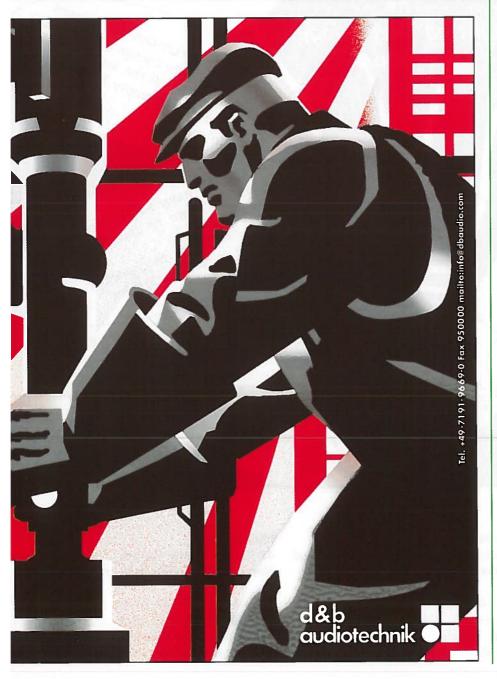


# PLASA Assists With BBC Documentary | Laser Grafix Inflates

Earlier this year, PLASA was involved with the making of a BBC Radio 4 documentary series, covering the development of theatre technology from the earliest days to the present.

PLASA's managing director, Matthew Griffiths, took part in interviews, excerpts from which are used in the series. The first episode was broadcast on Tuesday 21st September, and the series will continue at the same time each week. Can You Hear Me at The Back? charts the technical changes which have affected the sound of performance. Somewhere There's A Space traces the technical development of architectural practice in theatres of the 20th Century. Lurking In The Shadows reviews the pre-electricity days of candle light in theatres and the shocking arrival of gaslight. Let There Be Light looks at the technological achievements in theatre lighting from the arrival of electricity. The Sound Machine traces the impact of recorded sound. Trickery, Effect and Technology sees how technological advance in industry has brought changes in theatre. Showing Vision discovers how theatre adopted the same techniques as cinema and television, whilst Robots in the House finds out how Intelligent Lighting, virtual Elvises and video projection are becoming a reality.

BBC Radio 4 (UK): +44 i71 580 4468





Laser Grafix has recently invested in a 10m hiah. 15m wide inflatable screen. Commissioned by the company, the screen can

withstand gale force wins of Force 8 by virtue of the fact that it relies on seven tonnes of tap water for ballast.

The need for the product emerged when the company were asked to erect a screen at a green field site which had no existing permanent structures, an inadequate water supply to serve a water screen and poor access. The high cost of scaffolding erection also made alternatives prohibitive. The answer, of course, was to develop the inflatable screen. Interest has already been shown in this unusual concept with a first booking successfully completed for the North London Ballet Festival. A larger version is also available, standing at 24m high by 42m wide.

## Jailhouse Shock

Ullo' ullo'. Can you 'ear me? With all this talk of 'The Ibiza phenomena' it's sometimes hard to remember that we have a perfectly vibrant and exciting dance scene right here in the UK. Hey, this is where it all started; besides UK clubs manage to get exposure in the National Press on their own merits, not because a load of drugged out 20 somethings desport themselves seminaked on the dancefloor.

The Atlantis Club in Bilston Street, Wolverhampton, is a case in point. Check this out from the columns of the Daily Telegraph last month: "Prisoners occupying cells at a West Midlands police station have complained that music from a nearby disco has been disturbing their sleep." One wonders why that should be.

So, intrigued, L&SI contacted the club and discovered that the Atlantis had a new PA system installed in the spring of this year. "Naturally, we made sure the system adhered to the Noise at Work regulations," said Miles Marsden of The Music Company, who handled the installation. "For the main system we put in eight d&b C4 Tops and our own TMC218 sub cabinets. We measured levels on the dance-floor of 110dB LEQ. Obviously ambient levels outside the club were substantially lower."

So, do Wolverhampton criminals have delicate ears? Ian Freeman of club operators First Leisure, had this to say: "Initially we were very concerned, of course. But we sent a couple of specially trained OAPs down to the station on a Saturday night and they confirmed that there's no problem - though they weren't too impressed with the sergeant's tea." Seems like the old morals hold true, if you want to sleep well at night, don't break the Law.

Q: How many actors does it take Q: How many mystery writers A: Only one. They don't like to Garage the sportlight. Q: How many gods does it take to to change a light bulb? does it take to change a light screw in a light bulb? A: Two: One to screw it almost all A: Two. One to hold the bulb and the way in and the other to give bulb? the other to rotate the planet. it a surprising twist at the end. Q: How many art directors does Q: How many Real Men does it it take to change a lightbulb? we now many keal men does take to change a light bulb? Q: How many jugglers does it A: None. Real Men aren't afraid of the dark. A: Does it have to be a light bulb2 take to change a light bulb? A: One, but it takes at least three light bulbs. Q: How many companies does it take to supply all Q: How many folk singers does it your light bulbs? take to screw in a light bulb? A: Two. One to change the bulb, Q: Which company ships worldwide A: Only one... sameday, from stock? and one to write a song about how good the old light bulb was. A: Lighting Technology Group Q: How many London taxi drivers The does it take to change a light bulb? Lighting Technology does it take to change a nym there

A: What? Go all the way up there and come back empty? You must be Group 🥊 Q: How many movie actresses does it take to change a lightbulb? A: One, but you should ve seen the jokin' mate! line outside the producer's hotel Q: How many safety inspectors room Q: Which company has over worth of light does it take to change a light A: Four. One to change it and bulbs in stocks A: Lighting Technology Group three to hold the ladder. Q: How many magicians does it Q: How many consultants does Q: How many politicians does it it take to change a light bulb? take to change a light bulb? take to change a light bulb? A: We don't know. They never A: Depends on what you want to get past the feasibility study. A: Four, one to change it and the change it into. other three to deny it.

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# Divas at the Donmar

In these times of the big spectacle, the enormous stage, the arena tour, it's easy to forget about the magic of intimacy, the power of being able to hear a performer draw breath, the revelation of being close enough to see a tear form in their eye as they sing a song that is special to them.



The brilliance of the Divas at the Donmar season, now in its second year at the Donmar Warehouse in London, is that it reminds you of all of those things. The season presents divas -(Audra McDonald is pictured) )here perhaps

defined as singers, who are at the very top of their field - in an environment that is not only intimate, but also somehow uniquely theatrical.

This year's Divas season is being sponsored, appropriately enough given their reputation as leaders in the field of musical theatre, by Autograph Sound, with its support earning an award and matching funding from the Arts and

Business Pairing Scheme (see news last issue). Autograph was also responsible for the sound design for the season,

with the design entrusted to Andy Brown as in the season's first year. Brown selected a Cadac A-type console (operated by Jon Clarence) receiving signal from Sennheiser radio mics and feeding it out to EAW frontfills bolted around the front of the stage and a Meyer FOH system. The speaker count appeared large for a such a small space, but as Brown points out, the very short throws involved, mean that more speakers are required to maintain even coverage. For Patti LuPone. Brown was joined by LuPone's sound designer, Mark Fiore; between them, and with the help of a superbly concealed radio mic on the singer, they succeeded in convincing much of the audience that no micing at all was involved, which must surely be the ultimate ambition of any sound designer.

The lighting for the concert, designed by John Hastings using the season rig designed by Howard Harrison and Donmar chief electrician Stuart Crane, was more showy, running through a number of gobo looks and movement effects from the Martin MAC500s supplied by The Moving Light Company and a variety of colours from the White Light-supplied scrollers.

**Rob Halliday** 

#### Five to Try

If you're surfing the net you may like to check out the following web sites



Brush up your Lithuanian or your
Swahili by checking out basic phrases
from a wide range of languages.
 www.travlang.com

2. A web site dedicated entirely to all things theatre.

www.Stage Business.com

 Ever wondered how long you'll live? If you're sensible, you might just live to 100.
 On the other hand, if you're like us, maybe you should be dead already.

www.thespark.com/deathtest

4. If you haven't got the nerve to sweat it out on Who Wants to be a Millionaire you can pitch your business proposals to (or even date) millionaires. Go on, you know you want to.

www.talktoamlillonaire.com

Make sure you also visit the News section of the PLASA website for the latest industry news. www.plasa.org



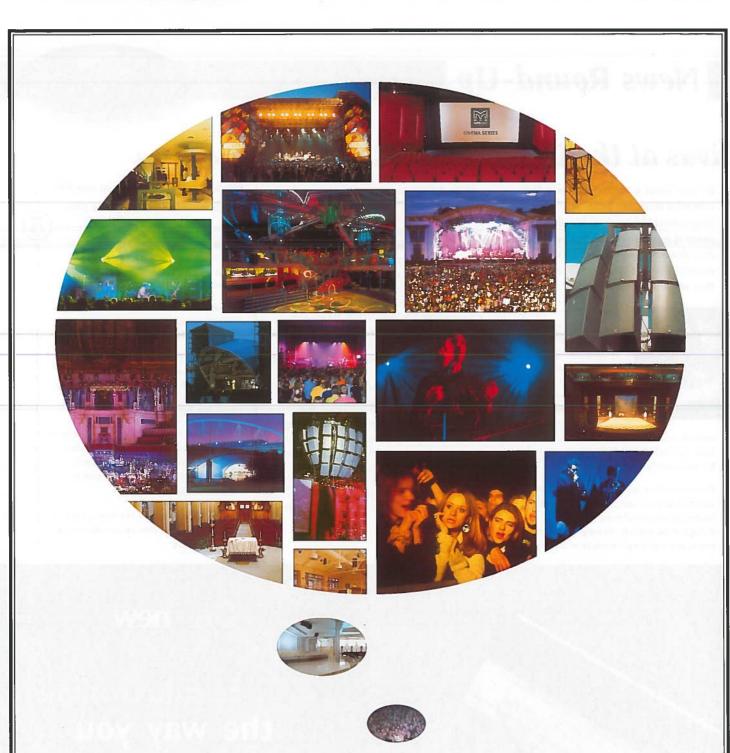
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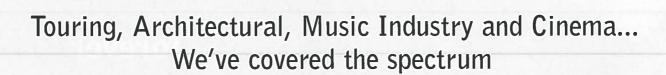
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# **People News**

Derek Gilbert, former managing director of Glantre Engineering, is to join Northern Light as overseas sales manager. Following discussions during the recent PLASA Show, Gilbert will become responsible for Northern Light's overseas development. Other former members of Glantre are also transferring to Northern Light including Graham Fisher who will join the Estimating and Proposals section, Richard Passman, senior AV project engineer and Graham Lawton who will be located in Riyadh. The new office in Riyadh will provide Northern Light with a base from which to service customers within Saudi Arabia.

Bert de Haes has left Vari-Lite. In his place the company has welcomed back Jimmy Barnett who is the new general manager for European operations for VLPS. Barnett, well known within the Vari-Lite community, will oversee the growing network of VLPS offices that he was instrumental in expanding during his earlier stint within the company (1984-1990). Working under Barnett will be the general managers of the regional VLPS offices: Ed Pagett (VLPS London), Jan Van Malder (VLPS Brussels/EML and VLPS Amsterdam), Jan Lambrecht (VLPS Paris) Adrian Bell (VLPS Dubai) and Sonia Sward (VLPS Stockholm and VLPS Madrid).

Underlining the new relationship between Flying Pig Systems and High End, FP's Nils Thorjussen has been appointed vice president of marketing

Studies with a technical bias, Robert Corder is the third new face at the company this year. He has joined as trainee technician.

Autograph Sales has appointed Roger Harpum to the new post of Meyer Sound product specialist. Harpum will be responsible for the sales and marketing of the Meyer Sound range. Joining the company from Tannoy Professional, he brings extensive knowledge and experience of the pro audio market to the company.

Sony UK has appointed a new director of country operations. Jeremy White succeeds Nick Twyman, who has been promoted to managing director, Global Video Communications Business for Sony. A long serving member of the UK management team, White has spent 18 years in the broadcast and professional markets.

Felicity Hansen has joined Triple E's technical sales department. Hansen, who has extensive experience in stage management, lighting, flying and general production, joins the company after 14 years with BBC Television.

As a footnote to last month's news piece about the death of Peter Wildash of Alistage, his family have been in touch to ask us to pass on their thanks to all the friends, colleagues and business acquaintances who sent flowers and best wishes.

#### The Resourcerer

Jeff Broitman has launched a new business - The Resourcerer. This is a consulting and rep firm specialising in Spaceframe/ trussing systems and gobo/theatrical lighting products.





e-mail: info@totalfabs.com



# In the Flesh ...

photos: Ross Ashton E\T\C/Jonathan Park Studio Park



After a 12-year sabbatical, Pink Floyd founder Roger Waters took to the road again recently, touring venues across the United States as part of his 'In the Flesh' tour. This is Waters' first tour since his 1987 Radio K.A.O.S. outing (incidentally, he has spent much of the past seven years working on Ca Ira, an opera in English and French which will debut early next year), and although it had none of the giant mirror balls or inflatable pigs that have come to represent the Floyd's own stadium shows, it nevertheless was an impressive technical tour de force.

Lighting designer Simon Sidi worked with a predominantly Icon-based rig supplied by LSD, whilst sound designer Trip Khalaf had the new Clair-Bros compact i4 system on the tour. But one of the most interesting aspects of the production was the main visual statement provided by a massive 30m wide x 15m tall projection screen. Four PIGI projectors (rented through Production Arts in the US with technical support provided by E\T\C UK) were rigged as two pairs, each pair covering half the screen. This allowed for a great

deal of versatility from a programming point of view as the screen

could be covered in full or in part, and images could cross-fade or scroll across the entire surface. The slide content was designed by Jonathan Park of Studio Park and each projector was loaded with 40 metres of film, pretty close to the maximum for the PIGI system.

The actual printing and mounting of the film proved quite challenging as Ross Ashton of E\T\C UK explains: "Fortunately, we have invested heavily in the software creation end of the business and were able to keep four people working on the mounting. One set of films was 160 metres of film and, of course, with the projection being such a major part of the show, the client needed a spare set - 320 metres in all. We got it all printed and mounted within a week." One further PIGI lamphouse was adapted for a special oil effect, designed and built by Peter Wynne Willson of WWG. It is anticipated that the tour will resume with a series of further dates in Spring 2000.

# Earls Court is Sold

Earls Court Exhibition Centre (home to the PLASA Show) and sister venue Olympia have been sold by the P&O Group to an acquisition vehicle backed by Candover and the Morris family for £183m.

Included in the sale are P&O Events, the organisers of PLASA, P&O Exhibition Services, which provides exhibition services to exhibitors and specialist catering business Beeton Rumford. The net consideration for the sale will be settled in cash, plus a £20 million loan note repayable over 10 years. Candover is a private equity company, whilst the Morris family owns City Industrial Limited which operates The Business Design Centre in Islington, London.

#### Vari-Lite Direct

In what will be viewed as a milestone shift within the automated lighting industry, Vari-Lite International will next year expand on its traditional rental business with a new sales system allowing customers to own Vari-Lite luminaires and consoles for the first time.

Previously available only through rental or leasing, the company is currently designing a new product line for the expanding install market base. The new products are being developed on Vari-Lite's existing technology but will operate on non-proprietary industry standards. The first products for sale will be a series of automated luminaires and a control console. While the core technology is similar, they will differ from the company's rental offerings by leaturing resident lamp power supplies and associated electronics within the luminaire.

# Cyril Griffiths

Cyril Griffiths died after a short illness on September 30th. He will be known to many in the industry having spent 42 years in the business, starting in 1948 at the Phoenix Theatre, later going on to work as group engineer and subsequently technical director for 13 Stoll Moss Theatres. He had a commanding presence with great authority and an infectious sense of humour which endeared him to the staff who worked with him. He also established TSL (where he was later joined by his son Matthew - now PLASA MD) one of the key suppliers of lighting and sound equipment to the West End which was bought by the White Light Group in 1991. The funeral took place on Friday 8th October at Putney Vale Crematorium, London.

Michael Northen



# GIAN MASTER

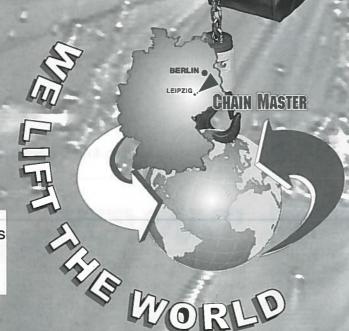
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# **PCM Runs First South African Motor School**



PCM has just run its first Lodestar Motor School in South Africa.

The South African event was attended by 19 members of the South African Roadies Association (SARA) and was aimed at providing and promoting much needed training opportunities. PCM's John Jones and Tony Dickson went to Johannesburg to coordinate and run the Motor

School which took place over two and a half days. It was a collaborative effort between PCM, Gearhouse South Africa and Pfaff Silverblue South Africa and took place at Gearhouse's HQ.

## **Apogee Sound Goes Public**

After nearly 15 years of self-funded growth, Apogee Sound recently became a wholly owned subsidiary of Bogen Communications International (NASDO: BOGN).

The new company - Apogee Sound International, LLC - will continue to design and manufacture loudspeakers, amplifiers, signal processors and accessories for the pro audio industry. The announcement was made by Ken DeLoria, who was appointed president of the new company.

## CAST's new WYSIWYG programme

CAST Lighting, the creator of WYSIWYG, has created a new program for lighting console manufactures - the WYSIWYG Developers Program.

The primary intention is to create a dialogue between CAST and console manufacturers, in order to develop a more useful electronic connection between WYSIWYG and other devices. The current list of developers includes ETC, Strand Lighting, Flying Pig Systems (Whole Hog, Jands Hog, Jands Echelon), Compulite, Rosco ET, and AVAB/Transtechnik. Any interested console or device manufactures that currently have a product on the market should contact Robert Bell via e-mail at rob@castltg.com.

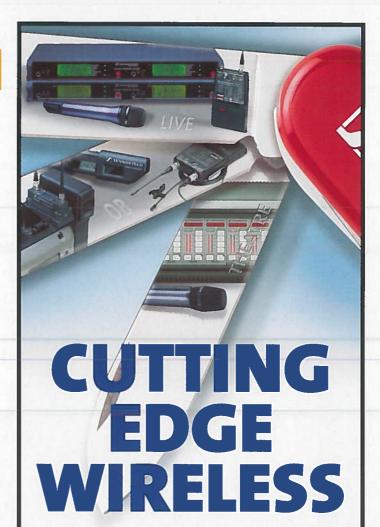
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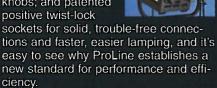


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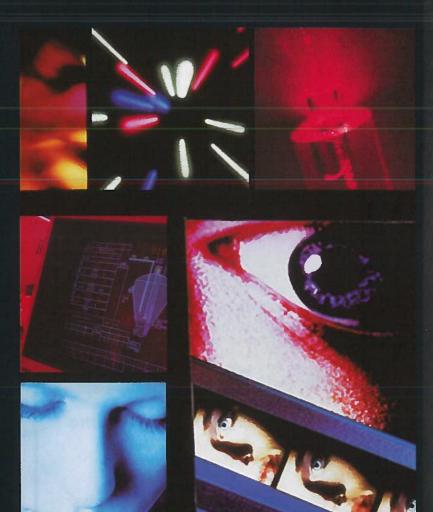
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# **B&H** Expansion

B&H Production Services Ltd is making new waves by expanding its operation and splitting the rental/show division and sales/installations into two separate companies - Sound by Design and Audiocom Southern.

B&H has built up a significant reputation as a specialist sound designer and supplier in the classical music and corporate markets. The company, a major Meyer user which has two qualified SIM II engineers on its staff, has just completed a four-week Arena Tour with Raymond Gubbay's production of Swan Lake. MD Andy Callin commented: "The changes to the company identity reflect far better the nature of our core business. Having a clear understanding of the clients' needs and applying our engineering skills with the latest technology has always been our approach.

"We intend to focus our operations on growth areas and adapt our structure to achieve greater client satisfaction."

www.soundbydesign.net www.audlocom.co.uk



# Cerebrum Catalogue

Cerebrum Lighting has produced a new 74-page illustrated catalogue covering many of the thousands of products stocked and distributed by the company.

This is designed to be used in conjunction with Cerebrum's website www.cerebrum.com, where there are direct links to most manufacturer's own technical pages and a five-page suppliers product literature order form

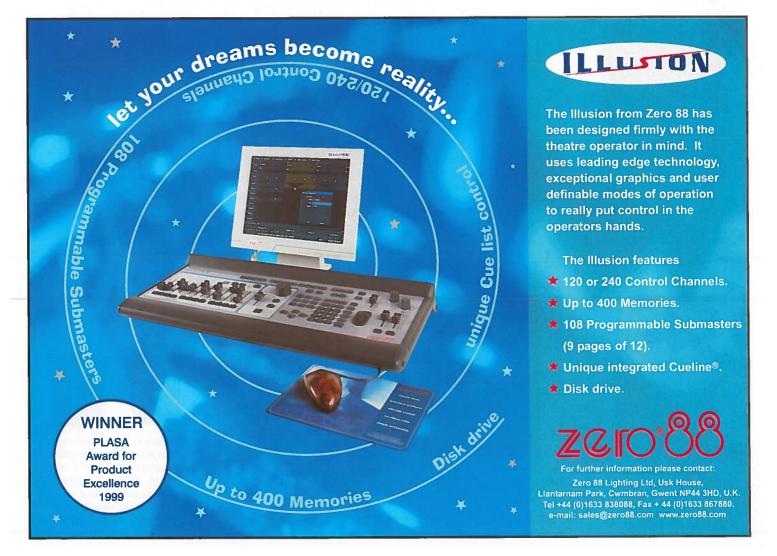
## Essential Light up Microsoft

Essential Lighting Group Ltd, the UK-based lighting hire business, has successfully serviced Microsoft TechEd Europe 99, Europe's largest software developer conference which took place recently in Amsterdam.

The four-day event featured over 200 speakers and hosted 340 separate presentation sessions. Essential Lighting supplied equipment for the halls, walkways, chat areas and cafés. With each area came a very different specification and the

company dispatched 34 separate kit lists in specific order over four days - ranging from small one-box kits to the large arena-size system for the main presentation and included in all some 1,500 fixtures and 22 control systems, all connected by over 2,000 separate lengths of cable.

Gary Collins, LD for Microsoft TechEd told L&SI: "With a job of this size there is no margin for error. In Hall 7 alone there were 500 conventional lamps and nearly 200 moving lamps and there wasn't one problem amongst any of the cables, lamps, dimmers or control equipment. It is a great testimony to Essential's attention to detail."



# CATALOGUE COLLECTION

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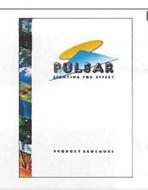
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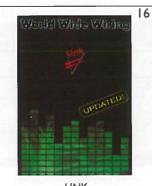
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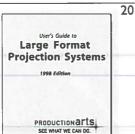


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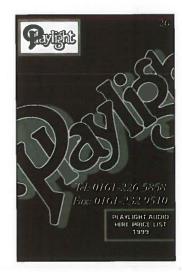


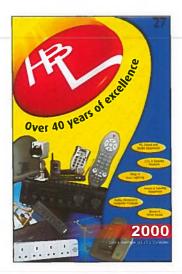
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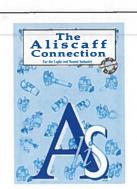


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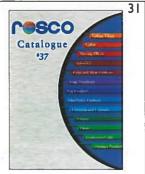
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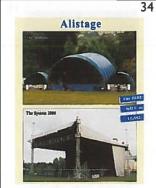


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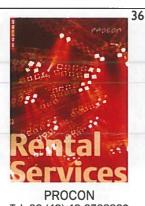
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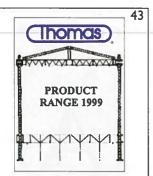
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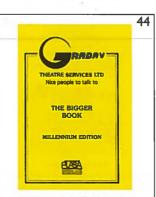
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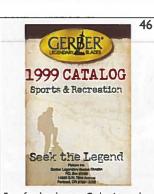


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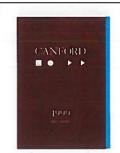


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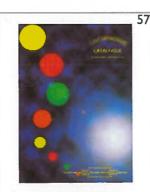
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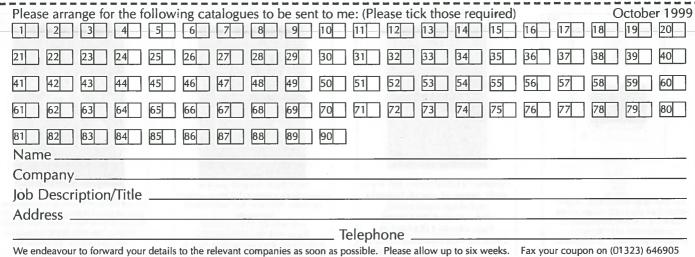


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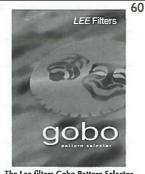






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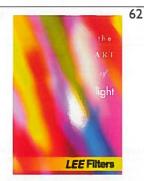
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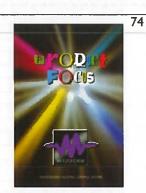
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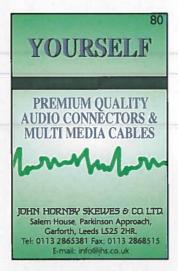
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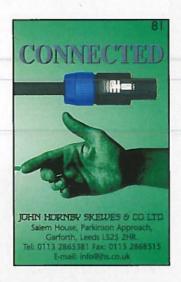
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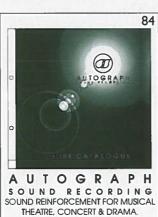


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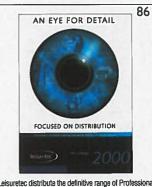
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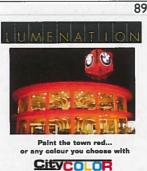
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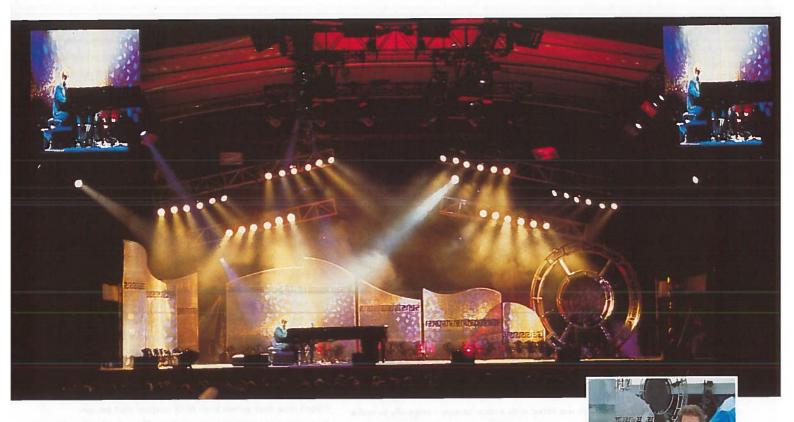


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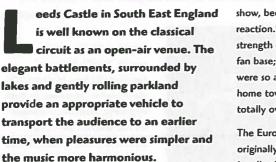
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## King of the Castle

Following in the beercan-strewn wake of this year's summer festival season is an altogether more civilised outdoor tour.

Mike Mann packed a picnic hamper and headed off to rural Kent for an evening in the company of Elton John



It is fitting, then, perhaps, that Elton John should elect to play venues like this across Europe, rather than the more customary stadiums and arenas - the 52-year-old singer is now appealing to a more refined and conservative audience than ever before.

Production manager George Hoadley explained the thinking behind Elton John's 'Solo' tour: "With this kind of show we can go to places that can't take a super-big production, where we'd have to sell 30-50,000 tickets to make it work. As it is, we're now setting records in towns that Elton played at the start of his career - and Elton's being given plaques and citations by city mayors! He loves this more intimate kind of

show, because he thrives off the audience reaction." Hoadley is clearly surprised at the strength of the reaction from Elton's European fan base; "Spain, especially, was magical. People were so amazed that Elton was playing their home town that the reaction to the show was totally over the top."

The European leg of this two-year world tour originally involved three leapfrogging stages to handle the back-to-back dates. In the event, due to the singer's well-documented mid-tour operation, many of the dates had been rescheduled and the itinerary was relaxed enough to allow a single system to make it to all the venues. Even so, the confusion arising from Leeds Castle being located in Kent rather than Yorkshire nearly resulted in a 300-mile gap between performer and equipment!

Re-scheduling the tour meant a change of emphasis for LD Robert Cochrane, who has worked under Steve Cohen on many of Elton's previous shows. "The original concept was that over half the show would have the benefit of daylight," he pointed out, "so we had allowed for bigger effects and less subtlety. As it is, the

Monitor engineer Alan Richardson with Clair Bros new 'Stealth Monitor'

shows now start after it gets dark so we've had to change the design a little." Given that the star of the show is the only performer on stage (there



TOURING

is no support act and no band - this truly is a solo show), providing an interesting visual environment is a major headache.

For other Elton John outings, lighting has been anything but subtle - Cochrane has avoided the magenta washes and lurid effects of previous tours: "For this show, I don't light Elton except with keylights. We used to colour him like a piece of scenery, but with no band around him, we have to concentrate the audience's attention on him and keep it there." Though Cochrane, an experienced Vari-Lite operator, specified 14 VL7s and the same number of ARC 5s for the tour, the majority of the system comprises Pars (50, of which 24 are floor-mounted), Molefays and the Source 4 keylights. Cochrane was first attracted to moving lights in the early nineties: "I remember seeing a show with only 15 lights - but they were doing the work

Below, the Stage Co stage with transparent roof Below right, the Nocturne/Creative Technology video crew

Facing page, a general shot of Leeds Castle in Kent showing the impressive scale of this venue



"Being in the open air would seem to be as close as one can get to a good live acoustic; however, the relative positions of the stage and the castle battlements had resulted in a clear 1.5 second delayed reflection."

of 60," he explained. "And the best thing was that they only moved when it was dark. People these days expect movement during a song, but I have tried to stay away from those snappy, to-the-beat cues. The significant visual difference with this tour is that there is

> almost no movement during the songs - I'm not into movement for its own sake. The real challenge for me is to make the lighting look like the sound feels."

"There really is very little to light," commented Cochrane, highlighting the fact that the stage floor is invisible to over 80% of the audience. "The stage was really designed to be set in front of, say, a town hall in a piazza - it's not

like a conventional roofed stage." In fact, the Stage Co structure was fitted with a clear canopy - originally to make the most use of the daylight hours. This (and the lack of side and rear walls) gave the stage a very airy feel and certainly contributed to the intimate feeling of the show. The threat of rain, however, was a recurring problem, especially on the re-scheduled dates, and equipment was kept well-covered to make up for the lack of protection from the stage itself.

In the middle of the 15,000-strong audience, FOH engineer Clive Franks was clearly relishing the task of mixing Elton on his own. "Without a band around him, Elton's sound is so open that I don't have to fight to maintain a good mix," he explained. "Everything is very exposed, but this enables me to enhance the show. I use the same effects as you would normally see at a live gig, but this time you can hear

everything I do - so I have to be on the ball." Franks, who has mixed for Elton since the beginning of the seventies, has developed such a close rapport with the artist and his music that he finds it hard to analyse what he does during the show itself. "The fact that we have worked so closely for so long means that I can feel things - I can almost sense when he's going to play or sing something unusual. In any case, I'm not at all technical, and I don't measure sound by numbers. Having started out as a studio engineer, I suppose I always try to create a studio-quality sound."

Being in the open air would seem to be as close as one can get to a good live

acoustic; however, the relative positions of the stage and the castle battlements had resulted in a clear 1.5 second delayed reflection. Franks however, was philosophical. "You just can't get round things like that," he said, "though I did ask the promoter if we could drape the whole castle!" The system that accompanied Elton John around Europe was a Clair Brothers \$4 rig, sourced from the company's subsidiary Audio

Rent in Dornach, Switzerland. The 64-box system comprised three rows of 'P' cabinets to cover the rear bleachers, with five rows of short-throw 'F' cabinets. Front fill was provided by a spaced row of diminutive P2 boxes along the stage lip.

Amplification for the S4 system was Crest throughout. Franks has used Clair Brothers since Elton's first US tour, but is pragmatic in his attitude towards loudspeaker systems. "If you can drive a car, you can drive a Mini or a Rolls Royce but if you can't drive, you'll crash them both." Modestly describing himself as a frustrated musician (he has played bass and provided backing vocals on some of Elton's studio output), Franks is clear about his role as an engineer. "I'm not on stage playing an instrument. I'm out here playing a mixing console. But sending Elton a feed of the effects I'm using out here means that he can react to what I'm doing in the same way as I make changes to suit him." Franks' choice of effects is straightforward; a Lexicon 480L reverb (using one half for seven pre-programmed vocal reverbs and the other for piano ambience), a pair of Eventide 3000 harmonisers, plus a delay for a single vocal effect. The only processing in use out front is a Manley limiter on Elton's voice.

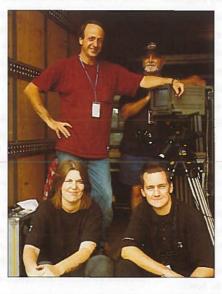
Piano miking is courtesy of a pair of Milabs, but both of Elton's nine-foot grands have MIDI outputs that are run through a rack at the monitor position. This provides Yamaha and Roland outputs, as well as stereo strings (the only concession to a band on this tour). Franks described the way he has created a live piano sound: "Effectively, I use the three piano sounds like a crossover. The Roland sound is hugely round and gets used for the low end. The Yamaha doesn't have a very good bottom end but has great attack -so it's good for the mid and upper range. I use the Milabs for the high-end, panned far left and right in the mix, which gives an amazing stereo pattern."

On stage, monitor engineer Alan Richardson has the grand total of two stereo outputs to send to the stage; Elton prefers to have his voice and piano sound separated, so a

pair of Clair Brothers 12-AM Mk I wedges are used for the former, with the new low-profile 'Stealth Monitors' handling the keys in stereo. On stage level is, according to both engineers, extreme. "I worked for the Who on their 25th anniversary tour," recalled Clive Franks. "There were 64 monitors on stage - and Elton gets more—level with just four!"

Richardson uses TC1128 digital graphic equalisers to reduce the leakage and limit the risk of feedback: "I love these TC graphics," he enthused. "I take the remote head out to the

piano to tweak the system. Even starting from flat I can get the vocal wedges done in 15 minutes and the piano in just another five. Of course, the frequencies that Elton likes emphasised are the ones that will feed back first!" Richardson's only other external feed was to Elton's teleprompt operator, who uses a Garwood in-ear monitoring system to keep in touch.





The solo tour stage was flanked by a pair of Screenco LED screens - configured in an unusual portrait aspect ratio. Video director Paul Becher described the video brief for this one-man show as "something of a challenge." He went on to add that the artist's dislike of cameras has meant adopting alternative camera technology for the screen relays. "Elton doesn't like cameras and as he doesn't move, we couldn't have a handheld on stage - it would be too obtrusive," he explained. "Also, there is no front barrier, so a dolly or a handheld in the pit is also impossible."

Becher's solution, provided, along with the rest of the video system for Europe, by Creative Technology, was a remote camera positioned downstage right, with a full pedestal remote control from the video truck. "There is a little lag between movements here and the camera motors," explained Becher, "but it's much more sensitive than using a joystick." In addition to this, camera positions were set up at the FOH point, stage left (across the piano) and a lipstick camera was used for the all-important finger shots. The emphasis for the video team was clearly to keep the cameras moving during the show - dissolves were noticeably more frequent than one might expect at a rock and roll show, and Becher clearly had a hard task maintaining interest on the twin screens, given the lack of movement on stage.

On the night, the 15,000 fans were treated to a consumate performance - Elton John has clearly recovered from his spell in hospital and is set to conquer the world again over the next 15 months. It has to be said, however, that the coolness of the Leeds Castle audience may have contributed to the less-than-overwhelming atmosphere of the show. It may be that the venue attracts the kind of crowd who are more used to classical soirees, where approaching the stage or joining in would be unthinkable. Perhaps the lower September evening temperature dampened people's enthusiasm. Personally, my feeling is that we Brits are just too polite - and it is a pity that when an artist gives his or her best performance, all we can muster is polite

Having indulged myself with a little rant, I must point out that the venue itself was quite excellent for the event in question; the spacious grounds, the historical buildings and the relaxed, out-of-town feel of Leeds Castle made this far more than a concert; this was a complete day out. For tours that can cope with taking every element of the production on the road, the use of this sort of venue must be an attractive option. As long as you don't believe the tales of headless knights crossing the lake at night to change the presets on the lighting console.

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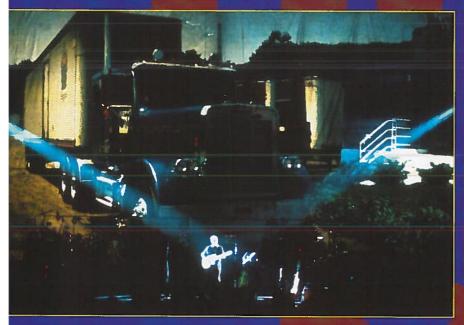
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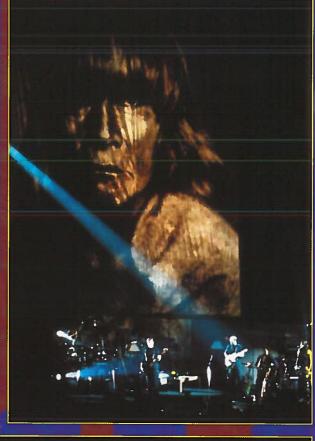
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## - The PIGI System -On Tour with **Roger Waters** 'In The Flesh' - 1999

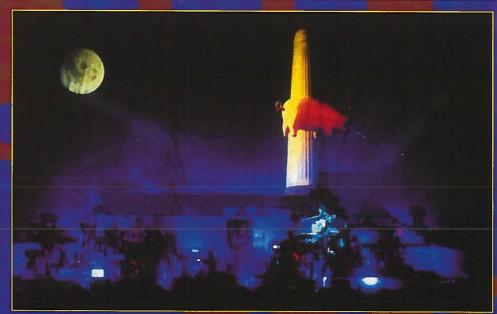


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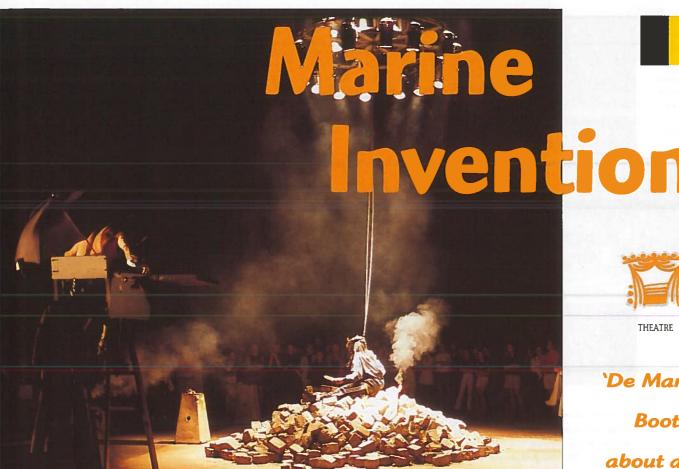
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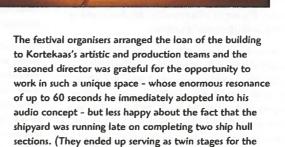




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The plan was that in this vast, highly reverberant space, a nightly audience of around 400 would follow on foot the 'scenes' laid out along the length of the building, with different sound systems (mainly the Renkus-Heinz Synco Touring System, plus Meyer and Martin) provided by DEE Sound & Light for each scene. Confirming the scale of the area, the view from the final scene - Noah's Ark back to the first scene was of a dot in the distance.

show's opening scene.)

The story was built around the birth of humankind through the Earthmother, God, played by Greta van Langendonck. Man's tussle between Good (played by Maarten Wansink) and Bad (Lucas Smolders), contemporised as Martin Luther King versus Hitler, was one of the central issues. Being condemned by God, the actors and audience were sent into the Ark - to find that in the end, nothing will ever change. Other principal performers were counter tenor and choir boy Garry Boyce and Isnel da Silveira, singer, dancer and 'Angel'.

The idea for the play came, Kortekaas says, "Out of the blue. We had a basic idea, the creative team from the Monty Theater and an inspiring location - lots of 'giving' elements. Originally we wanted to copy reality by building a boat in steel, but then we decided to go for contrast with a boat of light construction using only pillars and sails to suggest the boat."

s a site-specific theatre-and-music production, the one we're about to unfold may well rate as one of the most unusual to grace L&SI's pages. A provocative community arts production, generously sponsored by a top summer arts festival in Antwerp, Belgium, De Man in de Boot ('The Man in the Boat') used a sweeping dramatic theme to explore its contemporary moral tale.

The production played from July 21 - August 1 under the umbrella of The Summer Of Antwerp '99 Festival - an annual event aimed at promoting culture in that historic city. Its director was Niek Kortekaas and the sound designer, another key player in bringing the concept to life, was Andre (Dre) Schneider, founder and owner of Belgian production rental company DEE Sound & Light, which provided all of the audio, lighting and projection hardware and engineers.

The promoter was the Monty Artscenter of Antwerp, while other key credits were headed up by production manager Ann Schoeters, pyro designer Sven Roelants and video designer Toon van Ishoven. The rigging crew whose skills were tested to the limit - were from Servi Scene Crew of France whilst the sets were built by Heur Production.

The shows were staged in a unique setting. Niek Kortekaas had a grand vision - a dramatic opera portraying humanity's innate struggle between good and evil. It's played out in a gigantic shipyard building, an enormous, starkly resonant industrial space 300m in length, 40m wide and 23m high, the spatial equivalent of three soccer pitches or two cathedrals laid end-to-end, built to give birth to the kind of supertankers which need 10 miles to perform an emergency stop.

'De Man in de Boot' is not about a bloke trapped in the rear end of a car, but an extraordinary show in an extraordinary setting - a

THEATRE

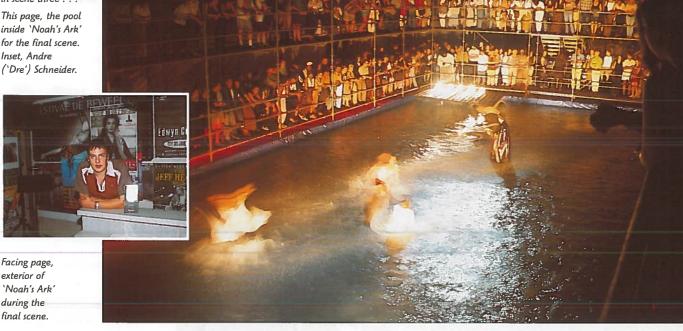
shipyard. L&SI was there to see it all come to life

Belgian



Cover page, Isnel da Silveira makes a dramatic entrance in scene three . .

inside 'Noah's Ark' for the final scene. Inset. Andre ('Dre') Schneider.



Facing page, exterior of 'Noah's Ark' during the final scene.

> Two weeks of production rehearsals echoed to the sound of welders and sheet metal fabricators. Organising rehearsals in a working, active shipyard was, Kortekaas affirms, "Very problematic. The shipyard people were making a noise like hell. Every beat on a piece of metal lasted a few minutes; every shout and crane movement put the hall into an enormous chaos of noise. We had only 10 days to build before the rehearsals and we had to be creative. Playing in a location like this forces you to break with all the usual theatrical traditions.

> Andre ('Dre') Schneider is a man with an impressive production track record, albeit deliberately unsung beyond Belgium's borders. He has produced and co-promoted shows from Brussels to Manhattan, on all kinds of scales and for a serious array of clients, for the past 20 years. His company, DEE Sound & Light, also boasts a rock and roll trucking arm that's successfully linked to Belgium's premiere commercial transport rental company. Schneider's career kicked off as a co-owner of the Paradox Concert Hall in Antwerp in the seventies. "I thought I was being clever, but the money from renting the place was not enough, so 20 years ago I started making my own speakers. We'd find the groups without sound equipment or lights and we'd rent them our equipment."

That led to introductions to all the leading promoters, and equipment rentals to bands playing Antwerp's 'alternative' scene. "Since then I've travelled around the world with amphitheatre productions in every country from Japan to Canada and the United States." DEE was one of the founding members of the Synco Network alongside Benelux companies Ampco and PAS Audio, all running complementary Renkus-Heinz Synco Touring System equipment.

The team devised a sound concept based on using the acoustic to the maximum. Kortekaas and Dre Schneider exploited the shipyard building's enormous natural RT of up to 60 seconds reverberation as an integral part of the production. At the far end of the building a single, asymmetric, LCR arena-scale Renkus-Heinz Synco Touring System PA provided background sound effects as the scenes progressed towards it over the course of an hour, and served as the main PA for the final scene in 'Noah's Ark'. Invisible to the audience as the building moved into darkness during the show, it was a spooky, dramatic effect.

"The reflections of the room worked as an enormous cathedrallike space which intimately influenced the intelligibility of the

play," adds Kortekaas. "Knowing this, we developed the words, the songs and the audio system around these parameters and used them to our advantage."

Meanwhile, the main lighting grid travelled along the length of the building as the scenes progressed, suspended from industrial overhead gantry cranes straddling the building's width. From these were also suspended one of the two main characters, operatic soprano Isnel Da Silveira, in a rigging harness.

The lighting design was based around the availability of rigging points and the power available at those points, which ruled out the use of dimmers. As Schneider expands: "We had so much space available that we went from section to section using a fixed, flown lighting rig and an atmosphere which was either on or off. The only variable lighting was a cluster of Pars flown from a crane which guided the performance and the audience like a torch - effectively a 5kW spot, lighting the different sections and scenes." There was also PIGI projection (E\T\C Audiovisuel) along the way - and a lot of pyrotechnics which spewed fire in the path of the giant cranes' swinging lighting and human loads.

The lighting equipment list was headed by the circle-rigged cluster of 50 Pars totalling 5kW, along with six HQI 2kWs, 14 Natrium Sodium Highway lamps, 15 Niethammer 1kW Profile 300s, four Source Four four-bars, two HMI 2.5kW Daylights, 30 1.2kW Asymetric Floods, two PANI 1.2kW followspots, three BT Pani Parabolics and one Pani HMI 2.5kW Cloud Projector. This cluster, swaying beneath the crane and with Isnel Da Silveira suspended below in her harness, made for a dramatic procession as the audience shuffled from one scene to the next, their path guided by the production team.

Since the technicians were unable to see all of the scenes from their mid-way mix position, Niek Kortekaas himself directed the performances live and on foot as Schneider explained: "Niek was our human SMPTE code, giving all the sound, lighting and rigging engineers their timing commands by radio, and he used whistle codes to relay timings to the actors. "It wasn't conventional to have a director actively steering the play, but it was the most efficient way to make it work."

Isnel Da Silveira, like all the cast, wore an AKG WMS300 radio mic headset for her mid-air performances, with three switchable receivers at different locations to allow for the long ranges involved.

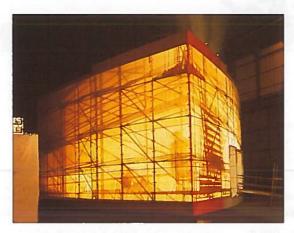
"Kortekaas and Dre Schneider exploited the shipyard building's enormous natural RT of up to 60 seconds reverberation as an integral part of the

production."

Dre Schneider, overall production head, commented: "The big Synco cluster was the main sound source that helped all the other sound sources to create our overall sound image." He specified an asymmetric 30kW cluster of 36 Renkus-Heinz Synco speakers, six wide and six deep with a mix of MH longthrows, Combi midthrows and low speakers with 16 subs and infills, powered by 10 Crest 8001 and 12 7001 amps with 10 Synco 2004 controllers. The cluster was flown at the back of the venue, using direct reflections off the walls and going from midthrow into a longthrow system, while the centre section was a downfill centre directly pointed at the 'Ark' - the Boat

It was designed to help the reverberation, not fight it, and by focusing the cluster asymmetrically we avoided phase problems in a symmetrical venue." Auxiliary clusters used 10 Renkus-Heinz SR-5/6, two Renkus-Heinz BPS 15-1 cabs; four each of the Meyer MSL-2 and Meyer MSW-2 boxes; four Martin Audio BSX and two Martin Audio LE-400s, driven by six Crown 2400 and four Crown 24X6 amps, four Synco 4008 controllers and two each of Meyer S-1 and B-2EX controllers.

Four BSS TCS804s were used for various sections or scenes to emphasise intelligibility and provide effects, delays and time alignments, referred back in time to the main Synco cluster, helped by locally-placed speakers at the different scene locations, with each actor constantly miked. This was augmented by eight smaller systems at the



scene locations and eight effects sources from locations including the café, the small theatre of Lucas, the Bird Place which had their own FOH effects speakers to support the main cluster.

Two Yamaha 02R digital mixers, inter-connected by automation and using a Pentium II computer with Soundforge software, served as alternate main mix positions, controlling the whole venue's speaker systems at any moment - dictated by Niek's desire for the audience to be guided 'on the fly' by all production elements, including sound and lighting. The idea was to draw the audience towards the play's final scene (the Ark), which was also being represented by the main Synco cluster.

Says Dre: "Even using the acoustics of the venue, it still was an enormous battle to align the system

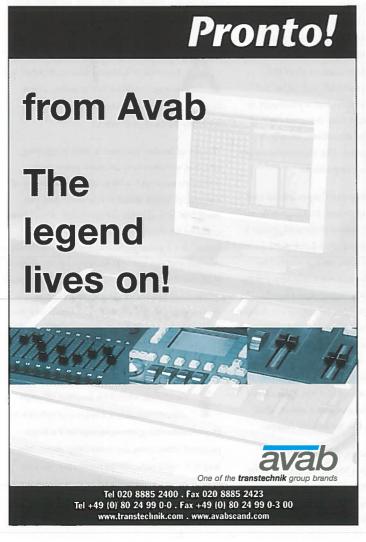
and the sources, but the result was amazing and compensated for all our work and effort. The first ideas seemed simple. But following the director's creations was something totally different. We had to use far more gear than we had allowed for in our budget. For a director, only the end result counts and the sound system became a sort of actor in its own right.

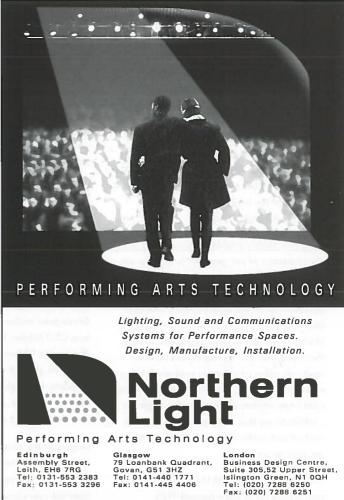
"The original plan called for simple sets of speakers with four wireless mic systems and one control system. We ended up using more then 60

speakers, two control sets and eight wireless mics, all with more than one receiver. That is why I am so happy to have my own rental company, because when I participate in a project like this I go all the way. Budgets are a factor - but they can never overrule the quality standards I demand."

As we said at the outset, this was one unusual production, combining enviable imagination and effort at all levels - from the city's festival organisers and director Niek Kortekaas to the cast, Dre Schneider and the technicians - to produce a startling show on a fairly modest budget. The production is likely to be re-staged under different circumstances next year, possibly as another site-specific production for the Brussels Festival in 2000.

Watch this space.





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## En Gatelier No Comment...

he musical chairs, which have characterised our industry since the arrival of the Corporates, continue without respite. During PLASA it was finally confirmed, but by the man himself and not by his ex-employer, what most of us had known for the past three months - that in the fallout from the recent reorganisation of VLPS Europe, Alan Thomson had been

"Naming no names, when the founder of one of these is obliged to quote from an idiot-book during interviews, in order to ensure that he stays 'on message', things have come to a pretty pass."

ejected from the pilot's seat at Theatre Projects. L&SI readers will remember that Vari-Lite had announced in May that it was moving its focus of control in Europe to Brussels, with consequent attrition in London (and I want you to keep hold of that fact for just a moment longer).

Never a man to remain inactive during unexpected gardening leave, Thomson has already transferred his loyalties to the PRG Group, where he is

enthusiastically establishing their presence in Europe. Just for starters, he is charged with welding together The Spot Co, whose Pete Miles had become disenchanted with his own creation of late, and the burgeoning production company, Midnight Design.

Miles had quickly established himself as one of the characters of our game, with his sharp wit and even sharper business brain. He also encouraged The Flying Pigs, who initially operated out of the same premises, and now that they have taken the High End shilling, he obviously thought it was time for him to take the money and run. During PLASA he was reputedly sizing up a Russian gold mine; being an economist he ought to know about these things. I just hope he remembers that all that glitters . . . Suffice to say that he is unlikely to leave his stash of cash under the bed for long. I, for one, am sorry to see him go.

The sequitur to that, and the reason I wanted you to hang on to the refocused VLPS geography, is the subsequent announcement

from Vari-Lite about the appointment of a new general manager of European Operations based in, well, London of course! And yes, Bert de Haes, appointed to the same role in that recent reshuffle, but based in Brussels, has gone already - must be one of the shortest appointments in corporate history. In his place, Vari-Lite are making no secret of their delight at having rerecruited Jimmy Barnett, who was previously in much the same hot seat from 84 to 90, until he left to pursue a career in television, most recently in Singapore. He has a large pair of shoes to fill in the shape of Brian Croft's blue suedes, as the great man moves upstairs in the organisation.

On the all-consuming subject of the allconsuming PRG, I seem to have unintentionally upset Jere Harris with my remark that 'the suits are in the boardroom'. This is a suggestion that he hotly denies, indeed he also forcefully resents any suggestion that Boston Ventures are fulfilling a traditional venture capital role at PRG. If, as the result of misinterpreting the press release on which this story was based, I am guilty of misconstruing the position or of spreading misinformation, then I apologise unreservedly and I am happy to have this chance to put his point of view. I do worry that Harris misunderstands my motivation in all of this, which is not to make mischief, but rather to defend the industry which I had a small part in creating, and to which I have devoted most of my working life. In the meantime, I really do want to see PRG succeed. The alternative would be too devastating to comprehend.

In the past I have taken the Corporates to task for their lack of transparency. Naming no names, when the founder of one of these said groups is obliged to quote from an idiot-book during oneto-one interviews, in order to ensure that he stays 'on message', things have come to a pretty pass I must say, or is it a high state of paranoia? It was refreshing, therefore, to attend the Martin Group press conference during PLASA, and to hear CEO Kristian Kolding and Group sales director Pio Nahum, speak apparently so frankly about the state of their business. They were especially forthright about the Vari-Lite patent battle in the USA, and pragmatic about what they could expect in the immediate future.

Despite all the brouhaha, Martin are still forecasting \$3.5 million in pre-tax profit in the current financial year, a considerable turnaround from last year's losses, and trading to date would seem to confirm that they are on track. You can

make jokes about the new majority shareholder in Martin and Danish pastries, it being a financial conglomerate with interests in the bakery business, but the fact is Martin are keeping very serious company indeed and are not to be trifled with (no pun intended). Vari-Lite should not underestimate their determination.

s I forecast last month, the Americans, never slow to get one up on us shy and retiring Brits, have been quick to capitalise on the demise of Glantre. Mavco, the Miami-based AV contractor best known for its long-term relationship with Carnival Corp, the cruise company, have snapped up Rob Shuard, previously a leading light at Glantre, to set up an engineering office for them in England.

My mole in marine markets tells me that Shuard has already been seen in meetings at one European shipyard who have substantial contracts to place for supply and installation of AV equipment in the near future. Mayco have already assumed Glantre's contract on Royal Caribbean's Voyager of the Seas, currently being fitted out at Kvaerner Masa Yards in Finland.

s we go to press all the talk in Luvvieland is speculation as to what will happen to West End theatre, as we know it, after the Stoll Moss chain is sold, probably to foreign interests.

The list of houses involved is truly staggering, and one wonders how so much power and influence over such a large slice of our national culture, of which theatre in general and the West End in particular are so crucial, could have come to be concentrated in a single pair of hands? It's a game of Monopoly with Shaftesbury Avenue and our cultural heritage up for auction. If all the theatres in question were to become an offshoot of Broadway, giving a whole new meaning to off, off Broadway, it could well lead to a stifling of local creativity and the export of the dramatic arts may become a one way street.

he very unexpected news about Harvey Goldsmith's business troubles, though almost certainly a temporary setback for the swashbuckling entrepreneur and a huge personal blow, does say something about 'the way it is' right now. While inevitably, we can expect to see him back and at it, one way or another, before the ink is dry on this month's L&SI, things will never be quite the same again.

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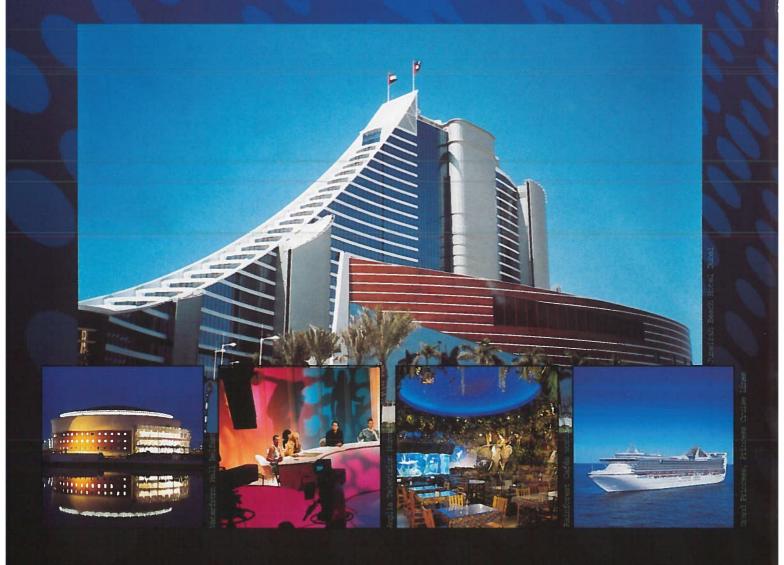
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## Cafe Culture

Atlantis Dining Room

n a world that practically devours themed dining, Café Odyssey gives its clients something different. True, the locales are exotic and multimedia plays into the equation, as in many other themed dining establishments, but what sets Café Odyssey apart is the fact that it's more than just a quick, impersonal meal with a simulated storm. The restaurant brings an attention to thematic detail that was previously unknown in this sector of the industry, while using technology to enhance the dining experience, rather than to overwhelm it.

The flagship restaurant opened in the summer of '98 in the Mall of America in Bloomington, Minnesota. The second Café Odyssey, which opened in Denver, Colorado, earlier this year, takes the concept a bit further technologically and there are plans for future branches currently in development.

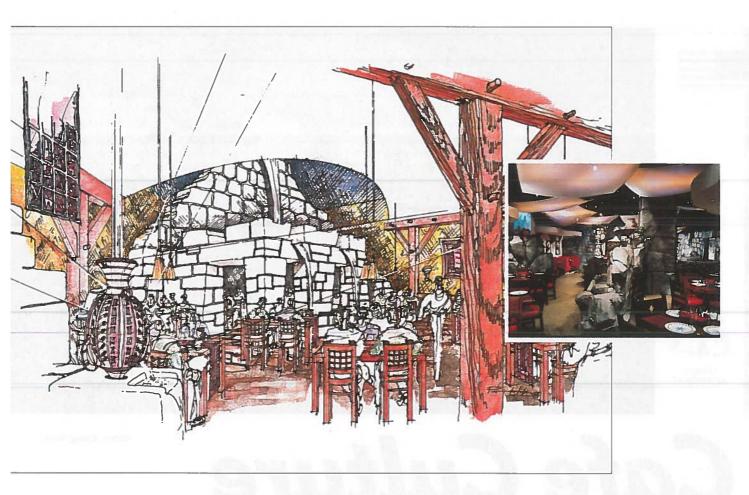
Café Odyssey was made possible by the collaboration of a variety of specialist companies, many of which are members of the Themed Entertainment Association. All worked under the auspices of the Cuningham Group of Minneapolis, who handled the thematic and architectural design, interior design, construction and show management services on the project. Edwards Technologies Inc of El Segundo, California, provided the audio, video and show control for the project, while Metavision of Burbank, California, created the video used within the facility, as well as the audio software. Minneapolis-based firms Schuler and Shook provided the lighting design, while ThemeScapes Inc handled the thematic scenic construction.

When visiting the Minneapolis Café Odyssey, patrons can dine in one of three rooms, all of which are elaborately themed with the

If you're going to go for a theme then you might as well do it in style. Sharon Stancavage visits Cafe Odyssey in Denver which is taking a world view

sights and sounds of their particular area. The Serengeti room, which is 2,075 square feet and seats 128, is a visit to Africa in the late 19th century. Machu Picchu, which encompasses 2,000 square feet and seats 135, takes patrons to 1911 and the newly discovered ruins of the Incan 'City in the Clouds.' Finally, guests can dine in the lost city of Atlantis, which covers 1,605 square feet and seats 101diners among the ruins of the undersea city. Overall, the Minneapolis restaurant covers 17,100 square feet; in Denver, Serengeti and Machu Picchu are a bit larger, Atlantis is smaller and the square footage totals 16,000.

The project was driven by the design efforts of a firm experienced in handling complex projects. "At Cuningham Group, we work in a style that requires a good amount of co-ordination between both the design side and the builder side," explains Steve Lynch of Cuningham Group, who worked as the show manager. All of the companies were brought in extremely early in the project and many of them have worked with Cuningham Group before on such projects as The Rainforest Café and the SpaceQuest Casino in Las Vegas, as well as numerous Universal Studios projects. "There was a large amount of organisation involved on this project," echoes Brian Edwards, President of Edwards Technologies Inc. "We really couldn't slip - if we had a window looking out on the Serengeti desert, it couldn't be 2" to the right or left, it had to be exactly where it needed to be." The project delved into an area that transcended the usual issues involved in restaurant design. "The guiding force of this project is definitely themed



The design and the reality of the Machu Picchu area. Thanks to an EAW sound system and a range of video and lighting effects, diners can eat to an accompaniment of thunder and lighting - bit like going to a BBQ in the height of the British summer.

entertainment," comments lighting designer Michael DiBlasi from Schuler and Shook. The project, which took almost a year to complete, is a fine dining restaurant that features an elaborate menu that is enhanced by the immersive, yet non-intrusive environment.

Collaboration was the key to this project from the beginning. "We went through a lot of early concepts and scenarios in the office," Lynch explains. "It started as this journey that you went on, and eventually distilled down to three separate dining rooms. There were a number of locales that we talked about and sort of bantered around until we ultimately chose Serengeti, Atlantis and Machu Picchu, which generated the most excitement among the team," he concludes.

Another major difference in the Café Odyssey experience is the length of the show cycle. In other restaurants, the show cycle averages 10 to 15 minutes, while the cycle lasts 30 to 40 minutes at Café Odyssey. "It's not a nightclub, it's a fine dining restaurant," comments DiBlasi. "The areas go through a lot of different transformations, but it's all done very subtly."

The use of video projection is another high point in the project. According to Edwards,

his firm "scoured the earth for video projectors," looking for the right projector that would fit into the budget. "We were looking for a pretty small projector with a short throw lens and a good quality picture," Edwards comments. After an exhaustive search, they settled with projectors from ProLux. "From a specifications point of view, they had the best equipment for the price," Edwards explains. Unfortunately, ProLux went into bankruptcy during the project, and, in the short term, its equipment wasn't quite as reliable as Edwards had hoped. "We ended up ripping all the ProLux video projectors out after they started blowing up on us," Edwards recalls with a hearty laugh. "We replaced them all with NEC equipment and all is well in the world," he concludes with a chuckle. Each room features video support, with seven NEC MT830 video projectors in the Minneapolis branch and a total of nine in Denver.

As one enters the lobby of Café Odyssey, the first themed area on the left is the lost city of Atlantis, awash in blues and greens, soothing guests as they dine among the ruins. An occasional rumble from an underwater earthquake can be heard, courtesy of four EAW UB 12 point source speaker cabinets, as well as a pair of EAW SB 150 subwoofers and four ET2000 speakers, courtesy of Edwards Technologies, Inc. All the cabinets in Atlantis, and in the rest of the building, are all hidden in the ceiling.

Along with the speaker cabinets, the ceiling of Atlantis features something else -

something that looks like stylised waves. "Atlantis has a fabric ceiling with vertical blades of fabric spaced roughly one foot on centre, while the blades of fabric are about a foot tall," explains DiBlasi. "It's a very sheer, silky fabric and from above, we light into the fabric with blues and greens to texture the fabric and make it look like water," he adds. "We have three fans above that we control via the lighting control system so that we can turn them on and off and make the fabric flutter a bit, so you get a little movement," DiBlasi concludes. The fabric is illuminated by Juno track lighting, as well as 10 ETC Source Four Ellipsoidals with 10 GAM Twinspins. "Probably one of the best effects in there is the use of Twinspins," DiBlasi claims. "We have Twinspins with split gels of blue and green that filter through the fabric and light some of the different underwater rock formations. "As you walk through, you feel like you're walking underwater," he concludes.

The room features three large screens on a single wall, separated between Atlantean-style columns that offer a panoramic view of the ocean. The show cycle in Atlantis, as opposed to Serengeti and Machu Picchu, is continuous and features three NEC MT830 projectors.

Overall, the mood in Atlantis is set by DiBlasi's lighting, which provides subtle touches throughout the room. To aid with the illumination of the tables (as well as to accent the rock formations) DiBlasi used 25 Tech Lighting fixtures with MR16 lamps that are accented with amber glass beads. They

hang out of the ceiling, dangling beneath the fabric waves, and look uncannily like stylised squid drifting along through a vast body of water. The faux painted walls are illuminated by recessed MR16 fixtures with spread lenses, while the perimeter wall soffit houses 12 fluorescent fixtures. "We uplit the ceiling with fluorescent lamps with blue colour sleeves on them, to give a wash from below to the fabric," explains DiBlasi. "Overall though, the manipulation of the space is happening from the track lights above," he adds.

Scenically, Atlantis is filled with rock, coral and old ruins from an ancient city. The rock was reproduced with GFRC fibreglass-reinforced cement, while urethane was used to simulate the coral, and the ruins were carved from cement/plaster over wire lathe, all of which was created by Themescapes. The space has the feel of being underwater, with the coral reefs covering the old ruins. Additional steel had to be added to the existing walls to carry the load of the cantilevered rock and coral, which spreads out like an umbrella over your head as you enter the space.

Moving through the building, visitors will find themselves in the ruins of an archeological expedition, with the mysterious Inca City of Machu Picchu just outside of the window. Day turns to a starry night, the weather changes, and the Incan villagers can be seen in the distance.



"Machu Picchu is one single projection area in Minneapolis that's about 8' wide and has been upgraded to a three screen vista in Denver," comments Lynch. From an audio standpoint, Machu Picchu contains a range of EAW speakers and subwoofers, powered by three Rane MA6 amplifiers. "We used the bigger subwoofers in Machu Picchu since a thunderstorm rolls through there," explains Edwards.

The thunderstorm is a high point in Machu Picchu. When the rainy season comes to the Incan City, thunder rumbles through the dining room, the video projection darkens with clouds and lightning flashes through the air. DiBlasi used a total of

eight Diversitronics strobe lights for the storm sequence, to create the effect of lightning. "Some of the strobes are used with ETC Source Four ellipsoidals," explains DiBlasi. "This allowed us to utilise templates and project flashes of lightning. It gave us the ability to shutter the instruments so we could focus it more specifically," he comments. "Of course, we kept in mind that we want to have the storm go through, have people see the storm and experience the storm, but always kept in mind that it is a fine dining restaurant, and we didn't want to annoy the diners," he concludes.

But the thunderstorm isn't relegated to simply thunder and lightning. The room also features a 14' tall by 12' wide waterfall that reacts to the presence of rainfall. "The waterfall increases in strength as the thunderstorm rolls in," explains Jerry Anderson, vice president of Themescapes. "The water increases naturally, as the water would, if rain were coming out of the mountains," he comments. "We achieved this effect by using variable switches in

the pumps that are tied in with the show control," he adds. The waterfall, which was created using cement with a plaster waterproofing material, includes 12 Lumiere submersive fixtures, some of which contain amber gels to create atmosphere.

Visually, Machu Picchu is dominated by granite rockwork, created by Themescapes. "There was a lot of detail on the part of Themescapes to create the rockwork and the size and the coursing," claims Lynch, which was necessary to meet the demands of Cuningham Group's design. "What those guys were able to accomplish with rocks is truly amazing." The room, which is 80' x 40', was created by using photographs of the actual ruins at Machu Picchu. "We did a lot of work from photographs, and laid out, fairly exactly, how the stones were fit together in Peru and simply duplicated it in Café Odyssey," explains Anderson.

The final dining area of Café Odyssey is the African veldt of the Serengeti. The room is dominated by a three screen video panorama, which is projected upon a 12' x 40' mural, painted by Minneapolis-based muralist Stephan Michael. "The biggest attraction in there is the video vista," comments Lynch. "It gives you the sense the you're looking out into the plains of the Serengeti." The video panorama is separated from the patrons by a variety of trees, greenery, fences and rocks and gives the uncanny feeling of looking out into the endless depths of Africa. The sounds of the wild are heard in the distance, courtesy of

a bevy of speaker cabinets: six ET2000s, 10 Atlas Soundolier 6" speakers with back cans and grills, a single EAW UB 12S, three EAW UB 22s, three EAW JF 60s and a pair of EAW SB 150 subwoofers, all of which are powered by three Rane MA6 multi-channel power amplifiers. There are six channels of audio in Serengeti, which are tied into the video and lighting, through the Alcorn-

Through the use of recessed accent lights to illuminate the area, lighting designer Michael DiBlasi has created more of an architectural feel for the Serengeti room.



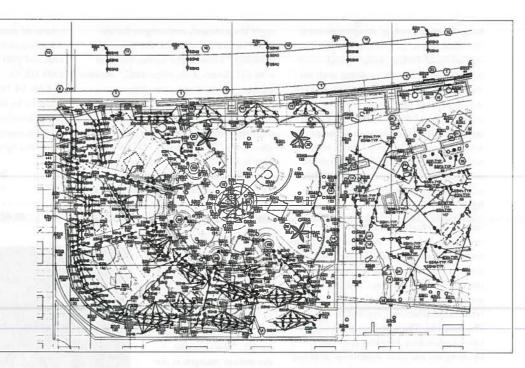
McBride show control, which can usually be found in theme parks. "It all really comes together to create this truly immersive environment," comments Edwards. "The video really takes over and establishes that you're sitting there eating lunch or dinner and looking over the Serengeti desert," he concludes.

From a lighting standpoint, DiBlasi regards the Serengeti room as more of an architectural project. "I used much more of an architectural approach to the area," he comments. "There are recessed accent lights used to illuminate the various props and theming of the walls, while we have decorative wrought iron fixtures over the booths." The colours in Serengeti are also more natural. "The color palette changes in Serengeti are more straight forward - we used straws, blues and ambers," DiBlasi explains. Throughout the room, which features four bamboo-style ceiling fans, DiBlasi uses 30 Par 20 accent lights for the tables, and 170 Par 30 lamps with colour filters for washing the walls and the greenery.

The walls of the Serengeti hint of the adobe and look almost dirty, as if they were created by hand, many years ago. "We had to create the adobe finish in cement," comments Anderson. "It had to be a material that wouldn't be damaged by the chairs, but still looked like it was made of dirt." Anderson and his crew ended up using a hybrid of high strength plaster and cement for the adobe, which

The complex lighting plot for the Serengeti

"The restaurant brings an attention to thematic detail that was previously unknown in this sector of the industry."



worked quite well. The room is also home to a gigantic baobob tree, which is apparently growing through the ceiling. At the base of the tree is a small pond, flowing through the roots of the tree. A carved baboon, created by Displaymasters of Minneapolis, sits at the base of the baobob tree, water running though his hands, bringing patrons further in to the

illusion of the Serengeti. All of the rooms are tied together through the show control, designed by Edwards Technologies.

"Technically, all the programs are tied together, because there is only one clock," explains Edwards. The lighting is controlled by the Electronic Theatre Controls LPC, which is, in turn, synch'd to the video and audio system via a SMPTE code. "The most

challenging aspect of this project was programming it," Edwards claims.

"In theory, we knew how it needed to be done, but when you get on site and start to bring it alive, it's challenging - you're constantly tweaking with it until you create the world you want - and this time it worked and it's really cool," he concludes with a wide smile.





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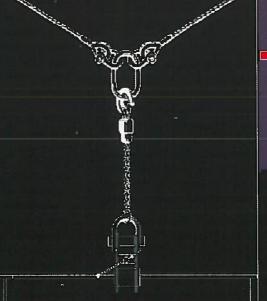
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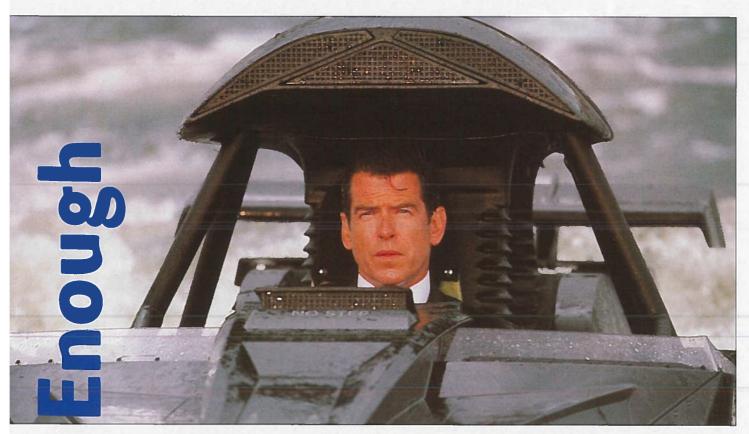
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## Steve Moles accompanies Unusual Rigging onto the set of the latest Bond movie

n the distance, the faint lights of a city twinkle through the gloom. Seen through the thin fog hanging like a veil above the water, they look cold and far away. On the shore-line a complex of wooden piers and shacks clad in rusted corrugated iron, protrude through the foggy half light. Above the piers, the dim glow of work lights strung along the walkways casts dowdy shadows across the detritus of an exhausted industry. Everything is old and spent. Beneath the main shack a man emerges wearing a blood spattered apron: he hefts the gutted carcass of some enormous fish into the oily discoloured waters below. It's bitterly cold.

There's a tap on my shoulder. "Fancy some breakfast?" It's five o'clock. Five o'clock on an icy wet Buckinghamshire afternoon and Martin Honeywill of Unusual has arrived for breakfast and work. As we trudge off for a cup of Pinewood's splendid tea (35p, a bargain by any measure) Honeywill begins to explain just what it is that Unusual are doing here. "This is the nineteenth Bond movie." He let's that short statement sink in. "Yes, I was surprised as well." This one's called 'The World is Not Enough', with Robbie Coltrane reprising his role from Tomorrow Never Dies and Robert Carlisle playing a baddie.

Jord d

I had, in fact, been at the studios several hours before Honeywill arrived. Escorted by a charming girl (Melitsa) from the Eon Productions Press Office, myself and David Mayo of Unusual had been shown over the set alluded to above. It's built in and above Pinewood's famous water tank, home to some classic Bond scenes of the Supertankers-swallowing-submarines kind, and Jaws (the character, not the fish) biting a shark. The set is vast, and because it's a night-time shoot (hence the 5.00pm breakfast) the whole thing is enclosed by a giant black cyclorama 80 feet high, punctuated by small fibre-optic lights here and there which create the illusion of

the distant city. For Bond 19, the tank has been enlarged - another four metres of width has been added to what is already approaching a two-acre site. The entire scene - huts, walkways etc - is a mock-up caviar factory supposedly on the Caspian Sea. It's a very imposing piece of work. Most of what you see may be a film set, but it's entirely structural - enough for a BMW Z8 to run along the elevated walkways. It even supports the tonnage of an old Rolls Royce, though what on earth either of them is doing at a run-down caviar factory on the Caspian Sea is anybody's guess. Down the east and north sides of this artificial semi-sunken lagoon a railway track is laid, upon which sits an enormous Liebherr tower crane.

Honeywill picks up the story. "It's rented in from Belgium. It's pretty heavy-duty as tower cranes go and has a self-weight of 160 tons. The boom extends some 80 metres; at 19 metres it can lift 40 tons double-reefed and even at the far tip it can pick-up 3.5 tons. The boom height is 30 metres above ground." All very industrial, and I can vouch for the size of the thing, having personally bottled out about five metres from the top of its spindly ladder, but it's not there to unload fish eggs. "What we're doing is flying a helicopter, a Squirrel as it happens, repeatedly taking it out over the set, suspended from the crane."

Which all sounds a bit over the top . . . unless, that is, Melitsa had taken you up to the helicopter stand earlier in the day and pointed out the 18ft mechanical saw that hangs beneath it. Driven by a small motorbike engine, this device is a set of one metre diameter rotating buzz-saw blades - all real steel I might point out - with sharp pointy teeth. "So some precision is required then?" I asked Honeywill, doing my best to raise a suitably non-plussed but quizzical Brosnandian eyebrow. "Yes, although that accuracy is demanded mainly for the filming. We reposition the crane several times for different shots (hence the railway track) and each time we have to replicate the stunt manoeuvre precisely for each take. But there is one special scene where the helicopter saws the end off the factory. James (Lee, who co-ordinates all the helicopter stunts) has to stand within the building holding one of the many emergency stops we deploy. There were cameramen and stunt performers present within the building at the same time, as well as the director, which is why he (Lee) needed to be

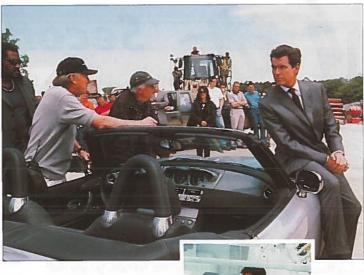
there with an emergency stop. James is unable to see out of the building, all he hears is the approaching buzz of the saws and then suddenly it's upon him, ripping through the roof, followed by a fair bit of pyro as the side of the building falls away into the dock 20 feet below. That's a pretty good justification for pin-point accuracy."

This particular sequence was also a one-time stunt; despite the efficacy of the buzz-saws, the building is trick-built to split as the blades pass through its balsawood beams. Once blown off, it would be some considerable expense to re-build it, hence the attention given to capturing it all in one take. Lee's safety angle apart - precision is everything. "We've modified the crane substantially," continued Honeywill. "And the helicopter too. Its engine has been stripped out and the blades have been removed. They're put in later using computer graphics. The two vertical bars on the sides of the mounting are to maintain the helicopter's attitude and stop it rocking. Built by the Special Effects Department, the two bars are telescopic devices allowing the Helicopter 9.2 metres of vertical travel. The tendency to rock is neatly dampened by the application of two car tyres at the top of the device.

"There are four main axes of the crane," continued Honeywill. "The position of the crane on the rails is set by a laser positioning system. The tracking, hoist, and slew are all connected by encoders which feedback to our Automation Control system." The system is tight enough to recall any positional data to within a millimetre. Now a one millimetre tolerance might not be any great shakes when compared, say, to a motion control system for a big theatrical set truck, or some special event in a theme park, for example. But when you consider that this is the same control system Unusual supplied for the Petronas Tower manned descent stunt in 'Tomorrow Never Dies' (but here integrated into a bloody great crane), then you begin to realise what a sharp, but flexible bit of kit it is.

"It wasn't quite that simple," reported Honeywill. "For the slew we were able to fit an encoder to the existing ring gear at the top of the tower. But for tracking we had to change the motor and gearbox. For lift we use the existing 90kW three-phase motor with our gearing, giving a hoisting speed of 1.6 m/sec. We also removed the motor's electromechanical drive and 'slugging' (possibly not the correct term, but in essence a damping device to reduce stress on pick-up) and installed a 120kW electronic drive. For tracking, we put in a custom system, including our own 7.5kW motor, but driving the existing pulleys and dollies. We can now track at three metres per second."

Needless to say, the increases in operational speed reduces the lift capacity of the crane. Liebherrs also colluded with Unusual to determine other limitations, notably the levels



of movement acceleration/deceleration which, if exceeded, could obviously make the crane become unstable.

In terms of programming the stunt-moves, one interesting problem emerges. As the helicopter tracks away from the

tower, the boom obviously deflects as the load extends. Hence, none of the positional cues can be referenced from ground points, because the crane jib isn't at a constant horizontal relative to the ground. Thus, all the various stunt sequences have to be made up by manual commands and then entered as data points step-by-step, referenced from the crane itself. "We started in mid December," said Honeywill. "We dealt with the mechanical and encoder modifications to the crane on site, then started to build the cues in January. There are two men in the helicopter for the actual shoot sequences, one to control the saw and the basic attitude of the chopper - the other is part of the action, firing a bazooka out of the window. So to run a positional cue we had to add dead-weight to the helicopter equivalent to the two men, then take the helicopter out over something like a part of the set that's to be cut through, and lower into contact." Once that positional data is in, Honeywill can modify the

The mechanical modifications were not so straightforward, not least because they were

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conducted almost 100 feet above ground. "That made things tricky, especially as it was sub-zero up there. But worse was when we tried to strip out the existing tracking motor and discovered it had been cold-fitted using liquid nitrogen. Eventually, we had to call on Liebherrs to

pull it apart for us."

Talking to James Lee on the evening of my visit, it was obvious this marriage of construction industry to state-of-the-art motion control was proceeding much to his liking: "I had every confidence that the automation software could provide the necessary accuracy - Unusual had

proved that when I used them on the Petronas Tower plunge three years ago. The thing with film work is that it's much like commercial presentation and rock and roll - there's no such word as 'can't'. That's the ability I needed to know would be there when it came to dealing with the crane. Because of Unusual's history in manufacturing and engineering, none of the mechanical modifications had to be subcontracted to a third party. That makes things faster, easier, and makes me feel a whole lot happier that everyone involved understands the full picture, not just their little part of it."

Filming ended in March '99, the precious long dark nights of winter having dictated an uncompromising shooting schedule. By now the crane will be safely back in Belgium, all traces of caviar removed from Pinewood, and the movie should be just coming out as you read this. If you can't face Bond number 19 and don't want to re-visit 'Tomorrow Never Dies', but would still like an idea of what else this control system is capable of, try The Mummy, and see if you can figure out what it did.



## Second Take... John Watt's view from beside the camera

s winter approaches, given the choice, it's best to stick to jobs in nice warm studios. Well studios anyway - they soon warm up once a reasonable number of lights are turned on. Even if the temperature is slow to rise, you

"Dipline comprises a foam panel with two layers of conductive foil embedded in it. Rather like an Earls Court sandwich but more digestible and cheaper per square foot."

will soon warm up as cameramen slap you on the back as they contemplate an easy day working at f8 for the first time in years.

I SAY 'given the choice', but few of us actually are. It's usually a fait accompli that you will do the job even before the phone is off its hook, though we go through the motions of negotiating what in reality is a 'take it or leave it' situation. Blood pressure readings are off the clock

as the exchanges between you and a 20-yearold, who you must be nice to or starve, take place. She has never been in a studio in her life except to an end-of-series bash and imagines that during production it's an alien place more akin to a Dickensian foundry than a place of entertainment. Recent memorable statements include: "I wish I could earn that much in a day," and "What is there to justify a planning day? It's a very simple game show." Best of all. "I'm very disappointed that you're unavailable the day after tomorrow; when you wrote in January 97 you said you would like to work with us. Please fax us a plot and our electrician can do the series - he's very versatile, puts up shelves and everything."

I SAID YES to yet another news studio refurbishment recently. They have become

sobering places these days, unmanned save for a few frantic souls, anonymously dubbed technical assistants, who have put their specialities in television behind them in order to stay in salaried employment. Hours of moving pictures are produced daily and robotic cameras are programmed to frame up singles and two shots and to zoom at fixed speeds. These semi automatic shots get to you in an insidious sort of way. There's something not right, but you can't immediately figure out what and it's distracting. The drawings of Escher come to mind - it's all so logical but . . .

ANYWAY it's not my problem that Head of Everything has decided that television is not a visual medium, but a branch of the Royal Mint. I must do my best with a pipe grid that slopes about 10 degrees to follow the pitch of a roof never intended to house a production space. The set is orientated so that the slope runs left to right, not up and down stage. The designer, bless him, has sloped the top edge of the set to match, making a spirit level an essential aid to sanity. Armed with only a stoical attitude and a scaffolding spanner, I give it the works and escape under cover of darkness before a member of the Society of Lighting Directors recognises me.

THE PLASA SHOW is very much a product of the nineties resembling, as it does, a giant car boot sale. Overflowing with desirable bargains you never knew you wanted and half of it off the backs of lorries.

NO ONE MISSED the Softsun on Cirro-Lite stand; how could you at 50kW, dimmable to 5% with little colour temperature change, 170 footcandles at 100ft etc. The same company makes some very large strobes (70kW) which can run from a battery pack. I was just wondering why when that king of the blockbuster OB, Bernie Davis, carefully explained that you might well need another genny for the strobe alone, and

even then it coughs a bit when faced with that heavy intermittent load - obvious once you know.

**ROSCO HAS RE-INVENTED** and improved upon an old idea with its 'Cookies' gobo-like effects, 4ft square, printed on clear polyester. We used to call them 'Ulcers' and made them by cutting patterns out of plywood. The wooden ones had to have the elements linked like a template of course, whereas the modern version can be more complex. You simply place the thing in front of a conventional Fresnel and get harder or softer focus by altering the distance from lamp to Cookie. I'm afraid this has degenerated to book one stuff, but maybe someone out there thinks you need a profile spot to produce a pattern, leaf effect or whatever - well you don't. If you take the lens out altogether, it gets nice and sharp, but it's illegal. Hire companies used to supply a plain glass which satisfied the bolshy brigade. I guess one of these in front of a 12kW HMI would replace about 50 profiles, but don't tell ETC or I'll get nose bounced off their stand again.

NORTHERN LIGHT showed the Motoryoke, not, as I suspected, a kitchen gadget to scramble eggs, but a universal auto pan and tilt device to take the lamp of your choice with options to control iris and focus. I doubt that they will like the comparison, but it seems a real halfway house to a proper automated light and with a colour changer could well do all you need this side of rock and roll at a sensible price.

THE SELF-EFFACING MD of Great American Market, Joe Tawil, demonstrated interesting ways of combining various moving gobos to produce water reflections or a waving flag, for instance. I'm thinking of having him do a couple of my designs: one would show BBC LDs silhouetted against TV Centre with short running legs (speed adjustable) and another of me waving jobs goodbye.

**ELX** of Ringwood had one of those simple products that set your creative juices going -Dipline. This comprises a foam panel with two layers of conductive foil embedded in it. Rather like an Earls Court sandwich but more digestible and cheaper per square foot. Tiny lamps with two pin contacts (one longer than 'tother) are simply stuck into the panel to make contact with each of the foils. Power is supplied via a similar system and the rest is up to your imagination so far as I can see. I have a map in mind showing TV studios I've worked at, (green lamps), and ones I've been banned from as a result of this column (red lamps). I think I can get a discount on a box of 100 red lamps.



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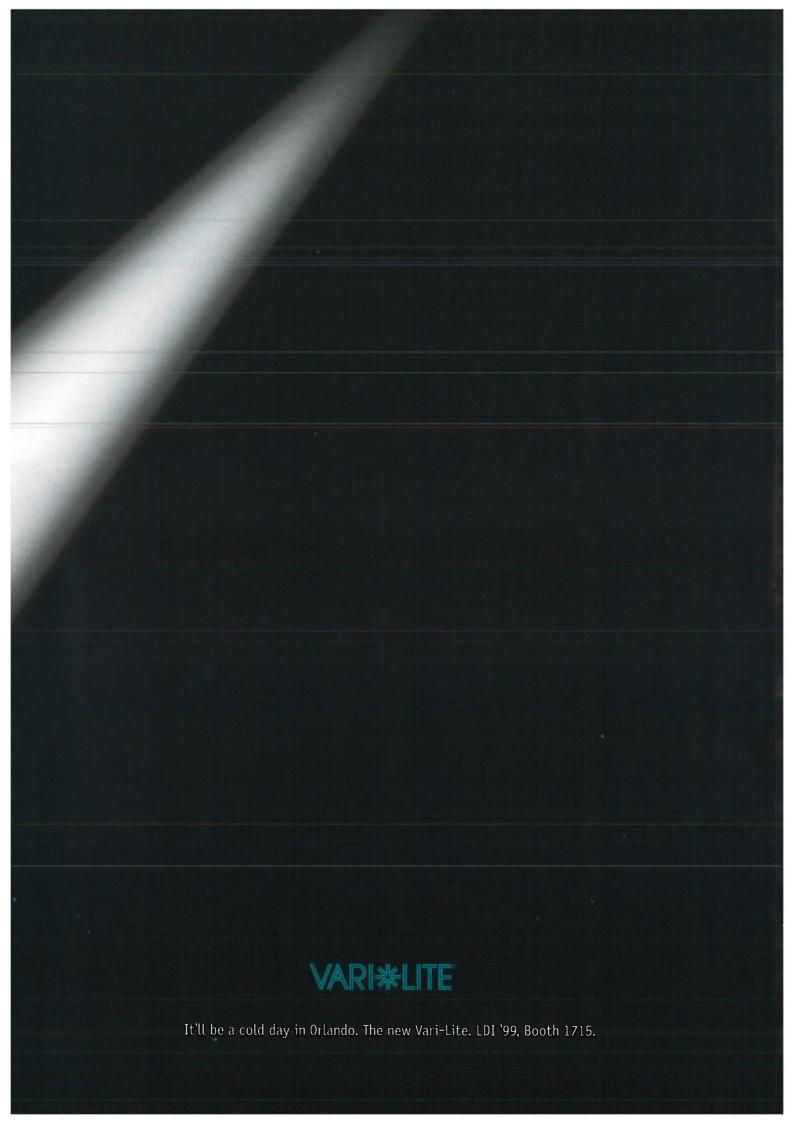
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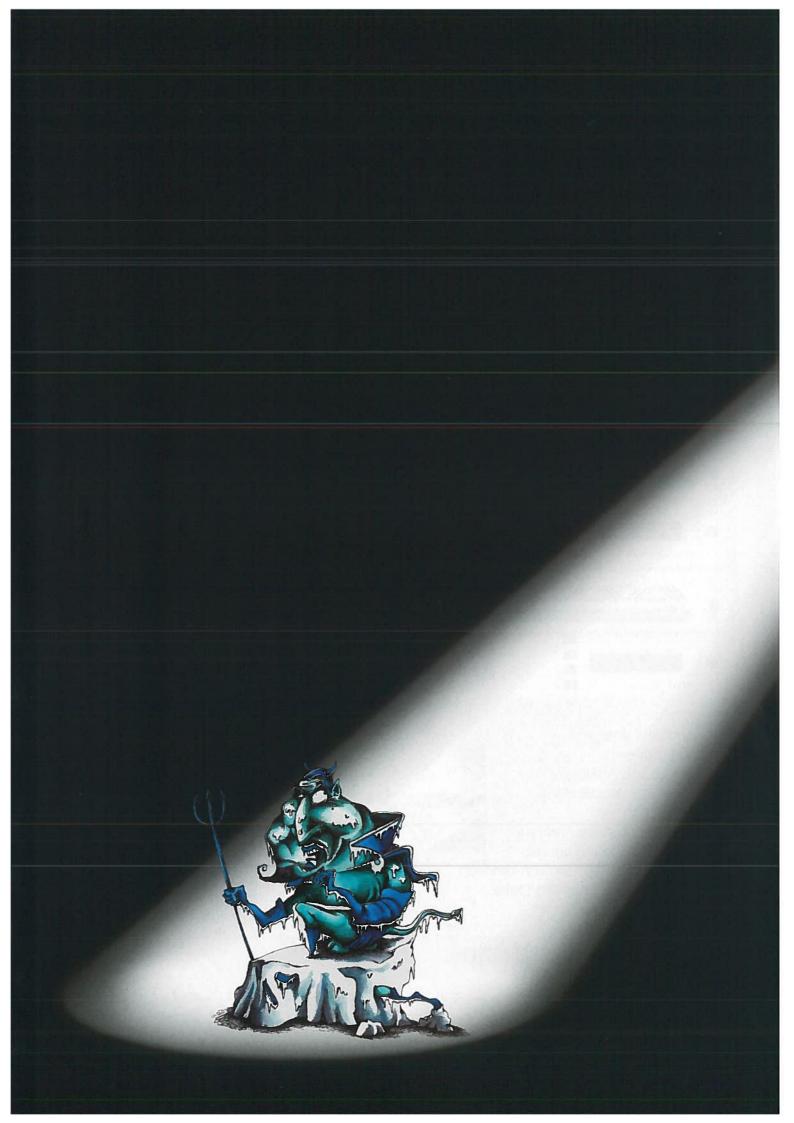




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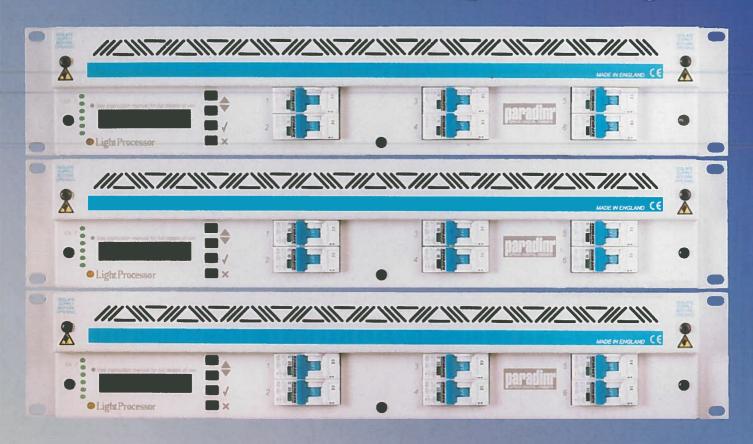
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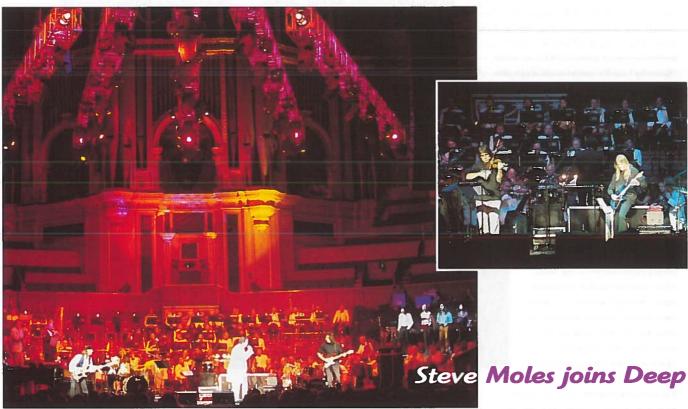
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## Wit & Wisdom



ive years ago I went to see Deep Purple in concert at the NEC for this magazine. A very dull show it was too, most band members indulged in lengthy solo spots - the remainder leaving the stage several times - a move that led one to believe they were all suffering from some mysterious bladder infection. Blackmore's frequent forays into guitarbased egoism were acceptable, Lord's keyboard excursions lacked sparkle to say the least, but the pedestrian drum solo of Pace (surely an oxymoron if ever there was one) was of such overwhelming mundanity that the very fabric of the building groaned. So it was that on this occasion I approached the portals of the RAH with some trepidation.

Happily the evening bore no resemblance to five years ago; the stage teamed with the great and good from seventies power rock, the orchestra beamed throughout the performance and the crowd cheered - frequently. Everybody had a good time. The informality began early: "We dedicate the opening piece to Sir Malcolm Arnold, who sadly is too weak to join us tonight," intoned the conductor. (Sir Malcolm conducted the Purp's when they performed Lord's concerto for group and orchestra in '69.) And then the orchestra alone proceeded to entertain us with a witty piece penned by Sir



TOURING

Purple for an informal night at the RAH and boogies with Status Quo at the Manchester Apollo

Malcolm himself featuring a (figuratively speaking) drunken oboist. As it ended, there was a moment's hesitancy from the crowd - we all held our breath - then they roared, and the orchestra chuckled too. The stage might have been littered with tuxedos, but this was not a night for stuffed shirts.

For designer Louis Ball (and indeed for all concerned in the production of this show) time was the most precious commodity. "The show is being recorded for TV on the second night," he explained. "But with no rehearsals at all I've lit the show as I would for TV on both nights." Ball was definitely up against it with this one. Load-in commenced on Friday morning at 2am and the band and orchestra rehearsed all that day until 10pm. "You can't have anyone above on the trusses if the band are on stage. That's why I haven't used any conventional lighting - I'd never have had the time to focus. Even so, with an orchestral show I couldn't really sit there

programming lots of cues with the moving lights. Imposing lamp noise on them at a time when concentration on the job in hand was essential wouldn't have been fair." Naturally, he'd taken the precaution to WYSIWYG at least some of what he intended: "But there was no point in putting in lots of cues. No-one had ever heard this show before, so I just created all my pre-set focuses."

Ball originally intended a simple configuration of seven finger trusses in a fan centred upstage on the organ, with a single truss across the front stage edge - a fast and easy to rig design. As it transpired, the two outer fingers had to be dropped: "Even so I chose not to cram all the extra moving lights on to the remaining trusses. LSD had given us such a good deal because it's a charity show, and in truth it wouldn't have made any sense." Nonetheless, he still had 64 Washlights and 46 Icons, not a small system by any standards. "Plus, we did

put in 48 singles and 18 six-lamp bars of Pars to light the promenade gallery architecture, and three Molemags on the finger ends for audience light, just in case the cameras wanted it."

With just three hours programming on Friday night - "There's no point going on throughout the night. You just end up a wreck for the show on the night," - Ball managed to rouse himself early Saturday morning, after just five hours sleep, and gained another three hours before rehearsals commenced once more. "Basically I used a carpet wash across the orchestra, mainly white - something John Lord asked for. I said to him 'John, when you come on, the audience will still expect to see some sort of a show' and he agreed."

sort of a show' and he agreed." Ball, it should be noted, has worked for Purple on and off since 1983, so his rapport with the band is good. He still restricted himself to working the front edge of stage where most of the 'electric' performers were, and threw overlaid gobo patterns onto the ornate organ detail on the back wall. Orchestra washes remained static, though a variety of colours were applied. Luckily Ball had the living cyc' of white tuxedos to work with. What was most significant were the lighting levels, stage washes were intense, and

Ball was unrestrained in his use of the architectural and audience lighting, two factors that helped lift the occasion and contributed heavily to the sustained 'party' atmosphere of the event.

Despite the

opportune

opportune

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was a somewhat

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the sale of a V
Dosc system to

infre

Wigwam.

The audio side was a massive undertaking by Electrotec/Audiolease (E/A). Five consoles between house and stage, Midas and Yamaha sharing the honours. Rob Hodgkinson had the awkward task of controlling a stage environment with a band who eschew in-ear systems, while in the house, long-time Purple FOH engineer Moray McMillin was more fortunate. "Although I'm using two desks for the band and all the guests, I'm lucky to have Sharif el Barbieri with me to mix the orchestra." Barbieri hails from Germany and is a not infrequent visitor to these pages as a systems man for Vdosc, which E/A now supply in the

UK. "He's been my systems man on Purple for the last 18 months and I know he has a history of working with classical orchestras so he was an ideal choice." Despite the opportune presence of Barbieri, there was a somewhat poisoned atmosphere in the audio department that night and much debate flowed over the implications of the sale of a V-Dosc system to Wigwam. (Previously, in the European market at least, purchase was not permitted. The system is run under a so called 'Pool system' not unlike the old Vari\*Lite franchise). But that's another story all together. Steve Sunderland of E/A who was present that evening chose a diplomatic 'no comment', and appeared unruffled. McMillin, by contrast, thought it a mistake: "I know Lars (Brogaard, who's partnered in the V-Dosc rental support company V-Dosc UK) is fuming." We'll have to take his word on that.



McMillin's system was a typical pair of 12 cabinet vertical hangs, with six Arcs each side to handle the acute off axis seats. I have to say coverage was great, much as you experience from what has become the norm' from 'conventional' PAs, as in a big central cluster. More to the point though, was McMillin's own observation: "With the V-dosc I can sensibly do a stereo system." This could only be truly appreciated by those seated centre house in the stalls, but that would be true of an acoustic concert also, so arguably McMillin was giving a natural rendering of the room. The concert audio was characterised by space - space in Lord's scoring, pulling the band back when the orchestra needed it, and space in the electric band mix, where lower levels demanded of the circumstances allowed McMillin to open the mix and let it breathe.

It's the post-modernist in the audience. The ones who've given up on the air guitar and have gone very Damien Hirst." Quo's LD Pat Marks, now in his eleventh year, commenting on how the more partisan members of the audience now turn up with inflatable sheep and the occasional chicken.

There is an end-of-term feel to this show, and if the history books are correct, Francis Rossi once rather rashly said: "We'll retire at the end of 2000." I put this to Marks and he concurred: "Yeah, I'm retiring too." Now

Marks is no fool: besides already holding a university degree, his more diverse talents have seen him write the user manual for Avo's Diamond III desk. Will it happen? Who knows, the new album, and the band's playing style this evening, gave cause to suspect that Quo's demise may indeed be looming. Marks pointed out that having made the decision himself and set a deadline, he now felt liberated, and for the first time in many years was once again enjoying his touring. So too the band, an emphatic return to their roots having thankfully passed through the C&W MOR stage of the last few years - sees them in much rockier form. I recall working for them 20 years ago (just halfway through their career) and Rick Parfit was very much second

> fiddle to Rossi's vocals. While over the years Parfit has been unable to add any real power to his larynx, he now sings with real passion, having a quite respectable hawk for the bluesier numbers that have crept into their catalogue.

> Of course, demand being what it is, Quo will probably end up doing more come-back shows than Sinatra. Even so, it would be a shame to miss them while they're still in the revived flush of pending retirement. You've got 14 months.

House engineer Andy Taylor likes to use Audio Analysts' Aalto system, and did so for the last tour

when AA had some gear this side of the water. However, Quo's tours are short enough to preclude flying some over specifically, so this year he's using a Martin Wavefront system from Capital Sound. "Quo have been serviced for years by Capital," said Taylor.

"Even with the Aalto they provide the crew and desks. They're a great company - good people. As for the PA, there are a lot of good systems around these days, one of them is Wavefront. I'm very happy to use it, coverage is excellent."

Like the Deep Purple show, this tour is without production rehearsals, so it's lucky for Taylor that he knows most of the songs: "Except 'Matchstick Man' which they've never done in all the years I've been with them." This is their big hit from the sixties, and a song publicly detested by Rossi - maybe another clue that this is their last stretch? It's one of the few songs where Taylor finds himself obliged to add any effect, and he trowels it on with gusto - flangofest. Otherwise, this is a very honest and transparent mix. A quick glance at his desks and racks says it all. Vocal channels on his PM4000 are virtually untouched, system graphics (BSS) are similarly flat, and for Parfit and Rossi specifically, he has a Tube Tech TLA 100 and a BSS 960 each. Again, just three and four frequencies respectively receive a slight hit.

Taylor's real work is in riding the vocal channels - the wall of 4x12"s and other cabinets that span the stage demand it. So

too for Tim Franklin on monitors using the ever popular XL3. "The band are all on Garwood IEMs, and have been for five-and-half years without problem," he said. "They're the last band I ever thought would be happy with them." Some readers may recall that when last featured in this magazine, they'd only just got them, and Rossi frequently popped them out of his ears during the performance. "My only worry now is getting spares, that's why we're experimenting with a couple of Trantec units during the tour, but I suspect a load of second-hand Garwoods will come onto the market soon, so we'll probably get over it that way."

Both Franklin and Taylor use similar tools for similar reasons - Roland SDE3000s for a bit of vocal delay, SPX1000s for a touch of reverb on the drums, and not unexpectedly, there's lots of compression on vocals, bass and the Hammond organ, from a mixture of Aphex Expressors and BSS 404s and

"Nothing flashy or too high-tech," said Franklin, possibly making many green with envy, and mildly offending a few manufacturers, but he does nicely evince the style. Quo, flashy? Never.

Although Marks may be contemplating long summers with JR Hartley and a hat full of flies, he's lost none of his vigour for lighting. It can't be easy finding new things to do with a largely unchanging song palette year after year, but

he does. Supplied by LSD, the rig is devoid of their own moving hardware, instead being lightly splattered with Martin Mac 500s. "I put Studio Colors in the original design as well, but Peter Hillier, the band's production manager for as many years as Marks has been LD, put his pen right through them. And I lost four Macs as well." He has just 12.

He also has relatively few conventional lamps, two half ovals of truss enclose the back of stage with just a single row of Pars on each. Add in front truss and a three-spoke hub above centre stage and there's barely 100 lamps. But he's clever; although arranged in typical fans (the power rock focus that's so much of a cliché that it's now indispensable) he avoids ACLs and uses all Pars. "I put #1 and #2 bulbs upstage, and mainly #5s for the front." Simple enough, he still gets his 'fan' effect from the narrower bulbs - if not so well defined -

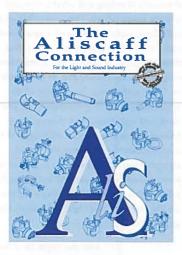


but he also gets a heck of a lot more light coverage with it, which is how he gets away with so few lamps.

Although he has a fair budget for effects lighting – Howie Battens under the risers shining up onto the all-white

back-line, Diversitronic 3000 strobes and a bunch of Optikinetics Solar 575s for oil wheel effect on Matchstick Man - it's the straightforward stuff that makes this show.

Naturally, Marks uses a Diamond III, and keeps it busy. An endless variety of saturated beams from the rear with lots of open white. Occasional, but not gratuitous use of Mac effects - using them rather to give variety to the saturated beams - what he does is mainly play it straight. If there's any one thing he needs, it's to be able to persuade the Bass player John Edwards (Rhino to the aficionados, apparently) to wear a white shirt on stage. In the absence of followspots he's a dark shadow on an otherwise well-lit stage. As fun to watch as they are to listen to live, what you see is what you get. Bugger the sheep, let's boogie.



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## Asleep in the Stalls...

y last day on the Edinburgh
Fringe this year - the last day, in
fact, the English Bank Holiday
Monday - didn't start too well . I was
turned away from the morning show. I'd
looked in the night before at this new
venue to book a couple of seats for an

Best line at Edinburgh Festival

"You've shagged me, you've fucked me mam, and you've wanked off me dad. Thank Christ I cooked the tortoise!"

overseas production
that had been creating
a bit of a stir, and met
the usual sullen
American intern on the
box office. She did
manage to summon
enough energy to call
the house manager,
who explained that
they were sold out but
I could go on the
waiting list.

SO I PHONED the next morning to find that I was still on the waiting list, but there would 'almost certainly' be cancellations. A milling crowd, with and without tickets, had submerged the unfortunate intern, and a sneering young manager, senior to the last one, told me that I had no chance of getting in. So I interviewed him about the success of his venue. "Oh yes," he grinned, "We've done very well. It's our second year, and we say it takes a year to sort out the bugs, another to get known and by the third you've arrived. So we're ahead of schedule." Resisting the urge to tell him that bumptious prats don't usually maintain their success rate (unless they're stand-up comics), I suggested mildly that it might be a good idea to keep the odd couple of house seats, even for sell-out shows, in case someone came along who could publicise a show worldwide. "Well, it is the last show of the run." So, over to the somewhat more efficient Pleasance to pick up some

photographs and book for a comedy show to round off my stay. There I bump into the managing director of The Stage, who looks none the worse for that newspaper's splendid party at the Traverse the night before, and I suspect rather a lot of further celebration afterwards.

THE MISSING SHOW means that, unusually, there is time for lunch. A short stagger then, to Assembly for the big hit Cookin', four very jolly Koreans who use the preparation of a restaurant meal as an excuse for drumming and dancing their way around a kitchen in a manner that suggests Stomp-meets-Arnold-Wesker. Wild applause from a full house, who appreciate a well balanced sound system in the far from acoustically easy Ballroom.

NOT A BAD HOUSE, either, in the same room half an hour later for Northern Stage's Cooking with Elvis. Bill Burdett-Coutts has got the technical, if not the financial, running of his multi-venue house in perfect order after years of practice. This year his box office passed the million pound mark for the first time, thanks to some very well-balanced programming - the best for years. The threat from the local council to take the Assembly lease away from Bill is very worrying - I doubt there's anyone else who could put Assembly so firmly on the map or run it so efficiently.

THE KOREANS left a lot of food on stage, but none of it was in evidence when Lee Hall's black comedy, also very food-oriented, began. I hope your editor will let me quote a line from Cooking with Elvis, the most outrageous I heard in all Edinburgh, when the young narrator cries to the lodger, "You've shagged me, you've fucked me mam, and you've wanked off me dad. Thank Christ I cooked the tortoise!"

TIME for capuccino and cookies in Nexus, the welcoming gay coffee bar in Broughton Street, before a visit to Café Graffitti. Pete Simpson's wonderful world music venue appears, sadly, to

be in its last year's tenancy of the magnificent former breakaway Catholic church which has been its home. The show, Fly, Fly My Sadness, links the Bulgarian women's choir, Angelite, whose shrill yet plangent voices could crack china at a hundred yards, with Huun Huur Tu (pronounced One or Two, which for all I know is what it means), the throat singers from the distant Russian republic of Tuva. On song, these lads make a noise like 10 tractors revving up. It's an hour of astonishing sounds, carried by stand mics to echo around the church's huge nave, a terrific lighting backdrop, for which an unnamed LD has supplied a simple, but very effective plot. Absolute magic.

AS WAS THE NEXT SHOW, in a completely different vein. For some years now the University's Old Quad has been the home for a series of increasingly outlandish outdoor shows and this year's took the biscuit. Turbozone are a gang of street theatre nuts from Diss in Norfolk who carry their shows around on a couple of old fire engines. Their extendable ladders and hoists are an integral part of the present production, a punk Cinderella for the Millennium, lifting sets in and out and hoisting cast members skywards for some stunning trapeze work. Stunt motorcyclists roar around at ground level and the performance is topped off with some mega-fireworks. You can check out the now almost conventional kit for shows of this kind - hand-held video cameras, shaky followspots, a blasting sound system that doesn't allow for much refinement of dialogue (a problem Turbozone solved by not having any), but offers great club sounds, here reverberating round the hallowed columns of the quad.

BACK INDOORS for the final show, The Comedy Zone, at the Pleasance. I don't do comedy - I'm a theatah person, doncha know? - but it's worth checking out what's new and funny once every Fringe. The young folk of the Comedy Zoné were evidence of a new trend, a surprising absence of four-letter words. Not a complete absence, of course, but it must have been significant that every one of them referred

to 'poo', rather than using some of the synonyms you and I (you especially, you dirty lot) might use. And they weren't talking about champagne. Highlight of the evening came when Kevin the sound operator was called on stage to tell an actual joke - stand-ups, as you will know, don't tell jokes any more, they just talk about their bodily functions and their childhood. Don't give up the night job, Kevin.

THEN IT'S OFF into the night for a few hours' kip before the next day's drive to London. There's still one queue left in the Pleasance yard, for the very last and latest show of all, starting at 2am - and blow me, isn't that the MD of The Stage at the head of it?





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## A Lizard's Tale...

L&SI spotlights
one of the
many events
that took place
in August to
celebrate the
1999 Solar





n some ways, the build-up to this summer's solar eclipse managed to dwarf the event itself

**Eclipse** 

completely - and almost every event suffered from reduced crowds.

Early predictions for up to 2 million visitors to Cornwall during 'Eclipse Week' were hastily revised to around 15% of that figure. This spelt disaster for large-scale events, and several festivals and dance events were cancelled.

Not all was doom and gloom, however. The Lizard Festival, which took place at the UK's most southerly point (and right in the path of the total eclipse according to NASA), was deemed a success by the visiting public - even though promoter Lizard Events went into receivership following a turnout of only 12,000. The team of Rob Lewis (known for his work at Megadog), Mike Blackwood of Glastonbury fame and production manager Neil O'Brien were faced with no less than five days of events, spread across two tents. The main enclosure, a 15,000 capacity two-pole tent from Kayam, was dressed by Temple Décor and, made a big difference to the event: "The combination of having the tent and a good drainage on-site was a help - even though we had rain on and off, it didn't make life difficult for anyone." O'Brien was also keen to emphasise that despite the money problems, festival-goers were treated to an almost seamless show. "Despite the fact that the event ran into financial difficulties even

before the gates opened, very few artists didn't appear as scheduled," he pointed out. "Of course, there were a few bands who were annoyed about riders not being met and we did have accommodation problems, but the main acts all played and the crews pulled together really well."

Praise for the site and the infrastructure came from The Spot Co, who provided lighting for the main and second stages. "Though we had to redesign the rig to suit the main stage (by using more ground-supported trussing), the site was great and the power (supplied by Goffer) was rock-solid," remarked Mick Scullion. "There was also a lot of trackway laid down which helped enormously." When asked about the financial situation at the festival, Scullion was philosophical: "Our policy was that we would be the last to pull out - we'd set up for the main acts and I'm glad we stayed - on the last night the main tent was packed. I was sorry that the promoter overstretched himself, but he wasn't helped by the restrictions put in place by the local Council and police."

The Spot Co's two rigs reflected the different natures of the acts: a higher generic count for the main live music stage, with a predominance of moving lights and UV/strobe in the second, dance-orientated tent. Control for each stage was provided by a Wholehog, with 144 Pars, 12 Studio Colors, 16 Cyberlights, eight Source Fours and a smattering of other effects on the main stage. For the dance tent, 16 MACs, 11 UV guns and six Deathstars were supplemented by 48 Par and Floor cans.

Steve Sunderland of Electrotec was on site to oversee the audio side of the two main stages at the Lizard Festival. "The promoters were very ambitious and had worked very hard to give the punters a good show," he affirmed. "The end result was very interesting - a lot like Glastonbury 20 years ago. There was every fringe thing you could imagine. Overall, there must have been 20 different sound systems on site, plus a funfair - even the bars had their own music." Environmental Health had set a limit of 15dBA above background for the nearest residential property (about 2kms away), with an LEQ of 15 minutes. This, said Sunderland, presented some problems, where the cumulative effect of the various sound systems was compounded by the 11pm-to-dawn DJ sets on Saturday and Sunday nights. The Electrotec systems used the company's own A2 and Lab2 systems for the main and second stages respectively, with Crest QSC amplification. Consoles were a mixture of Midas XL3 and Yamaha PM4000. L-Acoustics ARCS delays were planned for the main stage, but in view of the reduced attendance were not needed.

Though the Lizard Festival, with an estimated gate of around 50% of the licensed capacity, fared better than many, numbers were still very disappointing. Measures taken to avoid traffic and crowd control problems were blamed by many at the Lizard Festival for the poor turnout. The refusal of Cornwall Council to allow on-the-gate ticket sales and the forecasts of impassable roads may well have deterred many from making the trip to the West Country - and rumours of the festival's cancellation

(including, apparently, notices on roadside Festival posters) certainly added to the confusion. The unpredictability of the English weather meant that the core reason for journeying to Cornwall was always in doubt though, as Steve Sunderland explains, those who did make it were rewarded with a nearperfect eclipse: "It had been cloudy all morning, but right at the moment when the eclipse went 'total', the sky cleared and we had the most stunning view. It was like the biggest spotlight you've ever seen in your life. And then to see the shadow race across the sea at 1,000 miles an hour was amazing."



Above, the livereality.com crew (l-r): Michael Goodden, Claire Pringle, Emma Jane Marsh, Michael Saunders, Kevin Allington and Craig Griffith.

Right, the main stage at the festival.

For those who didn't - or couldn't - make it to Cornwall, the Internet provided an alternative way to enjoy the festivities, thanks to Aurora Interactive's 'livereality.com' Internet broadcasting service. Kevin Allington of Aurora described the set-up that provided a multiview link to the Lizard: "We came in with a full outside broadcast unit - 10 live cameras and some roving units that would cover a specific event, then return to be edited and sent out.

We also had access to the live feed from ITN (a camera in an RAF Hercules aircraft circling at

10,000 metres)."

Eschewing traditional broadcast technology, Aurora used 380-line fixedposition micro cameras around the site, which provided high enough resolution for the limited Webcast on-screen viewing areas. Allington highlighted one key advantage of this kind of miniature device: "These cameras enabled us to install equipment no larger than a matchbox into

the lighting rigs and on the stage, so we were able to locate them where other standard cameras would never have been allowed." The cameras were then connected to Aurora's broadcast codecs, which encoded the signal down standard four-core telephone cable. A receiver at the other end then returned the signal to BNC with stereo sound. Allington claims that this system enables the company to send broadcast-quality sound over distances in excess of 700 metres without any loss of quality. In addition to the feeds provided by each camera, a stereo feed was taken from Electrotec's FOH consoles.

Having been converted using Winnov Videum StreamEngines in Aurora's OB facility on site. the video and audio signals were despatched via a Cisco 4700 Router over 32 channels of ISDN direct into a Sun Microsystems server in Telehouse, London. The primary streams were encoded to suit subscribers' needs - allowing for 28.8k and 56k modems, single and dual ISDN links at up to 25 frames per second with stereo audio. These encoded streams were picked up off the Sun server by a Real Splitter

> located in the same rack and also by Real Splitters in Seattle where the international streams were transmitted via the **RBN** (Real Broadcast Network).

> The huge amount of work that was put into the Lizard Festival webcast, said Allington, was part of a longerterm strategy. "Now we are able to provide

the same sort of service to other events promoters," he pointed out. "In fact, people are talking about setting up events that stretch across the live and webcast media." The Internet broadcast was deemed a great success, with a total of 4.3 million hits over the four days, providing Allington and the team at Aurora Interactive with a perfect launch for their new service.

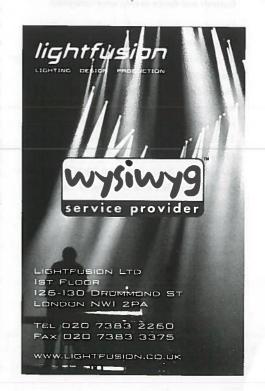
Neil O'Brien hopes that the Lizard Festival will be repeated, and that commercial lessons will be learned from this year's event. "The fact that the Festival went on for so long meant a big difference in costs. Even on paper the costs were horrendous. I believe, though, that it has the makings of a good festival - and there is definitely a market for an event like this in Cornwall." Final mention and a big vote of thanks from the entire crew goes to the gentleman who toured the backstage area with a backpack full of fresh coffee - with a brandy top-up for those who needed it!

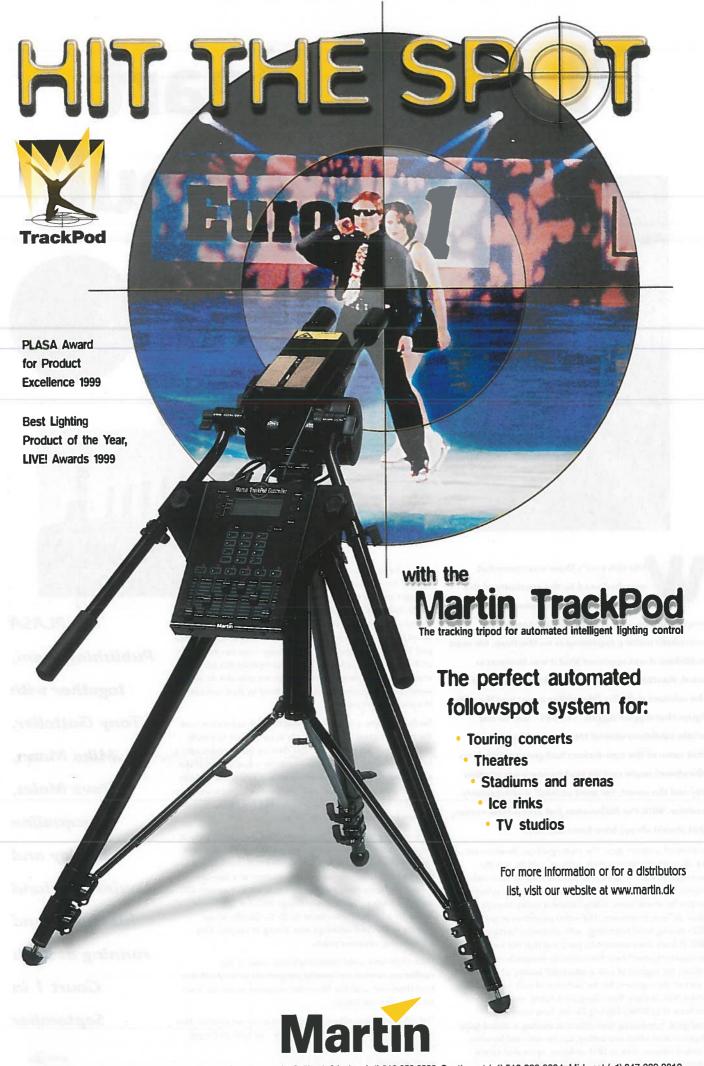
photos: Aurora Ltd



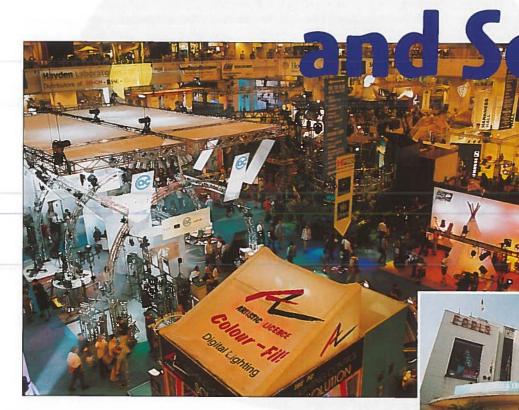


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# PLASA's Heart





hile this year's Show was somewhat overshadowed by the proximity of the demise of Glantre Engineering, emphasised by several of the better known individuals making appearances on the floor, for most exhibitors it was apparent that it was business as usual. Another record-breaking Show in terms of all the relevant statistics (the visitor count was the only figure that dipped slightly -13,574 - but on the whole exhibitors viewed this as a positive, pleased that some of the tyre-kickers had gone to kick tyres elsewhere) made certain that tomorrow is another day and the mood, for most at least, was extremely positive. With the Millennium just around the corner, that should always have been the case.

In terms of quantum steps, the most significant development at the Show on the lighting front, without a doubt, was the prototype of LSD's Icon-M, the result of their Medusa coded project. The merging of light and video, forecast by industry pundits for several years, finally became a reality through the fusion of Texas Instruments' DLP video projection engine and LSD's moving head technology, with substantial backing from PRG. (I think it is important to point out that this kind of development would have been virtually impossible to achieve without the support of such a substantial backer, which in itself is part of the argument for the existence of such a grouping). Where Nick Jackson, Steve Terry, John Lobel, and the rest of the team at LSD/PRG Lighting Group, have been very intelligent in restricting their efforts to creating a 'virtual gobo' projector from which any pattern can be extracted from the standard libraries, such as DHA or Rosco, or created by the lighting designer in computer graphics. Brilliantl

As a prototype, Icon-M was not entered for an award this year, though I am sure it will carry off all the laurels at LDI provided it is

a production item by November. However, the well-deserved award winners will be pleased to have had their efforts over the past 12 months recognised by the industry - you can find them all in the awards supplement which accompanies this issue. It is important to remember that the judges are only able to give an award to those products which are entered by their companies, this year some 54 products.

For the first time a charge was levied for each application, and the proceeds given to charity, partly in an attempt to ensure that all entries are serious and that they are real products with a future. The awards are not intended to be a cynical part of the manufacturer's market research process and efforts are made to exclude what the American's call 'vapourware'. Visitors were also invited to vote in this process this year, and it is intended that this can be expanded at future Shows.

Most of the gossip at the Show surrounded the current state of the injunctions against Martin's Mac products in the USA, and the news that Clay Paky and Coemar had both been served with warning notices for alleged infringement of a Vari-Lite patent. The aprés-show programme was as full as ever with ETC and High End's parties at Tower Bridge, PRG's at The Round House for a riotous performance by De La Guarda, to say nothing of PLASA Publishing's own shindig at Langan's Coq d'Or, scoring maximum points.

Since there were some interesting points raised in the conference, seminar and training programmes we've decided to hold these over until the November magazine so we can cover the issues in more detail.

The following pages offer the most comprehensive armchair tour of the PLASA Show that we can provide – sit back and enjoy the ride.

**Tony Gottelier** 

The PLASA
Publishing team,
together with
Tony Gottelier,
Mike Mann,
Steve Moles,
Jacqueline
Molloy and
Louise Stickland
hit the ground
running at Earls
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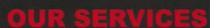
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### **AUDIO**

Anyone interested in protecting their equipment would not have missed the new products shown on the Adam Hall stand. The existing, well-known selection of flightcase extrusions and fittings was bolstered by the addition of a range of black butterfly catches for those

butterfly catches for those
who care about their on-the-road image. Useful new
19" products included coloured rack panels and
CD/DAT holders.

Adastra Electronics, recently having moved from Watford to Manchester, was making a big impression at its first exhibition since becoming part of Skytronics UK. Various prototype products were being reviewed, prior to the re-launch of the company's catalogue early in the new year.

AKG (to be found on the Arbiter stand) announced the launch of two new wireless products, both of which are available for UHF and VHF frequencies. The WMS81 and WMS61 are cost-effective modular systems with professional features such as battery level indication on the receivers, while the WLS8060/WLS6060 'MAX' are UHF and VHF versions of the company's new wireless, self-powered loudspeaker. Applications for the latter products can range from educational establishments to sports facilities where temporary sound reinforcement is required. Conferencing was also on the agenda, with the launch of the CS-1 conference system, which is capable of handling up to 100 microphone stations using just one base station.

Two major new products were launched by Allen & Heath, indicating a diversification of the company's range. The ML-5000 is the new A&H flagship console, and will be available in early 2000. The VCA-equipped console is aimed at mid-range touring and installations, and may be instantly configured to suit FOH or monitor applications. Also attracting interest on the stand was the company's new Xone:464 club installation console



and the Xone:62 professional DJ mixer. This is A&H's debut in the world of club mixers and they had DJ and sound engineer Andy Rigby-Jones on hand to demonstrate.

Amina Technologies is a new name to PLASA visitors, but the company's range of

NXT-based loudspeaker picture panels, banner panels, ceiling tiles and vandal-proof enclosures received an enthusiastic reception. Also on offer, and of interest to many installers, is the company's bespoke service, which allows the revolutionary NXT flat-panel concept to be incorporated into interior design projects. Distributor CIE Audio was also showing products from Chiayo, Wharfedale and Switchcraft.

Ampetronic, while busy moving to new premises, was showing two new induction-loop drivers, the 7A ILD252 and the ILD15BB, which has been specially designed for installation in lifts. Andolite were targeting new customers and promoting several new products which included updates to their existing Rackbox range. Also on show was a new range of audio and control socket boxes.

On the Arbiter stand JBL launched the SR-X install system aimed at the portable and high-end PA market. A redesign of the SR-A, the newer boxes use 13 instead of 9 ply timber for warmer resonance characteristics



with all boxes designed with flying fittings as standard. Also on show from JBL was the EON 1500, a lower price 15" speaker.

The C Audio Pulse range of amplifiers were launched at Frankfurt earlier this year, but this was their first showing at PLASA. This lightweight, high-powered range of amps

combines a low-tech networking card for simple zoning installations. Finally from Arbiter, the dbx 12 Series EQ, essentially a lower price version of the existing 20 Series, but without built-in limiting.

The ARX range of pro-audio equipment from Australia was on show for the first time, sharing the Connectronics stand. The SPL12 and SPL18 self-powered speakers are further examples of the increasing trend towards integrated, powered systems. Both use the unique 'CoolPort' system, which uses the air generated by the piston action of the speaker cone to pump air over the amplifier heat exchanger. This, according to the company, means that the harder the system is driven, the more

efficiently the heat exchanger operates.

Italian
amplifier/loudspeaker
manufacturer Paso was
being represented by
newly-appointed
distributor for the UK and
Eire, Audio Design
Services, and the company
was also promoting its

own range of aerobics and educational systems. The Lingualink range of controller and receiver stations is designed for educational use and may be expanded up to 60 trainee stations. On a philanthropic note, Audio Design Services recently pledged to donate 2.5% of all orders over £200 in value supplied to any educational establishment to the Sargent Cancer Care For Children.

Audio Partnership were at PLASA for the first time, showing their new and highly portable DJ2000 system, and were also on the look-out for overseas distributors. The DJ2000 integrates everything a DJ needs in one box and retails for under £500. They reported a massive response to the product and are determined to return next year in the hubbub of the ground floor.

Audio-Technica's new offerings included the AT4047

large-diaphragm studio condenser and the AT849 stereo boundary mic, which, says new recruit Justin Frost, is highly suitable for sports coverage and other applications where a discrete, robust stereo mic is required.

Audio Time from Italy were at PLASA 99 for

the first time in their own right - having been at previous shows via their distributors. Stefano Bossoli feels that PLASA is "One of the most important gathering points in Europe for business." The company were showing a selection of their range of DJ mixers, including the new real digital audio mixer with beat counter - the DJBeat2/counter which is also available in a four-channel version.

The world launch of the miniConductor was held on the Autograph Sales stand. This product is a compact, universal control system. The company was also recently appointed sole UK distributor for Dutch manufacturer Duran Audio, whose Intellivox line array is an advance on the conventional column loudspeaker used for speech and background music. Its built-in digital processing and amplification were key to it winning a Product Excellence Award.

AWE made a big visual impression on the Top Deck, with a range of plasma screens from Pioneer and Philips on show from 40" to 50", and a 100" rear-projection system. AWE's Paul Mott believes that plasma displays are now beginning to make their mark on the industry. "It used to be the case that designers of control software, for example, would base a program around a 14" screen, but now that big-screen technology has become plug and play, applications are appearing that make good use of the larger screens."

Clearly proud of its involvement in the recent Oxford Circus voice fire system for London Underground, Baldwin Boxall Communications was debuting the five-input 120W LV120 Euroamp – designed (as the name might suggest) for the European single-voltage market.

BBM/Trantec's new S4000F UHF wireless microphone system offers DJs and mobile system users the chance to use UHF technology without the worry of licensing.

since the system may be set to one of the four de-regulated UHF UK frequencies. "This is a great starter-point system, that costs little more than the equivalent VHF equipment, but has all the benefits that UHF has to offer," said Chris Gilbert.

Behringer's new product divisions were seen to be bearing fruit only months after being conceived, with new guitar amplifier and

studio monitor products being shown for the first time in the UK.

It turned out that Beyerdynamic's celebration of '105 years in audio' actually reflected the 75th anniversary of the German parent company and the 30th birthday of its British offspring. In product terms, the big news for the company was the launch of its MCW wireless conferencing system. Managing director John Midgley pointed out the applications for a wire-free environment: "In venues where conferences have to be arranged instantly, not having to worry about cabling the microphones is a great bonus; the benefits for buildings of an architecturally sensitive nature are clear. This is an area where we see huge growth potential."

Exhibiting for the first time at PLASA, US pro audio

manufacturer Biamp Systems elected to use the show as a forum to discuss applications for the company's growing range of installation products. Ian Hodgkinson, European sales manager, added: "These days, the products themselves are becoming less important – it's the system solution that people need."



Top to bottom:

Amina Technologies' Richard Newlove and CIE's Chris Edwards with NXT Technology

Allen & Heath's Andy Rigby-Jones with the new Xone club mixer.

Michael Leaver and Harold Smart of Adastra with a prototype of the new 120W CD amplifier Adam Hall's Mark Oldroyd.

Adam Hall's Mark Oldroyd, Lisa Gair and Ian Gair with the Fane Colossus and Crescendo On show were the VRAM automatic mixer and MSP22e system processor, which may be configured to offer the optimum level of user control.

The Wenger Diva acoustic panels were the focus point on the Black Cat Music/Harlequin stand, along with the highly practical and innovative Air Transporter which makes the task of lifting and setting the panels a breeze for a one person crew. The Diva panels are designed to create an acoustic shell in any space and come in a huge range of finishes, configurations and colours.

Despite being kept under wraps until the day of the show, BSS Audio's new FDS-366 Omnidrive Compact Plus has already been incorporated into the Sound Academy in Ipswich. With three inputs, six outputs and a 96kHz sample rate, the company is confident that the Compact Plus will repeat the success of the original

Camco, through UK distributor Showcom Audio, enjoyed a very successful PLASA 99. The unveiling of the new Vortex series of amplifiers was met with a huge amount of interest and significant orders, according to

Showcom marketing director Richard Willis. Camco also exhibited its popular DX series along with WINCAIT, Camco's computer control software.

Cardiff M Disco Services introduced the Contractor full range speaker - part of the Genesis series of cabinets manufactured

by Soundlite Industries in Birmingham and unique to the company.

Celestion featured two new products for PLASA: the Cxi range features three cabinets designed specifically for clubs. This is a departure for Celestion, who previously have restricted themselves to recommending their PA-style products for club use. The Cxi range features two two-way passive cabinets, both with

Celestion's 1" low distortion compression driver mounted on its own design NoBell horn, and a dedicated horn-loaded single 18" high energy sub cabinet. As a follow-on from last year, Celestion have extended the OX range by producing a self-powered version of all the cabinets under the Qxa banner ('a' for amplified).

The 'small is beautiful' theme was being promoted amplifier

manufacturer Chevin Research - and to prove the point, the company was showing new additions to the A and M series, topped off by the M2K, which delivers an impressive 1000W per channel into two ohms from a 1U/8kg package. Chevin's Daniel Baxter outlined one of the key features of this

MI/installation range: "All the M-series amplifiers have variable-speed turbo fans - and uniquely, these are controlled by the audio signal level present in the amp, rather than by the

temperature. In this way, the amp never needs to get hot."

Citronic's Marc Wilson was one of the many who passed comment about the ever-increasing quality of visitors and quantity of trade. The company launched their MSX digital BPM mixer which was very well received. It digitally connects to the new PD1 direct drive turntables or the renowned CD2 CD players and gives an instant BPM update. New Citronic zoning products included

the MM1 background mic and music mixer

Cloud Electronics showed their range of zone mixing products and awardwinning CXS mixer, signal processing equipment and power amplifiers. It was the UK debut for their Z4 and Z8 zone mixers. Cloud reported a hectic show, commenting that the visitors became more professional every year.

Concert Systems are an install, sales and hire company based near

Manchester. First timers at PLASA, the CS stand showed what a well-established dealer they are with products from many leading audio manufacturers - Crown, Nexo, BSS and EAW to name but four, CS also have their own design PA system, the CS range, built for them under licence by Out Board.

Connectronics, now under new ownership, was displaying its ever-expanding range of specialist audio

> cables, including the successful Flow and Flex ranges, designed for installation and mobile use respectively.

Like many other manufacturers, Court Acoustic Systems took the opportunity to expand its range of

products - this time with the flagship Ramjet system, but also with a new brand. Air Industries' Stagemaster is a compact, portable reinforcement system that, says designer Stephen Court, fits neatly into the back of a car. "We were pleasantly surprised at the show that this little system generated almost as much interest as the top-of-the range Ramjet," commented Court.

Top to bottom

Baldwin Boxall

Autograph Sales' Graham

Paddon (centre) with new

recruits Roger Harpum (left)

and Andrew Latham (right)

David Hopkins of Audio Design

Services with Terry Baldwin of

Tony Wright of Audio Partnership

AWE Europe's Stuart Tickle

Cronshaw Warren returned to PLASA after a three-year break. The company had previously concentrated on the installation business, but this time they were looking for distribution outlets in their three specialist areas. These are sound with Zeck Audio products from Germany, lighting with JB Lighting including the VaryScan, and the new VaryColor 6 small moving head luminaires, and video. The latter featured their new fully-programmable Vision Peg digital video and audio presentation system, which stores all video and audio sources on a hard drive.

Dare Professional Audio/Deco Leisure were showing the very distinctive Eclipse speakers. These optimally-shaped speakers offer superb sound quality, are available in any Pantone colour and are suitable for installations from a small café to a large dancefloor. Also on the stand was the standard Micro range and the larger TX range.

David King Technologies were celebrating the commercial fusion of DKT and Hans Freytag to form











### SHOW BRIEFINGS

5 Star Cases arrived at PLASA with a host of new designs aimed specifically at the retail sector, plus there was also an updated version of their popular Eurotrucker road trunk. In a world where security is becoming increasingly important, ACL Camcon have at least one of the answers, stocking as they do a range of CCTV systems, from a simple single camera set-up to a more comprehensive system. ADDA Super Cases are a major supplier of cases to the leisure and entertainment industries and this year have lent their support to the Coca Cola UK Disc Jockey of the Year competition, the finals of which take place at London's Equinox club in London in November. Since starting in 1994, Czech truss manufacturers Alur System Truss have added both Heavy Duty and Curved Truss systems to their Standard Alur system. Amex were at PLASA with their range of 19" rack products and custombuilt panels and cases. APS marked the company's tenth anniversary with the release of Version 3 of their established Rental Management System (RMS) tracking software.

German manufacturers B&K Braun had a host of lighting and sound equipment. Black Box AV is a manufacturer of low-cost CD and tape music delivery systems, amplifiers and accessories. Their Eclipse range of video distribution amps and Envoy digital messaging systems were both Manufacturing had new fully adjustable LCD Projector Mounts suitable for use with virtually all LCD projectors and a new electric projection screen. Buster Cases was established in 1991 and specialises in custom-built cases - the company has recently launched its 2000 series of

continued on page 80

Top to bottom

Trantec/BBM's Chris Gilbert gets goggle-eyed

Ken Morrison of beyerdynamic with Mike Dervan and Derrick Lusted of Dervan Sound with a range of radio mic systems

BSS Audio's MD David Karlin presents distributors Willy Guenther and Roland Bricchi of Switzerland's WA Guenther Audio Systems with an Outstanding Achievement Award. The company were one of four distributors recognised by BSS at a pre-show party

Celestion's Richard Wear and Richard Vivian demonstrate the CXi range of loudspeakers

> Biamp's Ian Hodgkinson and Peter Longhawn

CTG, which specialises in convergence technology. Their controller - The Boardroom - is a single unit that provides complete control of all boardroom, home theatre and presentation systems. Deltec Loudspeakers was continuing its repositioning as a brand in its own right, capitalising on many years spent supplying OEM products to the trade.

Denon's recently-introduced DN-M991R continuous duty MD cart recorder/player and DN-C630 single CD player were on display downstairs on the first of two Hayden Labs stands, alongside Rane's TTM52 Mojo

Performance Mixer, which is the budget-minded version of the popular TTM 54 as used by DJ Kilmore of Incubus.

Norwegian loudspeaker manufacturer DNH was showing its new cabinet speakers, the unidirectional CP-6/T and bi-directional CP-66/T, both of which are 6W units designed for simple installation with or without transformer. UK subsidiary DNH World-Wide Ltd points out that as DNH manufactures almost all the components of its speaker products, non-standard requirements such as special colour, special transformers and different cable entries can be readily supplied.

The vast range of products from Eagle was further expanded at PLASA by the addition of the Elite System of

amplification products. With 10 mixer amps and four slave amplifiers in the range, the Elite system may be user-configured to provide a range of public address functions, such as lock-outs, priority switching and tone generation. For museum guides and other portable

applications, the P660 battery-powered waistband amplifier provides reinforcement on the move.

There were two new products from Ecler, notably their new PA modular control system, Enviro. A 100v line system, the Enviro is based around a 4U enclosure with a host of plug-in modules giving such features as console and tone control, BGM, a range of three different amplifier options, alarm and alerts, microphone input – everything for a composite install system. The HAK 320 is a beast of a different persuasion. A simple two-input mixer, the HAK has three-band EQ with +10dB boost, plus expected features like Hamster, Slope, Crossfade, and cut switches.

Edirol promote Roland products. With a specific brief, they devote their attentions to all the Roland USB computer-based products Roland manufacture. Mainly for music, though video plays an increasing part, Edirol had just one or two examples of what's available

from this huge range - the V5 Video and A6 Audio Station.

Electrix (distributed by SCV) introduced three new signal processing products aimed at remixers, DJs, electronic musicians and producers - the FilterFactory analogue high order filter, which won an ETA Award on the Sunday night, the WarpFactory vocoder



and the Mo-FX multi effects box. Electrix also received a commendation from PLASA for their innovative stand - a spectacular metallic construction that was literally a booth rolled out of a large flightcasel

Elektroniikkakeskus/Scandinavian Leisure from Finland returned to PLASA for their second year. They were showing their very neat

Music Box DJ 2010 mixing tool which is essentially a PC which acts as a CD player and can be networked to any number of other PCs to access, trigger and manipulate

additional audio sources. Not surprisingly, it picked up a Product Excellence award and the company were so impressed with the show that they intend to go for a pitch downstairs next year.



plethora of products, including five new Titan T-series DJ power amplifiers and four speakers, and the Musicon VF1 complete 8kW FOH touring and club PA system. They had top London DJ Rad Rice performing live on the stand which was also seen via netcast for two hours each day.

The launch of the PSD 3003 2" compression driver from Eminence was good news for loudspeaker system designers. The 150W unit has a sensitivity of 110dB (1W@1m) and uses a 3" voice-coil and fibre-reinforced phenolic diaphragm, which has been specially formulated to avoid internal resonance.

Users of the increasingly common 8-pin Speakon were pleased to see that EMO Systems has developed a compatible cable checker for busy system engineers. The company was also keen to point out its support for Tony Blair's anti-crime drive – the cable tester may be bolted securely to a bench or flightcase to prevent untimely removal! Also on the stand was a wide range of 16A and 32A mains distribution panels.



Not usally to be found in the audio section of a show report, we've added in ESP (UK) because one of the key talking points of the stand this year was a recent agreement with Court Acoustics to handle their range of speakers and Ram Audio

amplifiers. (They were also showing a full range of Mobil-Tech's stands and trussing). David Stressing was pleased with the fact that the company are now in a strong position to offer complete production services with the inclusion of

the new audio products they now represent.

Expotus have a 30-year history specialising in exporting pro audio into the Far East. Now they're turning their attention West, kicking off with two new EQ units from Audient. The company have recently opened an office in Germany and are looking for companies with new



product who require distribution assistance.

Federal Signal Ltd was showing a range of public address and voice alarm products from the likes of Extek, Millbank, GL3 and Delta Sound, who have all recently been acquired by the company as part of its push to

provide a complete systems solution.

Another international speaker manufacturer, Fohhn, were back at PLASA for the second time. Principally a

music install company, though they also provide rental gear, Fohhn were demonstrating a new selfpowered unit, the EasyPort FP2. Battery-powered with built-in mixer and its own radio mic, this is an instant 'set-up and go' kit for fêtes, fairs, and any low-key public event that requires modest amplification.

Formula Sound enjoyed plenty of interest in their Shadow back-up mixer. With the impending Millennium, there's a degree of concern about what might happen if a major fault develops in the

sound system at midnight on 31st December 1999. The Shadow is a dedicated six-channel mixer which is activated at the flick of a switch and retails for under £400 - not a bad insurance premium under the circumstances

The Fuzion stand at this year's show contained another newcomer to PLASA - US manufacturer Madahcom. The Madahcom 'Waves' system is a wide-area RF audio

and data communications system that could, says Fuzion sales director Paul Ward, have a great impact on installation design. "We're always looking for innovative products to take on, and we believe that this is a great problem-solving tool. We've canvassed reaction at the show and have had very positive feedback from our customer base."

Also under the Fuzion wing was Innovason, with the Sensory Live digital console and routing system. Currently in use by the BBC for outside broadcast and

> pop show work, the revolutionary Sensory Live has also been seen out and about mixing live events with SSE. Crown's new IQ-PIP card, which brings all the existing IQ monitoring and control functions onto a single card, was also on display for the first

One of the more significant sound desks to emerge at PLASA this year was the

Paragon II Monitor on the GAE stand. A multifeature desk, its main points are mic pre-amps, six-band parametric EQ, limiter/comp and gate and high and low pass filters on every channel. Up to 20 stereo outputs make it an ideal in-ear monitoring console. And for that finishing touch, all desks are hand-made. There will be a FOH equivalent in about six months time.

Gemini showed an array of new products including a very affordable anti-shock CD player, the PT2000 Mark 2 turntable with pitch bend and reverse switch, and a new range of PMX mixers. Their BPM 250 won the 'Best Mixer Under £500' category at the ETA

Hacousto International was demonstrating the Windows/PC control package for its Accent 8x8 digital

Top to bottom

C-Audio's Glen Harris (right) presents the C Audio Distributor of the Year award to Finnish distributors Ari Saarinen and Kimmo Juntilla of Lightinen Light & Sound

Sammy DeHavilland of Dare with the Eclipse range Stephen Court of Court Acoustics with the AIR system Cloud's clean-shaven Roy Millington with the debut of the Z8-zone mixer







flightcases. Bygone Times specialise in themed memorabilia and they've just about got it all from

architectural antiques to outrageous Americana.

Canford Audio launched the Intelix AVM (Audio Mixing & Video switching matrix) - this combines high quality VCA cross-point audio mixing with sophisticated video switching, software

control and 64 user presets. The company also launched its own range of In Ear Micro Monitors, alongside a range of UK displayed a range of Panasonic closed-circuit television equipment, including high speed domes and the cameras. The stand of CEEP was busy throughout the show with great interest being shown in their wide. range of high quality connectors. In their second year at PLASA, Coffing Hoists were displaying a range of hoists, wire grips and clamps. Always worth a

the company's range of UltraColour

lighting filters add a certain glow to

Ultra 2000 strobing UV system.

the proceedings. Also on show was the

First-time exhibitors David Brown Associates are the agents for a huge range of voice alarm, voice storage, products from Cameo, Penton. Communication Technology, Golding Audio and Crow Electro filling up the stand. DMC was one of the first remixing services for DJs when it started back in 1983. Since then it has grown to offer everything from magazines and merchandising to training for would-be DJs. An extensive range of club lighting effects caught the eye on the stand of DMT Hong Kong. Dynasound are the manufacturers of one of the world's largest lines of sound masking systems; the company's Privacy Solutions package integrates computer-aided acoustic design with complete design

Top to bottom Rob Blackburn and Nick McGeachin of Electrix

Peter Dyer of Tarsin Entertainments with Spencer Brooks of Marquee Audio and Paul Ward of Fuzion

David Dearden of Audient with Anne Liversidge of Expotus and the Audient ASP 8024 console

Entertainment Technology's Mark Ray with the Titan T-2400 console **Eminence MD Arthur Barnes** 

audio and processing unit specifically designed for the PA and voice alarm market. The HI/BRS basic software package offers duplicate control of all the functions seen on the

> Accent unit, whereas the HI/ARS advanced software version comes complete with graphical display and RS232/RS485 interface. Multiple ACCENT 8x8 units can be controlled from the advanced version of software.

Hayden Laboratories' impressive range of

PC-based systems was on display upstairs, featuring advanced technology from, amongst others, Rane Corporation. Through the use of a modem

and telephone lines, the RPD 1 allows remote control, programming and diagnostics of remote sites equipped with RaneWare RW 232 products, or any standard RS-232 device(s). These include the RPE 228d programmable equaliser, the RPM 26v loudspeaker

system controller, ECB 6 conferencing unit, and the VIA 10 Ethernet bridge. RW 232 products are controlled by RaneWare software, which, despite its name, is PC, rather than Mac-based!

Shure's new Beta 91 and 98D/S condenser microphones were taking pride of place on the HW International stand.

Both mics feature notable improvements from their predecessor 'SM' versions, including greater dynamic range, higher maximum SPL ratings, and heavy-duty cabling. The Beta 98D/S is a supercardioid drum-mount mic, whereas the Beta 91, like its predecessor, is a classic boundary-style

microphone, optimised for heavy bass applications like kick

Also on the stand were the new CX Series and existing PowerLight Series amplifiers from QSC, plus the QSControl system, which allows remote control and monitoring of amplifiers and other audio equipment using off-the-shelf technologies such as a Fast Ethernet-based network, the TCP/IP network protocol and Microsoft's Visual Basic. Phonic's new Powerpod 1060 takes the concept of the popular Powerpod 7 a stage further, offering eight balanced mic inputs, 10 line level inputs, built-in digital effects and three separate 200W power amplifiers.

Hz International introduced their fifth generation Nexus Series amplifiers. A new lightweight PSU makes the two channel (1kW/ch) version weigh just 11 kg, all in a 2U package. The GST range of speakers is designed for club install applications; filled with a honeycomb interior, there is virtually no discernible back cabinet resonance.

John Hornby Skewes & Co were flying high with new rigging hardware for the HK Audio R-series. The all-aluminium onepiece beams can be used as a support for flying up to five cabinets in a row, as a dolly or as a ground support for stadium



sound reinforcement. On a more modest scale, the IL series is specially designed for permanent installation, with binding posts, threaded bushes for mounting and finished in either grey or white. The first in the series is the IL 82, a compact two-way derivative of the T-Series VT 108 8"/1" cabinet. MiXX compact, self-contained 8 and 12-channel stereo powered mixers were also to be seen, as was the Scanner, a range of competitively-priced non-diversity and true diversity radio systems.

Kaifa Audio was showing PLASA visitors a wide range of

audio products built at the company's facility in Beijing and across China, including mixers, amplifiers and microphones aimed at the live and general-purpose markets. Kelsey Acoustics' past year of research into the live market's requirements yielded a range of new multipins at the show, designed in collaboration with Litton Veam. The bayonet-style circular connector is available

in sizes up to 127-pin, allowing up to 42 individually screened pair cable.

Klark Teknik announced a partnership with Stardraw for the purpose of developing products to enhance the KT brand. The initial outcome of this collaboration is the Klark Teknik remote control software which runs within the Stardraw

shell. First-time users will find it easy to navigate around the control pages, and all operating parameters of KT's DN8000 can be adjusted in real time, including EQ, compression, gating, delay, phase adjustment plus memory store and recall. Future Klark Teknik digital products will be controllable under the same shell, as will Midas and DDA consoles (check out our recent console survey for the latest developments in these consoles), enabling users to control entire systems without the headache of having to learn different control protocols and

interfaces for all their various consoles and processing. Also

on the stand was Telex/Shuttlesound and their range of pro audio products.

Kling & Freitag had on display an expanded range of two-way 'CA' loudspeakers, with the recent addition of the

CA1515. The compact enclosure is loaded with 15" and 1.5" drivers, and may be fitted with a 90 x 50 or 65 x 50 horn. The CA1515 will be available from January 2000.

L'Acoustics attracted much interest showing their new dV-DOSC cabinet. Launched at Frankfurt earlier in the year, this is a dedicated downfill cabinet for the celebrated V-DOSC PA system. One of the shortfalls of the Linear array

> system has been the sudden, out of field, experience when very close to the performance stage. Using the same Wavefront Sculpture Technology of its larger cousin, the dV looks for all the world like a scale model of the main system. With similar characteristics compressed into a smaller box, this cabinet may also lend itself to install venues.

LA Audio's DigEQ programmable equaliser/dynamics offers simultaneous 24-bit processing by dual 31 band 2/3rd octave graphic, parametric and shelving EQ, with



variable high and low pass filters, compressor/limiter and noise gate. LA claim that the DigEQ offers the power of digital signal processing with the ergonomic ease and speed of an analogue processor – each of the DigEQ's main operating modes can be accessed with a single key press.

D SYSTEMS

Lamba's stand was home to

Stanton, Kam, Next! and Cerwin Vega; the latter had a new double 18" folded horn speaker with very high SPL and sensitivity for medium to long-throw applications, and a sample of the T500 double 12" mid and compression horn - intended to be the new flagship of the Cerwin Vega range. In a break from their traditional DJ cartridge and stylus market, Stanton launched a range of professional DJ mixer products. The SK One, SK Two and SK Five two-channel mixers include smooth photo-coupler crossfader operation, fader reverse function, curve adjustment and more. Following on, will be the RM Three. One of the most innovative DJ tools to be found was the unique interface from German company Vinyl Touch, which will allow turntable control of CD source material. KAM lined up a host of new mixers - BPM Junior and Pro Mix 1 amongst them, alongside the new KAM KGA 400 - a 400W RMS power amplifier, built by Matrix exclusively for KAM and a new twin CD player. Also on stand were the two newest Millennium Series DJ mixers from Florida-based Next!. PRO-100 and Pro-80 are both four-channel stereo pre-amp mixers. Lamba's own entry into the world of background music was underlined by the introduction of Stealth - a combination of speakers and a 1U, two-channel paging/zoner amplifier (KL200).

The folks on the LMC Audio Systems stand were in celebratory mood following the announcement of the company's biggest ever project, the Lemon Tree in Aberdeen. This multi-purpose venue is equipped with a Midas Heritage 2000, Crown amplification and a BSS/XTA processing package. Other than that, LMC reported great interest at

the show, especially from overseas buyers.

Keen to promote its own brand identity, Logic System Pro Audio was exhibiting its existing CS and LS/CM bi-amp/passive ranges of cabinets. New at the show was the IS Series, a range of installation cabinets for fore/background applications,

with 6"/60W, 8"/150W, 12"/250W full-range enclosures, plus a trio of matching subwoofers.

M+D Design was demonstrating its multi-channel audio, control and monitoring system, based on a 1U chassis that is designed to take up to 10 input/output modules. These are available as single and dual units for balanced and unbalanced use and can be connected internally to interface boards for other applications. A typical example of this, says the company, is an LCD video projector where automatic control over the fan and lamp is required to ensure that the correct power up and power down sequence is adhered to.

Mach had a new addition to the Sling Shot range; the MS15x2, as its name suggests, is a twin 15" horn-loaded mid/bass cabinet

designed for use where flown bass is desired. At 1000W RMS into 80hms with controlled dispersion down to 250Hz, the M515x2 is also suitable for use in the semi-pro' touring market, fitting neatly between the M51262 (a three-way mid/high) and the dedicated sub M5118.

Marquee Audio's Spencer Brookes announced the sale of a Nexo-based system to the newly-refitted Hammersmith Palais club in West London, which re-opened on the last night of the show. The system, which was



Paul Hinkly and Chris Smith of LMC

GAE's Peter Barnard and Marcus Overath with the Optocore optical digital multicore system

Dennis Harburn of HW International (right) demonstrates the in-ear monitoring system from Shure to Simon Boote of SGB World Service



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Left, LA Audio's Julian Blyth with a range of sound reinforcement and signal processing equipment

powered by Crown and uses the IQ monitoring system, was installed by Tarsin.

Martin Audio's much-heralded Blackline range is aimed directly at the aspirant Wavefront 8 owner who can't yet afford the technology. Very much of the same genre, the Blackline series maintains the Martin 'no compromise' component ethos and build quality with flexibility of use. Hans Beier of CAV particularly liked the H3 hybrid, "suitable for use as a DJ monitor," and the F15 for similar reasons.

Matrix Audio Developments was showing its recentlyintroduced UK Power series of compact installation amplifiers, as well as

members of the M Series. STR Series and a new-look 2UA Professional series complete with stainless steel front panel.

An 'intelligent' approach to amplification was being displayed by MC2 Audio. The company's range of amps all feature microprocessor-controlled

monitoring, and accept optional 24dB/octave crossover cards that can be configured as low pass, high pass or band pass. Downloadable demo software is available

programmable mixer/zoner is now shipping. With 16 user-programmed memories, the PMZ88 can be reconfigured to provide a wide range of audio, communications and paging functions, with a combination of central and locally-available controls.

(centre), demonstrates the Heritage 3000 to Jack Pattanatabut of the Sound Systems Business Co and Chavalit Mahaviriyakul of Ten Years After Audio Mipro Electronics Below, consultants involved in from Taiwan chose PLASA 99 as the vehicle for its

the National Theatre project in Kuala Lumpur visit the Show - Marzuki Anuar (Perunding Ajz Sdn), Koh Yock Kee (Electronics and Engineering Pte Ltd), Andrew KY Lee and Lee Kar Loon (Kejuruteraan SAS Lee Choon Engineering Works)

Inset, Dave Cooper of Midas

range of Stage Line PAB trapezoidal speakers, available at highly competitive prices, a new 100W per channel amplifier and a new mixer, the MPX5 which is available in orange or gold and retails for under £50.

Hertfordshire-based manufacturer/distributor MTR was showing a range of its own electronic and acoustic

products, as well as lines from Dynamix Pro Audio and McGregor.

The re-invention of the humble BNC lug (first developed, apparently, nearly 70 years ago) was proudly announced on the Neutrik stand, with three versions available to suit a variety of locking styles. A new DMX connector for lighting control equipment manufacturers was also launched, but the low-cost ML-1 audio analyser looked set to provide a costeffective alternative to a suitcase full of test gear.



launch of a new

portable wireless

amplifier system.

Monacor UK (the

UK division of the

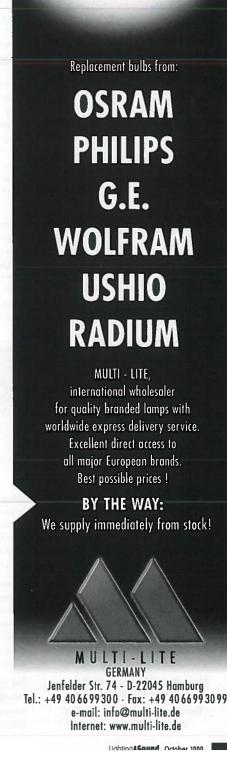
Inter Mercador

Germany) were

showing their new

group from

at mc2-audio.co.uk. Metro Audio reported that the company's PMZ88 8x8



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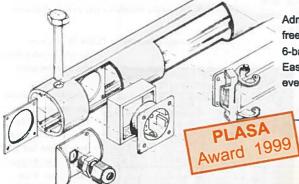
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and build services. ETA Systems came over from the States with their line of Conditioned Power Distribution Units a range designed to make life a little easier by reducing damage to electronic equipment from voltage spikes or power surges.

Formative Systems who produce club admission, ID and loyalty systems were doing their first PLASA, primarily because they felt the show represented their core market. They are working together with Clarity Retail Systems' LOYSYS database EPOS system - which links with the Formative system to track usage and on-site consumption via membership swipe cards.

Goboland manufacture an impressive range of glass gobos which they custom-design according to the client's needs. Founded some 50 years ago, Italian company Guido Ammirata has one of the most extensive ranges of lamps on offer - serving markets as diverse as film and photography, airports, theatres, clubs and hospitals.

Hirepoint Software launched a Windows 95/98/NT version of their rental software package - this multi-location/branch version, includes multi-currency support and multiple rental price lists. Horizon Music has a portfolio of products for audiophiles, ranging from audio cables through to speakers and taking in MIDI devices and microphones along the way.

Indu Electric provides the power distribution systems for the film, stage and events industries - manufactured from rubber and thermolene, these are designed for some pretty heavy duty use. International Hardware supply just about everything you could ever want in flightcase components and had an extensive range on stand. Klotz were back at PLASA with a new range

on stand. Note were back at PLASA with a new range of audio/video cables and cable systems, including new digital 1000 ohm AES/EBU or DMX cables from the Omnitrans series and a new range of video and hybrid cables.

Le Mark have a habit of producing innovative

continued on page 86

Martin Audio's managing director
David Bissett-Powell (left) and Martin
Kelly (right) with Italian distributors
Mauro Codeluppi and Stefano Rocchi
of Audiosales, who received an award
for acquiring the 5000th Wavefront 8
Compact concert loudspeaker

Ohm's Paul Adamson (right) demonstrates the Moonsub to Ken Fisher of Fisher Marine

Metro Audio's Nigel Cunningham, Sallie Marchant and Steve Gunn Bob Davies. Paul Smith, Sue Nye

Bob Davies, Paul Smith, Sue Nye and Steve Wakelin of Neutrik Numark Industries launched eight new DJ products including the CDN-32 CD player with 12 seconds of Numark anti-shock memory, the pro SM-3 three channel mixer and the CD Mix-1 CD mix station which was very well received. This unit is compact, portable and self-contained with two CD players and a DJ mixer.

Ohm had a new sub-bass cabinet on show.
Built and designed in conjunction with
Wigwam, the Moon Sub uses a single 18"
(16ohm) speaker, and is built specifically to complement
the existing Moon compact cabinet (12 compression, plus
8" mid driver).

Opus have added a new amplifier to their range. The HD5000 is a 2 x 2500W amp squeezed into just 2U. Designed specifically for driving sub range speakers, the HD5000 contains some advanced cooling and is, of course, matched to existing drivers in the Opus range. Also new this

year, the Modus speaker range - the distinctive features being small boxes, high output and controlled coverage.

Though perhaps better known for its TiMax live surround sound system, Out Board Electronics was showing off a number of new utility products. The increasing requirements of PAT testing has led the company to develop a threephase PAT tester for chain hoists and other loads, while an automated power multicore tester will perform the

required current-handling analysis. For multiple motor setups, the new range of rackmount chain hoist controllers allows anything up to 12 motors to be run from a 3U panel. As for TiMax itself, Robin Whittaker pointed out that there are now three TiMax systems available for rent from Out Board.

PC Werth, the UK's largest independent technical supplier in the audiological and occupational health sectors, was showcasing the range of Phonic Ear products. These are designed to improve signal-to-noise ratio for people with mild to profound hearing losses. The Easy Listener 'sound field' system is an easy-to-install PA system that does not require listeners to wear receivers. Instead, speech is amplified 10dB to 12dB above room noise through speakers

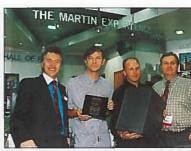
placed around the room.

Peavey Electronics took the opportunity to show the wide range of MediaMatrix products and applications, including the new 32-bit MWare operating software. MWare is a high-level audio DSP programming language, system design software,

system control/networking software, and DSP diagnostic software rolled into one. The CobraNet CAB 8i and 8o are eight-channel A/D and D/A convertors respectively, each with TTL outputs, voltage control inputs and relay closures to enable installers to custom-build control and audio stations on a MediaMatrix-based network.

Penton UK, though a relatively young company in the public address and voice evacuation market, was displaying the range of loudspeaker products manufactured in Taiwan, where the company has been in the business of designing and manufacturing commercial sound equipment for 16 years.

The staff at Philips Communication and Security Systems were busy demonstrating the company's new Profecta audio processing system, designed to offer anything up to



20dB improvements in gain for reinforcement systems.

The company claims that the unique algorithm avoids the problems associated with conventional feedback suppressors. Also receiving their

first UK airing were a new power amp (LBB 1840) and two new sound reinforcement speakers (LBC3801 and 3800). Philips' new Wireless Interactive Voting system promises to make life easier for conference AV companies, broadcasters and the like.

Pioneer debuted their new DJM-600 mixer and launched their roadshow trailer. The trailer is fully kitted out with the entire range of Pioneer DJ products and plasma screens and

will hit the road this autumn offering hands-on access to dealers, students unions, festivals, etc. Heidi Johnson-Cash commented that Sunday was so busy the staff had to fight to fit on the stand!

Two new compression drivers (PD.C1 and PD.C2) were on offer from Precision Devices, alongside

the recently-introduced Series 900 full-range drivers. Though exhibiting for the first time at PLASA, Premier Acoustics Ltd/Media Technology Services' selection of amplification, loudspeaker and voice alarm products received an enthusiastic reception. The MTS plasma-based 'advertising/info' service was also of interest, especially to installers of retail and multi-purpose systems.

Proel International has expanded its range of audio products to include matched ranges of power amps and installation loudspeakers. PRL amplifiers range from 125+125W to 650+650W, with built-in powersense limiting and crossovers, while the TFL family of loudspeakers offers six models, which share the ability to be flown, stacked or used as monitor wedges. Proel also announced that it has taken over UK distribution for the ESO range of pro-spec DJ mixers.

The big news from RCF was the collaborative project with Mackie Designs, labelled Sound Palette. The system comprises a range of loudspeakers, subs and amplifier/controllers, but the co-operation with the US-based mixer giant extends to the incorporation of Mackie analogue circuitry into RCF's new DX8-2 digital mixer/processor.

Roland's two stands highlighted dance products downstairs and pro-audio products upstairs. The latter included the latest in the new V range of digital mixing desks, the VM-C7200 94 channel desk, complete with eight stereo onboard multi-effects, flexible 'virtual patchbay' and FlexBus functions. Downstairs included a very popular hands-on area.

One of the biggest launches at PLASA 99 was from



Sennheiser, who showed the new Evolution wireless range. According to regional sales manager John Wheeler, orders had been taken during the show for the first 1,000 channels of this low-cost system. Three distinct systems are available; the entry-

level fixed-frequency 100 series, the 300 series (allowing eight preset frequencies for larger set-ups), and the fully-featured 500 series, with 16 presets and a unique RF level-checking system. An eight-channel IEM system is also available, for those who want to go completely wireless. A launch party was held on the first night of the show, with proceeds being donated to Great Ormond Street childrens' hospital. Also on the Sennheiser stand, D.A.S. introduced the Dynamics Series DS-15. Featuring a 15° low frequency transducer with a 77mm voice coil and high efficiency low distortion M-5 compression driver and CD horn assembly, it is the largest moulded enclosure currently available.

As an answer to the ever-more stringent legislation and codes of practice surrounding safety requirements in public venues, SigNET chose PLASA to launch the company's new combined voice alarm, paging and background music system called, appropriately, Integrity. The system is BS 5839 and BS EN 60849 compliant, and can handle between two and 16 zones, making it suitable for small and medium-sized sites.

Sony came to PLASA 99 with the promise to "reclaim your rack space" – highlighting the CDP-D11 and MDS-E11, respectively the world's smallest rackmount CD player and MiniDisc recorder. Other than that, a sneak preview was offered of a new 96kHz digital loudspeaker management system with which the company expects to take on the established players in that area of the market. Wireless systems from the WL-800 series and the more affordable Freedom range were also on show. UK sales manager Rob Mitchell commented that the company's increasing focus on the live market was reflected in a huge growth of sales into rental companies and live venue installers.

Sound Dept lined up a broadside of new products. From EAW came the launch of the Avalon PA system. Aimed directly at the club install market, the Avalon is basically a derivative of the KF750 concert series rejigged into horizontal cabinets for those low ceiling'ed environments. Not to be outdone, fellow US system builder Community launched the install version of its Solution Series. Similar

in performance to the touring version, high level output from a three-way horn system (pair of 10" plus compression driver)
Community have changed the crossover and this unit is only available in bi-amp configuration.
To go with the Solution, a



dedicated low, low sub, the VLF a twin 18" designed to rattle your fillings.

Crest announced they will be launching the V12 console in January; expect 12 channel VCAs, eight mono and four stereo matrix, plus programmable muting. On show currently is the X4 monitor console, a completely self-contained monitor board with features including four band output EQ with swept mids (same on input side), six aux busses and fader swap (aux to group) for use as a FOH console.

On the Sound Partner stand, the range of Soundsphere hemispherical coverage loudspeakers was being shown, including the Q-12, a broad coverage design that features



Peter Slatts, Rene van Der Eijnden, David Holt, Arno De Beer and Phil Batten of Philips CSS

Inset, Peavey's Brent Harshbarger, George Douglas and Dave Bearman with Mediamatrix

Below, Rob Peck of Gemini presents the winner of the DJ competition - Juan Corby from Brackley in Oxfordshire - with two Gemini PT2000 turntables and a Korg Kaos pad supplied by Sound Division







products and this year was no exception with a new range of special effect tapes for both Blue and Green Screen applications. Another recent development has been the coating of a premium cloth tape with a special additive to produce a super bright or 'day glow' finish for daytime, high visibility applications such as stage edges, ramps and fixed projection hazards. Link Integrated Systems were PLASA newcomers, exhibiting in order to raise their company profile. They specialise in admissions and membership systems, direct mailings and data management. Sister company Link Publicity provides creative design and printing for the leisure industry. Featured on the stand was their fully automated BOSS box office and EPOS software system and their Ticket Plus computerised admissions system. Link sil are the company behind the LK series of connectors and the Eurocable range. The LK connector range consists of 40-60 channel audio connectors, LKS 19-pin Socapex compatible and LKH lighting connectors, whilst the Eurocable range includes single and multicore audio cables. Litton Veam also specialise in multipin connectors: one of the key talking points on their stand was a new 5 connector energy box which fits into a 19" rack and is intermateable with Veam's own Powerlock series. If you've ever wondered who makes all those small gooseneck lamps you see on control desks, then check out Littlite's range of lamps and accessories which are ideal for close detailed work where light levels are necessarily low.

Another company specialising in lamps, of a different nature, is MGC who aren't exactly going to be caught out by a client's request since they stock a staggering 750,000 lamps sourced from all the major European and US manufacturers. Mico Lighting also boast a comprehensive selection of lamps they too have a large stock and have worked across a range of theatre, club and leisure projects. Mushroom Event and Hire Services are a new company with 'old faces at the helm'. Formed in July 1999 by Andy Slevin and Paul Butler, the company are dedicated to providing complete design and installation services. Music Factory Mastermix offers a music service to DJs which has grown to encompass over 30

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Top to bottom

Sennheiser MD Stefan Exner unveils the evolution wireless range

RCF's Bruno Wayte with Rob Bates of Rhu Bar, Ian Woodall of LMC and Ronald `Levi' Thomas of Performance Light & Sound

The Proel team of Bob Edwards, Mark Parkhouse, Alan Churchill, Michael Wheaton and Paul Whelan both electrical and acoustical crossovers, a bullet tweeter with auto signal reduction/reset (ASR/R) for high-frequency driver protection and even wide-band coverage.

With no wires to trip over and low internal operating voltages, Sound Ranger's new Compact 2 and Compact 4 portable PA systems can, according to the Suffolk-based manufacturer, be safely used anywhere in public places, inside or outside a building. Consisting of a hand-held radio

D PALETTE

microphone and a 40W receiver/amplifier, the Compact 2 will run for up to 12 hours on its internal battery between charging.

Also on the wireless front, Samson's new UHF Series One (launched by UK distributor Sound Technology) is designed to bring high performance UHF wireless within everyone's reach. Operating in the 800-806mHz band, it employs phase-lock

loop transmitter technology and features a comprehensive front-panel control scheme with a multi-segment RF level meter, squelch control and audio peak and antenna A/B indicators.

For live engineers, the Series Two from Soundcraft proved a popular talking-point at the show; its big-console styling belied the modest price tag. A Graham Blyth design, the Series Two boasts eight groups, eight auxes and up to 40 inputs in a semi-modular format. A simple MIDI mute system adds a degree of automation to the package. Other consoles on display included the SM20 monitor board, which is gaining popularity with users, who now include the BBC, Wigwam and Gig Hire.

Soundlab boasted no less than 45 new products at PLASA

99 - though too numerous to mention individually, these included four turntables, two graphic EQs, a mixer and an amplifier, as well as a host of lighting products.

Spektronic UK were at PLASA for the first time with a full range of lighting and sound products suitable not only for mobile DJs but large install and architectural applications too. They are the UK

division of Perfect Acoustic from Germany and were interested in finding UK dealers. Anthony Leonard was delighted with the response: "It's been a great show and we've met over 20 new dealers so far."

Spirit by Soundcraft was in a sociable mood for PLASA, with an invitation to London's Rock Garden. Spirit has recently installed a 328 digital console as the club's FOH mixer, and took the opportunity to announce the birth of 'Spirit Night' – a monthly collaboration between Spirit, Community Music and Asian Dub Foundation Education (ADFED). Incidentally, Asian Dub Foundation themselves have been touring the USA recently with a Spirit 328.

Stage Accompany reported that the new XL-bin is now hitting the market hard, with several large rental companies

and club-projects having placed orders. For technophiles, the SA 8535 Ribbon Compact Driver represents an alternative approach to mid/high frequency reproduction. The driver uses a direct radiating, ultra light membrane and a Neodymium magnet, allowing a very high output/weight ratio, enabling hi-fi sound quality at concert sound levels.

Soundtube's European distributor, STBC Ltd, was showing a diverse range of the company's specialist loudspeaker range.

The Focus Point parabolic speaker, while looking a little bizarre, was demonstrated to great effect, showing how a narrow-dispersion design can be used to zone messages or music with great precision.

Obvious applications include museums, retail outlets and interactive displays.

Terry Stravens of Stravens Audio was seen proudly showing off his company's latest offering; the MS2000 is a trapezoidal cabinet loaded with two 15" cone drivers and a pair of 1" compression units.

Studiomaster moved upstairs for the first time this year, primarily to expand their stand space and imbibe the

slightly more laid-back atmosphere of the top deck. They manufacture mixing desks and amplifiers and enjoyed a busy show demo'ing a whole series of new products, including a new range of speaker cabinets and upgraded versions of the Club2000 amplifier.

A rare chance to enjoy a little peace and quiet was

on offer on the Studiospares stand, courtesy of the Esmono Sound acoustic isolation booth. For details of the astonishing 400 new products in the new catalogue, contact the company at www.studiospares.com.

Speaker designers Tannoy launched the Contour i7 and i7T, a range of music install speakers that break convention on external appearance, giving more credence to aesthetic considerations, without losing sound quality. The thin elegant columnar design does not preclude wide dispersal in both planes, making them suitable for both horizontal and vertical placement. The i6AW is an all-weather dual concentric speaker for use in theme parks or other outdoor locations, its water tolerance coming from a moulded plastic body and all stainless steel fittings. Tannoy also

announced they will be producing self-powered speaker systems next year.

Though seen earlier in the year, the ix series of digital mixers from TOA Corporation was still causing a stir. TOA claim that the use of TFT colour touch-screens as the human interface makes this the easiest-to-operate digital console—currently available. Key features of the ix-5000B include operation at

both centre and channel strips, touch-sensor knobs, intelligent motorised faders, snapshot automation, sampling rate converters and external equipment control via MIDI.

Turbosound chose PLASA to launch 21 new products, most noticeably the TCS sound contractor range comprising 12 of the 21 items. As you might expect from Turbosound, the range is comprehensive: from the TCS 10, 20 and 30 - compact passive speakers for background applications, cafes and bars for example - to the TCS 66 and 69 cabinets, designed specifically for applications where longer throw is required, giving pattern control down to 400Hz. The most attractive feature of the TCS range is the extensive amount of well documented information available for each box, of great value to the install engineer and especially designers.



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Right, Steve Smith of Sound Dept with Sandy MacDonald and Julian Young of EAW.

Turbosound's Bill Woods and Alan Wick with Bryan Grant and Mike Lowe of Brit Row who confirmed their commitment to Turbo at the show by announcing the purchase of a further 48 stacks of Flashlight

> Inset, Terence Stravens of Stravens Audio with the STV 500 amplifier

Loudspeaker looked 'back to the future' as it launched the 18" B line 18 800 driver - a direct descendent of the B Line 500, originally launched in 1989

Wharfedale is a timehonoured name in the industry, but 1999 has seen the relaunch of the

company's pro division. Wharfedale Professional now offers a full range of professional products; from electronics to loudspeakers and more recently the revolutionary LoudPanel technology in both picture panel and ceiling tile form. The PPC-1 Commercial Picture Panel Loudspeakers will be available in 100V and 70V versions.

Andy Simmons of XTA Electronics was extolling the virtues of the new DP224, a spin-off from the successful DP226 loudspeaker management system. The DP224, with four outputs (as opposed to the six offered by the DP226) is being targeted at slightly simpler applications such as bi-amped monitors, or 2, 3 or 4-way mono systems. The DP224 is compatible with the latest release of XTA's AudioCore software, version 4.09.

XTRA Music's music-on-demand service showed visitors how seriously music is now being taken by the retail, licensed and restaurant trades. The company's 80channel service uses the Astra 1E satellite, with MPEGencoded sound ranging from chamber music to Acid

Though the Yamaha staff were understandably unwilling to divulge details of the company's new super-console (launched in New York on the eve of the AES show), they were demonstrating Yamaha's increasing commitment to the contractor market by announcing a new brand - Yamaha Commercial Audio. The F Series loudspeakers are the first products to be specifically targeted at this market. Also on the stand was the new CDR1000 professional CD recorder, which, as well as using Apogee UV22 encoding, is the only CD recorder in its price range to offer sample rate conversion and word clock input. For DJs, Yamaha was also showing the UK-manufactured Red Sound range of effects processors and MIDI synchronisation hardware.

MIRep, the UK distributor for Yorkville Sound, was showing an expanded range of amplifiers (including the

new AP6040 2 x 2000W and CR5 2 x 250W power amps), as well as a larger version of the PM16 PowerMax powered mixer. Offering 22 inputs, three-band mid-sweep EQ and integral effects processor, the PM22 boasts no less than four channels of amplification (2 x 800W and 2 x 275W) for FOH and monitor use.

Also on show was the Q Lite Series, a range of selfpowered (though some bi-amped externally) speakers for the corporate and AV market. This is a high quality range with enhanced speech

intelligibility, well designed for its intended use with five cabinets plus a dedicated sub if needed. The TFM family of wedges completes the new line up; three passive, two biamped. These wedges are all intended for use in the pro market and are typically low profiled cabinets for discrete placing in TV studios.

Vestax Europe created waves with a load of new products, but the one that stole the limelight was a new vinyl cutting machine which will be

shipping in November. It's a world first and received massive response at the show. Other new equipment included their PMC 25 installation mixer with balanced outputs and frequency isolation - nine of these units have just been sold to Cream.

Visiosonic demonstrated the huge versatility of MP3 and computer technology available to DJs with their fully digital PC DJ system. All music sources are stored on a hard drive, so cumbersome record and CD boxes can be dispensed with. The system can be operated via a keyboard, mouse or a touch controller (they were demonstrating with a special PC version of the Korg Kaoss pad) and other facilities include extensive archiving, search engines, beat adjustment and autopilot . . . handy for unscheduled visits to the toilet!

12", 15" and 18" drivers from the Pro and Studio ranges were being displayed by Volt Loudspeakers, while WA Professional Audio invited visitors to take an inside look, by providing a series of cutaway models of the company's WA-F and WA-B products. Nearby, Wembley On the Wintonfield Systems stand, the company's Cinetracker audio description system was being shown alongside a range of products to aid the hard of hearing or vision impaired. The innovative 'Talking Signs' system supplied by the company to Strathclyde

Regional Council is used to provide sight-impaired visitors with a series of infra-red audio 'messages', to help inform them about their immediate surroundings.

In line with its 'total solution' philosophy, Wormald Avalon announced that the company has been appointed distributor for communications specialist Bouyer electro-acoustique. The addition of this range of amps, processors, intercom and conference products complements the company's own voice alarm systems experience, and will allow the company to increase its level of service.



LIGHTING/PROJECTION

Abstract launched six new products, including a new 'virtual' desk - the Show Magic lighting and sound show controller which allows drag-and-drop arrangement of lightshows (including all DMX fixtures) and music sources. Their impressive spacey-themed metalised demo area included a full bar environment lit with the new AVR Colour Master 50W downlighters.

AC Lighting, as befits their stature, had several new offerings from the host of manufacturers they represent. New from Spotlight Milano was a moving yoke, giving pitch and rotation to the unique Svoboda lamp, and a similar device configurable for any 5kW flood - both are DMX-controlled. Strong's new truss spot, the 1.2kW HMI comes with a range of three lenses - short throw, medium and long. In keeping with Strong tradition, all lenses are easily interchangeable thanks to just four simple thumbscrew mounts. There were two new consoles from Jands. The 4 PAK II is a simple selfcontained combination desk and dimmer. Essentially, a four channel 2400W device, the load can be spread in any fashion across the dimmers, even 2.4kW on a single channel. The Event Series 4 combines the technology of the Event and Echelon desks to provide two new consoles. The 408 and 416 are 48- and 72-channel variants and both combine conventional control with a percentage of intelligent light control, in the case of the 72, 20 for moving lights plus 72 (single pre-set) conventional. Finally, there was a new member of the growing family of Chroma-Q scrollers, the eightlite



scroller, which can take 16 colours and will run off existing PSUs (though less of them obviously). Also  $\gamma$  shown in prototype form, a new 5kW scroller with an adjustable back-plate intended to fit any manufacturers' lamp.

General manager of ADB, Mike Musso, was enthusiastic about PLASA 99 believing it to be well organised with a great-looking catalogue. He was also impressed with the quality of visitor, particularly those from overseas. ADB were unveiling ISIS 1.20, the

second upgrade for the software which runs their Phoenix and Vision 10 lighting consoles. Also unveiled was ADB's concept of an Ethernet network which will be put into the public domain unlike other protocols which are proprietary.

Anytronics enjoyed a manic show and featured their new D1205 12-channel, five amp dimming pack, switchable between three or single phase with the insertion of a bridging bar. By popular demand their D610 CB dimming pack offering six channels at 10 amps with circuit breaker is now available with single or three phase options. They also have a new K140 one or two channel strobe controller/chaser.

Artistic Licence launched two new products at PLASA this year. The first was Colour-Fill, a silent DMX512-controlled colour changer which uses red, green, blue and yellow LEDs to provide 16 million colours in standard mode and in excess of four billion in extended mode. Tracey Patterson,

marketing director for the company, believes they are the first company to be using four colours in this kind of product. Also launched was No Worries-TC; developed in direct response to market feedback, it

is an automatic show backup system which records the final rehearsal of up to 12hrs of 2048 DMX512 channels.

Avolites launched their new ART 2000 range of digital dimmers and the Azure Shadow 2000 console. The ART 2000 expands the great tradition of Avolites dimming and is designed for lighting rigs with lots of

moving fixtures. The Azure Shadow is a new version of the Azure 2000 console that has proved popular in clubs and installations. It introduces the Schadow playback live buttons that have always been integral to the more traditional-looking Avolites consoles.

Bandit Lites once again managed to attract huge crowds with no visible entertainment technology whatsoever, although the launch of Breo - the new 'White beer' from brewers

Guinness - did constitute new product. This servicebased lighting company had two significant announcements: a tenfold increase in corporate work over last year, coupled with a four-fold increase in touring productions. Seems they've consolidated their presence in the UK market. Bandit were obliged to fly in two new taps from Guinness in Dublin when they discovered that "pulling in excess of 550 pints in six hours is beyond the design spec' of the pump, and you can quote me on that," said Phay McMahon of Bandit.

Batmink's David Churches beamed with positive comments about the show, attendance and quality of visitors. Batmink were showing products from a variety of companies including American DJ, Genius Professional Lighting, Lite-Puter and MBN Foam Generators. New at PLASA was the DCD-Pro 400

twin CD player, the Show designer DMX controller and the Auto Pilot lighting control system.

Exclusive to Cardiff M is the full range of Acme lighting products and effects including the new Sunray, the Scimitar and the Skytronics bubble machine. The company likes to emphasise the fun element of nightclub technology in addition to the seriousl

Left, Wembley's Paul

Ooops! Sound Systems

Below, Lisa Fletcher of

Wharfedale with the

**EVP** Series

MacCallum (right) with Dan

Mayer and Ronnie Bowie of

Above, Andy Williams, Lucy

Rae and Paul Morrissey of





different music genres, totalling some 200 CDs. The company also has a stock of karaoke and Quizmaster compilations. Musicalement Votre from France showed their range of sound, lighting and DJ products, which range lighting effects and sound systems. They are exclusive distributors for Squale products.

Navigator's HireTrack Eclipse was developed based on what real users asked for from a rental package. As a to four simultaneous currencies and has been optimised to allow up to 64 remote warehouses to share the came equipment pool, whilst allowing each to maintain control over its own stock. To coincide with the launch of HireTrack Eclipse, Navigator Systems Viewing Glasses. The company is planning to send as many pairs of glasses as possible to Zimbabwe in order for under-privileged children to safely view the next total Eclipse in June 2001. NitenDay initially began as a component manufacturer specialising in illuminators, but in 1994, began to concentrate on developing fibre-optic lighting systems. They are perhaps best series of linear radiating cables. To increase their profile in

Cambridge which will promote the recently released line of complete fibre optic lighting systems.

long-awaited finally here. The series, originally manufactured by Par Opti in among OEM manufacturers. There's also a new range of downlights and the new Schotts Flying Saucer lightsource is promised soon. Incidentally Par Opti

Main picture, the imposing AC Lighting stand

Inset, the opening day of the PLASA 1999 show saw AC Lighting honoured with a Top Dealer Award from Strong International. John Wilmers, president of Strong's parent company, Ballantyne of Omaha Inc (left) and Strong's Jack Schmidt (right), presented the award to AC Lighting's Nic Tolkien.

> Anytronics' Bob Hall gets down to business

Right, the Architectural Lighting Comparison Area on the top deck CCT Lighting launched their new range of architectural low voltage luminaires, the Helios range, which includes profiles with strip gobos and condenser optics, floodlights and fresnels; all available with long-life discharge lamps. Also on display was the Freedom range of DMX512 controlled dimmers and luminaires. CCT believe there is a gap in the market for distributive dimming and they plan to fill it.

The Celco/Lightstorm stand sported a new six-channel 32 amp dimmer, the 0632, part of the Fusion range. Launched

in prototype form last year at PLASA, the 0632 is a fully featured, easyto-use, dimmer controller. Meanwhile, Celco stalwarts - the Navigator, Pathfinder and Explorer boards have all received a revamp this year with new pearlescent finish control surface and bleached birchwood trim, a look that

wouldn't disgrace a boardroom table. Less eye-catching, but no less useful, the three Fusion DMX splitters all have very specific uses, not least the 1.5.2. model. This splitter, like the others, offers 1-in 5-out DMX split, plus full optoisolation between in/out and between individual outs, along with an ability to withstand mains voltages leaking to input. Lightstorm supremo Rob Bartholomeusz reported 'an eventful year', nothing new to offer, but a steady stream of buyers to the stand.

Cerebrum Lighting was another busy stand with the staff pleased with the number of serious shoppers dropping by. What was clear was that people had held onto their

> budgets over the summer in order to spend at the show and had come with detailed shopping lists - a situation Cerebrum were more than happy to help with. To ease the process they launched their new fully illustrated catalogue, as well as showing a crossselection of the many products they distribute.

Specialist light dealers

Cirro-Lite Europe managed to catch every eye at the show with the monster 50kW Soft Sun from the makers of Lightning Strikes. A single phase 200amp unit, the Soft Sun is a daylight fill lamp that comfortably takes the place of three 18kW HMIs. From the same makers, Thunder Volt is a trickle charge power pack for the 70k Lightning Strikes - a 4amp 240v supply will keep the beast flashing all day with

minimal mains run. The award for quirkiness must go to the Ribbon Lift, a derivative of the heavy duty self-erecting tower developed by Mountains Roofs some years ago. Three bands of sheet steel unroll and lock together to form a three sided tower capable of supporting a 300lb load to a height of 28 feet.

The award-winning AutoYoke was to be found on the City Theatrical stand. This clever piece of technology, which works with all ETC Source Four and Strand SL

series spots, could well make a difference to a lot of lives, converting as it does conventional theatrical lighting profiles into fully featured moving lights. Gary Fails, President of City Theatrical, was kind enough to say that PLASA was the best lighting show in the world, but he also laughingly added that he would say that about LDI. A man who likes to hedge his bets!!!

Clay Paky were putting a brave face on their impending troubles in Lawyersville USA, proudly showing the production versions of their 'Show' prefixed motorised yoke lights. Some 'light relief' was provided on this stand, which CP always share with Pulsar, by the excellent Ministry of Sound bar, an inspiration of MoS development director, Keith Hardy.

Light relief of a different sort was also available there. however, as we were completely mesmerised by the flatness of the field that Paky has achieved with these units. It all goes to show that obsessiveness with the quality of the optical path is seldom misplaced. If you add to that the flexibility for rental companies to swap between wash and profile options on the HMI 1200W model, and a range of units which offer different lamps for wash-lights, including 1kW halogen, HMI 575W and both wash and projection using the HTI 300W source, you are looking at some very useful instruments indeed.

Of several Italian manufacturers of moving lights, and there are many of them, COEF has never made a big impression in the UK market, though they have always had a good press with their innovation as seen at SIB in Rimini. Now they are making a direct appeal to the UK market. They clearly have their eye on the disco sector with the launch of two MSD 250W moving yoke projectors, a colour fading fresnel and special effects spotlight both prefixed MP250.

Coemar and their UK distributor Coe-tech were showing off the new Panorama IP rated, colour mixing, architectural floodlight by subjecting it to a constant bombardment of water. It certainly looked like the first of the genre to be built for the job.

In a similar vein, Coe-tech's exterior housing, which they have developed to protect the 144 CF 1200s which will be colouring the exterior of the Millennium Dome (see L+SI June issue), though perhaps not as radical as Martin's prophylactic solution, of which more below, looked more suitable for the heavy weather conditions which may be anticipated in windswept Greenwich. Coemar also introduced the TX-360B, a small scale version of their

> celebrated NAT TM based on the Philips MSR/2 575W lamp. In view of the possibility of the USA, this could be a timely addition to the range as the TM, which stands for Total Movement, can deliver the closest performance to a

> prohibition of the CF 1200 in moving yoke, without actually being one.

We are constantly reminded these days that LEDs will be the future of lighting in the new millennium, and Color Kinetics were at the Show to prove the point once again. The Boston-based company launched both iColor Cove, a colour-mixing linear light, intended for alcove accentuation, which comes in lengths of 300 and 150mm, and iColor MR, a colour changing 'lamp' which fits into MR16 light fittings.







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Right, Ian Roberts (left) and Angelo Dal Maschio (right) of Strand Lighting with Cerebrum's John Lethbridge

> Below, Batmink's David Churches (centre right) with Summer Davies (left), Scott Davies (centre left) and John Brown (right) of American DJ

Inset, Wayne Howell of Artistic Licence with Colour-Fill Compulite, together with UK distributor Stagetec, launched the SparkTOP control desk in response to the growing request from LDs/operators for a desk that could be transported with no more hassle than carrying a briefcase: SparkTOP is the complete 'desk in a box' with a 10.4" LCD screen. Also launched was the new range of Compudim digital dimmers which have Ethernet capability and

will be built to ESTA standard. The Nova Yoke was the third launch for Compulite and is designed to fit most luminaires - it is easily adjustable and attractively packaged.

Constella Lighting launched their Chameleon 3 budget dancefloor lighting effect with 250W lamp-source, available in two different versions. They did brisk business with both old and new customers and had an

> A wide range of products were on display on the Decoupe stand including the new AVAB Transtechnik

excellent response to the new products.

Pronto 256 channel desk aimed at the lower end of the market and from MDG, the new Touring-Ice-Fog, a quiet machine with automatic purging system (APS). Juliat's new Cyrano 2500W followspot for long-throw applications was on stand, but the main talking point had to be a new luminaire - the Fantôme - which has been commissioned by the Royal Opera House. The Fantôme is a collaboration between Robert Juliat and Wynne Willson

Gottelier, the latter having been approached by the ROH lighting team to develop a high brightness, HMI zoom luminaire with as many automated features as possible, but quiet in performance. WWG applied their orbital head expertise to the Juliat 2.5kW HMI zoom profile and as a result, a new automated light emerged from the shadows. To global positioning, have been added the following remote attributes: zoom/focus, iris, framing and scrolling

DHA Lighting's Diane Grant is pleased with the success of the company's custom gobo service in its first year of direct international business. Launched at PLASA this year was the Gecko Image Projector, a 75W architectural projector with an MR16 light source. Also seen for the first time was the Indexer, a gobo rotator with indexing facilities and onboard DMX control.

DIAP' Assistance were very pleased with the high quality of visitor to the show and were extremely happy with the way the show went for them. They were showing their custom design, scrolling projection films in an attractive and eyecatching display.

Opposite page - top to bottom The Coemar stand

Inset, Nick Archdale and Tom Thorne of Flying Pig Systems

Cirro-Lite's David Morphy with David Pringle of Lightning Strikes

High End Systems' Steve Reesing and Bob Schacherl, with Mick Hannaford of Lightfactor and the Studio Color CYM

The impressive Pulsar/Clay Paky MoS bar



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Electronic Theatre Controls were another company pleased with the quality of overseas visitor this year, adding that it was a good opportunity to promote and develop business relationships. They were introducing their new line of DMX dimmers; the Unison range and also the new AR6 Recessed luminaire and AR5 Interior Wash luminaire, both from the Irideon range of architectural luminaires.

Although Selecon have now established their own UK operation (see news this issue), at PLASA it was on the stand of ELX that their range of Pacific luminaires featuring the new 90 degree lens tube were to be found. ELX also had a range of products manufactured by Saitec in France. One, the new DiPLine low voltage lighting panel, walked off with one of the Product Awards at the show. Perversely it's quite hard to explain just how straightforward this product is, which allows for DiPline's tungsten-halogen display lamps to be positioned anywhere – simply by pressing the fixtures into the panel. Go and get a demonstration.

Andrew Howis of Enliten was pleased with PLASA 99, and in particular the number of international visitors in attendance. What they'd come to see was Enliten's

range of architectural lighting products. Of particular interest were the Source Four CDM (metal halide) conversion kits, recessed projector range and the Source Four 575MSD Exhibition Par. The company are planning to launch their yoke

mounted ballasts later this year.

 $E\T\subset Audiovisuel$  brought their big PIGIs to market in the shape of the 5 and 7kW xenon projectors with

either automated, or manual, endlessloop, twin loading, film mechanisms on a revolving platen. In the big events field, where projected backdrops have become de rigueur, the PIGIs continue to gain a substantial reputation.

At a rather lower end of the power spectrum, FAL were releasing their MSR/2 575W version 3 of the Three Sixty series motorised yoke effects spotlight and the Night Colour, an outdoor architectural, colour-changing projector, on the stand they shared with UK distributor Lightmasters.

Flying Pigs, fresh from their merger with High End Systems (could they now be called the 'High Flyer Pigs'?), were busily settling into their new pen, but did take the time out to announce the forthcoming release of a Hog 1000 and 500. These are reversengineered versions of the Jands' Hog lighting boards, which resulted from a long-standing licensing deal between the two companies, that bolt lower channel counts together with the Wholehog II operating system, to deliver more budget-sensitive systems. So, in future you will be able to get these boards with the original FPS designer label attached.

GAMProducts were showing their tasty recipe book which shows you how to create various effects by combining a variety of effects and colour. All recipes in the book have been tried and tested and are aimed at saving time and money for the lighting team. Bonita Lessmann was demonstrating the recently introduced GAM Torch which has a self-extinguishing non-toxic flame that flares up to 16" high.



Griven launched three new products, including their Kaleido architectural luminaire with MSD 575 lightsource and CYM colour mixing system which has aroused plenty of interest. Danilo Bettinazzi was

pleased with its reception: "The show has been excellent this year and we have taken plenty of orders for the Kaleido."

Hardware for Xenon, whose name tells you precisely what they do, make high power scenery projectors with a range from 0.6 to 7kW backed up by automated accessories, including film scrollers, automated slide changers and even a motorised yoke for their massive large format projectors. This year's innovations featured a 77mm high definition, wide angle lens, based on HFX's exclusive Optimal Light System

(OLS) optical technology, which can deliver spectacular images 20m across from a 10m throw. In addition, a projection sphere is the latest eye-catching

> device to take to the air. Would you believe a 7kW OLS projector, with remote image control, inside a 3 or 5m diameter air-filled balloon?

High End themselves are another company reaping the rewards for scientific design of

their optical systems. So much so, that they can claim the equivalent light output from their new MSD/2 250W, compact, moving yoke, Studio 250 series fittings, as they previously achieved with the 700W Technobeam. Both spot and wash versions are available. The same lamp features in the re-emergence of another HES famous name product, the ColorPro. The static ColorPro HX has, of course, abandoned the original three-lamp additive colour mixing system, in favour of the single-lamp subtractive CMY method. A combination of zoom control and frost enables variable

beam angles from 17° to 44° depending on hard or soft edge selection, or with the benefit of an auto-iris, down to 3°. HES are also another producer to capitalise on the benefits of the MSD/2 575W that has been co-opted for both their dynamic Studio Spot CYM, with lens options ranging from 13° to 30°.

It was impossible at times to get near the busy stand of Howard Eaton Lighting, who, though not launching any products, were showing a wide range of their popular existing ones. The Pocket Pack fibre optic light source was on display, and the company are currently working on updates to their DMX distribution equipment.

IES continue to evolve their line of dimmers which saw the latest version of their Executive range on display, alongside the newly launched six-channel, 2.5kW IGBT



PowerModule with a three-phase looping in/out power connection.

Kupo Co Ltd from Taiwan showed a selection of their comprehensive range of lighting products, including a new range of stands for television, film and photographic applications, and a new weatherised par can for exterior use. They also introduced a new range of Breavy speakers for DJs.

Italian manufacturer Lampo has recently set up Lampo UK. The Show provided a fitting base from which to set up distributorships throughout the UK and Ireland for



fibre optic lighting has been installed at London Zoo to illuminate the small animals and bugs! Praybourne manufacture cases - not the hard kind, but the soft kind, for protecting valuable items such as LCD projectors, notebook computers, monitors and the like. The company specialises in OEM commissions so you can brand your own protective gear. Promo Only are, as the name suggests, a DJ subscription service offering a range of exclusive tracks on both CD and vinyl. They currently issue three series a month - Mainstream Radio, Mainstream Club and Progressive Club, offering up the best tracks in Trance and Hard House.

Ra'alloy specialise in non-slip ramps for the entertainment industry. Built to last, these carry Lloyds British-load certification. The company also has a fabrication division which manufactures, amongst other things, stage frames. RAT (Music Stands) have a comprehensive range of music stands, lamps and accessories. Musicians need to concentrate on playing, not on reading the music, so the light on the stand must give excellent illumination hence RAT's new slimline halogen lamp which incorporates two bulbs and a dimmable transformer creating very little spillage.

Schulz Kabel manufacture and distribute their own line of audio cable and connectors available from music stores across Europe. Providing all the connections are Sellmark, specialists in a full range of electronics and electromechanical and audio components. At the show they launched a range of low cost faders and also demo'd the new software package for their Audiomate automation system. Show Connections are a specialist contractor at the Millennium Dome site. Electrical design and consultancy for show-type installations is their speciality and they are currently installing a fibre optic network for both Earls Court and Olympia. Having been in the business for over 20 years. Steinieke Showtechnic has just about got the lot, offering a huge range of lighting, sound

continued on page 96

Top to bottom

Tony Musico of Total Concept Projects with Leela Cornthwaite and Ivano Burato of Fal/Lightmasters, Peter Kemp of Coemar Desisti and Paul Dodd of Fal

PLASA Chairman Paul Adams (right) with Alan Hewitt and David Morgan of Lighting Technology and Jonathan Resnick of Barbizon in the US

Nick Shapley of Lights Camera Action (right) with LD Bernard Hedges

Jeanne Danzeisen of Lycian with the 1290 XLT 2000W Xenon followspot



Lampo products. The stand featured a selection (of over 600) Lampo lighting products aimed at four primary areas clubs and discos, theatre, television studios and photographic applications.

Lane Lighting demonstrated the latest improvement to the Starlite Mk5, the new Osram 1200W short arc lamp. The new bulb gives a claimed +30% increase in output.

measured at an average 4900 Lux across what is visually a very flat field beam. Lithographic gobos are now available for the lamp through a tie-up with DHA. Lane also reported growing sales for this touring quality lamp, particularly with Procon in Germany and Neg Earth Lighting in the UK who now stable over 100 of the Mk5s.

Lee Filters continue their innovative 700 series of new colours created by leading lighting designers with 20 new colours launched this year. Also new is their Glass Series of dichroic filters aimed at permanent and semipermanent architectural installations, with a palette of over 30 colours to choose from.

Light & Sound Design managed to provide the biggest focus of attention for this year's show by not launching the Icon M. Sneaking their submarine out of the pen at night, and placing it on the stand unannounced ensured that word spread like wildfire. No doubt others will copy this tactic next year. Using the Texas Instrument 'Digital Micromirror Device' (DMD) and their Digital Light Processing (DLP) technology, LSD's Icon M is a fully automated lantern that has a virtually inexhaustible ability to produce images - more details will be forthcoming at its official launch. More importantly, LSD were at pains to emphasise the potential client benefits of the PRG Group to which they now belong - specifically the full range of services the group can provide (see news this issue).

Water featured prominently on the Light Engineering stand - with their specially devised UV active fountain attracting plenty of interest. Also new is their Bubble Wall colourchanging water wall cladding - as seen in Selfridges Champagne Shop and which is also proving popular in restaurants and clubs.

LDR from Italy exhibited for the second year adjacent to their UK distributor Lightfactor Sales. Showing a selection from their extensive range of theatrical lanterns, they launched the new range of Canto followspots available in a variety of lightsources from 575 MSD/MSR to 1200 TH which are compact, lightweight and have excellent optics. Lisa Papi commented that PLASA 99 was most definitely worth the tripl

Lighting Technology Group was again displaying its diverse range of products, but this year on a new-look 'corporate' stand designed by the company's Dave Cartwright. The

previously award-winning (and very

sociable) scaff and truss two-decker was replaced with a stylish structure in the company livery, which was shared half and half with Mad Lighting. Two new ranges have been added to LTG's

product portfolio: the Group is now exclusive UK distributor for the USmanufactured Brightline range of compact fluorescent lighting fixtures for TV and film, and the Dennard (of Fleet, Hampshire) range of studio suspension equipment including colour frames, intensifiers and narrow broad screens.

The Mad Lighting staff were buzzing by the end of PLASA 99 thanks to the very positive response they'd had from visitors, particularly to their three new products - the AXIS-250 moving head system, ITM-250 professional lighting series and Opti-Colour fibre optic light source.

LightProcessor launched six new products, including the Power Station 2 18-channel compact wall-mounting dimmer pack which was very well received, two new Paradime digital

Lights Camera Action, LCA for short, are a brand new company, who, as the name suggests, are a specialist in TV and photographic lighting. Stocks include Altman, LTM and Manfrotto, a full range of everything you'd need, tungsten and HMI.

dimmer derivatives - the Patch Pack 6

x 10 amp or 6 x 16 amp versions, the

19 inch version of the popular

the Replica.

QBuffer and the rack mounting

QCommander console replay unit -

Lite-Puter Enterprise Co Ltd from Taiwan were delighted to win a PLASA Product Excellence Award for their simple Junior DMX console, ideal for

> back-up applications, offering 500 channels, six faders, back-up battery power and 40 programmable scenes. Also new on stand was the CX2401 lighting controller.

Ludwig Pani, whose large frame projectors are well known, were focusing on their growing range of projection accessories. To their



endless loop film drive and range of lens options. Pani have added both a single and two different sizes of twin effects-disc drives, a rotating mirror device and a very realistic water and wave generator.

LxDesigns' Ian Roberts was launching the upgrade to the company's 2D lighting design package, LxDesigner, which was previewed at PLASA last year. The package will ease the production of lighting rig plans and associated documentation. Roberts has had a lot of interest from the Association of Lighting Designers who have expressed an interest in reviewing the package.

Keen to raise their profile in Europe, Lycian Stage Lighting's 2kW XLT 1290 followspot was attracting lots of attention and Jeanne Danzeisen was

happy to have a very busy Show.

Presented on-stand this year by MA Lighting was the new extended software version for the grandMA lighting console which picked up a PLASA Award, the software for which is officially released in October. Also on display were the new digital dimmers offering integrated earth leak protection.





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In a series of standard Bandit criteria

and accessories - totalling 6,000 items. More recently, the company has started to manufacture its own product range, including Omnitronic DJ equipment and Futurelight lighting products.

In what must count as a first for PLASA, Taylor Philips/GET, a specialist recruitment consultancy, took a stand to promote their industry equivalent of a dating service matching the person to the job. Totally Brilliant Software have developed equipment rental software with a host of features - asset register, bookings section and accounting suite. Multi currency and multi-lingual, it incorporates extensive support for data exchange either by connected devices (laptops etc) or remote bases (via internet file transfer).

Triflite Cases manufacture custom-built flight cases, polypropylene cases and padded bags. The company often undertakes one-off projects and can manufacture in bulk or formulate call off schedules. The catalogue of TW Electronics presents a range of eletromechanical components from the company's manufacturing partners across the world - including Elka. Ruwido, Shiua Chyuan, Solteam, Taiwan Alpha and Toneluck.

and are well known for their range of CDs and jingle collections. The company are also having a great deal of success with Case Logic ProSleeves and Wallets. Since first introducing the range at PLASA 95, Ultimate have moved over 5,000 CDW100 Wallets and almost half a million ProSleeves.

XTBA's Smart Merge A-D is a 1U 19" rack unit that will merge up to 24 channels of 0 to +10v analog control and a DMX data stream into a single DMX512 output signal. It allows older analog equipment and custom-built controllers to be added into any DMX512 installation. It can also be used as a stand- alone 24 channel analog to DMX512 convertor. By stacking units and changing the offset, multiples of 24 channels can be converted to DMX512.



It would be an unusual year if Martin Professional didn't announce a raft of new products. The Danish company went out of their way to reinforce their continued commitment to the club market; Kristian Kolding, Martin's new CEO, believes that much of the innovation, which eventually gravitates to other disciplines, starts there. Thus, new 'point-of-sale'

packaging was unveiled for the MX-1, the previously launched new scanner with added sex appeal, and for the CX-2, a complementary colour changer in the same range.

Another new product with a similar target market in mind, as well as for image projection, is the MAC

250 Plus, a variation on the existing model, adding 12 colours, indexing of the gobos and enhanced optics. For the outdoor architectural market, the Exterior 600 is now available in a simplified Compact version, perhaps its been shrunk in the wet weather! One clever feature is that it

incorporates a light sensor to trigger automatic switch-on as darkness falls. The Exterior 600 Compact is IP65 rated, but if you wanted added protection Martin's new 'Condom' could be the answer, an inflatable transparent cover for outdoor fixtures which is interlocked to the mains input of the lantern in case it gets punctured. One should never go outside without one. A virtually identical product was also being shown elsewhere in the hall by French company Impact Diffusion. This particular prophylactic protector is called Con'dome,

and is claimed to be the original source of the concept.

One final bit of really good news, Martin have bowed to the inevitable and are now fully committed to the USITT industry standard version of DMX on all current and future production. Amen to that!

### Mode Lighting UK

returned to PLASA after a break of five years, attracted back because their own business has diversified into new markets. Mode featured their new power pack for club and leisure applications and their new lightweight Neotran-100 100W neon/argon converter to drive neon and argon lighting in clubs, restaurants and retail environments.

Multiform Electronics was displaying a wide range of new products, including the Infinity Club 1200 scanner and Hypercolour from Sagitter. Both products are exclusively distributed by Multiform and on show in the UK for the first time. NJD Electronics launched four new lighting effect products - the Chaos 2000, complete with 28 colour kaleidoscopic beam effect, the Event projector, the Raptor

and the Quazar. They fully automated their light show this year, which again was hugely popular and also enjoyed plenty of overseas interest and serious DJs visiting the stand.

Northern Light had the latest addition to the company's touch screen programmable SM desks which are customdesigned to suit individual venues. Also on show was the Motoryoke from Lighting Innovation, a lightweight remote control yoke suitable for a variety of spotlights.

Launched by [Opti] Kinetics in February of this year, but on show at PLASA for the first time, the Solar 100C and the GoboShow. The former is a 100W 12v Halogen source compact effects projector, whilst the latter uses the more powerful 150W HQI-T. Both projectors are suited to the install market, the GoboShow especially with its average 9,000 hour lamp life. To complete this line, its larger cousin, the GoboPro uses a 250W HSD and is suitable for use with chrome-etched full-colour dichroic gobos - a service [Opti] will be providing in the UK having recently obtained the

necessary licence.

Performance Light & Sound were showing a selection of lighting products from Strong Lighting in Barcelona and Beyma speaker driver units from Valencia. New products included Strong's new moving light desk, the Scan Controller, their 12/24 channel DMX desk and their E Series dimmers.

PJ Lighting (Products) had a good show, not least because they were showing a

number of innovative products, including the awardwinning Multibar Square - a DIY friendly customised splitter box. Designed by Rolight Theatertechniek, the Multibar incorporates quick-fit grooves and can rapidly accommodate all standard connectors - without the need

for welding.

German service company Procon took a tentative step and used PLASA 99 as a PR exercise for their existing clients. No announcements, no product, but a charming company.

Pulsar Light of Cambridge, better

known for their control systems and for their close relationship with Clay Paky than for the production of luminaires, are straying into that territory with the announcement of a truly devastating strobe. Called Demon, this 1.5kW linear device is equipped with remote dimming, which is just as well because when demonstrated to your intrepid reporter it practically blew his head off at full whack. As previously announced, Pulsar also featured their expanded Masterpiece 216.

Rosco were in launch mode this year, with several new products on display, including three new fog systems and accessories, two low-cost CD-ROMs for gobos - the Fusion F-X and Gobo X-Plorer to make designing with gobos easier - and Rosco Cookies and Motion Gobos.

Ryger Electronics' Andrew Eastwood felt that Monday was exceptionally busy and they had made plenty of new contacts. They were showing their extensive range of lighting effects and controllers for club and mobile use, including a new programmable DMX desk called The Navigator, their Showlight PC-based software for programming more complex shows and the TinyScan which was attracting huge interest.

Mains distro makers SES announced their move into heavy duty electric distribution systems and had on show, a 2000amp three phase unit for SLD Genline. A bespoke service, SES report most big distros being requested by



Top to bottom

Multiform MD Iain Price-Smith (right) with new recruit lan Rose

Pio Nahum and Kristian Kolding of Martin Professional

Thomas Brockmann of MA Lighting demonstrates the grandMA to Lorenzo Meddi of the Ministry of Sound

John Allen and Alan Paris of Northern Light with the SM desk Telecoms companies looking to provide backup systems against mains failures.

Mainly a lighting installation company, Set Lighting announced their recent heavy investment in Martin Professional lighting technology, and in particular Mac 500 and 600s. No doubt a response to the increasing

demand to back-up their installs with supplementary rentable high tech equipment for events, live TV etc.

SGM brought out the new Giotto Spot 1200 earlier this year. This full effect moving head spot (note unusual 540 degree pan) has four dedicated beam angles - 9, 12, 15 and 18 degrees - plus a host of the more usual features (penta prism, soft edge frost, etc). Also on show was the Giotto 1200 Fresnel, complete with the new motorised barndoors; each door is individually controllable (DMX) and the assembly can also be remotely rotated.

ShowCAD were on the Coe-tech stand, demonstrating the beta release of their new Artist System - 1024 channels expandable to over 8,000 channels which runs on a PC under Windows 98 or



2000. It offers programmable templates and fixtures, drag-and-drop functionality, automatic scene generation and is far more theatre-orientated than the original ShowCAD which has found its niche in clubs.

Space Cannon had

a stylish new ABS enclosure for their range of large-scale Xenon searchlight products. The new enclosure is not only lighter, but also gives significant reductions in cost. The Light Hose, an opaque polycarbonate tube attaches to the nose of Space Cannon's Focus 1200W to provide a colour-changing architectural feature up to 100 metres tall. Also on show the new Ireos Pro now available with internal PSU and dichro' colour-changing. This panning and tilting searchlight is available in 4, 7 and 10kW Xenon.

There was plenty going on at Stage Electrics' stand.

The company have recently become the largest stockists of Martin Professional MAC moving head units in the UK, owning around 500 units. They have also launched their E-commerce internet site and opened a new outlet in the NEC in Birmingham. With around 180 staff and 61 vehicles on the road, Stage Electrics are certainly on the move.

The stand of Starlite Systems was impossible to get near for much of the show and their only complaint was that they didn't have enough room, so a bigger stand next year would seem to be in order! The demonstrations of the Stardraw packages attracted a lot of interest, as did the launch of Stardraw Audio with over 12,000 audio symbols.

Strand Lighting were showing their new SL range of luminaries at PLASA, in a month notable for the fact that it also saw SL number 15,000 roll off the



Top, SGM's Ermanno Tontini (centre right) with Niclas Arvidsson of Svenska Interlite (left) and Graham Worthington (centre left) and Keith Rodda of Creative Technical Systems

> Above, Selecon's Phil Sargent, Mark Burlace and Graham Eales

Left, Guy Heselden of Set Lighting and Sound (right) with John Greenwood of MJN Discos

# The Cyrano

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Ivan Myles of Strand Lighting (centre) with Julian Rees (left) and David Leach of Stoll Moss Theatres

lack Schmidt of Xenotech Strong with PLASA's technical standards executive Tony Douglas-Beveridge

Roberto Fraioli of Studio Due with the new City Beam

A Wybron line up of Bill Radcliffe, Keny Whitright, Mike Goldberg (consultant), Rand Clarke and Ken Fasen

production line. The range is compact, versatile, efficient and proving very popular for the Strand team. Location and architectural fixtures were

also on display.

Studio Due, represented by the irrepressible Graham Barron at Lumenation, launched a series of companion products to their trend-setting colour mixing CityColour exterior fixture, City-Beam is a

focused version of its progenitor, the IP55 rated MiniCity is much the same size as a conventional flood using the CDM-T 150W light source.

The focus on the Teatro stand this year was their new 1200kW followspot, which is so new in fact that it has yet to be named. Answers on a postcard to Mike Lowe, I guess. Developed in response to market demand for a low voltage unit, it features a new low wattage 80v lamp developed by

Philips.

Technotronics (TTL Sales and Distribution) had a manic show. The company manufacture their own range of good value, quality effects lighting and control gear, while their new sales and distribution outlet (TTL Sales and Distribution) joined forces with Ultrak to promote the BST range

of audio products. New from BST at PLASA was the silver line - with all products styled in a trendy metallic finish. TTL were also showing light and sound products in the Chauvet range, for which they are sole UK distributors.



TMB Associates had a colourful and busy stand

with Tommy Stephenson eager to show off a couple of their new products. The Grapple is a handy accessory to save time and permit flexibility within a variety of rigging situations. After two years of research, TMB have released the Proplex Ethernet patch cables which are designed for touring and which

> TMB believe are the only touring Ethernet cables on the market.

Vari-Lite's stand seemed to dispute the received wisdom that jungles are hostile environments: instead this was a cool oasis in between a hot and a very hot place. Their two new products, first seen at LDI, featured large under the foliage - the Virtuoso console and the VL6B spot. The Virtuoso is the inheritor of the

Artisan control philosophy, though much extended with 2000 multiple attribute channels. The big feature, however, being the 3D graphics display for off-site programming. The 6B brings zoom optics (12°-36°) and rotating gobos to this much-loved MSR 400W, automated spot.

A new member of the White Light Group was exhibiting this year for the first time - Colourhouse, a

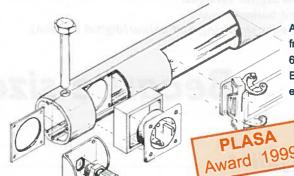
> conference and exhibition lighting company. Also on display was the new Training Initiative Resource Pack aimed at students, which reflects White Light's involvement in training. Their updated and redesigned catalogue was on show along with new

lighting stencils, the Widget DMC tester prototype and the Tiny Fogger machine both from HTS lighting.

Wybron's new CXI colour-mixing colour scroller was seen at PLASA for the first time - the prototype having







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Above, Frank-Rainer Hartung of Chainmaster demonstrates the Jam-free technology of the VBG8 chain hoist

Visitors were kept entertained on the PCM stand by the Schräge Professoren performance act Pico Bello from Germany

Below, Andrew Walters of James Thomas Engineering with Andy Neaves of Lighting **Technology Projects** 



Xenotech/Strong had an impressive display as usual of their xenon high intensity searchlights. The Britelight and Skytracker ranges will no doubt be highly sought after for Millennium gigs, whilst the company's Nocturn UV visual effects and followspots

from Strong continue to serve their markets well.

The official world launch of the Illusion 120 (the 240 is on the way) PLASA award-winning desk was the key product for Zero 88 this year. The desk is currently in production and features a full colour screen, 120 channels, 400 memories and 108 submasters. If you fancied winning your very own Zero 88 lighting console to take home, a competition was underway on the stand with the lucky winner scoring a desk worth £1850.00!1

### RIGGING/TRUSSING/ HOISTS/STANDS

Australia and France joined forces with Bytecraft and Caire International jointly showing Motorope, a

> motorised flying system with rope control. Patrick Bravard from Bytecraft was pleased by the interest displayed in Motorope which has an achievable position accuracy of 1mm. The system is designed to give the operator the same 'feel' as a counterweight system, but with the advantage of a powered hoist and electronic control system.

ChainMaster were making their second appearance at PLASA and showing several products new to the UK and US markets. On display was the VBG-8 lift with the new JamFree technology which will eliminate damaged chains, chain knots or chain jams when used with ChainMaster lifts.

Craig Johnson and Wally Blount of Columbus McKinnon were showing the prototype of the new silent Lodestar, a product the company developed at the behest of the industry. As yet unnamed, the motor was on display to gauge industry feedback and to verify a market for the product. The main feature of the motor is the noise reduction aspect - hence the 'silent' bit.

Doughty had a new dedicated clamp for 29mm TV spigot. A big improvement over the old hook style clamp, the new version is not only reduces pipe damage, but is also lighter.

Apart from the profusion of wire rope, slings and harnesses, one item stood out on the Event Rigging stand.

Manufactured by NBB in Germany, their radio remote control for electric chain hoists offered some



interesting options for the specialist. Bomb-proof in almost every sense of the word, this bolt-on device comes in a variety of channel formats, including a data feedback version for those really tricky hoist movements.

James Thomas had a couple of new products, though again not on the trussing front. A dedicated outdoor fixture, the HMI Par takes a P56 150W metal halide bulb, and is fully weatherised for external architectural use - tested to IP44. Like many others JT now have a Moving Light Truss (MLT). Fitting directly to existing pre-rig, MLT uses simple manual drop down devices - without guides, just fixings for top and bottom location - on which to mount your moving light of choice. The up side of this design choice is the ability (as an alternative) to fit six lamp bars into the same truss, with the standard drop down mechanism.





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# Relax and rack up some

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The new **Z Series** of zoning mixers from Cloud has been purpose designed to provide full facility access with simple control for multi-zone sound systems in hotels, sports and leisure centres, retail and licensed premises. The Z-8 offers direct connection of up to 6 music or line sources, plus 2 microphones, plus paging, all of which can be mixed and prioritised in any combination to any or all of 8 output zones. All from a single, 3U 19-inch rackspace. Overrides and priorities can be assigned and preset within the unit itself. Individual adjustments, settings and selections for each zone may be

made on the Z-8's frontpanel or, in the case of music level and programme selection, remotely within the zone itself via our RSL-6 selector. Our model Z-4 offers the same input and mixing facilities for up to 4 output zones. Both of these Z Series units offer unprecedented facilities, total flexibility, enviable reliability and ultimate ease of operation. Fit one of these new Z-Series mixers from Cloud, and you really can afford to take it easy.





Although not actually on its stand, Lite Structures was able to direct people to the IEM smoke machine section of the Martin Professional display to see their new Shopfit product in use. A modular aluminium framed display system, Shopfit is designed specifically for retail use and the basic

panels feature built-in lighting. The Astralite Range had some new accessories added this year, but most significant was Lite Structures' renewed commitment to all its users - namely Astralite Direct all 60+ component parts of the Astralite range are now available worldwide via a quick call to the UK offices



Litec, now part of the Manfrotto group, took their own stand to display the new self-climbing 'Vari' Tower. A standard design self-climber, the 'Vari' is designed to accept any of the Litec standard range of trusses and is available with an integral hand winch, or can be easily modified for use with electric chain

Milos, a relatively small contender in the truss and tower world, had their latest MTI self-climbing tower on show for the first time. New to the UK, this tower will lift a max load of 1000kgs to a height of 7.5m, either by built-in Verlinde hand winches (which derates the tower to 750kgs) or an external electric chain hoist. Simple but well made, the tower has a steel base with aluminium truss tower and weighs in at 140kg (excluding lift device).

PCM caused a stir with their new product, the fully submersible Aquastar electric chain hoist. James Bond set the ball rolling with the first order which was followed by numerous enquiries at the show. Also new from PCM was the Beta Silverline Electric winch for loads of up to two tonnes. Visitors were kept entertained on this stand

by the Schräge Professoren performance act Pico Bello from Germany.

Penn Fabrication were promoting their Kiev roof system named after the town which first requested it. This is a simple 40 x 40 roof (CP3 wind rated) with a build time of just three hours. The company are now

developing a staging system to go with it

Prolyte managed to bring a couple of new truss products to market. The \$36V is a 36cm rectangular truss with identical web on all four sides, thus it can be loaded in any configuration. The new 5 Tower is a

Top to bottom Penn Fabrication's Colin Freeman

Jo Rushton (centre) of Slick Systems with Chris Brain (left) and Kevin Monks of Blackout

Chris Cronin of Total Fabrication entertains Wes Moore of Bandit Lites

Hans Van Der Moolen of Verlinde (left) demonstrates the Modular Motion Control System to Norbert Sangermann of Camco standard device to fit self-climbing towers that provides an easy secondary securing method once the tower load is at full height. A simple sprung mechanism, pushing two 5cm stainless steel pins out below the sleeve-block, is released by a pull-string

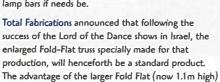
hanging within the tower.

Slick Systems had no new products to offer - "the company has been busy relocating to bigger premises," they reported. The continued success of Lite and Mini Beam especially in the install, exhibition and. idiosyncratically, the circus market - has forced the move, with a similar effect in the US, where the Slick

factory has similarly had to upsize.

Tomcat have been joined this year by Brilliant Stages, the well-known specialist set builders. Tomcat

displayed their new high tech' intelligent light truss. Like others, theirs is compatible with existing pre-rig, but is more thought out in the way it manages the lamp load. A dolly built to accept three lamps (a variety of types will fit) can be lowered by either a simple hand crank, or a very sexy built-in electric winch. The truss will also accept six lamp bars if needs be.



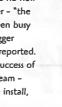
apart from increased weight/span characteristics, is that standard Folding Triangular truss will now fit through the side web making for a very versatile trussing system with great strength. The two level TFL stand was a product in itself; built entirely from their high gloss XO Truss (launched at PLASA 98) the free-standing structure can be manually erected, yet the upper

platform will support a five ton load.

Unusual Rigging confirmed their heavyweight rigging presence in the most adroit fashion by announcing the arrival of the Logic Lift, 128 of which have now been sold for use in the Millennium Dome (78 of them for moving cues over the central exhibit). "We had the option of choosing what we wanted," explained Robin Elias of Unusual: "The Logic Lift is lighter and quieter

than a standard CM, and with our directional encoders fitted works perfectly with our motion control software." It also conforms to the German VBG70 standard apparently.

Verlinde's presence at PLASA 99 was principally about raising their profile and keeping in touch with the market. On show was the Stagemaker Compact, their electric chain hoist.





Unfortunately, the PLASA Show was a little too early for the launch of the Barco Reality 6400 and 9300, though members of both the 6000 and 9000 families were on show. On the other hand Barco were concentrating on their new LED daylight display systems, the aptly named Dlite7 and 14. The two screens offer horizontal viewing angles of 120° and brightness of 7000 Nit and 5000 Nit successively.

Creative Techology showed their 1000 Nit, 10mm pitch high resolution indoor screen, while in the same AV display area Electrosonic's powerful Vector control system was seen controlling four Sony 50" video cubes. Gearhouse have made their presence felt in the public arena in the past 12 months with their OptiScreen and were continuing to plug it at PLASA.

JVC Professional was just one of the burgeoning number of AV display specialists filling the dedicated demonstration area. The GD-V4200 is a high quality Plasma screen with very high contrast giving unusually deep blacks. Ten-bit gamma curve colour correction

gives almost film-like rendition - definitely a unit for the professional user. Expect some exciting announcements from JVC regarding AV projection and The Hughes Corporation over the coming weeks.

Pioneer were showing their PDP-V402E, 40" plasma display which, they claim to be, the only screen of this size offering the 4:3 aspect ratio.

Pixel Displays offer a range of both indoor and outdoor screens and the Pixelite PXT-1204, 12mm pitch, 140° viewing angle screen with a brightness of 5000 Nit which has found itself a prestige site on the corner of Ron McCulloch's towering nightclub at No.1 Leicester Square, known, quizzically, as Home.

Sarner International have been involved in some interesting projects of late, including themed pubs in the South of Ireland. This year they are moving into the high end/high profile end of the VJ market with various products to support this. On display was the Alcorn McBride DVM2 professional video player.

Giant outdoor screen experts Screenco announced the building of their latest mobile, the Micro Mobile, a self-powered LED screen on a trailer. Small and light enough to tow behind a golf cart, the Micro Mobile will allow sporting event producers to tailor the visual display to exactly where the action is hottest.

A plasma screen featured on the Steljes Group stand, this time, the Fujitsu PDS4222. With a 16:9 aspect ratio, this 85mm thick display has the advantage of detachable speakers, which can be a big advantage in commercial installations. Unitek Displays were again showing their LED Megascreen which was an award winner at the Show last year.

### STAGING/TRACKING/ **MASKING SYSTEMS**



AMG-Fechoz were firsttime exhibitors at PLASA, but had experienced the UK exhibition scene at ABTT earlier in the year. They were here to further examine the UK market and have already established contact with most of

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  wasted by filtering white light. Imagine the
  saving in electricity costs.
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### ehind the Scenes with heatrical London

A technical tour of some of London's

prestigious
entertainment
venues was
conducted for
delegates to
Theatrical London,
immediately
following the PLASA
Show. The tour was
jointly organised by
PLASA and the
World-ETF. Around

30 visitors from Europe and the USA took part in the tour, which began on the Wednesday evening with a visit to the National Theatre's production of Candide, directed by John Caird, with lighting by Paul Pyant and sound design by Paul Groothuis. The performance was followed by a backstage tour of the Olivier, with the National's head of lighting Mark Jonathan and sound designer Paul Groothuis on hand to provide technical information and answer questions from the visitors.

The following day, the tour visited the Theatre Royal, Drury Lane, where the morning session started with a series of presentations on the technical refurbishment of the neighbouring Royal Opera House. Speakers included the House's head of lighting Mark White, Stage Technologies' Mark Ager, Electronic Theatre Controls' Michael Lichter and Arup Acoustics' Jeremy Newton. The delegates were then taken by Mark White on a tour around the periphery of the Royal Opera House, which is still undergoing extensive rebuilding work. Returning to the Theatre Royal, visitors were then treated to a talk by Julian Rees of Stoll Moss Theatres on the history of the venue, followed by a backstage tour of the theatre's current production, Miss Saigon. Delegates were also able to view much of the theatre's 19th century stage equipment, which is still in situ and protected by English Heritage, despite having been out of use for a number of years.

The afternoon was taken up with an enjoyable, sun-soaked cruise up the River Thames to Greenwich and the Millennium Dome, where Mark Major of lighting design specialists Spiers & Major, and Mark Ager of stage automation control specialist Stage Technologies, were able to give informative accounts of some of the technology inside the Dome that will bring the spectacular Millennium show to life in the New Year.

The evening was spent with a visit to the London Palladium to see Saturday Night Fever, again followed by a backstage tour of the production. Lee House and David Draude of the London Palladium provided the technical background.

The tour was completed the following morning with a farewell breakfast at the Theatre Museum, Covent Garden, where an excellent talk was delivered by Malcolm Jones on the history of London's theatreland.

the major theatre consultants. The company was established 55 years ago and specialises in manufacturing and installing stage machinery and scenographic equipment.

Batalpha Bobach GMBH received a lot of interest for the two new products they launched this year, namely the Qbook – aimed at creating a new philosophy for the operation and control of theatre machinery, and a Modular Motion Control system with free software. Ulrike Rudolph of Buhnenbau Schnakenberg was showing a sample of the company's full range of NIVOflex platform systems, which are aimed at the event and club sectors.

According to Rudolph, PLASA is the ideal platform (forgive the pun) to raise the company's international profile and make crucial new contacts.

European Staging/Owl had a busy stand with over 200 serious enquires received throughout the course of the show. There was a fantastic response to the company's

Tetradek staging system and they released their new lightweight yet durable platform which weighs 14kg for a 2m x 1m section.

On show at PLASA for the first time was the Vertilift hybrid-controlled rigging system from Gala Division of Paco Corporation. The company have also announced plans to

introduce a new 4.5" Spiralift for lighter loads to be launched next year.

Harkness Hall had two new products: the System 2000 side and top masking and a screen surface with smaller perforations than normal which enables audio to be

discreetly positioned behind the screen. The System 2000 is belt-driven, quiet, maintenance-free, adaptable for a variety of screen types and suitable for installation by clients.

Philip Sparkes was pleased to be showing Maltbury's new staging system Ambideck, which is economical, portable and designed to be easily lifted by a forklift. Sparkes added that the company has had a huge amount of interest in the product and it is already placed in venues and with hire companies throughout the country.

Stage Technologies were delighted with the response to their PLASA 99 award-

their PLASA 99 awardwinning Solo rigger's
remote which had been
exceptionally well received
by visitors to the stand. The
company have just
completed their busiest
year to date, with projects
spread around the globe
both on land and at sea,
where they have supplied
and commissioned
automation control systems

automation control systems aboard the Disney Wonder cruise liner.

Stageline Mobile Stage Inc have recently launched a UK sales and hire operation to support their growing range of products, which this year were bolstered by 24ft PA wings for their SAM staging units. Also announced at PLASA was a new line of mobile stages which will be officially launched at LDI in November.

Steeldeck launched NivoFlex, the gas-assisted scissor-lift modular stage system, last year. It is now in use at the

Dundee Repertory theatre where it's been built in flush to the floor making a dual-purpose space. The company has also taken on Stage Base, arguably the simplest form of staging available, being just a rectangular box section frame with corner collars to accept standard 2" tube uprights. Also on stand, the Mirage theatre seat, the famous Spira-Lift (expect some major announcements on this product soon), and a new bench seat module for the existing 900mm Steeldeck sections, built for the Royal Court Theatre.

The big attraction on the Triple E stand was the launch of the company's interactive CD ROM with full ordering and quotation facilities online. With easy to follow screens, a tour around the site was informative and accessible. Also launched was the E66 lightweight, budget track system and a newly redesigned company catalogue.

### LASERS/EFFECTS

Antari UK launched their 2300 Optical Haze System, which vapourises a water-based haze fluid at a specific temperature and will operate continuously to produce over 2000 feet per minute of translucent haze.

Futuraneon produced one of the more enigmatic products of the show. Rox Plasma is a variant on neon display tubing. The core gas has a distinct linear hot spot that can be made to oscillate at a controllable rate. When used outdoors, the ambient temperature affects tube colour.

Manufactured in London,

the new neon has some obvious applications, enhanced signage for example, and will no doubt prove popular with retail advertising.

JEM showed three new products, including the streamlined and ergonomically styled Fx2 smoke generator in ABS plastic which is shaped like a moving yoke light, is very lightweight and comes

with its own timer remote. Also new was the CM1 cold module that fits to the front of a conventional smoke machine using liquid CO<sup>2</sup> as a coolant. A prototype of the new JEM Roadie hailed as offering double the output at half the power of its predecessor. An ebullient Jon Petts described the show as "Splendid, excellent and brilliant!". Say what you mean Jon.

Laser Entertainment presented their Pangolin laser control software. Designed to operate on any Windows platform, the software gives control for generating graphics, effects and some animation. A low cost fairly high-end system,

Pangolin is available in three levels. The company also represents Air Dimension Design, the Fly Guy people (fan driven tubes of polythene shaped as abstract human images). New designs available this year.

Laser Light had an extremely powerful looking laser, complete with controlhead, packed into what appeared to be an impossibly small box. The diode laser consumes just half an amp (another 2A for control) yet has the claimed output

brightness of a 4W conventional. Named the Stealth Laser for obvious reasons, the unit has a life expectancy of 10,000 hours, is far less fragile than its gas tube cousins, and has an unprintable price tag. (Claimed to be half that of a conventional system).

Le Maitre revealed several new theme park-orientated products including the Electric Air Cannon, capable of firing streamers and confetti up to 15 metres, the Bubble Gun which blows bubbles and directs them upwards, and









the compact Dry Icer which produces low-level cool fog with liquid carbon dioxide without slippery residue or rising smoke.

Nocturn UV supply a range of paints and plastics (UV sensitive of course) and a range of UV lamps. The 600W flood unit features hot re-strike and electronic ballast. Nocturn develop their own bulbs and lamps, and include UV lamps with collimated beams for directional special effects.

Nu Light completed the task they set themselves last year by developing the ultimate in smell technology. Airoamer (geddit?) is really a corporate and retail device for linking smell as a sensory message to clients and customers. Its main

features - and this is a very attractive device, not to be pooh poohed (no pun intended) - include the ability to neutralise existing smells almost instantly. It's a dry system, so it's quick, clean and easy to change smells. It will also suffuse 1000 cubic metres in seconds and can be controlled remotely by RS485 or DMX

Sam Woodward Pyrotechnics & Fireworks were first timers this year. The company has expanded rapidly recently, particularly in the entertainment sector where they originally started dealing with fireworks and found their market widening to encompass effects, pyrotechnics and systems for the firing

Opposite page - top to bottom

Delegates for Theatrical London learn more about the refurbishment of the Royal Opera House from consultant Mark White

John Hastie (right) of Stage Technologies with Simon Garrett of Pandemonium

Gary Flunder of Steeldeck with Stagebase Tony Griffiths (left) and Tony Dilley (right) of Harkness Hall with Sam Maclaren of Stage Works

This page

Rick Wilson of Le Maitre which has just won a £1m contract to supply pyro to the Millennium Dome

Inset, Smoke Design's David Taylor with a range of hazers and fragrance dispensers The AV Display Equipment Comparison Area on the top deck thereof. They featured their new firing system/desk, the FXM Pro which can be used as a stand-alone unit or programmed via a PC with their Composer Software – allowing the complete co-ordination and preprogramming of pyromusical shows.

Another new exhibitor for PLASA, Scanlite Electrics have 22 years of design and manufacturing experience in information

display technology.

UK-based Scanlite are well known for their Magic Ball, the transparent polycarbonate sphere with rotating high-speed linear LED cluster that is programmable to deliver text. With a depth of experience in LED video board

design, they're a design-to-suit company.

Skyhigh Stage FX is the amalgamation of Skyhigh Pyrotechnics, JEM Pyrotechnics and Blakes Fireworks. They launched their adjustable confetti cannon which

allows direction and focusing of different angles of trajectory.

Smoke Design demonstrated common scents with some of their aroma range of scent generators. These units can disperse odours up to 2000 square feet and are available with variable fan control and PIR triggering mechanism. Unlike scented smoke, they put no water into the atmosphere. Over 26,000 smells (the mind boggles) are available in the catalogue and virtually anything can

be custom created. One of the more interesting aromas Smoke Design has recently produced has been the smell of Baldrick's underparts for a Black Adder film to be shown in the Millennium Domel Now that has to be worth trying.

Swefog from Sweden revealed their new Optima Haze for theatres - with virtually silent operation, a dry haze and a DMX option. Their Ultimate II machine is now also available with DMX control.

The Smoke Company demonstrated their new professional range of smoke and haze generators including their unique DMX/PC controlled units that have an immediate shut off system, and their mobile battery-powered machine with 3.5 hours battery life and their expediently-sized PowerFog Goblin.

UV Light provide a coherent source for all things UV - fluorescent, par and flood UV lamps, plastics, inks, dyes and paints, plus fabrics. Over 15 years' experience providing a service to industrial users makes UV Light well placed to advise customers in the entertainment market.

Next year when we again forgather, having by then recovered from any Y2K disasters in the meantime, we will find the Earls Court Exhibition Centre and, indeed the PLASA Show organising company under new, and hopefully more progressive, ownership. It can only get better.

PLASA 2000: 10-13th September



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The person appointed will be designate Technical Director of the joint company, with the immediate task of seeing the merging of technical departments through to completion. Pending completion, the holder of this post will be Technical Director of Scottish Opera.

The Technical Director will be responsible to the Chief Executive for all aspects of the Company's presentation of opera and ballet on stage, including realisation of set, costume and lighting designs at the company's own Theatre Royal, Glasgow and at other venues visited. He/she will also be responsible for all technical arrangements at the Theatre Royal, including servicing visiting companies.

The successful applicant will be a member of the Management Team. He/she must have demonstrated strong management ability and the capacity to manage effectively through a period of change. He/she must be capable of developing relationships with creative teams and of providing leadership for some 60 full-time employees.

### Salary range £35-40k

### DIRECTOR OF ADMINISTRATION, **FINANCE & SERVICES**

The person appointed will be designate director of Administration, Finance and Services of the new joint organisation and, pending completion of the merger, will have executive responsibility for these functions for Scottish Opera.

The post reports to the Chief Executive and deputises for him/her as necessary. The person appointed will be directly responsible for the finance, human resources, information technology and all general administrative functions of the company. A member of the management team, the post-holder will be responsible for business planning and control systems for the whole organisation. He/she will participate in the formulation of strategy, in accordance with the artistic plans and objectives for ballet and opera, translating of these into business plans.

An immediate task will be to achieve completion of merging the administrative, managerial and technical departments of Scottish Ballet and Scottish Opera.

The successful applicant will be professionally qualified in at least one of the disciplines for which he/she will be responsible and will have demonstrated a high level of managerial ability especially in leading through periods of change. Experience of managing ballet, opera, theatre or orchestras would be an advantage.

### Salary range £45-50k

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"There were times when I was so scared I'd grab the rest of the guys backstage and we'd make a run for it. When we returned next morning, the PA and everything else from the show would be laying in twisted heaps, completely destroyed." Before the fall of Apartheid, things in South Africa could be pretty volatile, despite which sound engineer Johan Griesel would regularly go into the townships to mix for weekend music festivals. "You couldn't blame them for venting their

Steve Moles talks to sound engineer Johan Griesel anger at any white man in the vicinity, and usually there were only one or two of us on the crew amongst 40,000. The fact that the band they wanted to hear had broken down 200km away and

couldn't make it was neither here nor there."

Griesel is nothing if not stalwart; he endured venturing into such dangerous territory for four years before he became so frightened for his life that he quit.

Griesel's story begins in Durban in 1953. His mum Catherine worked as a secretary, his dad Anton was a piano player who toured the local circuit of night-clubs and hotel lounges. "He was good actually. He sent me off for lessons; six years of classical piano tuition before I discovered girls and sport, and lost interest in the ivories." Girls and sport apart, Griesel's early years were pretty uneventful; mum and dad scrimped and saved to send him to University where he studied to be a vet. "I took a BSc in Biology at Pretoria but it was two years before I realised it was a waste of time." His story is not, however, the typical - 'so I went off and got involved with a rock band' despite the fact that by this time he had forsaken the piano for the bass guitar. "I became a bookie running off-track betting," - a career he maintained for seven years. So how do you make the jump from bookmaker to Stevie Windwood's house engineer?



"I used to play occasionally at the Midnight Grill in Pretoria with a local artist. One night Jonathan Selby walked in and approached me to start a band." Selby's band, Petit Cheval, had several number

one hits over the next four years, "But we never made any money. It was a hard life and despite the singles success we never sold many albums. A number one in South Africa means nothing in financial terms."

However, Petit Cheval were big enough to use a PA company for their gigs - PA Sound - with John Shaunessy as engineer: "He's about the best engineer in South Africa," said Griesel, with genuine affection. "Towards the end of the band's career I became interested in what he did. As I learned more and more, I began to take on mixing for the support acts for our shows." By this time, Griesel was 33 and compared to most of his peers, was getting started a little late in the day. Leaving the band he spent a year working as resident engineer at the 'Thunderdome' a club in Johannesburg, learning to deal with a diverse range of musical styles. "I reached a point where I thought I'd learned as much as I could and it was time to go back on the road. At the time Attie van Wyck owned PA Sound, so I pestered him to give me a job." Like so many before him, Griesel had to start back at the bottom, driving trucks, doing maintenance work and then onto monitors, before finally getting back to where he wanted to be at the front of house desk. "I worked for him (van Wyck) for 10 years and part-way through I started to work the Townships. I must have done 400 Township festivals before I quit. The only option was to go freelance, still working for Attie a lot, but for

other companies and bands as well. My break came when I got the job mixing support for a Chris de Burgh South African tour. Steve Martin, the tour manager for de Burgh really liked my mix. He even brought Chris (de Burgh) out to listen." Griesel must have made an impression; de Burgh's return to South Africa a year later coincided with his regular house engineer falling ill, so Martin immediately called Griesel and asked him to take over. They liked his work enough to complete the tour, taking Griesel for his first taste of touring Europe.

He returned home elated but realistic: "It's difficult stuck out of the way here in Africa, nobody outside knows you." So he settled back into life back home. However Martin called again: "Can you be in Hamburg by Monday? I need an engineer for the Stevie Windwood tour." Now here's a statement that will surprise a few engineers in Europe. "I was so excited I paid my own fare." Not a bad investment when you consider he's now been Windwood's engineer of choice for the last three years. "There are hundreds of others I'd like to work for," Griesel admitted. "The more melodic musicians are my favourite." Which is no doubt why he's keyed in so well to Windwood.

Reflecting on his past, he's phlegmatic about his near death experiences in the Townships. "You learned everything doing those shows because there was no-one else to do it for you or help you. I'd do the mains, stack the PA, build the mix platform, fix the band's gear - everything. I've probably worked with a bigger range of gear and dealt with a more diverse range of problems than you're ever likely to experience on a more established circuit like Europe." Listening to him talk, you can tell Griesel wouldn't trade that time for an easier life. He's just bought his first ever home and is looking forward to a calmer, more musical future.

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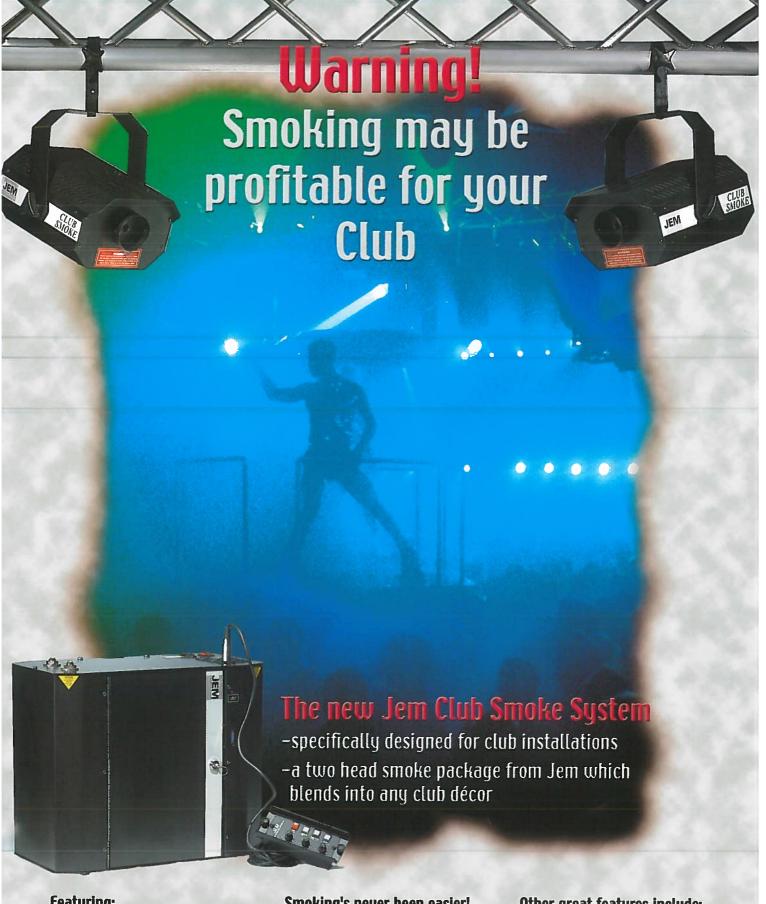
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