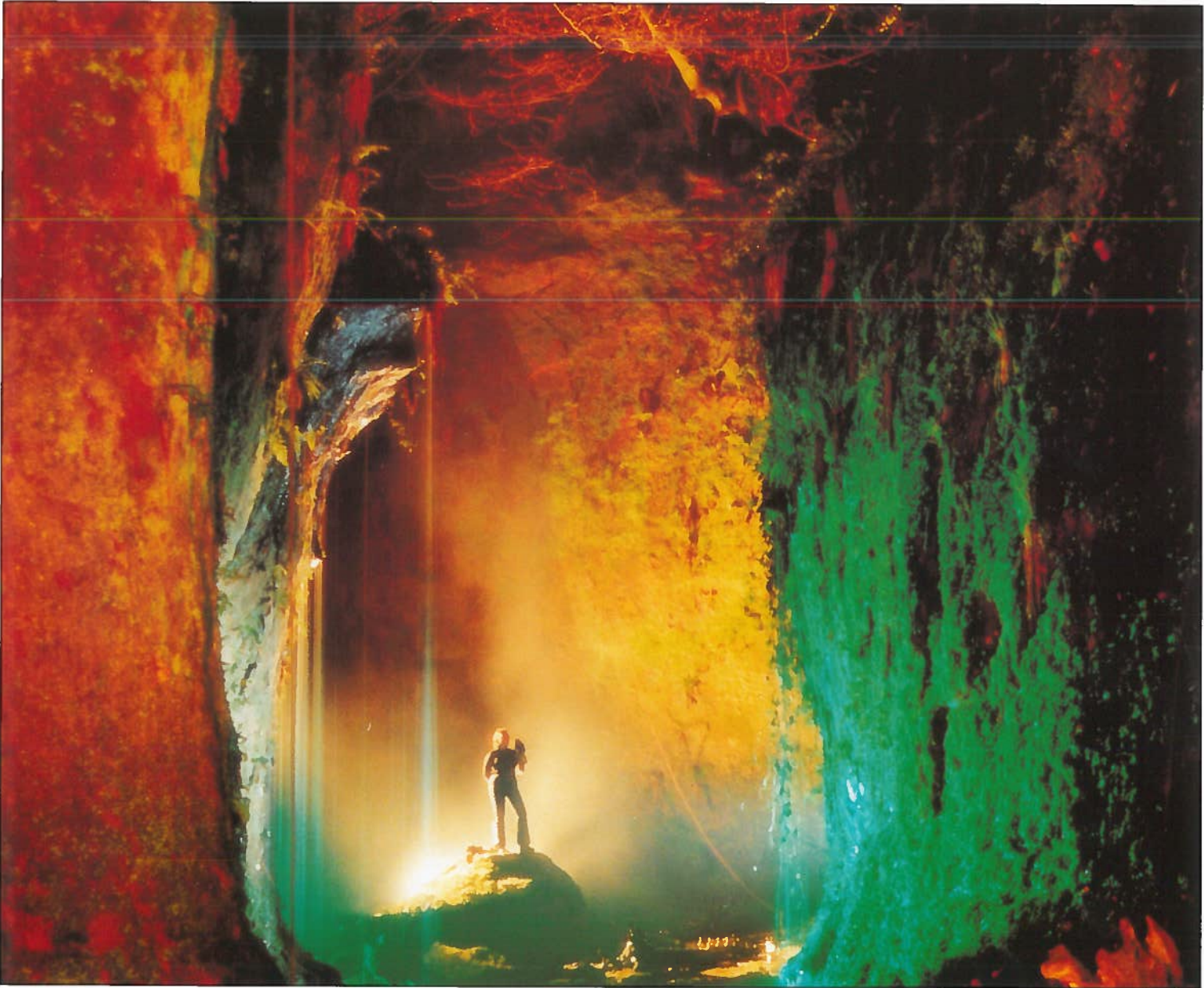


# LIGHTING+*SOUND* International

THE ENTERTAINMENT TECHNOLOGY MONTHLY



NVA PERFORMS THE SECRET SIGN IN GLASGOW (SEE NEWS THIS MONTH)

PHOTO: ALAN McATEER

- Europap or Europop? Birmingham Plays Host to Eurovision
- Theatr Clwyd Enters the Digital Domain
- EnTech's Last Fling Before 2000
- Principal theming for two new venues at Norbreck Castle, Blackpool
- Dramatic Reinventions: System Upgrades at the Guildhall School of Music & Drama
- Plus the industry's most comprehensive news and events coverage

PLASA

**JUNE 1998**

tech•nol•o•gy n 2: applied science



Phased PointSource™  
TECHNOLOGY

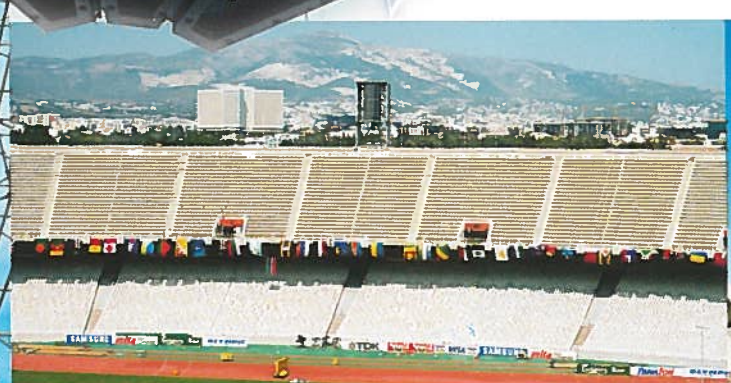
**K F 9 0 0** S E R I E S

One musician plays acoustic guitar and sings into microphones less than 20 feet below a loudspeaker array reproducing those sounds at over 140 dB (@ 1m). 600 feet away, listeners hear the guitar pick on the steel strings, the string scraping across the steel fret as the string is bent. There's no feedback. The musician doesn't even use a foldback monitor.

Except where the upper tier shadows the lower, just 25 enclosures cover the entire 80,000 seat stadium. A successful world championship track meet at the facility helps the city reclaim its Olympic heritage, securing the 2004 Summer Olympic Games.

1.2 million men converge on the nation's capital in an expression of spiritual solidarity. An audience area measured in square miles is covered with a consistent, even sound pressure level. Not one person complains.

Is this audio fantasy? No. This is Phased PointSource Technology solving real problems.



.. Whitepaper available  
.. Get all the facts and specifications with this **FREE** Phased PointSource Technology CD ROM

Call EAW at 508 234 6158 or e.mail us at [litperson@eaw.com](mailto:litperson@eaw.com) to receive yours



The Laws of Physics / The Art of Listening

One Main Street, Whitinsville, MA 01588 tel.. 800 992 5013 .. 508 234 6158 fax .. 508 234 8251 web .. <http://www.eaw.com>  
EUROPE: EAW International Ltd., tel.. +44 1494 539090 fax .. +44 1494 539091

19 Blacklands Way, Abingdon Business Park, Abingdon, OXFORDSHIRE, OX14 1DY, UK



# Mirror, mirror on the wall...



## who's the brightest of them all?

Let the truth be told!

The new Martin Roboscan Pro 918 Scanner is simply the brightest scanner in its class on the market today.

Utilizing the features of the highly successful MAC 500 moving head, Martin has developed a powerful 575 watt scanner with all the

quality and reliability you expect from Martin products. There is a reason why Martin is the industry leader in intelligent lighting.

Ask the important questions.  
Get the important answers.  
The new Roboscan Pro 918.

  
**Martin**

Call: USA: Florida (+1) 954 927 3005, California (+1) 818 252 0399,

Latin America: (+1) 954 927 3005 • United Kingdom: (+44) 1622 755442 • France: (+33) 1 69 12 10 00 • Italy: (+39) 432 671 730



124 MANOR WINDOW

*Moonlight patterns the flagstones  
of the Great Hall.*

*Dusk falls softly through the aged panes.*



130 HALLWAY WINDOW 1



125 VENETIAN ARCH

*Hot mediterranean sun  
dapples the cool tiled floor.*

*A pool of early morning light  
breaks through the gloom of the attic.*



128 ROUND WINDOW



Lee Filters, Central Way, Walworth Industrial Estate, Andover, Hampshire SP10 5AN, England.

Tel: +44 (0)1264 366245 Fax: +44 (0)1264 355058 Web: [leefilters.com](http://leefilters.com)

# LIGHTING+~~SOUND~~ *International*

JUNE 1998

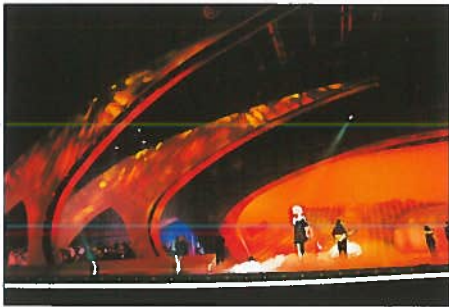
VOLUME 13, ISSUE 6

## 6 News in L+SI

Full round-up of all the latest news from across the industry

## 42 Equipment News

## 45 Euromania



An estimated 100m viewers tuned in to the Eurovision Song Contest - Steve Moles was there in person

## 49 Digital By Design

Theatr Clwyd is setting high standards with its clever use of digital technology to enhance audience appreciation. Simon Forrest hit the Welsh trail . . .

## 55 No Comment

Tony Gottelier on those who make art with light

## 56 Entech '98

Australia's entertainment technology showcase has bowed out of the nineties, looking fit and well for a return in Olympic year. Lee Baldock reports

## 60 Second Take

John Watt looks at the consistently impossible task of load-in at TV Studios

## 62 On Tour

Steve Moles joins the fans for performances by Yes and 911

## 65 Principal Themes

Principal Hotels are piloting two new themed concepts which, if successful, will be the template for further venues in the Hotel Group's 18-strong chain. L+SI reports

## 69 Light Drama

L+SI reports on the recent £300,000 upgrade to the main auditorium at the Guildhall School of Music & Drama in London

## 72 Asleep in the Stalls

Ian Herbert compares the amplification levels on Showboat, Rent and Saturday Night Fever

## 73 Recruitment

3 pages of industry appointments

## 76 Trade Directories

## 82 In Profile

Ross Brown talks to the founder of the Chrysalis Group, Chris Wright

The views expressed in Lighting+Sound International are not necessarily those of the Editor or the Professional Lighting and Sound Association

**ABC**  
AUDIT BUREAU OF CIRCULATIONS  
BUSINESS PRESS

# LIGHTING+~~SOUND~~ *International*

Published monthly by the Professional Lighting and Sound Association  
© Copyright Professional Lighting and Sound Association ISSN 0268-7429

Editor: Ruth Rossington  
Deputy Editor: Lee Baldock  
Associate Editor: Tony Gottelier  
Advertisement Manager: Barry Howse  
Production Manager: Nicola Evenden  
Internet/Editorial: Jo Boyd  
Production/Subscriptions: Sheila Bartholomew  
Advertising Co-ordinator: Jane Cockburn

Published from the PLASA Office: 38 St Leonards Road, Eastbourne, East Sussex BN21 3UT England.  
Telephone: (01323) 642639 Fax: (01323) 646905 Internet: <http://www.plasa.org.uk/> E-Mail: [info@plasa.org.uk](mailto:info@plasa.org.uk)  
No part of this magazine may be reproduced without the permission of the Editor  
The magazine is available on annual subscription  
UK £50.00 Europe and rest of world £65.00 (US\$100.00) Airmail £90.00 (US\$135.00) Single copy price £3.50 plus postage  
Editorial Advisors: Peter Brooks, Wyatt Enever, Mike Gerrish, Derek Gilbert, David Hopkins, Matthew Griffiths, John Lethbridge, Iain Price-Smith, Neil Rice.

Lighting+Sound International is published monthly for \$90.00 per year by The Professional Lighting and Sound Association, 38 St Leonards Road, Eastbourne, East Sussex BN21 3UT. Periodicals class postage paid at Rahway, N.J. Postmaster: Send USA address corrections to Lighting+Sound International, c/o Mercury Airfreight International Ltd, 365 Blair Road, Avenel, N.J. 07001

**PLASA**  
PROFESSIONAL LIGHTING  
AND SOUND ASSOCIATION

# Europe's Leading Lights

The Vari-Lite

European Network

supplies the world's most  
advanced lighting systems  
for this continent's greatest  
performances.

▶ **UK**  
44.181.575.6666

▶ **AUSTRIA**  
43.1.60902

▶ **BENELUX**  
AMSTERDAM 31.30.242.8260  
BRUSSELS 32.16.60.76.48

▶ **FRANCE**  
33.1.41.14.01.00

▶ **GERMANY**  
49.221.59.53.080

▶ **SCANDINAVIA**  
46.8.654.18.10

▶ **SPAIN**  
34.1.616.6422

[www.vari-lite.com](http://www.vari-lite.com)

**VARI\*~~LITE~~**<sup>®</sup>  
The Automated Lighting Company

©1998 Vari-Lite, Inc. VARI\*~~LITE~~<sup>®</sup> is a registered trademark of Vari-Lite, Inc. Vari-Lite is protected by U.S. and other worldwide patents granted or pending.

# LIGHTING & SOUND *News* International

## Woodroffe Joins Fisher and Gabriel in Dome

Just as we were closing for press, rock-n-roll lighting designer Patrick Woodroffe disclosed to L+SI that he had agreed to join the creative team which is designing the live show to form the central attraction in the Millennium Dome.



Patrick Woodroffe.

Woodroffe commented: "I am delighted to be working with such prodigious talents as Mark (Fisher) and Peter (Gabriel) and especially pleased to be working in such an extraordinary space. And it really will be an extraordinary building, whatever people say about it now." He also revealed that there is even a plan to disguise the notorious gasometer with a lighting scheme.

Meanwhile, Mark Fisher confirmed that the core creative team producing the show would consist of himself, Peter Gabriel and Micha Bergese who would be the artistic director. Bergese is a choreographer, well known in the contemporary dance world for his work on the film *Dances with Wolves*, and who has previously worked with Fisher on the recent Tina Turner tour.

Fisher, who until now has been reticent about revealing too much about the content of the show, told us that the concept would be based on the tradition of European street theatre, recreated in a modern idiom. He agreed that the phenomenal success of Cirque de Soleil had been an ingredient in making the choice, but insisted that his show would be very different in its approach. "Our show will have a harder edge, more along the lines of *Archaos*," Fisher said. "I have described it as *Notting Hill Carnival meets the Cup Final!*" One very unusual feature will be the artistic team's plan not to use circus professionals, but to train raw recruits as performers from scratch.

"People may not be aware, but we still have two circus schools in this country," Fisher said.

"One of these, 'The Circus Space' in the City, has agreed to take on the task. The recruitment initiative will start with a press conference in London on 19th June to launch a campaign to recruit these young people. I am confident that there are enough aspiring performers around to really make it work." He went on to point out that, aside from the spectacular aspect of

circus that lends itself so well to the spatial quality of the Dome as a vast tent-like structure, he sees an opportunity for a permanent legacy from the project. "I want the show be a turning point, a catalyst for re-generation of a modern circus tradition in Britain. That is where we can draw lessons from the success of the Canadian enterprise. Such a show involves a huge number of people, 50% of the budget will be taken up in wages, so it could be seen as a kind of enterprise zone." Cirque de Soleil received substantial Government financial support at the outset and now runs a repertory of shows contemporaneously in different locations, some permanent, some touring. Fisher also points to the huge success of contemporary dance in the UK as an example to aspire to.

With Fisher's penchant for comparative phraseology, he might have described this aspect of his concept as 'YTS meets high wire challenge'. Currently, design work is concentrated on the civil engineering aspects of the integration of the show into the building itself. When that phase of the work is completed, the next few months will see Fisher and his team working on the tender package which will then go out to contractors interested in bidding to build the show structure.

Woodroffe's announcement follows the news that the Rolling Stones have cancelled their summer tour. See page 12.

## PLASA Presents Backstage London

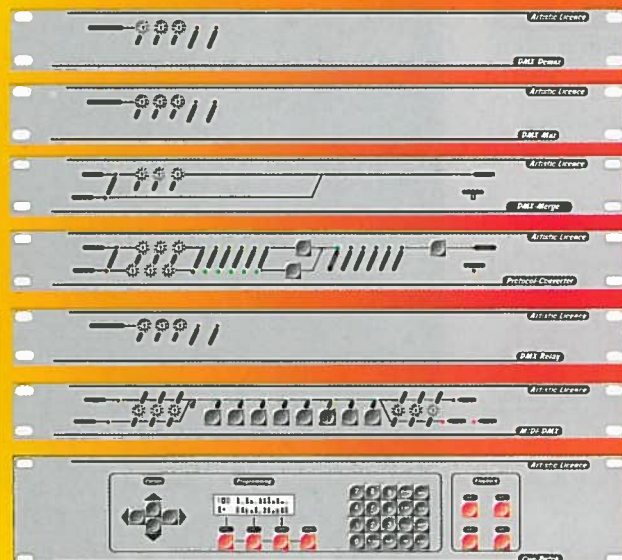


To further develop the opportunities for visitors and exhibitors at the forthcoming PLASA Show at Earls Court (September 6th-9th) PLASA has worked together with other industry organisations to create Backstage London, a two-day post-PLASA experience produced by LDI (Lighting Dimensions International) in association with the World-ETF. This two day exploration of cutting-edge entertainment design and technology in theatre and themed environments will take place in London from September 9th-11th, 1998.

Participants will have the opportunity to meet the producers, designers, technicians and creative teams that make entertainment happen, as well as attend performances and take private backstage, tours of the latest theatrical productions and themed attractions in London. Based on the success of LDI's 'backstage' events in Las Vegas and Orlando, Backstage London's preliminary schedule includes three performances (theatre or opera) and visits to clubs, themed attractions and restaurants. PLASA members with equipment on the shows or in the venues will have the opportunity to address the group, whilst leading industry figures will act as guest speakers at lunch and dinner.

If you wish to register for a place on Backstage London, see the booking form on page 67.

## The Rack Mount Solutions Range by Artistic Licence



**DMX-Demux:** DMX512 to 72 channel analogue with +10V, -10V and 370uA.

**DMX-Mux:** 72 channel analogue (+/- 10V) to DMX512 with merge facility.

**DMX-Merge:** Merge two DMX512 streams with offset selection (AVAB & CMX avail).

**Protocol-Converter:** Convert and merge D54 Avab S20 AMX192 CMX DMX512.

**DMX-Relay:** Control 24 change over relays with DMX512.

**MIDI-DMX:** Translate MIDI to DMX512 or DMX512 to MIDI.

**Cue-Patch:** Soft patch 1024 to 1024. Snapshot, edit and playback cues and sequences for show backup. Built in splitter. Received data analysis.

**Artistic Licence**  
 Internet: <http://www.ArtisticLicence.com>  
 Tel/Fax: +44 (0)181 863 4515  
 Email: [artistic@compuserve.com](mailto:artistic@compuserve.com)

*you have the power*



*to reach the stars.*



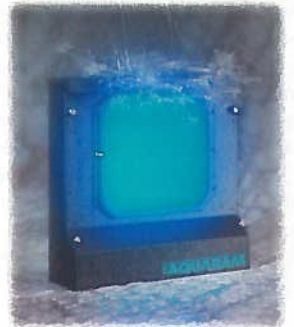
*take the stage from day to night.*



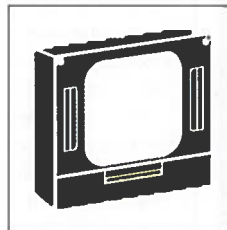
*wash performers in the deepest red,  
the lightest violet, or  
any color  
in between...*



*... in a rainstorm.*



*and to be omniscient from the  
comfort of your lighting console.*



**THE COLORAM™ SYSTEM OF INTEGRATED LIGHTING ACCESSORIES.**  
Your **Color Changers** Are Only the **Beginning.**

Your COLORAM II color changers are only one piece in a growing system of lighting accessories.

THE GOBORAM changes and spins three patterns from any Source Four or Shakespeare 600.

THE ECLIPSE gives you the smoothest, quietest dowsing available.



THE WATCHDOG provides real-time diagnostic feedback on everything in the system, right at your lighting console

And all points converge at your existing COLORAM II Power Supply, which now comes in 6-, 12- and 24-way models.

## Martin Professional Appoint New CEO

Martin Professional continues its period of housekeeping with further changes on the management front. The company have appointed Kristian Kolding as CEO.

Kolding has considerable experience in the fields of commercial and international business: he was previously CEO of Superfos, a Danish concern with 2,500 employees and annual sales of \$400 million. Since 1986 he has served as CEO of DV Industri, a company with annual sales of \$225 million and an equity of \$75 million. He successfully oversaw the floating of the company in 1995.

The chairman of the Martin Group, Poul Schluter, told L+SI: "When we said goodbye to Peter Johansen in January, Lars Dige and Torben Johansen agreed, at short notice, to take over the day-to-day management of the Martin Group as joint group directors. . . . When appointing Lars Dige and Torben Johansen it was agreed that the board of directors could look for a managing director with the right background to lead the work of the management. And now we have found him."

Kolding sits on the board of directors of five major international concerns.



Kristian Kolding.

## Jesus Christ Superstar with Avolites and TP

The beautiful neo-Gothic building and austere atmosphere of St Andrews Church in Luton formed its own highly spiritual backdrop for a rare production of *Jesus Christ Superstar*, produced and performed by local amateur musical theatre company, The St Andrews Players.

The lighting designer was Dave Houghton, who has been lighting in the Luton area for 22 years, during which time he has been involved in numerous large-scale productions sponsored by local press and businesses. Theatre Projects and Avolites have frequently supported these more ambitious projects by providing equipment deals. This time, Houghton was offered an Avo Diamond III for control of the lighting rig which included six VL5 wash luminaires and six VL6 spot luminaires, 30 LSD ColorMag scrollers, 50 Par cans, ETC Source Four profiles and other generics supplied by TP. The 50m throw from the rear balcony was achieved with two 2kW Xenon ColourArc follow spots. There was also a 72-way Avo dimmer on the job!

The church, designed by Sir Giles Gilbert Scott, who also designed Liverpool Cathedral, the Forth Road Bridge and Battersea Power Station, was constructed in 1932 and has majestic 35ft high stone arches all the way down the nave. The rig itself was framed in a perpendicular arch, providing spectacular views from all angles.

The 4ft high stage was set in the transept, central to the church, with three 'goal post' arches for the lighting rig - one to each side and one upstage, constructed from Slick Minibeam truss. A further 24ft wide, 12ft high balcony was constructed behind the main acting area in front of the altar with much of the action consisting of interplay between the two performance areas - also connected by rustic ladders.

The fundamental lighting aesthetic was to deliberately accentuate the amazing architecture and pulchritude of the church, whilst not cluttering it with extraneous hardware. The VL6s were used for gobo projections and tracking



actors, a job made extremely easy with the Avo Graphics Tablet, while the VL5s were engaged for flooding and isolating the general acting area plus the building features and set pieces. The get in, rigging, fit-up, technical, programming and dress rehearsals were all compressed into four days.

Houghton has used an Avo Pearl in the past but this time decided to go for the Diamond III. He was impressed by the ease at which they learnt the desk and the 'massive versatility' of the console once they were familiar with programming features.

The band consisted of five live musicians comprising lead, rhythm and bass guitars, full DW custom drumkit and keyboards with Behringer digital effects and dynamics processor. The orchestral sequences were programmed using Cubase VST and transferred into the sequencer on the JV1000 which was played live sending a click track to the drummer and keyboard player.

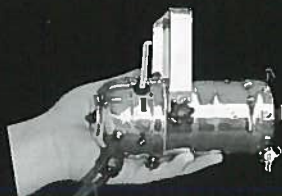
Audio for the show was a combination of St Andrew's Players' own kit (monitor system) and a hired in FOH system from Gradav Theatre Services. A full Bose front-of-house system was supplied by Gradav, including 802s, 402 infills, 101 delays and 302 bass bins, complete with Soundcraft console. They also provided a 12-way Sennheiser radio mic kit and Yamaha SPX 900.

Photo: James Hamilton

## Scan Warehouse in Liquidation

L+SI has heard that Sound & Vision Ltd, trading as The Scan Warehouse and headed by John Bowman Daniels, has gone into liquidation with debts in excess of £100,000.

- Optional DMX interface
- Standard, Light, or Haze fluid
- Available in Par 20 or Par 36 size
- Par 36 Haze machine also available
- Black or polished aluminium from stock
- Other colours available on request
- Over 100 different scents available
- Fluid bottle can be mounted remotely
- Standard or Infra Red remote
- Fog system design & installation service



## PAR - Fume

Par - Can  
Par - Fog Machine  
Par - Excellence !

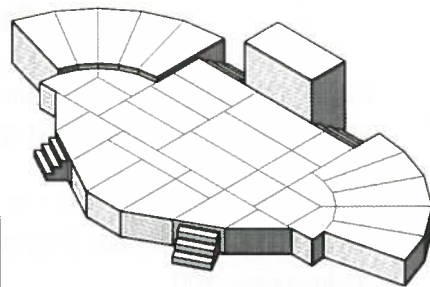


LIGHTING  
TECHNOLOGY

Sales and Service to the Entertainment Industry

2 Tudor Estate • Abbey Road  
Park Royal • London • NW10 7UY  
Tel: 0181 965 6800 • Fax: 0181 965 0950  
Email: sales@lighting-tech.com  
Internet site: <http://www.lighting-tech.com>

## Alistage



The extraordinary...  
(or the ordinary...)  
available for sale and hire.

Unit 2 Hotspur Ind Estate - West Road,  
Tottenham - London N17 0XJ

Tel: 0181-808 5005

Fax: 0181-801 9851



# UP CLOSE & PERSONAL

## SHURE IN-EAR MONITORS

PERSONAL  
STEREO  
MONITOR  
SYSTEMS

### PSM 600 SERIES

Take control of your sound with Shure's PSM 600 Personal Stereo Monitor systems. The PSM 600 - available in wireless and hardwired versions - gives performers and engineers what they want most: better control of their sound.

#### Look at the benefits:

- Truly professional quality and features
- Personal control of volume and balance
- Systems are easily expandable by using multiple receivers with a single transmitter
- Exclusive MixMode feature allows control of individual sound sources
- Shure's legendary sound quality and dependability
- All at an affordable price

#### Advantages over floor wedges:

- Superior sound quality
- Greater freedom of movement
- Higher intelligibility at lower volumes
- Reduced voice and ear fatigue
- Greater portability

You owe it to your music - and your ears - to see why so many top performers and engineers are raving about Shure's PSM 600 Personal Stereo Monitor systems.



"It's the best system I have used to date."

*Roger Daltrey*

For more information - and a demonstration - visit your local Shure dealer or contact us for the dealer nearest you.

The Monitor for Everyone • Live Music • Theatres • Broadcast • Corporate Meetings



HW International,  
167-171 Willoughby Lane,  
London N17 0SR

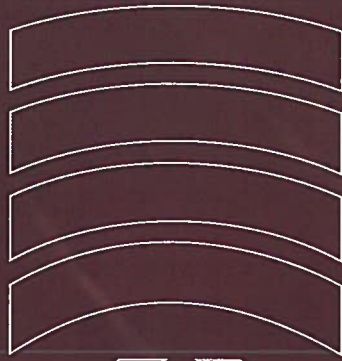
# SHURE®

FOR THE FULL STORY ON SHURE PERSONAL STEREO MONITORS AND INFORMATION ON OTHER QUALITY PRO AUDIO EQUIPMENT FROM HW INTERNATIONAL, CALL OUR FREEPHONE TODAY!

FREEPHONE TO RECEIVE  
OUR PRO AUDIO  
CATALOGUE NOW!

0800  
7311990

frequency: **AGILITY**  
 audio: **PURITY**  
 absolute: **STABILITY**  
 what more can you ask?



Well, how about this?

- UHF PLL synthesized system
- 64 frequencies in one 8 Mhz UHF TV channel
- Simultaneous operation of 15 frequencies in one 8 MHz TV channel
- "Channel Grip" ident tone locking system
- PC windows based control and monitoring software facility
- Multi-user memory facility (MUM)
- Choice of condenser and dynamic transducers

The U 600 UHF wireless system is the solution for all of your wireless problems!



beyerdynamic

*P.S. priced: UNBELIEVABLY!*

For more information or a brochure, call our freephone on 0800. 374994

**Germany**  
 Theresienstr. 8  
 D-74072 Heilbronn  
 Tel. (0 71 31) 617 0  
 Fax (0 71 31) 604 59

**United States**  
 56 Central Ave.  
 Farmingdale, NY 11735  
 Tel. (516) 293 3200  
 Fax (516) 293 3288

**Great Britain**  
 Burgess Hill  
 W. Sussex RH15 9TN  
 Tel. 1444 258258  
 Fax 1444 258444

**France**  
 7, rue Labie  
 F-75017 Paris  
 Tel. (1) 44 09 93 93  
 Fax (1) 44 09 82 33

## US Contractors at PLASA Show

The US National Systems Contractors Association (NSCA) will, for the first time, have a dedicated pavilion at PLASA 98 (6-9 Sept). As part of PLASA's drive to expand the entertainment lighting and sound show to a wider audience, both nationally and internationally, the NSCA will have a dedicated area for members from the sound and video contracting profession.

The NSCA's decision to have a dedicated pavilion area at PLASA 98 is a reflection of the show's growing reputation amongst international trade organisations. The US-based Entertainment Services and Technology Association (ESTA) already have a successful pavilion area at the PLASA show which has been developed over the past four years. The NSCA pavilion will be situated on the gallery level of the show and will provide a focused area for new and existing NSCA members who have previously exhibited in other show areas such as installation sound, lighting, stage engineering and AV equipment. As part of the agreement, the NSCA will be hosting a number of educational seminars at the PLASA Show.

The NSCA's own show in the US has just taken place. As the dust settles in Las Vegas, final tallies point to this year's show as the biggest and best to date. 8,600 attended Expo 98, up from 7,700 the previous year. There was also a significant rise in international visitors with last year's figure more than doubling to 623. As is the case with all NSCA shows, the majority of visitors were contractors/dealers.

## ART in the UK



Pictured from left to right is Chris Brown of ESS, RCF president Renzo Rossi and Phil Price of RCF UK.

RCF's new ART Series loudspeakers have received their official UK launch at a presentation held at the Solihull superbar, Dave & Busters.

The new ART series speakers are of an entirely different design to RCF's previous 300 Series, using a new enclosure constructed from both wood and man-made materials. The ART 500 is a professional 15 inch two-way passive speaker system offering the same technology used in the flagship 500A active speaker.

The ART 800AS active powered subwoofer can be easily connected to enhance the low frequency response of the ART 200A, ART 200AM, ART 300A and ART 500A systems, while the 800S passive subwoofer is designed to be utilised with the ART 300 and ART 500 passive systems. Also new is the ART 300i, aimed squarely at the installation market.

## HSL in Safe Hands with Jem

Blackburn-based hire and rental specialist HSL recently made a major commitment to JEM Smoke Plc, appointing the company as sole supplier of its smoke machine needs. HSL specialises in less than conventional contracts, a typical example being a six month events tour of Bahrain hosted in Royal palaces. The latest HSL contract using Jem smoke machines alongside Martin Professional lighting was the production of The Manchester Man performed in Manchester's cathedral. HSL has completed a major purchase of Jem equipment to satisfy its rental stock. Eight of the new Jem ZR22 DMX machines join two Roadies, two Heavy Fog 6500s, a Heavy Fog 100, four Hydrosonic HOT 2000 hazers, a 428 multi-head system and a full range of accessories.



Taking delivery from Jem's Jon Petts (centre) are HSL's Simon Stuart (left) and Howard Dean.

VENUE SERIES  
SOUND POWER  
MARQUIS SERIES

JBL

PROFESSIONAL

The new installation ranges from

ARBITER PRO AUDIO Wilberforce Rd, London NW9 6AX  
Tel: 0181 202 1199 Fax: 0181 202 7076 Web: www.jblpro.com

## Stones Cancel British Leg of Tour

So Cool Britannia has done for the Rolling Stones. Hard on the news that guitarist Keith Richards had cracked two ribs last month and that some dates might be rescheduled as a result, comes news that the group have pulled out of this summer's British leg of their tour claiming that changes in this year's budget will cost the group millions in tax.

The European leg of the Stones' Bridges to Babylon tour, which opened in Germany, was to include two concerts at Wembley in late August, followed by further performances in Edinburgh and Sheffield. All four have now been cancelled, but there are plans to reschedule them for next year. The group did offer to perform for charity if the tax was waived, but the Inland Revenue wouldn't budge. Other groups are expected to follow suit because of the March 17th tax change which effectively reversed the ruling that British residents who lived and worked abroad were exempt from tax so long as they did not spend more than 62 days in the UK. Now any resident who works in Britain at all must pay tax on their entire year's earnings.

## Barron Heads Lumenation

Graham Barron, formerly with coe-tech, has left them to head up a new company, Lumenation. The company were recently appointed UK distributor for the Italian-based lighting company Studio Due, and also now handle the distribution for Lumenyte fibre optics. Graham Barron told L+S: "With the new City Color range from Studio Due (see Rimini report last issue) we have one of the most exciting lighting products to come out of Italy in a decade."

## ABTT, London

ABTT returned to its familiar home of the Royal Horticultural Halls, London, in late April with a renewed sense of energy. In recent years, the show has, naturally enough, settled into a kind of routine, but this year there was definitely a buzz in the air and it felt busier on the show floor than at any previous ABTT trade show. This may have something to do with its position in the trade show calendar where those battle-weary from the excesses of SIEL in Paris, Musik Messe in Germany and SIB in Italy tend to welcome the opportunity to actually socialise at an event and value the chance to engage in conversations that are more than just sound-bytes. Everybody is considerably more relaxed at the smaller shows and that tends to permeate through the layers.

The exhibitors at ABTT (just under 60 in total) are a loyal crowd and many familiar names were present (including AC Lighting, AJS, AVAB transtechnik, BBM, CCT, Decoupe, DHA, ETC, Glantre, Harkness Hall, Le Mark, Lee Filters, Lightfactor, Lighting Systems International, LMC, Maltbury, Marquee, Multiform, Northern Light, Pulsar, Rosco, Sennheiser, Stage Technologies, Stagetec, Teatro, Triple E, Unusual, Vari-Lite, White Light, XTBA and Zero 88), though there did seem to be a wider range of theatrical suppliers than usual. Tucked away in a far corner, though this didn't stop them being heard right across the halls, was the ABTT

Archaeology Committee who demonstrated an array of arcane sound effects, blasting them across the show floor without warning (thanks chaps - the underwear is still at the cleaners), whilst the bar area was considerably enhanced by Artistic Licence pulling the coup of the show by sponsoring the beer and as a result, negotiating a small stand space in the middle of the bar. Stand sites don't get much better than that.

The seminars, which ran concurrent with the show, included Using AutoCAD for Theatre Drafting, discussion about BS 7905 (specifications for lifting equipment for performance, broadcast and similar applications above stage), demonstrations on Rope Splicing and a spirited talk on Theatre Consultancy. The ABTT Awards Dinner was held at the nearby Westminster College with guest speaker Ned Sherrin. Ted Pursey, lately chief machinist of the Royal Opera House, was voted ABTT Technician of the Year, whilst the ABTT Product of the Year went to Northern Light for their Touch Screen Stage Management Desk and Flint Hire & Supply deservedly picked up the Stand of the Year award. The Stage Management Association also presented its Annual Award during the show to the stage management team at the Palace Theatre, Westcliff on Sea.

Although the natural assumption is that shows such as ABTT will yield little in the way of new product, there were a number of new and innovative ideas on the show floor, particularly Northern Light's new Integrated Stage Management Desk mentioned earlier and key dimmer developments from Teatro. In truth, every company on the show floor had some news to impart and, as space is tight in this issue because of a number of late-breaking news stories, we'll feed product and project news from ABTT into the next issues of L+S.

## Ian Sharpe - 1952-1998

L+S has learned of the recent sad death of Ian Sharpe. He died on May 18th in hospital following a long heart-related illness. He leaves behind his wife Pat, and three children from previous marriages. Ian joined Panasonic UK in the early eighties and became involved directly with the pro sound and lighting industry in 1987 when he was appointed product manager of the new Ramsa professional products division at Panasonic. He became more widely known when he joined the PLASA executive committee in 1991, retiring from the committee for health reasons in 1994. In 1996, he retired from Panasonic for the same reason.



Mike Lowe of Teatro (left) with lighting designers Richard Pilbrow and Dawn Chiang.



Lighting Technology's Paul de Ville (centre) with Pulsar's Derrick Saunders (left) and Aris Quadri of Clay Paky.

**HAMLET**  
The Industry's most popular cartoon brought to you by



The Triple E Group  
Manufacturer of the Industry's most popular track system

Wow, Hamlet! You told him!! That was really courageous.

Not really, Brutus. I am that rare creature in the theatre world: an honest fellow. I cannot help but speak my mind. I found the chap a snivelling bore....

.... and my truthful nature compelled me to tell him so. What is so courageous about that?

Because he runs his own theatre company.

Honest to God, Hamlet, I thought you knew!!



**Triple E Ltd. Tel: 0171 237 6354 Fax: 0171 237 7650**

# THE INTER-CHANGEABLE REVOLUTION



**JUST A FEW MINUTES  
TURNS A WASHLIGHT INTO  
AN EFFECTS LUMINAIRE  
OR VICE VERSA**

## Stage COLOR 1200

A 4-disc cyan, magenta, yellow and amber colour mixing system provides an infinite number of rich hues plus a full range of pastel shades - sure to meet the approval of the most discriminating lighting designers. The exclusive GTC (Gradual colour-Temperature Correction) system provides gradual correction of colour temperature differences from one luminaire to the next. You can choose between three diffusion intensities



(including one with an exclusive 50° beam angle), and special effects such as concentric twin-coloured beams and ultraviolet light.

These are just some of the great features you will find in Stage Color 1200, the most powerful and imaginative washlight for advanced applications currently on the market. Stage Color is revolutionary, thanks its easy conversion into the Stage Zoom 1200 effects projector.

Just change the head on your Stage Color 1200 to turn it into a fantastic effects luminaire, Stage Zoom 1200. Or you can convert the other way round.

The basic unit for both fixtures is electrically and mechanically identical, so you can build up the luminaire you need at the very last moment, even just before the show begins! And do it yourself, with no need for expert help.

Both luminaires use an HMI 1200 lamp, the number one choice for professional use. Both luminaires also have generous pan (450°) and tilt (252°) angles with smooth movements and microstepping resolution selectable between 8 or 16 bit.

Hot restrike and lamp control from the desk, along with automatic repositioning after any accidental movements. The convenient transport lock on the moving body make this a highly practical unit.

The standard unit is equipped with an electronic ballast, although a conventional electromechanical system is available as an option.

## Stage ZOOM 1200

The 12°-24° lens with zoom and focussing controlled from the desk gives you a wide range of projection angles. The CMY colour mixing system offers an almost limitless palette and is supported by two colour-temperature correction



filters (3200 and 5500 K).

The frost effect offers complete linear variation, allowing a spectacular transition from a

hard-edged beam

to an increasingly diffused wash. Stage Zoom 1200 is also packed with graphic effects including static gobos, rotating gobos and rotating prisms. They are all fully combinable and all with indexed positioning through 540° so that a given effect can be repeated on several luminaires. These are just some of the exciting new features of Stage Zoom 1200, the sophisticated new moving-body effects projector. Stage Zoom is revolutionary too, thanks its easy conversion into the Stage Color 1200 washlight.

## NEWS Shorts

Vari-Lite International Inc has acquired product distribution rights for Scandinavia through the purchase of VLSC Scandinavia AB from its parent company, Svensk Film and Ljusteknik AB. Following their recent acquisition of EML n.v. and VLB n.v., VLPS have also opened a new office in Utrecht.

Le Maitre supplied the pyrotechnic touches to the Spice Girls' recent appearance on the National Lottery Big Ticket show. BBC Special Visual Effects called upon Le Maitre for a number of effects, some of them seen for the first time, including coloured gerbs, flames and airbursts. Other recent Le Maitre projects include the extensive pyrotechnics for Bjorn Again at the Royal Albert Hall and a special 50th anniversary celebration for the UK-based Italian newspaper La Voce Italiani.

## PA Technologies Launch

PLASA members PA Installations have recently completed the final phase of a move into a new 10,000sq.ft independent unit on Llanelli's Dafen Park. It is just over a year since the company first relocated from its small Inkerman Street facility to the new purpose-built offices which, over the intervening 12 months, have been extensively refurbished to provide not only in-house fabrication facilities and a technical workshop, but a high-tech design department and suite of offices that Terence Conran would be proud to lend his name to.

The completion of the move marks yet another milestone for the company, headed by PLASA chairman Paul Adams and his wife Charmaine, who just last year pooled resources with Richard Vaughan of Vaughan Sound Systems to create a new company serving the pro audio and conference markets. That new enterprise - Vaughan Sound Installations - has also relocated to the new premises where the two companies, though independent of each other, now operate side by side.

For PA, which has been in business since 1982, June heralds yet another landmark and it was for this reason that Paul and Charmaine Adams invited clients, business associates and members of the press to join them for an official opening of the Llanelli HQ at which they announced the formation of a third company - PA Technologies. This latter, under the guiding hand of Mike Langseipen, will pursue a communications brief and will provide custom computer solutions to underpin PA Installations' specialist installation work.



Paul and Charmaine Adams outside their Llanelli HQ.

## Cue Fifth Anniversary

Cue Pro Audio celebrate their fifth anniversary this summer. The company was founded in 1983 by Danny Kitainik, establishing a fast track repair and service facility to the pro audio industry. The company has grown steadily over the five years, moving from a basement on Liverpool Road to a modern, high-tech unit beside the canal in Islington. Cue now employs four full-time engineers, experienced in all areas of the industry, and carries a substantial range of spares plus the latest test gear. The company is an authorised service centre for many leading professional brands including Sony, Panasonic, Technics, Hartke, RAMSA, Roland and Omniphonics and also specialises in Denon and Tascam DAT and ADAT machines. Last year Cue also became UK distributors for Apogee Sounds Inc, a move intended to broaden the scope of the company into selected sales.

LIVE  
begins  
AT40

**ENGINEERED  
FOR THE STUDIO.  
BUILT  
FOR THE STAGE.**

**AT4054  
AT4055**  
HANDHELD CARDIOID CAPSULES

Jim Ebdon's reputation as one of the world's leading engineers has been built on his dedication to always achieving the very best sound for his clients. Knowing this, we asked him to check out our new condensers in a critical live environment. His opinion speaks for itself, after all he's in our ad, and he wouldn't put his name to anything less than the best. Call, fax or e-mail Audio-Technica for more information on the live mics on which to build your reputation.



**audio-technica.**

The Complete Microphone Solution

Technica House, Royal London Industrial Estate Old Lane, Leeds LS11 8AG  
Tel: 0113 277 1441 Fax: 0113 270 4836 E-mail: sales@audio-technica.co.uk



AT4054  
low end roll-off  
60 - 20,000 Hz

AT4055  
flat response  
20 - 20,000 Hz

UNIQUE SHOCKMOUNT SYSTEM • 48V DC PHANTOM POWER SOURCE

# THE SHOW-LIGHTING REVOLUTION



**WASHLIGHTS  
ALLOWING TOTAL MASTERY  
OF COLOUR**

## Stage COLOR 1000

Stage Color 1000 is the washlight that solves colour temperature variation problems at the source thanks to the use of a 1000 Watt halogen lamp.

Designed and built for the needs of television and the theatre, this luminaire uses a 3-filter CMY colour-mixing system to give the exact colour required.

A frost filter of the latest generation provides a wide aperture and perfectly uniform light intensity over the entire illuminated area.

With ovalized projection, electronic dimmer, beam stopper and strobe, the features of Stage Color 1000 are guaranteed to satisfy even the most demanding lighting designer.

Only Clay Paky could make washlights so quiet (no risk of disturbing the hushed atmosphere of the theatre and television studio) and with such mastery of colour, offering an infinite choice of hues and perfect colour temperature correction.

These fine luminaires also share generous pan (450°) and tilt (252°) angles with smooth movements and microstepping resolution selectable between 8 or 16 bit. Both fixtures have automatic repositioning following



any accidental movements thus eliminating time-consuming realignment procedures, together with a convenient moving body lock system for easy transport.

## Stage COLOR 575

Stage Color 575 uses a tried and tested HMI 575/SE discharge lamp with optional hot-strike and on/off control from the lighting desk.

The 4-disc cyan, yellow, magenta and amber colour mixing system can generate infinite variations of tone, with a range of beautiful pastel shades to create special atmospheres not possible using conventional 3-colour systems.

The luminaire is complete with GTC, the exclusive Gradual-variation colour Temperature-Correction system.

3 filters for 3 different intensity frost effects, special effects, ovalized beam, beam stopper, strobe and mechanical dimmer are just some of the features of Stage Color 575, the washlight that offers the maximum creative potential supported by unparalleled reliability.

## NEWS Shorts

PLASA members Central Theatre Supplies have been involved in the final phase of a technical upgrade at Coventry Technical College's Theatre. CTS had already supplied the college with a Strand 430 desk, and in addition to the two Permus racks of dimming already installed, the company added a mix of eight Zero 88 Contour racks and two ID racks. CTS oversaw all the dimming and DMX installation, whilst Zero 88 provided support in customising the dimmers to the college's specification.

Beautiful Neptune Design, a specialist in lighting and scenic design for the conference, event and exhibition industries, has moved to new premises in Teddington. The company can be contacted at Kings Works, Kings Road, Teddington, Middlesex, TW11 0QB. Tel: 0181-977 1727.

## ETC Workshops



ETC Europe are currently holding a series of hands-on training modules at the Guinness Club in West London. The modules, named The Knowledge 98, cover the full range of ETC's luminaires, control and dimming systems. Participants have included professional LDs, as well as students, studying modules such as the console workshop - Express, Expression and Obsession II with New Moving light Software, and Making the Most of the Source Four range.

The next set of training modules will be held from June 29th to July 3rd. For further information contact Lucy Ellison at ETC, telephone 0181-896 1000.

**Fax your news to L+S!  
on +44 (0)1323 646905**

## PSL Spices Up North American Operation

Bob Higgins has been appointed the new head of Concert Touring Video Services for PSL Inc - just in time to greet the Spice Girls (now minus one) for their US tour. The move follows the departure of Malcolm Mellows. The experienced Higgins, who as a video director has toured with such acts as Stevie Wonder, Bon Jovi, country star Alan Jackson, Paula Abdul and David Bowie, will be based at PSL's head office in California.

The international concert touring company, part of the Gearhouse Group, announced the move as part of a restructure of their North American operation, which sees the opening of a new base in Nashville, following Gearhouse's acquisition of Allied Audio Visual. The new office, which will be run by Wade 'Ten-A-C' Slatton, will be based at The Sound Check in Nashville. Slatton is a seasoned tour and stage manager who has toured with such acts as Kenny Rogers and Wynonna Judd.

## Robert Juliat & Decoupe Move

Both Robert Juliat, the French lighting and dimming manufacturer, and Decoupe, their UK distributor, have recently moved to new premises.

In France, Robert Juliat can now be contacted at Route de Beaumont, F60530 Fresnoy-En-Thelle, telephone: +33 (0) 344 26 51 89, fax: +33 (0) 344 26 90 79.

In the UK, meanwhile, Decoupe have moved to larger premises offering increased stock and on-site demonstration facilities, and can now be found at Unit 2 Rainbow Works, 21 Markfield Road, Tottenham, London N15 4RC, telephone: 0181-885 2400, fax: 0181-885 2423.

## CONTRACTOR SERIES Architecture in Sound



SURFACE MOUNT & FLUSH MOUNT SPEAKERS  
Exceptional acoustics for ambient music and paging

Sound solutions for  
retail outlets, bars, hotels, restaurants, health clubs, airports...



The Martin Experience

Century Point, Halifax Road, Cressex Business Park, High Wycombe, Bucks HP12 3SL, England.  
Telephone: +44 (0)1494 535312 Facsimile: +44 (0)1494 438599  
www.martin-audio.com e-mail: info@martin-audio.com



**marquee**  
AUDIO PROFESSIONAL  
SALES & SYSTEMS

## THE SOUND CHOICE



**YAMAHA**

**KLARK TEKNIK**

**Lexicon**

**xta**

**Focusrite**



HEAD OFFICE: Shepperton Film Studios, Studios Road  
Shepperton, Middx, TW17 0QD  
TEL: 01932 566777 FAX: 01932 565861  
EMAIL: marquee.audio@dial.pipex.uk  
Special projects/regional offices in Sheffield and Cheltenham



# THE COMPACT REVOLUTION



## Stage COLOR 300

Presenting an ultra-compact washlight with a high-quality Fresnel lens, plus an efficient and spectacular fading frost effect with perfectly linear variation.

The innovative frost system provides a unique 50° aperture with uniform light intensity over the entire illuminated area, which greatly reduces the typical loss of brightness associated with conventional diffusers.

The CMY colour mixing provides an infinite varied palette, allowing lighting designers to choose exactly the right tone of colour for each scene. With a dimmer and beam stopper on separate independent channels, Stage Color 300 achieves a level of performance previously available only from far larger and more powerful luminaires.

### PINT-SIZE FIXTURES WITH BIG PERSONALITIES

Clay Paky have revolutionized the world of compact luminaires, making them so efficient and versatile that they are ideal for any type of environment and application. Both models use either the HTI 300 discharge lamp, offering the same features as the more powerful HTI lamps from which it is derived, or the brand new HMD 300 with a 3,000 hour average lifetime and colour temperature in excess of 5000 K. Equipped with a highly practical automatic repositioning device to correct accidental movements, both luminaires are also designed



for easy handling thanks to a convenient transport lock on the moving body. The wealth of functions provided by Stage Color 300 and Stage Light 300 makes them an ideal duo for professional and discotheque applications. Thanks to Clay Paky, top-level performance and compact dimensions are no longer conflicting requirements in the world of professional show lighting.

## Stage LIGHT 300

Presenting an ultra-compact effects luminaire equipped with electronic focusing and a manual zoom lens for a wide range of projection angles. This unit provides unique features for a fixture in this category.

36 colour combinations, 2 filters for colour temperature correction and special effects filters combined with refined graphics equipment including 6 rotating gobos with indexed positioning through 540° and a 3-face prism. There is also a mechanical dimmer and a high speed strobe.

The superlative performance and features of Stage Light 300 rate it as the most advanced compact moving body effects projector on the market.

## NEWS Shorts

Videowall specialist, *ProQuip Gearhouse*, is augmenting its hire fleet with 20 of Toshiba's new P4140SE projection cubes. Designed to accept an SVGA signal as well as PAL, NTSC and VGA, the cubes have been bought in response to increased demand for data-source as well as video-source videowalls.

The Norwich Community Church in East Anglia has recently taken delivery of a *Bose Panaray System*, specified by Bose UK and designed using the patented Bose Modeler system. The system was then tested on site using the Bose Auditor, which allows the designer/installer to create a three-dimensional computer representation of the venue and then to hear a 'virtual' representation of how the proposed system will sound within the venue.

## Tomcat UK Open Wirral Premises



Tomcat's Mitch Clark (centre) with Mayor Bobby Burns (left) of Midland, Texas, USA and Councillor Barney Gilfoyle, Mayor of Wirral.

A new 15,000sq.ft manufacturing facility on Merseyside was recently given its official launch by trussing manufacturer Tomcat UK. The two-day event, which included guided tours, product training workshops and a Texan barbecue, was attended by the Mayor of Wirral, Barney Gilfoyle, and the Mayor of Tomcat's home town of Midland, Texas, Bobby Burns.

Tomcat's chief operating officer, Robert Rendall, believes the opening of the new premises marks a major milestone in the growth of the company: "We are in a much greater position to serve the European and Middle Eastern markets than ever before. We have our customers, our employees worldwide and the good people in the Wirral to thank for this milestone."

By the end of the year, Tomcat plan to employ a total of 45 people at the new facility - making the UK operation around half the size of that in the US.

## Beyma Going Strong

Beyma UK Limited have announced that with effect from the 1st of this month, they will be trading under the name of Performance Light & Sound, and will continue to be the UK distributor for Acustica Beyma, the Spanish loudspeaker manufacturer.

Furthermore, in an exclusive deal signed at SIEL '98 in Paris, Performance will become the exclusive UK distributors for the Spanish lighting manufacture, Fresnel, S.A. of Barcelona, who currently market Strong Lighting - professional lighting and control, and Minor - a budget effects range.

Managing director John Ridley, founder of Beyma UK Limited told L+SI: "After several years of continuous growth, providing professional products to the audio industry, we will now apply our expertise to the lighting industry. We have also started to market Hyper Phase, manufactured by Acustica Beyma, which is a new line of OEM loudspeaker components."

## Feets of Flame

Michael Flatley (he of Riverdance and later Lords of the Dance fame) is to bow out in what will be the biggest show of the summer. Jonathan Park is in the designer's chair and Patrick Woodroffe lights Flatley's Feets of Flame show in Hyde Park on 25th July. Polygram will run a 25-camera shoot for a multi-million selling video tape, whilst the show will also see the highest ever spot towers, quadrophonic PA and the biggest stage since VE Day.

L+SI will have full coverage of the event in the August issue.

## Leaders in Performance Technology

Lighting, Sound and  
Communications Systems  
for Performance Spaces.  
Design, Manufacture, Installation.



**Northern  
Light**

Performing Arts Technology

Edinburgh  
Glasgow  
London

Assembly St., Leith  
Edinburgh EH6 7RG  
Tel: 0131-553 2383  
Fax: 0131-553 3296

[www.northernlight.co.uk](http://www.northernlight.co.uk)

E-mail: [enquiries@northernlight.co.uk](mailto:enquiries@northernlight.co.uk)



**EUROPEAN SOUND  
SERVICES LTD**

**TEL: 01268 570715**

**FAX: 01268 570693**

# professional new high performance mixer

NEW COMPETITIVE PRICES



## FEATURES

- Exceptional input flexibility, including XLR, balanced 1/4" and RCA connectors on all stereo inputs
- Multiple outputs, including Alternate Output and dedicated Assistive Listening Output. All primary outputs are balanced
- Matrix output as standard
- Meter bridge standard: eleven mechanical meters (Groups, Left, Right, Center/Mono and Solo) with solid-state illumination
- Discrete bus assignment
- True LCR panning on Mono inputs
- Four band EQ on all inputs (including stereo) with Sweepable mid band and high pass filters
- Four band Swept EQ on outputs group
- Eight Auxiliary Sends, with AUX 5/6 and Aux 7/8 switchable for stereo operation



**CREST  
AUDIO**

UK Distribution by:  
Sound Dept  
19 Blacklands Way, Abingdon Business Park  
Abingdon, Oxfordshire. OX14 1DY  
Tel: (01235) 555 622 Fax: (01235) 536 654



Cast in concert incorporating Chroma-Q. Courtesy of Paul Normandale, Lighting Designer, and Rob Hayward, Photographer.

## Chroma-Q

In 8 short months we have redefined the professional colour changing market. By applying innovative design and utilising technology, we have reduced the typical list price of a colour changer by 50% without compromise in performance or reliability.

So whilst other manufacturers react by cutting corners to offer cheap alternatives to the overpriced traditional colour changers, we set new standards in design and material technology, making the very best products more affordable to a wider market.

- *Fast - Two Seconds End to End*
- *Two to Sixteen Colours*
- *Injection Moulded from a UL Listed Composite*
- *Easy Servicing*
- *Very Reliable*
- *£239.00 List Price*



*Setting New Standards in Professional Colour Changing*



A.C. Lighting Ltd, Unit 3, Spearmast Industrial Park, Lane End Road,  
Sands, High Wycombe, Bucks HP12 4JG, England  
Tel +44 (0)1494 446000 Fax +44 (0)1494 461024

E-mail: [sales@aclighting.co.uk](mailto:sales@aclighting.co.uk)  
Internet: <http://www.aclighting.co.uk>



## dj culture Grows in Manchester . . .

The second dj culture show, held at the G-MEX in Manchester at the end of May, attracted equipment manufacturers such as Pioneer, Roland, Gemini, Vestax, Numark, Technics, American DJ (on the stand of UK distributor Batmink), Formula Sound, Cerwin Vega and Denon. A great improvement on last year's event, visitor numbers reached a total of 3,381 (ABC Audited) musicians, club-goers, pro and amateur DJs and technicians. Among the big names lending their support to the show were Roger Sanchez, Cutmaster Swift, Lisa Lashes, Mr C, Karl 'Tuff Enuff' Brown and Matt 'Jam' Lamont of Tuff Jam and Allister Whitehead.

The seminar programme, like the DJ mixing competition, helped to draw the crowds in. Particularly popular were Cutmaster Swift's and Roger Sanchez's 'How To Be a Top DJ', the female DJ workshop and Mr C's 'Club Promotions' workshops. Hundreds of taped entries were sent

in to the mixing competition prior to the event, and each of the six sections was sponsored by one of the equipment manufacturers at the show, who held heats on their own stands to find two more winners each to add to the four chosen from the postal entries. The overall winner of the DJ competition was Juan Corbi, while the runner-up was DJ Micke. Some of the judges were so impressed by the quality of the entrants that they've already been signed up for their clubs. Mr C commented: "The quality of the mixing competition was very high - fresh sounds from fresh faces."

Initial responses to next year's event have been very positive, with several of the major manufacturers re-booking even more space for next time, while feedback from exhibitors and visitors alike indicates that the dj culture show is well and truly on the map, and set to outstrip the success of this year in 1999.



Clockwise from top left: a daunting judging panel for the DJ mixing competition; mixers were up for grabs each day in the prize draw on the Roland stand; Rob Peck hosts some mixing enthusiasts on the Gemini stand; PLASA's Jo Boyd (left) is joined by Mr C and Pioneer's Heidi Johnson-Cash.





# ON A ROLL IN LAS VEGAS

**& London-New York-Paris-Sydney**

*BlackTak* double winner of both the ESTA Dealer Choice Award in Las Vegas and a PLASA Award for Product Excellence in London is acclaimed by lighting professional world wide as "first choice" for no - burn, high temperature, light masking. Tape available from Le Mark or through our Dealer network.


Call for free sample & complete product range or visit our web site  
<http://members.sol.com/lemarktvs>

**Le Mark GROUP**  
 Stephenson Road  
 St Ives  
 Cambridgeshire  
 England PE17 4WJ  
 Tel: 44 (0)1480 494540 • Fax: 44 (0)1480 494206  
 e-mail: lemarktvs@sol.com

**ESTA**  
 DEALERS'  
 CHOICE  
 AWARD  
 LDI 97  
 LAS VEGAS

**PLASA**  
 AWARD FOR  
 PRODUCT  
 EXCELLENCE  
 1997  
 LIGHT AND SOUND SHOW


# We don't sell pizza



Freelander Launch - Silent Associates


# but we do Deliver

100 Objects - Peter Greenaway



# Tasty Images

Torvill & Decn - ETC



pigi from

# E/T/C

THE ONLY ITEM ON OUR MENU  
IS A COMPLETE  
HIGH POWER PROJECTION  
SERVICE

tel: 00 44 181 893 8232

fax: 00 44 181 893 8233

e-mail: etcukltd@netmatters.co.uk

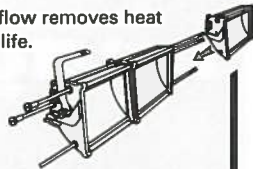
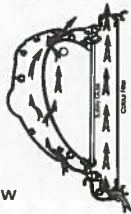
# SELECON ACCLAIM CYC & FLOODS

POWERFUL, SMOOTH  
COLOUR WASHES



To light cycloramas, backcloths  
and stage colour washes for the  
small to mid size stage.

- Complete range of single units and multiple batten luminaires.
- Computer modelled reflector design optimises light output for smooth distribution from short throw distance.
- Dual chamber air flow removes heat to maximise filter life.
- Cyc luminaires designed to be used on the floor as groundrow.
- DIY battens assembled from single units
- Colour filter assembly which clamps the filter in position
- Single piece yoke for batten units (accessory)
- CE marked.  
Meets European safety standards.  
Hinged safety glass disconnects the power supply when opened.



Manufactured using the latest in plastic injection moulding and aluminium extrusion technologies to provide a high quality performance luminaire at moderate cost.

## SELECON UK

Unit 25 & 26, Hightown Industrial Estate, Crow Arch Lane,  
Ringwood, Hants, U.K. BH24 1ND

Sales - Ph 01425 470888, Fax 01425 471398

Trade Enquiries - Ph/Fax 01428 714015

Email - selecon@ajs.co.uk

## SELECON NEW ZEALAND

Ph 64-9-360 1718, Fax 64-9-360 1719

Email - selecon@selecon.co.nz

Home page - www.selecon.co.nz

SELECON

## Left in the Dark . . .



We all know that a good lighting design can greatly enhance a theatre performance, while ill-conceived lighting can detract from the intentions of writer, director and cast. But what effect does the complete absence of light have on a performance? Well, it's all for the good, according to the Battersea Arts Centre, which has embarked on a nine-week long series of performances conducted entirely in the dark. The idea is that the darkness sharpens our sensory and imaginative response to the performance, so that we become deeply involved in the story in our minds, apparently making the experience more akin to reading a book than watching a cinema or television screen.

There seem to be many artistic and intellectual arguments for why this is an interesting idea, but the economic arguments should not be overlooked. After all, once they've dispensed with lighting (and lighting designers, set designers and builders, technicians, wardrobe, make-up, etc), theatre owners could further whittle their overheads by staging performances in old warehouses (who would care in the dark?) and by making the audience stand up (seating is expensive), thereby giving them the freedom to fully optimise their sensory experience by varying their listening position. Directors' wages could be ruled out by allowing the now itinerant audience to direct the action as they think fit, relying on the heightened powers of perception brought to them by the total darkness. If we can think of a way to dispense with actors, it could be a real money-spinner.

We couldn't get a picture of BAC's recent performance so we've asked our graphics expert to simulate what it might look like.

## Yes Master Tapes Turn Up After 23 Years

This industry throws up the strangest stories as witness the latest news from CP Cases who recently made an incredible find in their store room - 17 master tapes recorded in 1972 and 1975 by rock legends Yes. Following their touring years between 1968 and 1980, members of Yes emigrated to the US, leaving their touring cases with CP for safe keeping. The master tapes, including live recordings of Yes at the Academy of Music New York and appearances at Knoxville and Toronto were left undisturbed for 23 years.

During a recent factory clear out, managing director Peter Ross came across the tapes and set upon a mission to return them to their rightful owners. By coincidence, just weeks after the find, the group were to complete a European reunion tour at the Hammersmith Apollo, providing a golden opportunity for a safe return.

In order to make contact with the group, Ross turned to the Internet and approached Mike Tiano, the official 'Yesworld' homepage editor. He was able to put Ross in touch with the Yes management company Leftbank, who then arranged for the return of the 17 master tapes prior to the last gig at Hammersmith.

## Woodcock Sells Shares in CTS

Keith Woodcock has recently completed the sale of his controlling interest in Creative Technical Systems to his long term co-director Ivor Green and financial director Graham Worthington.

Woodcock and Green have worked together for the last 16 years in building CTS into one of the leading sound, light, video and laser installation companies in the UK. Keith Woodcock told L+S: "I wish to concentrate all my energies on my retail company, Academy of Sound, having almost completed the total re-branding and refurbishment of the old Carlsbro Retail music stores into the new concept chain."

## LIGHTING CONSUMABLES & ACCESSORIES

RB Lighting Ltd

LAMPS  
COLOUR CALLS  
CUSTOM GOBOS  
TAPES  
BATTERIES

CABLES  
CONNECTORS  
HARDWARE  
PYROTECHNICS  
ROSCO PAINTS

0181-977 9665

Unit 10, Teddington Business Park, Station Road,  
Teddington, Middlesex, TW11 9BQ Fax: 0181-977 5687

# CONQUERING THE BOUNDARIES OF SPACE TIME & ENERGY

(EINSTEIN WOULD BE SMILING—IT WAS DONE WITH LIGHT...)

## INTRODUCING THE TECHNOBEAM™ AUTOMATED LUMINAIRE

NOW YOU DON'T HAVE TO  
BE A ROCKET SCIENTIST  
TO BRING INTELLIGENT LIGHTING  
TO YOUR UNIVERSE

### SPACE

A galaxy of special effects integrated into a lightweight (35 lb), compact (9" x 12" x 32"), stylish luminaire.

- Hard or soft edge selectable light beam.
- Superb projection capabilities allow your custom image or message to appear on any space.
- Paint your desired environment with a vast palette of easily selectable dichroic color.
- Moving mirror allows remote positioning of light with pan and tilt of 180° x 95°.
- Remote focus, frost, prism, 7 rotating patterns plus open position, 5-position rotating effects wheel, variable speed strobe.
- Layered, multi-focus, 3D, liquid and textured effects to design your universe.

### TIME

Never before has it been so simple to produce an out-of-this-world stage show or corporate event, or to enhance any interior environment in a short amount of time.

- Control via DMX-512, Lightwave LCD controller, or 8-scene on-board memory.
- Laser aiming device (LAD) allows programming and refocusing in high ambient lighting.
- No dimmers needed—all intelligence is on board.

### ENERGY

Space-age technology makes Technobeam the most energy efficient intelligent luminaire in the cosmos.

- Universally compliant to electrical codes and meets most "green" codes.
- Unprecedented 2500 hour life from 250 MSD lamp.
- Power factor correction, elliptical/spherical reflector system and lens enhancements provide profound lumens/watts ratio consuming only 3.2 amps @ 120v, 60hz.
- Voltage selectable for any power source on this planet.
- E=MS². You'll find Technobeam's value/price ratio amazingly attractive.

## TECHNOBEAM™

FROM LIGHTWAVE RESEARCH / HIGH END SYSTEMS

### PLANET AUSTIN

BECAUSE QUALITY IS ALWAYS THE BEST INVESTMENT

DISTRIBUTED IN THE UK BY LIGHTFACTOR SALES,

CALL +44 (0)181 575 5566

RETAIL

TELEVISION

CONCERTS

HOME THEATRE

EDUCATIONAL STAGES

ARCHITECTURAL

NIGHTCLUBS

EVENTS

FILM

THEATRE

CHURCH

CORPORATE

DISPLAY MERCHANDISE

TRADESHOWS

ASK ABOUT TECHNORAY  
AND TECHNPRO™  
COMPANIONS TO TECHNOBEAM

<http://www.highend.com>

## High End



SYSTEMS  
LIGHTING-WORLD-WIDE

HIGH END SYSTEMS, INC.:

2217 West Braker Lane, Austin, Texas 78758 USA  
Tel: 512.836.2242 Fax: 512.837.5290

HIGH END SYSTEMS, WEST COAST:

8200 Haswell Avenue, Van Nuys, California 91406 USA  
Tel: 818.947.0550 Fax: 818.908.8975

HIGH END SYSTEMS SINGAPORE PTE. LTD.:

Denison 1, 1 Tanjong Road #6-05, Singapore 347718  
Tel: 65 742 8266 Fax: 65 743 8332

HIGH END SYSTEMS GmbH

Tel: 49 8 122 9903-0 Fax: 49 8 122 9903-33

# PREACHING TO THE CONVERTED?....

The same discerning audio professionals who have always relied on AKG's C747 for its superb voice intelligibility are now discovering our Discreet Acoustics Mk2 microphones; a beautifully presented modular range that embodies the same thinking and attention to detail that made the C747 such a huge success.

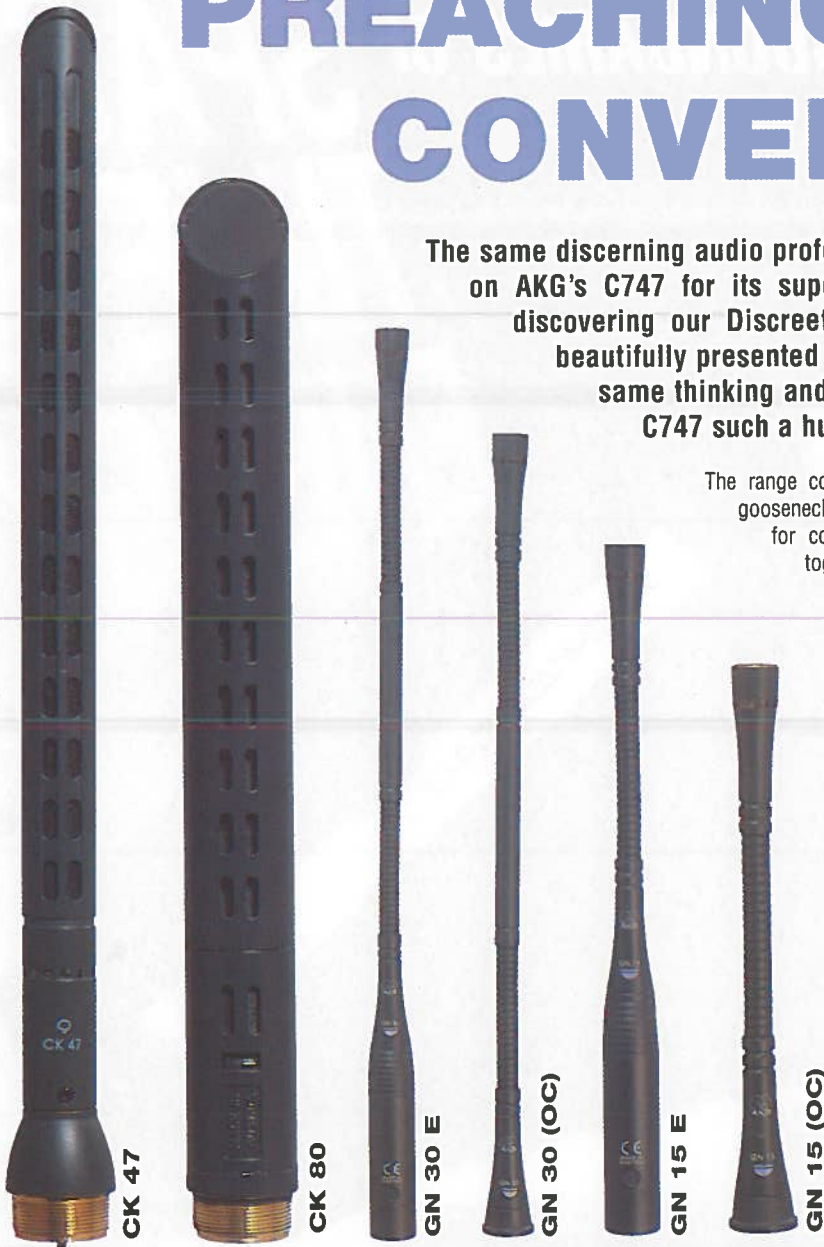


The range consists of five capsules and six installation microphones (5 goosenecks and 1 hanging module) which can be used in any combination for complete flexibility, allowing the ideal microphone to be put together for any application.



A phantom powered LED ring lets you check at a glance if all microphones are correctly connected and phantom power is on. Alternatively, the LED ring can be connected to an external supply in the usual way to provide a subtle "MIC ON" indication.

Two versions of gooseneck installation modules allow connection via phantom power adaptor or unterminated cable.



**DISCREET** *Modular*  
A C O U S T I C S



**LEGENDARY STUDIO QUALITY BY**

Distributed exclusively by  
**ARBITER GROUP PLC**  
 Wilberforce Rd. London NW9 6AX  
 Tel: 0181 202 1199 • Fax: 0181 202 7076 • Web: [www.arbitergroup.com](http://www.arbitergroup.com)





## RazorHead Breaks Light Barrier

WWG recently persuaded a large group of industry figures out to a dark, remote Oxfordshire field for a demonstration of their new RazorHead moving searchlight. Standing at nearly three metres tall, RazorHead 10 has been designed to bring greater power and movement into the market for entertainment searchlights. One big advantage of the RazorHead system is that there is no need to drive the searchlight itself - it simply slides in underneath. Thus, the unit can accept the American-made Xenotech Britelight 10k as its power base, and the Francis Polaris, a 7kW searchlight with a 76cm (30") reflector made in the UK, is also a potential mate for this massive beam-moving device. So, now with two different RazorHead models, both utilising WWG's patented orbital scanning technology, the company can claim that virtually any large scale searchlight can be automated and controlled.



The unit has also been re-styled since the original, smaller touring models were made and shown at LDI '97 in Las Vegas, and the latest version has taken on a much more rounded and smooth appearance. Peter Wynne Willson's 51cm (20") convolving colour system was also unveiled at the event, mounted on the front of a 7kW Xenotech searchlight. Based on the CMY subtractive system, it consists of six layers of dichroic leaves which are proportionately driven. During the demonstration, four RazorHead 7s situated out in the darkness of a 30-acre field of crops swung as one to precisely track a vehicle moving across the horizon. Later, to the strains of U2's 'She Moves in Mysterious Ways', from whose Popmart tour they had recently returned, the RazorHead-driven beams flew skywards to demonstrate their faster moves and programmable geometry in an aerial ballet orchestrated by freelance operator Paul Gavin from an Avolites' Pearl.

RazorHeads are available in North America by Xenotech-Strong International of Los Angeles, California, who are the licence holders in the United States. Production will commence there later this year after which the product will also be available for rental. Static Xenotech searchlights are available for stock from Michael Samuelson Lighting, who supported the RazorHead presentation, or as a joint package from WWG.

*Additional reporting by John V. Bloomfield*

## Roundhouse's Bright Future

A new plan has been unveiled to turn the Roundhouse in Camden into a £20m television, radio and recording studio with a 150-seat restaurant and a landscaped garden. The venue, which once played host to the likes of Jimi Hendrix and The Doors, has been largely unused for 15 years, but has hosted various conferences, including the annual Live! Show.

# Slick™

*A Touch of Distinction in the World of Trussing™*

*The strongest  
most comprehensive  
trussing range  
available*

Portland Street North, Leek, Staffordshire ST13 6LA, England  
Tel: 44 (0) 1538 372109 • Fax: 44 (0) 1538 381315

# POWER Link

## ABSOLUTE POWER



- ✓ 5 Different Colours and Location Keys to prevent the possibility of accidental cross mating.
- ✓ Dead front contacts to prevent the risk of accidental touching.
- ✓ Multipoint contact ensuring minimal power loss
- ✓ 400 A Continuous Current Rating
- ✓ IP67 waterproof (mated condition)
- ✓ Secondary locking on cable male
- ✓ 500 Vac Insulation resistance
- ✓ Skin top cable clamp.

**New address**

Via di Tor Cervara, 173 - 00155 Rome - Italy  
Tel. +39 - 6 - 227251 r.a. - Fax +39 - 6 - 22725225  
Internet: [www.pronet.it/link](http://www.pronet.it/link) E-mail: [link.pro@iol.it](mailto:link.pro@iol.it)



**Q. WHEN IS A CHEAP COPY  
NOT A CHEAP COPY?**

**A. WHEN IT COSTS YOU...  
MORE!**

**TOA SOUND & COMMUNICATION SYSTEMS...  
OFTEN COPIED, RARELY EQUALLED, NEVER BEATEN**



**NEW TOA PRICE LIST**

**TO BE ISSUED**

**1<sup>ST</sup> JULY 1998**

**TOA - THE GENUINE ARTICLE,  
THE MOST COMPETITIVE PRICES**

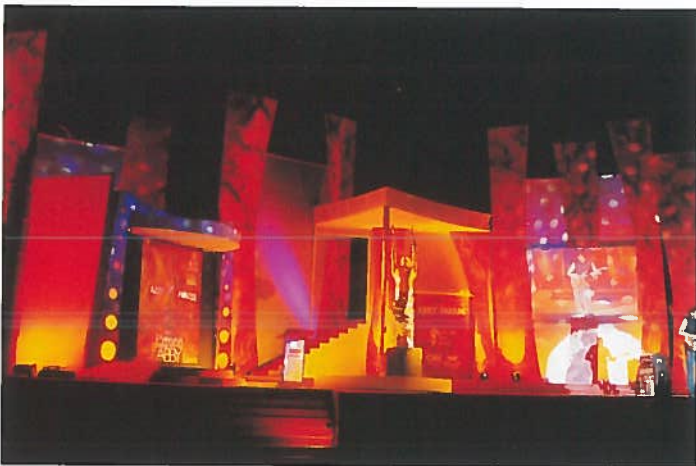
**FOR YOUR COPY OF THE NEW TOA PRICE LIST;-  
CONTACT CRAIG ABBOTT AT TOA ON:**

**Tel: (01277) 233882**

**Fax: (01277) 233566**

**E-mail: [craig@toa.co.uk](mailto:craig@toa.co.uk)**

## Shobiz Projects



Shobiz, one of India's leading stage management companies, has recently supplied the lighting, staging and design for the launch in India of the new Mercedes Benz E Class car, as well as the complete staging, lighting, atmospheric effects and pyrotechnics for the Abby Awards (pictured above) - the Oscars of Indian Advertising and the annual event for the Advertising Club of Bombay.

## Dr Dolittle Opens Next Month

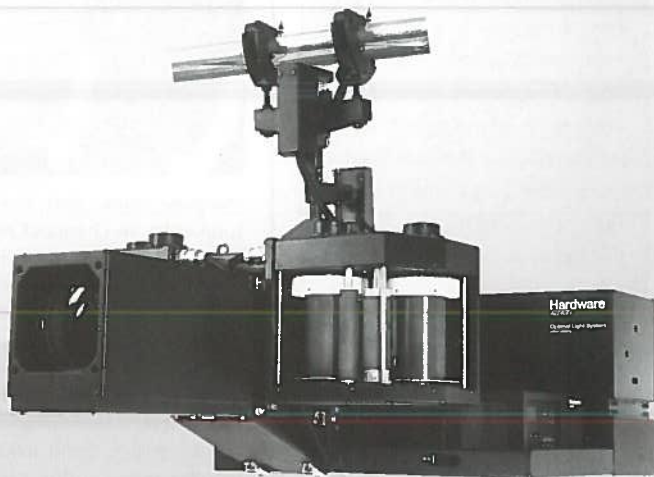
White Light and The Moving Light Company have been awarded the contract to supply the production lighting equipment to Apollo Leisure's new musical, Dr Dolittle, which opens at the Labatt's Apollo on July 14th.

Re-uniting director Steven Pimlott and designer Mark Thompson, the team behind Joseph and the Amazing Technicolor Dreamcoat, Dr Dolittle will be lit by Hugh Vanstone. The conventional lighting rig includes around 220 ETC Source 4s, 12 ETC Source 4 Pars, 12 Strand Alto 8/16s, 24 Strand Cantatas, 136 Par cans, four Toccata effect projectors with White Light VSFX animation units, 40 birdies, 12 Dataflash strobes and 72 scrollers. Dimming will be from Strand LD90s, ETC Smart Racks and Avolites dimmer racks, and run from a Strand Light Palette 90 console. White Light will also supply two Robert Juliat Aramis and two ColorArc followspots. The automated rig, supplied by The Moving Light Company, will include 16 Martin MAC500 spotlights, 29 MAC600 washlights, four PAL1200 framing spotlights, six High End Cyberlights and 20 DHA digital light curtains. The automated lighting rig will run from a WholeHog II console, programmed by Richard Knight.

The audio system for the show is being supplied by TP Audio, and includes a main loudspeaker system from EAW, consisting of KF300, KF850 and KF650 cabinets (with JF50s and JF60s used for delays and surrounds), amplification from a mixture of Yamaha H5000 and H4002 amplifiers and 36 channels of Sennheiser SK50 radio mics, all of which are run from a Cadac mixing desk. Several Meyer UPM speakers are built into the set for sound effects including the conversation between Dr Dolittle and the parrot. Sound designer is Richard Ryan and sound effects designer is Paul Arditti.

Further coverage of Dr Dolittle will appear in a future issue of L+SI.

## A new state of the art in high power projection



The Hardware Xenon 7000 watt Optimal Light System (patent pending) offers significant innovations:

- 80 % more light on the screen
- unmatched image quality
- advanced high definition projection lenses: 105 mm, 140 mm, motorised zoom 220-500 mm, 60 mm dome lens...
- new versatile double scroller and single scroller
- motorised hanging device in trusses - pan 270° and tilt 45°
- rotatable scroller
- the unique performance of the Universal Digital Controller (UDC):

DMX 512 compatible, the built-in computer system of each UDC allows full control over the motorised devices: scroller, automatic slide changer, zoom, rotatable scroller, pan and tilt ... with a full 24 bit resolution.



UK : Hardware For Xenon Ltd / 140 Clayton Road / Hayes / Middlesex UB3 1BB  
Tel 44 181 848 13 87 / Fax 44 181 848 11 35

FRANCE : Hardware SA / 126, avenue Pablo Picasso / 92000 Nanterre  
Tél 33 1 47 76 00 29 / Fax 33 1 49 06 07 13  
E-mail HWXENON@aol.com

GERMANY : Hardware Deutschland GmbH / Claudiastrasse, 5 / 51149 Köln  
Tel 49 2203 18 16 83 / Fax 49 2203 18 16 84

USA : Hardware Xenon Inc. / 919 Isabet street / Burbank - CA 91506  
Tel 1 818 557 0716 / Fax 1 818 557 0996  
E-mail HWXENONUS@aol.com

The  
Fibre Optic  
Lighting People



Par Opti Projects Ltd,  
67 Stirling Road, London W3 8DJ, England  
Tel: 0181-896 2588 Fax: 0181-896 2599

## NEWS Shorts

**Electrohome Limited** has supplied 78 ECP-3500 projection systems to Illusion Inc's SpeedSports virtual reality Grand Prix racing centre at the Sahara Hotel and Casino in Las Vegas, USA. The Sahara SpeedWorld features 24 three-quarter scale virtual race cars that race against one another in real time. Each car sits in a bay which contains three Electrohome projectors, running from computer image generators.

**Harkness Hall** have introduced an updated guide to projection screens and systems. Titled 'Picture the Difference', the 10-page guide includes sections on portable and folding frame screens, general wall/ceiling and auditoria screens, rear projection systems and a wide range of fixed and flying frame screens.

## Crest 'Off the Wall' in the West End



Marquee Audio and The Sound Department have supplied a 56-channel Crest Century LMX console to Autograph Sound Recording for use on the new production of *Saturday Night Fever* at the Palladium Theatre in London's West End. The console is situated in the orchestra pit at the theatre, and, due to space limitations, has been bolted to the wall. The console (pictured above with monitor engineer Tim Clark) was specified by sound designer Mick Potter, in response to the increasing trend towards the use of individual monitor mixes and in-ear monitoring in the theatre environment. Potter also specified 30 B&K 4060 boom microphones following Autograph's trials with them on last year's production of *The Fix* at the Donmar Warehouse. The production also features the first LCS LD88 Super Nova in the UK, which is a digital 24x24 matrix that will control all of the loudspeaker delays, equalisation and audio automation.

## Laser Courses

A four-day course leading to the qualifications of BTEC Entertainment Laser Operator Award (Level 2) and BTEC Entertainment Laser EHO Award (Level 2) took place at Loughborough College in May. Both the Production Services Association (PSA) and the Entertainment Laser Association (ELA) were heavily involved with the course - the first in a series of nationally recognised training courses covering topics ranging from lighting, sound, staging and backline, to production management and health and safety awareness.

The next course will take place in September. If you would like to register, contact Dr Daniel Clark at Loughborough on (01509) 215831.

## STLD Showcase

The Society of Television Lighting Directors are bringing together as many sponsor companies as possible under one roof to demonstrate a selection of their product range. The showcase will be divided into the four categories of Hard Light (Fresnels/Profiles); Soft Light, Reflectors/Grip Gear; Automated Lighting and Dimmers/Control Systems. The aim is to provide an opportunity for hands-on experience of the products where they can be viewed in a TV environment through a studio camera and seen, where appropriate, projected onto a cyclorama. The event, which will run on 3rd-4th July, will be staged in Studio C at Elstree, home of *Top of the Pops*.

For further information, contact Mark Kenyon on (0973) 249432.

## SNOW BLIZZARD IN SINGAPORE!

White evaporating dry flakes of snow fly 100' through the air, leaving no trace of wetness anywhere!

Create this effect instantly with the Little Blizzard Snow Machine & Hurricane II Fan.



Little Blizzard SP (Soundproofed)  
Now Available

## UNIQUE LIGHTING ACCESSORIES

## CITY THEATRICAL I N C

752 EAST 133RD STREET BRONX, NY 10454  
800/230/9497 FAX: 718/292/7482

Visit Our Web Site <http://www.citytheatrical.com>

Represented in the U.K. by:

**T.M.B. ASSOCIATES**  
PRODUCTION SUPPLIES & SERVICES

The Old Brick Yard Eastbourne Road  
Brentford, Middlesex, TW8 9PG England  
(44) 181 560 9652 phone  
(44) 181 560 1064 fax

**CITC**

CRAWFORD INTERNATIONAL THEATRICAL CORPORATION  
2100 196th ST. SW #138, LYNNWOOD, WA 98036 USA  
PHONE: (425) 776-4950 FAX: (425) 776-5129  
[www.citcfx.com](http://www.citcfx.com)

# NEW RACKPAKS – MORE OPTIONS



## Rackpak

When you are looking for a power pack that gives you flexible options, our new range of Pulsar Rackpaks will fit the bill. A total of thirteen models designed to suit from the smallest venue up to the largest are available. Rackpaks have been designed with electrical characteristics to tolerate the wide difference in electrical supplies and connector types and are the perfect choice for dimming applications world-wide.

Within the range, models providing single, 2 pole or 3 phase mains supply capability are available. Output connector options can be front panel mounted

**PULSAR**  
LIGHTING FOR EFFECT



on the 4U range or by means of over ten interchangeable panels on the back of the 2U range. All Rackpak units are designed to accept analogue control as standard with the option of an easily fitted PMX/DMX input kit to provide digital compatibility when required. Many Rackpaks are available as status (ST) versions that feature additional operator visual feedback and test controls. With all these facilities it is clear, when you are looking for a range of power packs with more options, you have just found them!

Ask your Pulsar reseller for the new Pulsar Rackpak range.

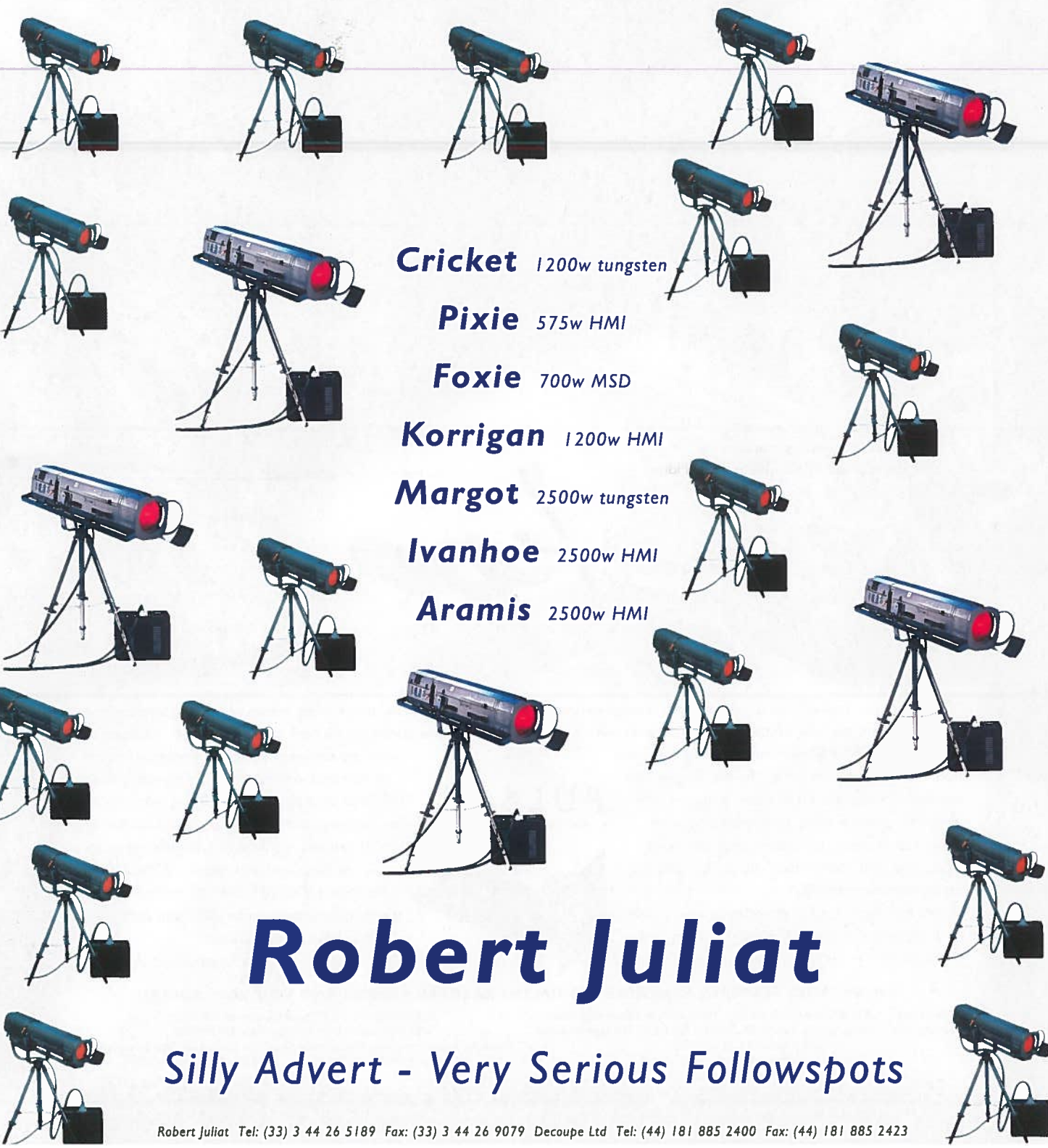
### CHECK THESE FEATURES AVAILABLE WITHIN THE RACKPAK RANGE, AND YOU WILL AGREE!

Mains supply • 100-230V AC +/-10%, 48-62Hz, single, 2 pole or 3 phase compatibility  
Output options • Harting, Socapex, 15A, 5A, IEC, Schuko, 110V, French, CEE17 and Hardwired  
Load outputs • 6 x 5A or 6 x 10A  
Load type • Inductive and/or resistive on all models

Analogue input • 6 x 0-10V analogue via 8-pin DIN socket  
DMX/PMX input • 5-pin XLR-F (In), 5-pin XLR-M (Thru)  
Diagnostics • Level control pots, Output monitor neons, Fuse blown neons, Digital status LEDs  
Dimensions • W483mm(19") x D240mm x H178mm(4U) or H88mm(2U)



# Spots before your eyes



**Cricket** 1200w tungsten

**Pixie** 575w HMI

**Foxie** 700w MSD

**Korrigan** 1200w HMI

**Margot** 2500w tungsten

**Ivanhoe** 2500w HMI

**Aramis** 2500w HMI

# Robert Juliat

*Silly Advert - Very Serious Followspots*

## A Unique Setting for The Secret Sign

The advance publicity for *The Secret Sign*, produced by Glasgow's site-specific art group, NVA, carried a warning against attending to those who suffered from heart conditions, anxiety, fear of heights, etc. Midnight Design, the London-based lighting and special effects company who undertook the challenges set by NVA, should have had some idea then, that this was to be no ordinary project.

When Midnight's Damian Dowling was contacted by artistic director Angus Farquah, the project was described as 'a unique piece of theatre and environmental animated installation'. It wasn't until Dowling had trekked 15 miles outside of Glasgow in the height of winter, to a remote natural gorge called Devil's Pulpit and seen the load-in route that he began to get a taste for the project. The route included a steep, old and crumbling flight of stone steps descending 250ft down a cliff face above a bursting river. Dowling recalls: "We stayed till darkness that day, huddling in a close circle surrounded by a river in full flood, with Angus enthusiastically describing his ideas."

Despite the hardships, Dowling returned to the site several times over the next few months. "On every visit, the gorge took on a completely new feel. This secret space was to provide us with the most stunning natural stage set that I had ever had the pleasure of working on."

The audience were to arrive by coach from Glasgow at dusk, equipped with waders and hard hats and led off across a field, with hunters and campfires visible in the distance (these unnerving extras were made up of local hill-walkers, climbers and mountain rescue teams) to tie a final wish to a wishing tree, ablaze with lights and guarded by a real-life vulture. Led by guides, the audience then wade for a quarter of a mile through the water of the gorge, with 200ft cliffs rising on either side. Concealed lights highlight the rock surfaces, while miniature low voltage underwater fixtures pick out more birds of prey tethered to branches and rocks. They are accompanied by an ominous soundtrack played through speakers hidden from view in the darkness above them, and the distant hunters' firebrands can be seen on the clifftops as they follow the group.

On arrival at the stage, called 'the Sanctuary', the audience are seated on a platform built from logs and spanning the river. The Sanctuary was lit by Midnight's remotely-operated gas flambeaux torches and 50 assorted candlelit lanterns, with additional ambience coming from concealed floodlights on the underside of the audience seating platform. As the guides move slowly out of view up the gorge, an explosion is triggered, blowing out all the lights. To achieve this, all the lanterns were fitted with miniature fans, which blew out the flames when activated, while the flambeaux torches were equipped with electronic solenoids to cut off the gas supply.

The total blackness then provided the starting point for the main part of the show, in which the gorge was lit in a series of lighting scenes which, along with the soundtrack, took the audience on a journey through the seasons. Again, the distant hunters made peripheral appearances, adding a

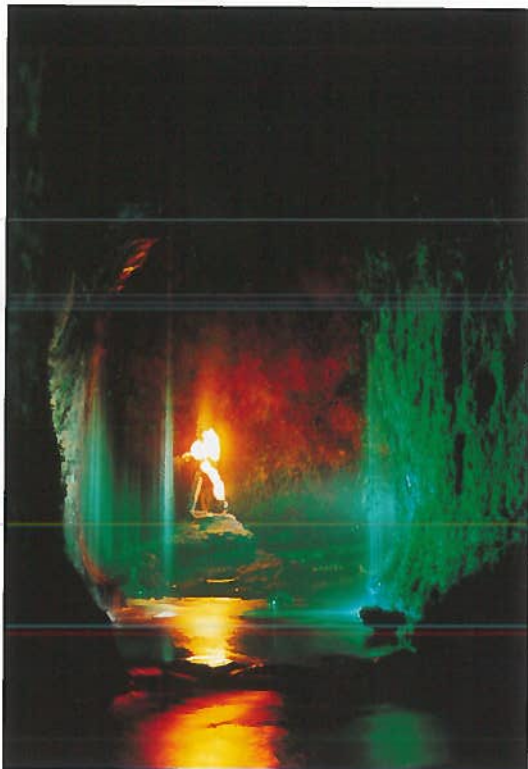


photo: Alan McAteer

touch of menace to the proceedings with their flaming torches.

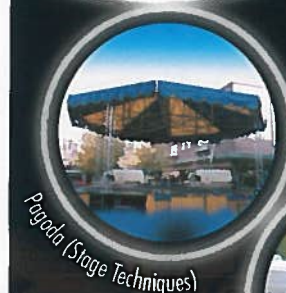
In order for these scenes to work it was essential that all the light sources were concealed from the audience. This resulted in lanterns being rigged on concealed towers built within the water, and also along the clifftops, in trees and any other suitable position. Miles of concealed cable was installed, linking the clifftops via steel catenaries, and hidden beneath the surface of the river. Lightning effects were installed using 24 weather-proof Dataflash strobes.

The show progressed through to a 'chaos' scene, which required Midnight to provide a water spray effect which would send a 25ft spout of water into the air, engulfing the Devil's Pulpit and the guide who stood there with his arms outstretched. This was followed by a much larger water screen effect that raised a curtain of water 50ft high across the gorge. This could then be used as a projection surface, or as a gauze through which the guide could be seen, side-lit, seeming to float in the water. This was followed by the guide, and then the entire gorge being engulfed in flame, as a series of Midnight's remotely-controlled flame bar effects, concealed along the edges of the gorge, were triggered. The flame effects, water screens and lights were controlled from two Pearl consoles from Avolites.

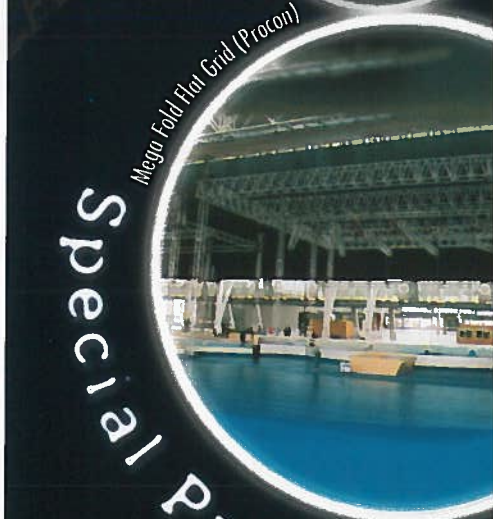
Finally, the water screens subsided to reveal a woman with a bird of prey, silhouetted against a cloud of steam and smoke rising from the pulpit. The bird is released, swooping down over the heads of the audience to retrieve a carefully-placed feed, cueing silence and blackout.

This was the harshest environment that Dowling and the team had ever been faced with: threat of flood after the river rose eight feet overnight meant a full evacuation at one point. But the results and the dedication from all concerned made the unique performance a great success.

TOTAL  
FABRICATIONS



Support System (United)



Special Projects

U.K. OFFICE

Tel: +44 (0) 121 772 5234 Fax: +44 (0) 121 772 5231

U.S.A. OFFICE

Tel: +1 (805) 676 3322 Fax: +1 (805) 676 1616

ASIA OFFICE

Tel: + (65) 352 5586 Fax: + (65) 356 3665

e-mail: info@totalfabs.com

Internet Address: http://www.totalfabs.com

# Giotto

**Any colour you like.**



foto Blow-Up - Pesaro - Italy

## **professional moving head wash luminaire**

- 1.200W MSR discharge lamp
- 22.000 lux @ 5mt
- 200mm fresnel lens diameter
- electronic ballast
- universal main source (90÷245V AC - 50/60Hz)
- speakon main socket
- 540° pan rotation (3,8 sec) 16bit resolution
- 270° tilt movement (2,4 sec) 16bit resolution
- CMY colour mixig system
- 6 position colour wheel with dichroic filters
- shutter/strobe
- zoom
- linear dimmer 0÷100%
- dmx 512 input signal (13 channels)
- settings via internal microcomputer
- dimensions & weight: 470x420x720 mm - 30Kg

**SGM**  
LIGHT TECHNOLOGY

Via Pio La Torre, 1 - 61010 Tavullia (PS) - Italy  
Tel. +39 (0)721 476477 - Fax +39 (0)721 476170  
<http://www.sgm.it> - [sgm@interbusiness.it](mailto:sgm@interbusiness.it)



## Grand Princess Weighs Anchor



Last month saw the world's largest passenger vessel, Princess Cruises' Grand Princess enter service. This incredible ship uses some of the most advanced marine technology ever employed and costs have not been spared in the provision of entertainment technology. The Grand Princess has three main performance venues on board. The technical design and planning of the entertainment venues was carried out by Glantre Engineering with the support of Theatre Projects Consultants. Following on from this, and with the highest value of any contract awarded to a British firm, Glantre was contracted to Fincantieri to supply and install the stage rigging, machinery and special equipment for the main Princess Theatre and two showlounges onboard.

The Princess Theatre was designed to provide every member of its 768 capacity audience with a clear and unobstructed sight line of the Broadway-style productions. Backstage, the five-deck-height flytower contains a total of 31 lineshaft hoists including 14 scenery hoists, five lighting bar hoists and a high speed main drape hoist all with access from two fixed catwalks. On stage, three cross-stage together with three up- and down-stage inset chain-driven tracks provide for a variety of scenery wagons to cross each other on stage. Simple to attach/detach, the wagons can be stowed under-stage when not in use. Canadian-designed Spiralift elevators are used in the orchestra pit, which can be raised to create an additional seating area or a forestage extension.

One of the more unusual effects of the Princess Theatre is the full stage width rain curtain, which, positioned downstage of the main drape, offers a wide range of effects from a solid wall of water to a curtain effect, opening and closing from the wings. Everything is controlled via the Acrobat 3D! computer memory system from Stage Technologies, allowing central control of all the stage machinery. To complete the full Broadway-style specification, Glantre included separate portable systems for 'flying' performers, each with their own individual, intelligent control system.

The other main entertainment areas are the Vista and Explorers showlounges. Here the technical specification includes two multiple screw jacklifts which lower the stage to auditorium level allowing it to double up as a dance floor. Two motorised, pivoting flats seal the wings when the stage is down or provide various angles of on- and off-stage masking. Over the stage and forestage, a Unistrut grid carries lighting and sound equipment, as well as curtain tracks, projection screen and a multiple scenic roller. Stage machinery can be controlled independently using a computer memory system, as well as the fixed control panels.

The Explorers showlounge is designed principally for cabaret. Unique stage features include a cantilevered semi-circular portion which pivots out from under the main stage floor to double the stage area. On top of this, a smaller circular stage can rotate in either direction through 360 degrees.

BBC TELEVISION - THAMES TELEVISION - ROYAL VARIETY SHOWS - GRANADA TV



**Starcloths - Drapes - Sound - Lighting**  
Unit 11 Chelsea Fields Industrial Estate  
278 Western Road, Merton, London SW19 2QA

PW Enterprises Ltd are THE Starcloth company. Managing Director George Wetherill is the original designer of modular Starcloths. His vast theatrical experience and design flair have been used to stunning effect throughout the entertainment and leisure industry.

For more information contract George, Perry or June on  
Tel: 0181-646 6131 - Fax: 0181-646 5983

**WE'RE RIGHT BEHIND YOU!**

WEST END TOURING - HOTELS - DISCOS - OPERATIC - BBC TV - MILES - HIT - VIDEOFILM - PRODUCTIONS - LWT - MICHAEL HURILL SERVICES - CARLTON TV - TRADESHOWS - CLUBS MARQUEES



## Azure 2000

The Latest  
Stunning  
Creation!



Console

**The Azure 2000 offers power.**

More channels, fixtures, memories and programming tools

at a price you can't resist.

2048 Channels of power for Nightclubs, TV Studios, Live Concerts, Theatrical Productions and Events combining automated and generic lighting control.



19" Rack

UK: TEL: +44 (0)181 965 8522 FAX: +44 (0)181 965 0290  
USA: TEL: +1 423 938 2057 FAX: +1 423 938 2059



World Class Products



World Class Service

**Visit our Website at**



A.C. Lighting Ltd, Unit 3, Spearmast Industrial Park, Lane End Road,  
Sands, High Wycombe, Bucks HP12 4JG. England  
Tel +44 (0)1494 446000 Fax +44 (0)1494 461024

E-mail: [sales@aclighting.co.uk](mailto:sales@aclighting.co.uk)  
Internet: <http://www.aclighting.co.uk>

## NEWS Shorts

The **Maltbury Metrodeck** is proving popular with the Warwickshire-based Alcester Male Voice Choir. Following a National Lottery Capital Arts Grant, the choir selected Metrodeck for both seating tiers and staging which was supplied by local Maltbury agent Stagepoint Technical Services.

Pro audio amplifier specialists **Matrix Audio Developments** have appointed GPS Gruppen AB as its distributor based in Copenhagen, Denmark. GPS Gruppen plans to change its name to Lineman Audio Supplies in the near future.

**VME** (The Voice Music Effects Hire Company) based in Cheshire has been contracted to supply the 'Sky Super League Rugby' sound system coverage for the third season running with Sky Sports. At the home ground of the Warrington Wolves, VME use a rig from **Ohm's** RW Series, whilst at Wigan Warriors' Central Park venue an Ohm BR-S rig is installed.

## Clear Colour Cruises the Caribbean

Rosco's paints are now sailing the high seas thanks to scenic artist Jim Harper's highly imaginative and distinctive murals aboard P&O's 'superliner' Arcadia. Arcadia came into service in December 1997 and is one of the first of a new generation of superliners, succeeding the Canberra which was retired in September. The ship benefited from the 'Rosco treatment' when Harper used Rosco fluorescent paints to jazz up Decibels disco, catering exclusively for teenage passengers. Harper's surreal landscapes incorporate a theme park, lava flow and Stonehenge, located across two walls of the club.



## GAE Loudspeakers Establish UK Operation

German speaker manufacturers GAE Audio Engineering have recently setup a new UK facility. Trading under the name of GAE Sales UK, the operation will be run from the heart of London's music land, its offices being situated adjacent to one of the country's premier rehearsal facilities - The Depot on Brewery Road, London.

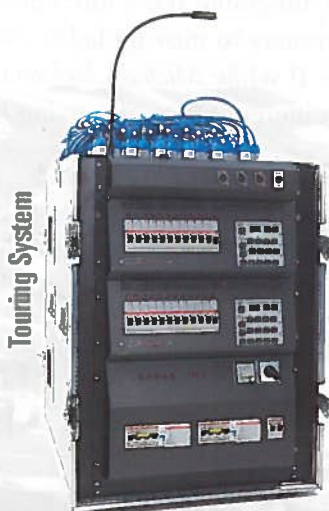
The new UK office boasts a demonstration facility of over 5,000 sq.ft which can readily be set up in a 'live stage' situation to give touring engineers and also installation designers a unique

opportunity to witness GAE products in action. At the helm is long-time GAE associate Peter Barnard whose experience in the pro audio sector has been gained in various fields of work. He told L+SI: "GAE is well-known in the UK and many successful end users and installers are already sworn followers. By having an office in this country we will be able to offer better support and will also be in a better position to listen to the industry's needs and requirements."

Speaking from their German

head-office, GAE's international and domestic sales manager Steve Smith told L+SI: "This is a very exciting time for both GAE and their users. The introduction and success of the new GAE Director system, together with the new GAE DSC28 digital system controller has increased the market acceptance and awareness of our already extensive product range. Being able to operate out of a facility such as the one we now have in London is a further step in the direction of direct contact with our end-users."

## THE **Contour** 12 DIGITAL DIMMING RANGE



The Complete Package



The Versatile Dimmer

The locking patch was great. We set the rack up at the start of the Tour and never had to look at it again. It was totally reliable.

Peter Canning, L.D. Elkie Brooks U.K. Tour 1998.

# zero 88

Zero 88 Lighting Ltd, Usk House, Llantarnam Park, Cwmbarn, Gwent NP44 3HD, U.K.  
Tel +44 (0)1633 838088, Fax +44 (0)1633 867880.  
e-mail: sales@zero88.com. www.zero88.com.

## The Contour 12 Dimmer

### Reliable

- Mains connection fault tolerant.
- Automatic voltage and frequency selection.
- Soft start anti-flash system.
- Twin microprocessor controlled fans.

### Informative

- Visual user feedback.
- Phase monitoring LEDs.
- Dual output indicators.
- No menu's - single button functions.
- Built in test and diagnostic facilities.

### Serviceable

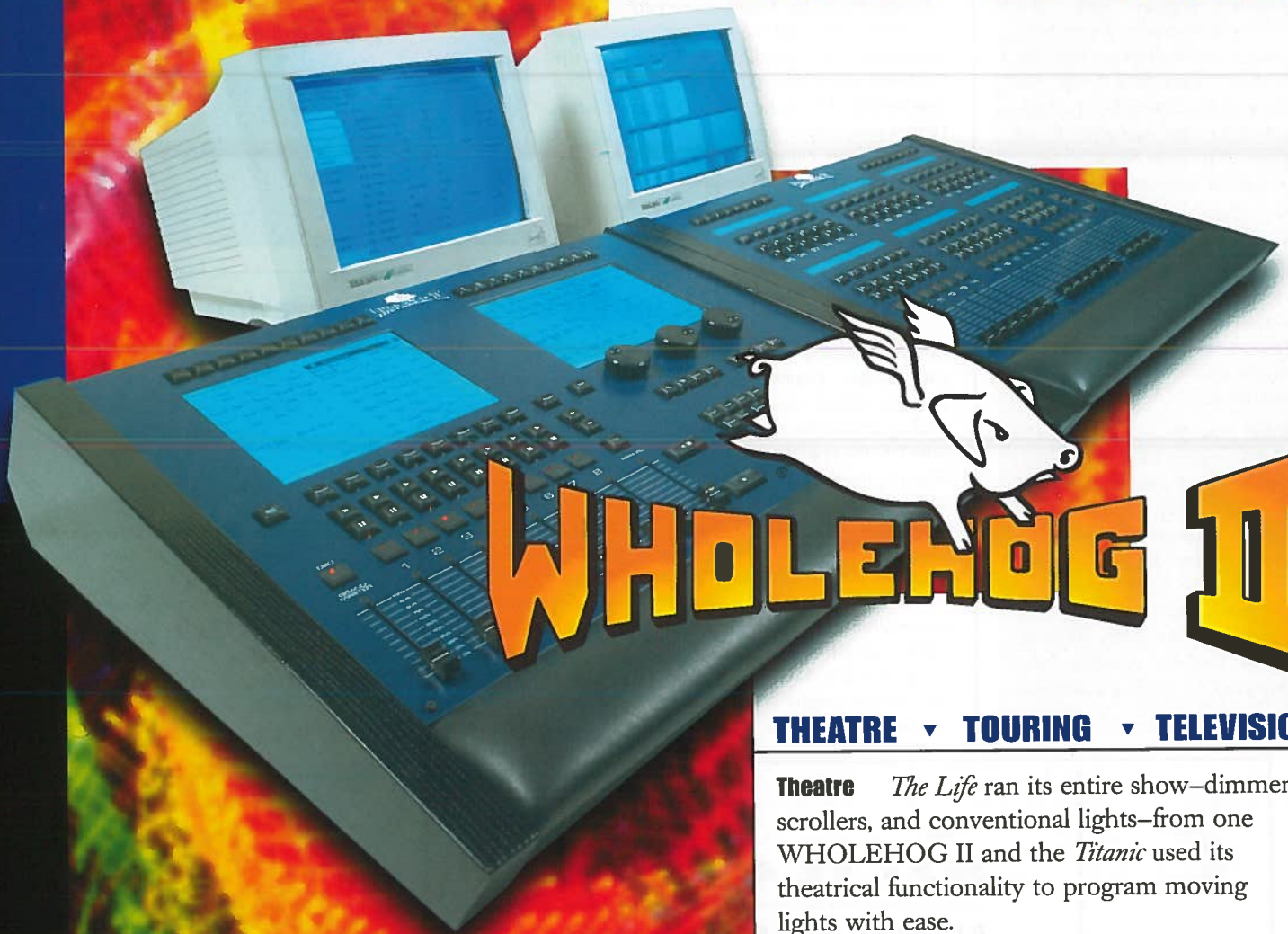
- Common field servicing needs only a screwdriver.
- 4 screws to gain complete access.

## Touring System

### Key Features

- Locking mains patch with test sockets.
- Integral isolated DMX splitter.
- Optional power loop through.

# Why Be Limited By Your Desk?



**The WHOLEHOG II  
controls any show**



**FLYING PIG SYSTEMS**

Visit our website at [www.flyingpig.com](http://www.flyingpig.com)

## WHOLEHOG II<sup>®</sup>

### **THEATRE ▾ TOURING ▾ TELEVISION**

**Theatre** *The Life* ran its entire show—dimmers, scrollers, and conventional lights—from one WHOLEHOG II and the *Titanic* used its theatrical functionality to program moving lights with ease.

**Touring** *Sting* integrated the entire light show—from dimmers to moving lights—on the WHOLEHOG II while *Michael Jackson* used it to control 8 different types of moving lights.

**Television** *The 1996 Academy Awards* and *Eurovision Song Contest* both used the WHOLEHOG II's powerful programming tools and flexible playback options to get quick results.



#### **Distributed by AC Lighting:**

Europe

America

Tel +44 1494 446 000

+1 818 707 0884

Fax +44 1494 461 024

+1 818 707 0512

or call your local dealer

## Industry People on the Move

The expanding Lightfactor Sales team has been joined by another new face. **Bill Jones**, who previously worked with Harman Audio and before that with CCT Lighting, is already familiar with major sound installation companies in the North of England and possesses wide knowledge of the theatre and concert touring rental markets as well as that of installations.



Bill Jones.

**John Ellis** has joined B&H Production Services as sales and installations manager. Ellis was previously sales consultant with Electrosonic and UK projects manager for TOA. He will be responsible for increasing the company's share of the professional systems and installations market and will head up the sales of the Meyer Ultra series for which B&H have recently been appointed as dealers.



John Ellis.

Audio and lighting distributor Batmink Ltd has appointed **John Nightingale** to its growing sales team. Nightingale, formerly of the Scan Warehouse, is no stranger to the industry and will be looking after customers in the south of England.



John Nightingale.

Indiana-based Crown Audio has announced the appointment of **Scott Robbins** as director of domestic sales, and **Joe Wisler** as consultant/contractor liaison. With the appointment of Robbins to sales, **Mick Whelan** will become vice-president of product development. Robbins joins Crown from Bose, where he was Eastern region business manager. In his new role, he will direct the efforts of Crown sales representatives throughout the USA. Wisler rejoins Crown where he worked as pro audio liaison from 1992-95.

UK distribution company SCV London have

expanded their workforce, taking on three new members of staff. The explosion of the software division has led to two new sales roles for **Richard Connor** and **Lars Hakansson** whilst manning the software support hot-line is **Martin Gadgil**. Connor joined the company in January and comes fully-loaded with the appropriate expertise of a 12 year music industry background. Hakansson joins as software support specialist, following three years in software distribution at MCM. Gadgil replaces Hakansson as software support, armed with experience as an assistant engineer at Mayfair Recording Studios, technical support engineer at MCM and more recently ProTools expert at Digital Village.

Bandit Lites have appointed **John Rolison** to the sales team at their Knoxville, Tennessee, headquarters. Rolison had previously worked with Orlando-based Stage Equipment & Lighting, where he dealt closely with clients including Walt Disney, Sea World and Universal Studios.

Dewsbury-based Futurist have appointed **Chris Barlow** as presentations and productions manager. Barlow was previously a production electrician with Leeds-based Opera North.

**Peter Floyd** has joined AC Lighting as technical service manager with responsibility for all AC exclusive technical products. Floyd was formerly with M&M, prior to which he spent eight years with White Light. Meanwhile, **Kris Noerens** joins AC from Belgian rental company Stagelight, bringing his extensive experience in touring and the ability to train and demonstrate products in French, Dutch, Flemish and English.

## Star Hire Restructure

After more than 21 years of trading as a partnership, Star Hire has now begun trading as Star Hire (Event Services) Ltd, covering all products and services excluding rigging and fence hire, and Star Hire SteelShield Ltd, covering all fencing products. The management structure of both companies will include Maddy Sheals as managing director, Roger Barrett as technical director and Ann Bozier as company secretary. The decision to transform to a limited company status has been taken as part of the company's commitment to their current expansion programme.

The address for correspondence to both companies will remain as Milton Road, Thurleigh, Bedford, MK44 2DG.

# DMXtra

why buy several boxes  
when one can do it all?  
10 functions in one unit:



### DMX-Merge

2 inputs, 2 outputs with overflow

### DMX-Patch

2 inputs/outputs with overflow

### DMX-Emulator

record/replay 128 DMX channels

### DMX-Safe

record/replay several scenes

### DMX-Fix

change all relevant DMX parameters

### DMX-Receive

view DMX data on LCD screen

### DMX-Analyse

measure DMX parameters

### DMX-Transmit

test your DMX equipment

### DMX-RS232

translates DMX into RS232 for your PC

### RS232-DMX

translates computer commands into DMX

Just select the function you need today

You'll never need anything else!

All this for only **£975**

# Stinger Version 2

Our multi-tasking show controller  
just got even better!

32 simultaneous shows, 8 inputs  
8 c/o power relays, 3 serial outputs  
32 DMX channels (8/16 bit)  
real-time, day-of-week programming  
program with mouse or PC

Visa and Mastercard accepted

Maris Ltd  
Unit 9C, Beechcroft Farm Ind  
Chapel Wood Road, Ash  
Kent, TN15 7HX, UK  
phone +44 1474 812999  
fax +44 1474 812777



Mad Systems, LLC  
10061 Riverside Drive #842  
Toluca Lake, CA 91602 USA  
phone (818) 601 9990

MarisEnsing@compuserve.com  
www.maris.co.uk

IS YOUR  
**FIRE**  
SAFETY  
**CURTAIN**  
AS SAFE  
AS YOU  
THINK?



- Even before a performance gets too hot to handle your fire safety curtain might not be as safe as you think
- Some older systems relying on asbestos based materials may unknowingly pose a considerable threat of airborne contamination.
- So isn't it worth finding out before it's too late?
- We've a century of experience in the business and offer you a PEACE OF MIND ASSESSMENT of your existing system - WITHOUT OBLIGATION.
- To find out more call 0181 953 3611 now and ask for DOUG HEATHER...before it's too late!

### HARKNESS HALL LIMITED

The Gate Studios Station Road  
Boreham Wood Herts WD6 1DQ UK  
Tel: 0181 953 3611 Fax: 0181 207 3657  
E-mail: sales@harknesshall.com



# Conference System

For the full effect...



## CM3000

- Up to 100 Delegates
- Flexible and Versatile
- Economic and Stylish

Amplifiers

PA Centres

Conference Systems

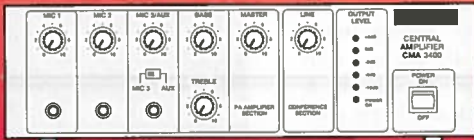
Loudspeakers & Horns

Mics., Stands & Accessories

19" Equipment Racks



CMA3400  
Central Amplifier



Fully descriptive literature available on request.

**ALWAYS AVAILABLE... ALWAYS RELIABLE**

Tel: (+44) 01923 248888/9

Fax: (+44) 01923 254607

eMail: info@adastra-electronics.ltd.uk

Web: www.adastra-electronics.ltd.uk

**ADASTRA**

# REALITY CHECK

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

# LODESTAR

## Clearly On Another Planet!

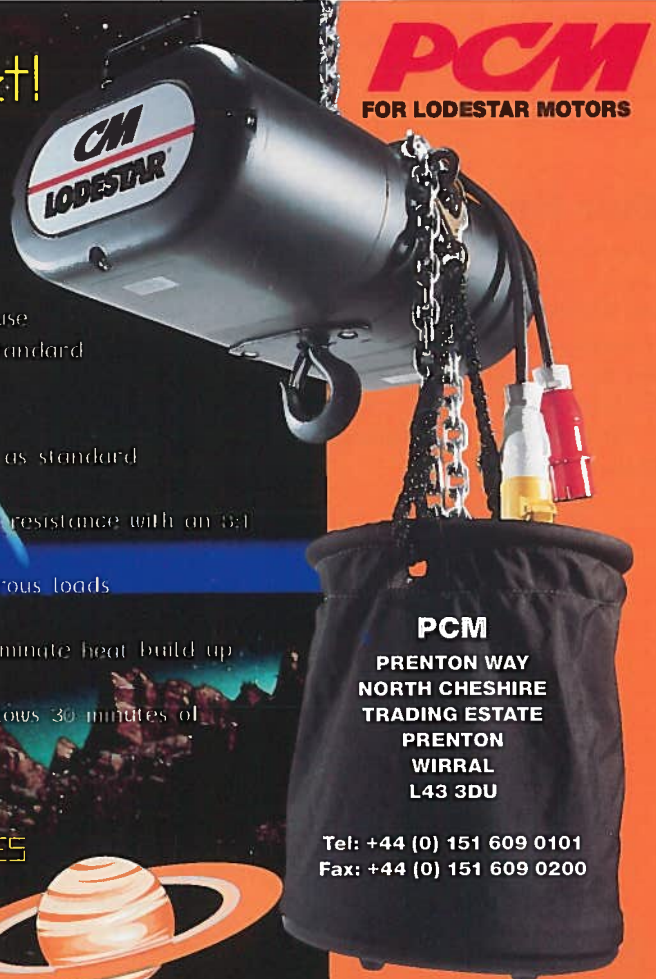
- Extensive range of speeds and load capacities
- Operates on 330 - 460 volts 3 phase, 50/60 Hz or 200 - 230 volts 3 phase, 50/60 Hz and can be operated on any voltage in the world
- Single phase hoists also available
- Dual speed and variable speed units available
- Supplied fully prepared and tested by PCM-ready for use
- Lifting handles and Cee Form connectors fitted as standard

### SAFETY FEATURES

- Adjustable over-travel protection screw limits fitted as standard
- Jam resistant chain guides
- CM 'hoistaloy' chain for maximum strength and wear resistance with an 8:1 safety factor
- Positive Lodestar Protector prevents lifting of dangerous loads (Non adjustable)
- Heavy duty brake, independent of hoist motor to eliminate heat build up and hold load securely
- 50% duty factor higher than comparable hoists - allows 30 minutes of continuous operation
- Grease lubricated - No oil drips!

### MAINTENANCE FEATURES

- Low running costs
- Easy maintenance
- Cost effective spares



**PCM**  
FOR LODESTAR MOTORS

**PCM**  
PRENTON WAY  
NORTH CHESHIRE  
TRADING ESTATE  
PRENTON  
WIRRAL  
L43 3DU

Tel: +44 (0) 151 609 0101  
Fax: +44 (0) 151 609 0200

## Carrying the Torch



The new Torch Club in Worcester is a flagship showpiece in terms of illustrating contemporary design chic for designer Mike Gibson - renowned for designing clubs for First Leisure and the Rank Organisation. He had strong ideas of how he wanted the club's lighting and audio, and approached Lightfactor to translate these into lighting and sound practicalities.

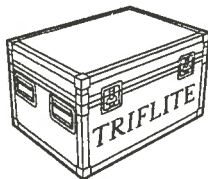
High End's Cyberlights were specified to produce abundant coloured washes with a white light slicing through, expressionist style, to produce a 3D effect as well as being used to create projections and moving wallpaper. Spec'd alongside were MADScans and MADSpots, whilst a Light Processor QCommander console was specified for controlling all effects lighting.

Lightfactor also specified the audio system of Turbosound Highlight THL-811 mid-top cabinets and THL 828s as subs, which were powered by QSC amplifiers. In addition, the company also supplied a 4 x 5 video cube wall for the back of the main bar, plus a secondary sound system for the bar area based around the Turbosound Impact range.

## Blackpool Shiner

Francis Searchlights first designed their 7kW xenon lights for use by the sappers of the British 8th Army during the Gulf War. Since then the company has developed their Moonraker searchlight with an eye to the requirements of the leisure industry.

A good example of the success of this policy is the recent purchase of five of these searchlights by Blackpool Pleasure Beach for permanent installation at the theme park. The operators have indicated their intention to double this installation within the next couple of years and, in line with this plan, an order has been received by Francis to supply a sixth Moonraker for delivery this month.



## TRIFLITE CASES

Custom Made Flight Cases  
Polypropylene Cases  
Padded Bags

TEL: 01633 869 142 FAX: 01633 869 155

a division of TRIFIBRE CONTAINERS INTERNATIONAL LTD

# photokina '98

WORLD'S FAIR FOR IMAGING



## World market

photokina '98 will provide you with this more than ever before. It's where you can find the world's product range for imaging in its entirety. You can experience first hand the latest innovation in conventional and digital image technology, in still and moving film, in image taking, processing and reproduction as well as professional image communication. photokina at Cologne, the top directional event worldwide. Get the overview your customers will expect from you.

photokina



Köln 1998  
16 - 21 Sept.

German - British Chamber of Industry and Commerce, 6th Floor, Carolyn House, Dingwall Road, Croydon CR0 9XF, Tel.: 0181 681 8166 (2 lines), Fax: 0181 681 8028  
Internet: <http://www.koelnmesse.de/photokina>

Coupon

Please send us the following information on photokina '98:

Exhibiting documentation  Visitor information  Accommodation available

Name: .....

Company: .....

Address: .....

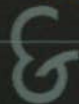
Postal/zipcode: .....

Tel./fax: .....

Köln Messe

# PHOENIX

INNOVATION



IMAGINATION

ALL



LDI98!

Take technology into uncharted territory at LDI98 where innovation and imagination meet! It's a high-tech exploration of the latest breakthroughs in lighting, audio, staging, rigging, pyrotechnics, lasers, software and special effects. And a look at the newest design parameters for performing arts, themed environments, clubs, concerts, cruise ships, industrials, corporate events, sports facilities, restaurants, retail, film, television, and architecture. With over 300 international manufacturers and distributors. 200,000+ square feet of exhibit space. Three days of exhibits. Four days of professional workshops. Intensive pre-show conferences and technical training.

## DON'T MISS IT!



[www.etecnyc.net](http://www.etecnyc.net)

Sponsored by: *Lighting Dimensions, Theatre Crafts International, Sound & Video Contractor* and *ESTA—Entertainment Services & Technology Association*

Together with these other INTERTEC®/PRIMEDIA Publications; *Millimeter, Broadcast Engineering, World Broadcast News, Video Systems, Mix, Electronic Musician* and *Shopping Center World*

PLEASE SEND ME MORE INFORMATION ABOUT **LDI98**

Exhibiting

Attending

Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Country \_\_\_\_\_ Zip \_\_\_\_\_

Phone\* \_\_\_\_\_

Fax\* \_\_\_\_\_

E-mail \_\_\_\_\_

\* Include country and city codes.

LDI98 • Intertec Trade Shows & Conferences • 9800 Metcalf Ave. • Overland Park, KS 66212 USA • 1-800-288-8606 or +1-303-220-0600

Fax: +1-913-967-1900. For programming updates as they occur, call FAX-ON-DEMAND at 1-800-601-3858 or +1-732-885-6723.



## News Shorts

**Vari-Lite Production Services Atlanta** is having a busy first month of operations. One of the company's first projects was a Scholarship Awards Ceremony at the Georgia World Congress Center. This was followed by the lighting for a United Way event, stand systems for Sony and Nintendo at the E-3 electronics show, and further ones for HBO and General Instruments at the NCTA show.

**Peavey Electronics** has been presented with nine awards for its World Wide Web site. These include NetGuide Live's Net Guide Gold Site Awards, 1997 Academy of Web Design Webbie Award and the World Internet (WI) Marketplace's Top 10% Design and Excellence Award. Check out their site at [www.peavey.com](http://www.peavey.com)

**Blitz Vision** was commissioned by Talent Television, London, to provide projection and monitors for the 50th BAFTA film awards at the Grosvenor House. The company also provided the same service for the Television Awards at The Prince of Wales Theatre.

**Bandit Lites UK** have moved to new, larger premises, close to their previous site. The company can now be reached at Unit 4C, Portland Industrial Estates, Hitchin Road, Arlesey, Bedfordshire, SG1 5GG. Tel/fax numbers remain the same.

## Curtains for Japan's Second National Theatre



Japan's second National Theatre, The New National Theatre, which opened last year, represents the biggest contract ever to be undertaken by Gerriets Great Britain's UK division.



The contract was secured by Gerriets dedicated agent, Suzuzen, and includes all screens, drapes and curtains throughout the three separate halls of the theatre. The main hall, which seats 1,800 on three floors, has a traditional proscenium, and is designed to show operas, ballets and large-scale plays. The medium hall is in a similar format, and has a capacity of 1,166, while the smallest space is intended for staging modern, progressive plays.

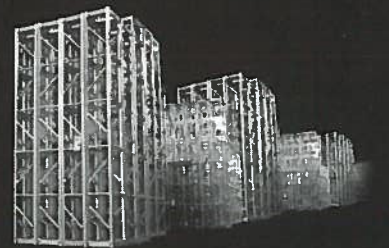
The contract included the provision of the main curtains, the masking drapes and background drapes, as well as the largest projection screen Gerriets has ever been asked to supply, at an incredible 28m wide and 25m high. In total, 11 tonnes of curtaining was used, 95% of which was manufactured in the UK by Gerriets' professional drape makers. Installation of the drapes took two weeks from start to finish and was supervised by the Suzuzen Company who used a team of outside riggers. The specification also included a seven-layer sound curtain made from varying types of material to cut out different sound frequencies.

# Supply on Demand

We have always satisfied customers by supplying the highest quality trussing, motors, custom electric assemblies and rigging accessories, on time, anywhere in the world. Now, our ready inventory of the items you use most, enables us to do it even faster.

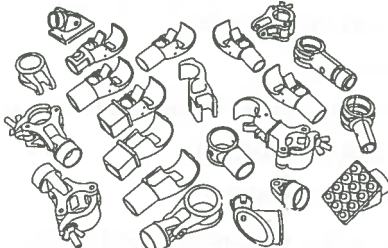
TOMCAT.

The industry demands our supply because we supply on demand.



## Aliscaff

Primary manufacturers/suppliers worldwide of aluminium couplers (scaff clamps), aluminium snap hooks and many other aluminium fittings to fit either 2" (50.8mm) or 1.29/32" (48.4mm) tubes  
Ask for collage of full range -  
Custom design work undertaken



ALISCAFF LTD

Unit 2 Hotspur Ind Estate, West Road,  
Tottenham. London N17 0XJ  
Tel: 0181-808 5005  
Fax: 0181-801 9851



"Products designed  
better by experience"  
For Hire or Sale

Wind Machine



Bubble Machine

Tel +44(0) 1454 615723  
Fax +44(0) 1454 615724  
email: [uksales@MTFX.com](mailto:uksales@MTFX.com)  
Web site: [www.mtfx.com](http://www.mtfx.com)

**TOMCAT**  
STAGING, LIGHTING AND SUPPORT SYSTEMS

UK Tel: +44 (0) 151 482 3100

UK Fax: +44 (0) 151 482 3111

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



# EQUIPMENT NEWS

## DJ Pro Mixer



Citronic have launched the 1998 DJ Pro Mixer. With the new unit, the company have combined the features of a DJ mixer with the technology of a PA mixer, resulting in a product for professional users, offering a high level of control over the audio inputs. The DJ Pro features eight inputs routed to four stereo input channels, all with gain, three-band EQ, balance control and cue, as well as Citronic's Punch Button facility, dipless crossfader and powerful headphone monitoring.

For further details contact Citronic Limited in Melksham, telephone (01225) 705600.

## Owl Graphics

Owl have introduced a new Graphics Card for the Videoseel/Digimax 3/32 processors, which will allow datagraphics from a PC with either VGA or SVGA resolution to be shown on a videowall. The Digimax 32 can be specified in all of the usual videowall configurations up to 16 x 16 monitors or rear projection cubes.

For further information contact Owl in Uckfield, telephone (01825) 766123.

## WYSIWYG V3

The latest release of WYSIWYG from Toronto-based Cast Lighting is now available from AC Lighting. Version 3 has DMX and Ethernet control of rendered and wireframe views. In addition to improved picture libraries and a number of other improvements, a new view called Presentation Space enables a collage of spreadsheets, reports, title blocks, 2D and 3D wireframe and rendered views to be printed out as a single drawing.

For further information contact AC Lighting in High Wycombe, telephone (01494) 446000.

## Fane Adds to Colossus Range

Fane Acoustics, the Leeds-based speaker drive unit manufacturer has added three new models to its Colossus range. The 12MB is a 450W (AES) bass/mid driver capable of handling peaks in excess of 1800W, and the 15B-600 and 18B-600 are both high output bass drivers designed for use in smaller, ported enclosures. Fane have also updated their Classic range which now features 10 new cone drivers to fulfil a broad range of sound reinforcement requirements.

For further details contact Fane in Leeds, telephone 0113-277 8600.

## Gripple Hang-Fast



The Sheffield-based Gripple company has developed a system which they claim will revolutionise the suspension of electrical and lighting systems. The Hang-Fast system combines a length of wire rope, with a ferrule attached at one end, and a Gripple Rope Grip to terminate the rope firmly at the other. Sold in complete kits, Hang-Fast offers a choice of standard rope grip sizes, rope diameters and lengths.

For further information contact Gripple in Sheffield, telephone 0114-268 7800.

## MTFX Specials



MTFX has announced the launch of two new special effects products. Their new 'Wind Machine' (pictured above with MTFX owner Mark Turner) boasts an output of 5,019 cfm, with a noise level of only 52dB at three metres. Weighing under 32kgs it is constructed of lightweight aluminium, with movable louvres for fine-tuning of air movement when required. The company's new 'Bubble Machine' is manufactured from the same rugged aluminium as the wind machine and produces a range of bubbles from 10mm to a 100mm in diameter.

For further details contact MTFX in Bristol on (01454) 615723.

## KAM Quadra

Kam have produced a four-scanner portable effects module, aimed at the mobile DJ. The Quadra gives the user four separate intelligent scanners that can be controlled independently, either via the in-built function or by any standard DMX controller. Each head contains a colour/gobo rotation wheel, giving 18 possible combinations (plus white), with eight separate colours, eight patterned gobos and eight open positions (each colour being used twice). The in-built controller has 16 programmes, 15 of which are single shows and the 16th a random, non-repeating sequence capable of generating over a million combinations.

For information contact Lamba Plc in St Albans, telephone (01727) 840527.



## The premier Windows based rental management software package



Syon Lodge, Busch Corner,  
London Road, Middlesex  
TW7 5BH

07000 NAVSYS (628797) 07000 NAVFAX (628329) email: lsi@navigator.co.uk URL: <http://www.navigator.co.uk>

- Straight forward user interface, mimicking most paperwork systems.
- Support for crew & trucking requests and schedules.
- Flexible - add items to a rental after shipping, part ship, extend rentals, early returns.
- Support for sub-hires, which can be allocated to stock or specific jobs.
- Works with or without barcoded items, or a combination of both.
- In built wordprocessor, with wizard to help create quotes and powerful spell checker.
- Stock control provides vital management information on usage and sub-hires.
- Easy printing of all paperwork, which may be customised as required.

# ECHELON

## Full Wholehog II Operating System

Echelon - the second generation Jands console for conventional and moving lights has come of age. It features 1000 channels of the potent Wholehog II Effects Engine software for less than half the price of a Wholehog II.

- Wholehog II Operating system with Effects Engine™
- Large central LCD provides continuous feedback on programming and playback status
- Four user configurable banks of palette buttons with integrated LCD display to indicate contents
- High performance RISC CPU
- Mouse/trackball input
- Optional SMPTE port (back panel)
- External VGA monitor output with mouse interaction
- 16 playbacks with alps faders
- Unlimited split fade, delay, wait times and crossfade profiles
- 1000 control channels
- Cue list, cue contents, programmer, patch and stage output available at VGA output
- Multiple fixture types simultaneously supported
- User definable system default settings

**JANDS**

Global Distribution:  
A.C. Lighting Ltd.  
Tel: +44 (0)1494 446000  
Fax: +44 (0)1494 461024  
E-mail: sales@aclighting.co.uk

US Distribution:  
A.C. Lighting Inc.  
Tel: +1 818-707-8884  
Fax: +1 818-707-0512  
E-mail: sales@aclighting.com



Congratulations to the BBC, the NIA, the participants and all who made Eurovision such a spectacular success

### The Original Specialists

1998 theatre, music & presentation clients include: Apollo Leisure, Barry Clayman Concerts, Cameron Mackintosh, Caribiner, Clearwater, CPL, Harvey Goldsmith, HP:ICM, Imagination, Paul Nicholas & David Ian, Pacesetter, The Really Useful Group, Ultimate Events, .....and many more

### Reliable Rigging

Dry Hire or Production Rigging. Small to enormous jobs. Bespoke engineering and automation is our speciality.

### Successful Suspension

The largest stockholder of specialist rigging equipment in Europe.



R i g g i n g  
E n g i n e e r i n g  
M a n u f a c t u r i n g  
D e s i g n  
F a b r i c a t i o n  
A u t o m a t i o n

The Wharf  
Bugbrooke  
Northamptonshire  
NN7 3QD

tel: +44 (0) 1604 830083  
fax: +44 (0) 1604 831144  
rigging@unusual.co.uk

# EUROMANIA

*An estimated 100m viewers tuned in to the Eurovision Song Contest at the NIA in Birmingham - Steve Moles was there in person*

I don't know how I can have been so stupid. All these years I have bemoaned the complete lack of talent that constitutes the Eurovision Song Contest (ESC). Like most of my compatriots, I believed it to be some pan-European water torture, designed by snide little bureaucrats in Brussels, to wear down the resistance of the individual to the concept of the European ideal - 'Zey vill become zo pliant after 20 years of zis pap zat zee prospect of a grey murky Federalism vill conversely appear only too attractif'. Well I've been saved. It's now so clear and logical. Take as a given the concept that only a nation of imbeciles would voluntarily subject themselves to hosting this gala, and the murky waters begin to clear. The EBU (European Broadcast Union) rules impose the role of hosting the next contest on the winning nation of the preceding year, and dress this up as an honour. Secretly, of course, no one really wants to fork out a cool £5m to stage a three-hour pop show, so there's a vested interest in losing, hence the unadulterated pap. Unfortunately last year, in a flush of national excitement at the prospect of a change of Government, we lost control and won.

## TELEVISION/SET - PRODUCTION CORE

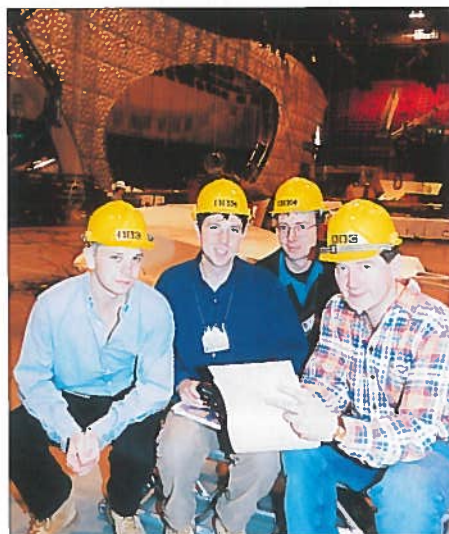
It is a tribute to BBC Resources who, having been visited by the plague, took on the challenge and executed their duty with impeccable good taste. From the television perspective they handled the whole event in-house, only drawing on the external resources of companies like Brit Row, Unusual Rigging, Dimension Audio, LSD, Meteorlites and Vari-Lite, to provide the things that are outside any modern TV company's remit. Now there's a funny thought . . . What struck me about the list above is their current relationship with the BBC. When Britain last hosted the contest in '82, the only company from the above we might have expected to find on the tally of sub-contractors would have been Meteorlites, who by then had begun to service the Top of the Pops studio and were nurturing the BBC with a diet of this new-fangled rock and roll gear. Vari-Lites were just a twinkle in a Texan sound engineer's eye, Brit Row and LSD could safely be described by any self-respecting cameraman as a bunch of hairy-arsed hippies, UR's Alan Jacobi had just started out on the path to global domination and Dimension didn't exist. These days there is a measurable mutual respect, if still a lingering wariness - something that would have been anathema 16 years ago. Why does this now work so well?

John King, the senior engineering manager for the show (and effectively the son of God in the BBC Resources hierarchy) took myself and a brace of broadcast journalists for a tour of the spectacle: the efficacy of these outside supplier choices soon began to emerge. The venue was the NIA in Birmingham, a modern



Live on the night - the Croatian entry gives it her all.

photo: Richard Kendal



From left to right, Alan Bright, technical co-ordinator, Norman Lockhart, production manager, Guy Freeman, producer and Kevin Bishop, executive producer.

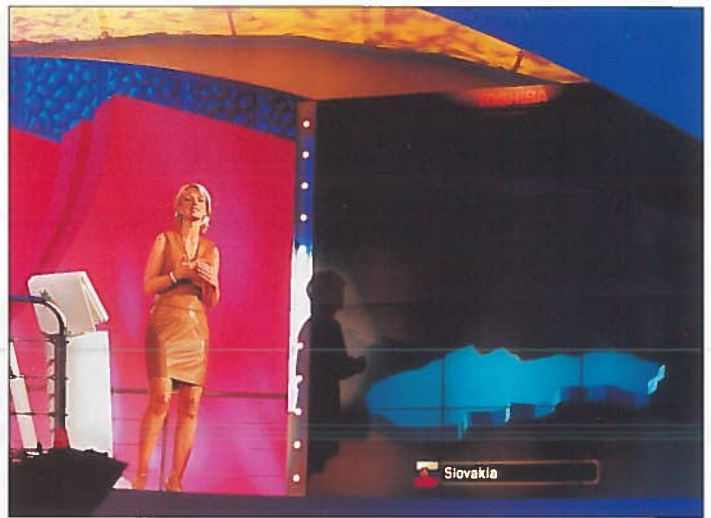
version of Wembley Arena placed in a city that has all the right infrastructure connections to make its use a common-sense choice. (Here's my plea for the builders of the new Wembley Stadium - any chance you could let slip with a bulldozer and remove the old derelict in the corner of the car park while you're at it?) The NIA sports a nice, bright interior that makes the experience of sitting in it a million miles from its forebear in London: "The NIA have been fantastic," said King, alluding to another positive feature. "There hasn't been a point where they have obstructed anything we've wanted to do." Enough said.

From the TV perspective this is a big show, although budget-wise theirs is not the lion's share (£1m for hotels alone), but nevertheless a

major commitment of equipment. "Because the set is so wide," explained Alan Bright, technical co-ordinator and King's second in command, "we're using 14 cameras. Four on cranes, two from Technovision and two from Cam-mate, one of which is a Maxi-jib, plus we also have a tracking camera. The tracker comes from a tie-up between Aerial Camera Systems and MAT in Germany; it was the only remote operated, gyro-stabilised camera that ran on a curved track that we could find." Down on the floor things are no less ambitious: two Steadicams, one on radio link, one wired, two hand-helds, three pedestal cameras across the front of stage and for the occasional wide shot you may have noticed, a fourth pedestal camera complete with fisheye lens positioned house centre at the top of the tribune seating. All the cameras are Sony T70s. This may seem a bit of a feast, but a brief glance at the stage set explains it all.

Designed by Andrew Howe-Davis and built by Fabreys, the stage set is exactly as Bright stated - extremely large, stretching full width across the arena floor. (King elected to divide the arena, using 50% as backstage with an enormous Green room, restricting the house to just 4,500 punters). A wide open oval sits centre stage flanked stage right by what are lovingly referred to as the 'Polar Bears' - a pair of white abstracts that very clearly deserve their nickname. Beneath their bellies (so to speak) sits the BBC Concert Orchestra. To stage left a similar white curvaceous structure hosts the presenters vantage point, while to the rear - back some 15 metres from the oval - is a full width cyclorama stretching to the underside of the extensive trussing grid.

The set presented two conundrums: the first a question of visual image. With such a large open area, and with cameras prone to the



Above left, senior engineering manager, John King and right, Ulrika Jonsson with the 3 x 7 Toshiba videowall.

close-up, what could be done to entertain the eye apart from the performers themselves (more of that later)? And secondly, how was all this staging - there were 21 truck-loads of stage set materials - to be put up and then quickly removed in time for the G8 summit which followed almost immediately thereafter? Rigging-wise, Unusual Rigging were called in to hang the several kilometres of truss that criss-cross the NIA's space frame roof, supporting both lighting and set. Unusual's project manager Ken Nock devising a plan to suspend trussing systems, wherever possible, for both events at the same time. (Despite which, apart from a 'super-grid' above the stage area, there appeared to be very little trussing that wasn't being used to hang something from). The set itself, King ruefully admitted, "will have to be stripped out in just 24 hours."

Backstage is no less grandiose: dressing rooms for the performers from all 25 countries who made it this far. And, in addition to these, the Green room - a circular construction with an island bar at its centre. The bar is peppered by 2 x 2 videowalls with a live feed (there are some 90 cubes dotted about the production, all provided by Toshiba as part of a sponsorship deal) while above the bar hangs a circular truss (yet another special from Total Fabrications - seems they can't build 'em fast enough these days) festooned with lights.

Now this might all seem par for the course, until, that is, you inject the element of security. Both Eurovision and the G8 are prime targets for terrorists: Eurovision alone is enough, by all accounts. A sobering thought greeted the Birmingham Constabulary when their friends in the Garda informed them that the last two contests staged in Dublin had received a total of four coded warnings. So it was that the Metropolitan Police's mobile scanner was brought in from the moment load-in commenced. Every single item that came into the building passed through it, with pedestrian entrances being covered by the kind of walk-through detectors we are all used to experiencing at international airports. Even equipment that passed in, through and out again, as did much of the Outside Broadcast control gear parked in the backstage car-park, had to undergo this check. However, this was a predicted burden, one endured with typical British phlegm. As rehearsals approached one week ahead of broadcast no-one seemed the

*"I believed Eurovision to be some pan-European water torture, designed by bureaucrats in Brussels, to wear down the resistance of the individual to the concept of the European ideal."*

slightest bit stressed and there was no evidence of resentment about the extra time required to shovel everything in. Even Mr King found the time to be a relaxed and engaging host for us lowly hacks.

#### LIGHTING

Brian Pierce, the show's lighting director, is himself an ex-LWT man, brought in for his expertise with the big variety show (Royal Command and Royal Variety Performances being classic examples). Even so, he found Eurovision a challenge: "What worried me was that Andrew's set (Howe-Davis) was such an irregular one - you couldn't conceive lighting it in a conventional way. Moving lights were essential - conventional lighting would have required at least a 1500-lamp rig as the cyc alone is 180 feet wide by 35 high. As it is, most of our power goes there."

There's little point in wasting valuable space trying to describe the system deployment - whatever angle, whatever position, a lamp was covering it. In terms of muscle power, honours were equally shared between the three lighting companies listed above, though undoubtedly the glamour went to LSD whose Icon control desk once again took the command role. Mark Cunniffe was programming meister over a vast array of moving heads: "I've had to MIDI link two Icon consoles as you can only run 240 lamps per desk," underlines just how big the rig is. 355 moving heads in total, 285 Vari\*Lite (VL6s and both types of VL5) and 70 Icons. "I've split the rig with all the Icons and VL6s on the number one desk with the washlights on two." Cunniffe went on to explain that he'd tried this control set-up last year on the MTV awards, and was thus able to convince Pierce that it was a safe and practical proposition: "Actually, with existing technology I don't think

there's any other way to do it." Pierce and Cunniffe have collaborated before, Pierce describing how the two of them, "... are near neighbours. We travelled together by train each day from Brighton for this. A very good way to find time away from phones and distractions to plan."

Not to be outdone, the conventional system comprised more groundrows than Pierce could remember (actually 128 four cell), plus profiles dotted about for specific teasers. Meteorlites provided the lamps, plus lighting gaffer Tony Simpson. "He's very, very good," said Pierce - praise indeed considering they've never worked together before (could be time to ask Tony Slee for a rise?). The static lights were run from a 48-way Jands Event and with Vince Foster at the controls, out of a 1000-amp three-phase supply conventional, pulled a fairly steady 400 amps.

The wide look for the show was really good with strong grouped wash colours, but the yawning gap at the centre of the set limited what Pierce could do for the close-up. With a request to restrict use of gobos, he and Cunniffe had to search the rig to find different angles from which to shoot in beams around the performers. However, it avoided any complaints of the lights favouring one performer more than another.

#### SOUND

Audio for Eurovision falls into two distinct elements - broadcast and live - with an undoubted overlap between the two through physical inter-links and the need for back-up plans in the event of a control failure in either system.

On the live side, Derek Zieba was brought in by live sound director Ralf Harrison for much the same reason Cunniffe was on lights - to be the interface between TV and concert sound company. "I would have preferred to use the house system," he said, "a d&b rig like we have at Dimension, but because the show is so big, and uses half the venue as backstage facility for all the artists, the house PA is in the wrong place. Re-rigging was an option, but it made more sense to pull in a proprietary system. We don't have the resources they do when it comes to desks, and the Flashlight system from Brit Row is widely known to many engineers." A recommendation Harrison was happy to go with, despite never having used the PA before.

"It's very directional and easy to focus directly onto the seated areas," but unlike most concert environments this was not achieved with the minimum amount of speakers using high gain. Harrison had three hanging clusters - a huge centre pod with two equally large side hangs. Either side of centre all the subs were flown on special platforms, thus leaving the floor entirely clear for the cameras. The rationale behind the rather large array was quality coverage without recourse to power, the spread of speakers being dictated by delivery at low level.

There were two house consoles. The first was an Amek Recall run by BBC FOH engineer Colin Hassell: "I chose it for the on-board dynamics and automation," he said - indeed, an essential tool with so many performers dictating use of desk channels several times in different ways. The second desk was a Yamaha PM 4000 run by Zieba to mix the BBC Concert Orchestra. There was also a back feed from the sound trucks outside that permits OB to take over live sound if necessary. For the two men under Harrison's guidance, the big thing is about pitching the house sound at the right level: "It's about volume mix," said Hassell. "Not enough to colour the broadcast sound, but just enough to make the broadcast sound wide, to give it that big feel." Almost a contradiction in terms which points to the delicacy of the task.

The equally hairy task of monitors fell to Mike Downs, a freelance engineer who some may recall did the Torvill & Dean tour late last year. Downs had a Yamaha PM 4000M, a Midas XL4 and a heap of stuff to deal with. "You've got 100 channels from the orchestra, but I take the smaller mix from the MSC truck - just (just!!) 48 channels which I then take down into six to eight channels on the XL4. Another six for vocalists, six for backing vocalists and six for instrumentalists. The biggest problem is change overs: only 60 seconds between acts and no time to check anything. I just have to assume it's going to be there." Downs has been working for the BBC on and off for six years, a relationship that suits them both: "The BBC don't often have need for a dedicated fold-back engineer. As a freelancer it makes a welcome change to do this kind of work." He has a workmanlike attitude to the job: "I don't know anything about what the artists want until we get into the production rehearsals." (Started one week before broadcast, four to five acts per day, plus a full dress rehearsal on the Friday night which is recorded - vision and sound - in the event that something untoward occurs on the Saturday). "I start with a generic mix, make a few notes, find out what part of the backing is important for keeping them in time, and develop from there."

Richard Kemp is the man Downs is relying on. He has the dubious honour of corralling a 40-strong UHF radio microphone system supplied by Sennheiser, who are also sponsors of the show, and four channels of Garwood in-ear monitoring. "The biggest thing we've done," explained Kemp, "is to ban all mobile phones in the venue. (Cut away to pictures of technicians weeping with joy throughout the building). "The in-ears are for presenters Terry Wogan and Ulrika Jonsson, plus two back-ups, whilst for the artists, all of whom sing live, we use up to six channels of mic for vocalists and



The manpower that goes into producing a show like Eurovision is enormous. All around the Birmingham site, technicians are hard at work in the run-up to the show plotting cues, vision mixing and checking technical requirements.

as many as 12 in total at any one time including instrumentalists." Just another dull day at the Beeb then?

#### BROADCAST

Where this all comes together is in a crowded little parking area out back. "We're using the BBC Resources CMCCR (Central Mobile Colour Control Room) said King, taking up the story. "It's an analogue facility - we do now have a Digital version of course, but we decided to do this in 4 by 3 analogue because that's easiest for all the different countries it's going to. If we'd gone for 16 by 9 Digital, at some point we would have had to convert it down. That's why you always see this truck at Wimbledon, where we provide coverage for the whole world.

The DVE is made by Pinnacle and Geoff Postle Directs with two vision mixers running a Grass Valley 400. Barry Hawes, the senior sound supervisor works out of the CMCCR but parked nearby is the MSC truck (Mobile Sound Control) where Tim Davis supervises a 100 channel analogue Calrec desk with a digital control surface. Unlike Downs, Davis has had the song tapes for months: "I've learnt all 25 songs," he claimed confidently, and then proved his metal by predicting a week ahead of broadcast - "For my money, Israel are going to win" - something immediately contested by others in the truck at the time who will by now have lost their bets on France and England.

To complete the parking mêlée, there were two Radio Sound Studios: "One to sell to Europe, one dedicated to the Radio 2 broadcast," said King. "We also have the BBC's largest VT vehicle, VT6, which looks after all AV edits and postcard shots. There are four Robocabins - one occupied by foreign commentary teams, one by BBC graphics for the look of the scoring, another for captions and credits, and, most curious of all, the final one for Vecciarto Roland." Mr Vecciarto is one of those mysterious invisible men who wield awesome power and, as such, allow weirdo American paranoids to feel a certain sense of vindication once in a while. He hails from



Geneva and is known in the trade as 'Mr Voting', a career position too terrifying to contemplate.

As for next year? Well, the Israelis probably have security running in their veins - didn't protect Mr Rabin though did it? Bryan Grant of Brit Row was rash enough to admit attending the live broadcast and reported: "It's become a bit of a gay event, like Madonna shows, which might account for Israel's success. When Ulrika Jonsson uttered the words: 'I'm sorry, I can't hear you. I've got a man in my ear', the audience fell apart." He also reported the curious spectacle of hundreds of BBC technicians urging on Malta's entry. Apparently, had Malta won, their TV system would not have been able to cope and they'd almost certainly need to pull in the Beeb to help - two weeks in the Med, let's hear it for Malta next year. Alternatively, let's bring an end to this tiresome and expensive charade. Or does someone out there actually take it seriously?

# ALTMAN

# HAS IT ALL!



EXPLORER

**FOLLOW SPOTS**  
A complete range  
for every  
requirement  
and budget.



**BLACKLIGHTS**

High intensity illumination,  
smooth even field,  
quiet performance.



**CYCLORAMAS: Luminaires**  
Broad even wash of light.



**MICRO SERIES**

Small but strong.  
Perfect to high-  
light  
pictures and  
small areas.  
Track mounted  
optional.

**MICRO FLOOD**



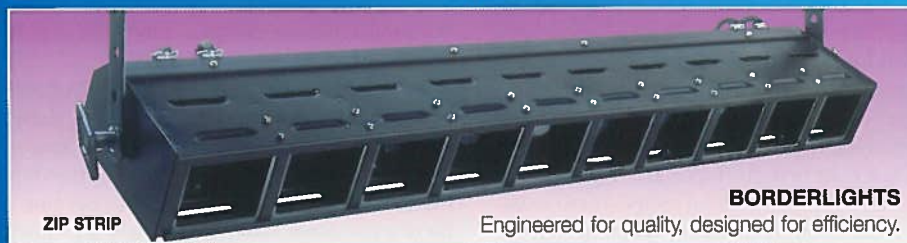
**ELLIPSOIDALS/  
SHAKESPEARE**

State-of-the-art  
engineering  
for superior  
performance  
at lower  
operating cost.



2000L

**FRESNELS**  
High intensity  
with soft edged  
controlled lighting.



ZIP STRIP

**BORDERLIGHTS**  
Engineered for quality, designed for efficiency.

# QUALITY RECOGNIZED AROUND THE WORLD

An extensive array of  
impressive lighting products  
and accessories for all  
your film, video and  
theatrical needs.  
Halogen and Metal Halide  
for theatre, studio, location  
and still photography.  
**We have it all!**

# ALTMAN

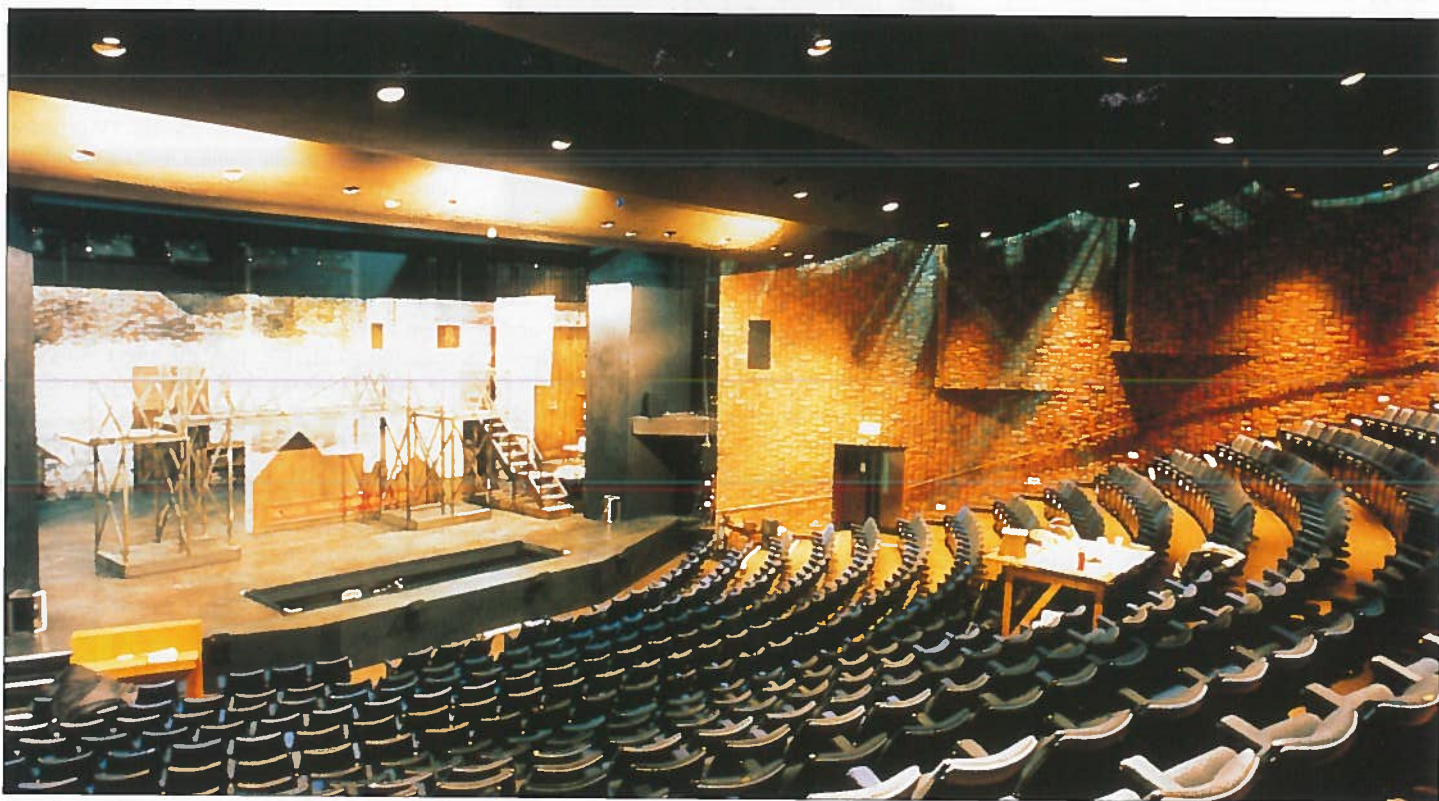
THE QUALITY OF LIGHT

ALTMAN STAGE LIGHTING COMPANY, INC., 57 Alexander Street, Yonkers, NY 10701, USA  
Telephone: 914 / 476-7987 • Fax: 914 / 963-7304 • <http://www.altmanltg.com>



# DIGITAL BY DESIGN

*Theatr Clwyd is setting high standards with its clever use of digital technology to enhance audience appreciation. Simon Forrest hit the Welsh trail . . .*



Set on a hillside overlooking the town of Mold, Theatr Clwyd is home to the Theatr Clwyd Company, Wales' leading professional English language theatre company. Under its artistic director, Terry Hands (Director Emeritus of the RSC), the company presents around 16 productions a year in 400 performances, with over half later going on tour in Wales and elsewhere in the UK. The theatre also has an extensive programme of visiting companies providing drama, dance, music and opera. Theatr Clwyd has two

performing venues: the Anthony Hopkins Theatre which seats just under 600 people, and the Emlyn Williams Theatre, which seats 200-300 people. There's also a Film Theatre which shows over 800 films a year, two art galleries, a television studio and function rooms for performances, conferences and lectures.

This is perhaps an unlikely venue for a state-of-the-art digital sound system but, since August last year, Theatr Clwyd have been working in the digital domain for all their sound production, storage, mixing and show control. This modernisation was led by Kevin Heyes, sound engineer at the theatre for 15 years.

The move to a digital system was prompted by a need to improve the sound quality and facilities at the theatre. "When people go out," explained Heyes, "they expect big cinema sound systems that knock them over with superb effects and sound tracks. Even at home,



most people now have high quality audio. We wanted to give them the same quality of sound and the same involving experience."

Heyes was introduced to digital sound equipment at an ABTT trade show, where he was shown the virtues of sampling by MM Productions - since then, he's not looked back. At first, the theatre brought in pieces of digital equipment on an ad hoc basis but they soon found they were fighting over the equipment between the two venues. This prompted them to review the situation and plan a more comprehensive approach to implementing digital sound.

At the heart of the system in each venue is a Yamaha O2R digital mixing desk. Heyes first saw the O2R at the PLASA show a couple of years ago. He was thoroughly impressed by its abilities to route, fade and control other devices all from a single control source and all

in the digital domain. He was amazed by the desk's capabilities - and equally amazed at the price. "I didn't expect to see facilities like this at anything under £50,000 - let alone at £8,000 for an O2R." Heyes and his production manager were so taken by the desk that they ordered their first one on the spot.

As with most major upgrades, there were initial teething problems. The desk arrived late and didn't have the full complement of cards. However, Yamaha provided the theatre with an alternative digital to analogue converter and Theatr

Clwyd successfully ran their Christmas show using the desk. Now both venues and the Sound Bunker (one of the two recording studios) have an O2R and they're just in the process of ordering a fourth.

"It's not perfect for theatre work," says Heyes, "but it's the closest thing to it at the price. What we really like about it is that it can accept a program change from the PC at the same time as setting the sampler and DR4. The operators can just push a button and then get on with controlling the job at hand - to get the same effects manually, we'd need an Octopus, setting faders and pressing buttons on all sides. It fits in with our view of using modern technology to help not hinder us. Once we saw the O2R, and saw how it meshed with our idea of using digital audio and control, we went for digital wholeheartedly. We've been pleased with the results ever since."

So how does an O2R fit into the overall system for each venue? Feeding into the O2R are the microphones and radio mics from the stage, as you'd expect for any theatre sound system. Within the control room, there are a pair of DR4 four-track digital recorders used for music and a pair of Akai S3200 samplers used for effects. The DR4s have external controllers, built by MM Productions, which allow the operator to cue them up and treat them much like a reel-to-reel. These are the primary sources, but there is also a Denon CD, a Tascam cassette deck and a small rack of outboard gear to help out as required.

"We like the hard-disk recording of the DR4s as opposed to a fixed digital medium such as minidisks," Heyes explained. "Although they're convenient and the quality's improved over the last couple of years, we didn't like minidisks for classical music, especially on sustained notes. It's not so bad with rock music, but with classical you can really hear the compression. With the DR4 we record and playback the audio without that compression and get much better response. We've also got the flexibility to run loops and manually move through sequences, following the acting on stage rather than a prerecorded timing."

The O2R has an SPO2 digital pan-pot attached. This allows an operator to pan music or an effect around the auditorium by taking six aux channels out of the desk, through the SPO2 and then back in to the desk as inputs. Like the rest of the kit, the SPO2 is digital, so the panning is silent - there's nothing coming from the speakers which isn't being used as the sound is moved around. The operator can either pan live, or the movements can be saved and played back to the O2R - a stored sequence like this can run from a few seconds to a few minutes.

Bringing all of these together is a Pentium 200MMX PC running Opcode's Vision software. Using Vision, a show's sound designer can set up sequences of commands for the O2R, the DR4s and the S3200s, and then assign each sequence to a single keystroke. So from a single button, the operator can start the music, play a series of samples and use the O2R to set levels and route each source to the appropriate speakers.

The result of this is that a sound designer can build a complex multi-layered set of effects without worrying about the operator's ability to orchestrate it. During a show, the operator can



**Kevin Heyes, sound engineer at the theatre for some 15 years.**

concentrate on watching the actors and bringing in each effect at the right moment. The cue sheets for a show are a marvel of simplicity, considering the range of effects being achieved: most are a single letter, or a letter and a tape position, and the letters aren't a cryptic code - they're simply the letter on the keyboard which the operator presses.

"The Vision software is really designed for musicians," said Heyes, "and there's a lot in there that we're not using. But being a musician's tool means that it's already used by a lot of the composers and sound designers who work on the shows. The Mac and the PC versions are identical, down to the keystrokes, and a lot of the composers use Macs. We chose PCs in-house because the theatre's network is PC-based (although we take the control room PCs off the network during a show). Because the two versions of Vision are identical, we can provide outside designers with a familiar tool, which means they're happy to use it when they design a show. It's been a fairly reliable system to run the shows, and the only minor problems we've had are during programming when we're putting in really complex commands."

As well as providing digital control of the audio system, the PC can be linked up to other devices using MIDI. The MIDI interface cards are also made by Opcode, so they're known to work with Vision. Although originally intended as an interface between musical equipment, MIDI has been stretched to many uses since its inception. At Theatr Clwyd, for example, it's been used to link 10 Kodak carousels to both

sound and lighting systems, allowing a single input to move the carousels back and forth, fade lamps up and down and trigger the DR4s. It was also used in the theatre's production of the Wizard of Oz to synchronise sound, lighting and pyro - when the wicked witch appeared, MIDI triggered thunder sound effects, lightning flashes and the on-stage pyro.

The theatre also uses software by MM Productions to take inputs from relays in order to precisely synch sound effects to on-stage events rather than relying on visual cues. Heyes gave a rather gruesome example from their production of Gulliver's Travels: "We had a scene with someone using a hammer to break bones. We wanted to synch the hammer blow to the sound of crunching bones, but there was no way to get this right every time if the operator did it manually. So the hammer had a radio mic which emitted a tone when its input went above a certain threshold - this in turn triggered an input to play the effect. This way we exactly synched the hammer blow and the breaking bones every time."

This combination of manual triggers and pre-recorded sequences, samples, loops, effects and music gives Theatr Clwyd the best of both worlds: they can achieve highly repeatable and predictable complex sound effects and collages, yet they retain the flexibility to tailor the playback to the pace of each individual performance. With a manual/ analogue system it would be just too complex to achieve the same effects.

This set-up (O2R, DR4s, S3200s and Vision) is replicated in both venues and in the Sound Bunker, and all three control rooms use exactly the same layout of equipment. This makes it easy to move a show from the main house to the studio theatre - and the operators can move just as easily between control rooms without having to worry about where everything is. To move the music and sound effect files, the DR4s and S3200s are linked by a SCSI bus to Iomega Jaz drives. The audio library for the show is simply copied to a 1GB Jaz disk, taken to the other venue, and loaded into the same hardware with the same settings.

When a show goes on tour, which over half of the in-house productions do, the equipment and the sound files go with it - and again, it's set up with the same layout to make the operator's job as easy as possible. Everything in the control rooms is already racked up ready to be relocated to another theatre or to one of the



**Above left, the studio control room set up, and right, the main racks in the sound bunker.**

other venues the company visits. "We've just toured Sweeney Todd in sports halls," commented Heyes, "and we had to take everything with us - not just the audio equipment including desk, PC, sources, amps and speakers, but the lighting, the trussing, even the stage and the generators."

The analogue side of the system was supplied to Theatr Clwyd by Marquee Audio. "We've had a good relationship with Marquee for about 10 years," said Heyes. "When we upgraded the system (which represented a capital spend of around £90,000 for amps, speakers and cable), it was suggested that we should put the largest chunk of the supply contract out to tender. But we've worked closely with Marquee and we felt that there was a lot of benefit in using one supplier who we knew well and could depend on."

This close working relationship can be seen in the way Theatr Clwyd selected the main speakers for the two venues. They wanted to do a head-to-head comparison in the theatre, so asked Marquee Audio to organise it for them. Marquee co-ordinated and supplied about 10 brands of speakers, some with the speaker company's own reps on hand to aid the demonstration. The session ran over two days with both technical and artistic staff from the theatre taking part in the assessment.

"It meant we could do things on our own terms, in our own venue, using our own sources and amps," said Heyes. "It took us around a day to get down to two choices: it took another half a day to decide between the two." The main criteria for choosing the speakers were intelligibility, directivity and high quality sound at both low and high volumes. There are no delay lines in the venues and they are fairly constrained as to speaker positions. So Heyes was looking for a tight angle of throw with good intelligibility in the field of coverage. He also wanted speakers which would respond well at both low and high volumes. To test this, the theatre's team listened to music with a large dynamic range, first quietly and then at high volume. Heyes explained their final choice: "In the end, it was such a close thing but we went with artistic preference and chose the Meyers, even though they're a more expensive box and they're bi-amped so they need more amps and cabling. We're really pleased with the Meyers - they're absolutely fantastic and they've never let us down."

Marquee Audio also built and supplied the QSC amp racks used to drive the Meyers, which run alongside racks of Ramsa amps built in-house. Throughout the upgrade, the theatre has made heavy use of two suppliers - Marquee for the analogue side and MM Productions for the digital side. Heyes believes that the benefits of close partnering with a few suppliers far outweigh the relatively small savings that could be made by shopping around.

As well as two performing venues, Theatr Clwyd have two recording studios. One of these, known as the Sound Bunker, has exactly the same set-up as each of the venue control rooms: O2R, PC with Vision software, two DR4s, two S3200s and various outboard equipment. And, as with the two control rooms, this kit is set up in exactly the same way so that it is easy for an operator to move from



The theatre has two performing venues - the Anthony Hopkins theatre is the main performance space and seats just under 600.

*"This is an unlikely venue for a state-of-the-art digital sound system, but the move to such a system was prompted by a need to improve the sound quality at the theatre."*

one area to another without re-orientation. Theatr Clwyd record all the music specifically for each show - they don't use pre-recorded music if at all possible. Before they kitted out the two in-house studios, it was costing them a lot in studio hire. Now they bring the composer in to the theatre and do everything in-house, with better facilities than most small studios and with better control over the whole process. And by shifting the budget from studio hire to equipment acquisition, they can reap the benefits at little or no additional cost.

Composition and recording for the shows is cost-led as there isn't the budget for live musicians in all shows. The music is generally performed by the composer on one of the theatre's keyboards and recorded direct to the DR4s. It then stays in the digital domain throughout the process of sound design and performance until it comes out the back of the O2R as an analogue signal to the amps.

Sound effects are taken from the theatre's collection of 400 effects CDs, which are stored in two Denon 1400F jukeboxes. To manage this large effects resource, they use WinFX, a program written by Chris Sims, which allows them to search for effects by keywords, play each effect, tag the ones they're interested in and store them to a separate samples file for show use.

The whole process of sound design takes place in one of the studios, with the director, composer and sound designer working together to produce the music and effects they

want. As the equipment is the same in the recording studio and the venue control rooms, they know that whatever design they put together will easily translate to performance. They use Vision to create individual sequences and collages from the recordings on the DR4s and S3200 samples. Then, once a design is complete, the audio files and the Vision sequences are copied via Jaz disks to the venue control room where the levels and timings can be fine-tuned as rehearsals progress.

As part of the overall upgrade, the theatre replaced all the speaker cabling in the two venues. Previously it had been low voltage for the front of house and 100V line for the sound effects. The new system is low voltage throughout. "The wiring was 20 years old with speaker lines running alongside mains, dodgy cable joins and a lot of buzzes, pops and crackles. Whenever a show went in, we needed extra time to sort out the noise. Now we've got our own cabling completely separate from the building cabling, running in our own trays, and with our own clean power supply."

The new installation uses 3km of 8-core cable terminating in 4-way Speakon boxes. There are 100 speaker outlets in the two venues, with 60 in the main house and 40 in the studio. All of the speaker lines terminate behind the amp racks in a Speakon patch panel which allows the theatre to completely reconfigure its speaker routing for each show. The installation was handled in-house by Heyes and four of the theatre's electricians, with the whole process taking just three weeks to complete. The decision not to contract the job out was partly a cost and timing issue, but it also allowed Heyes to get it done exactly the way he wanted it, with the flexibility to adapt and make decisions as he went along.

In addition to the speaker cabling, the installation put all of the sound system on its own clean power feed. Theatr Clwyd is particularly unfortunate in the quality of its power supply - they get fairly dirty mains with a lot of spikes on the line and the power goes down entirely about three to four times a month (especially in the winter when a heavy

fall of snow gets on the overhead power lines coming over the hills). The theatre has its own generator but this takes about 15 seconds to kick in. This is not a problem for the amps which they can simply switch back on - but if the power goes down during a show it takes too long to reboot the digital equipment and reload the programs and data. They've also found the O2R to be particularly susceptible to dirty mains. Therefore, the desks, PCs, hard disk recorders and samplers are all protected by uninterruptible power supplies, giving them clean power and keeping them running in the event of a power failure until the generator kicks in.

So what does Heyes see as the main pay-offs for the substantial investment in time and money Theatr Clwyd have put into their new systems? "The key benefit is that we give our audiences a much better theatrical experience when they come to a show. Everyone has come to expect higher quality audio and more impressive sound effects. Without the flexibility of our new systems, and without the ability to control everything simply and quickly, we wouldn't have been able to give them that sort of rich audio experience. Now we can be really clever with the sound design and yet to the audience it's all just part of the overall production - they're not aware of it as separate from the performance, which is exactly how it should be.



The smaller Emlyn Williams theatre accommodates 200-300.

"From our side of things, we've gone through a steep learning curve but we've now got a system that's much easier to operate in performance. We can concentrate on the show and let the technology get on with things. And because we've got the same set-up in both venues, and take the same set-up out on the road, we can move shows around really quickly. We can move a show between the two venues by simply copying the files across and be up and running again in less than an hour. We also archive all the audio files and programs, so if a show returns next season we've got the sound ready to go straight away."

Outside of the control room, all of this digital technology actually allows the performances to be more human and more natural. By

depending on Vision and an O2R to handle all the complexity, Heyes and the other sound designers can build audio effects and collages to suit the show without worrying about how many hands it's going to take to get it all to work. And by allowing the operator to concentrate on synchronizing the sound to the performance, the actors aren't constrained by having to match a timed sequence for even the most complex and compelling effects.

According to Heyes, this is just the beginning: "We first started using the O2R a couple of years ago and we only fully changed over to this system last August.

There's a lot more to come. We're still learning all the time about what we can do with this set-up and we're only just scratching the surface at the moment. We get a lot of other theatre sound engineers coming to see what we're doing with all this kit, and everyone goes away very impressed. We'll be seeing a lot more systems like this in theatres throughout the country over the next few years."

*Simon Forrest is projects manager at interMETHODS Ltd, a software design and development company which specialising in real-time control and monitoring systems for digital audio, voice alarm, life-safety and intelligent buildings.*

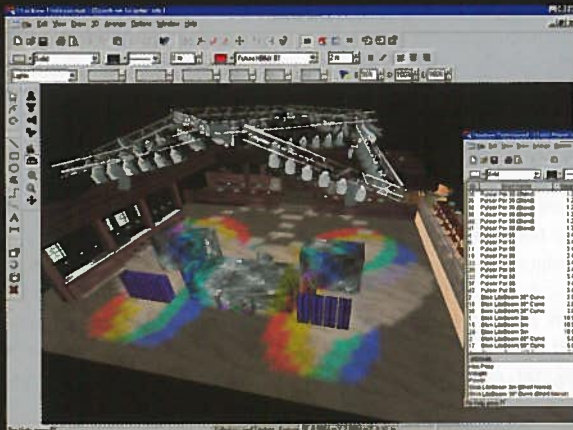
Starlite Systems Technology, Calera House, Caxton St North, London, E16 1JL, England. Tel: +44(0)171 511 4100 Fax: +44(0)171 476 2922 <http://www.starlite.co.uk> e-Mail: [sales@starlite.co.uk](mailto:sales@starlite.co.uk)



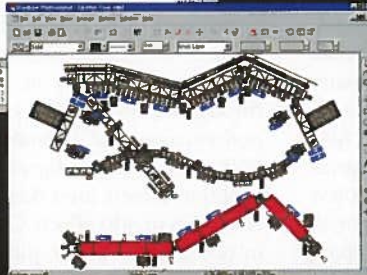
# Stardraw Professional

The fastest way to visualise lighting designs in 2D and 3D

Now Only  
**£695.00** +VAT  
30 Day Money Back Guarantee



Item	Qty	Unit	Price	Total	Part No	Desc
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W
Starlite Par 50	1	ea	100.00	100.00	Star L 1201	120W



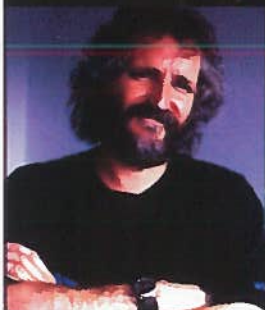
- Over 3000 free symbols of lighting products, staging, truss, audio and video products, & more
- Powerful, professional 2D and 3D CAD drawing tools: draw absolutely anything in 2D & 3D
- Support of unlimited light sources: spotlight, point & directional sources added & configured with a point and click interface
- Read and write .DWG (up to R14) and .DXF files
- Unlimited Undo/Redo, context sensitive help
- Database Connection using ODBC; make links to automatically update report fields e.g. pricing

**Stardraw 2D**  
Version 3 Now Available

**£295.00** +VAT  
30 Day Money Back Guarantee

- Automatic reporting & bill of materials
- Built for Windows '95: use OLE + drag & drop
- Use any Windows bit-maps as Textures to add realism to objects
- Fully customizable tool-bars, templates and FastKeys
- Real time rendering using DirectX 5
- Create complex 3D objects using powerful Extrude and Spin tools.

"You wait half your life for a curved cyc distortion,...



...then two of them come along at once!" Wyatt Enever.

Richard Eyres "The Invention of Love". Royal National Theatre. Photo: Chris Guy

Last year DHA bent its talents to produce long-lasting, colour-fast Cibachrome slides to fit the curved cycs of two Royal National Theatre productions - *Enemy of the People* and *The Invention of Love*. After 17 years of supplying projection slides in all formats, this was a highly original request which was tackled by a delighted DHA director Wyatt Enever with his specialist knowledge of single and double plane distortion techniques. In both productions there was the added complication of each projector being positioned off-axis. Pre-distortion of the image to counter this oblique angle, therefore, had to be incorporated in addition to calculating the curve of the cyc itself.

This rather tricky combination was taken a stage further in the recent Royal Opera House production of *La Traviata* at the Royal Albert Hall. The curved screen could only be covered by using two projectors, each providing a half-screen image, both of which were mounted off-axis in both the vertical and horizontal plane. Predistortion in this case was achieved by building a scale model of the screen, producing artworks to this scale, wrapping them around the curve and photographing them from the calculated oblique angle using a technical large format camera.

In less complicated cases, predistortion in single or double plane onto flat surfaces is achieved using DHA's own calculation program. In-house graphics programs can then be used to alter or

enhance customers artworks to exacting requirements. Changes in scale, format, image distortion or colour correction are all possible.

Another fast developing area of projection is that of coloured glass gobos. Colour logos, artwork and photographs can all be reproduced onto dichroic glass and have been used for such diverse applications as rock and roll tours, theatre productions, in store shopping guides and corporate logos.

DHA makes coloured glass gobos in any size, to fit any lantern suitable for projecting glass. DHA has invested in digital imaging equipment and can produce glass gobo tools directly from customer artworks supplied on disc or sent as E-mail or via ISDN. Traditional flat artworks can either be scanned into the digital system or processed using conventional reprographics techniques for ultimate resolution. Images are reproduced to a standard resolution of 2400 dpi which suits most purposes, but higher resolutions can be made to order. A whole range of colour combinations is possible within the limits of the dichroic colour range, the simplest being one colour plus clear, whilst full colour photographic images can be achieved with multi-layered dichroic.

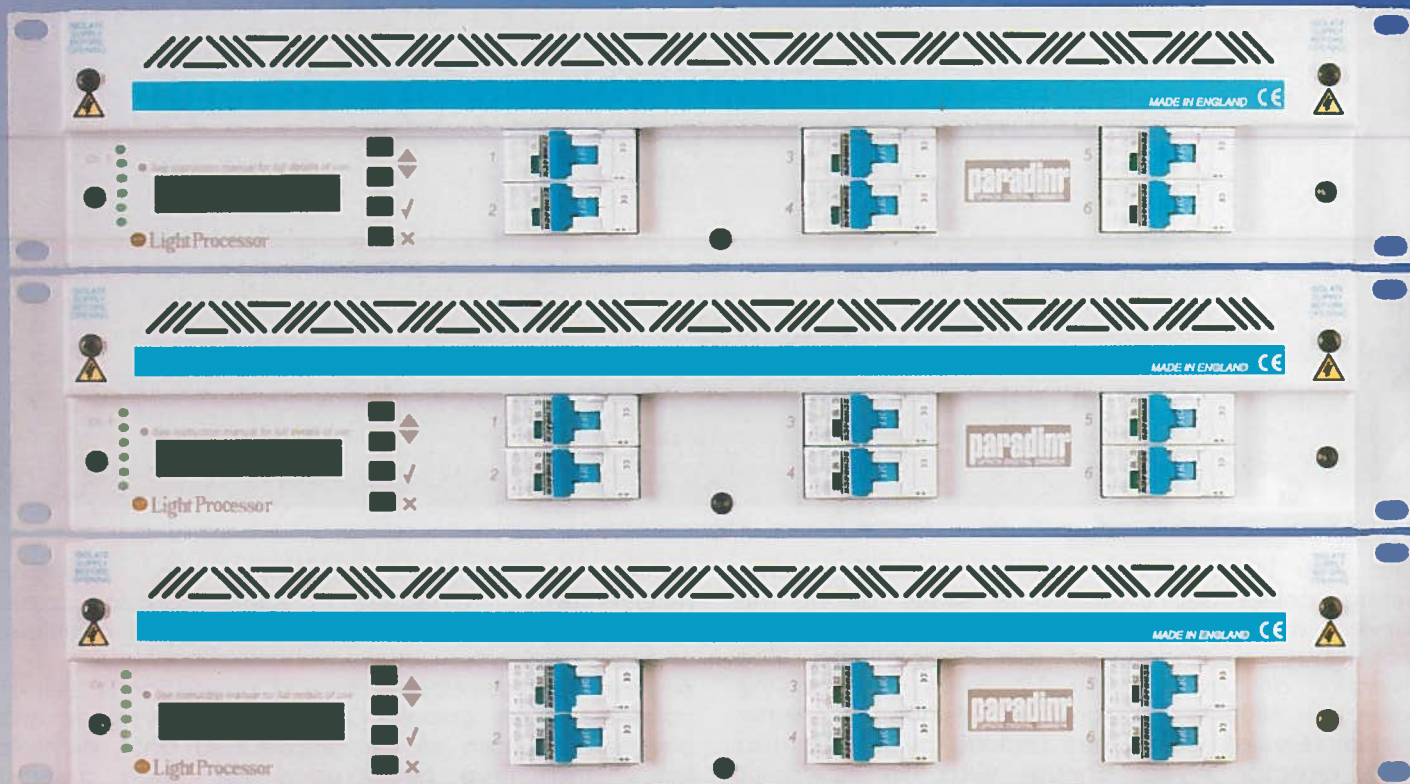
So if your projections are driving you to distortion and your colours are all a blur, DHA will lay it out in black and white and bend over backwards to help!

paradigm (pàr'e-dim') noun - An example that serves as the pattern or model for the rest.

# paradim<sup>TM</sup>

QPACK DIGITAL DIMMER

## Setting the standard in digital dimming.



- Fully digital design
- Circuit breakers
- DMX512 and Analogue protocols as standard
- LCD display
- Scene and standby memories
- Selectable dimming curves
- 6x 10A, 6x 16A and 6x 25A models
- Single, 3 phase, Star and Delta
- Internal effects generator
- Easy internal access
- Processor controlled thermal management system
- DMX and self test functions



Hardwired, socket outlet and touring rack variants.



 **LightProcessor**<sup>®</sup>  
BRINGING TECHNOLOGY TO LIGHT

11 Fairway Drive, Greenford, Middx, UB6 8PW, UK Tel: +44 (0)181-575 2288  
Fax: +44 (0)181 575 9678 Email: [info@lightprocessor.co.uk](mailto:info@lightprocessor.co.uk) Internet: [www.lightprocessor.co.uk](http://www.lightprocessor.co.uk)

We often talk about the artistry of the lighting designer and indeed refer to them, at least amongst ourselves, as artists. When we formed our own design partnership, I remember that, with some conceit, we used the soubriquet 'Lighting Architects', though this was subsequently dropped when it seemed to achieve little or no resonance with the customers. (I note, however, that others have subsequently followed suit). It seems that amongst all this naming and shaping, one small but significant group has fallen through the gaps in the jargon and indeed gets very little attention at all, at least in these sainted isles. I refer to those who make art with light, rather than those who use light artistically. That is, I want to focus attention on light made into art, solely for art's sake - to draw attention to Light Artists as a breed.

In the aftermath of the Leeds students' fun attempt at performance art, which incidentally got a much misplaced and misunderstood slagging-off in the media, I am here to tell you that if you attend any fine art degree show these days you will find a couple of students using light as their medium. What happens to these guys when they emerge out into a cruel world is anybody's guess, but we should certainly care.

I am prompted into this diatribe through knowledge of the fact that in the USA (and in France too I shouldn't be surprised), things are somewhat different - light is, and has been, an accepted medium for art work for many years. The latest manifestation of light art in the States took place at the New York Hall of Science during April and May this year. The only reason I know this is that one of the three artists represented, one Paul Friedlander, is a friend of ours, in fact my design partner Peter Wynne Willson built the special which, in part, enables the piece to perform. The point is, that if it weren't for the fact that he collaborated with the artist, I would probably never have heard anything about it and nor would anyone else here. We should be doing more to promote such work - at present the means of discovery is far too random. So I am taking this opportunity to rectify that situation right now.

In her introduction to LightForms '98, Cynthia Pannucci, founder of Art & Science Collaborations Inc (a non profit-making organisation whose sole purpose is to raise public awareness about art and artists using science and technology to explore new forms of creative expression - and we could do with something similar here) describes the show as an international competition of monumental, site-specific interactive lightworks. She points out that without a lot of support, artists working with light will have limited opportunities to push the aesthetic and technical envelope. Ain't that the truth. LightForms is planned as a biennial event.



Paul Friedlander's 'Dark Matter', part of the Lightforms 98 exhibition in New York.

*"This is one way we can push the frontiers, by encouraging those with the courage, enthusiasm and talent to do wacky things with light . . ."*

Paul Friedlander's Dark Matter (pictured) is a three storey high, kinetic light sculpture, the form of which is re-defined by random re-configuration of motion and light, when triggered by ultrasonic beams. In its quiescent state it is a blue-violet, vertically spinning light wave, apparently suspended in mid-air. In active mode the suspended shape which, though undulating and fluid looks and feels solid, will change to any number of different profiles. All of this done with the following 'simple' ingredients: a spinning rope of variable speed, a top reflecting dish, a collimated, 'chromastrobic' beam of light from

a 4kW HMI source (Pete's bit), some control, and the ultrasonic interactive interface - mix together thoroughly and you'll be truly amazed at the result. Friedlander is a prodigious talent and his skills should be given due appreciation.

Other participants at LightForm this year were Louis-Phillipe Demers and Bill Vorn from Kunst Macchina in Montreal who presented an 'immersion' form of interaction using robotic lights, and Dirk Rutten and Jereon Kascha, two Dutch designers who work with fibre optics.

I notice that this show attracted a considerable number of industry names as sponsors, presumably mostly by way of donated equipment, and those who got involved will have achieved some kudos and possibly some knowledge which they might otherwise have missed out on. This is one way we can push the frontiers, by encouraging those with the courage, enthusiasm and talent to do wacky things with light, and who devote their lives to it, by providing the opportunity to show the products of their imaginations.

## UNIVERSAL FIBRE OPTICS OPTICAL GOODS MANUFACTURERS

Fibre Optics manufacturer's in both glass and plastic.  
Harnesses made for starcloths to museums.  
Universal can fulfill your requirements with items mostly ex-stock.  
0.75mm, 1mm, 1.5mm and 2mm rolls of plastic ready for despatch.  
Lightsources from 75wTH to 150w metalhalide to give that extra light.  
Price and delivery kept to a minimum.

LONDON:  
Tel: 0705 138 4112 Fax: 0181 789 2192  
THE NORTH:  
Tel: 01890 883416 Fax: 01890 883062



# ENTECH '98

*Australia's entertainment technology showcase has bowed out of the nineties, looking fit and well for a return in Olympic year. Lee Baldock reports from Sydney*



Bytecraft's John Drummond Montgomery with the Argonaut automation system.

EnTech's final appearance before the year 2000 went off without a hitch at the end of April in Sydney. If there was a hitch at all, it could only have been that it rained continuously for the entire three days of the show, but as one Aussie distributor told me, they were just trying to make us poms feel at home. Such thoughtful hospitality didn't seem to dampen the attendance figures which, although some found it quiet, we are told were up 5% on the previous year's show, despite there being no public day for the first time, and the show being staged wholly within the working week. All in all, this was a smooth, well-organised and fitting close to EnTech's successful 1990's run and a strong platform for its next appearance in 2000 - just prior to the Sydney Olympics. From the feedback received from many of the exhibitors, the decision to run on alternate years has been warmly welcomed, and the show will not be lacking in its traditional support when it returns.

Also going off hitch-free and with all its traditional support was the EnTech Awards dinner at the Sydney Metro, which was enjoyed to the full by all concerned. A fascinating insight into subjects such as G-Lock in jet pilots and experiments in throwing cats from tall buildings was provided by the brilliantly entertaining Dr. Karl Kruszelnicki, and some great live music and even a flamenco troupe completed the diverse entertainments for the night.

Jands boss Paul Mulholland seemed to spend a fair amount of the evening up on the podium, picking up three awards - Microphone of the Year (the Jands-distributed Shure Beta 87), Lighting Control Product of the Year (the



High End Systems' range displayed on the stand of distributor Techscape.

Jands-Hog 250/600) and Audio Production Company of the Year (Jands Production Services). It was ironic that the Jands-Hog picked up an award at the very show where it was superseded by the arrival of Jands' new 1000-channel Echelon console. This Wholehog II operating system, Mulholland told me, is a true member of the Hog family, the result of the period of evolution of which the Jands-Hog has been an important, but incomplete, part. Two years in development, the Echelon was test-driven during EnTech week by LD Alan Stone with a much-hyped new Aussie band, The Whitlams. Judging from feedback received, the Echelon now looks set to carry the Wholehog II standard to the lower end of the market which has previously been excluded by prohibitive cost. AC Lighting are distributing the Echelon worldwide, and the first models have already shipped.

When they moved to new premises 18 months ago, Jands effectively increased their output capacity by 75%, including all their own and OEM sheet metal work - chassis, racks, panels and drawers, etc. Since the move, and aside from the headline-grabbing Echelon, Jands have also been busy redesigning their



LD Alan Stone with Jands' new Echelon.



The LSC team show off the company's new logo and livery.

entire dimmer range in both rack- and wall-mount versions for schools, theatre, TV and touring. Also on stand were dimmer units protected by sturdy, stackable, tubular steel frames - an idea taken from the 'Roobars' attached to the front of many a kangaroo-stained vehicle. The Roobars also make for useful carrying handles.

Paul Mulholland, in accordance with most of the Australian exhibitors, reports that while the home market has been at best steady over the past couple of years, the Olympics and all the inevitable development of hotels, venues and attractions associated with it - which are in visible progress all over Sydney - are providing a new and keenly-awaited impetus. Another potential economic influence (or influenza) is what they are calling the Asian Flu - the effect of the troubled Asian economies, but despite some noticeable trail-off in Asian markets, this doesn't seem to have affected Australian companies too deeply. It may well be the case, however, that the effects are felt in the coming years, when current projects throughout Asia are completed and those that have been cancelled in the current crisis aren't there to take their place.

Australian manufacturers and stage automation systems specialists **Bytecraft**, were also an EnTech Award winner, in their case of the 'Architainment' Lighting Project award for the Crown Casino Atrium in Melbourne. With their automation systems installed in just about every major theatre in Australia, Bytecraft already boast among their credits Sydney Opera House, including the opera theatre, drama theatre and concert hall, plus other prestige installations around the world,



Avolites' Steve Warren and ULA's Con Biviano show off an Azure 2000.



Con Biviano with Le Maitre's Andrew Harvey and the Neutron Star Hazer.





L-R: Mervyn Thomas of James Thomas Engineering with Sam Redston, Kristian Gardiner and Patrick Lockwood of Thomas' new Aussie distributors, Clearlight Shows.

including the San Francisco Opera House, the Julliard School in New York and the Royal Court in London.

Despite the economic problems, South East Asia has been one of Bytecraft's strongest markets of late, a notable installation being the Malaysian National Theatre, while a new regional office was recently opened in Japan. The company are also doing very well in Europe, with full-time service support now available. On the final day of the show, Bytecraft's John Drummond Montgomery revealed to me that the company had just heard that they had won a large theatre automation contract in Western Europe - but we can't say more than that at the moment.

Instrumental in the company's current success is the Argonaut automation system, which has been very well received and was on show at EnTech alongside the other manufacturers' ranges distributed in Australia by Bytecraft - Strand, Pani and Wybron - as well as the German engineering company who appeared at PLASA for the first time last year, Buehnenbau Schnakenberg.

A complete new image overhaul was being aired for the first time by Melbourne-based LSC who, after 19 years, have changed their corporate image to better reflect the role of LSC Lighting Systems within the LSC Electronics Group, which also encompasses engineering consultancy and electric signage. Other new moves for LSC being announced at EnTech include the appointment of a new business development manager based in Sydney (Andrew Winslade), who has responsibility for the New South Wales market, while a similar arrangement will shortly be implemented for Queensland and Victoria. The aim for LSC Lighting Systems is to concentrate solely on the manufacture and sales of the company's lighting control equipment, separate from the consultancy and installation.

These developments have come about largely due to the success rate of the



L-R: Rod Salmon of Show Technology, British Deputy Consul General Peter Spiceley, PLASA's Anna Pillow and Pulsar's Derrick Saunders.

company's Atom console. This product, along with the Softlink and other of LSC's DMX tools, has led to the company's worldwide sales doubling over the past two years. Outside of Australia, Europe is LSC's next biggest market, and Version 2 of their Axiom control software has recently been put to use at Copenhagen Opera House and the Finlandia Hall in Helsinki. Developments in the UK have seen the well-known figure of Andy Trevett, formerly of Doughty Engineering, take the helm at LSC UK, and pull together a team of 12 new UK distributors for LSC which will be in place in time for the PLASA show this year.

Product-wise, LSC introduced the new TS series pro touring dimmer at the show. The company has been spending a considerable percentage of its gross turnover on R&D, making their product range fully CE compliant for the European market. A new range of dimmers will be in production in time for PLASA, when the smart new logo and livery of LSC will make its first UK appearance.

Selecon, the theatre lighting manufacturer from across the water in New Zealand, were at EnTech on the stand of their New South Wales/Queensland distributor, Herkes Pro Lighting. Selecon apparently narrowly missed out on having their new Pacific cool light range on show, but were giving introductory product overviews in their seminar enclosure. Initial information on the Pacific is that it will be a comprehensive range of fixed beam and zoom luminaires with a choice of 600W or 1000W lamps and include 'active heat management'.

Selecon, like Bytecraft, are a (relatively) local manufacturer down under who virtually command the Australian market - no mean achievement in little more than 10 years. Tim Kennard of Herkes reports that there is generally an optimistic climate in the country at the moment - perhaps due at least, in part, to the prospect of the Olympics - with people ready to develop, and invest in, new projects. Hopefully, the long-term effects of 'Asian Flu'



L-R: Glantre Engineering Ltd's Matthew Tonks with Gaynor and Henry Lewis of Glantre Engineering Pty, with the Spiralift.

and the passing of the Games will not affect the atmosphere.

Lighting distributor Coemar DeSisti had Coemar's latest moving head spot - the Cf 1200, which has been generating a lot of interest. This attractive unit, with its patterned high-gloss finish, boasts a variable projection angle and a flexible and easily adjustable colour mixing system. Like a Formula 1 racing car, the Cf 1200 is built from carbon fibre and is, therefore, both tough and lightweight, the entire unit clocking up just 23kg on the scales.

The DeSisti side of the operation is also doing well in Australia. New studios for Channel 9 in Melbourne have recently taken 12 DeSisti 5ks, and there are new television and film studio developments planned for Melbourne's docklands and new Warner studios planned for Queensland, all of which is happening against the background of Australia's currently buoyant film industry.

Show Lighting Australia, distributor of Clay Paky and Pulsar, were hosting Clay Paky's demonstration of their new range of stage fixtures - the Stage Colour 300, 575, 1000 and 1200 and the Stage Zoom 1200. Also on show was the much-praised MiniScan HPE, which received further praise by being named Luminaire of the Year at the awards dinner, raising an enthusiastic cheer at the Show Lighting table. Oddly, the cheers were coming from the same table when Martin Professional's two awards were announced - for Moving Light of the Year (MAC 600) and Innovation in Lighting Product Design (MAC500). This is due to the fact that Show Lighting Australia are also, in effect, Martin Professional Lighting Australia, whose stand was a short walk away from the Clay Paky stand, in the corner of Hall 1. As someone commented to me, it's not an arrangement you find anywhere else in the world, but it certainly seems to be working to everyone's satisfaction in Australia.

High End Systems, meanwhile, were



Tomcat's John James demonstrates the company's new in-line truss connector.



Electroluminescence in action: the versatile Lightwire on the Anytronics stand.



The Merrimac submersible colour changer on the Mick James Electronics stand.



Pete Floyd of AC Lighting (right) demonstrates the WYSIWYG system.

making the first showing in Australia of their Techno range - Technobeam, Technoray and Technopro - as well as the Studio Spot and architectural products on the stand of their distributor, Brisbane-based **Techscape Lighting Technology** were also represented, showing the familiar lines such as the Caterpillar light, Lite Dim shutters and the more recently introduced Par-Fume, the fun-sized smoke machine. Lighting Technology's new trading partnership with Mad Lighting also meant that the colourful and popular Mad range was on show and doing well. The other key element for Techscape was **Anytronics**, present at the show in the (sun-kissed) form of Bob Hall. Anytronics' range of dimming and switching products received some high praise indeed from Techscape, who say that as well as being very popular down under, they are so reliable that they simply never come back.

Anytronics were also showing Lightwire, a flexible, weatherproof, low voltage, electroluminescent effect, which comes complete with its own chaser pack. Another effect working on the same principle was on show from **On Air Productions**, this time under the name 'Lightstrip' as it was in a tape rather than wire form. The versatility of this technology undoubtedly means that it will extend right through and way beyond the entertainment industry. On Air, incidentally, were also demonstrating **Wybron's** Advertising in Motion (AIM) - the very effective application of Wybron's colour scroller technology to the display advertising market.

Alongside their established product lines from **Abstract, KAM and JB Lighting, Universal Lighting & Audio (ULA)** were proudly hosting three new ranges from the UK, having recently taken the Australian distribution for **Avolites, Le Maitre and Citronic**. ULA's Con Biviano explained that Avolites' Azure 2000 console now fits in perfectly as a package with the lights ULA supplies for Abstract and JB, and the company will be running a series of training days on the Azure under the direction of Luke Hall. **Citronic** are also a recent addition to ULA's distribution line, and enjoy a good reputation in Australia.

**Le Maitre's** Andrew Harvey, who also presented a pyrotechnics seminar at the show, was on the ULA stand to demonstrate the company's new Neutron Star Hazer. This dedicated hazer unit, first shown at PLASA 97, boasts a 200-hour operation from 2.5 litres of Super Concentrate Hazing Fluid - equivalent to 125 litres of any other hazing fluid. ULA have recently taken a large order of Neutron Stars. Also on show, and enjoying some high profile exposure in Australia, was Le Maitre's Low



The LightMoves stand, displaying the projection effects of Optikinetics including the new eight-way slide changer for the Solar 250, K1 and K2 projectors.

Smoke Generator (LSG), which is already in use in Sydney Opera House, Birdwood Casino in Perth and Sydney's new casino, Star City.

Another new distribution deal announced at the show was that between **James Thomas Engineering** and Victoria-based **Clearlight Shows Pty** who, just prior to the show, were appointed sole Australian distributor for Thomas. The relationship between Clearlight and Thomas has arisen directly from the Australian trade mission to the PLASA Show, organised by PLASA in 1996, when Clearlight MD John McKissock was one of nine Australian missionaries to visit the show. Almost two years later, the deal is cemented and both camps are very happy with the deal. Clearlight report a great deal of professional interest in Thomas product in Australia.

Another of the missionaries of 1996 was Mick James, of **Mick James Electronics**, who was at the show demonstrating the Merrimac - the world's first all-weather, fully-submersible scrolling colour changer system, and the ACS-CSI-1000 exterior architectural full-colour floodlight from Artifex, which uses subtractive dichroic colour mixing and includes a diffusion filter system that allows the beam to shift from spot to flood.

On the **LightMoves Technologies** stand, **Optikinetics** were showing their display of K series projectors and other projection effects, with Neil Rice demo'ing the new eight-way colour changer for Opti's Solar 250, K1 and K2 projectors which takes duplicate 35mm slides. Also on the Lightmoves stand was Roy Millington of **Cloud Electronics**, introducing the new 4 x 4 Matrix mixer and amplifier, which addresses the requirements of multi-zone applications. The Matrix 4 provides a simple solution for microphone distribution, zone paging and background music for up to four zones.

Shortly before travelling to the UK for the opening of the company's new Wirral-based UK headquarters, **Tomcat's** John James was showing (in somewhat reduced circumstances, thanks to Sydney's dock strike) the company's



Selecon's Jeremy Collins (centre) with Tim Kennard (left) and Stephen Fairweather of distributors Herkes.

new in-line truss connector system, which very solidly connects all-female truss by means of a tapered 'egg' and pin. The connector will be used in truss aimed mainly at the exhibition market.

The Australian distributor formerly known as AR Audio Engineering is now called **Technical Audio Group (TAG)**, and were showing the wares of Allen & Heath, Martin Audio, QSC Audio, SCV/LA Audio, Marantz and ATC. TAG are currently Allen & Heath's Distributor of the Year in recognition of outstanding sales in Oz - more evidence of the positive atmosphere in the market mentioned earlier.

**Glantre Engineering Pty's** Henry and Gaynor Lewis were joined from the UK by Glantre's Matthew Tonks, and were publicising a number of recent high profile projects in the region. As part of the £3.3m Petronas Towers Concert Hall contract, in Kuala Lumpur, Glantre installed a 150 ton plunger ceiling, the first time that a ceiling of this magnitude has been used anywhere in the world. A little closer to the exhibition centre, Glantre were also recently involved with the Cabaret Showroom at Sydney's Star City casino, where they worked with Vision Design Studio to install a comprehensive system of stage lifts, together with associated controls and safety features. On the Glantre stand, meanwhile, the ups and downs of the stage engineering world were being ably demonstrated by the Canadian-manufactured Spiralift.

**PLASA** took a group of DTI-sponsored UK exhibitors to the show. Sharing the same block as PLASA were **MGC Lamps, Stage Technologies, AC Lighting and Wharfedale (IAG)**, while scattered around the further reaches of the hall were others including **Penn Fabrication, Studiomaster and White Light** (on the Chameleon Touring Systems stand), **ShowCAD** (on the Coemar DeSisti stand) and others already mentioned - altogether one of the largest overseas trade missions ever mounted by the association. And this level of interest in the market cannot entirely be attributed to the passing attraction to manufacturers of the Olympic Games, as PLASA took a slightly larger group to Sydney in 1996.

So as EnTech departs in the manner of General MacArthur, we settle down for a two year wait for its return. By EnTech 2000, the fact that there will be more than usual for many visitors to catch up with may add an extra buzz to the event, while the imminence of the Olympic Games should certainly be adding an extra buzz to an already buzzing city. EnTech 2000 and the city of Sydney should be well worth a visit.



**21<sup>st</sup>**  
**year**

**SEE THE TECHNOLOGY COME ALIVE.**

**BE AT THE BIRTH OF LIGHT AND SOUND.**

In 1997, over 472 products first saw the light of day at PLASA. To to be witnessed by some 13,075 people from more than 50 countries across the world.

323 exhibitors demonstrating literally thousands of leading edge products underlines PLASA's importance as the international light and sound event.

Surely no other event is as revealing?

You just have to be there to experience it first.

**For tickets or further information call +44 (0) 171 370 8229.**

**PLASA**  
**LIVE AT EARLS COURT**  
**6-9 SEPTEMBER 1998**

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

It doesn't seem likely that architects and those who influence the design of television studios actually try to make the 'get in' difficult, but how else can you explain the consistently impossible load-ins we face daily? It can't be chance that ensures that trucks have to back the wrong way down a one-way street or that the dock door is three inches narrower than a Concert Grand.

Only the other day I arrived at a central London studio to light a commercial, to be faced with yet another variant on this theme. I had arranged with the designer to give his team a three-hour start (I suppose management consultants would call this approach critical path-analysis. I call it not having to fight over the only pair of 10ft steps in the place, and not having to levitate over 100 square yards of wet paint).

Anyhow, having signed in and been issued with a sticky 'visitor' label, which has the same glue they use for attaching those Teflon tiles to the nose cone of the space shuttle, I follow the signs to the studio. Surprisingly, the route leads downstairs (yes, I know, I shouldn't be surprised) and on the half-landing where the stairs turn through 180 degrees lies the first clue: several molehill-like piles of sawdust. 'Hmmm . . . what do you make of that, Watson? I deduce it was the chippy on the landing with the saw!'

Down the second flight, there's a long corridor which slopes down to the studio. I imagine the slope is there to allow the get-in crew to take a run at the single door through which everything must pass. Actually I'm being unfair, because someone has thought this thing through and provided a second door above the first, so that in the unlikely event that the crew have got a 10ft flat round the bend in the stairs and along an 8ft high passage, they won't fall at the last fence. Or will they? The second door has its own frame, so there's a horizontal bar six and a half feet above the deck! I've done a few series with the magician Wayne Dobson, and there's definitely a way round this, but I'm damned if I can remember what. Mirrors are involved I expect.

So my planned three-hour start for the setters had evaporated as several elements of the set had needed to be butchered to get them in. First prize went to the designer of the cordless 14v De Walt circular saw which is now at the top of my Christmas list. So, a normal enough day I hear you say, and quite rightly, but it did demonstrate another feature - in fact several features - of current casual production techniques which lie in wait for those of us who prefer to plan ahead out of a sense of self preservation learnt the hard way. The booking

for the job and all the subsequent pre-planning was conducted on a mobile phone in a number of lay-bys and motorway service station car parks between Gloucester and Plymouth. Gloucester is a black hole on Cellnet, but that won't concern the majority of you who regard the M25 as the point at which civilisation ends. The designer (a large jolly man with a luxuriant moustache), it later transpired, described his set as mostly made of "those glass bricks," except these are perspex! Well, they're certainly cheaper!

The client would like a water ripple effect on them, can you do it? You say 'yes', don't you. Freelancers never say 'no' (except to their Editors), but privately I'm thinking of leaky trays of water, trebling the amount of bounce-light I first thought of, and how much bad luck I'm going to build up breaking God knows how many mirrors. Furthermore, how will these perspex/glass bricks take light? A practice session with a lamp and a camera would have been nice. They want it to look like a Breakfast Show: well there's no accounting for taste and anyway, it will save me worrying about how many nose shadows there are - and all in the name of authenticity.

So if that's the name of the game then that's how we'll play it. Flying by the seat of your pants seems OK once you've landed in one piece. Believe it or not, I enjoyed this show, the studio worked well, cameras, lights, even the dreaded spring pantographs made it within a foot of their supposed maximum height, and if there had been time to ask for an equipment list, maybe I would have noticed that there weren't any soft lights! In the event, a big trace frame did the job better anyway. The biggest asset this unnamed studio has is called Paul, though no doubt no-one upstairs has noticed. Thankfully there are still a few 'Pauls' around, usually in the smaller facility companies, and they do restore your faith in human nature.

Reading a magazine recently (yes, it has been known), I came across an article which struck a chord. A few weeks back I was approached to act as TV lighting consultant (my words) on a show at the Albert Hall being staged for a live audience. Well, as I've already noted, freelancers never say no, but I did find myself telling the producer that I thought it was a "hiding to nothing job." He thought any influence I could bring to bear would justify my presence. I had my doubts. In the event, the job didn't happen. I'll have to take down that 'Honest John Watt: not here today and gone tomorrow' sign. Maybe I should try 'Never knowingly undersold. If you can find a cheaper lighting designer within 10 miles of Grantham I'll match his price.' No, better not, there's always somebody supplementing their pension!

The article described a similar scenario at the same venue - a show celebrating Andrew Lloyd-Webber's 50th birthday. It was lit by a theatrical lighting designer, but with 'Sooty' (Mike Sutcliffe) looking after the TV interests as best he could. I didn't see the results, so it may have looked OK, but it's reported that Mike's suggestion to look at results on a monitor didn't go down too well. Sweet, old-fashioned thing - fancy wanting to see a few pictures when the potential TV audience only outnumbered the live one by about a hundred thousand to one! Further mention of a white set and Michael Ball lit from directly overhead with a 4kW SkyArt just caused me to mutter "there but for the grace of God," etc.

By the time you read this I shall have shaken the moth balls out of a rather fetching pair of white shorts and trod the hallowed turf at Wimbledon once again. I shall endeavour to have trusty gaffer Malcolm Reed do the donkey work while I check out the strawberries and cream, no doubt it will provide a heroic tale or two for next time.

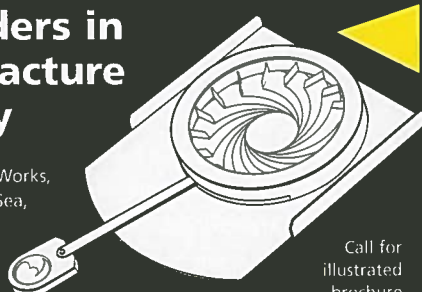
# W

## World leaders in Iris manufacture and supply

# WILKES IRIS

Wilkes Iris Co Ltd, Widco Works,  
London Road, Bexhill-on-Sea,  
Sussex TN39 3LE

Tel: 01424 217630  
Fax: 01424 215406



Call for illustrated brochure

# forget

Output listing

# don't forget

interactive spreadsheets

new light dimensions

simply  
grandMA

# not handy

snap-in-mode

# handy

motorized faders

Summer 1998

simply  
grandMA

M A L I G H T I N G

# ON TOUR

by STEVE MOLES

AND PRODUCTION NEWS

## Yes

Sheffield City Hall

LD: J. Broderick/N. Sholem

SD: John Robbins

This was a band I saw frequently in the early seventies, but never got to work with. Then they were leaders, sharing the world stage with bands like Genesis and Emerson Lake & Palmer. Progressive rock was in its infancy, holding all the fascination of a new music form, without any of the pomposity that ultimately overwhelmed it. Nothing could have been more quintessentially hip than for a student to lie out in the sun in 1970, listen to the Yes Album, and indulge in a big fat doobie. In the intervening years they rode out some rough weather and several band changes, but the essential cores of Howe, Squire, White and Anderson have somehow always gravitated back to one another.

Seeing them on tour in the US, circa 1990, they were still a self-indulgent band who presented over-wrought and pretentiously complex musical tapestries. Fine for the purist, but pretty inaccessible to us mere mortals who've never plucked a string in our lives. So it was both a revelation to hear them perform so many of their classics from the past, and a pleasure to be reminded of what made them great - and, as such, be reassured that it wasn't just the big doobies that made it so. Yes, on top form, playing to a bunch of us old 'uns, proving that there's more to this music stuff than blues-based guitar rock. Will we see the next incarnation of Noel Gallagher playing three hour sets to small crowds of just a few thousand? Well, who knows?

## SOUND

Knowing the historical continuity of the band, it was a surprise to discover that John Robbins had only been mixing front-of-house for the band for seven months. Although he has the youthful good looks of a young Costner or Cruise, he is, in fact, an engineer of some experience. "I'm a freelance by nature, although I do a lot of work with Clair Brothers. Apart from jobbing work, my main act is John Mellencamp who I've mixed for the last 10 years." (I wonder if that's what keeps him looking so young?).

No surprise then to discover that Swiss company Audio Rent are the PA suppliers, Ed Dracoulis on monitors (PM 4000) and 'Hieckl' as systems engineer, with an S4 system taking the honours. Mind you, it wouldn't be quite right to hear Yes through anything other than S4s (Gene and Roy Clair would probably have heart attacks if you did). The band have been using the system for as long as it's been there, and in many ways are bound up in the history of its development.

For the City Hall, Robbins (or JR as he is known) has packed six cabinets per side on the stage, with a square cluster of four flown left and right at the height of the first balcony. It's not perfect for coverage, the box is just too big for rooms this



Seventies progressive rockers Yes back on song in Sheffield.

photo: Mike Lethby

size, but although there are the inevitable hot-spots in the glare of a horn, the broad transmission of information is good thanks to the natural acoustic of the room. Something underlined by JR's whisper in my ear after the opening few numbers: "Apart from acoustic guitar, I haven't got any guitars or cymbals in the mix at all," the backbone itself being more than adequate to deliver.

It's a very busy show, and considering the amount of concentration required, a bloody long one. All the songs have complex structures: brief phrases from guitar, keys and bass punctuate the melodies, but in unstructured and unexpected ways. JR hovers over the faders of his XL4 the whole time, teasing in the layers. The fact that he can leave the guitars out of the mix gives a clue to the dynamic from the stage - much of what's happening is entirely generated by the musicians, as are many of the effects. The only element that receives regular attention from JR is Jon Anderson's voice. Singing through a Shure Beta 58, Anderson's channel has its own DN3600 EQ as well as a Summit DCL200. What gives it most depth (apart from some special effects from a Roland SDE 3000) is the Eventide DSP4000 harmonising Anderson's vocal - a distinctive element of the Yes sound. This was not a loud show, but loud enough - it rocked and jazzed with the best of them.

## LIGHTING

If you thought the mixing job was busy, save a little sympathy for Nick Sholem on lights. "There are over 1,200 cues for the show, plus the four house spots are on and off all the time." Now the number of cues might not be so bad when you consider the 200+ minutes of the show - and there's plenty of shows (especially American ones) where complex spot calling almost seems to be a badge of honour - but there's a little sting in the tail. "When this tour started in the US the Cyberlights and Studio Colors were run from a Status Cue by Ben Richards, while Greg Maltby

ran conventionals from another board and called spots." But by the time it came to Europe, a little cost-saving was involved and the whole show was dumped on the Status Cue. "Which was OK. Ben did a great job re-programming in all the extra stuff during a week at LSD (the tour's main contractor) and he even found time to give me a crash-course in running the board. I have to say that in the two months I've been using it, it's never let me down."

Steep learning curves aside, this is an apparently simple design capable of elaborate delivery. John Broderick (currently touring with Metallica) is LD, with Jonathan Smeeton being responsible for the curved half-parabola tent that shapes the lighting rig and defines the stage. "Jonathan's (Smeeton) stage design was already approved by the time of my first involvement," said Broderick. "It's the perfect environment for Yes. It actually made my job much easier."

The lighting armoury is straightforward enough - uniform projection surface cocooning the stage, and an equally uniformly dispersed lighting system. Beside the High End kit already mentioned, there are 26 Wybron ColorRam scrollers and another 32 plain Par 64s, plus four four-light Moles and half a dozen AF1000s. Not a whole bunch of lighting to sustain such a long show, and, in truth, there are a limited number of looks, but it's surprising just how many variations can be made with this set-up. One of the reasons Broderick chose Sholem.

"Yes require a designer with maturity. The group bring years of complexity to the stage. Nick (Sholem) was brought up in the era of progressive rock, he has the artistic and design knowledge to provide the expression of ideas in the songs. He can also communicate with the artists in their language," a tangential reference to Anderson's penchant for arcane, convoluted and flowery expression. In the end, it's rather like the music: lighting it is all about layering and variations on a theme. All in all, a suitable case for treatment. Sholem is earning every penny.

## Newcastle Arena

LD: Simon Tutchener

SD: Andrew Newton

The vital ingredient that made this show a process of engagement, and Backstreet Boys last month so cold and empty was humility. Sometimes a little coy - sitting on the edge of stage dripping with sincerity - but frequently tongue-in-cheek, these guys spoke to their audience. When they appeared in 'Bobbindales meets Batman' costumes for the encore it underlined everything about the show - pleasure, fun, enjoyment, entertainment. They made it look easy - even if one of the boys is really 29 and starting to thin on top, this was an assured performance.

Kim Gavin is the show's choreographer, a role he first rose to prominence in for Take That, but the job is more than just dance routines. His imprimatur is, on the whole, presentation. "With me it comes from the ground. We start with the dances and we need props - something that can evolve with the show." Thus when Gavin wanted the show opener 'Jailbreak' to progress from a three-minute video of the guys doing just that, to a dramatic entrance, he approached lighting designer Simon Tutchener with an idea: "I need the guys to descend from the rig."

Tutchener was more than obliging, working with lighting supplier LSD to get a special deck added to the central Octapod element of his rig for just this purpose. But theatrics aside - and there are several well-executed gags planted throughout the night - these shows are about pacing, and Gavin offers an interesting insight into catering for this aspect of the 'junior' audience. "You must have a strong show opening, a couple of songs performed vibrantly, and then slow things down to build them up again. But one of the important factors is not to perform the entirety of their material. It's about anticipation, the excitement before they appear is acute, but once they've been on for 15 minutes, arguably the audience have seen what they want and could go home. That's why we cut the songs down: they do 16 numbers in just over an hour, most of which are reduced from their full length to two to three minutes. Truth is, once they've heard the first few bars, that's enough."

And it works: normally the first to bolt for the door at such shows, the encores were upon me before I knew what was happening.

## LIGHTING

"So Simon, another train crash?" Rigger Simon 'Barney' James gently chiding Tutchener for his trademark enormous designs. It is big - Tutchener has plundered the heavy metal chest. "You can't light this subtly, as you might for an older act. That's not saying what 911 want to say. They need that big, bright, brash look."

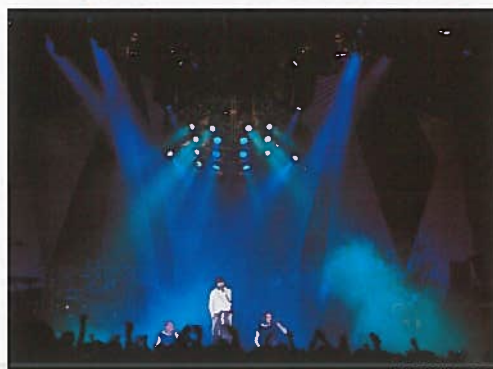
Even so, there are some arty elements to the rig. The rear truss supports a collection of white sails which soften the metal and provide a nice production trick. For the four opening acts (yes four - this is the bumper, compendium show), the small scenic truss that supports the sails is lowered in, leaving them crumpled and hidden backstage. The truss is then raised to trim behind a black heavy gauze tab, the lower edges of the sails secured to elements of the stage set by elastic

bungies, ensuring they always look taut and wrinkle-free when back up. Two main truss elements dominate the rig: the rear one a snaking concoction of hexapods and sections of pre-rig, with the previously mentioned octapod independently rigged in front to centre. The down-stage truss is more of an anedral curve, again made up of hexapods and pre-rig. All in silver, these trusses are cleverly augmented by lamps dotted about a super-grid above. The impression is of immensity, though in truth there's just 16 Icons, 20 Washlights and approximately 250 Pars, plus the usual Molefax audience abuse. And it's bright.

The show features video (contracted by Blitz, although PSL are providing all the gear and Ian Henderson is blessed with the simple task of running a couple of Beta SV machines and a Barco 9200). "But we don't want to drag people's eyes away from the stage," explained Tutchener. "We have a roll-down screen centre stage, which we use just three times, opening, closing and an insert midway through the show. The screen mechanism is actually lowered from the truss at the same time the screen itself rolls down so it's in faster and you don't end up with the top 30% masked off - the whole projection area is clearly visible." It's a nice touch that exemplifies the little extra costs that have been taken on by production to improve quality.

## SOUND

Audio-wise, 911 are the perfect pop/boy ensemble, even if you don't like this kind of thing. They sound check each afternoon, Gavin putting them through their paces. It's the perfect opportunity to observe their craft and witness that these guys can actually sing. "Oh yes," said FOH engineer Andrew 'Snake' Newton. "I've got them using Shure Beta 87s," pointing to the fact that he's gone for quality rather than capture and



Boy band 911 - delivering a little humility.

rejection. Which says it all when you're dealing with the familiar problems of teenage hysteria. He also has a dedicated BSS 901 for each of the three singers, and watching the show, you see he's never cranking hell out of the input gain to find vocal signal.

Newton's system is based around EAW

KF850s supplied by Canegreen, with both the BH853 and KF853 long-throw cabinets included, which more than adequately stretched down the arena. He also flew sub SP1000s, three per side, with four more each side on the floor. Little subtlety was applied, nor needed close in: a pair of 850s on their side cross stage, with the near down throw KF855s on the inside edge of the flown wraps. Newton configures the system in three zones and declared: "The long-throws really work. I've tried turning the regular system down during sound-check and they're really clear."

Newton has an Amek Recall out front, with a Yamaha O2R on the side for off-board toys, a Roland 330, a dbx 120 and two Lexicons. He takes full advantage of the on-board dynamics of the Recall, particularly the dual stage compressor expander: "I use a little light compression when the expander kicks in and some heavy compression when one of them drops his mic' on the floor." A not infrequent mishap when jumping to a dance routine. Even Gavin's experience can't find a way to overcome this need for immediacy. Lucky then that the show is so tightly scripted, he knows when they're coming.

Newton has joined the happy band of Sabine Power Q aficionados: "It really gets me out of trouble when one of them walks in front of a side-fill," he said. Otherwise he permanently pulls a couple of hot vox frequencies on inserted KT graphics. His main mix is simple, he doesn't make it difficult for himself, strong rhythm dominating the low end, pulling whatever instrument's taking lead up to a par with the vocal output for a top mix that helps sustain the intensity of teen frenzy.

If you're thinking wireless . . .

We're the  
obvious  
solution.



hand held audio

Unit 2, 12-48 Northumberland Park, London N17 0TX

Tel: 0181-880 3243

Fax: 0181-365 1131

# What they see



# What you get



Easily understood controls for microphone routing are just the beginning of the Matrix 4 story. This sophisticated mic/line/zone mixer provides you with everything you need to make life easy for hotel staff and others charged with the business of making things happen, smoothly. It offers 4 mic inputs plus paging, with full routing into 4 zones. Add 2 line level music inputs with source select on each zone. Add power (at low impedance or 100V) built-in or built-out, and a host of configurable pre-sets, and you have the one-box, complete solution to the needs of conference rooms, hospitality suites and multifunctional venues, everywhere. Add Cloud's legendary reliability and sheer audio excellence. Add easy interfacing with all kinds of ancillary equipment and a full set of installer adjustments which make the Matrix 4 from Cloud the installer's choice in more venues than you can shake a stick at. Add value, convenience and quality. Add Matrix 4. End of add.

## Cloud

Cloud Electronics Ltd.,  
140 Staniforth Road, Sheffield,  
S9 3HF, England.  
Telephone: (0114) 244 7051  
Fax: (0114) 242 5462



# PRINCIPAL THEMES

*Principal Hotels are piloting two new themed concepts which, if successful, will be the template for further venues in the Hotel Group's 18-strong chain. L+SI reports*

The Norbreck Castle Hotel on Blackpool's North Shore is not so much a hotel as a leisure village. One of its duty managers, Michelle Armitage says that in the year and a half since she arrived she cannot recall a day when builders weren't on site.

Presently it is the turn of the leisure club (where £1 million is being spent). But it is the recent phase of development that has provided the razzmatazz and got the brewery and catering industries buzzing, for the hotel has piloted two exciting new themed concepts which, if successfully test marketed, are ripe for rolling out elsewhere in the Principal Hotels 18-strong chain, or even as stand-alones. They already look set to roll into Europe and Scandinavia, where Principal have hotels in Amsterdam and Copenhagen.

Theme bar, Copper Face Jack's, enjoyed a near simultaneous opening in Manchester (at the Palace Hotel) and Blackpool, built to a concept developed by Dublin-based interior specialists, Sonas. The company have made the Irish pub theme their trademark, yet while the Blackpool venue faithfully merges encased traditional Irish bric a brac and memorabilia with Guinness blimps and floor-boarding, the style of the operation is not manifestly Irish and the predominant visual theme is the giant copper bar pillars, balustrading and old brewery artefacts such as the massive mash tuns.

How aware of these surroundings the sharp-shirted customers who assembled in front of the big screen to watch the Manchester Utd versus Crystal Palace Premier League clash were is not clear, but it was a good indication that when World Cup fever hits Blackpool, the investment in an RCF LS3001 overhead projector will repay itself several times over.

Hotel resident manager Richard Morrell explained that the real Copper Face Jack was a Dublin judge of ill-repute who lived in America and traded in prostitution. He evidently had a large nose which was prone to turning coppery. On the face of it, a pretty thin pretext for rolling out a theme, but it works remarkably well.

Essex-based European Sound Services were contracted to fit out both Copper Face Jack's, and will be seen on site in many Principal venues over the coming months. In Blackpool they worked hand-in-hand with Databeat, who provide the sound source from an intelligent music system (which defines how the carefully customer-profiled programme is heard in the environment over the trading period).

Masterminding the project for ESS was their highly-experienced sales manager, Richard Marsh, who, sensing the need to sling appropriately-transparent enclosures on the end of the signal chain, specified 10 RCF Monitor 8s. With the increasing number of brewery YPB roll-outs there are those who believe that complete 'plug and fit' systems can



**Above and below, Copper Face Jack's - Principal Hotels have spent a tidy amount refurbishing this venue - the first of what they hope will be a string of CFJs across Europe.**



now arrive on site like flat-pack furniture, and sold into bars like so many cans of baked beans; but with a vast range of proprietary loudspeaker options at their disposal, ESS sensed the added value of a pair of sub woofers - so often anathema for the pub designer because of their size - to complement the full-range bass reflex enclosures and thus RCF's Event ESW 1018s were carefully concealed.

The music programming in this instance is generated from a Denon 200 autochange CD

player which forms the core of Databeat's powerful IMS-3 PC computer-controlled system with monitor reference. "What Principal Hotels wanted was a totally easy-to-run music system, which is where Databeat came in," indicated Richard Marsh. "They opted for the IMS-3, while the remote override enables the sound to be turned up or down independently in the different zones.

"With the investment in Databeat, Principal naturally wanted high-quality reinforcement and so we designed the system using RCF throughout in both Manchester and Blackpool." The system is powered by another familiar name in back-bar racks - Cloud Electronics. ESS assigned a VTX1500 (525W per channel into 4 ohms) and a pair of VTX 750s (265W per channel into 4 ohms) for engine detail, processed through a CX2300 electronic crossover and distributed into three separate areas from a CX233 three-zone mixer.

Copper Face Jack's has extended its trading activities into the former service and storage areas, and right out to the sea front, giving it a long rectangular shape and a capacity of 450. It has also given Richard Marsh the chance to distribute the 10 Monitor 8s judiciously throughout (although the bartenders' 'monitor' Monitor is visually obscured by a mass of copper). He has also provided feeds for live bands and DJs to come in with their PA and backline and plug straight into the system (introducing the all-important Cloud CX-335 compressor/limiter into the signal chain, which ensures the sound pressure level never exceeds the might of the waves washing over the facing promenade).



RCF's Linton Smeeton with Richard Marsh of European Sound Services at Copper Face Jack's (above left), with RCF monitors at the Boston Stake Out, which is part of the Norbreck Castle Hotel.

It is the promenade which presents Copper Face Jack's with its one problem. Its generous west-facing, sea-view fenestration admits the evening glare of the setting sun, and although the RCF projector fights manfully to project an image on the electric screen, the provision of solid blinds would rescue the environment as a solid summer operation. Open-air festivals and events have the same problem with video, and hence the arrival of 'daylight screens', but for these guys there is at least a solution.

ESS were on site at both The Palace and the Norbreck Castle simultaneously - in fact the systems were commissioned on pretty much the same day. The builders, in both cases were Consilium, who remain heavily employed by Principal Hotels (and are currently hard at work on Norcalympia, although the full-blown redevelopment plan for this facility has been temporarily suspended).

If Copper Face Jack's is predominantly designed for the live music, sports (Sky TV and real life pool table) and MTV brigade, then the adjacent Boston Stake Out, which will also be marketing its home-cooked, American-themed food as an independent unit, with its own frontage, is a family diner, with 200 covers.

Formerly trading as a down-market nightclub, the new concept has been designed

by HPR. Low-level music is again a feature - with the sound evenly dispersed through 12 of RCF's Monitor 5s and PL81 recessed ceiling speakers, powered low impedance, switched from the Databeat system via a Cloud CX-A6 (six-channel 120W per channel amplifier) and distributed through a Cloud CX-132 into two independent sound zones. If this is the aural feature, the visual one is a giant pirate ship play area, an idea plundered from the home of theming across the water, which makes this a genuine family attraction. Based on the same bass reflex design as the Monitor 8 - but with a smaller footprint since a 5in woofer replaces the 8in - the articulation of the sound is again remarkable at low level. Richard Marsh smiles at this observation. "The venue has to be able to run the music at low level and still achieve high quality sound - which is what I like about the Monitor series. The Monitor 8 is capable of achieving a great acoustic range, and if you run it flat, it's just perfect . . . after all, that's how the CDs are recorded. You simply don't need all the processing toys."

RCF director Linton Smeeton concurs with this appraisal, adding: "When we demonstrate these enclosures to prospective clients we like to show how it will hold its shape even at the lowest levels." However, run at high levels, he

believes the system needs the supplementary sub bass to achieve the maximum benefit.

The origins of the imposing Norbreck Castle itself, with its turreted edifice (if you trawl the Blackpool seafront, you just can't miss it), date back to 1869 when it was built as a manor house. Along the way it became the Norbreck Hydro, adding bits as it went, and on July 5 1991 it was acquired by Principal Hotels. Today it boasts the country's largest conservatory, and in its latest round of rolling reinvestment has accounted for £5 million from the company's development coffers.

In addition to the features reviewed, the hotel contains a ballroom, a conservatory, an exhibition and conference centre and leisure club (both under refurbishment), a full-blown cinema, a children's areas (Percy Pirate's Castle and Castaways Club) - and all the conventional hotel accoutrements.

"The ultimate aim is to turn Norbreck Castle into a complete resort so that no-one will need to go into Blackpool," forecasts Richard Morrell, who joined the company ten months ago. But with 800 parking spaces and more land at the back ripe for development, Principal Hotels look far from finished in their quest to make this the most imposing leisure centre on the Fylde Coast.

**No need to sell your soul! Contact us below...**



- Programmable
- Clock & stopwatch
- Six show storage

SoftCUE

- Lamp fault detect
- Midi control interface
- Optional relay contacts



**Howard Eaton Lighting Limited**

Winterlands ■ Resting Oak Hill ■ Cooksbridge

Lewes ■ East Sussex ■ BN8 4PR

Tel: +44 (0)1273 400 670 ■ Fax: +44 (0)1273 401 052

10 YEARS OF  
HELL

SoftCUE advanced cuelight system  
designed in conjunction with  
Andera Ltd

PLASA Presents...

# Backstage London

A Two-day Exploration Of Entertainment, Design, & Technology In London

Produced by Lighting Dimensions International

in association with the World Entertainment Technology Federation

## Have you mist the point...

*Does your hazer upset your performers? make your crew cough? leave a sticky mess?*

*The Atmosphere haze generator from MDG is different.*

- **No residue**
- **No smell**
- **No pump noise**
- **Ultra fine haze**
- **Variable output**

*The haze the Atmosphere produces is pure white, has a texture like silk and hangs for hours. The machine is CO<sub>2</sub> powered and purges itself (APS) to keep the heating block free of fluid. Built like a tank and with a 5 year warranty, the Atmosphere is different.*

*MDG is in use on 19 out of the 20 shows on Broadway. Have a look at the haze and you will see why.*

*Hire it from White light or buy it from Decoupe.*



**Professional Tools from Decoupe**

Contact : Tom Mannings, Tel: 0181 885 2400 Fax: 0181 885 2423

1997 LDI Award - Product of the Year  
 Download a full demo version and a free  
 copy of WYSIPAPER from [www.wysicad.com](http://www.wysicad.com)

# Design

# Plan

Patch (by dimmer)						
Viewer:	Designer:	Shower:	Shower:	Shower:	Shower:	Shower:
	Ol. D. D. D. D. D.					
Patch	Spot	Purpose	Type	Circuit Name	Circuit #	Watt
D 19	64	Truss Shns	Source 4 - C		1	575
D 20	63	Truss Shns	Source 4 - D		2	575
D 21	62	Truss Shns	Source 4 - D		3	575
D 22	61	Truss Shns	Source 4 - D		4	575
D 23	61	Truss Warming	PAR 64		5	1000
D 25	68	Truss Shns	Source 4 - E		1	575
D 26	67	Truss Shns	Source 4 - E		2	575
D 27	66	Truss Shns	Source 4 - E		3	575
D 28	65	Truss Shns	Source 4 - E		4	575



The industry-standard lighting visualization software has just turned 3. It's now the most complete software you can buy for light planning, programming and real-time visualization. Why try to make other CAD, paperwork, and visualization software work in harmony when WYSIWYG does it for you.

Best of all, WYSIWYG allows you to add functionality as your needs grow:

#### WYSIPAPER, WYSICAD & WYSIWYG:

- Windows 95/NT - Menus, dockable floating toolbars, mail and internet integration, unlimited undo/redo, multithreaded, Direct3D, context sensitive help.
- Paperwork - Integrated tabular view of fixtures and accessories with data entry, sorting, filtering, detail levels, support for scrollers, multicelled cyc units, etc. Free form spreadsheets.
- Patch - Grid view of instrument patch, drag & drop patching.
- Multiple Report Functions.
- Extensive Library - Fixtures, accessories, scrollers, truss, gobos, gels, set pieces.
- Fully customisable user profiles.

#### WYSICAD & WYSIWYG:

- CAD - Layers, scenes, views, DWG, DXF, groups, hot keys, command line, object snap, extrude, break, divide.
- Presentation Views - Arrange plans, sections, title blocks, keys and reports on any size paper.
- Symbols - Auto uniting, quick numbering, attribute editing.
- Theatre Tools - Borders, legs, pipes, flats, risers, focus positions, focus charts, pipe tapes.
- Rendering - Real-time 3D shading.

#### WYSIWYG:

- Real-time Visualization - Intensity, colours, gobos, movement, iris, shutter, lens, zoom, focus, CMY mixing, scrollers and gobo/colour wheels with half and continuous slots, motor speed.
- Ethernet Interface - Run it on a laptop!
- AutoFocus - Set pan/tilt, colour, gobo, iris and intensity on an AutoFocus-compatible console by pointing and clicking on your plot, buddy system doubles the speed of focusing in symmetrical rigs.

# Visualize

all of your lights,  
 in one program,  
 in real time.

# wysiwyg ver 3.0

Create perfect lighting... without the lights.

Developed by:



Worldwide  
 Distribution  
 by:



A.C. Lighting Inc. USA  
 5308 Derry Avenue, Unit R  
 Agoura Hills, CA 91301, USA  
 Tel: 818-707-0884 Fax: 818-707-0512  
 Email: [sales@aclighting.com](mailto:sales@aclighting.com)

A.C. Lighting Ltd. UK  
 Unit 3, Spearhead Industrial Park, Lane End Road,  
 Sands, High Wycombe, Bucks HP12 4JG, England.  
 Tel +44 (0)1494 446000 Fax +44 (0)1494 461024  
 Email: [sales@aclighting.co.uk](mailto:sales@aclighting.co.uk)  
 Web: <http://www.aclighting.co.uk>

# LIGHT DRAMA

*L+SI reports on the recent £300,000 upgrade to the main auditorium at the Guildhall School of Music & Drama in London*

The Guildhall School of Music and Drama in London is the proud owner of a new £300,000 lighting system, recently installed in its main auditorium. Owned by the Corporation of London and administered by the Music and Drama committee, the School has 700 full-time students - 600 on music courses and further 100 on a BA Hons degree course, studying acting or stage management and technical theatre.

The original installation had taken place as far back as 1974-75 (by Theatre Projects Consultants), and according to the Guildhall School's chief electrician and lecturer Steve Huttly, the timing of the new system was determined by health and safety requirements, in view of the risk assessments that had been carried out.

The solution was a modern day system with the ability to provide a high level of safety through the use of RCCD protection. This was also felt appropriate in view of the enormous versatility required of the new system, and the Corporation of London agreed to the development for that reason. Thus, the entire dimmer system was to be replaced during the 1997 summer recess and a highly-flexible approach to lighting management incorporated with the new design. Consultants ACT were asked to prepare the feasibility study to achieve the upgrade based on the twin criteria of Health & Safety issues and operational and teaching requirements.

The contract had allowed for the "narrowest window of opportunity" for tendering, given the time constraints. "The funding wasn't released until the last minute so we had to pretend and organise everything in advance. The entire installation had to go in during the six-week summer break," explained consultant Chris Baldwin, who was entrusted with the task of achieving this.

"The school was doing some major production work and constantly rearranging the auditorium, which meant that a fairly modest dimmer provision was frequently being recabled. This, coupled with crudely-fused dimming, made it both inadequate and potentially dangerous, which was hardly surprising since the installation was well over 20 years old."

The main auditorium bridges are heavily used to cope with the variety of staging forms. "Originally these were designed as double-



**Top, the *Barber of Seville* in performance. (photo: Laurence Burns). Below, Steve Huttly desk training Stage Management students.**

sided bridges," Baldwin explained. "But as a cost-cutting exercise at the time of construction, the trunking to each side of the bridge, designed by Theatre Projects, was not implemented, but instead a single overhead service was installed . . . and 20-odd years of head banging serves as a reminder."

An early decision was made to remove the offending trunking as part of the development, even though it contained numerous services that were to be unaffected by the changes - a fairly daunting task for the electrical contractor. The number of dimmers specified partly related to the unacceptable amount of loose cabling, which formed a central part of the risk assessment, and was minimised by a generous provision for sockets.

In dramatically increasing the dimmer provision, ACT had to look carefully at power loading and service routes. Early inspection of the original trunking confirmed that it had no

spare capacity and that the route it took was certainly not direct, combined with its installation in purpose-designed, now long filled and closed-in service ducts. The old was abandoned in favour of a completely new surface-mounted system, an obvious choice except for passing through floors with 60cm of reinforced concrete.

The routes and trunking capacity had to be planned with precision, and working closely with consulting engineers, WSP, they assessed the cable requirements and trunking sizes, while Legrand measured the whole scheme and produced the complete system in the factory painted and finished ready for installation.

The lighting specification was put out to three major companies and Strand won the order principally because, with time running against the project, they had the technical expertise in-house and could guarantee a short delivery time. "We had to be sure the company we chose could get the equipment to us on time," emphasised Baldwin. "So we tendered on both LD90 fixed racks and EC90 modular racks, though in the end, we went down the latter route."

A satisfied Steve Huttly explained that the main theatre is an adaptable space which has to be configurable in four different formats. "One of the reasons the theatre is so well specified is for that reason," he explained. The space has to be able to serve either as a drama/proscenium stage, as an opera stage/orchestra pit (housing 75 musicians), as an auditorium with a stage thrust (or in-the-round format), and finally, with all seats removed as one giant space - measuring 17.5m wide and 25m from front to back - to accommodate 200 standing. ACT specified 375 new dimmers to service these requirements.

Essex Electrical, who won the installation contract, set about replacing the existing dimmers with the new RCCD-protected digital dimmers, along with the new trunking and wiring infrastructure and socket outlets. Chris Baldwin's specification also required the replacement of the existing internally-wired bars (via Northern Light) to comply with current regulations, and the control desk to cope with the enhanced number of circuits and the provision of moving lights.

In addition, an Ethernet data distribution

system was specified to enable moving light control, and all redundant wiring and unnecessary trunking had to be removed from the lighting bridges.

The Corporation of London added an interesting clause to their requirements stipulating that "none of the original installation was to be taken out of service until the entirely new installation was proven." There was actually a time when the generously-sized dimmer room contained the original installation around the perimeter walls and the new one in a central island setting - both connected and working!

The specific dimming requirement was for 330 x 2.5kW and 42 x 5kW modules, with Strand providing EC90sv racks and modules as well as a 530 high-specification lighting console, running GeniusPro operating and expansion software. The desk features 2000 cues per show, two playbacks with up to 99 simultaneous fades, two VGA monitor outputs, six pages of 24 submasters, six Supermasters, three graphic LCDs with softkeys and 10 effects playbacks.

In addition, Tracker application software, used in conjunction with GeniusPro, provides facilities for controlling DMX moving lights from the dedicated control surface. GeniusPlus is further supplemented by Networker application software, which permits use of the SN100/102 Ethernet unit, providing access to two remote VGA outputs, remote DMX over Ethernet and remote hand-helds over Ethernet. Additional communications facilities are



**Strand EC90 modular racks dominate the remote dimmer room.**

provided by Strand's Communiqué Plus software.

Controlling the moving lights is a Strand 520 console with 24 submasters, running GeniusPro 100-channel base software and Networker, to allow use of the SN100/102 Ethernet unit and to provide Remote access.

This was supplied with accessories such as a 430/530 radio-linked remote Rigger's Control and SN100 Ethernet node for connection to Ethernet network. The finished installation is precisely what Steve Huttly had prayed for.

"The equipment behaves well - the dimmers do what they're supposed to do and we are very pleased with the desks," he said.

"We have two control surfaces - a 520 and 530, which are designed to control moving lights - and thanks to a special piece of software on the 520, can be used in three different formats. Firstly, we have a remote keypad surface which communicates with the 530, allowing the information to be recorded onto that desk's hard disk. Then the 520 can be run as a stand-alone desk, which can be used wherever you wish. Thirdly, the desk can be used in partitioned mode. This means you can tell the 520 to control certain circuits and the 530 others, and then plot the cues simultaneously. Once this has been done you can departition them and run them from one desk. Using the Tracker software, this then gives you the option of using the 520 as a tracking back-up."

Huttly also pinpoints the Ethernet node, which the Guildhall uses on the main production desk, as another useful tool. "This enables the lighting designer to select his video screen and choose exactly what he wants to look at. Technically, it's possible for the lighting designer to plug his own PC into the node if he wants to."

He sums up the entire project with pride, declaring: "This must be the biggest installation in a drama school - certainly in the UK, if not in Europe."

**Main auditorium photo: Lawrence Burns**

# MUSCLE

## WHEN YOU NEED IT

For those occasions when a high power smoke machine is a must, the CYCLONE 4000 TURBO is unrivalled in its stunning output, coupled with absolute controllability - just look at these features:

- Twin high power output
- Auxiliary 20 litre tank available
- High power air boost
- Low fluid sensor/cutout
- Built in DMX Control
- In built thermal safety
- Microprocessor control
- Hi or low amperage mains selection

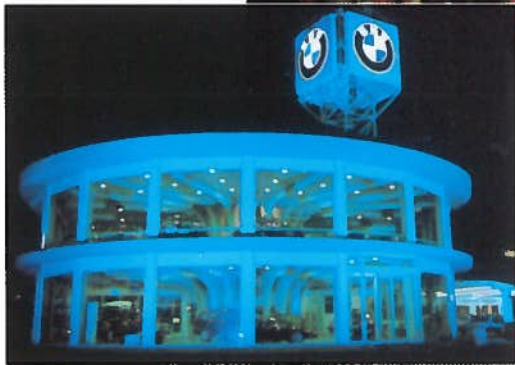
With a selection of fluids that produce effect from a thick white smoke, to a thin almost invisible haze, this is the machine that is the choice of the professional user - the world over!

**Great Ideas from The Effects Company**

**designed & built to last**

Unit 43, Barns Court, Turners Hill Rd, Crawley Down, W. Sussex RH10 4HQ ENGLAND TEL: +44 (0) 1342 718399 Fax: +44 (0) 1342 717525

# Paint the town red...



...or blue



...or green

... or any colour you choose with CityColor, the only square projection floodlight on the market offering infinite colour change through its unique system of dichroic filters.

- 1800w Discharge lamp
- Full C.Y.M. colour mixing
- 2 or more units can be synchronised
- Built-in mechanical dimmer
- DMX controlled or stand-alone operation

For full information about

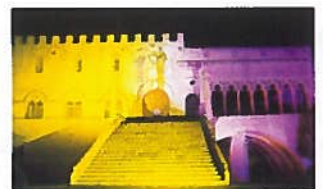
**CityCOLOR**

and how it can add a new colourful dimension to any building, contact:

**LUMINATION**

**Tel: 01924 249969**

**Fax: 01924 249970**



# Amplified in the Stalls . . . Ian Herbert

Those of you who went dashing off to the Barbican to see Bob Wilson at work on the strength of my last piece are probably asking for your money back about now. *Monsters of Grace*, his collaboration with Philip Glass, which opened the Barbican's ambitious 22-week RSC-free summer season, was hardly vintage Wilson. The effects I talked about were there, in a minimalist sort of way: carefully focused beams with characters (if that's not an un-Wilsonic word) backing in and out of them. Plenty of use of the cyc and (I think) fluorescent tubes as part of the cyc kit. Snap-on cues to sometimes surprising lighting states - a red cyc or what have you. But I'm afraid this time none of it added up to much. What saved the evening was Glass's music, as hypnotic and beautiful as ever. Band and vocalists performed live in the orchestra pit, but reached the audience through very clear amplification. You could hear every word - a pity, really.

The three big musicals that opened within shouting distance of each other last month were also lessons in amplification. All were pounded into the auditorium at disco pitch, but while this seems suitable for *Saturday Night Fever* and *Rent* (pictured above), it's maybe not so appropriate for *Show Boat*.

Hal Prince's reworking of the seminal twenties musical has reached London on the latest leg of rather a long tour. There is, I'm sorry to say, something of the feel of a touring show about this allegedly lavish spectacle. 'Very lazy performances,' said a leading Fringe director whom I'd spotted a few rows away. At his own theatre a few days later, I said I'd been surprised to see him there at all. 'Free seats, old boy,' he replied. 'And I bet you didn't see me in the second half, unless you were in the Coach and Horses.'

My director friend didn't miss much. The show drifts off in Act Two into a fragmented, overblown set of scenes that may have been true to Edna Ferber's original novel, but didn't enhance *Show Boat* as a musical. The movie does it far better, because it does it simply, keeping all the leading actors in focus. Sure, film can cross-fade and flashback in a way that even high-tech theatre cannot equal, but the irony is that Mr Prince and his choreographer Susan Stroman seemed to be trying to achieve a filmic effect. By the time Gaylord Ravenal and Magnolia Hawks (don't you just love those Southern comforting names?) were reunited, we'd almost forgotten who they were.

The production team is a very strong one: Eugene Lee for sets, Florence Klotz cossies, Martin Levan sound and the blessed Richard Pilbrow himself doing the lighting. Mr Lee's sets, with full-sized sectional Cotton Blossom trucking on and off, were so far



downstage, however, that the considerable depth of the Prince Edward stage, used so effectively by Martin Guerre, went for nothing. As a consequence, Susan Stroman was left with only about 15ft of stage in which to exercise her dancers - a sad waste. The trucked boat and the Palmer House Hotel in Chicago make substantial scenery, but there is frequent use of drop curtains carrying old black and white prints, and their deliberately two-dimensional flavour seems to have infected the whole show. Richard Pilbrow has found some rather jolly gobos that project rippling water on to the Mississippi cloths, but otherwise his lighting is pretty functional and doesn't make a big impression. I suppose you could call that a compliment. I suppose too, that you can't blame Martin Levan for the fact that the show-stopping 'O! Man River' is given so much volume that you can probably hear it in *Les Miz* next door.

Strange, though, how many West End musicals seem to do their sound-check after they have started. With both *Show Boat* and *Saturday Night Fever*, you had to be tolerant for the first five minutes or so while the soloist-band balance worked through. There was some problem with the body-mics in *Fever*, too, which meant that scenes played on the small trucks used for interiors came through very muffled.

But enough of this quibbling. *Saturday Night Fever* is one of those shows which achieves so excellent a balance of content and execution that any audience (except most of the critics, of course, but they're the kind of people who can claim with a straight face that it has no good songs in it) is guaranteed to go out of the Palladium on a tremendous high.

Robert Stigwood has recruited another Broadway great, Robin Wagner, to do the sets, and Mr Wagner delivers superbly, from the pulsating dancefloor of the *Odyssey* 2001 Disco to the twilight Verazzano Narrows bridge, complete with little trucks and cars crossing in the manner of *Starlight Express*'s model trains. The chance to light a gigantic disco is one that no lighting designer would pass up on, and Andrew Bridge has a whale of a time bouncing wow-colours off kit that includes a feast of lurex costumes, a light-up dance floor and the

biggest glitterball in captivity. All the delicious naffness of seventies disco is there - it makes you feel quite nostalgic. And apart from those little quibbles, Nick Potter's sound, his first big job in the West End, does the business, to the extent that you spend a lot of time wondering just how much of the band and the soloists' contributions is pre-recorded. It's a triumph for Arlene Phillips, who not only directs but choreographs with all the sexiness that made her the archetypal seventies dance deviser for the likes of *Hot Gossip*.

**R**ent has tremendous energy levels, too, but there the comparison ends. It's a well-meaning mess of a show, very reminiscent of *Hair* in that its complete lack of construction is quite successfully concealed by a string of terrific numbers. But where *Hair* had its light and shade, *Rent* lacks contrasts. If you were to ask any of the second-night crowd who cheered *Rent* to the echo whether they could actually find anything distinctive (why not just say anything good) about its set, lighting, choreography, acting, book or lyrics, I reckon they'd find it difficult. It's the kind of show that relies for its effects on the whole cast joining hands, coming downstage and belting out a number that says something important like 'life is great' or 'people are nice'. Paul Clay's static set, Blake Burba's workaday lighting (the entire stage roof covered in blues and whites, hardly any front-of-house) deliver all that this demo-album of a show needs - which is not much.

**F**unnily enough, the Royal Court was the place for technical fireworks last month, with not a song to be heard. Upstairs, for Rebecca Prichard's *Yard Gal*, the set incorporated a mini-version of *Saturday Night Fever*'s light-up checkerboard dance floor, while over at the Duke of York's, Jeremy Herbert (no relation) was installing hydraulics like a man with a Cameron Mackintosh budget for Sarah Kane's latest shocker, *Cleansed*. James Macdonald can treat horrors with an objectivity that makes them almost bearable - he did it with Herbert for *Thyestes*, another gruesome evening on paper that came over as cool to the point of beautiful. There's not a lot you can do to anaesthetise an audience against a script which calls for injections in the eyeball, progressive dismemberment and some pretty graphic sex of all persuasions, but Macdonald and Herbert did their level best.

The show looks terrific, and those staging it deserve some kind of creativity medal for not shirking one of the most demanding sets of stage directions ever: apart from the nasty bits I've mentioned, Ms Kane calls for a giant sunflower to grow out of the stage, later a field of daffodils. A whole library is burnt in an on-stage flame. The boys deliver without batting an eyelid. It's the most stunning production in London - and the most stunningly unpleasant.



# L+SI RECRUITMENT

**RaceTECH**

RACECOURSE TECHNICAL SERVICES LIMITED

## AUDIO SYSTEMS ENGINEER

RaceTech provides comprehensive technical facilities on all 59 racecourses in Great Britain. From complete system design and installation to the actual technical operation at all the 1200 race meetings held each year.

Our audio engineer retires soon and we would like to appoint a talented audio specialist, as soon as possible.

You will need to have extensive experience in the design, installation and operation of complex PA systems in sports venues. A strong knowledge of radio communication equipment is important and some knowledge of CCTV installations would be useful, but not essential. Whilst formal qualifications are important we are looking to appoint someone with strong interpersonal skills and practical experience.

We are able to offer a very competitive salary, company car, pension scheme and other attractive benefits. The position is based in London but extensive British Mainland travel is part of the job. If you enjoy teamwork and a busy varied workload please call us on 0181-947 3333 for more details soon.

**88 Bushey Road, Raynes Park, London, SW20 0JH**  
**Telephone: 0181-947 3333 Fax: 0181-879 7354**

## *Be part of our vision* **Electronics Engineer**

Artistic Licence (UK) Ltd is a company which thinks and designs with a truly broad vision. As one of the trusted names in the entertainment industry, its ability to exploit gaps in the market has led to impressive international expansion.

We now have an exciting opportunity for an electronically talented Engineer. The position will involve work in both the Production and R&D departments.

Primary duties will be final assembly and test of products, development of test systems and prototyping new designs.

Some on-site work will also be involved as Artistic Licence specialise in the design of one off special effects systems for tours and theatres.

Ideally holding a good Electronics qualification, the position is a perfect entry into the entertainment industry.

You should be a confident interpreter of circuit diagrams and pcbs and have experience of test equipment such as oscilloscopes and logic analysers. This knowledge should be supported by soldering and mechanical skills and the ability to absorb new information quickly. An interest in electronic design will be an advantage. Of smart appearance and with a communicative personality, you will also need to be at ease dealing professionally with staff, clients and suppliers. Most important, however, is a sense of humour!

To apply, please telephone Tracey Patterson for an application form on 0181 863 4515. Artistic Licence (UK) Ltd, Livingstone Court, Peel Road, Harrow, Middlesex HA3 7QT

No agencies please.

## **Zero 88** have a vacancy for a **Sales Executive**

As an additional member of our sales team, your main responsibility will be promoting our expanding range of core products through our extensive distributor network. Our ultimate objective is to increase the level of business by satisfying the needs of our users. Your role is to help our dealers achieve that objective, by developing a close working relationship with them and supporting them as necessary.

You will need a working knowledge of entertainment lighting, and be computer literate. If you are the sort of person who is motivated by achieving targets and supporting customers, we would like to hear from you. The salary package will be appropriate to this demanding role.

### Applications to:

David Rosen, Operations Manager

Zero 88 Lighting

Usk House, Llantarnam Park

Cwmbran, Gwent NP44 3HD

Tel: (01633) 838088

E-Mail: drosen@zero88.com



Aquarius Sound & Lighting have a vacancy for a technical support technician working in the repair of audio and lighting equipment. Practical experience and an ability to problem solve is essential.

Based in Leixlip, 10 miles west of Dublin, Aquarius has a 20 year history in the sale, service and design of audio and lighting systems for both live events and nightclubs.

Please apply in writing including a full CV to:

Philip Connolly

Aquarius Sound & Lighting

Main Street, Leixlip

Co. Kildare

Ireland



## Stage Machinery Engineers Reading - based

Glantre Engineering is a leader in the design, manufacture and installation of stage machinery and automation systems for theatre and other live entertainment facilities.

We are recruiting 2 young, ambitious Project Engineers to join the teams working on the implementation of contracts in the UK and overseas. Both positions offer liaison with clients, suppliers and the company's design office as well as other members of the project teams. There will be regular opportunities for overseas travel.

Candidates for both roles should have experience in the design, manufacture or installation of theatre machinery. One position requires knowledge of automation controls. The other requires mechanical engineering experience.

These are seen as development opportunities offering career progress that may include future overseas secondment.

**JEFF  
ADCOCK  
ASSOCIATES**

**0181 505 0544**

*Please forward your CV initially to:*

*Jeff Adcock  
Jeff Adcock Associates  
(Recruitment Consultants)  
PO Box 2047, Woodford Green  
Essex, IG8 0DT*

## LIGHTING OPERATOR TECHNICIAN/DESIGNER

- ~ Required to work in South Africa for a large established Lighting Company.
- ~ Must be skilled in all aspects of lighting, including Intelligent Fixtures.
- ~ The position is that of a team-leader rather than an every-day crew member.

**Please reply to:**

Tim Dunn at: [gearhouse@iafrica.com](mailto:gearhouse@iafrica.com)  
or fax: **00 (27) 11 618 2195**

*Can you Cut it ?*

## NATIONAL SALES MANAGER

An Outstanding Opportunity to Join

**Numark U.K.**

Distributor of the Year 95/96 & 97/98

To direct and develop the U.K. Sales Team, taking this most prestigious and innovative Disco company into the 21<sup>st</sup> Century.

Reporting directly to the Managing Director and working closely with our Marketing Department and Sales Force you will be totally responsible for the future sales growth and development of the Numark range.

**Fantastic Salary Package & Potential Directorship on offer**

*All applications will be treated with the strictest confidence*  
Call Wendy Taylor or David Chapman on 0118 960 6430

**MILLENNIUM**  
Time to make a difference

## The highlight of your career

Where will you be on the night of December the 31st 1999? If you count yourself among UK's brightest and most talented technicians, you could be helping to stage the biggest event in British history – The Millennium Experience.

Right now, we're interviewing for two of the most pivotal roles in our production/technical management team. Have you got what it takes to be one of them?

### **Head of Sound (Ref: TR0096 as)**

Managing the technical team running all sound facilities within the Dome, you'll co-ordinate and specify all sound equipment for the Central Arena as well as specific localised systems for exhibition zones and installation, operation and maintenance for the whole site. Managing the procurement budget will also place you in control of the procurement process and staffing plan for all aspects of the sound package.

Your high-profile background in sound management should encompass proven experience of managing large sound crews and budgets for major events and multi-use venues. A knowledge of tendering and procurement will prove a distinct advantage.

### **Head of Lighting (Ref: TR0096 bs)**

The overall control of all theatre, exhibition and lighting installations will give you responsibility for lighting procurement and staffing. As such, you'll manage the lighting budget, co-ordinate and specify all equipment and ensure that all NMEC Health and Safety policies are maintained.

Your broad experience should span exhibitions, architectural lighting and large scale theatrical events. A track record in crew and budget management and comprehensive knowledge of industry suppliers is essential and you will need to demonstrate electrical competence. Ideally you'll also have a knowledge of tendering and procurement.

If you'd like to be in the spotlight, send your c.v. to our recruitment consultants, TMP Worldwide, 32 Aybrook Street, London W1M 3JL. Quoting the appropriate reference number. Closing date: 29th June 1998.

## MANAGING DIRECTOR

### Conference and Corporate Lighting Rental

A vacancy has arisen for a managing director to run our corporate based lighting company. You should currently be in a senior position in a corporate lighting rental company with experience in both the management and sales side of the business.

We are looking for someone who is self-motivated, who can work on their own initiative and who has the drive and enthusiasm to develop this successful business to its full potential.

The salary package will be subject to experience.

**All replies in the strictest confidence to**

Ref: Jobad/BH  
Lighting+Sound International  
38 St Leonards Road  
Eastbourne  
East Sussex, BN21 3UT

## Audio Design Engineer

### Reading - based

**Glantre Engineering** is among the leading designers and installers of sound reinforcement systems for live entertainment venues.

The Audio Design Engineer, reporting to the Engineering Manager, will be producing designs tailored to each client's needs, often working from an initial design brief, through conceptual design to detailing for manufacturing and installation. This involves regular liaison with clients and their consultants, conducting site surveys and preparing proposals, tenders & engineering documentation.

Candidates will have at least 2 years audio engineering experience, including up-to-date knowledge of available equipment, and should see this as a career development role which could include overseas opportunities.

**JEFF  
ADCOCK  
ASSOCIATES**

**0181 505 0544**

*Please forward your CV initially to:*

*Jeff Adcock  
Jeff Adcock Associates  
(Recruitment Consultants)  
PO Box 2047, Woodford Green  
Essex, IG8 0DT*

## TeleStage Associates Ltd

### Section Manager

Although TeleStage is primarily a stage engineering Company, it has also carried out a series of prestigious Audio Visual Installations. The company wishes to build on this track record and further develop its Audio Visual Section. The Company is looking for an experienced engineer to manage lighting & sound, video installations and related computer controls, and to head this section - a post which has recently become vacant.

The successful candidate will be expected to develop a new customer base to add to our existing contacts and will be expected to work wholly or partly at the company offices.

Applications complete with full detailed CV should be sent to:

Mr M.K. Bacon  
TeleStage Associates Ltd  
Unit 14, Bunting Road  
Bury St Edmunds  
Suffolk, IP32 7BX



## SALES MANAGER

### MUSIC INDUSTRY DIVISION

RCF Electronics (UK) Ltd - the UK operating arm of RCF spa, and market leaders in Pro Audio Loudspeaker Systems, are looking to recruit a specialist Sales Manager for their new Music Industry Division.

This is a senior position and the challenge will be to fully set-up this new division, analyse the market place and prepare complete business plans, as well as formulate and set-up the customer base.

The candidate will be fully experienced and already in a similar position within the industry. They will be comfortable visiting dealers and corporate clients on a nationwide basis and on a regular call pattern. PC literacy, excellent communication skills and a willingness to travel are essential.

The successful applicant will receive a competitive salary, plus commission, along with a company car. After an agreed start-up period, a full pension and private healthcare package will also be provided.

In the first instance, please send your CV to:

**The Managing Director  
RCF (UK) Ltd, 2 Blenheim Court,  
Hurricane Way, Wickford, Essex, SS11 8YT  
E-Mail: phil@rcf-uk.com**



# DIRECTORY

Lighting + Sound  
Equipment Sale/Hire  
Installation and Design

**CP**  
Designer and manufacturer of  
protective cases and bags  
CP London, Tel: 0181-568-1881  
CP Manchester, Tel: 0161-873-8181

Automated SEARCHLIGHTS - we design & build to sell or hire  
(single or multi-beam)  
**Skyllites International**  
TEL: 01376 584799 FAX: 01376 585899  
Mobile: 0378 709989  
Also for Hire:  
12 WWII Anti-aircraft  
SEARCHLIGHTS

**Entertainment  
Hire Software  
& P.A.T.  
Testing Systems**

**NAVIGATOR  
SYSTEMS**

Syon Lodge, Bush Corner  
London Rd, London. TW7 5BH

Tel: (07000) NAVSYS (628797)  
Fax: (07000) NAVFAX (628329)  
email: lsi@navigator.co.uk  
URL: http://www.navigator.co.uk

**LIGHTING  
HIRE  
SALES  
SPECIAL FX**

**STAGE CONTROL LTD.**  
STATION PARADE,  
WHITCHURCH LANE,  
EDGWARE, MIDDX. HA8 6RW  
TEL: 0181-952 8982  
FAX: 0181-951 4178

**Step on it.** FREEPHONE  
0800  
28 99 32  
for FREE  
datasheets  
and samples.

**HARLEQUIN  
STAGE & STUDIO  
FLOORS**

British Harlequin, Bankside House, Vale Road, Tonbridge, Kent TN9 1SJ  
Telephone 01732 367666 Fax: 01732 367755

LIGHTING HIRE & SALES  
Philip L. Edwards  
(Theatre Lighting)  
5 Highwood Close, Glossop,  
Derbyshire SK13 6PH.  
Tel/Fax: 01457 862811.

**FREE** 76 page Wenger  
catalogue

Exclusively available from  
**Black Cat MUSIC**  
An indispensable treasure house of hard-to-find, everyday, and totally unique music equipment.  
To receive your free copy just call  
**01732 367123**  
Black Cat Music • Bankside House • Vale Road • Tonbridge • Kent TN9 1SJ  
Fax: 01732 367755

**Francis  
SEARCHLIGHTS**

Manufacturers of rugged, automated Xenon searchlights for permanent outdoor installation

Tel. 01204 527196  
Fax. 01204 361567

**P.A.music**  
Lighting, Sound & Video  
Whatever you are doing!  
We have the Lighting, Sound & FX Technology to make it a Success!  
**Hire & Sale**  
Repair, Mail Order & Export  
172 High Rd, London N2 9AS  
+44(0)181-8834350

**Diol** SOUND & LIGHTING  
Stereo Sound & Effects  
Lighting Specialists

**CLAY PAKY** **FEAVEY** **BOSE**  
**zero 88** **ABSTRACT** **OPTIKINETICS**  
**ROSCO** **CX-Cloud** **TECHNICS**  
**Panasonic** **POWER GRAB** **CITRONIC**  
**PULSAR** **MODE ELECTRONICS** **FORMULA SOUND**  
**EY** **JBL** **RCF** **SHURE** **LeMaitre**  
**DENON** **JEM**

Unit 46 Wharfedale Road, Euroway Ind. Estate, Bradford BD4 6SG.  
Tel: (01274) 651600 Fax: (01274) 651190

**S.W.L.**  
SAFE WORKING  
LTD.

**Training courses for  
the entertainment  
industry**

**RIGGING  
ROPEWORK  
SAFETY**

The  
**Fibre Optic  
Lighting People**

Par Opti Projects Ltd  
67 Stirling Road, London W3 8DJ  
Tel: 0181-896 2588  
Fax: 0181-896 2599

To advertise in this  
directory section  
please call Jane  
or Barry  
00 +44 (0) 1323 642639  
00 +44 (0) 1323 646905

**VARIA TEXTILES LTD**

STAGE PRODUCTS:

- Scenic Gauze
- Cyclorama Cloth
- Opaque Satinette
- Back Projection Screen
- Dance Floor
- Velvet
- Stage Cloth
- Making up service

Tel: 0181-5498590 Fax: 0181-5498290



## SENNHEISER RADIO MICROPHONES

30 Frequencies available  
multi-channel systems our speciality

**MINI SCAN HTI & HPE  
TRIPLE E TAB TRACK  
MOVING EFFECTS & PROJECTORS  
SLICK TRUSSING & TRANSPORT  
SOURCE 4 LANTERNS  
RAT MUSIC STANDS  
CCTV SYSTEMS**

PLEASE CONTACT US FOR YOUR FREE CATALOGUE

**Nice people to talk to**

UNITS C6 & C9 HASTINGWOOD TRAD. EST.  
HARBET RD. LONDON N18 3HR  
Phone: 0181-803 7400 Fax: 0181-803 5060



**WHITE LIGHT**

**Lighting Hire  
and Sales**

London  
Tel: 0171 731 3291  
Fax: 0171 371 0806

North  
Tel: 01422 839 651  
Fax: 01422 839 773

[www.whitelight.ltd.uk](http://www.whitelight.ltd.uk)




**THE OTHER SIDE OF MIDNIGHT**

SALES • DESIGN • INSTALLATION  
SERVICE OF PROFESSIONAL LIGHTING  
AND EFFECTS EQUIPMENT

**TEL: 0181-871 4077**  
**FAX: 0181-877 0161**

INTERNET: <http://www.midnight-sales.ltd.uk>

**100 GARRATT LANE • LONDON SW18 4DJ**



- ◆ The complete gobo service
- ◆ Projection slides - all formats
- ◆ Animation effects
- ◆ Fibre optic equipment
- ◆ Digital Light Curtains

\* 284-302 Waterloo Road • London • SE1 8RQ • UK •  
Tel. +44 (0)171 771 2900 • Fax. +44 (0)171 771 2901

**ACCESS ALL AREAS**  
Lisbon, Portugal  
tel 351 1478 3826  
fax 351 1478 1939  
Contact: José Manuel Henriques

**ARENA LIGHTING**  
Dublin, Ireland  
tel 353 (0)1 855 4490  
fax 353 (0)1 855 4868  
Contact: Dieter Hartfiel

**BACK STAGE LTD**  
Birmingham, England  
tel 44 (0)121 327 3919  
fax 44 (0)121 327 5774  
Contact: Mike Hannon

**BLACK LIGHT LTD**  
Edinburgh, Scotland  
tel 44 (0)131 551 2337  
fax 44 (0)131 552 0370  
Contact: John Barker

**DELUX THEATRE LIGHTING**  
Zurich, Switzerland  
tel 41 1 272 7989  
fax 41 1 272 7991  
Contacts: Urs Kistler/Andreas Fischer

**LIMELITE SRL**  
Roma, Italy  
tel 39 6 5060063  
fax 39 6 5060400  
Contact: Giancarlo Campora


**VARI\**LITE***<sup>®</sup>  
The Automated Lighting Company

**Authorised Series 300™  
European Dealer Network**

Vari-Lite's **Series 300** system sets new standards for compact, configurable automated stage lighting controlled by the **mini-Artisan\*2** console or the DMX console of your choice.

The **Series 300** Dealer Network now makes the **mini-Artisan2** console, **VL5™** luminaire, **VL5Arc™** luminaire, and the **VL6™** luminaire more accessible throughout Europe.

Contact the dealer nearest you to find out just how close you are to **VARI\**LITE***® Series 300 Equipment.



[www.vari-lite.com](http://www.vari-lite.com) email: [info@vleh.com](mailto:info@vleh.com)

Vari-Lite Europe Ltd (European Headquarters) tel 0181 575 6666 fax 0181 575 0424 Contact: Jim Douglas

©Copyright 1998, Vari-Lite, Inc. All rights reserved. VARI\**LITE*® and mini-Artisan\*2 are registered trademarks of Vari-Lite, Inc. Series 300™, VL5™, VL6™ and VL5Arc™ are trademarks of Vari-Lite, Inc.

**LITE ALTERNATIVE LTD**  
Manchester, England  
tel 44 (0)1706 627066  
fax 44 (0)1706 627068  
Contact: Paul Normandale/Jon Greaves

**MICHAEL SAMUELSON**  
Cardiff, Wales  
tel 44 (0)1222 599225  
fax 44 (0)1222 599688  
Contact: Allison Dowzell

**PAN & TILT A/S**  
Copenhagen, Denmark  
tel 45 32 958511  
fax 45 32 958311  
Contact: Lars Nissen

**PRIMETEC AB**  
Göteborg, Sweden  
tel 46 31 70 72 400  
fax 46 31 21 35 60  
Contact: Ulf Irestad

**RMC SHOW SERVICE**  
Helsinki, Finland  
tel 358 9 506 3010  
fax 358 9 551 220  
Contact: Mikael Carlsson

**SCENETEC & CO.**  
Vevey-Montreux, Switzerland  
tel 41 21 923 5161  
fax 41 21 923 5162  
Contact: Laurent Zumofen

The  
**Fibre Optic**  
Lighting People

Par Opti Projects Ltd  
67 Stirling Road, London W3 8DJ  
Tel: 0181-896 2588  
Fax: 0181-896 2599

**10 TEN**  
OUT OF  
**10 TEN**

TEN OUT OF TEN PRODUCTIONS LTD  
LIGHTING & SOUND HIRE & SALES  
Authorised Dealers for:

Special Offers for  
Theatre Class Lamps

Mail Order Hotline:  
**0181-291 6885**  
Fax: 0181-699 8968  
<http://www.tenoutoftent.com>  
MasterCard • Visa • Switch

**W**

WEMBLEY  
LOUDSPEAKER

Professional Loudspeaker Repair  
Specialists for all Makes  
of Power Units

Manufacturers of the  
P.T.P. Series:-  
Professional Range of  
Chassis Loudspeakers,  
Tweeters and Hornes.

**deuce**

Spyder Mini/Maxi Cube  
2820 Sub Bass Bin  
2824 Mid-Top Pack

Unit A4, Askew Crescent Workshops  
Askew Crescent, London W12 9DP  
Tel: 0181-743 4567  
Fax: 0181-749 7957

**L** Lancelyn THEATRE SUPPLIES

Lighting Hire & Sales

Equipment from all  
major manufacturers

Hire of Outdoor Equipment  
including Staging and Seating

Special Effects, including  
smoke machines, snow machines,  
projection, pyrotechnics, etc.

HIRE: Oxford (01865) 722522  
SALES: Oxford (01865) 722468  
Hire and Sales Northwest:  
0151-334 8991

**mico**  
LIGHTING

The specialists for  
LAMPS used in the  
THEATRE and  
ENTERTAINMENT  
industries.

Excellent Trade terms  
available.

Mico Lighting Ltd.  
Troydale Lane, Pudsey,  
Leeds, West Yorkshire.  
Telephone: (0113) 2567113  
Fax: (0113) 2572358

**LIGHT ENGINEERING**

Fibre Optic Star  
Curtain Kit

360 assorted length sleeved fibres, with  
50 watt light source. Colour/twinkle  
wheel/fixing washers convert any dim  
background into a stunning spectacle.  
This kit will cover up to 25 sq. Metres.  
\*SPECIAL OFFER\*

FREE DRAPE - FREE DRAPE  
For every Kit ordered we will supply an  
approved Fire Retardant 25 sq. Metre  
black drape - absolutely free!  
Tel: 0181-520 2336  
Fax: 0181-509 1332  
64 Eden Road, London, E17 9JY

**GDA** G. DASHPER  
ASSOCIATES

Specialists in the design, manufacture  
& installation of staging equipment for  
the theatre and television industries.

Call us today for more information, advice  
and access to over 40 years of experience.

Tel: 01953 688150 Fax: 01953 688245

**THE GRADAV EMPORIUM**

TUBE CLAMPS IN STOCK  
CUSTOM GOBO SPECIALISTS  
DOUGHTY IRONMONGERY  
LE MAITRE PYROTECHNICS  
SCENERY PAINT BY ROSCO  
MINI DISCS BY TDK  
AMPEX 456 TAPE IN 1/4" & 1/2" WIDTHS  
SMOKE PRODUCTS BY LE MAITRE  
FILTER, GAFFER AND SUNDRIES

PLEASE CONTACT US FOR YOUR FREE CATALOGUE

Nice people to talk to

613-615 GREEN LANES, PALMERS GREEN  
LONDON N13 4EP  
Phone: 0181-886 1300 Fax: 0181-882 6517

**eskimo noise**

FOR HIRE:

NEXO ALPHA SYSTEMS  
NEXO PS-10 & PS-15  
ELECTRO-VOICE SX200  
ELECTRO-VOICE DELTAMAX 1152AS(70)  
CROWN MA5000VZ, MA3600, MA2400, MA1200

OFFICIAL DEALERS FOR:

EX-INSTALLATION HIRE EQUIPMENT ALWAYS AVAILABLE  
EV DELTAMAX 1152AS FROM £750  
CROWN MA1200 FROM £500  
EV S/SX200 FROM £200

SALES • HIRE • SOUND PRODUCTION  
TEL: 0171 277 1313 • FAX: 0171 703 6485

**IBEX**

Tel: 0181 405 1233  
Fax: 0181 688 3495

**Motion Control Systems**

From single motor control to fully automated  
multi axis computer positioning systems

Design & manufacture to individual specifications

...Winch Control...Hydraulics Control...Chain Hoist Controllers...  
.....Revolve Control...Guided Vehicles...Robotics Control.....

## WELD-FAB STAGE ENGINEERING LTD.

DESIGN & MANUFACTURE OF TRUCKING SCENERY, REVOLVES, LIFTS, ROSTRA FLOORING & TIMBER FINISHING FOR TELEVISION, THEATRE & EXHIBITION SERVICES VARIOUS EQUIPMENT AVAILABLE FOR SALE OR HIRE.

**PLEASE CONTACT BRIAN SKIPP FOR DETAILS**

HARBOUR LANE WORKS, GARBOLDISHAM  
DISS, NORFOLK IP22 2ST.

Telephone: 01953 688133 Fax: 01953 688144

## STAGE-TRACK LIMITED

ALL STAGE EQUIPMENT DESIGNED AND INSTALLED. SPECIALISTS IN CURTAIN TRACKS, PILE WINDING WINCHES, SUSPENSION PULLEYS, SCREEN FRAMES ETC.

PHONE NOW FOR BROCHURE!!



HARBOUR LANE WORKS,  
GARBOLDISHAM, DISS,  
NORFOLK IP22 2ST.  
Tel: 01953 688188  
Fax: 01953 688144

**Harkness Hall Limited**  
**THE BIGGEST NAME**  
*in stage and screen*

- SUSPENSION EQUIPMENT
- PC CONTROL SETS
- COUNTERWEIGHT SETS
- SAFETY CURTAINS
- SERVICE, INSTALLATION & CERTIFICATION
- CURTAINS & TRACKS
- RIGGING GEAR
- SCENERY FITTINGS, PULLEYS...and much more!

**TEL: 0181 953 3611**  
**FAX: 0181 207 3657**  
E-mail: sales@harknesshall.com

## HirePoint98

Rental Software

**ON SALE NOW!**

32 bit Windows95/NT software for A/V, Lighting & Audio Equipment rental/production/staging.

### HOT NEW FEATURES

- Internet email hook - Load email rental enquiries, put your catalog on the web, setup web ordering & enquiries.
- Use with a Digital camera to take pictures of your pickup customers. Competitive crossgrade offer.

Download a demo [www.HireP.com](http://www.HireP.com)  
U.K Phone - Rick - Mob 0468 316612  
U.S Tel 1 888 591 1962 fax 1 888 591 1964  
Australia (+61 2) 9824 1105 fax 9824 0554  
**HirePoint** Software



**OCEAN STATE RIGGING SYSTEMS LTD.**  
*International Service • Professional Rigging • Consultancy • Motion Control Specialists*

**We can supply all your rigging and motion control requirements.... call us on:**

**Tel: 01279 600390 • Fax: 01279 600032**

## SOUND CHECK 2

**The World's Best Selling Test & Demo CD**  
**Mastered at Abbey Road Studios**

- 58 Tracks of test tones including sub bass, active speaker set-up & frequency response check
- Dry Vocal tracks including un-compressed solo by Pavarotti
- Dry Instrument tracks including Steinway Concert Grand Piano & complete drum kit solo
- High dynamics music tracks from Cathedral Organ to Luv 4 - the ultimate bass test
- Sound Effects tracks including the famous Chieftan Tank recording
- Also available with built in analyser meter for instant frequency response analysis

In all - 99 tracks of essential listening

Special Readers Price: £25 inc VAT & post

With Analyser: £59 inc VAT & post

Phone or Fax SCA with your credit card details for same day despatch

**Tel: 01271 858580 Fax: 01271 858587**

*All major credit cards accepted*

The  
**Fibre Optic**  
Lighting People



Par Opti Projects Ltd  
67 Stirling Road, London W3 8DJ  
Tel: 0181-896 2588  
Fax: 0181-896 2599



*the original*  
**RAT**  
music stand

## POWER RENT

"SILENT MOBILE GENERATORS

5Kva - 1500 Kva 50/60 Hz

CABLES TRANSFORMERS ETC."

Complete Distribution Systems

Specialist Location Engineers

Depots throughout UK & USA

24 Hour Service Worldwide

**Tel: - 01304 - 620062**

**Fax:- 01304 - 620072**

**Mobile: 0836 373849**

R.A.T. (Music Stands) Limited  
16 Melville Road, London, SW13 9RJ  
Tel: 0181 741 4804 Fax: 0181 741 8949

## DONMAR DRAMA DEPT.

Light & Sound Solutions for the Performing Arts

Sales Counter  
2 Tudor Estate Abbey Road  
Park Royal London NW10 7UY

Sales & Service

Lamps & Lanterns

Colour Filter & Gobos

Scenic Materials & Paint

Staging & Curtains

**Tel: 0181 453 6004**

**Fax: 0181 453 6005**

# Specialist Technical Equipment and Services for the Entertainment and Allied Industries

• U2 POP MART TOUR • THE KREMLIN, MOSCOW • SEGAWORLD  
• BEAUTY AND THE BEAST • ROYAL OPERA HOUSE • HONG KONG • U2 POP MART TOUR • THE KREMLIN, MOSCOW • SEGAWORLD  
• WATERFRONT HALL, BELFAST • STRATFORD EAST



The Triple E Group

Triple E has already established the standard for track systems in the UK, now it is set to take North America by storm. With a track record of applications as diverse as U2's Pop Mart world tour, Beauty and the Beast Australia and London, the Waterfront Hall in Belfast and the National Lottery Live, Triple E track is now available across North America through ADC and in Europe, Scandinavia, the Middle East and Japan through Gerriets.




For both sales and hire contact:  
The Triple E Group  
B3 Tower Bridge Business Complex  
Clements Road, London SE16 4EF

Tel: +44 (0) 171 237 6354  
Fax: +44 (0) 171 237 7650  
email:  
eee@globalnet.co.uk  
web site:  
www.users.globalnet.co.uk/~eee

SEGAWORLD • BBC TV • BARBICAN • NATIONAL LOTTERY LIVE • LORD OF THE DANCE UK TOUR • MEASAT MALAYSIA

**GLANTRE ENGINEERING LTD**

Glantre Engineering offers a worldwide service in design, supply and installation of systems for the performing arts and entertainment. Glantre's capabilities extend from lighting, sound and rigging for theatres, film and TV studios, through conference and AV to packages for cruise ships, theme parks and leisure attractions.

Contact Carolyn Cerrino at 20 Richfield Avenue, Reading, Berkshire, RG1 8EQ  
Tel: +44 118 964 0000  
Fax: +44 118 964 0064  
Email: info@glantre.com

**GLANTRE**



Leaders in entertainment technology on land and sea.

**TRANSFORMERS**

- ★ LAMINATED TRANSFORMERS
- ★ LOW PROFILE ENCAPSULATED
- ★ TOROIDAL TRANSFORMERS
- ★ From 2VA to 1500VA
- ★ 100V LINE TRANSFORMERS
- ★ CUSTOM ENCLOSURES
- ★ Design, Development, Production
- ★ Large & Small production runs, at very competitive prices
- ★ Short delivery
- ★ BABT LISTED
- ★ ISO 9002 APPROVED

**DAREN ELECTRONICS LTD**

23-29 OWEN ROAD, DISS  
NORFOLK IP22 3YU  
TEL 01379 641774  
FAX 01379 650118



Certificate No. Q6412



**MOTOROLA**  
CERAMIC SPEAKERS

PULSAR DEVELOPMENTS LTD  
MARLOW, ENGLAND  
TEL: (01628) 473555  
FAX: (01628) 474325

The UK Source for Large-Format Projection Equipment

Largest Pan rental inventory in Europe

Rentals  
Sales  
Applications Assistance  
Media Production



**PRODUCTIONarts**

3 Greenock Road  
London, W3 8DU  
Tel: (0181) 896-1777  
Fax: (0181) 896-1888



Manufacturers of a complete range of quality effects lighting for the leisure industry

PROFESSIONAL LIGHTING FOR PROFESSIONAL PEOPLE

For a full brochure and price list call the Sales Hotline

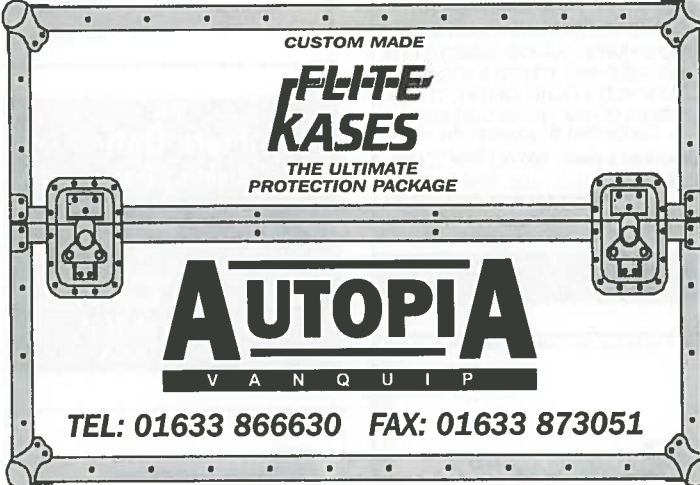
**01604 790765**

Kings Park Road, Moulton Park,  
Northampton. NN3 6LL  
Fax: 01604 492856

CUSTOM MADE

**FLITE KASES**

THE ULTIMATE PROTECTION PACKAGE



**AUTOPIA**

VANQUIP

TEL: 01633 866630 FAX: 01633 873051

**LHS**

Leslie Hire & Sale

For Stage and TV Lighting and Stage Equipment, phone

**0181 871 5132**

L.H.S. Limited, The Business Village, Broomhill Road,  
Wandsworth, London SW18 4JQ.  
Telex: 917003 LPC G

**THEATRE CRAFT**

DRAMA EQUIPMENT  
Eltec Lighting Controls

Internally Wired Bars  
Rostra & Scenery Kits  
Braces, Weights etc

TRADE ENQUIRIES  
TEL: 0151-334 0831 • FAX: 0151-334 4047

**RENTAL BULLETIN BOARD**

Now Available

- GLADIATOR FOLLOWSPOTS 3KW
- MEGALITES (9x2Kw)
- ETC SOURCE FOURS
- WYBRON AUTOPILOT
- 4KW DMX SKY-ART SEARCHLIGHTS
- WHOLEHOG II CONTROL DESKS
- JEM ROADIE SMOKE MACHINES
- IRIDEON AR 500 LUMINAIRES
- CADENZA DMX P.A.L.S.
- THOMAS SUPER RIG TRUSS
- RCD MAINS DISTRO SYSTEMS
- AVOLITES DIAMOND II DESKS
- SCANCOMMANDER CONTROL DESKS
- ALTMAN ZIP STRIPS

**THEATRE PROJECTS**

Lighting The Way Ahead

+44 (0)181-575-5555

**Almag**

ISO 9002 winders for

**LIGHTING + SOUND INTERNATIONAL!**

POWER FACTOR CORRECTION  
DIMMER RISE-TIME & emc  
COMMON MODE SUPPRESSION  
FERRITE RESONANT CHOKES  
POWER CONVERSION

Space efficient toroids & conventional bobbins from <0.5A to >80A.

UK and Export supplied

**Almag Ltd**

17 Broomhills, Rayne Rd  
Braintree CM7 2RG. UK  
Tel: +44 (0)1376 345200  
Fax: +44 (0)1376 551917  
http://www.almag.co.uk

The Fibre Optic Lighting People



Par Opti Projects Ltd  
67 Stirling Road, London W3 8DJ  
Tel: 0181-896 2588  
Fax: 0181-896 2599





## Ross Brown talks to the founder of the Chrysalis Group, Chris Wright

Some people could take this the wrong way, but it's definitely not meant as an insult. Chris Wright really doesn't come across as a multi-millionaire. Now I'm not saying that I know what the man's bank balance is, never saw his car (Ferrari, Jaguar, Lada?). Indeed, I don't even know whether the stud farm he's owned since the early eighties is more the bank's than his, but, as co-founder and chairman of the Chrysalis Group, I'm assuming he's worth a few bob. But you wouldn't think so to meet him.

Don't think that some smelly scruff-bag arrived for our meeting, caded a fag from me and asked me to pay for dinner. Nothing of the sort. A well-dressed, friendly, respectable man in his early fifties, Wright was the epitome of friendliness. But he didn't give off the "I'm loaded, me" vibe that one often gets from millionaires, something that may have a lot to do with coming from a family of farmers.

When he left Manchester University in 1966 with a degree in Politics and Modern History, he spent a year with a Manchester talent-booker agency, before leaving to co-found the Ellis Wright agency with former partner Terry Ellis. What makes a farmer's boy decide to move into the entertainment world? "I couldn't decide what I wanted to do. At the talent agency the brief was simple, 'you know all the colleges, I'll give you a phone and a desk and a percentage of anything you make'. If it hadn't worked, I'd have starved." It worked, obviously, but how do you make the move from talent agent to record company head?

"We couldn't get a deal for Jethro Tull, so we decided to record the group and see what happened." Even in the late sixties, the proposition of a folk-rock band led by a flute-player standing on one leg must have been unusual. Chris Blackwell at Island didn't think so, giving Ian Anderson and his troubadours a deal, and setting Wright off into music publishing. "We decided that we wouldn't launch as a record company until we got ten top 10s - singles or albums - which we did within a year."

Since the punk explosion of the late seventies, independent labels have become commonplace, but how was Wright taken seriously in the late sixties? "The groups did well, so people had to take us seriously." By the early eighties, the Chrysalis roster was



becoming increasingly impressive - with Ten Years After, Procul Harum, Billy Idol, Spandau Ballet, Pat Benatar, Huey Lewis & The News and Sinead O'Connor amongst others - but all that was to change in 1991.

"We ran into cashflow problems in the States," says Wright, "and so agreed to sell out to EMI. Part of the agreement was that I was not allowed to work within the record industry for a certain number of years - and I quickly got bored!" With hindsight, it would seem that allowing a man like Chris Wright to get bored is extremely dangerous. The Chrysalis Group, as it is now known, encompasses a variety of wholly-owned and partly-owned production companies for television, a string of five radio stations (with more, Radio Authority permitting, in the pipeline), five music publishing companies, the Air-Edel recording studio (and its associated composers, including Oscar-winning Anne Dudley of "The Full Monty" fame) and 71 per cent of album compilation company Hit Label. Oh, and a new record label, Echo, founded once the agreement with EMI lapsed in 1993.

On the TV production side, Chrysalis's various companies have produced programmes for ITV (*Clive James, Midsomer Murders, An Audience with Lily Savage*), BBC (*The Sculptress, The Broker's Man, Crocodile Shoes*), Channel 4 (*Gazza's Soccer School, Planet Football, The Last Resort*), C5 (*Rugby Express, Deadly Summer*) and Sky (*Spanish Football, Tight Lines*), but it is in the expansion

of the Group's radio stations that Wright is currently engaged.

Chrysalis first joined the airwaves in September 1994 with Heart 100.7 providing a commercial format for Birmingham. A second Heart station opened in London 12 months later and the first of three Galaxy stations started transmission to the South-West and South Wales in November 1995, when Chrysalis bought the station from GWR. The Galaxy network was expanded in August 1997, when Chrysalis bought Kiss 102 and Kiss 105 from owners Faze for £17.6m cash, re-branding them under the Galaxy banner.

And so to Scotland and the North-East of England, where Chrysalis is currently bidding for the two radio licences up for grabs. The first, in the North-East, is for a fourth Galaxy station but, according to market research at least, that's something the Scots don't want. So, in association with the Mirror Group and comedian Billy Connolly, Chrysalis is asking for a licence for indie-dance/indie-rock station, The Edge. Connolly's association with the consortium is no mere PR stunt: as well as presenting his own show should the station get the go-ahead, he will also be a 40 per cent owner (Chrysalis will have another 40 per cent and the Mirror Group, under the Daily Record banner, the remaining 20 per cent.)

Outside of his media interests, Wright is also chairman of Loftus Road plc - owners of Queens Park Rangers FC and Wasps Rugby Club. No offence Chris, but you've been doing this 30 years - ever thought of retiring? "What would I do? I enjoy it all too much. Every day is a new hand of cards. If I retired, every day would present the same hand. I've said for years that the only way they'll get me out of here is in a box!"

### LIGHT OPERA

HAVE MOVED TO BIGGER PREMISES

- SALES AND SERVICE •
- DESIGN AND INSTALLATION •
- TECHNICIANS •
- LANTERN REFURBISHING •

01827 69382

0973 221312

#### ADVERTISERS' INDEX

AC Lighting	20/34/36	Clay Paky	13/15/17
Adastr	38	Cloud	64
AJS	22	Decoupe	67
AKG	24	DHA Lighting	53
Aliscaff	8/41	Effects Co	70
Altman	48	ESS	18
Arbiter Group	11	E/T/C	21
Artistic Licence	6	Flying Pig Systems	36
Audio Technica	14	Futurist	67
Avolites	33	Hand Held Audio	63
Backstage London	67	Hardware Xenon	27
Beyerdynamic	10	Harkness	37
CITC	28	High End Systems	23
City Theatrical	28	Howard Eaton	66
		HW International	9

Jands	43	Navigator	42	Sound Dept	19/IFC
LDI 98	40	Northern Light	18	Studio Due	71
Lee Filters	4	Par Opti	27	Starlite Systems	52
Le Maitre	1BC	PCM	38	TOA	26
Le Mark	21	Photokina	39	Tomcat	41
Light Opera	82	PLASA Show	59	Total Fabrications	31
Light Processor	54	Procon	54	Triflite	39
Lighting Technology	8	Pulsar	29	Triple E	12
Link	25	PW Enterprises	33	Universal FO	55
MA Lighting	61	RB Lighting	22	Unusual Services	44
Maris	37	Recruitment	73-75	Vari-Lite	5
Martin Audio	16	Robert Juliat	30	Wilkes	60
Martin Professional	3	Selecon	22	Wybron	7
Marquee Audio	16	SGM	32	WYSIWYG	68
MTFX	41	Slick Systems	25	Zero 88	35

# 100% pure haze and no messing!



The Neutron Star Hazer from Le Maitre produces 100% haze with no waste and without the messy oil residue associated with cracked oil hazers. Yet thanks to its world patent pending technology, it's just a quarter of the price. And it is an impressive 95% more efficient than its water based competition. What's more, with 100 hours' operation from just 2.5 litres of fuel, it's more economical to run.

The Neutron Star Hazer from Le Maitre. Designed purely and simply to produce haze. And nothing else.

**Neutron**  
**\*S\*T\*A\*R\***  
**Hazer**

PURELY AND SIMPLY THE BEST

  
Great Britain: 6 Forval Close, Wandle Way, Mitcham, Surrey CR4 4NE  
Tel: +44 (0)181 646 2222 Fax: +44 (0) 181 646 1955  
E-mail: [ricklemaître@compuserve.com](mailto:ricklemaître@compuserve.com)  
Canada: 546 Sovereign Road, London On. N5V 4K5  
Tel: 001 519 659 7972 Fax: 001 519 659 7713  
USA: 2528 Beach Road, Port Huron, Michigan 48060  
<http://ourworld.compuserve.com> [www.lemaitrefx.com](http://www.lemaitrefx.com)

**Maitre**



Full range of lanterns, control, distribution and rigging  
Large stock of automated equipment  
Dry hires or complete systems  
Serving all the industries needs in Europe and beyond

**Call us for a quote**

**PROCON**  
Lighting Hire Service

**Moving Light Equipment in our Hire Stock:**

**Coemar:** NAT 4000 TM · **Clay Paky:** Super Scan Zoom, Golden Scan 3, Golden Scan HPE, Mini Scan HPE · **High-End-Systems:** Cyberlight, Studio-Color

**Martin:** MAC 500, MAC 600, PAL 1200, RoboColor Pro 400, Roboscan Pro 518, Imagescan

**Starlite Systems Technology:** Starlite MK II G, Starlite MK III G

Procon, Germany. Ask for our free Catalogue. Fon ++49/40/6 70 88 60, Fax ++49/40/6 70 61 59, <http://www.procon-online.de>