

LIGHTING+*SOUND*

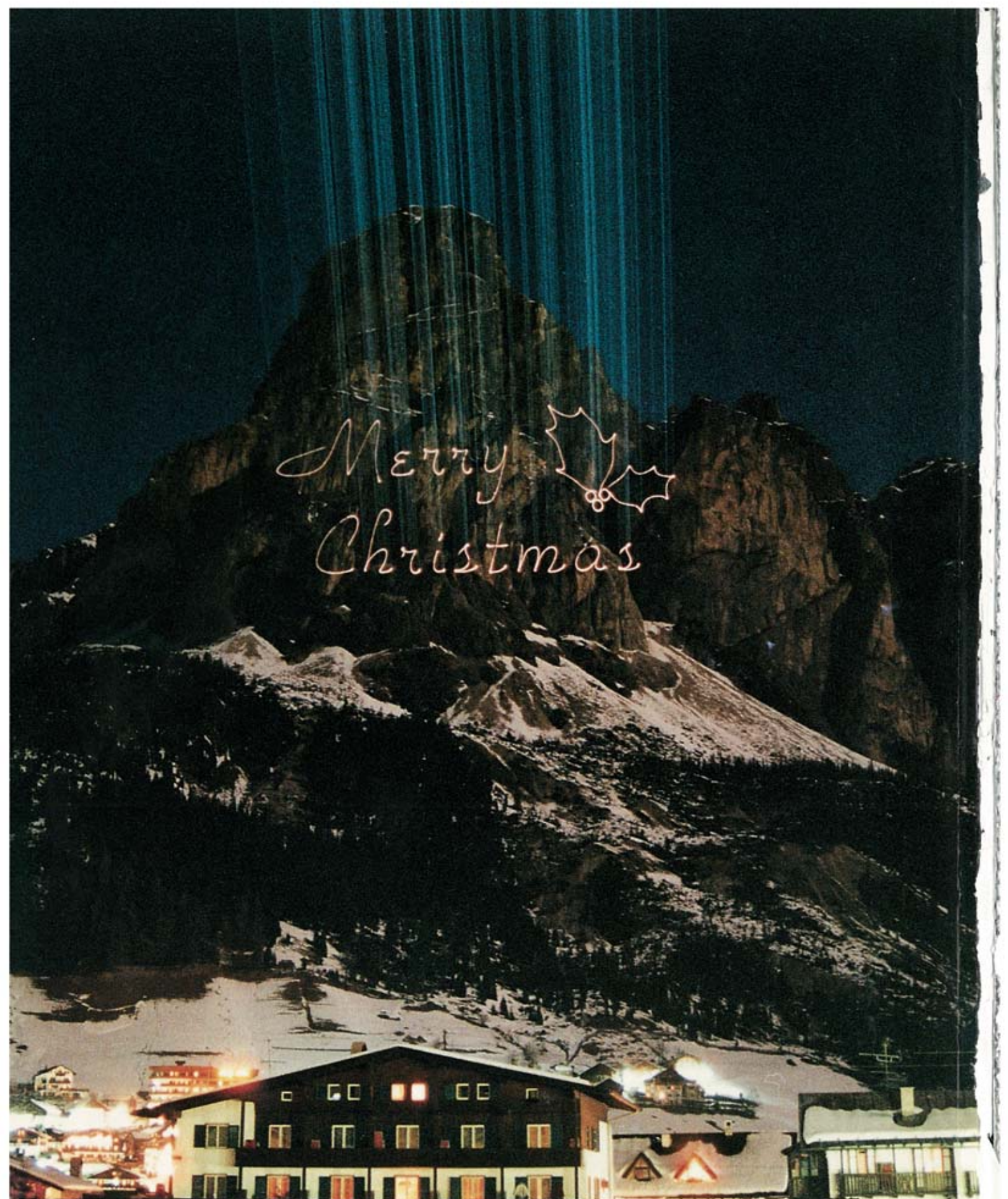
International



OMAN NATIONAL DAY: AL WATTAYAH STADIUM, MUSCAT

- British Teamwork for Oman National Day Celebrations
- LDI Reno: full show report and pictures
- On Tour with Bryan Adams, Kylie Minogue and Runrig
- Behind the Scenes at Crystal Maze
- MIDI Show Control: the new standard

DECEMBER 1991



Merry Christmas

Photo: Corvara, Italy

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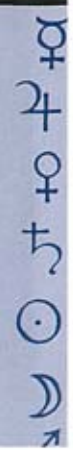
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LIGHTING+ SOUND International

DECEMBER 1991

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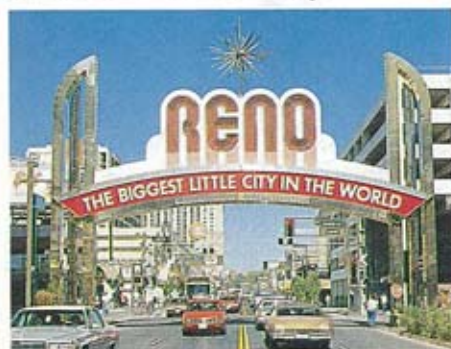
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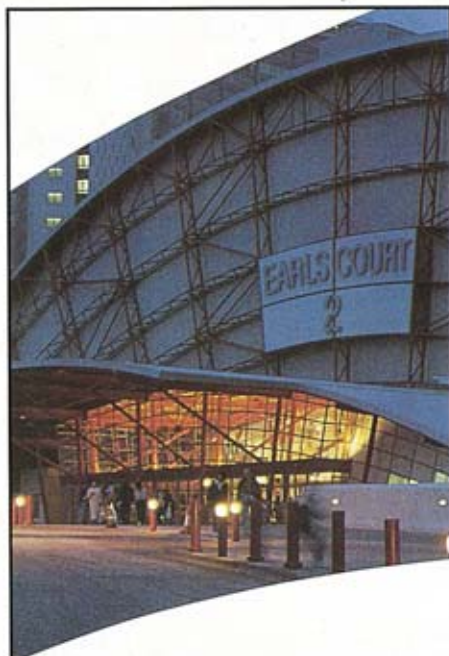
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Andy Collier



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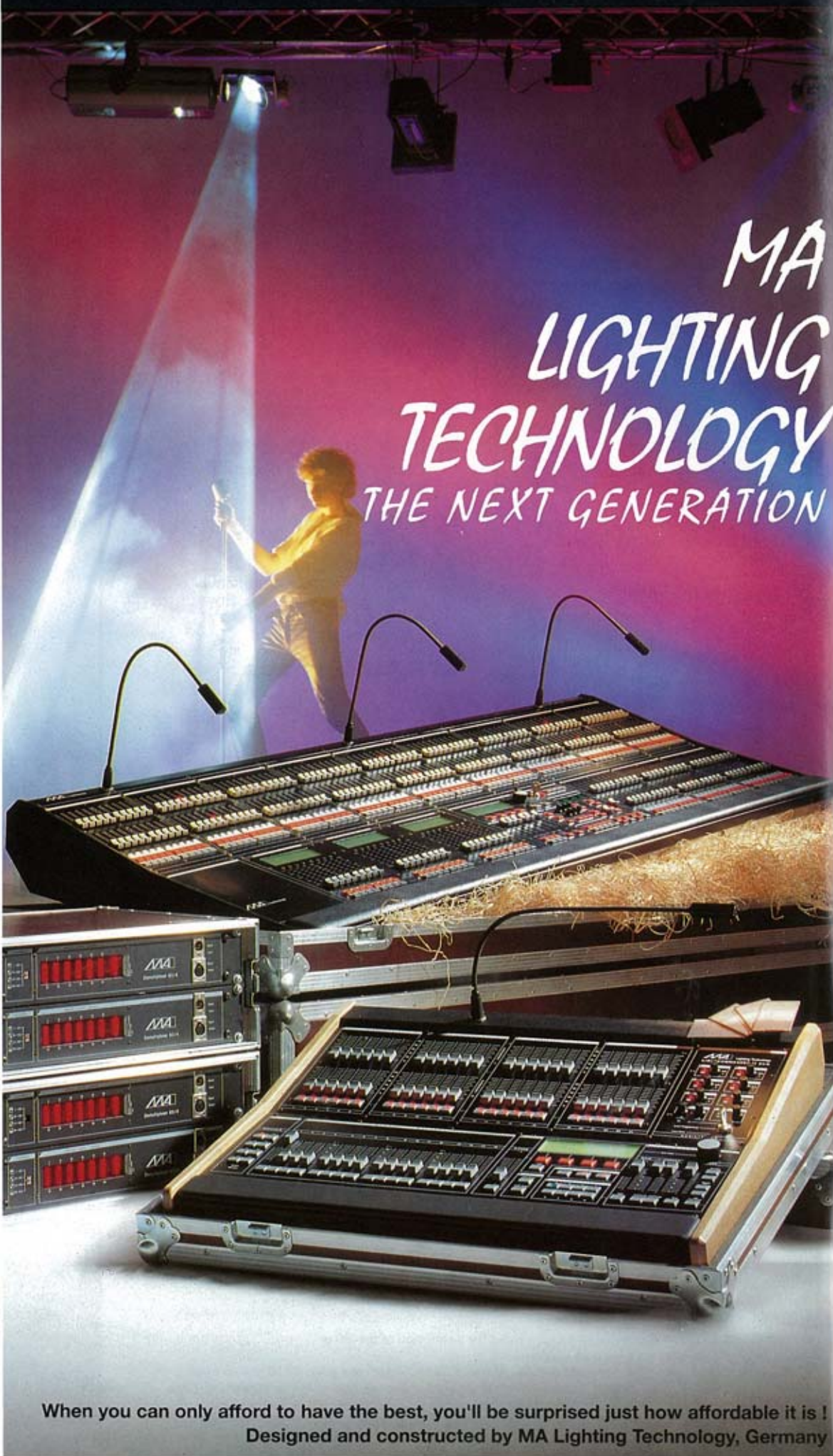
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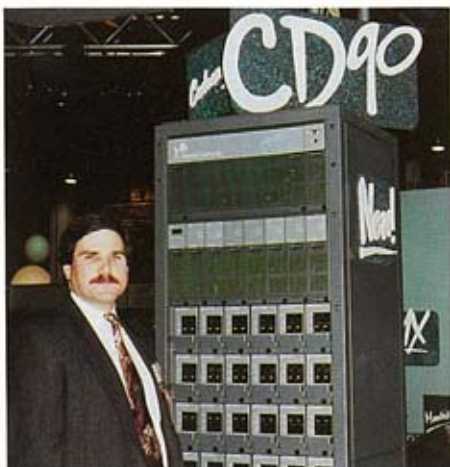
STRAND AND CELCO SCOOP US AWARDS

Joint winners of the LDI Awards presented at Reno on November 24 were Celco Ltd for their Navigator control desk and Strand Lighting for their CD90 dimming system.

First up to the podium (they were announced in alphabetical order, so why not?) were the receiving trio from Celco: Keith Dale, Matt Deakin (Celco UK) and Jack Kelly (Celco Inc), with Keith Dale eagerly clasping the cubic block. Strand's duo of Bill Groener and Steve Norman then stepped up for a congratulatory handshake as the organisers hadn't bargained for a tie. No doubt Strand will be looking for the postman to deliver their boardroom showpiece in the near future.

Celco's Navigator control desk was first launched at the PLASA Light & Sound Show in London in September and went into full production in mid-October. Sales director Colin Whittaker told L+SI that production had had to be stepped up to 10 units a day during December to cope with demand. Navigator is currently out on two major tours with Bryan Adams and Status Quo and recent installations include two in the States and another two in the Far East - and they're the ones they know about.

A call from L+SI to Strand in London found they were also "justifiably proud" of their achievement in winning the award. Business development manager Andy Collier told L+SI: "The company's new strength in international R&D co-ordination has been proven during the development of CD90 in Los Angeles, with close co-operation between the UK R&D facility and



Strand Lighting's Bill Groener with the award-winning CD90 digital dimming system on stand at LDI in Reno, Nevada.

the USA research team. The project has been under the direction of Dr. Ian Ibbotson and Mark Ayton, both of whom developed EC90, Strand's European digital dimmer, whilst they were in London and who then transferred to Los Angeles for the CD90 development programme."

PLASA chairman Tony Kingsley congratulated both companies on their achievement. "It gives a boost to the whole Association when two of its members scoop a major award outside the UK," he said.



Award line-up: Jack Kelly, Matt Deakin, Steve Norman, Bill Groener and Keith Dale.

Major Goldenscan Investment by Phase 5

Goldenscan is fast becoming the industry standard in professional intelligent lighting according to Pulsar Light of Cambridge, Clay Paky's sole UK distributor. Over the last year Pulsar says the growth in the use of Goldenscan 2 has been phenomenal, particularly in the hire market, where its flexibility has made it one of the best selling intelligent lighting systems around.



Pictured here in Liverpool's new 051 club, Phase 5 has just invested £70,000 in Goldenscans to keep pace with the demand for touring, clubs and raves.

One company which is using Goldenscan 2 to great effect is Liverpoolian hire company, Phase 5, which has been working extensively with the Goldenscan 2 HMI systems. The company has been 'inundated' with orders, and to keep pace with the demand Phase 5 has recently invested in excess of £70,000 on Goldenscans supplied by Pulsar dealer Cerebrum Lighting of New Malden, Surrey.

Future projects where Phase 5 will be supplying Goldenscans include the house rave at the Donnington Exhibition Centre, the Chuck Berry tour, and weekly raves at the Forum Leisure Centre in Edinburgh.

L+SI WISHES ALL ITS
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THROUGHOUT 1992

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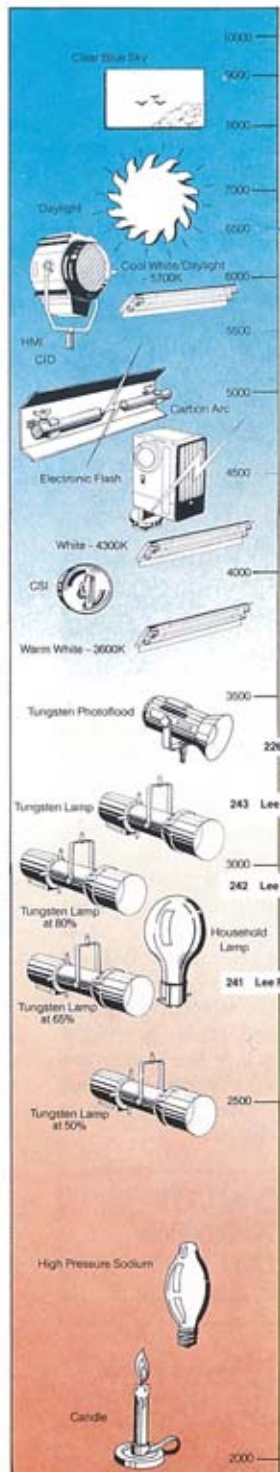
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Light Source Conversion Calculator

Original Source (Kelvin)

(Kelvin)



HOW TO USE
Simply draw a line from the Colour temperature value of your original light source, to that of the converted source. Where the line crosses the central band, read off the Mired Shift value. For your convenience we have added the range of Lee Light Conversion Filters at their appropriate positions in relation to the Mired Shift Scale.

EXAMPLE
To convert an original source of 6500K to 3200K. The line has been drawn as an example. You will note that it crosses the central band at just over 150 Mired Shift. This indicates that the Filter required is 204 Full CTO (also available with two degrees of Neutral Density).

- | | |
|---|-----------------------------|
| 347 Lee Minus Green | Coral 14 (Mired Shift +234) |
| 248 Lee Half Minus Green | Coral 13 (Mired Shift +218) |
| 249 Lee Quarter Minus Green | Coral 12 (Mired Shift +204) |
| 219 Lee Fluorescent Green | Coral 11 (Mired Shift +188) |
| These Filters correct the colour cast of fluorescent tubes without affecting to colour temperature. | |
| Fluorescent FL 5700 - B (Mired Shift + 137) | Coral 9 (Mired Shift +109) |
| 236 HMI to Tungsten (Mired Shift + 134) | Coral 8 (Mired Shift +144) |
| 85B 85BN3 85BN6 85BN9 (Mired Shift +133) | Coral 7 (Mired Shift +129) |
| 85 85N3 85N6 85N9 (Mired Shift +132) | Coral 6 (Mired Shift +113) |
| Fluorescent FL 4300 - B (Mired Shift + 80) | Coral 5 (Mired Shift +99) |
| 81EF 81EFN3 81EFN6 81EFN9 (Mired Shift +82) | Coral 4 (Mired Shift +83) |
| Coral 1 (Mired Shift -38) | 85C (Mired Shift -81) |
| Fluorescent FL 3600 - B (Mired Shift - 35) | Coral 3 (Mired Shift -65) |
| 81B (Mired Shift -27) | Coral 2 (Mired Shift -48) |
| | 81D (Mired Shift -42) |
| | 81C (Mired Shift -25) |
| | 81A (Mired Shift -18) |
| | 81 (Mired Shift -9) |

226 Lee UV Neutral Density ND 0.9 ND 0.6 ND 0.3

- | | |
|--|---------------------------------------|
| 213 White Flame Green | 218 Eighth CTB (Mired Shift -18) |
| 243 Lee Fluorescent 3600K (Mired Shift -34) | 203 Quarter CTB (Mired Shift -35) |
| 242 Lee Fluorescent 4300K (Mired Shift -78) | 202 Half CTB (Mired Shift -78) |
| 241 Lee Fluorescent 5700K (Mired Shift -137) | 1% CTB + 203 + 202 (Mired Shift -113) |
| | 201 Full CTB (Mired Shift -137) |

1% CTB + 201 + 202 (Mired Shift -215)

Twice Full CTB + 2 + 201 (Mired Shift -274)



Twice Full CTO + 2 + 204 (Mired Shift -238)

1% CTO + 204 + 205 (Mired Shift -198)

204 Full CTO 207 Full CTO -3ND 206 Full CTO -MND (Mired Shift -158)

237 CID to Tungsten (Mired Shift + 131)

205 Half CTO (Mired Shift -128)

206 Quarter CTO (Mired Shift -84)

212 L.C.T. Yellow (YI) (Mired Shift + 62)

238 CSI to Tungsten (Mired Shift - 48)

223 Eighth CTO (Mired Shift -26)

Fluorescent FL 5700 - D (Mired Shift + 8)

239 1ND 209.3ND 209.6ND 209.9ND 209.12ND Neutral Density 239 Polariser

82 (Mired Shift -16)

82A (Mired Shift -21)

82B (Mired Shift -32)

82C (Mired Shift -45)

82D (Mired Shift -64)

80C (Mired Shift -81)

Fluorescent FL 4300 - D (Mired Shift - 51)

80B (Mired Shift -102)

80A (Mired Shift -131)

80C (Mired Shift -81)

Fluorescent FL 3600 - D (Mired Shift - 96)

80B (Mired Shift -102)

80A (Mired Shift -131)

Mired Shift Calculation
To calculate the Mired (Micro Reciprocal Degree) Shift value for any conversion, carry out the following simple calculation:
$$\frac{1000000}{T_2} - \frac{1000000}{T_1} = \text{Mired Shift Value}$$

T1 is the colour temperature of the original light source in degrees Kelvin.
T2 is the colour temperature of the required source

Converted Source (Kelvin)

(Kelvin)



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Lee Filters Limited does much more than manufacture high quality light control media for the film, television, theatre and stills photographic markets. The company offers - whenever it can - to make an additional input to benefit the industries it serves.

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The Vari-Lite Cover Up

We've seen it, but we're sworn to secrecy. You'll have to wait until 1992 for more details on Vari-Lite's latest... Covering up are Jim Waits, Daryl Vaughan, Loren Haas and Mark Fetto.

Another QM Diamond for Immediate Delivery

Orders for up to four QM-Diamond consoles worth £82,000 were taken at this year's LDI show in Reno. It follows the highly successful European launch earlier this year at the PLASA Show in London.

Robert Steel, president of Avolites America told L+SI: "The response to the QM-Diamond this year at LDI was overwhelming with people queuing to get to the stand for demonstrations."

Douglas Paterson, chief executive officer of Pete's Lighting, was so enthusiastic about receiving his QM-Diamond that he insisted on taking delivery of his console at the end of the show. Steve Warren, sales director of Avolites in London said: "As well as current orders at LDI, we expect up to a further six orders during the spring of 1992."



The board on the move.



Steve Warren (right) leads the way.



Avo Inc's Robert Steel hands over to Douglas Paterson.

More Awards

Also on the winning ticket at LDI in Reno were many popular industry faces. Peter Morse won lighting designer of the year award and Abe Jacob the sound award. The strongest cheer of the afternoon went to Tim Grivas for his 'Light Show of the Year' and his work on the magnificent presentation for High End Systems which was well worth the tiring trip to Reno.

Product of the year (sound) went to Spatial Sound for their SSP-100 sound processor with Richmond Sound Design getting an 'honourable mention'. Winners of the best booth award were first timers Altman Stage Lighting, and we'll probably be seeing them on the international circuit before too long.

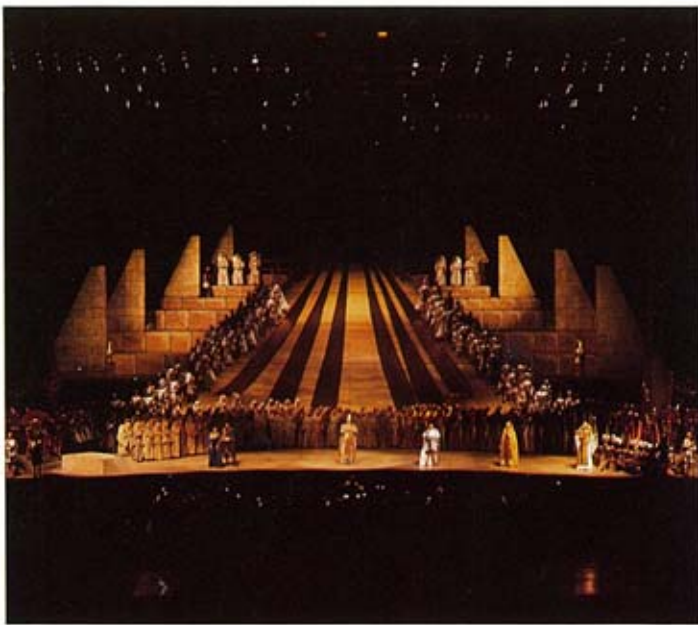
Judges for the lighting awards were Bran Ferren, John Haupt, Karl Ruling and Tom Ruzika and for sound Jonathan Deans, Abe Jacob, John Huntington and Lou Shapiro. Light show of the year was chosen by Paul Dodd of Avitec UK (last year's award winner), Jeff Ravitz, David Barbour and Patty Seyburn. The editors of Lighting Dimensions and Theatre Crafts International selected the lighting and sound designer of the year awards.



Avitec's Paul Dodd (left) presented Light Show of the Year Award to Tim Grivas.



Peter Morse: Lighting Designer of the Year.



Birmingham's Aida

Opera International's Vittorio Rossi's epic production of Aida, which was performed in Verona, Zurich, Munich and Paris before coming to London in 1988, returned again to this country for a further 10 performances in mid October.

Having appeared at Earls Court previously, the venue for the return performances was the new National Indoor Arena in Birmingham which proved ideal in terms of rigging. The load-in is direct from the street, and mains and dimmer access are situated on one level. The load-in commenced at 2.00am on the 9th, and at 9.00am all the trusses were in position for Theatre Projects' production manager Ian Bagshaw and his crew of 12, to rig the 600 luminaires in the main rig, which was completed by 4.00pm. There then followed three nights of focusing.

The crew for running the show included a Telescan crew of three, including their board operator, three followspot operators for the Super Troupers, two technicians for racks, and three for maintenance and dry ice machines. This production of Aida was the first major show for the venue and the scale of rig had not been tried before. Alan Jacobi and Steve Porter from Unusual Rigging consulted with the architects to ensure that the rig could be erected.

The crew chief/production electrician was John Trehwella, and assistant to the lighting designer and board operator was Glyn Peregrine.

The rig supplied by Theatre Projects Services was basically in the same format but reduced to approximately 300 luminaires to allow for the use of 36 of the new MK3 Telescans.

The remainder of the rig comprised: 132 x 2kW 15, and 164 1 kW 30, Silhouettes. 298 x Par 64, 36 lekos, 112 Par 36 ACL and 24 Svoboda Battens, in two runs of 12 units. The cabling ran some 5,000 metres of 6-way multicore and 3,000 metres of assorted TRS. The control was provided by six 72-way Avo racks complete with Arri Connection and a Kliegel IV unit.

SIEL PARIS: Anniversary Edition in February

Less than three months remain before the 1992 SIEL exhibition, held at the Parc des Expositions, Porte de Versailles in Paris, celebrates its tenth anniversary. Taking place from the 16-19th February, the exhibition is France's major national showcase for the industry.

Over 300 exhibitors will be displaying their latest products and services in the fields of sound, lighting, video, special effects, interior design, furnishings, studio, leisure park equipment, and other related areas. The organisers Bernard Becker Blenheim are predicting a record attendance.

For further details on SIEL, contact BBB in Paris on (1) 47565000.

More Nigerian Targets

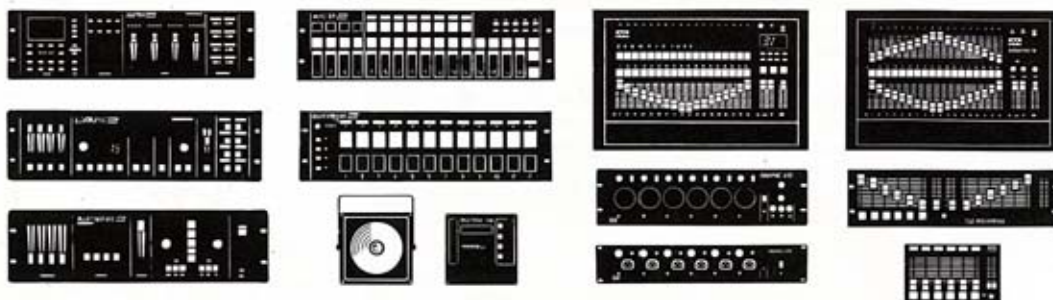
The L+SI office recently received a press release from Carlsbro Electronics who feel they have become a prime target for various Nigerian con-artists 'who specialise in the re-distribution of wealth'. In a letter to the company's chief executive Stuart Mercer a certain Major Oguke claimed to have access to a £4m government contract that had been awarded to himself and a group of fellow officers for their part in foiling the country's last unsuccessful military coup.

In exchange for a matching set of signed and sealed letterheads and invoices and Carlsbro's bank details, the said Major was willing to provide Mr Mercer with 35% of the booty, with no questions asked.

Delighted as he was, Mercer politely declined the offer upon learning the Major was not only on first name terms with Interpol, Scotland Yard and the CIA, but also required a 5% handling charge on the deal - to be paid in advance of course.

Now that's a fun story, we're glad to say, but the PLASA office learned about these antics long ago from its own members - Luton Sound and Lighting were one of the first to inform us - and we mailed our full membership way back in the Spring about these dubious communications from Nigeria. Since then a whole host of members have been pestered by such paperwork and the emphatic warning from PLASA HQ is: don't even touch them with a barge-pole.

Discotheque ... or ... Professional



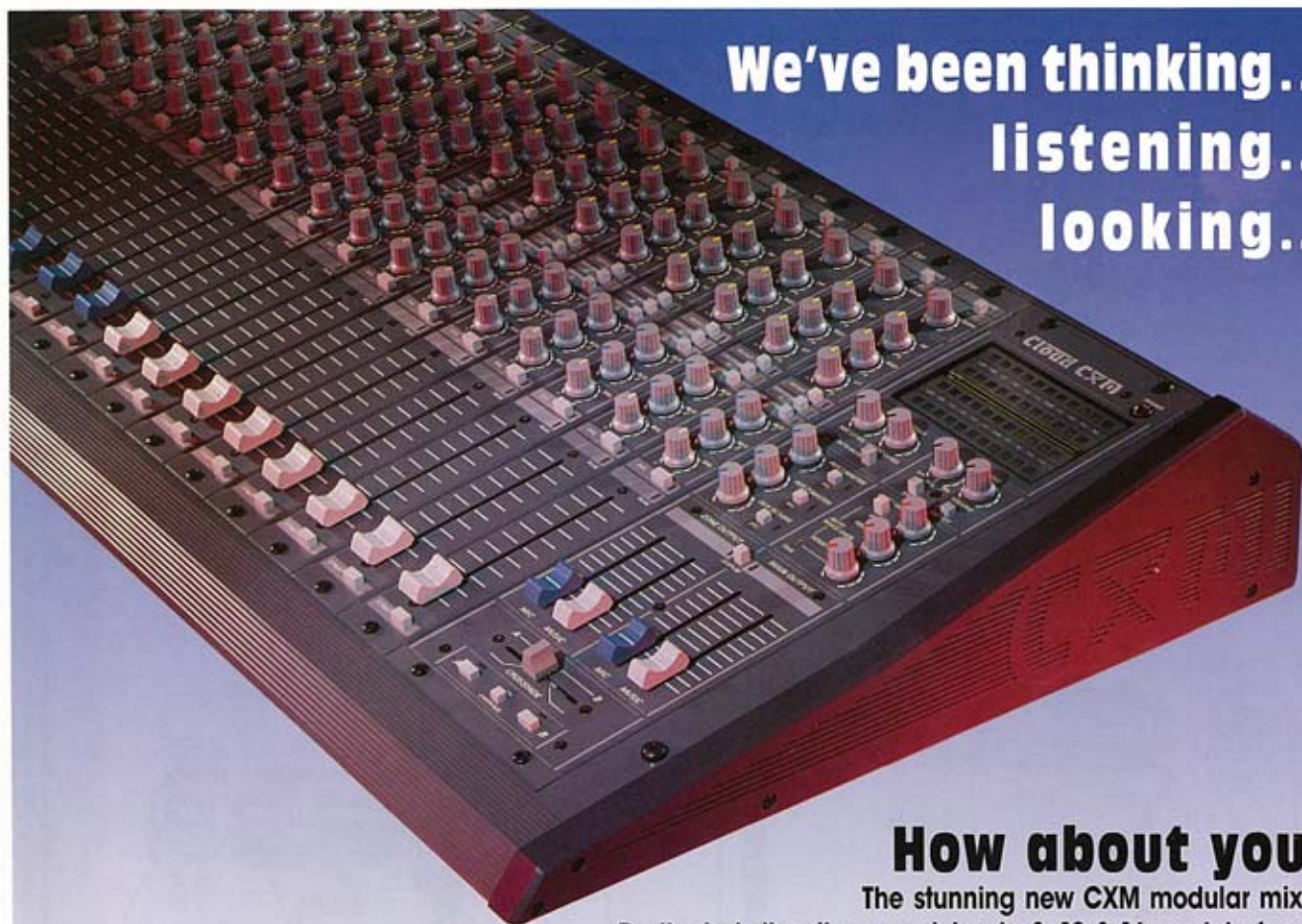
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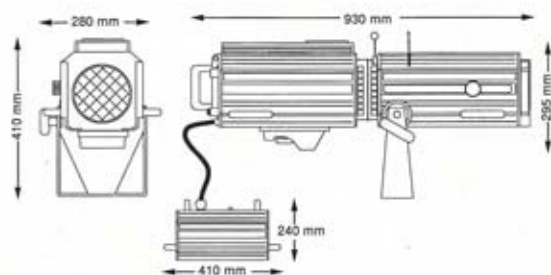
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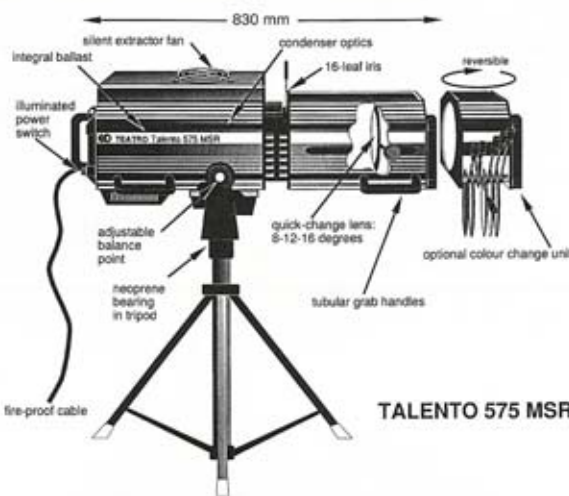
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Mushroom Lighting, Northampton 0604 494886
Odeum Light Sound, Surrey 0403 752775
S.A.V., Blackpool 0253 302602

EXHIBITION DIARY

Sound 92

February 4-5, 1992 - London - Sound and Communication Industries Federation, 4B High Street, Burnham, Slough, Berkshire SL1 7JH. Telephone (0628) 667633

Siel 92

February 16-19, 1992 - Paris - Bernard Becker Blenheim, 22-24 rue du President-Wilson, 92300 Levallois-Perret, Cedex, Paris, France. Telephone (1) 47.56.50.63

USITT Conference & Stage Expo 92

March 4-7, 1992 - Seattle - USITT, Suite 5a, 10 West 19th Street, New York NY 10011-4206, USA. Telephone (212) 924 9088

Frankfurt Musik Messe

March 11-15, 1992 - Frankfurt, Germany - Collins & Endres, Morley House, 314/322 Regent St, London W1R 5AB. Telephone 071-323 6570

The Music Show, Ideal Home Exhibition

March 19-22, 1992 - London - Angex Ltd, Times House, Station Approach, Ruislip, HA4 8NB. Telephone (0895) 677677

SIB/MAGIS

March 22-25, 1992 - Rimini, Italy - PLASA Head Office, 7 Highlight House, St Leonards Road, Eastbourne, BN21 3UH and Knights Management Services, 1 Knights Garden, Hailsham, East Sussex BN27 3JR. Telephone (0323) 442747

National Lighting Conference

April 5-8, 1992 - Manchester - CIBSE, Delta House, 222 Balham High Road, London SW12 9BS. Telephone 081-675 5211

Pub Club and Leisure Show

April 7-9, 1992 - London - Angex Ltd, Times House, Station Approach, Ruislip, Middlesex HA4 8NB. Telephone 0895 677677

Expo Musica 92

April 22-26, 1992 - Madrid - IFEMA, Recinto Ferial, Casa de Campo, Avda. de Portugal, s/n., 28011 Madrid, Spain. Telephone (91) 470 10 14

Midi Music Show

April 24-26, 1992 - London - Westminster Exhibitions Ltd, Surrey House, 34 Eden Street, Kingston, Surrey KT1 1ER. Telephone (0726) 68020

Lightfair International

May 6-8, 1992 - New York City - 240 Peachtree Street, NW, Suite 2200, Atlanta, GA 30303, USA. Telephone (404) 220-2215

Seoul International Audio/Musical Instruments Show

May 13-17 - Korea - SIAM 92 Management, Korea Exhibition Center (KOEX), 159 Samsung-dong, Kangnam-gu, Seoul, Korea. Telephone (82) (02) 551-1142, 1126

Pro Light & Sound Expo 92

May 14-16 1992 - Sydney - PO Box 913, Adelaide, South Australia 5001. Telephone (08) 296 4189

Showtec 92

June 2-4, 1992 - Berlin - Overseas Trade Show Agencies Ltd, 11 Manchester Square, London W1M 5AB. Telephone 071-486 1951

APRS 92

June 3-5, 1992 - London - APRS Ltd, 2 Windsor Square, Silver Street, Reading, RG1 2TH. Telephone (0724) 756218

World Lighting Fair Tokyo 92

June 24-26, 1992 - Tokyo - Zenshyokyo, Kombaba Neo-Palace-501, 3- 1-1 Ikejiri Setagaya-Ku, Tokyo 154, Japan. Telephone 03-3706-2001

Pro Sound & Light Asia 92

July 8-10, 1992 - Singapore - Business & Industrial Trade Fairs Ltd, 28/F Harbour Centre, 25 Harbour Road, Wanchai, Hong Kong. Tel (852) 575 6333.

PLASA Light & Sound Show 92

September 6-9, 1992 - Earls Court 2, London - Philbeach Events Ltd, Earls Court Exhibition Centre, Warwick Road, London SW5 9TA

Photokina

September 16-22, 1992 - Cologne-KoelnMesse, Messe-und Ausstellungs-Ges.m.b.H.Koeln,Messeplatz 1, Postfach 21 07 60, D-5000 Koeln 21 (Deutz).

Soundcraft Settlement

Visitors to the PLASA Light & Sound Show this autumn would have been unaware that Soundcraft Electronics Limited, manufacturer of the 200 Delta had complained to Mark IV Audio of similarities in respect of their product, Interface, when this product first made an appearance at the show.

Following high level discussions between the companies, we understand, Mark IV Audio have agreed to withdraw the Interface product from the market world-wide. The parties have now resolved their legal differences and Soundcraft and Mark IV Audio will each continue to offer a range of competitive products. In all other respects, Soundcraft say that they are happy with the outcome of the settlement.

Extra Dimension

Following a year long search for the ideal large cabinet, Dimension Audio have announced the acquisition of a new 16 cabinet Turbosound TMS system. Intended for use on the company's

large orchestral portfolio, the system will also handle main speech reinforcement on the larger AGM events.

The new kit will complement the company's existing range of speaker systems, typical of which is their installation at the Palladium for Joseph and his Amazing Technicolour Dreamcoat.

Optikinetics Challenge

To coincide with the BBC's Children in Need Appeal, Annela Rice challenged all the BBC TV regions to complete a project for the charity by November 22nd. BBC TV Bristol undertook to build a special 'Snoezelen Room', a sensory room for handicapped children, to be used by Radio Lollipop, for their 'Lollipop Centre'.

Luton-based special effects lighting company Optikinetics were contacted by Play Structures, and asked if they could donate a number of projectors and special effects for the project. Neil Rice, Optikinetics's sales director, rose to the challenge immediately, and the company supplied Play Structures with all the lighting equipment they required for installation into the 'Snoezelen Room'.



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Fisher Lighting and Marco Polo

Anyone who has travelled from the south-east into London's Victoria station will be familiar, whether they realise it or not, with the imposing front of the Marco Polo building alongside Chelsea Bridge (above left).

During November it was lit by Fisher Lighting as part of a promotional drive for tenants, and the commuters rushing past had an eyeful of colour to go home with. Another recent project for the company was the launch



of the new Glengall Bridge development (above right) in London's Docklands.

Fisher Lighting was set up in 1985 by Charles Woodward-Fisher and specializes in the provision of lighting and technical services for both corporate and private events. They have provided services for numerous events and venues from the V&A Museum and major West End hotels through to the opening night party for 'Joseph' and the Prince's Trust 15th Anniversary Party. The company is based in south-west London.

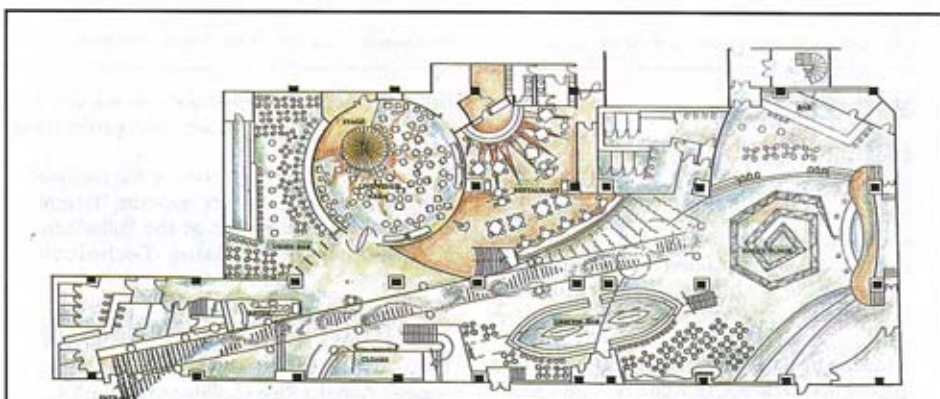
Bit Bopper in Japan

Kaleidovision's Bit Bopper system has made its debut in Japan during top-selling female artist Yumi Matsutoya's recent Dawn Purple tour. The production was coordinated by Propaganda Live and directed by Marc Brickman. The Bit Bopper's graphics were fed to a huge rear-projection videowall sited centre stage, with the silhouette of dancers keyed life-size onto the bottom third of the wall. The graphics, created by Oxford-based Kaleidovision, pounded behind and above the dancers, continually changing shape and colour.

Kaleidovision have been busy in recent weeks with a host of other projects, including the debut of the Bit Bopper on a recent recording of Top of the Pops.

On the Air

John Barnett of Stardream Audio Visual has achieved his aim of setting up a local community station for Blackpool and the Fylde area. To be known as Radiowave, the station is to be funded by a consortium of local businessmen with John Barnett's Stardream providing the main impetus.



Juliana's Istanbul

Juliana's Leisure Group has recently completed work on Juliana's Istanbul which opens this month. The venue is situated within the new Swissotel Bosphorus, located in the Macka district of the city. The complex houses two bar areas - a video bar, and a larger orbital bar; a live venue area; an international restaurant; a discotheque, and a VIP lounge.

Juliana's Istanbul follows the openings of Juliana's Tokyo, and Juliana's Vilamoura earlier this year. The company is now planning further branded multi-purpose special event venues including London (1992), Lisbon (1992), Brussels (1993), Madrid (1993) and Singapore (1993).

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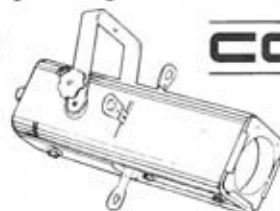
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Snowman on the Loose

The latest and biggest attraction at Granada Studios Tours in Manchester is the 60 feet high snowman, designed by Studio 2000 in Rochdale. P & G Draperies were approached to make up the material that covers the helter skelter situated in the American section of the tour. The drapes were a machinists nightmare, but their manufacture was made easier with the layout of P & G Draperies new and larger premises in Manchester.



Imagination at Broadgate

The massive new Broadgate and Liverpool Street Station development in the heart of the City of London received a visit from The Queen on 5th December, when an ice show in Broadgate Arena, Britain's only open air ice rink, marked the start of the Broadgate Christmas Pageant. Pied Pipers then led the way to Exchange Square for the largest-ever production of 'Twelve Days of Christmas' in front of the Royal Box and 3,000 spectators. Roy Castle presented the Imagination cast of over 650 with The State Trumpeters, The Royal Choral Society, The Band of the Scots Guards, 450 schoolchildren as well as 60 professional actors and dancers bringing the songs to life.

The highlight of the Broadgate Christmas Pageant was the illumination of Exchange House in a special lighting display which included a star 100 feet high and a magnificent firework display.

For Imagination the production team included: John Whittington, event director; George May, stage director/choreographer; Simon Bruxner-Randall, lighting designer; Stephen Brooker, musical director; John del Nero, sound designer, and Kim Baker, costume designer. Lighting equipment was supplied by Theatre Projects and sound by Orbital Acoustics.

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Twenty for Multiform



PLASA Chairman Tony Kingsley (right) with Multiform MD Iain Price-Smith.

Uckfield-based Multiform, long-standing manufacturers of lighting controllers, recently notched up 20 years in the business. To mark the occasion, the company hosted a party for distributors, clients, press and friends at their Sussex base. Highlight of the evening was the appearance of Iain Price-Smith's own band, with further entertainment provided by impromptu performances from guests at the party.

C P Sweden

C P Sweden is a private company recently created to distribute advanced products for the entertainment market. Eric Bohman, sales director of the company, has been dealing with the sales of Clay Paky products for many years. At their Stockholm base, the company have a comprehensive line-up of Miniscans, Golden Scan 2s, Superscans and Polycolors. The demonstration light show has been conceived and programmed by C P Sweden with the help of Carl Dodds and John Lindsell by means of the new Pulsar Masterpiece universal controller. C P Sweden also offers a design service to aid customers in the design of a club or venue and provides full technical and after-sales back-up.

Pressplan Programme

Specialist tour operator, Pressplan Travel, has announced that its 1992 Exhibition and Trade Fair Programme is now available. The programme contains over 200 trade fairs world-wide, in addition to which there is a full list of the major events taking place in 1993.

For further information contact Pressplan in St Albans, telephone (0727) 833291.

Sound News . . .

HHB Communications has just completed several major contracts, having supplied equipment to BBC Radio for their outside broadcast technology. In another BBC sale, the Technical Investigations, Radio department has purchased its first Yamaha YPDR601 CD recorder. A four track package comprising two Fostex D20 timecode DAT recorders and a Fostex synchroniser has been supplied to British Telecom's Research Department for a new project, and at LWT, the company's latest installation of eight SSL standalone FX 384 compressor/limiters into its studios makes them one of the largest FX Series users in the world.

A speaker promotion with their professional retailers this winter is being run by **Bose UK**. Free monitoring speakers will be given with every frontline system sold between 17th November, 1991 and 17th January, 1992. Colin Cartwright, managing director of Bose UK, told L+SI that the promotion is designed to encourage a faster sell-through for retailers by giving them a positive close for their customers.

A JBL sound and communication system at the Barbican Centre in York has been installed by **Northern Light** of Edinburgh and Glasgow. The company has installed a complex paging and background music system which runs throughout the entire centre, but the main feature is the production sound system in the central auditorium. A central cluster features JBL 2360A and 2380A horns, together with two 2385As and two 4648s. In addition a small section is arranged on a lighting bridge towards the rear of the auditorium: two JBL 2380As in combination with a JBL 4648 provide coverage for the balcony, routing the signal via a BSS Digital Delay unit.

Surrey-based **Soundtracs** have announced that the infringement of its trademark 'Tracmix' by Studiomaster plc, who are in receivership, has now been settled. Solicitors acting for the receiver have provided an undertaking to immediately cease use of the Tracmix trademark, and has agreed that Soundtracs are entitled to damages and costs.

Elliott Bros (Audio Systems) have designed and built two pairs of broadcast bays to be used primarily by BBC Radio's OB for the 1992 Olympics in Barcelona. Each bay contains line and distribution amps from Audio

Developments and are equipped with their own jackfields. All the panels have been custom-designed by Elliott Bros and the flight cases have been specially built so that the bays can be easily transported and set up quickly for use at the various Olympic venues.

Cadac continues to enjoy a high profile on the world theatre scene, with the latest shows to open including 'Aspects of Love' in Canada and 'Les Miserables' in Paris. A Cadac E-type audio console is being used on both shows, with sound design for Aspects by Martin Levan and for Les Miserables by Andrew Bruce of Autograph Sound Recording.

Mega Sofia in Bulgaria has been appointed by **Carisbro Electronics** to distribute their range of bass, lead and keyboard combos, loudspeaker enclosures, both powered and non-powered mixing consoles, monitors, power amplifiers and full range PA systems.

A brand new sound system has been installed in the Oasis Club, a major reggae venue in the East End of London., by **Electromusic**. Four full-range Turbosound TMS-4s plus one extra TSE-111 mid high pack are flown around the dance floor, with six floor-mounted JBL pattern 4530s fitted with Precision Devices' loudspeakers providing the low bass. All loudspeakers are powered by Crest amps, with Yamaha graphic equalisers, BSS crossovers and compressor limiters completing the system.

Nexo sound systems are finding their way into a variety of venues world-wide. In Taiwan, a PC Line systems has been supplied to the Sun Yat San Memory Hall, and Radio Television Malaysia in Kuala Lumpur has ordered an SI system for its studios. In Europe, Nexo has supplied a variety of systems to a variety of theatres including the Cultureel Centrum in Leopoldsburg, Theatre Pour Enfants and Theatre de la Comedie, both in Geneva, and Albatros Hall at Petite-Chapelle.

This month, **Yamaha's** new PM4000 Live Sound Mixing Console will make its UK debut at the Nomis Studios in London.

Heywood-based **Wigwam Acoustics** provided PA for Status Quo at NEC Arena for the Birmingham leg of the Rock Till You Drop event. Wigwam crew Don Parks, Charlie Jones, Steve Greenwood and Bill Ellison used 100 boxes of Meyer Sound loudspeaker units, including 16 of the new DS-2 units.

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City's First Dark Ride

Now that ships are rarely seen on the Thames, it is easy to forget that London had been a major commercial port since Roman times and that this was the foundation of the square mile's financial influence. Now a dark ride, London's first, dedicated to the city's maritime history has been opened in the cellars of an old warehouse adjacent to the Tower of London.

The Tower Hill Pageant also houses a permanent heritage exhibit of fascinating artefacts which have resulted from the archaeological work carried out along the city waterfront by researchers working for the Museum of London. In the same tradition as York's Yorvic centre, the project managers Event Communications have visitors descending in a glass lift 'time machine' with changing views and sounds through the glass as they return to the past. On arrival in pre-history they transfer to linear transport for a journey through thousands of years of London's history in just 15 minutes. Ride design was by Tony Lawrence with mechanics by Translift and scenery construction by Kimpton Walker.

Lighting was a crucial element in the illusionary nature of the ride and DHA Lighting's concept for this required a large multi-channel dimming system which was provided by Electrosonic's Sceneset and Digidim equipment. As each car in the ride operates independently, the problems of synchronization with the various scenes was somewhat unusual. To solve this a sensor signals the arrival of a car at each scene and this triggers the appropriate lighting sequence via a Sceneset controller in each location.

Similar problems also existed for sound, both internal to the car and external sound effects. The externals were delivered by digital stores, ESTA also by Electrosonic, so it was a trivial

matter for those to be triggered by the same Scenesets as the lighting. On-board sound commentary was a little more of a problem as the budget wouldn't stretch to five language digital stores in each car, so this was resolved with individual CD players controlled by microprocessor and triggered by track-side infra-red signal. Sound tracks were prepared by SAV Studios.

The special effects for two of the technically trickiest scenes were provided by Howard Eaton Lighting, the fibre optics for the fireworks, which feature in the opening of the original Tower Bridge and the panning searchlight effects for the London blitz scene. 'Tower Hill Pageant, the City and its Port' is a Culverin Consortium project in association with the Museum of London. The role of performance technology in heritage experience sites and modern museums will be the subject of a future major feature in Lighting and Sound International.

Sound 92

Sound 92 will make its fifth appearance at the Heathrow Penta in February of next year. First timers to the exhibition include Autograph Sales, C & G Audio, Carter Voce and IMS. Companies who continue to make regular appearances include Canford Audio, Celestion, Cerebrum, H W International, Harman, LMC, Marquee, Peavey, RCF, Shuttlesound and Toa.

Sound 92's seminar programme, organised by the Institute of Sound and Communications Engineers, is aimed at, not only its members, but also those who are responsible for, or engaged in, specifying, designing, managing and engineering projects that contain audio equipment.

Ken Dibble (Ken Dibble Acoustics) and Mark Burgin (Shuttlesound) will form part of the line-up for the seminar programme.

Five Months of Sh**

In 1984 CCT supplied 300 or so Silhouette luminaires to Wolf Trap Farm, the centre for performing arts just outside Washington DC. In the most part an open-air auditorium and located near a river, the product was chosen for its mainly aluminium construction, and the lighting was rigged in May and stayed on site through until September.



The unlucky lantern pictured above was one that was chosen as a regular roosting spot and the 'five month effect' is quite dramatic. Every year after this quite indecent exposure the lanterns are taken down and given a bath in hot water and detergent with air blown through the liquid. Don Hindle confidently told L+SI: 'After seven years of this treatment all 300 Silhouettes seem to be surviving!'

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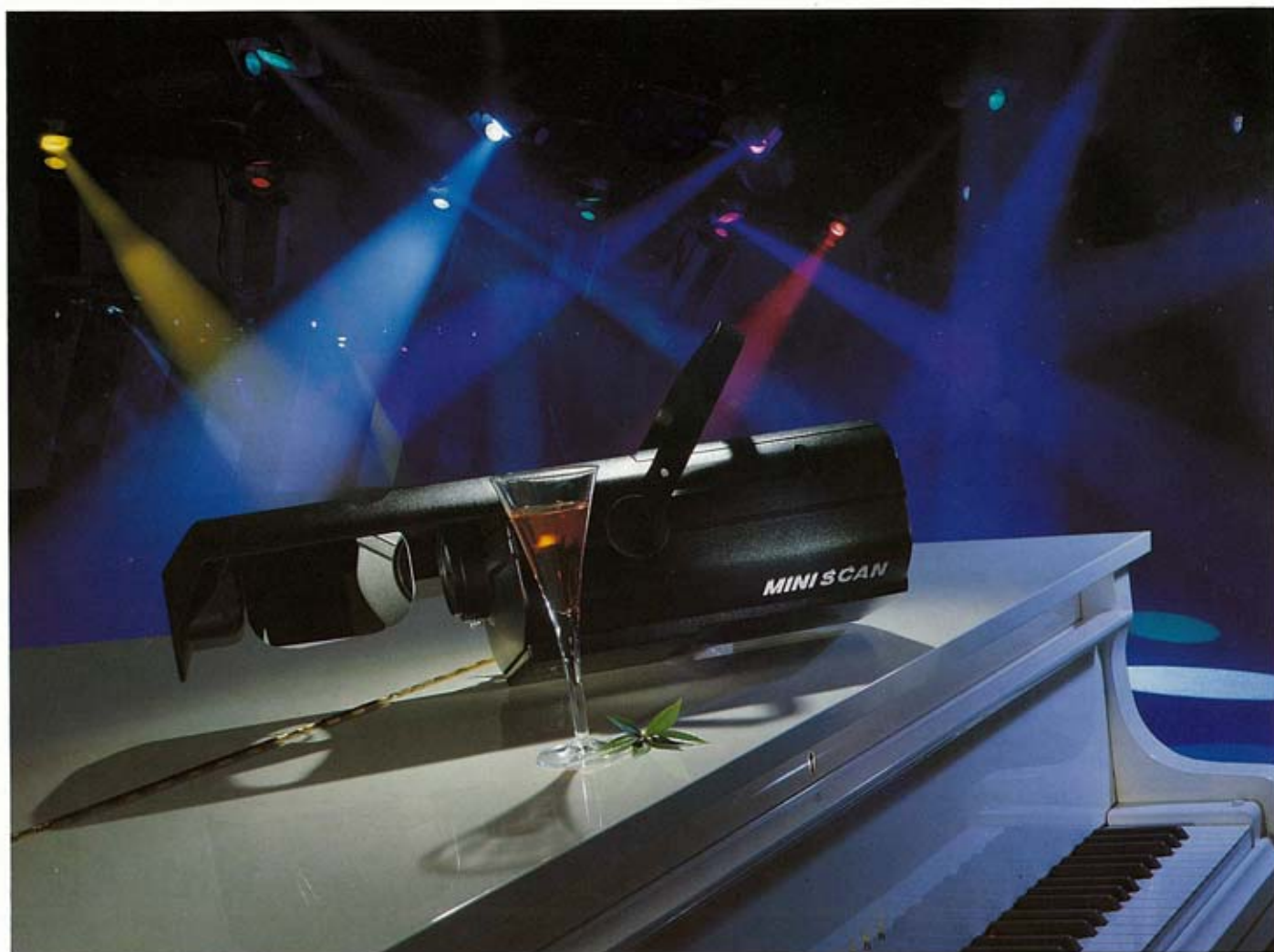
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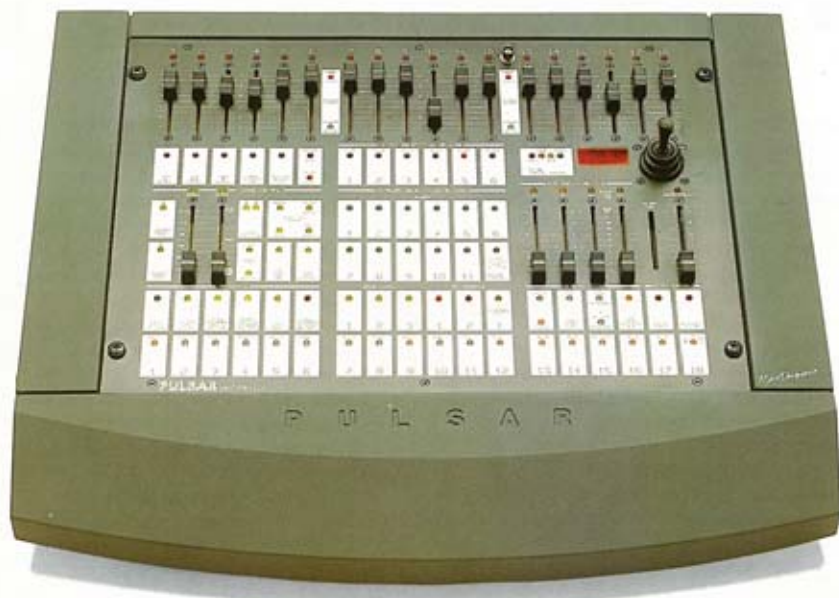
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P h o t o g r a p h e r

Lighting News . . .

In early November, **BOSS Sound and Lighting** of Northampton were appointed the exclusive distributor of Griven products in the UK and Ireland.

The Definitive Laser Company provided a laser display as part of the entertainment at the Air Show Dinner hosted by Sheikh Ahmed bin Saeed Al Maktoum, for participants in the Dubai '91 air show. With a theme of 1001 Arabian Nights, a high powered multi-coloured laser projected sweeping beams into the sky which were visible for over 20km. Within the palace grounds the laser projected a spectacular display both from a 10-channel beam table system and via two fibre optic scanning heads, in conjunction with synchronised laser animation sequences.

Now in its 28th year **Lightshow 92** will be held at London's Earls Court 2 from January 26-29th, where many exhibitors will be unveiling new product ranges for the year ahead. The Lighting Association, the show's organisers, recently received a major boost with the news that The Lighting Industry Federation (LIF) have pledged their full support to the event. For full details contact the organisers in Shropshire on 058-84 658.

Electrocomponents plc has sold its subsidiary, Electro Lighting Group, to G E Thorn Lamps, a wholly-owned subsidiary of General Electric Corporation of the United States.

A full lighting design and supply package has recently been completed by **Entec Sound & Light** for the London club 'Ministry of Sound', billed as the hottest new dance club to open in the UK. Inside, a collection of strobes, light flowers, blow stars, effects projectors and more, packed into large wedge-shaped perspex enclosures, keep the dance energy high. Central roof lighting is primarily ACLs and Raylights on the dancers with Par 64s concentrating on the six 14-speaker stacks.

East Sussex-based **Laser Magic** has just completed an installation for The Venue nightclub in Dundee which is to open in December. The equipment supplied consists of the company's latest desk, the Odyssey 8, which has been supplied with a full colour projection system utilising three sets of scanners, one 6W Coherent Skylight and one 2W krypton Coherent Skylight laser, two gauze screens, two cone spinners and a large number of

diffraction and plain mirrors.

The competition organised by **United Kingdom Distributors** for a free trip to SIB/Rimini next year is reportedly going very well according to the company, with 12 hopefuls having entered. UKD's Ian Potter has also told L+SI that new products from ProgramSystem are selling well, and in particular their Corkscrew effect is generating a lot of interest. The winners of the competition will be able to see first hand this product in manufacture as part of the trip includes a visit to the ProgramSystem manufacturing base.

The electrical engineering division of the Gloucestershire-based R & G Group, **R & G Services**, has been appointed sole UK agent for the Varintens VIP90 range of fluorescent dimming control modules from Starkstrom Electronic of Zurich.

The International Laser Display Association (ILDA) recently held an awards ceremony with categories for career achievement, technical excellence and display artistry. The 132 entries submitted by 14 firms covered special laser effects for a Japanese amusement park, an educational exhibit at the Mexico City Archeological Museum, and a live/laser music performance in Warsaw. The 25 artistic awards were divided into nine categories, with awards going to the following companies: Aura Technologies Inc of Chicago, Image Engineering of Somerville, Laser Images of Van Nuys, Audio-Visual Imagineering of Springfield, Science Faction Corp of New York, Advanced Laser Design of Koln, Laser Fantasy International of Bellevue.

A new brand identity for **Ocli Optical Coatings** has been conceived by design company Graphic Partners. The new look packaging will promote the company's range of Dicro filters, (launched at the PLASA Show) and the first to receive the promotional literature will be the manufacturers of 'smart lighting', and theatre and stage lighting companies, OCLI's primary markets.

People News . . .

Fiona Gane has been appointed marketing coordinator for the Elliott Bros Group. She will provide marketing, PR and administrative support for Elliott Bros, their sales arm Meridien Communications Industries and professional audio

specialists Elliott Bros & Novak Electromusic.

At a recent meeting in Los Angeles of the International Laser Display Association (ILDA), **Ivan Dyer** was elected as the first two-term president in the seven year history of the organisation. Dyer is president of Laser Images inc, a Los Angeles firm that pioneered the first planetarium laser shows in the early 1970s.

Derek West, formerly of Hill Audio, has joined Tannoy as UK sales agent for both the Monitor and Contractors ranges of loudspeakers.

After a gap of three years **Jim Vincent** is back in Blackpool and back with First Leisure. As regional manager north he will be responsible for overseeing the smooth operation of all three of Blackpool's piers plus venues around the country.

Wigwam Acoustics are going into the New Year with a new image and a new sales manager. **Phil Barrett**, who has been with the company 18 months, has taken on the job and aims to make the sales division more service orientated.

A C Lighting, the entertainment industry's wholesaler has announced the appointment of **Glyn O'Donoghue** (pictured below) to their sales team. Glyn's wide ranging experience of lighting and rigging equipment at Lancelyn Lighting and Hall Stage Products will stand him in good stead to promote AC's exclusive European dealerships for Jands, Strong, Vision, Colour Scrollers, Camlok and Tomcat. In his spare time, Glyn is a champion go-kart driver (see October L+SI, page 19).



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OUR MEN IN OMAN

John Offord looks on as an Olympic-style pageant evolves to celebrate Oman's Year of Industry

A fully co-ordinated creative bean-feast of a spectacular for the Sultanate of Oman's National Day celebrations on November 19th came and went without hitch - thanks largely to a consortium of British companies who provided the lighting, lasers, sound, film, video and staging from a mere 342 tons of equipment shipped out from the UK for the occasion.

And it wasn't the easiest of events to organise on an artistic level as I saw for myself when numerous changes took place across the run of rehearsals. The broad scheme of things had been decided beforehand, but there were a great many late organic and politically-motivated alterations in both shape and structure as the Omanis in charge adjusted the format as the production evolved. They probably looked upon all this as fine tuning, but for the technical team (self-styled as the 'Desert Rats') it meant calling on a great deal of knowledge, patience and their 'busking' skills, coupled with a great deal of nifty political footwork to cope with the ever-changing demands. As you would expect, however, it all came beautifully right on the night.

To put you properly in the picture as to the scale of the thing, it took place in a large sports stadium near Muscat, involved 52 UK crew, 160 Omani crew, 3800 performers, 5000 square metres of custom-built stage, a huge 30 metre wide screen, seven lasers, 35mm movie projection, large format slide projection, two large screen video projection systems - and that's before we get to talking about the lighting and sound. The technical costs alone were reported to be of the order of £1m and the audience was 40,000.

Team leaders of this little exercise were Laserpoint Communications of Cambridge who'd pulled off a coup in winning the overall contract for the aforementioned elements of the show, beating off competition from France, Germany and the US in the process.

How had they done it? I asked Sussi Christiansen, the company's marketing director, how the project began and who'd approached who.

"We were approached in the first place regarding lasers and at this time the Omanis also asked us about lighting and staging companies," she explained. "We immediately thought we should offer to provide a full service and asked them for a further meeting where we put this

idea forward. They seemed to like it because it meant they didn't have to deal with many individual companies. The structure we suggested placed our sales director Andy Holmes in position as show manager of the whole event.

"They liked the idea," continued Sussi, "and we then contacted various companies across the industry and put all the elements together within a complete proposal. A team of four people from Oman then came to our offices in Cambridge and one representative from each company described and demonstrated some of the equipment. By this time Andy Holmes had already made one site visit and soon after a further nine members of the group visited Oman."

So far so good. The general concept of the event had been approved, including input from the British companies concerned. However, before matters could go any further, Andy Holmes had to make a further visit to Oman as their hosts had decided to change stadiums! It was only by August this year that full planning could go ahead.

Production manager chosen by Laserpoint was Martin Crick of Outback Productions, and he had the long and exceedingly hot job of supervising the initial preparations in the stadium before the rest of the technical team started to arrive. He began his stint on October 14th, clearing goods through customs, taking care of other formalities and learning a bit about Omani culture before his own team followed on the 18th to begin work on building the huge scaffolding structure that would support the screen, the massive spread of staging podiums and the various lighting and laser towers.

I talked to Martin during a break in rehearsals. "It's been a difficult job, but not by design. Every time a schedule is changed by the client, whatever we do to make up time we've never managed it. It's been a situation of shifting goalposts. On the artistic side there have been three or four people involved on different levels, for construction, graphics and so on. Above them is the Secretary of State for Industry and Commerce who has overall responsibility for the show. It's been rather frantic as things have developed.

"However, they are all beginning to relax now with just two days to go, and that's a good sign. It's been a matter of getting them used to our

tight schedules. We have had to work 'close up' for the obvious reason that we've got a lot of equipment here that's very expensive to rent, and it has meant we have needed to get an uncharacteristically fast response time from the clients. They have proved quite capable of doing this, but it's a new experience for them. I've learned a lot about Omani culture and all-in-all it's been a rewarding experience.

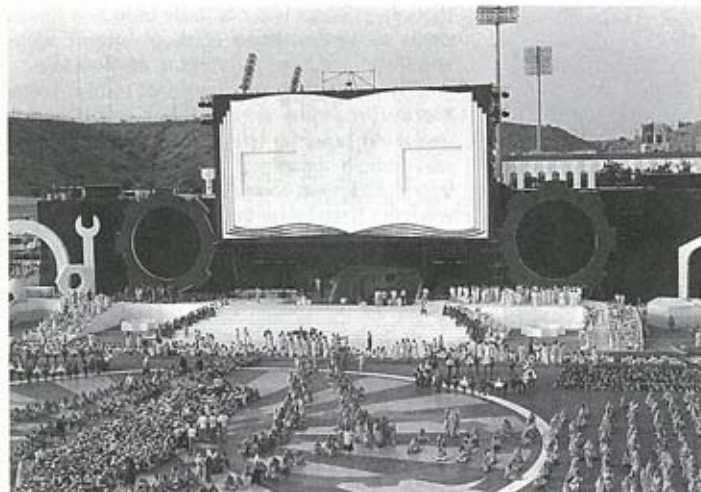
"At one point I was worried as to how the equipment would stand up to the heat - we recorded 135 degrees one day on the stage - and the varying humidity. However, in the past two weeks the temperature has dropped considerably, especially at night, and we haven't had any major problems."

Laserpoint's Andy Holmes expanded on the problems of dealing with the demands of a totally different culture. "It has been one of our biggest problems in that the way here is to be very expressive at first and then to back off afterwards. The result has been that sometimes things we believe have caused great problems for the client in fact haven't. It was just the way they decided to express dissatisfaction with a minor point. At other times they are just too polite to come out with things they would like to discuss with us.

"However, generally their acceptance of input is very high, but we have had to make sure that everyone involved has agreed and approved something before you can assume you can put it down as a cue. The problem is that you end up with so many compromises that what is eventually provided for the client may not be what anybody originally envisaged."

A major difficulty for all the UK team was that the text and music for the production were totally unknown. They could deduce a fair amount through common sense and translated description, but all the nuances and feelings and in some cases the actual story-line were from a different world.

"We had no script," said Andy Holmes, "and we have no running order as such. We've been told that they exist in Arabic but during the translation period of 24 hours so much of the production changes they told us it wasn't really worth the trouble. In fact, it has all changed so much from when we started that a script wouldn't have been good anyway. The music itself is with structure but without easily understandable phrases and sections we would



A rehearsal in progress: the giant screen has two moving 'doors' for live video back projection.



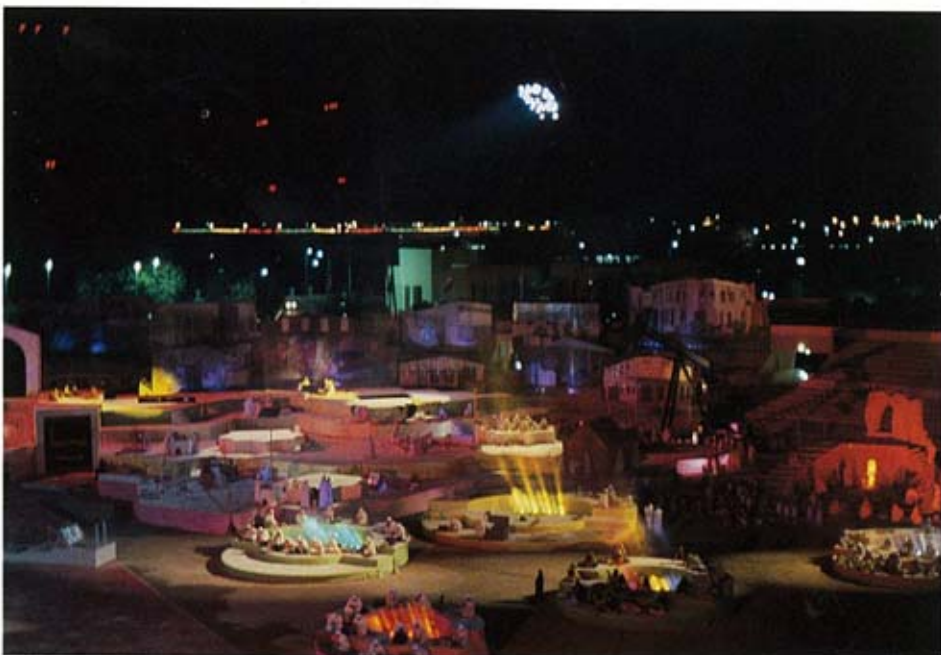
Looking towards the Royal Box with projection point above (F on site plan) and two front of house towers (E and G on plan).



On screen: The Year of Industry logo.



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be able to take on board."

Each technical aspect of the show was documented on an ever-changing master cue-sheet, freshly produced from the on-site production office after each change of running order.

"Each main show cue has within it a number of sub-cues," explained Holmes. "Basically I describe these cues and Chris Hey who is looking after the sound gives us a five second count-down. In some cases this is extended, for instance when the giant screen doors open, as it takes 23 seconds for these to operate and we have to advance that cue up the list by the appropriate amount of time. We have over 100 main cues in the show which have within them various elements of the production. For example, there are 60 laser cues, about 45 giant image or slide projection cues, six film cues, and about a dozen audio cues. Obviously Andy Doig on the lighting has many many more."

Martin Crick cut back into the discussion. "We knew from quite an early stage that we would have to oversee the show in terms of technical control but we have been very sensitive about how we did it. It's been a very slow process and we've had to accommodate input from the client along the way, and make sure they could see that their ideas were being responded to. With two days to go it is absolutely essential we get our own communications as tight as possible."

Andy Holmes again: "Another basic difficulty is that the client wants a laser show but then lighting is important because with so many performers, mostly children and young people, both they and the audience also need to see what's going on. It's been a balancing act to get the correct relationship between these two areas. By the time we get to the show itself we should have about eighty per cent agreement on it!"

Moving to the specific technical aspects of the production, and taking a rare opportunity amongst the frenetic activity to keep Andy Holmes talking, I began by asking about the huge laser set-up in the stadium. A total of seven systems were installed for the event.

"On the Royal Box side, facing the main stage, we have two five watt Skylight lasers from Coherent and in the centre over the Royal Box itself, a Purelight krypton argon mixed gas laser. These project across the stadium onto the screens and the surfaces of the bleachers and parts of the set. Some of these are also used as sky effects. On the opposite side at extreme left and right we have 30W Skylight lasers and in the middle two Purelights rear-projecting onto the screens to create much of the graphic input required in the show."

Cooling was a problem. The client had stated that mains water was not to be used and run to drain so re-circulated cooling systems were employed and sited adjacent to each system.

The lighting equipment came from Meteorlites and crew boss Geoff Benson explained how the scheme had developed. "It was initially proposed that we use the four floodlight towers as primary positions, but they wouldn't have taken the weight," he explained. "So we used cranes to give us those four positions as we had to get a good height to get a decent angle. We spotted early on that the height of the screen would provide a good position for back lighting. We then had to get involved with two other areas - what we call the 'pimples' or podiums. We decided to light them with Cadenzas from the crane pods and use ACL's within them to pick them out and back light them. In addition we had no end of floor lights."

"The other area we had to get involved with was scenic, the flats and inflatables. For this we

used Molefays and 5ks. And, of course, you don't go anywhere like this without a healthy dose of Supertroupers! As well as having to liaise with the client about what they wanted lit, Andy Doigh had 12 Omani followspot operators to train up from scratch. They're all doing exceedingly well and Andy has actually put numbers on them all that marry up with their particular piece of equipment! (Witnessing Andy calling up the followspots on a practice routine was an entertainment in itself, although he probably didn't think so at the time).

Deeper into detail, the crane-hoisted pods were devised as an eight-pointed star with 16 bars of six Pars and five Cadenzas per pod. Below the screen were more Pars with colour change units. On the two main towers were 12 Pars on frames and an additional four 2.5kW HMIs on each side, complete with colour changers and dimmer shutters.

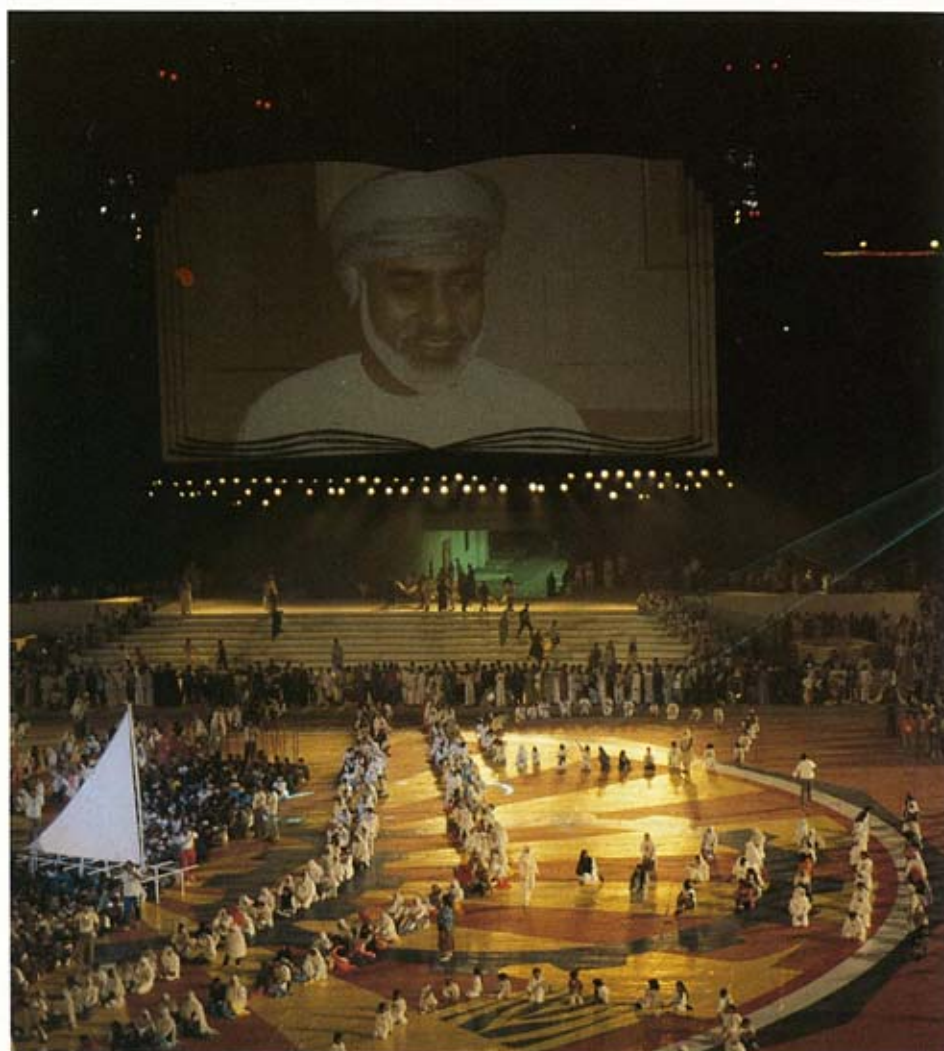
"The HMIs came in because one of the biggest



Scenery elements and one of four crane-hoisted lighting pods.



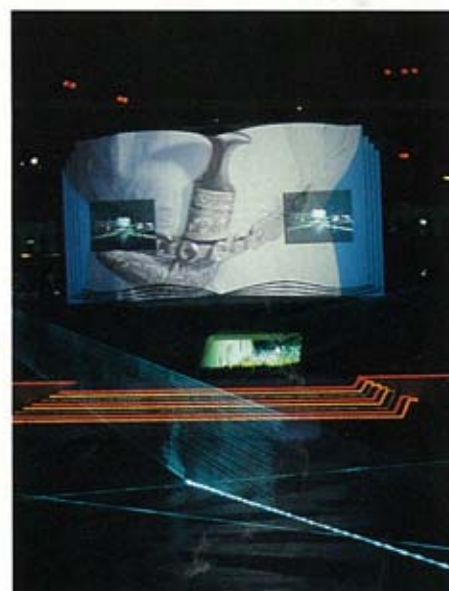
Rear view of one of the two back projection video segments in main screen.



Finale: the Sultan looks on.

Cue	Action	Laser	Clnd	Slide	F 5nd	D 5nd	Video	Scene
34	Screen Cloze open (8)		3		F2		13	OP
35	Full Dance Tape (3)							
36	Creative video-clip (4)			6				
	- Xfade audio - dance (3)	1.6					1.4	
	- Video clip (14), Laser (18)	1.6					1.6	
37	Laser (18), Video (15)							
38	Laser (20), Slide (7), Video (14)	2.2		7			1.6	
39	Laser (21), Slide (8), Video (17)	2.1		8			1.7	
40	Laser (22), Slide (9), Video (18)	2.2		9			1.8	
41	Laser (23), Video (19)	2.2					1.9	
42	Laser (24), Slide (10), Video (20)	2.4		10			2.0	
43	Laser (25), Video (21)	2.5					2.1	
44	Screen Cloze Close (7)							CL
45	Full clnd & T/C DAT (4)							
46	Creative video-clip (4)		2		F3			
	- Xfade audio - T/C DAT (3)							
	- Video tape - Stack (2)							
	- Laser (26)	2.6						
47	Screen Cloze open (8)							OP
48	Full Dance Tape (4)							
49	Creative video-clip (11)			11				
	- Xfade audio - dance (5)							
	- Video clip (27), Laser (27)	2.7					2.2	
50	Laser (28), Slide (12), Video (24)	2.8		12			2.4	
51	Laser (29), Slide (13), Video (25)	2.9		13			2.5	
52	Screen Cloze close (8)							CL
53	Full clnd & T/C DAT (4)							
54	Creative video-clip (4)		4		F4			
	- Xfade audio - T/C DAT (4)							
	- Video tape - Stack (28)							
	- Laser (30)	3.0					2.6	
55	Screen Cloze open (10)							OP
56	Full Dance Tape (5)							
57	Creative video-clip (14)			14				
	- Xfade audio - dance (5)							
	- Video clip (27), Laser (31)	3.1					2.7	
58	Laser (32), Video (28)	3.2					2.8	
59	Laser (33), Video (29)	3.3					2.9	
60	Laser (34), Video (30)	3.4					3.0	

The show in action: cues 34-60.



Stage edge lighting and lasers set the scene.

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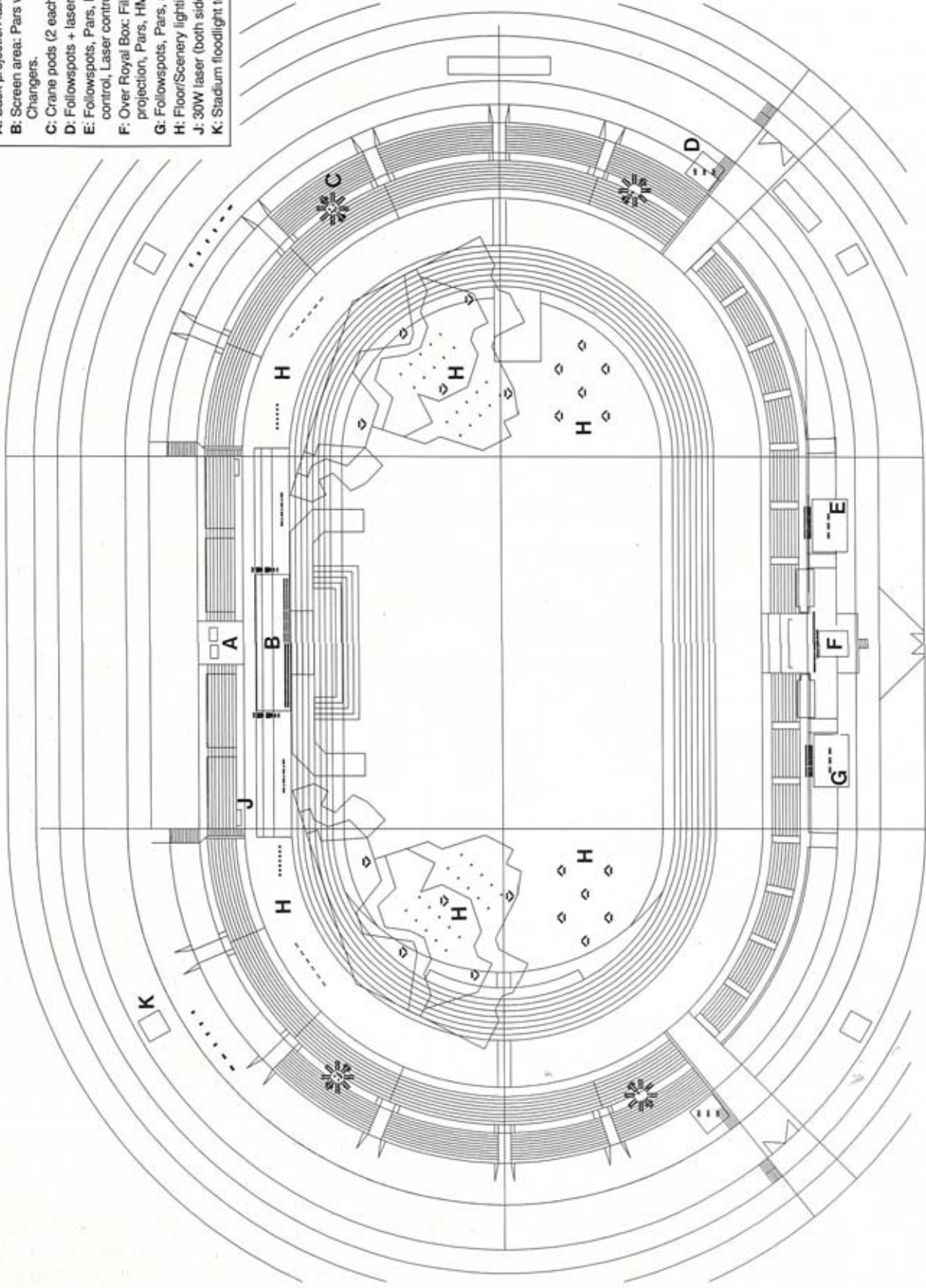
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- A: Back projection laser and video
- B: Screen area: Pars with Colour Changers.
- C: Crane pods (2 each side)
- D: Followspots + laser (both sides)
- E: Followspots, Pars, Lighting control, Laser control
- F: Over Royal Box: Film/slide projection, Pars, HMIs, laser
- G: Followspots, Pars, sound control
- H: Floor/Scenery lighting
- J: 30W laser (both sides)
- K: Stadium floodlight towers (x 4)



DESIGNED BY A. DOIG	CONTACT P. JOHNSON	CONTRACTOR G. BENSON	DATE 30.10.91	SCALE 1:100	METEORLITES METEORLITES PRODUCTIONS LIMITED A Division of Management Telephone 081-222-8111 Fax 081-227-2605 Email: DCS 1018 NAB@1 POB 205 1018 NAB@1
TITLE OMAN					

AL WATTAYAH STADIUM, MUSCAT

features of the show for the Omanis was what they call UV," said Geoff Benson. "They'd involved scenery, costumes, podium sides and so on - in actual fact it was fluorescent and not UV sensitive. Basically what we've done is use a combination of UV and other sources with Lee 181. It's an old trick to pick up the fluorescents."

The continually changing demands were keeping the lighting team on edge. "We've never had a situation where we've known what the end point would be, either from the practical side of deploying the lights or the finalised design," continued Benson. "It's been a case of every element fitting in on an organically growing production, from only knowing half the story at the beginning, and right up to the end of the final rehearsal we're never going to know when we've finished."

Had it been fun? I asked somewhat tentatively. "Creatively it's been both interesting and frustrating, but I wouldn't say it's been fun. On the other hand I think all the crew would rather have worked on the event than not!"

Prior to the final rehearsal I managed to corner Chris Hey of Britannia Row Productions and glean the story on sound. "In many ways the stadium lends itself quite well from the sound point of view because it's got a high building on one side from which we hung the PA," he said.

"It's a reasonably straightforward system: we are only dealing with replay from film and some dance music with a few feeds going elsewhere out to TV and radio. Obviously it's very important to make sure it all works on the night, so there's a lot of back-up and redundancy within the system which can be called upon should the need arise.

"The system itself involves 36 pairs of Turbosound Flashlight, half of it flown off the edge of the building and the rest stacked on the roof. We had envisaged supplying more of it than we did, but because the nature of the set changed, the best thing to do proved to be to split it between the flown system and stack system, and it's a bit strange in that sense whereby the stack is actually higher than the flown system.

"An interesting aspect is that the film being projected from quite near where we are on the Royal Box side of the stadium is somewhere between one half and two-thirds of a second away, sound wise. The film is therefore miss-sync'd in the conventional film sense so that the sound arrives at the Royal Box side of the arena at the point when the picture appears on the screen. This has required some playing around to line up. There are also two Turbosound studio monitors hung from the lip above the Royal Box to act as a 'lift' for the Flashlight system if we need it.

"The problems with this sort of show are not

'normal' - they are logistical and not technical in the conventional sense. It's basically more important to know about air freight, politics, motors and how to communicate with hundreds of Indian helpers and to get yourself as quickly and efficiently as you can to the point of being able to do what you're here to do. You need to know how to drive and operate a fork lift, operate a crane and a million and one other things."

I was interested to know more about the Flashlight system and why it had been chosen for this event, and there proved to be some distinct advantages connected with its employment, particularly as the traditional monitor system, desk, and associated hardware were not required.

"It has some very interesting and important aspects to it which make it absolutely ideal for this sort of show," continued Chris Hey. "It means at least a 50 per cent reduction in a client's freight bill. You can get more sound from this system per cubic metre of air freight than any other in the world that I'm aware of. The system here weighs approximately 12-13 tons and covers the stadium admirably. It's absolutely ideal - a conventional system would have required about 30 tons of equipment.

"Also, because of the Flashlight system's level of high directionality, one of the reasons it is so suitable here, and I think most people would agree, is that the sound quality at 130 metres away from the speakers is almost that of a studio. It's extremely high. Again, I'm not aware of any other system which is designed to cover that far out to that level of quality.

"In terms of actually running the show it's been different from what you might describe as our mainstream activity. This is a tightly cued show that runs for over two hours and everyone involved has to be familiar with more theatre-orientated techniques."

I moved across the lunch-break table to talk to Eric Bastin of PDS who was looking after all the projection work: film, video and slide. The original proposals were changed along the route and the final format ended up with central film projection backed up by two slide projectors.

"We suggested the use of the type of projector used for drive-in movies to cope with the 30 metre wide screen and 300 feet projection distance," he explained, "however, a drive-in movie screen and its site is usually carefully chosen so that there's no light around and we're having problems in this stadium with quite a lot of extraneous light - for security and public safety reasons if nothing else. Generally speaking, however, I'm quite happy with the results.

"We're using a modified FT20 Kinoton projector of the sort that you would see in any cinema, but it has a 7k xenon lamp which is

being slightly under-run. It has a specially adapted drive system so that it will actually drive as a slave unit an EBU or SMPTE time code - what we call a standard longitudinal time code. And that's been quite successful because it means we can use very high quality audio transmission systems like DAT and good quality tape systems to actually provide the sound track and the control information that the projector needs. I can say that the sound that's coming from Chris Hey's audio system is measurably superior to anything that could actually be carried on the film soundtrack. It's a superb method.

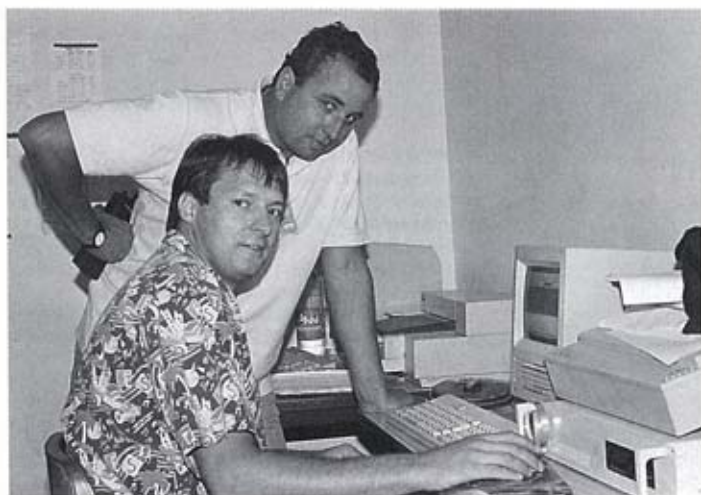
"Much of this has been pioneered from work on the production of 'The Wall' in Berlin where we used the same techniques and where everything had to be locked up to time code because there were so many different things happening. If a bit smaller, it's a very similar situation here. We've got lots of co-ordinated lighting, laser, slide, movie, effects projection systems all having to happen much faster than you can call cues, so it has to be locked in somehow.

"The video projection, again, is a bit of a compromise because the design of the screen system wasn't finalised until the last minute and we needed to be able to bring in close-ups of what was happening on the stadium floor into prominence. The projectors we're using are two 5005 Talaria high brightness units to a seven metre wide screen. It's very successful. The cameras Omani TV are using are excellent and they're giving us a very high quality picture - the only slight criticism I have is that the camera direction isn't giving us many close-ups."

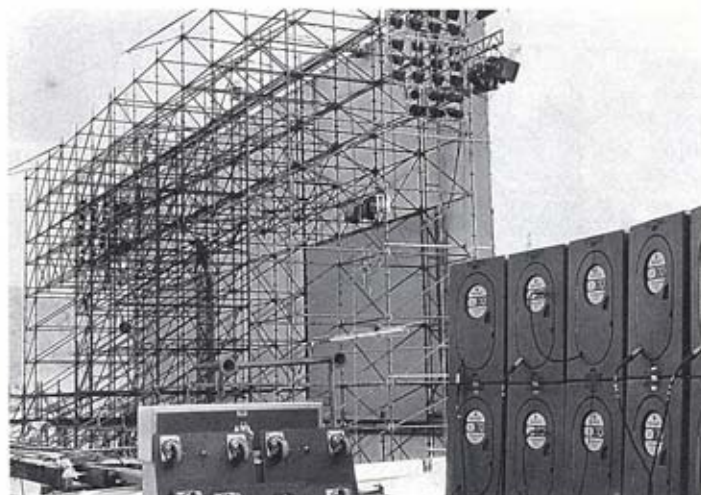
For the big screen slide projection, two Hardware Xenons were employed, each with 5k lamps. "The real problem with large projection here is for TV projection and film projection to compete with it. You would need colossal lamp systems and exceptionally fine optical systems to get the lumens level on a large screen. However, as the material is graded for it and as long as we can keep the cross-fades of film to slide projection at a level at which we don't suddenly see a very dramatic change in brightness it works."

One development that would have helped Eric would have been an automatic slide changer. Hardware Xenon showed their new system at the recent PLASA Light & Sound Show in London in September, and it would have found a sure customer here. "It would have been a good way of integrating the slide projection to the complete remote control picture," concluded Eric.

Our men in Oman did a job to be proud of. "It has been very good to be here, in terms of morale, and to have all the other companies



Computers in the desert: Andy Doig (seated) with Martin Crick.



Back view: the structural screen support and part of the Flashlight system.



Scaffold artistry from Outback.



The Turbosound Flashlight system.



Sussi Christiansen, Andy Holmes, Ian Twell, John Fredericks and Martin Crick.



Chris Hey's sound control position.



'Desert Rats' set for the big show.



Evening in Oman and desert backdrop.

here," said Meteorlites' Geoff Benson. "You get a sense of cohesiveness out of that. We're all 'related' to each other, so we talk, and because we share the same language we can deal with the problems together. There is a great deal of fluidity across the industry with networking now building up."

Outside the industry sectors usually covered within L+SI's pages I mustn't leave out another major contractor who built and shipped out from the UK all the inflatables that formed part of the set. Mercia Manufacturing of Henley-in-Arden also made the massive PVC patterned 'mat' that covered the stadium floor. They shipped out over four tons of material and welded it all together in the car park adjacent to the stadium. It then had to be folded and lifted into the stadium by crane. Air Structures can surely claim a right to a Guinness Book of Records entry for their effort.

And you have to comment on the extraordinary life-style of the crew, the hours they keep, feats of endurance, and heights scaled. Laserpoint's Jean-Michel den Hartog walking along the top edge of a 160 feet high floodlight tower to adjust a laser-reflecting mirror had me holding my nerves together - and I was standing on the ground.

Then there was the moment at five o'clock in the morning with the stadium all but deserted when someone spotted smoke coming from an area backstage. It was from the dimmers location! "Investigate quick!" was the call. "It's moving!" It turned out to be the mosquito truck doing its rounds. Excellent smoke though.

For Laserpoint this exercise in event technical presentation and co-ordination has whetted their appetite for more.

Sussi Christiansen again: "Out of this concept we've already been contracted to organise a show in Europe next year to the same scale. We've been in contact with the same companies involved here and design work is now in progress."

To be able to make the right style of presentation to potential clients the company opens a new London office and showroom this month. "We will have a small exhibition-style presentation so that customers can walk round and see all the different hardware and we will also be able to bring in different equipment for demonstration," explained Sussi, "particularly for smaller and more compact projects." Sharing the office with them will be DJS of Belgium who have just invested in projection and videowall systems for rental and are looking to promote their videowall system, based on the new Pioneer cubes, in the UK.

But back to Muscat, Oman. In any language a smile means much the same thing. The team from the Ministry were happy and probably more than a little relieved at the end of their show. His Majesty Sultan Qaboos bin Said had smiled on their efforts and that very quickly translated itself through to the 50-strong UK contingent. Another satisfied client, and a sales cue for future effort.

PRODUCTION CREDITS:

Outback Productions: Martin Crick, Simon Lowrey, David Morrell, Warren Jones, Daniel Kearle

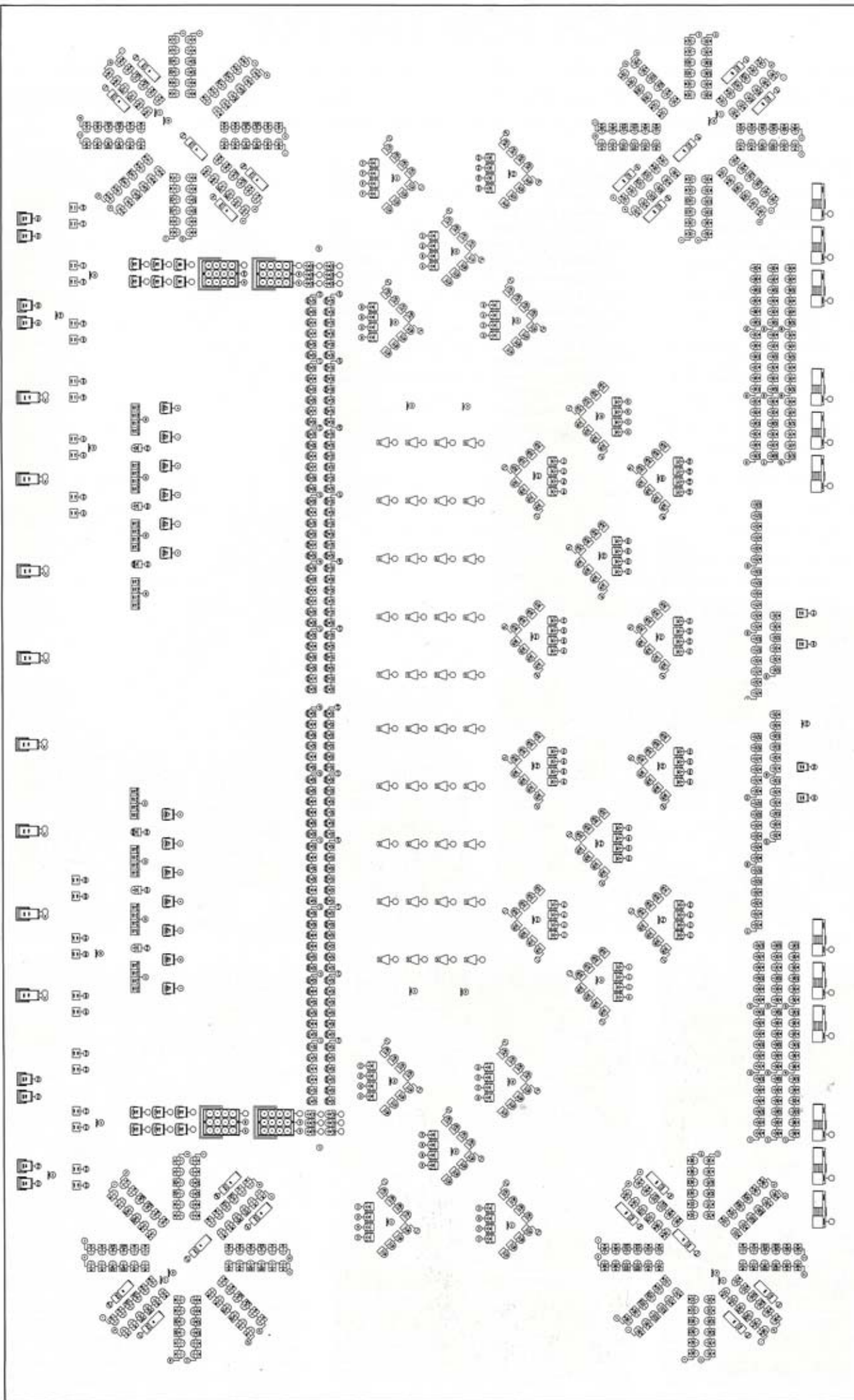
Laserpoint Communications: Andy Holmes, Jean-Michel den Hartog, Johan Hamelinck, Ian Twell, David Speed, Robert Wick, Grant Hawley, Geoffrey Cross, Mike Shearer, Ludivino Cervitello

Meteorlites Productions: Geoff Benson, Andrew Doig, Paul Devine, Michael Gardner, Max Conwell, Ollie Saunders, Tony Simpson, Nigel Holborough, Alan Parker, Tariq Kanh, Joe Sherno, Gareth Crockford, Paul Wilcox

Britannia Row Productions: Chris Hey, Huw Richards, Richard Webber

Projection and Display Services: Eric Bastin, Kenny Sutherland, Steve Thompson, Mark Holdway

Technical Earth: John Fredericks



DESIGNED BY: A. DOJIC	DRAWN BY: P. JOHNSON	CONTACT: G. BENSON	DRAWING NO. SCH. REV. 1	DATE: 30.10.91	SCALE: NONE
OMAN (SCHEMATIC)					
<p style="text-align: center;">METEORLITES METEORITES PRODUCTIONS LIMITED 4, Avenue Road, Singapore 099 091 Telephone: (65) 274-2111 Fax: (65) 271-2125 Telex: 330001 METEORIT S © METEORITES PRODUCTIONS LTD 1991</p>					

REACH FOR THE SKY

This year's LDI Show swung westwards to the frontier gambling town of Reno. Tony Gottelier and John Offord were on hand to record the highlights for posterity. Additional research by Paul Dodd and Peter Willson

"If you look in any American male's closet, chances are you'll find a pair of cowboy boots. He may never wear them but they're there for sure," was how the appeal of Reno was explained to me. For this is the heart of the Wild West, where frustrated urban cowboys can come and live out their fantasy roles as poker playing extras in the stereotypical saloon scene from the movies, whilst their female folk are parked glaze-eyed and pumping cash into gluttonous slot machines.

Reno is a city of brash enticements, especially if you are a gambler or a potential divorcee. It is also a place where opposites reside cheek by jowl. The non-smoking airport offers a concourse lined with slots to entice you to part with your money within seconds of leaving the plane, the Sweetheart wedding Chapel sits slap bang next door to Quickie Divorces and childrens' parties are held in the same premises as a gambling establishment, despite the fact that it is illegal for kids to be near a slot machine or accompany an adult while gambling.

Reno, unlike Vegas, is no more a forest of neon signs than other American cities although the giant colour-changing fibre optic sign on the

top of the Peppermill Hotel was certainly something of an eye opener. My favourite however was the motel billboard offering 'Two Queens to Every Room'.

While the Peppermill and the Bally were the epicentres of this year's fringe they vied with each other in the vulgarity stakes. Two floors of the Peppermill were devoted to the noble art of painless money extraction, all laid out in a labyrinthine attempt to catch you unawares en route to your room or for a cup of coffee. Indeed, some of the normal amenities such as the lounge bar and the coffee room were so hard to find that one enterprising delegate offered me an initiative award if I could find the 'Fireside lounge' unaided, starting from the lobby, within 15 minutes. Needless to say I failed dismally, though enjoying several silent waltzes with flashing robotic bandits en route.

We were quick to realise that this was a casino which just happened to be a hotel on the side. What the Peppermill lacked in style, the Bally made up for in Babylonian grandeur.

Acre upon acre of wall-to-wall slots, the vast football pitch-sized stage at the Ziegfield Theatre, the site for Lighting Dimensions

anniversary party (with its Dakota parked backstage for the grand entrance) and the rococo plasterwork of its guest room corridors. However, what really captured the imagination were the double bedrooms with crushed velour circular (water?) beds and mirrored ceilings, thus ensuring everyone always looked their best in the morning.

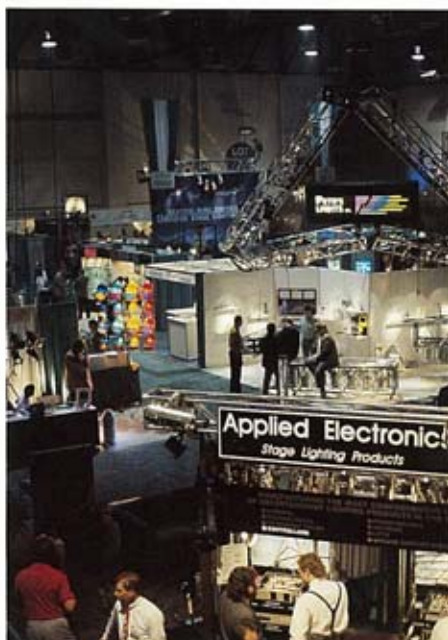
Once again this was a very well run Show at the Reno/Sparks Convention Center and congratulations are due to Pat MacKay and her LDI team for their fine effort. As usual the seminars were a major feature of the Show. To say these went with a bang would be an understatement, for this year the subjects included a Pyrotechnical seminar held in the car park, for obvious reasons when you consider that the demo included blowing up a small set and a motor car. The crater left in the tarmac after the latter's demise, and the projectile which narrowly missed the audience, being proof positive that these guys weren't fooling around. As Phil Vaughan, ex pat moderator of this panel and producer of the special effects for the Indiana Jones Stunt Theatre at Disney/MGM, told me: "All the pyro-panelists have got that



Altman: first-ever exhibit, and an award winner.



Outdoor seminar: stand by for blast-off.



A typical view across the 'quiet' hall.



Wybron, with a Scroller in the 'O'.



Total Sales Inc = Total Fabrications UK.



Magnus Anuell of Camelont with their Light Curtain.



The Space Cannon colour line-up.



Jands of Australia's control system display.



Laser Media's centrepiece.

crazed look in their eyes which tells me that they really mean it. It scares the living s*** out of me."

Another sure-fire hit was the scroller shoot-out, refereed by Production Arts' Steve Terry. Although no clear winner officially emerged (though a clear loser did), and there were omissions such as LSD's Colour Mag and others, we all had the opportunity to form our own ideas on who should have won.

A variety of other less spectacular panels, on lighting board design and on show control, on lighting upgrades, lighting design and sound zoning for discotheques, on various aspects of TV and film lighting, on theatre and show lighting and sound as well as some seminars with a commercial geo-marketing flavour filled the

three days with little time to visit the much enlarged number of exhibits. Indeed, there was so little time for interaction between the exhibitors themselves, a very important aspect of such shows, that even the weary exponents themselves were promulgating the thought of a fourth day in future with one no-seminar day.

As far as the exhibits themselves are concerned, pride of place must go to Altman Stage Lighting and not just because their name begins with A but because this was the first time that this grand old American firm of luminaire manufacturers had ever exhibited anywhere in their history. And for their pains they collected an award for their stand design, first time out! Represented by AC Lighting in the UK, Altman,

who are traditionally famous for their range of ellipsoidals and followspots, introduced a new line of well-designed studio lanterns, nine in all offering both spot and flood configurations, each in two versions based on two different lamp technologies. Three are based on a single-ended metal halide lamp in 575, 1200 and 2500 Watt models and the Quartz Studio and Location series each provide 1000, 2000, and 3000 Watt units. Such products will form the basis of a policy of radical new product innovation in future according to Randall Altman, the founder's grandson, in an interview to be run in L+SI next month.

Among other new items, such as a medium pre-focus lamp socket, the Altstar captured the



Studio lighting, ballasts and grip equipment from Arriflex Corp.



The Rosco stand with a panoply of their Scrollers.



Kupo followspots beam out through the noisy hall haze.



The DeSisti range from Italy.



Front of house for High End Systems.



A circular halo over Thomas Inc.



A close-up of the new Aurora automated luminaire system from Stratford Staging Tech Ltd of Ontario, Canada which is designed to automate the functions of a Leko spotlight.

most attention. Billed as a potential competitor for Vari*Lite, and five years in the development though not yet in production, Altstar will, at least initially, only be available on the rental market in combination with dedicated control desk and approved operator. Based on a 575W (5600K) metal halide lamp it uses an unusual mirror configuration to give a theoretical 360 degrees of both pan and tilt rotation. The dedicated control system, with bi-directional transmission (not SMX), in combination with on-board processing, yields resolutions of .007 and .03 degrees respectively. Facilities include full

remote focus, 2 to 30 degrees variable beam angle, 500 colours accessible within 0.1 seconds and 8 upon 8 superimposable, rotatable 'E-size' gobos.

In the same sphere of activity, Cameleon's new Telescan is as serious an instrument as ever but with many structural improvements over the Marks I and II. The third generation, coming some 12 years after the original which was conceived as a remote followspot, putting it among the very first articulate lanterns, is more compact than the flying coffins of yesteryear. It houses a 1200W HMI lamp, full-range iris, trichromatic colour mixer, black-out shutter, full-range dimmer, gobo changer with positionable gobos and a diffraction system. Long a favourite with theatrical LDs, Cameleon have attempted to both ruggedize and make the Mark III unit more maintainable in an on-the-road context. This has been achieved by going modular throughout, with even the mechanics treated like plug-in cards. The assemblies are mounted on flat plates running on guides and connections are made and broken by direct coupling with no loose or flying leads. While examining it, designer Peter Willson commented: "The beam is free of chromatic or spherical aberration and the mirror is driven by precision servos feeding back through 10k conductive plastic track pots. The movement is wonderfully liquid and has a sexy quality that cannot be approached by a stepper system however ramping, slewing and micro-stepping is applied."

Another contender for the high-end of the automated lighting stakes is the Syncrolite Mini-Arc IIS and IISA, little-known in the UK, although the original unit II has been around since 1988.

Latest models use the Osram HTI 400 and 600/SE lamp respectively for which a vastly improved light output is claimed via the use of

a custom-designed dichroic reflector. (Measurements taken at the Show, by a lighting professional from Honolulu which, may be indicative, although they cannot be relied upon as totally scientific, gave the IISA 395 foot candles at 20' and the IIS 300 on full-open focus. No other immediate competitor came close.) What particularly interested me was the Syncrolite Series II control, based on a PC AT386 compatible which includes an algorithm for combined real-time tracking, programmable from a mouse, and which can subsequently be edited to any new zero start point. Based on easy pull-down menus, control is provided for channel select, pan, tilt, colour, gobo, beam size, dimming, speed, chase access and lamp start and up to 100 units, or combinations with Syncrolite's own gel scroller called Color Cobra, are possible. An interface card is provided to allow cueing from a Celco desk.

Another PC-controlled unit with no UK distribution as yet and a very smart looking newcomer, which from its sleek appearance has clearly had some serious industrial design input, is the Aurora from Canadian company Stratford Staging. Designed to be an automated Leko, the Aurora is a driven yoke providing 360 x 270 degrees of pan and tilt at 0.5 degree resolution, or in reduced excursion of 180 x 180 to an accuracy of 0.25 degrees presumably via DMX512. Other facilities are 200 colour choices, 8 'D-size' rotatable gobos, on-board dimmer, remote zoom and focus.

Also using a 1000W FEL incandescent light source, Pan Command launched FaderBeam, a new soft-edged automated luminaire with the ability to bump, or fade, colour plus pan, tilt, variable beam width from Raylight to wide Par 64 flood, variable speed and on-board dimmer. The LDS MP-500 PC-based control system also impressed with its rack mounted CPUs and keyboards. Designed to provide control for over

**"Selecon?
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an implant."**

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I've never used them.
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**"They're
from
where?"**

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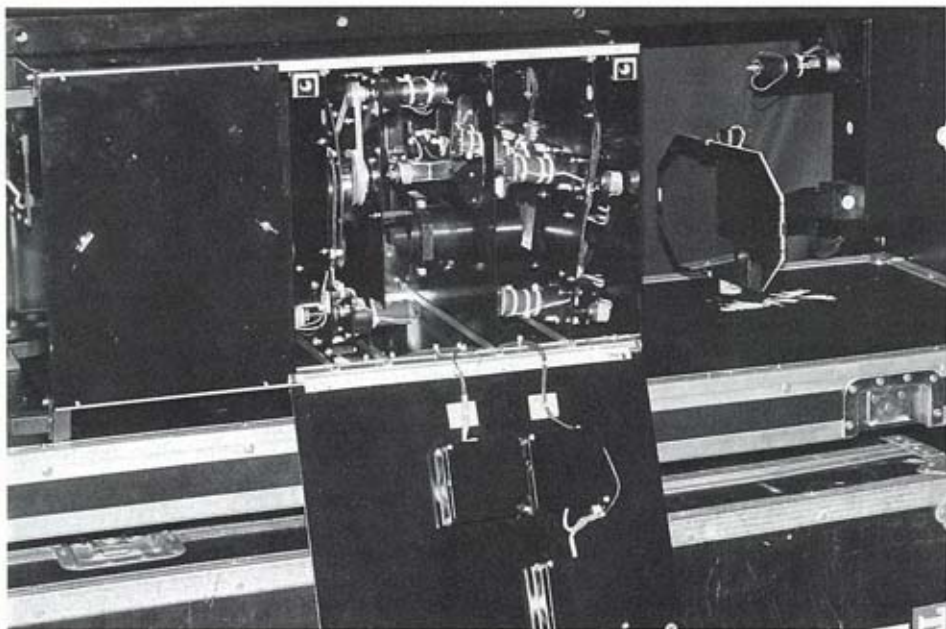
Zoomspots are made by Selecon in New Zealand, and are now available from stock in this country. Among their many features are dual rotating shutters and unique no metal-to-metal lens movement, the result of the innovatory design engineering for which Selecon has become famous. With their simple and safe lamp access, interchangeable lenses and easy maintenance, they're a natural choice for both professional and amateur lighting designers. And for sheer good looks, the range is unbeatable.



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An inside view of the new Telescan Mark III from Cameleon (France), reveals its fully modular construction for easy support access when on the road.

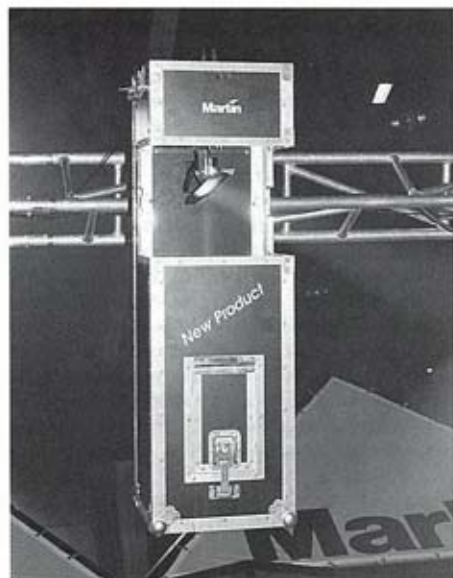
1,000 channels, where Commander will only handle 32 automated instruments, the LDS will initially be available only for rental through Morpheus and will debut on the new Neil Diamond tour.

Having reviewed all these developments in the big-bucks end of the automated sector, it would be wrong to give the impression that the market leaders Vari-Lite are sitting on their laurels. Indeed not, but we are sworn to secrecy about their new product scheduled for global launch next year . . . and I bet that has sent a

shiver down a few spines!

Strand launched the EC90 dimmer and the LX board into the American market, only the initials were slightly changed, and picked up an LDI award for effort. They also announced a range of HMI portables, daylight source par lights, a 1200W 'Daylight Special' HMI system and an ASDL prize-winning 18kW retrofit upgrade kit, for existing 12kW Sirio fresnels, with lightweight magnetic ballast.

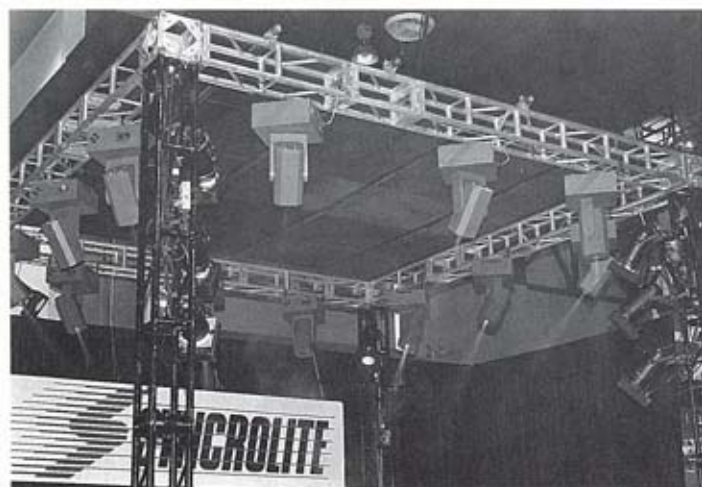
On the waggly mirror front, developments were largely restricted to enhancement rather



Roboscan in a box. Lateral thinking from the Danish company offers all their waggly mirror products in optional flight-case configuration for durability on the road.

than radical innovation, though Martin's crafty wheeze, for the touring market, of putting all their units into flight cases, and foregoing the original tin, so that they hang in the rig like so many bats with heads pointing through flaps, gets my top award for lateral thinking. They certainly made enough noises about it, and this caused some difficulties with other exhibitors. The resultant overlapping cacophony ensured that LDI earplugs were put to good use. And I thought this was a lighting exhibition!

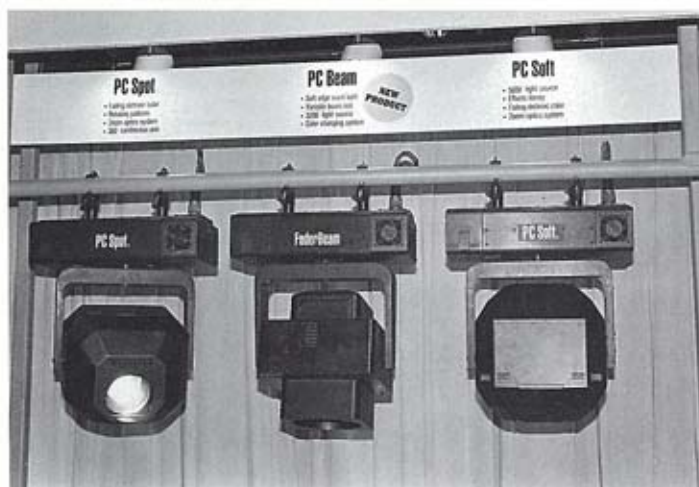
This area of the hall, which Martin shared



Automated lighting everywhere. The stand of Syncrolite who claim to be the tops in foot candles.



Explaining the Masterpiece: Pulsar's Derrick Saunders (left) had his usual busy time and their on-stand units generated a great deal of interest.



Pan Command line-up. The soft-edge FaderBeam introduced at Reno has the ability to bump or fade colour.



Modelbox's Lapolight lighting programme is due for a January 1992 worldwide launch. Chris Toulmin paved the way in Reno.

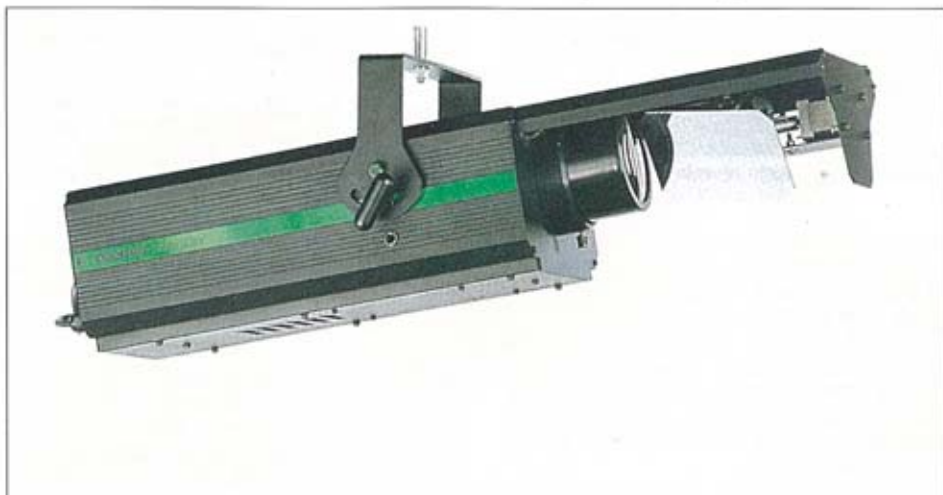
with other effects entertainment product makers, became widely known as the twilight zone, or the hell-hole, dependent on which discipline the visitor hailed from. For sure the organisers must take a leaf out of PLASA's book and regulate levels at next year's Show.

Martin also introduced a foot control interface, again aimed at the small band market, for use with all their effects and a new 1200 MSR version of the Roboscan 1020. And announcing the delivery of the 20,000th unit of the Roboscan family raised a few eyebrows, I can tell you. Just how did this Scandinavian company seemingly come from nowhere in the last couple of years to give, even the Italians, something to think about? (L+S plan a full length interview with Martin's mercurial owner, Peter Johannsen, in a forthcoming issue.)

Meanwhile, Coemar were busy launching their contender for the small scan stakes presently dominated by Clay Paky's Miniscan. Their version, called almost inevitably, Microscan, is based on an EDR 650W lamp with a colour temp. of 3200K and offers four rotating colours plus open white, five rotatable gobos, variable speed strobing shutter and full-range electronic dimming controllable on DMX512 or 0-10v analogue. Samurai was also causing a stir, as was the TAS identikit version called Ultra-Scan 700, although no one would confirm whether or not they were ready to deliver any to customers yet.

High End Systems and Lightwave Research richly deserved their LDI award (courtesy of Paul Dodd and others) for the best light show. Watching it made me go weak at the knees,

which just proves the benefit, once again, of employing professionals rather than technicians to stage these performances; even if you do have the benefit of a phalanx of exceptional products such as the 20 Intellabeams, 32 Emulators, 12 Multirays, 12 Multiflash (a multiple lens strobe projector with dichroics) and 50 Dataflash all backed by a massive fibre optic starcloth. Emulator certainly snapped and crackled with sparkling hard-edged Xenon performance, showing off its new combination of steppers and galvos on a miniature internal optical bench with collimated beam squeezed through an aperture an, astounding, 1mm in diameter. The Intellabeam 700's new range of dichroic colours put it beyond the reach of similar units. An indigo as rich as tropical night and a turquoise ('ultra' in the US), which could be eaten like Turkish



Coemar's new Microscan: contender in the small scan stakes.



GAM's 'Beamer' attachment.



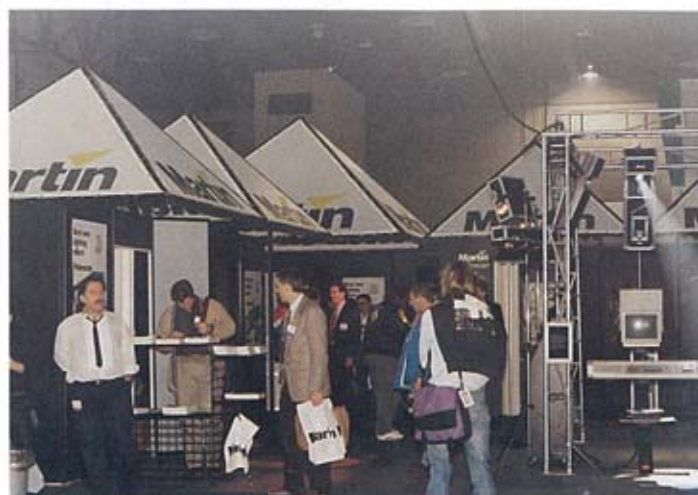
Neil Rice of Optikinetics (right) with Vinny Finnegan and Jack Kelly of Celco Inc outside their special seminar theatre.



Matt Deakin of Celco (left) with John Lindsell and Carl Dodds, artistic co-ordinators for Clay Paky of Italy, are ready to roll on two Navigators for a Clay Paky lighting demo/seminar presentation.



John Haupt of Walt Disney World with Bill Groener of Strand Lighting.



Part of the massive Martin complex of stands.



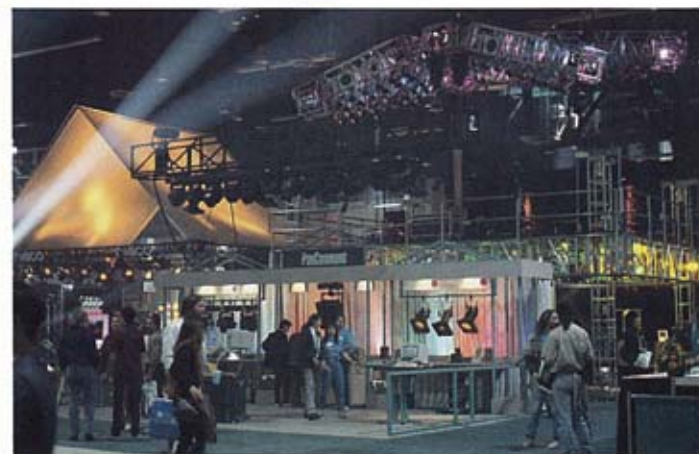
High End Systems' booth at LDI 91 in Reno with an Emulator and Intella-beam demonstration in action.



Winning lightshow designers at LDI were Tim Grivas (third from left) and Mitch Pebbles (left). They are pictured with Bob Schacherl, Richard Belliveau and Lowell Fowler of High End Systems.



Inside the Coemar pavilion.



A view across the 'quiet' hall with stands of Pan Command and Tomcat prominent.

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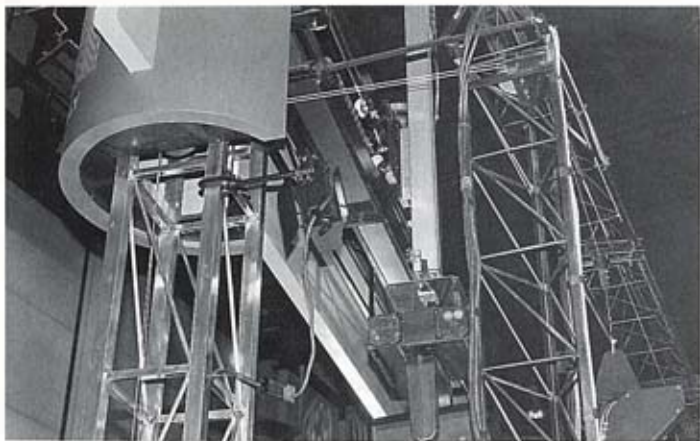
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Stage mechanics. A computerized scenery tracking system from Stage Command.

Delight, fully justifying Richard Belliveau's extraordinary research and development effort into the production of Lightwave's own dichroic filters, all of this made making the trip to the hell-hole worthwhile for those intrepid visitors willing to take the plunge. (Lightwave also have protected dichroic filters for Pars and a new low fogger, chilled by a massive CO2 cylinder, about which we are still uninformed as we go to press.)

In the same area, I was delighted with the Rockeffects' Confetti and Streamer Cannons which also featured at the awards ceremony, putting hundreds of pastel coloured paper petals and streamers into dozens of glasses of Californian 'methode champenoise'. The furthest such ejaculation, if you'll excuse the description, which I have seen in many a long year!

Sensibly, keeping out of all this mayhem, with a new concept in exhibiton marketing, were Celco Inc., not to be confused with Celco for whose products they are the distributors in the

US. This is the old Elektralite company recently the subject of a management acquisition, in the lovable forms of Vinny Finnegan and Norman Wright. What was billed as a 'Seriously Out Of Order Production' took place in a somewhat detached seminar room away from the main concourse. In peace and quiet, the leading luminaries from each of the companies represented, Keith Dale of Celco, Pio Nahum of Clay Paky, Mike Wood from JEM, John Adams of Light Processor and Neil Rice of Optikinetics each gave daily 15 minute seminars on their products, giving delegates the opportunity to really get to grips with the gear. I believe that this could prove to be a model for others to follow, since the business of unearthing any really useful product information from under a welter of marketing hype on exhibition stands gets harder than pulling rhinos' teeth.

It wasn't all driven lighting, however, though this was certainly the area of significant focus. On the control front, Celco had caused a big stir



Scott Thurm of Universe Stage Lighting (left) with maestro Richard Pilbrow and some interesting looking programmed mirrors devised by Robo-Search of Japan.

with their new Navigator board, for which I predict a smash hit in the States, and the transparency and in-built reliability of the new Avolites QM Diamond made many friends also. The Stage Command computerized scenery control system deserved attention, as did the Goddard Lil'DMXter now available from XTBA in this country following its personal endorsement by Steve Terry during the PLASA Show. For hire companies, the HITS Tour Support software package, using a lap-top and modem based on a PC Network for two way communication when on the road, seemed to solve many problems.

Other novel items which also caught the eye were: the Great American Beamlight, a pan and tilt attachment to bolt onto a Parcan, though it seemed a might too fragile for touring; the Japanese Robo-Search programmable mirrors with external searchlight, a concept of great potential, but delivering less as shown here and with articulation provided by retrograde model

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aircraft servos; Demand Products with their 'hot-wire' expanded polystyrene cutting machine, which made precision sculptures in seconds before your eyes; Richmond Sound Design's Command/Cue Amiga-based show control system and Stage Manager 500 software; Laser Dimensions' Lasermax and Beamfx laser control software for PC-AT compatibles and the same company's extremely portable recirculating laser chiller; Anchor's non-residue 'Stage Tape' which also achieved an LDI award; Pan Command's 'Starburst', an automated 8-lamp audience blinder, the built-in 'XL Ranger' giant gel scroller, for which is also available as a stand-alone device for use on other such products; I also admired their ColorCue lap-top computer control for the PanCommand gel scrollers; last, but by no means least, Hoffend's 'Starlift' foldaway self-erecting

column which always deserves a mention for engineering innovation if nothing else.

As we all know, America is the place where they let it all hang out, where girls are routinely seen wearing T-shirts with 'I suffer from PMS' in giant caps, referring to what is known in the UK as PMT, where during the contest in Louisiana bumper stickers referring to the dread David Duke and his opponent read 'Better the Lizard than the Wizard.'

So, for me, the product of the Show wasn't even at the Reno Convention Centre, but it received front page coverage in the New York Times during the weekend of the Show. Would you believe: 'Slippers that are lights on your feet'? Yes, you guessed it, Nightmates are slippers with headlights (or rather built-in toe lights). At under \$30, the perfect Christmas present for LDs.



Pio Nahum launches a Clay Paky presentation.



A C Lighting's David Leggett with Strong's Super Trouper and a Roadie tucked in behind. AC are exclusive European distributors for Strong followspots.



Out from the UK: Paul MacCallum of Wembley Loudspeakers (left) who provided the sound for the Martin presentations with Andy Blackwell of Dial Sound and Lighting of Bradford.



Felix Riva of Power Light (Switzerland) checks out Avolites' QM Diamond with Rick Salzedo (left).



You've seen it in their ads, but here it is for real: Vari-Lite's Loren Haas presents their 1990-1 Primetime Emmy Award for outstanding achievement in engineering development.



Rosco's Ned Bowman (left) with Nicholas de Courten of Power Light, their Swiss distributors.



The new Ultra Arc 'Titan' 1200W HMI short-throw followspot from Phoebus.



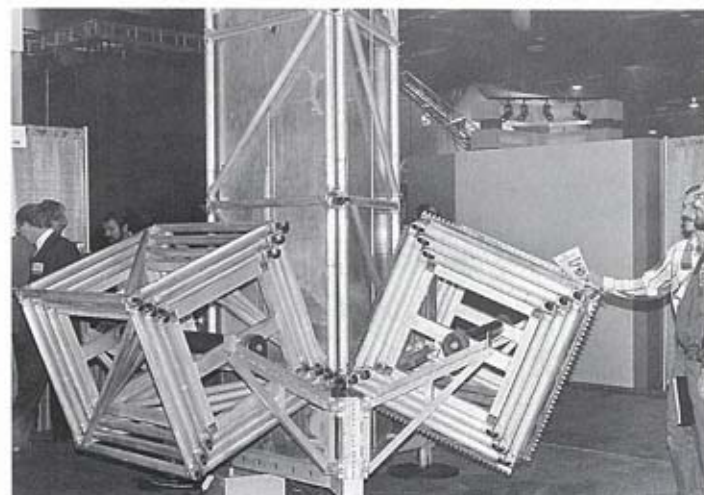
Meteorlites Inc's Dizzy Goznell (left) checks out control on the stand of LSC Electronics (Australia) with the company's general manager Alan Graham.



The new Stark-Lite II followspot from Lycian (see Equipment news this issue).



Great American Market's Joe Tawil (right) with Fred (Red) McKinnon, senior lighting designer with The Klages Group of Hollywood.



Hoffend's Star Lift starts to climb. It will support up to 5,000lbs at a height up to 65 feet.



Production Arts' Steve Terry (left) and John T. McGraw (right) with Stefan Ettmeyer of Ludwig Pani, Austria. Pani's BP12 Platin and BP6 Gold projectors were on stand together with the AMD-15 automatic slidechanger system.



Zero 88's Freddy Lloyd (left) with Coemar's Bruno Dedoro.



John Coppen of Theatre Projects Services and Ronan Willson of Meteorlites.



Lighting designer Ken Billington with Strand Lighting's Steve Norman



The popular emporium of Burbank-based TMB.



The new 'Starburst' automated audience blinder from Pan Command. This fully digital fixture provides a variable burst of light beams and is adjustable for pan, tilt and beam width. Colour selection is obtained by using the XL Ranger colour scroller.



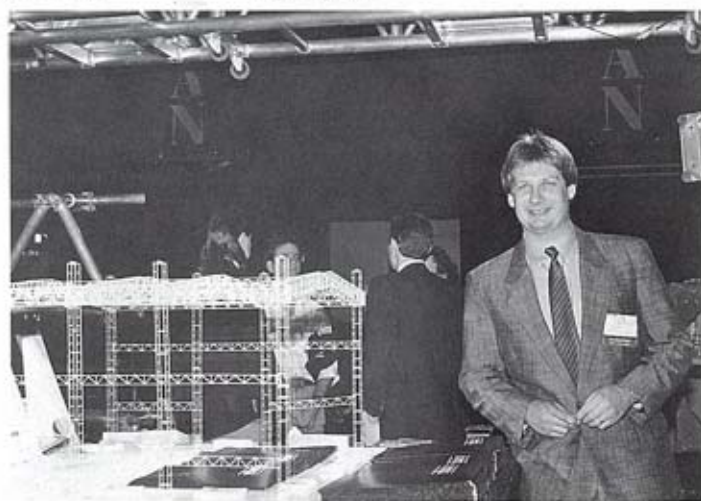
Andrew Collins (left) of Total Sales Inc with Peter Johns of Total Fabrications Ltd (UK).



Al Pfeiffer (left), president of CCT Lighting Inc of Rochester, New York, with Don Hindle from CCT Lighting UK.



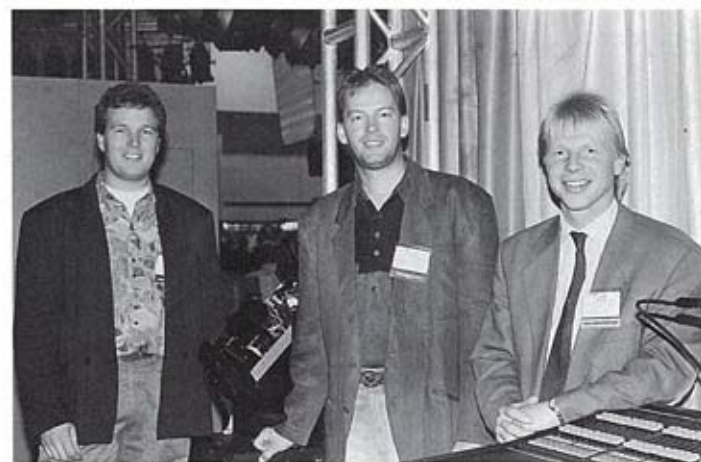
Team-up on the Vanco stand: Daryl Vaughan (left), Alan Thompson and John Coppen (centre) of Samuelson Concert Productions with Dale Ward (second left), Joe Travato and Teddy Van Bommel (right) of Vanco, the New York/Florida/Dallas-based rental and production company.



Showing off structures: Mitch Clark of Tomcat Inc.



Thomas Knaak of Amptown (left) with Gerard Jongerius and Fried Buttstedt of Flashlight (Holland) and the new Amptown Controlite first seen at the PLASA Show.



Thomas Knaak (left) of Amptown Lichttechnik with Bernd Knemoeller of MA Lighting USA - a brand new company for MA sales and support in the States, and Ralph Jörg-Wezork of Lightpower Germany.

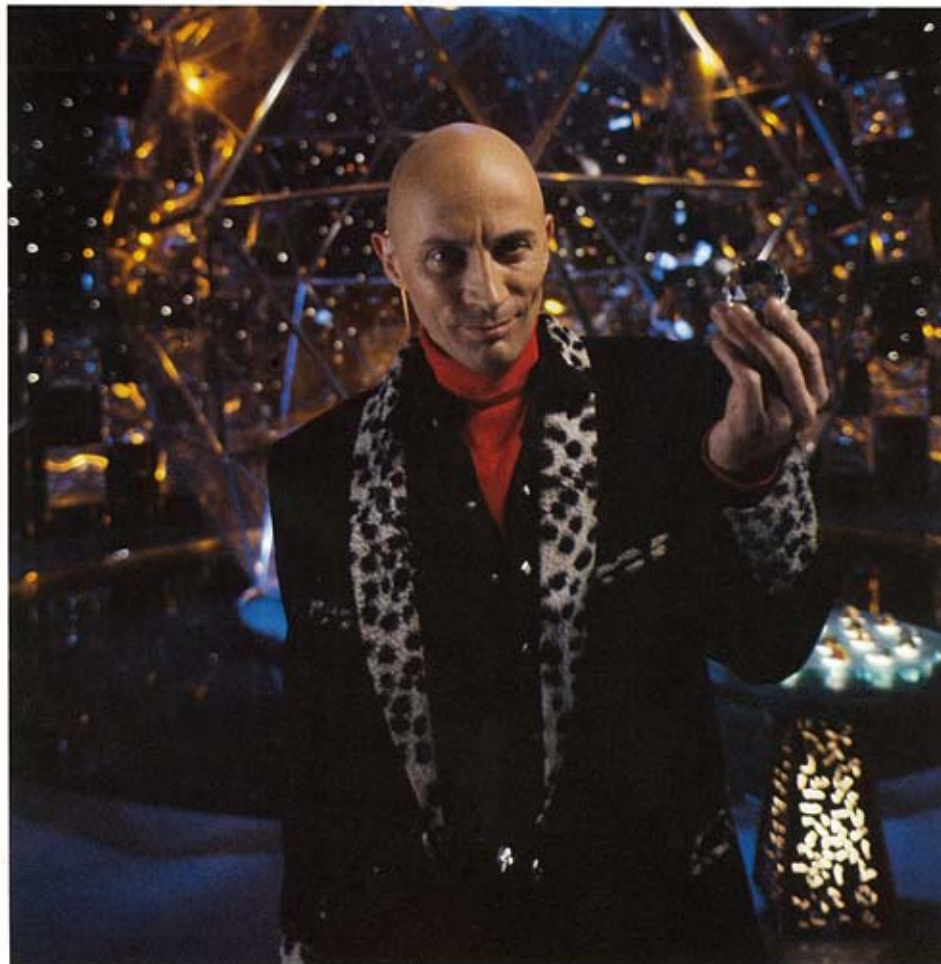
CRYSTAL STRUCTURES

Crystallizing the lighting of the Maze

One of the most curious off-the-wall programmes on British television in recent years is *The Crystal Maze*, featuring the animated eccentric, and *Rocky Horror Show* originator, Richard O'Brien in latter day *Pied Piper* host mode. Much of the lighting is as idiosyncratic to match the mood. Tony Gottelier talked to lighting director Mike Sutcliffe and assistant Derek Watson of Entec.



In the best light: The Pied Piper of *The Crystal Maze*, Richard O'Brien poses in Mike Sutcliffe's well-lit scenes.



I should have realised that it was going to be a Boys Own expedition when the PR lady told me that I could meet the elusive Mike Sutcliffe on a particular afternoon in November, if I cared to transport myself to the hitherto inconspicuous North Weald airfield, and subsequently to an aircraft hanger called Aces High. A loan of Mark Fisher's famous WW2 flying jacket would certainly have been appropriate.

I deliberately haven't described North Weald as an aerodrome, because this conjures up an image of serious flying business whereas this is a landing strip in the *Biggles* tradition: 'Chocks away Ginger!' and all that. On arrival, if you are a new visitor, you are escorted, strictly at 20mph, by Range Rover, around the perimeter, past signs warning you to stop if an approaching aircraft is spotted. Or duck! No, this is clearly a place where oil-splashed overalls get to grips with the mechanics of flying for fun, in the tradition of *Those Magnificent Men* and where flying is still done 'by the seat of your pants'.

This same boyish enthusiasm and pranking pervades the atmosphere at Aces High where Mike Sutcliffe and his team of Entec technicians are lighting the new series of the *Crystal Maze*. Presiding in his flight deck eyrie at the top of this vast hangar-come-studio with the RT cracking out off-air instructions and the director's wisecracks with the constant banter and repartee of the recording engineers and lighting technicians in the background, casts Mike firmly in the *Biggles* role. (If the contestants knew what was being said off-air they would die. Because, for them, this is very serious stuff indeed and they are petrified to their nerve-ends - to say nothing of the fact that none of my taped conversation is distinguishable as a result).

But lighting by the seat of his pants? In this case I think not, although I am sure he has done much of that in the past. Yes, of course with any TV or video shoot there is a considerable element of busking, as ideas evolve in the creative flow, but surprisingly the lighting for this particularly bizarre adventure challenge, with its ad hoc feel, not a conventional game show by any stretch, is surprisingly fixed and pre-planned. So how is that cranky atmosphere successfully created?

To find the answer I suspect we need to find out a little more about Mike Sutcliffe, the lighting designer. His name is synonymous with TV Pop and Rock shows, and I was curious to know how that came about. Indeed what started him on this road that few others care, or perhaps dare, to tread?

"For reasons that are a mystery even to me, I always seem to have been fascinated by light," Mike told me. "My mother used to take me to see musicals when I was quite small and I remember spending the whole time watching the lights and not the performers. I certainly couldn't have answered questions about the plot; it rather irritated her at the time!"

Subsequently he joined ATV where he became a cameraman. But his light-struck behaviour continued whilst at ATV. "I educated myself on the subject by spending every possible moment tracking the modus operandi of senior lighting directors such as John Rook, and asking why they solved various lighting problems in a particular way. This was like an apprenticeship to me."

In June 1979 at the tender age of 26, when he felt that he had acquired sufficient knowledge to dedicate his life to the skill, he left ATV to become a freelance LD, becoming one of a then

elite band of only three freelance apparatchiks of the luminescent art which included John Henshall and John Rook.

"It was good timing," explained Mike, "because the pop video thing was just beginning to happen and I had the opportunity to cut my teeth with some brilliant directors, to say nothing of the artists. The list reads like a Who's Who of the rock-n-roll hall of fame: Bowie, Stones, Queen, Sting, Gabriel, Kate Bush, Simple Minds, Diana Ross among many others." He also lit live concerts, including such famed productions as The Police, 'Synchronicity' and Donna Summer, 'Hot Summer Nights' plus tours with Neil Diamond and Cliff Richard.

I asked how he thought this qualified him for Crystal Maze in particular. "I suppose producer David Croft felt that my experience was relevant in that an unusual feel, with lots of weird atmosphere, was called for and the rock videos, for example, are a good grounding for all of that."

So, to the production itself. Aces High is a vast aircraft hangar - in fact one of the few spaces in the UK large enough to hold the giant set necessary for this show - for the labyrinth actually exists in a very real sense, albeit in Bloomingdales room-setting fashion. Every year for nine weeks the maze is re-created at Aces High and light and sound rental company Entec bring in an array of trussing, lanterns, dimmers and lighting boards and a crew headed by Derek Watson to satisfy Sutcliffe's requirements.

Up to now, not much different from a concert situation. The difference arises in the complexities within the set and the number of different feels this demands. Entec's Derek Watson explained: "There are four thematic areas within the maze, which is set out around the central crystal dome of O'Brien's throne room, and in each of these 'worlds' there are six different rooms each with a distinctly different look linked by a series of hazardous bridges and elevated walkways which also have to look as mysterious as possible. This makes a total of 37 different areas to light, not including doorway shots! And it's a multi-camera shoot, six cameras, one of them on a crane."

The four thematic worlds are described as Futuristic, Industrial, Medieval and Aztec - the latter being reminiscent of Indiana Jones' Temple of Doom. Indeed, it could be said that the whole show is a bit like participating live in an episode from that movie.

This sprawling multi-level studio set, probably the largest in this country, is overhung with an



Blue gelled fluoro cold washes the Industrial Zone.



Architecturals provide the focus, to a planetary backdrop - scenery this, not a projection, in a Future world.



A red bulkhead and a coolie shade with 40W incandescent give that authentic industrial feel.

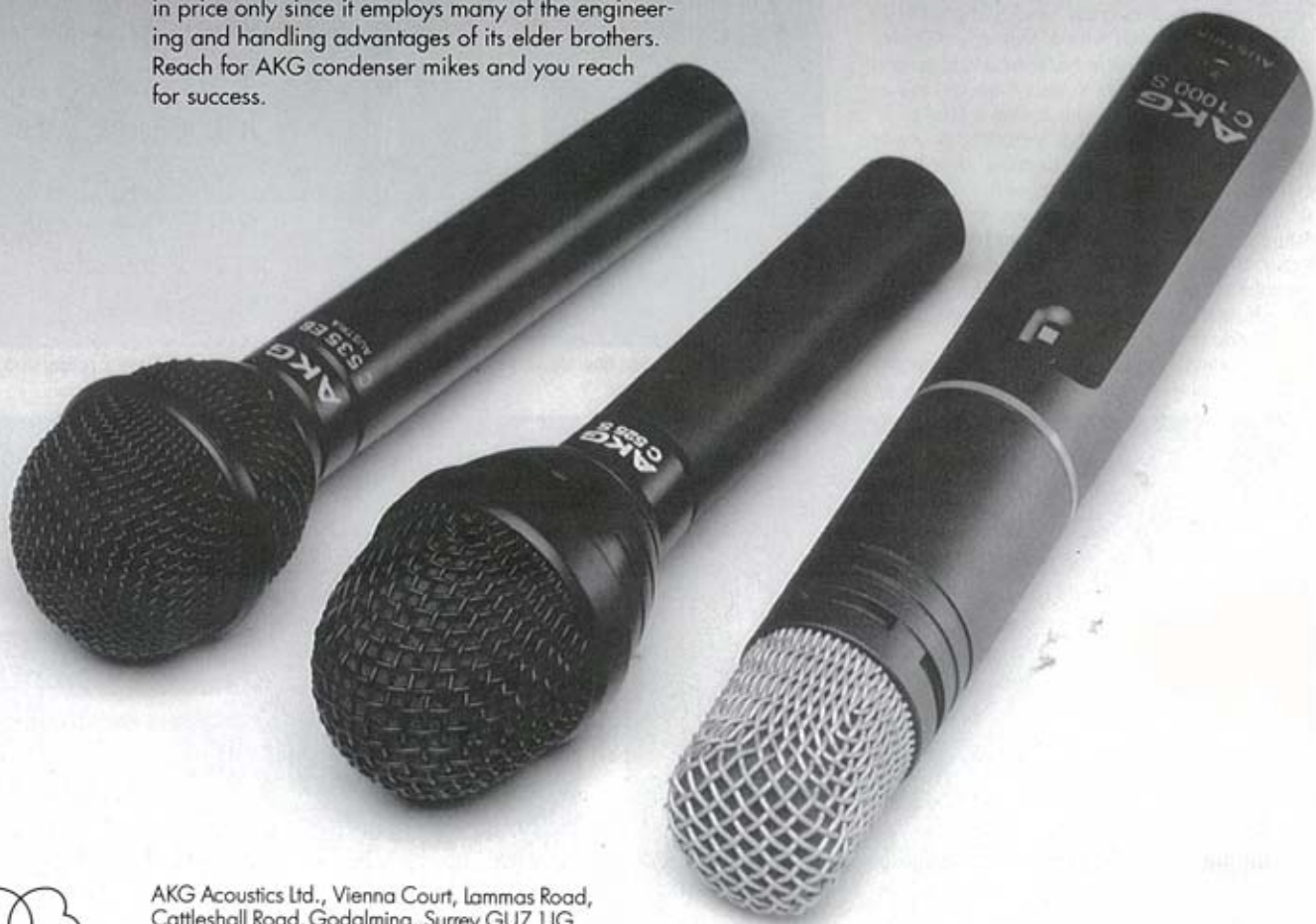


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interconnected gantry formed from 37 lengths of Thomas 'A' truss from which 74 skirted 5k gel-softened Spacelights and 336 Thomas Parcans provide the general level. 328 channels of Avolites dimming are also involved, supplied from two massive 500kW generators and involving two TPNE distribution systems, 136 of 30m Socapex cables, 218 runs of TRS and numerous sub distribution systems.

In turn, this is all supported by a wide range of studio lanterns from 12k through 2.5 and 1.2k down to 575W fresnels, 2k Blondes, CCT Silhouettes and profiles, Altman Lekos, Photofloods, 8-light Molefays, groundrows and MR16 battens. But it is the 'practicals' which really interest Sutcliffe in his effort to create the required faded atmosphere. "It is the new chip-TV cameras which have really made this possible," Mike told me. "They are happy at so much lower light levels than the old limiting tube cameras which required considerable saturation." So in some cases Mike is able to achieve a visible effect with something as small as a 40W domestic in a coolie shade!

Other such practicals used successfully in this way (see pictures) are Red bulkheads, Fuzzlights, fluoros, and assorted architectural. Smoke is provided by a portable Concept Colt, with a cracked oil when necessary, and a Par Opti fibre optic starcloth backs the crystal dome.

Control is provided by two Celco Series II, 90 and 30 channel desks jammed into the corner of the high-level control room inside Aces High, and this is where Mike and Derek sit, practically in each others laps, and hold court during shooting the occasional foray onto the floor to make adjustments, or to correct failures if there is no tech available at the time. Derek operates the board. Unlike most TV, where there is the opportunity for busking changes, this lighting system is so intricate it takes three weeks to rig -

HAPPY CHRISTMAS AND A PROSPEROUS NEW YEAR FROM LIGHTING+SOUND INTERNATIONAL AND THE PLASA OFFICE IN EASTBOURNE

so only minimal changes can be made by Sutcliffe in situ. He has to be absolutely sure it's right at the design stage.

The configuration of large footprint desks, 120 channels hard-patched to over 300 dimming channels, raised my, metaphorical, eyebrows in these days of compact memory desks, demultiplexers and DMX512. Sutcliffe and Watson agreed that something like an Arri

Imagine board would probably make their lives a great deal simpler. "It's a matter of persuading Entec to invest in such advanced technology!" joked Mike, warning to my pet subject, "but I would certainly expect something of the sort to be in use on a new series, if there is one." Derek Watson concurred, bemoaning the fact that, with so few control channels, they were constantly having to change the patch. Even the

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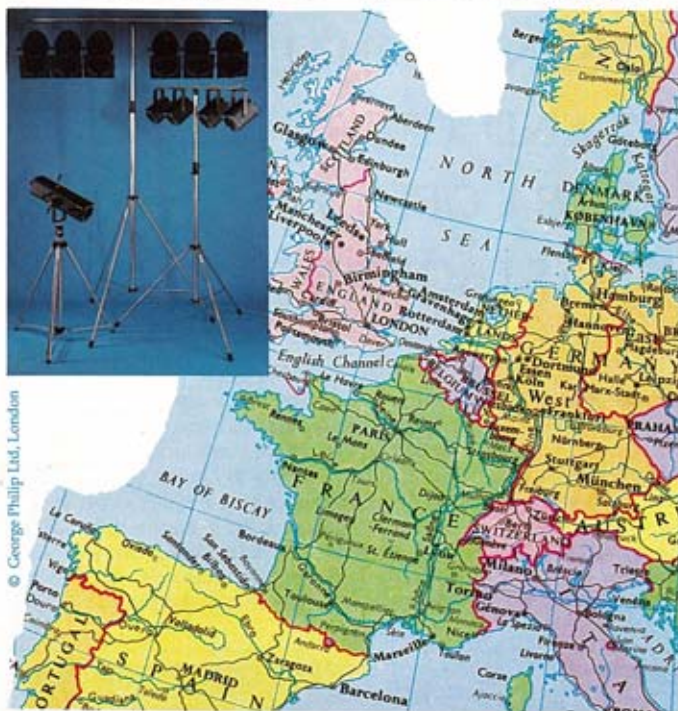
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30 channel industrial was a last minute addition.

By now the combined cacophony of noise in the control room and the never to be openly admitted, adrenalin of being a secret observer of an abject misery of some poor incompetent contestant's failure to perform even the simplest task, under the combined stress of clock and TV performance (most of which will be edited from the broadcast), persuaded me that it was time to leave the fantasy world of flying aces, Biggles Sutcliffe and Ginger Watson and head for terra firma. I left with a whole new and evocative lighting vocabulary ringing in my ears: those of you not familiar with studio lighting catch this lot: Turtle, Skate, Charlie Bar, Dot and Finger, Samson, Hercules, Blonde and Redhead. Don't call me for translation, call Entec!

In the car I got to thinking about what sort of masochistic mind had thought up this little game, where contestants are punished in full view, though not in real time - surely in the tradition of Japanese TV?

Wrong. It was a French series in its original guise. I should have guessed. After all, it is a kind of cerebral Jeux Sans Frontiers seen through a haze of herbal cigarette smoke.



HMI sunlight through a cell door in a Medieval castle.



No serving wenches, but a real gas.



An overhead view of the set with forest of skirted space lights.



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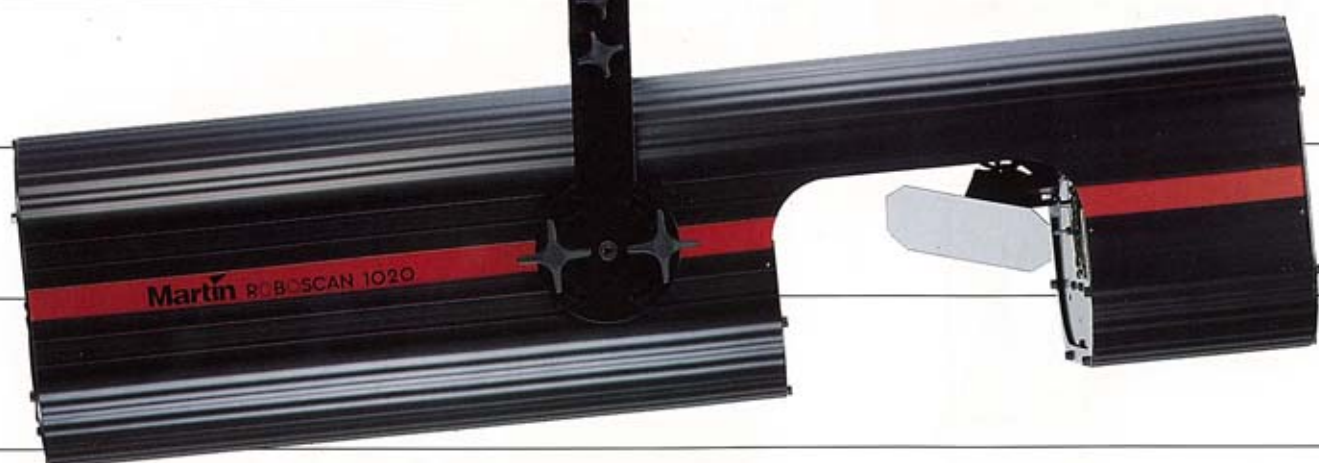
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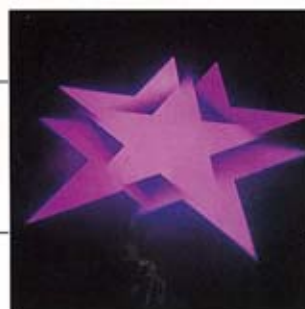
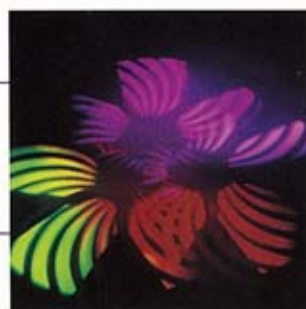
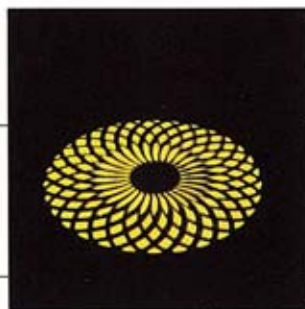


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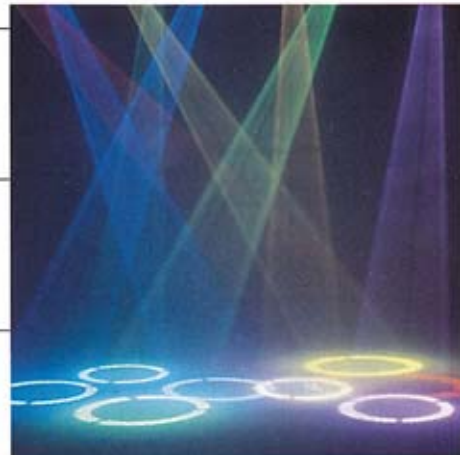
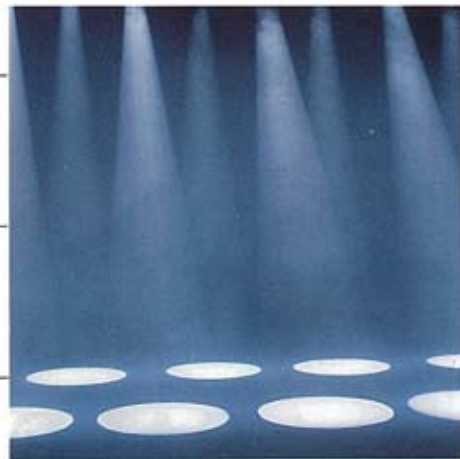
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What will they think of next?

MIDI SHOW CONTROL 1.0

Charlie Richmond discusses the new standard

All types of technical elements in live shows will soon enjoy the universal ease and power of standardised control which MIDI has, for years, given complex musical instrument setups. MIDI Show Control (MSC) has recently become a new international standard that promises to do just this. Born of a proposal put forth by Andy Meldrum of Vari*Lite in early 1989, discussions amongst key manufacturers of high tech show equipment took place throughout 1990 and 1991 via the USITT CallBoard network's MIDI Forum. The culmination of this work was a proposal that gained the approval of the MIDI Manufacturers Association (MMA) and the Japan MIDI Standards Committee (JMCS), becoming MIDI 1.0 Recommended Practice RP-002 on 25 July 1991.

MSC is an extension of the basic MIDI 1.0 specification and remains completely compatible with all past and current MIDI equipment. MSC follows the rules for standard Universal Real Time System Exclusive (SysEx) messages, which has been part of MIDI from the beginning. Potentially, this means that a single MIDI control network can be used for communication between all MIDI equipment in very large productions without confusion or complication. Moreover, substantial advantages will be realised by allowing all this equipment to intercommunicate. MSC is an Interconnection standard for use between intelligent 'Controllers' and similarly intelligent 'Controlled Devices' and is not meant to provide or replace lower level communication such as DMX512 between controllers and relatively unintelligent 'slaves'.

In a lighting control application, for example, MSC would be used between the stage manager's show control computer and the lighting console or perhaps between two lighting consoles operating together (or both, even using the same MIDI network) but not between the lighting console and the dimmers. Typically, the person controlling a show operates a show control computer connected via MIDI to a variety of controllers of various technical systems including lighting, sound, rigging, mechanics, pyro, smoke, lasers, multimedia equipment and more. In essence, the MIDI network becomes an electronic communication equivalent of the headset system. Software and systems implementing MSC and specifically for this application are already available and in use.

This article describes only the basics of the standard - the complete MSC 1.0 standard is publicly available from the MMA and is essential for anyone seriously interested in MSC implementation. A good working knowledge of the MIDI 1.0 standard, also sold by the MMA, is additionally helpful. The self-described purpose of MSC is "to allow MIDI systems to communicate with and to control dedicated intelligent control equipment in theatrical, live performance, multi-media, audio-visual and similar environments". For maximum speed, simplicity, reliability and cost-effectiveness, this first version of MSC runs in an 'open-loop' environment, requiring no response from the Controlled Device. A 'closed-loop' version of MSC, meeting the needs of fail-safe control under the most critical conditions, is currently under development. Again, from the standard, "The guiding philosophy behind live performance control is that, as much as possible, failures of individual Controlled Devices should not impair communications with other Controlled Devices."

In any case, MSC is not certified as the sole control determinant under life-threatening conditions. In these situations, the most rigid safety procedures and systems must always be present. As the standard clearly states, "MIDI Show Control is not intended to tell dangerous equipment when it is safe to go; it is only intended to signal what is desired if all conditions are acceptable and ideal for safe performance. Only properly designed safety systems and trained safety personnel can establish if conditions are acceptable and ideal at any time."

In the following documentation, as well as in MIDI specifications generally, transmitted data is expressed in its hex form, often including an 'H' immediately after each byte to confirm its hex nature. For a full explanation of hex notation specifically relating to MIDI implementation, please refer to the MIDI 1.0 specification, since the subject is well treated and beyond the scope of this article. MSC is completely contained within the Universal Real Time System Exclusive message format. All messages of this type begin with F0H (= start of SysEx) followed by 7FH (= Universal Real Time header) then a user-defined destination address in the range 00H-7FH (= device ID #) and 02H (= MSC message header) - all in front of the command variables and related data in the message. The message is terminated by F7H (= end of SysEx) and the maximum length of any MSC message is 128 bytes.

Within these parameters, a number of variables may be sent as follows (in hex):

F07F<device_ID>02<command format><command> <data> F7

Command_format tells the addressed device what kind of message is being sent, including general categories of lighting, sound, machinery, video, projection, process control, pyro and all-types. A number of sub-categories are defined (except under all-types) and there is room for future expansion along with the ability to address an entire group or just a specific sub-category (see Table 1 below).

The command tells the Controlled Device with a matching device_ID and command_format what the Controller wishes it

to do. Commands may be simple or complex, with the Controlled Device's response designed to be appropriate for the application. A number of data variables may follow each command so that the most complex devices can be controlled while simpler Controlled Devices simply ignore the information they do not use. Variables are sent in the order of generic to specific, with null characters (00H) separating each one. Each Controlled Device may use the data variables of each command in its own way, but 1024 Standard Generic Control Numbers have been defined for lighting - with 14,000 more undefined.

The first group of commands defined are: GO (01H); STOP (02H); RESUME (03H); TIMED_GO (04H), which is like GO with an execution time; LOAD (05H), which puts a cue into standby, ready to execute immediately; and GO_OFF (06H), which starts a transition or fade to an off state; - each of which can optionally contain a cue number, a cue list and a cue path as data. SET (06H) defines the value of a numbered Generic Control and may include an execution time; FIRE (07H) triggers a numbered macro; ALL_OFF (08H) turns everything off; RESTORE (09H) restores everything as it was prior to ALL_OFF; RESET (0AH) presets to the top of the show.

The second group of commands are specific to computer controlled theatrical sound systems: GO/JAM_CLOCK (10H), which forces the auto follow clock timer to the time of the auto follow cue; STANDBY_+ (11H) and STANDBY_- (12H), which load into standby the next or previous cue respectively; SEQUENCE_+ (13H) and SEQUENCE_- (14H), which load into standby the next or previous parent (using the whole integer value of the cue only) cue; START_CLOCK (15H), STOP_CLOCK (16H), ZERO_CLOCK (17H), SET_CLOCK (18H), which start, stop, reset and set the clock timer to a particular time; MTC_CHASE_ON (19H) and MTC_CHASE_OFF (1AH), which lock and unlock the clock timer to incoming MIDI Time Code; OPEN_CUE_LIST (1BH) and CLOSE_CUE_LIST (1CH), which include in the show or exclude from the show a specified Cue List and the cues

HEX	COMMAND FORMAT	HEX	COMMAND FORMAT
00	reserved for extensions	30	Video (general category)
01	Lighting (general category)	31	Video Tape Machines
02	Moving Lights	32	Video Cassette Machines
03	Colour Changers	33	Video Disc Players
04	Strobes	34	Video Switchers
05	Lasers	35	Video Effects
06	Chasers	36	Video Character Generators
10	Sound (general category)	37	Video Still Stores
11	Music	38	Video Monitors
12	CD Players	40	Film Projectors
14	Audio Tape Machines	42	Slide Projectors
15	Intercoms	43	Video Projectors
16	Amplifiers	44	Dissolvers
17	Audio Effects Devices	45	Shutter Controls
18	Equalizers	50	Process Control (general category)
20	Machinery (general category)	51	Hydraulic Oil
21	Rigging	52	H ₂ O
22	Flys	53	CO ₂
23	Lifts	54	Compressed Air
24	Turntables	55	Natural Gas
25	Trusses	56	Fog
26	Robots	57	Smoke
27	Animation	58	Cracked Haze
28	Floats	60	Pyro (general category)
29	Breakaways	61	Fireworks
2A	Barges	62	Explosions
		63	Flame
7F	All-types	64	Smoke pots

TABLE 1



Charlie Richmond (right) with L+SI's Tony Gottelier at last month's LDI in Reno.

it contains; and OPEN_CUE_PATH (1DH) and CLOSE_CUE_PATH (1EH), which include or exclude from the show a specified Cue Path.

A standard command data format for cue, cue list and cue path numbers is part of the specification. Numbers including decimal points are transmitted as ASCII characters (0-9 = 30H-39H; "." = 2EH) For many commands, cue numbers are optional, as are Cue List and Cue Path data, and the Controlled Device may simply discard data that it does not support. In this way, the standard provides a tremendous amount of flexibility for complex systems while allowing the same commands to be used with much simpler devices. Time data is represented in the standard full form MIDI Time Code (MTC) format, which is basically an expanded implementation of SMPTE Time Code with accuracy to 1/100 of a frame (330

microseconds).

As an example, here's how an MSC message would actually look (in hex):

```
F0 7F 61 02 42 04 60 02 1E 0F 63 31 33 35
2E 36 00 33 36 2E 36 00 35 39 F7
```

The breakdown of this message is as follows:

F0 7F	Universal Real Time System Exclusive message header
61	Device #61
02	MSC sub ID #1 header
42	Slide Projectors command_format
04	TIMED_GO command
60 02 1E 0F 63	00 hours 02 minutes 30 seconds 15 frames 99 subframes
31 33 35 2E 36	Cue 135.6
00	delimiter
33 36 2E 36	Cue List 36.6
00	delimiter
35 39	Cue Path 59
F7	End of SysEx

At the MIDI transmission rate of 31,250 bits per second these 25 bytes will take eight milliseconds to send, which will create no perceivable delay. An example of a full slide projector implementation of this protocol could be that cues would correspond to individual slide numbers, cue lists to currently loaded slide trays and cue paths to slide trays that can be mechanically loaded by some automatic mechanism. A projector which does not support the TIMED_GO command could respond by simply projecting slide 135 in the currently loaded slide tray using a default fade time. A fully computerized slide projector control system connected to a number of slide projectors with multiple trays per projector could, however, respond to all aspects of this message.

We are convinced that MSC has a bright future since MIDI has been largely responsible for the enormous proliferation of musical equipment and technology since 1985. MSC contains the same features that have allowed MIDI to do this: it is powerful, easy to use, inexpensive, and, most importantly, it is a standard. Much equipment already in the field uses some form of non-standard MIDI implementation since customers have been asking for the equivalent of MSC for years. Most of this equipment can easily incorporate MSC with a simple software upgrade. Obviously, it will be more difficult to upgrade older gear, but not impossible. In this case it may be more cost effective to use a low cost MSC add-on unit, interfaced with a few modifications, than to discard this, still useful, equipment. In fact, until everyone supports MSC, we will even have to use similar interfaces in new projects but we definitely look forward to when everything can simply be connected together with standard MIDI cables and communicate perfectly right from the start!

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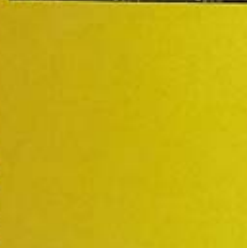
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PLASA NEWS

Plasa Committee For 1992



Ian Sharpe.



Daryl Vaughan.

As a result of the recent Executive Committee elections to fill four vacant seats, two new faces will take their places at PLASA's judgement table from January 1992 onwards. They are Ian Sharpe of RAMSA/Panasonic and Daryl Vaughan of Theatre Projects Services who tied for third place in the poll. Re-elected for a further three year term were chairman Tony Kingsley of Avitec Electronics (UK) Ltd and Tony Akers of Citronic who headed the biggest poll of members on record.

The full committee now includes Paul Adams (PA Installations), Andy Collier (Strand Lighting), Matthew Griffiths (TSL), Colin Whittaker (Celco) and Mike Wood (JEM) in addition to the four newly-elected and re-elected members. The committee commences its work on January 13th when it will also elect its officers for 1992.

MIDI Continued . . .

A final page of copy that should have been included in Matt Deakin's Viewpoint (November) went astray somewhere between Celco and PLASA's offices. It is printed in full below.

Peter Brooks seems to be under the impression that the method by which the DMX and MSC standards were arrived at were very different. DMX was achieved with 'openness' while MSC was 'woolly' and even a hint of insider dealing. I think I have shown in the brief history above (see November Viewpoint) that the two standards were arrived at in very similar ways. If anything MSC was more open and fully discussed, and it took longer to work out, more people were actively involved and there were more seminars on the subject before it was ratified than was the case with DMX.

Mr Brooks's hint at insider dealing is completely unfounded and smacks of sour grapes. I informed the PLASA committee via Colin Whittaker of the existence of the proposed MSC standard. This was presented at the PLASA Executive Committee meeting of 12th November 1990 and a copy of the report distributed to all members with the minutes of that meeting. Zero 88 are members of PLASA and I also believe they were invited to participate in the MSC discussions by Charlie Richmond on more than one occasion.

Zero 88 advertise their products as having MIDI interfaces so I presume that they are members of the MIDI Manufacturers Association. All members of the MMA receive regular technical bulletins. Issue 14 published in October 1990 contained details of the ongoing discussions on MSC.

I feel strongly that standards are of benefit to all in our industry. They will only be set, and more importantly adopted, if all interested parties participate. This means attending seminars, joining trade associations and generally taking an interest in such matters. It is all too easy for the development departments of manufacturers to get isolated and look no further than their competitors' products for their new ideas. After all, there will always be those who lead and those who follow.

Matt Deakin

Plasa Goes International

At its December meeting the executive committee of the Professional Lighting & Sound Association voted to introduce an International Associate Member category. This followed a poll of members where 61 questionnaire papers were returned with 56 companies voting either for straight approval or leaving the matter to the committee for decision. Six members voted against. Chief executive John Offord read out in full all comments received, whether for, against, or the many 'organisational' recommendations put forward.

The first stage of implementation of International Membership will be by invitation only and to companies known and recommended by PLASA's UK members. The initial endeavour will also be to evenly balance as far as possible companies taking exports from PLASA manufacturers in the UK with those wishing to sell into the country through PLASA's members who distribute equipment.

Mike Wood, PLASA's membership sub-committee chairman, will be responsible for overseeing the scheme in conjunction with John Offord, and it is planned to co-opt members with experience in overseas markets and exporting in particular. For more information contact Mike Wood at JEM (0790) 54052, or John Offord at PLASA on (0323) 410335.

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Seminar Success



Mark Burgin in action.

PLASA's double seminar day at the Forte Posthouse at South Mimms on 12th November attracted over 30 members for a morning session on sound and an afternoon on 1992 - or should we say '93?

Mark Burgin of Shuttlesound led the morning session on 'How to Manage Yourself and Your Client' - a highly thought-provoking and sometimes amusing session that was well received by all members. David Bearman of Martin Audio followed up with a detailed 'Safety in Sound Installation' that homed in on flying systems in particular.

Highlight of the afternoon was Customs and Excise's John Moscrop's session. With red hot 24 hour-old news on VAT and other rulings, he provided those present with a hatfull of useful information - including vital information for the industry on how much wine you can bring into the UK from 1st January, 1993!

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ON TOUR

Catriona Forcer

That ever-successful lighting designer Roy Bennett has collaborated with John Featherstone on a truly combined design for Bryan Adams. This is the first time that John has worked in a 50/50 relationship with Roy rather than just being his director. The pair hope this will be the start of many similar enterprises.

Standing out as the only Englishman on an Australian production team for Kylie Minogue's latest tour, Jonathan Smeeton has re-emerged with an impressive and, as usual, highly original design. He is totally unconcerned by people who are surprised that he is working for Kylie, commenting that he has worked on stranger things in the past including Yoko Ono - and you don't get much stranger than that.

Also in On Tour this month, we feature Runrig at Hammersmith Odeon and the recent Guitar Legends concert in Seville.

Bryan Adams Wembley Arena L.D: Roy Bennett/ John Featherstone

John Featherstone's working partnership with Roy Bennett goes back many years, with John mainly working as lighting director for Roy's designs for artistes such as Janet Jackson and INXS.

The end result of all their work together is their first completely co-designed lighting show for Bryan Adams. They confess to having different strengths in different areas and by working as a team they fuel each others' imagination. It is difficult to point at one thing on the rig and credit it to one or the other, because many things just came about from being able to bounce ideas off each other. It was John who was initially contacted towards the end of the INXS tour and, because it became obvious that Bryan's management were looking for a fairly heavyweight design team, he got Roy involved.

Bryan Adams sees a lot of shows and he had come across several of Roy and John's designs before. He wanted something along the lines of these previous shows and definitely not the type of rig one would normally associate with his fairly straightforward, down the middle, rock music. So out went the bunches of silver Parcans and Vari*Lite going crazy! Something a little more tasteful, yet at the same time very straightforward, was required.

To begin with, the Bennett & Featherstone design team were a little in the dark as to exactly what Bryan wanted and it took a great number of drawings and ideas before they reached a solution. Bryan did not want the rig to be a 'shape' which is why the overall structure of the system is conventional. He wanted it to look like a cross between a theatre show and a TV show, so several of the lighting fixtures are fitted with barn doors.

Upstage and out over the audience there are some custom-made lights namely 'Altec fays' - large aluminium hornflares which resemble the old Altec loudspeakers with eight light moles on the back.

The idea for lights which look like loudspeakers came from the logo on the album 'Waking Up the Neighbourhood' and Bryan said that he wanted 'lights that look loud'. Another unusual element in the system are the eight metal halide warehouse lights, with dowsers and Colormags on the front, behind the set.

The set itself is very simple being basically a curve which sweeps gently up from the downstage area to a point about four feet high at the back. It is really just an area to fill in around the drum and keyboard risers which are sunk into the set.

Bryan doesn't like fancy sets, preferring something simple. Cut into the floor are a number of slots, and under the stage several 5ks beam up through them producing delicate fingers of light. Although the effect is not visible from the back of the hall, it looks very good from the desk forward. Light shows tend to be designed to look their best from the desk and lose a lot of their sense closer to the stage. On this tour Bennett and Featherstone have

attempted to create designs which work in different areas for a change.

Also on the rig are some custom modified Molefay units which contain three light sources in the one unit. Named Tube fays, each unit comprises of four ACLs giving a tight punch beam out of the centre. Either side of that are two DWEs for a wide wash and there is also a fluorescent strip down the middle which gives a soft light and adds a little sparkle to the rig.

The rest of the rig consists of conventional 5ks, 40 Parcans, 26 VL2Bs and 10 VL4s. The system was originally hung in a very symmetrical way but neither the designers nor the artist were too happy with it, so things were shuffled around.

The introduction to the show is paced with the first few songs being pre-dominantly white light and the colours slowly being added. When it comes to a ballad the colours become very rich and thick, brightening again when returning to the rock numbers. This one extreme to the other continues throughout the show. Bryan Adams was very concerned that the lights did not become the dominant factor, he did not want people coming away from his show talking about the lights instead of the overall performance.

Bryan Adams has audience lighting in about 60% of his songs and, because the design team did not want the audience blinded all night by the usual Molefays, they decided to use a truss hung above the mixing desk with more Altec fays casting a soft and less offensive light.

Control is a Celco Gold linked to a Celco 60 Major, partly because the Altec units take up three control channels each and also because the budget was fairly restricting. It was decided to break things up as much as possible to achieve more versatility. There are two 72way Avo dimmer racks and one 48way rack. Four Colormag desks are involved as all lanterns have a colour changer attached.

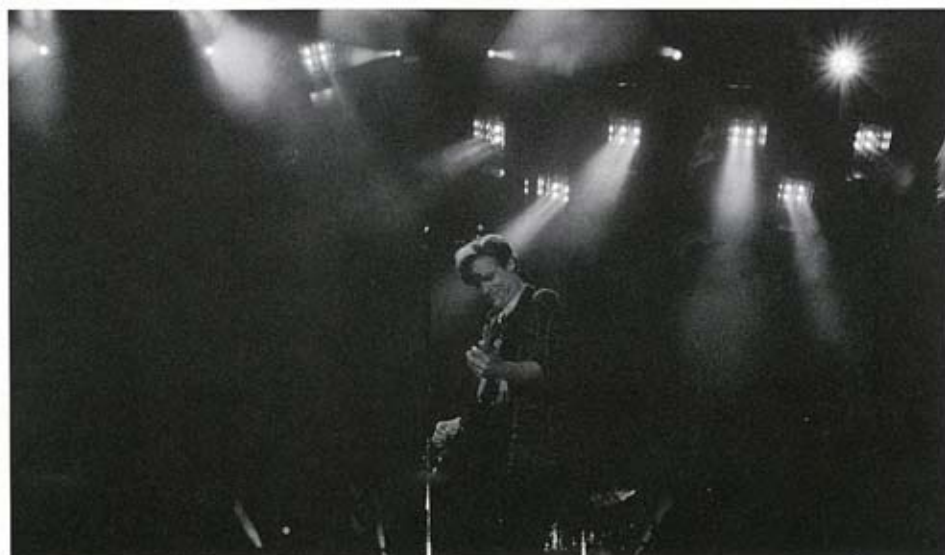
The Bryan Adams 'Waking Up the World' tour started in October 1991 and, at the moment, is planned to last until the end of next year. John Featherstone will stay with the show whilst Roy Bennett will be designing the next tours for Prince and then The Cure.



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Bryan Adams.



Kylie Minogue at Wembley Arena.



The lighting rig consists of five trusses arranged like a hand.

Kylie Minogue Wembley Arena LD: Jonathan Smeeton

Jonathan Smeeton is one of the industry's better known lighting designers having worked for artistes such as Wham, Paul Simon, Peter Gabriel, and last year Phil Collins. Despite appearances to the contrary, it seems that the recession has reached even the most successful designers and Jonathan admits that he's not been very busy recently. Apart from his work with Kylie Minogue, he has been on a summer tour of outdoor festivals with Billy Idol which he particularly enjoyed for its variety. He has also completed over 100 hours of film for Peter Gabriel which will be shown by the BBC over Christmas.

Jonathan approached Kylie's management upon the suggestion of James Dann, and he found that he got on well with both Kylie and her entourage. No brief was given and he had to communicate his ideas to the production manager in Australia where the set was being constructed.

"We took out a couple of old sets, cut them in half, extended them, re-welded them, shaped and finally reloaded them into a new set," explained Jonathan. "It's worked rather well although there was a lot of adjustment in the design to accommodate this source of material. For example, there was already a staircase."

Rehearsals for the tour were in Australia last January and gigs continued through February and March, with Japan also appearing on the itinerary.

The tour started up again in October with three weeks in the UK and Dublin. It is a much more updated show as there has been more time to rehearse and reprogramme. There is also a new album which has produced new songs to be added to the set.

The lighting rig consists of five trusses, of various lengths, arranged like a hand. The wrist, where they all collect together, is in the upstage right corner and is at an approximate 40 degree angle rake.

Between the fingers there is a 'web' with a gauze fill inbetween four main trusses. Four followspots are at the end of the rig as well as six front of house. Of these, five followspots are assigned to Kylie and one each to five accompanying dancers. The performers never actually leave the stage as all the runways and catwalks have dressing rooms and technical rooms beneath them.

"I thought very hard about how to present six dancers, including Kylie, on stage as well as a fairly large static band, five doors, low and high areas, stairs and ramps. It's a simple design, very subtle and I'm extremely pleased with it," Jonathan explained.

On the rig there are 160 Parcans with various ACLs and 34 VL2Bs, together with Molefays to light the audience as well as a pair under the drum riser which is seven feet tall with a door in

the front.

"The budget was limited. In fact, I've never come across figures quite as small before," said Jonathan with exasperation. "It's an indication of how slow the business is world-wide when people are prepared to rent substantial amounts of equipment with very experienced crews for what must surely be only covering their costs. LSD have got a lot of business when a lot of people have gone under but they do offer a good service, have a good crew and they came up with an extraordinarily competitive price for this tour."

I was quite surprised to see them buy Lumo which instantly installs them into TV and film lighting. But then in turn they've been bought by a company that's expanding and part of their expansion programme is obviously to expand LSD. I think they probably got to a level where they couldn't expand any further without a huge corporate injection. This is a business where people are going to jog along until they get to the top of their league and then, when it gets too heavy for them, they get bought out. Meanwhile, what is unnerving to me is that the smaller independent companies like Neg Earth with good prices and good crews will flatten out unless they get incorporated. LSD have become industrialised as opposed to being just a large business."

Jonathan is a lot more optimistic about next year when it looks as though the touring business will pick up with many major acts going on the road.

Runrig Hammersmith Odeon LD: Alec Nisic

Well-known lighting designer Alec Nisic is currently on tour with Scottish mega stars Runrig. The tour kicked off on midsummer's day, with a festival on the banks of Loch Highland, and runs until the end of the year.

Like many lighting designers he worked his way up from the bottom. He worked on the sound for a local band inbetween driving their gear around in a van. He regards this as a vital part of the initiation process. "Everyone should go the training I did. Unfortunately, kids these days are coming into the business and going straight into the arena. They never see the worst side of it." His first professional design was for a group called The Boys, and his first ever tour came with Roddy Chapman and the Short List in 1979.

Since then Alec has designed many shows for many bands including China Crisis, Big Country,



Scottish band Runrig at Hammersmith Odeon.

Photos: Beki Coleman

Lloyd Cole and Kim Wilde. Alec admits that if he sees a show that he likes he will lift some of the ideas and weave them into his own designs, although he adds that he would never consciously copy a design from another designer.

Alec was working with Will Downing when Roadstar approached him about doing the design for the Runrig tour. "The tour appealed to me because I like the big sound shows - they're great to design lighting for. Every song has got something different that you can recognise and work with. The music is powerful stuff. Lyrically, it's good to listen to which helps to spark off the old brain cells. I listen to the



From left to right: Alec Nisic, Billy Wharton and Andy Watson.

message behind the words which helps me to decide what colours and techniques to apply to each individual song."

The song 'Dance called America' used gobos, which were specially made for the tour. An effect of red, white and blue stars dancing across the stage, backdrop and audience was followed by chasing lights of the same colours. Again with



Designer lighting from Alec Nisic for Runrig.

red, white and blue, Alec included overlays with the Parcans and effective colour changes. The effect is very 'American'. Some may find it too much and may prefer it to be more subtle. For 'Short Road' Alec used two large flags placed at either side of the stage and lit them with red from the floor behind.

On the track 'Coming Home' Alec wasn't happy with his initial designs and reprogrammed the format. The backdrop was lit with colours resembling each part of the song; green for the grass, blue for the sky and white for the path.

One thing Alec stays clear of when designing are followspots. He didn't use them on Runrig for the simple reason that the group tend to move around a great deal during the concert. In contrast, he is more than happy to use Vari*Lite and makes full and effective use of them throughout the show.

After the Runrig tour, Alec doesn't have any definite plans, but hopes to do more work for Meteorites, and to work on the tour designs for The Christians.

Beki Coleman

Guitar Legends Cartuja Auditorium LD: Patrick Woodroffe

In October 1991, Fisher Park designed a stage set for a series of five concerts featuring 30 legendary blues, jazz and rock guitarists. The 'Guitar Legends' concerts were produced by Tribute Productions to inaugurate the new Cartuja auditorium in the Expo '92 city in Seville, southern Spain. Five or six artistes appeared nightly in a two-hour musical relay, performing both for a live audience and for Europe-wide television.

Fisher Park's design strategy was to present each night's array of artistes in a way that would be dramatic for the live audience, interesting for the television audience and which would reflect the Spanish setting.

Laid out on a dramatically large scale, the set consisted of a curving screen wall running diagonally across the stage area to provide the backdrop for an asymmetric assembly of walkways, staircases and spaces mirroring the elements and curves of deconstructed guitars. Strong architectural forms and practical timber and metallic details gave the set the feeling of a curious night club.

Fisher Park created a mixture of decorative elements which picked up various themes. Ranks of balustrading in the form of brightly-coloured futuristic guitar shapes swept round the walkways and down the stairs. Support buttresses and the stage floor were covered with supergraphic designs taken from the mosaics of the Alcazar Real in Seville, and hanging banners revealed well-recognised Seville influences through their decoration and shape. This sense of place was further emphasized by a long entrance walkway that curved through a palm court of giant painted

scenic coconut palms.

The message of these motifs was broken down by the deliberate juxtaposition of more playful punk elements. The screen wall marbled in blue and grey streaked with silver, the hammered copper facings to the stairs and walkways and the gleaming swagged-chain handrails provided a visual foil to the strong graphics of the set.

The entire set was constructed by Outback Productions in London to save time and money, and trucked to Seville in a single semi trailer. A wide variety of scenic and performance lighting looks were provided by 48 Vari*Lite and built into the scenery and along the top of the wall and down the stairs.

Fisher Park's club-like stage set was

dramatically lit by Patrick Woodroffe and Dave Hill, and over five nights it provided strong forms and graphics for the live audience, convenience and enjoyment for the musicians and a rich variety of visuals for the relentless probings of the television camera.

Producer/Tribute: Productions Ltd
Production Manager: David Russell
Stage Set Design: Fisher Park Ltd
Lighting Design: Patrick Woodroffe
Vari*Lite Operator: David Hill
Scenery: Outback Productions Ltd
Stage Roof: Mikkel Broggard Design & Production
Vari*Lites: Vari-Lite Europe Ltd
Audio System: Clair Brothers Audio Enterprises



The combination of Fisher Park's set design and Patrick Woodroffe's lighting design provided a stunning backdrop to the Guitar Legends performance in Seville.



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Fax: (0225) 444942
Contact: Norman Gray

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To obtain the latest catalogues and product literature from any of the companies advertising on these pages simply post or fax the slip below, indicating your choice(s) by circling the relevant numbers.



68 page, full colour, catalogue detailing Avitec's comprehensive range of pro-sound and effect lighting products, together with details of their services.
0462 458961



New colour brochure showing a selection of the latest products recently added to the Avitec range.



Lighting control equipment - for further details contact:
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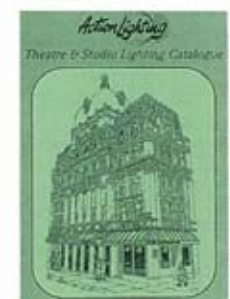
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Rainbow Colour Changers now in use on most West End and overseas musical productions. This catalogue shows the full range. Prices on request.

Latest Catalogues from PLASA Members

AJS Ltd - 0425 470888

The new AJS Green Pages catalogue carries details of the company's extensive range of theatre products including many big industry names. From make-up, books, stage lighting, gobos, and stage lighting controls, to pyrotechnics, sound equipment, intercom systems, and scenic paints.

CONTACT: Sales or Hire

Light Engineering - 081-520 2336

The company's latest catalogue contains information on a wide variety of products including shimmer curtains, moving messages, the SCM Moving Light Series, Celestion speakers, Multi-form controllers, smoke machines, and their Stomper band lighting package for pro and semi-pro bands.

CONTACT: Sales

If any PLASA members have catalogues that they would like to appear in the above listings, in the next issue, please forward them to the Lighting+Sound International offices before January 6th marked for the attention of Ruth Rossington, at the address on page 5

LIGHTINGSOUND International



• Multi Light & Sound Show '91, Bristol and Wales
• Subtitle & Graphics for the Show
• Light Panels '91 at Cambridge City
• New Products of Plymouth and '91
• New Stage at Wembley
• Single Structures '91 Based on '91

OCTOBER 1991

For details of advertising rates in this section contact
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on (0323) 642639



This brochure gives details of the AutoCAD lighting design package; AutoLIGHT. The system combines the powerful drawing facilities of AutoCAD with an equally powerful database routine.



**Telephone NJD on
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12



For all of your stage and studio lighting and control requirements, contact OpTex on 081-441 2199

13




Contact ShuttleSound on 081-640 9600

14




Telephone Strand on 081-560 3171

15



Telephone Vari-Lite on 081-575 6666

16



Over 70 pages of information on the WB/Coemar product range

17



White Light's latest price list contains the vast range of lighting equipment currently available from both London and Halifax. It also contains projection charts, reference guides and other useful information.

18



For our full colour brochure on stage lighting equipment including our latest addition, the Focus 650 range of luminaires. Contact David Catterall on (0727) 833271

19

To receive a copy of any or all of the catalogues featured in this section, simply cut out or photocopy this form and return to the address below or fax us on (0323) 646905

Lighting+Sound International
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

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Particular Interest: _____

D91

EQUIPMENT *News*

Lycian Starklite II

Lycian Stage Lighting, one of the US's largest supplier of followspots, has announced the availability of its new Starklite II. This followspot, designed to meet the needs of lighting designers in rock 'n' roll and legitimate theatre will incorporate the latest technology. It utilizes the newly developed MSR 1200W HMI single-ended lamp. This lamp, in conjunction with a sophisticated optical system creates a light intensity never before obtainable, say Lycian.

The Starklite II is a truss mount followspot as well as a front of house unit for mid-size venues. It will also feature an optional board-controlled colour changer and fader. Its flat white light is ideally suited for television, video filming and motion picture lighting. More on this product is included on our review of Lighting Dimensions International in this issue.

For further details contact Lycian in Sugar Loaf, New York on (914) 469 2285.

Delta Wedge

Complementing the Carlsbro Delta Series professional PA cabinets is a new addition to the range, the Delta Wedge Monitor. The full range stage monitor houses a 15" driver and wide dispersion high frequency horn, has a 30 degree sloped front, and features a kick-proof diamond punched steel grille and XLR socket.



It has a power handling of 200 watts RMS, with an SPL of 122dB, and a frequency response of 75 Hz to 20 Hz.

For product information, contact Carlsbro in Kirkby in Ashfield, telephone (0623) 753902.



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Odyssey-16

Odyssey-16 is a fully-fledged high performance laser control system that has many features for producing laser displays. Available from Laser Magic, the system represents a significant advance in the price/performance ratio in high-end laser workstation systems, according to the company. Odyssey-16 can produce anything from the simplest effects such as beams and lissajous patterns through to complete laser generated presentations for corporate/event applications including full colour z-blanked graphics.

For a full line-up of the features, telephone Laser Magic in Seaford on (0323) 890752.

Rackmount Drawer

A new low-cost rackmount drawer, which fits into standard 19" racking for electronics equipment, has been designed by CP Cases - aimed specifically at recording studios and sound engineers.

Made in 2, 3 and 4 unit heights, from 1.6mm steel sheet, the drawer has a black epoxy powder coat matt finish, and fully extending quick release drawer sides for easy removal.

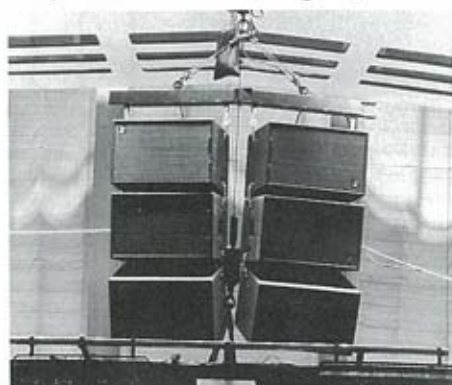
For further information contact CP Cases in Isleworth, telephone 081-568 1881.

Low Voltage Lighting

Previously available from the Lighting Workshop, the Generation 12 volt 50 watt dichroic can now be purchased from The Lighting Group. The company also offer Klikstrip, an incandescent lighting strip for use in environmental and display lighting.

For further information, contact The Lighting Group in Basildon, telephone (0286) 591036.

Superbeam Flying System



SSE Hire has launched a new flying system, the SuperBeam. According to the company, the system features compact design, utilising smaller bars than any other system to date. Each bar is capable of supporting a 1 tonne load of PA cabinets, and any number of modules may be linked to create multiple arrays with dispersion up to 360 degrees.

For further details contact SSE in Birmingham, telephone 021-766 7170.

L.A. Tour Bag

Lite Alternative have launched the L.A. Tour Bag, manufactured from durable PVC, to provide protection for a whole range of touring lighting products including stands, desk covers, strobe and smoke machines, plus more.

Further details are obtainable from Lite Alternative in Heywood, telephone (0706) 627066.

Mynah Series

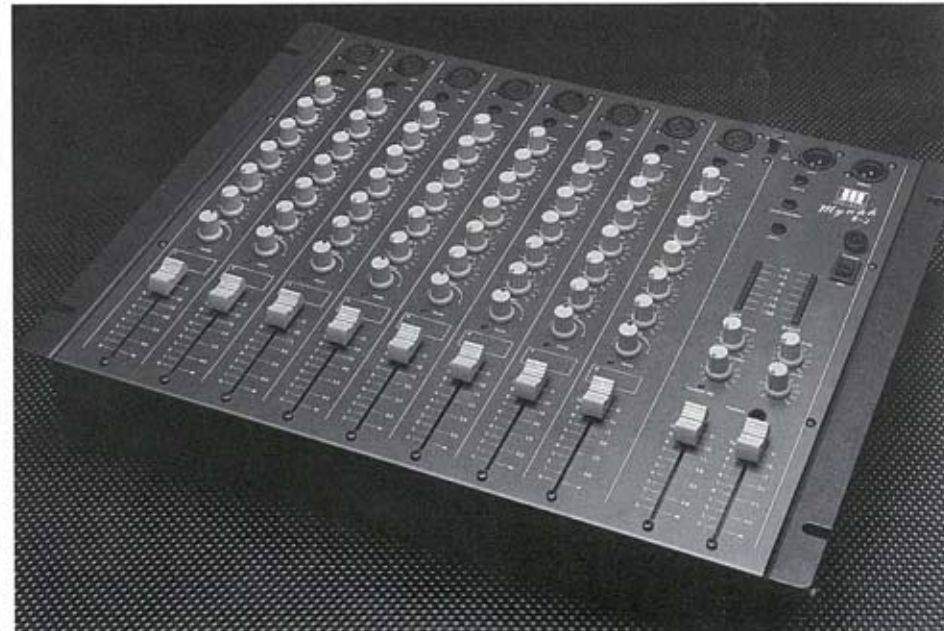
British audio equipment manufacturers, 3C, have recently launched a number of new mixers to complement their existing range of stereo mixers.

Available through UK distributor, HW International, the Mynah Series consists of 8-2, 12-2 and 16-2 versions and is intended for use in live sound, video conferencing and editing applications. Additionally, the 12-2 and 16-2 models can be used for stereo recording.

A direct replacement and upgrade to the existing G8-2 mixer, the M8-2 features the same high quality of workmanship as its predecessor, but with an internal phantom power supply and relocation of the mic/line inputs and XLR outputs to the top of the unit for easier access.

A powered version, the M8-2S, is also available which features the same upgrades but with the addition of a built-in 2 x 100W power amplifier.

For further details contact HW International in London, telephone 071-607 2717.



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World-wide contact information for import/export, concert touring, exhibitions, etc.

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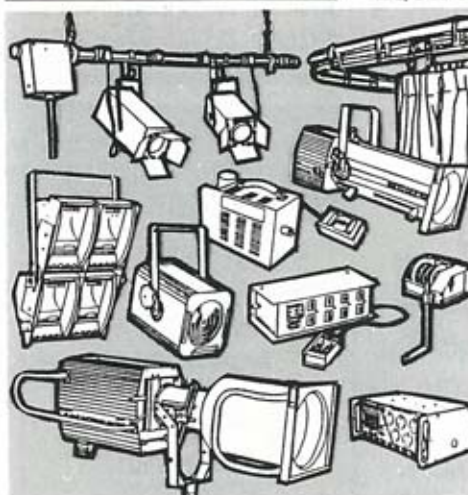
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VIEWPOINT

Andy Collier on Safety Next

The entertainment industry's focus is rightly directed towards the subject of safety, and the recent issue of four publications on the subject, including those from the Health and Safety Executive, do much to emphasise the importance of electrical safety for practitioners and audience alike. Now, I'm as concerned about safety as much as the next person. I always switch off the table lamp before changing the bulb. I always look left and right before driving through a red light in case the police are about, and I never go to the theatre without checking who the lighting designer is. But, I am concerned that this relentless search for certifiable safety performance could change the way we enjoy ourselves in the future.

Recently, I was involved in a lecture and presentation of some lighting equipment to an invited audience of lighting professionals. During a fact-finding mission a few weeks earlier, to locate the venue and the quality of the local curry, and to check some lux levels, I took along a small spotlight, thoughtfully wired with a 13A plug to connect into the nearest vacuum cleaner power outlet. Far from being accepted as the lightbulb and tin box that it really was, the object was met with a stunned horror. I'm sure I could have walked about the place unnoticed with a loaded sawn-off shotgun, but with a spotlight . . . PANIC. "Call the Electrician . . . Call the Electrician . . . Call the Electrician . . ." rang out through the corridors. He arrived with his mate P.A.T. who then spent 20 minutes fretting over my spotlight like a midwife present at a difficult birth.

Whilst I did my expectant father rendition, pacing up and down the aisle, the Portable Appliance Tester continued to emit the regular heartbeat rhythm of the continuity-proving bleep. At last the doctor announced a healthy baby and stuck a label on its belly. Next check-up in 12 months.

It took longer to test the spotlight than to make use of it, and to compound my state of shock, I was told that all the equipment for the demonstration and lecture would have to be similarly tested. A quick mental calculation proved beyond doubt that the tests would be finished some two hours after the conclusion of the lecture. Never mind, I was told, if the equipment was shipped in advance, tested and taken away again afterwards, it wouldn't need checking again on the day. The script was duly carved up and all the non-essential sections relegated to the bin or to a slide presentation to reduce the safety checking task to a single day's work. The slide mounts were plastic, so that was OK.

Even so, the two dimmer packs, nine spotlights and associated cables took a full five hours to test. As I said before, I'm all in favour of safety (especially my own) but I couldn't help wondering what would have happened if one of those earth screws didn't appreciate the 500 mile round trip and shook loose



Formerly of Italian-based Teatro, Andy Collier returned to the UK last year to take up the position of business development manager (stage lighting) at Strand. He serves on the Executive Committee of PLASA and is a council member of the ABTT.

near Hemel Hempstead on the return journey?

I then started to think about all those thousands of people involved in rigging shows across the globe. Have they got to test every piece of equipment and cable, and certify it every time they move to a new venue? Surely not, but how else can one guarantee it is safe from one venue to another.

It could be like driving your car to the garage for an MOT each time you pop out to the supermarket for some frozen peas.

Does this spell the end of live entertainment as we know it? Will all group activities involving a risk to health (as defined by the fire officers, licensees, as well as the Health and Safety Inspectorate) disappear from natural causes? Theatre and concerts are definitely out; sport is only safe if you don't do it and don't watch it (that's my excuse for being overweight anyway) and the local pub, well, just think of all that secondary smoking, hazardous food and drink, and the risk of being perforated with a dart! It would be much safer, and less bother for the safety lobby, if we all stayed at home to watch a hazardous lecture on lighting, whilst drinking cold, filtered water from the comfort of our own non-flammable armchair.

However, as statistics prove each year, the majority of accidents happen in the home. So if the radiation from the CRT of your TV set doesn't get you, the Christmas tree lights probably will.

So what's my prediction for technical product innovations for the next decade? How about a low-voltage battery-operated double-insulated VDE-approved torch for reading about the latest hydraulic and butane powered automated light in L+SI from the safety of your own bed (tested to BS&177:1989, of course!). But don't switch on the electric blanket. . . .

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regular scene masters but that's just the start. They can also control Chases and any combination of Memories and Chases can be assigned to the faders.

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With its on board softpatch to 512 dimmers, midi input, and options for a VDU, RAM card, and analogue outputs the Event is unquestionably a major contribution to the art of lighting design.



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