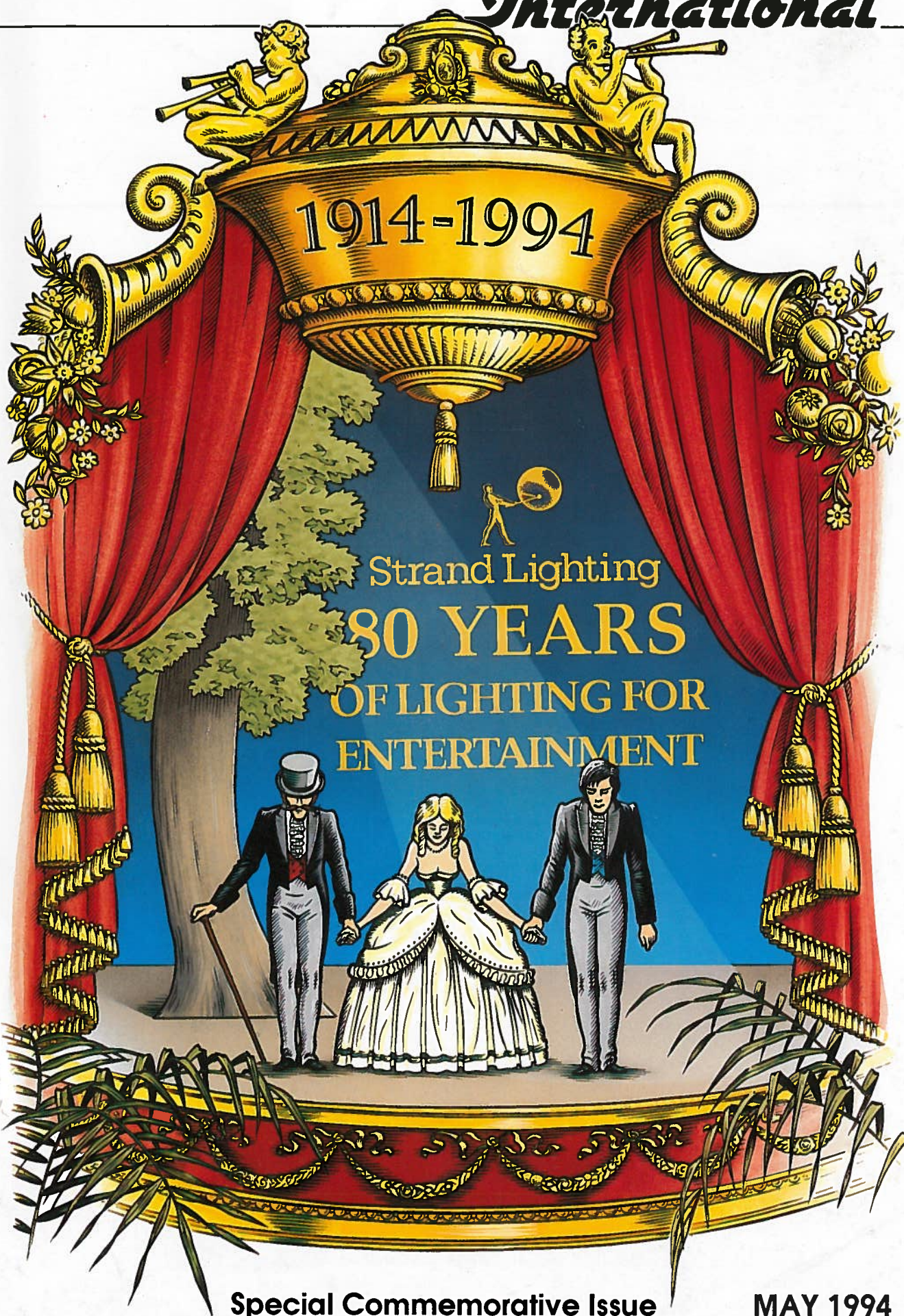


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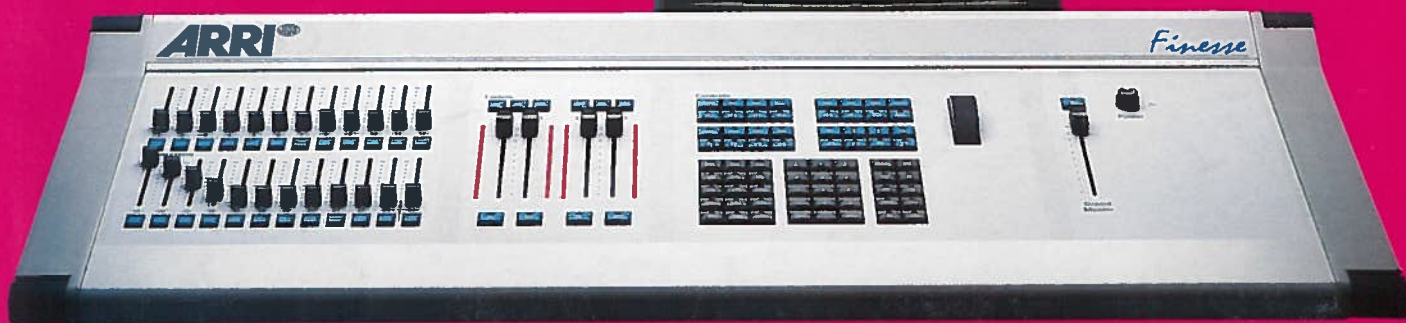


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# LIGHTING+SOUND *News* International

## Rolling up for Pink Floyd

*Tony Gottelier reports that Pink Floyd's Dallas concerts at the end of April were quite an event*

Aside from the fact that there was a spectacular storm during the second Floyd concert at the Texas Stadium in Dallas, the first was significant for the presence of a number of industry worthies from the UK.

Fresh from meeting at Tomcat's Texas offices co-ordinated by ex-pat Richard Hartman, where initial plans for the forthcoming Rolling Stones mega tour were top of the agenda, Stones' LD Patrick Woodroffe, set designers Mark Fisher and Jonathan Park were joined by Vari-Lite Europe's Brian Croft, Brilliant Stages' Charlie Kail, another ex-pat Marshall Bissett of TMB Associates and myself to watch the gig from the FOH mix pavilion. At various times this all Brit crowd was joined by Loren Haas, marketing manager of Vari-Lite Inc and Dave Oberman and Scott Jevons of Obie Lights.

Marc Brickman, Floyd's firecracker LD, rushed back from a video shoot, not wishing to miss the opportunity to show off his latest creation to such a select audience. As you can imagine, with five lighting desks, plus stand-bys, and all these people in the booth, things were getting a mite crowded. Brian Croft quipped that if lightning struck the assembly "half the Rock and Roll lighting business would be wiped out at a stroke!"

Fortunately, the weather held off for the night, but for the second Dallas performance the following day things were not so favourable. The stadium, home of the Dallas Cowboys, has an open roof over the football field and, after the interval, a huge rainstorm delivered thousands of



**Pink Floyd's Dallas concert, a spectacular success for Brickman and Fisher.**

gallons of water onto those unfortunate punters on the pitch. It is an indication of the spectacular success of Fisher and Brickman's huge contribution to the show's incredible series of massive visual effects, and to the stage design and current technology, that the show went on without a hiccup, and that nobody left.

Legendary tour production manager Robbie Williams told me from the Dallas Cowboy's locker room where he'd established his base for the event: "We were more fortunate than at the Houston gig where a column of water was dumped straight onto the band through a loose hatch in the stadium roof!" On that occasion the instruments failed and the gig was abandoned. It's a myth in Dallas that the stadium roof had been left open "to allow God to look in on his favourite football team."

For the full story of Pink Floyd's first major tour for several years, and interviews with Brickman, Fisher and Williams, look out for 'Tales from the Pink Floyd locker room' in L+SI's June issue.

(See separate news story - page 25)



**Holding court - Marc Brickman (facing camera), talking lights with Patrick Woodroffe, Brian Croft and Mark Fisher before the Dallas concert. The two operators are Gilbert Azzam (Telescan) and Gareth Williams (Wholehog).**

## Colortran Allege Patent Infringement

Colortran, Inc has announced that it has filed a complaint in the Federal District Court in Los Angeles related to the Sensor dimming and control system recently introduced by Electronic Theatre Controls Inc (ETC) of Madison, Wisconsin. Also named as defendants in the action were David Cunningham, Gregory Esakoff and Entertec, a research and development partnership formed by Cunningham and Esakoff.

According to a release from Colortran Inc, the complaint charges the defendants with patent infringement, violation of the Uniform Trade Secrets Act, breach of contract, breach of covenant of good faith and fair dealing, and intentional interference with economic advantage. Colortran seeks, among other remedies, permanent injunctions barring continued infringement of Colortran patents and against continued use of confidential Colortran information, as well as the payment of monetary damages.

A press release from ETC stated that there are currently no actions, injunctions or court orders preventing ETC from shipping Sensor products. It further states its belief that the eventual resolution of the action will result in findings of patent invalidity and non-infringement and that there will be no interruptions whatsoever in the delivery of the Sensor dimming product.

Fred Foster, president of ETC, told L+SI: "It is ETC's policy and practice to respect valid patent rights of others. During the design of the Sensor dimming system, great care was taken to avoid infringement of valid patent rights of Colortran and others. It is ETC's intention to vigorously defend our position in this action." The company has just shipped the 200th lighting control system using its Sensor dimming system.

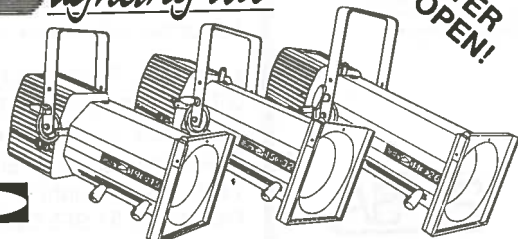
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# LIGHTING+SOUND *International*

MAY 1994

VOLUME 9, ISSUE 5

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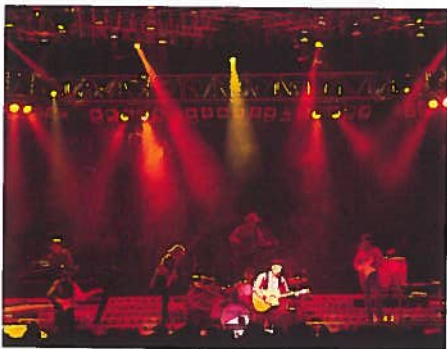
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The views expressed in Lighting and Sound International are not necessarily those of the editor or the Professional Lighting and Sound Association

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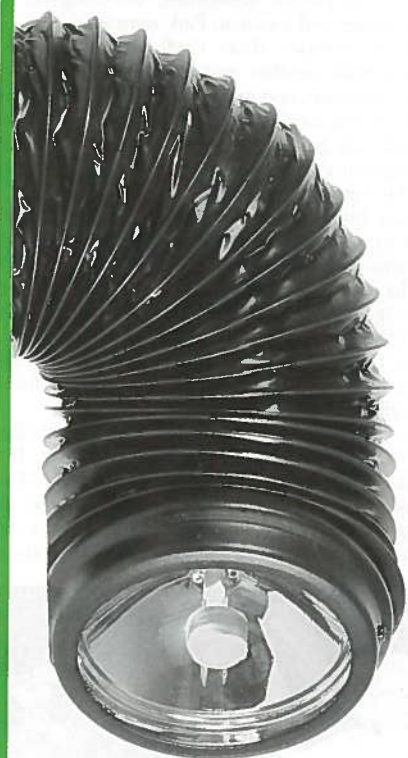
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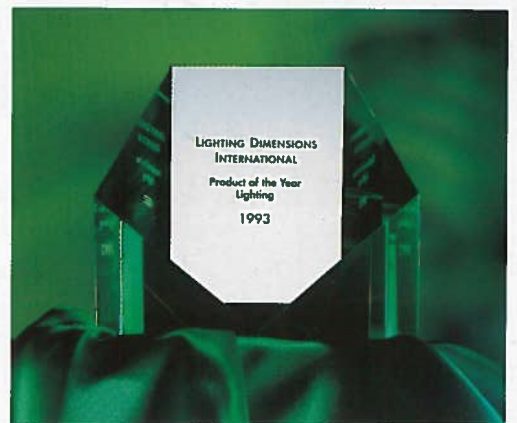
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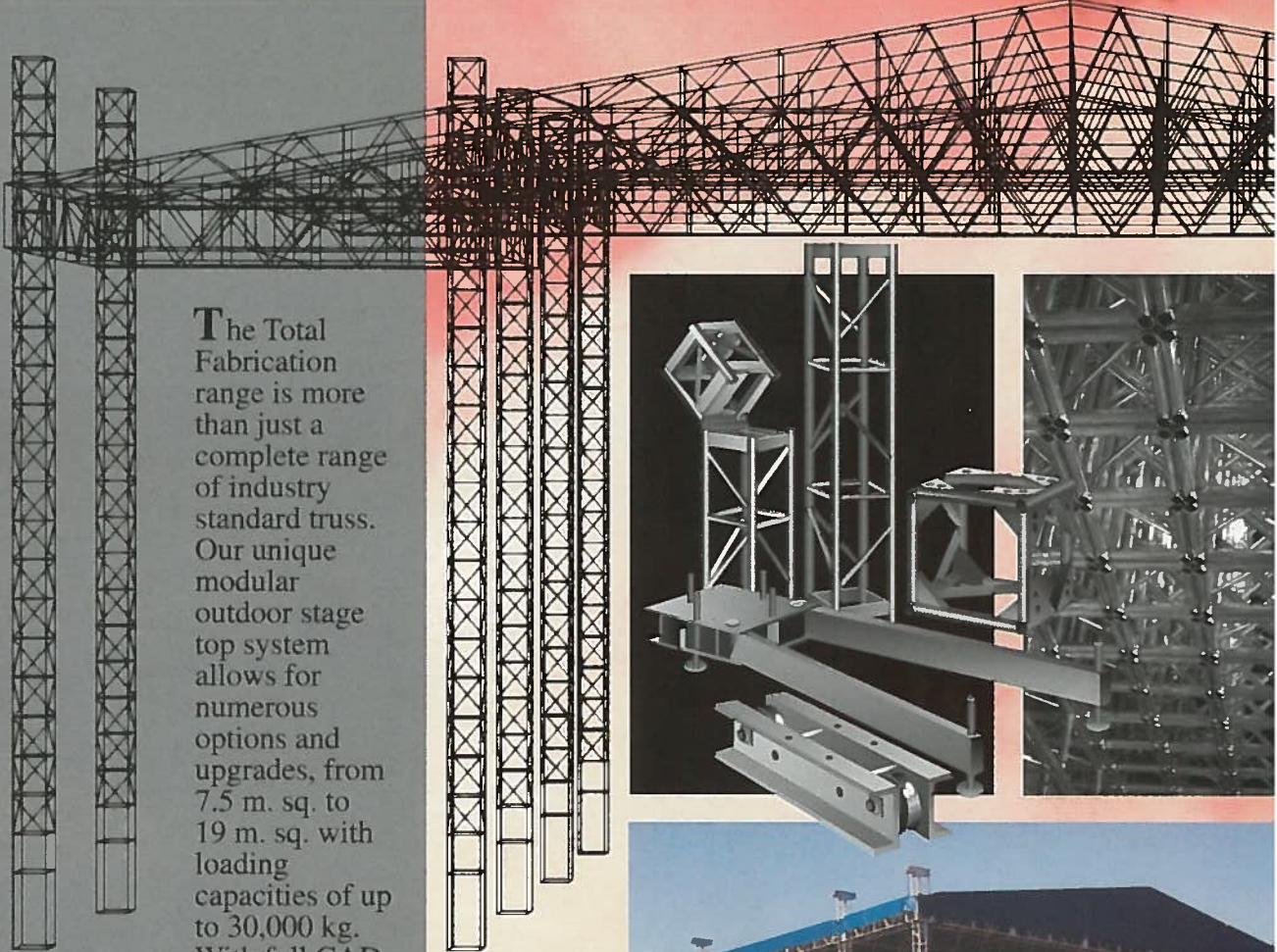


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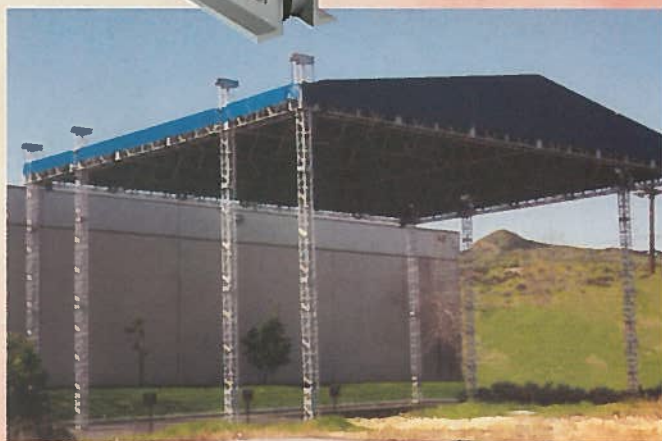
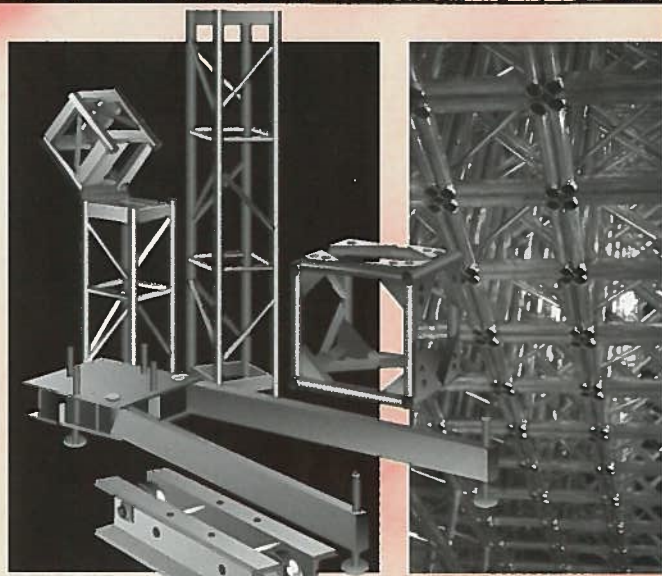


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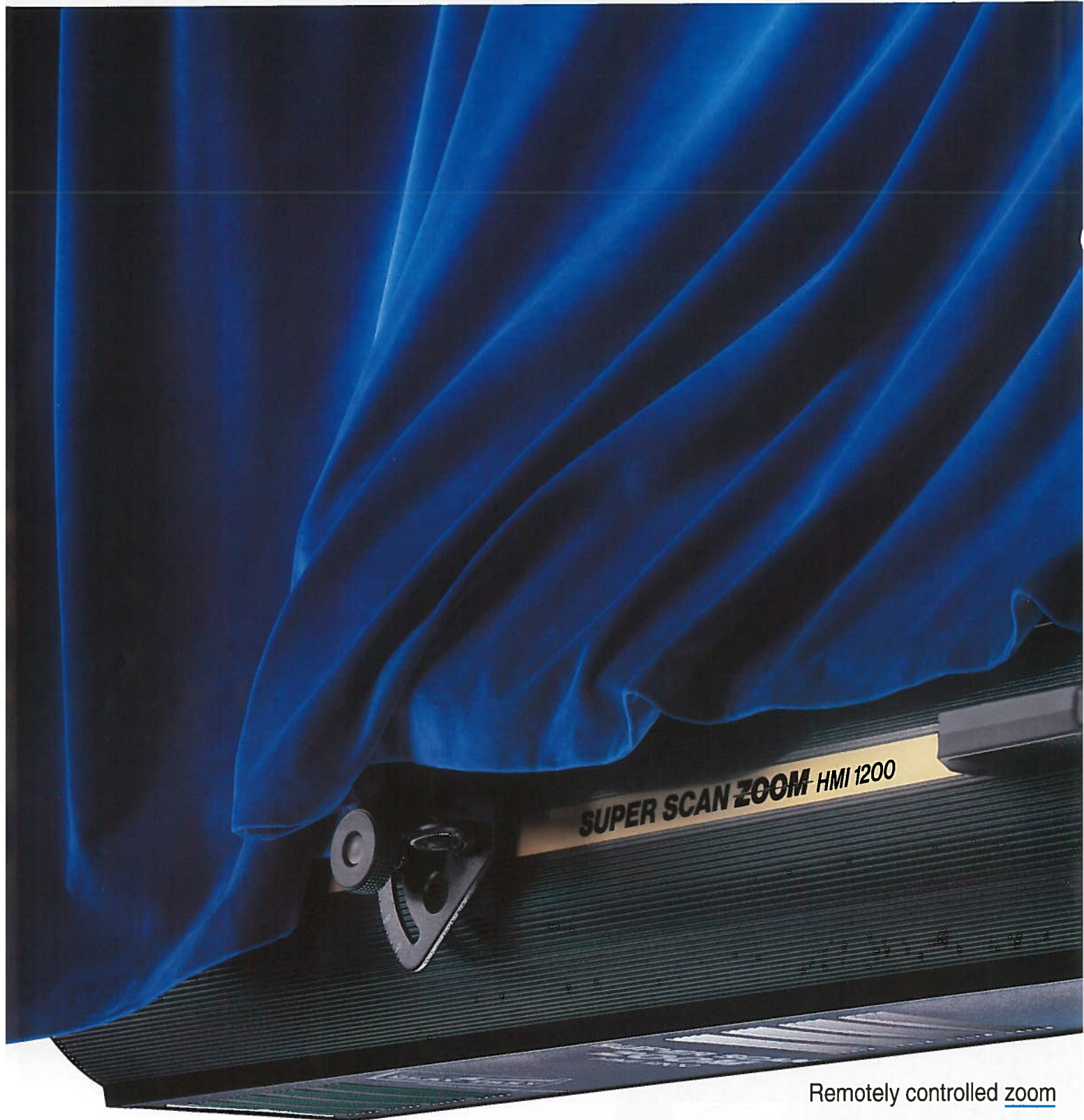
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## Launch of Stagecraft NVQ



Graham Walne (left) and Joe Aveline of AETTI toast to the success of the NVQ in Stagecraft with Stella Cook of City and Guilds.

The first National Vocational Qualification (NVQ) in Stagecraft was launched on April 22 by the Arts and Entertainment Technical Training Initiative (AETTI) at the ABTT Trade Show and conference in London. Developed and awarded by AETTI in partnership with City and Guilds, the new NVQ covers running costumes (Level 1), scenic skills, lighting and flying (Level 2). Level 1 is suitable for new entrants to the industry including those in Youth Training or attending drama schools and Level 2 for those with experience or access to assessment in the workplace. The new award will qualify people to work in the theatre and in any other branch of live entertainment. Entrants will be assessed at centres which have been approved by AETTI and City and Guilds.

Commenting on the new qualification, AETTI chairman Graham Walne told L+S: "From outside, the theatre industry is perceived as informal and unstructured; certainly some of its greatest assets are its versatility and mobility. However, the demands of complex legislation and its bureaucratic framework - such as Europe-wide safety assessment, equal opportunities policies and employment legislation - are hard to apply without losing theatre's intrinsic qualities. NVQs offer employers a process of addressing these issues, whilst simultaneously bringing long overdue status to our skilled people and retaining the flexibility which produces our best work."

**Note:** The AETTI was founded in 1987 and officially recognised in 1988 by the Department of Employment and all the major theatre employer, union and professional associations as the lead body responsible for developing the standards for Scottish and National Vocational Qualifications for the non-performing occupations in the live entertainment industry. It is the oldest lead body in the arts.

## Lookalike



Thompson

Farquhar-Willson

I wonder if anyone has noticed the extraordinary resemblance between Mark Thompson of Arri GB and PLASA's own Roddy Farquhar-Willson. I wonder if by any chance they are related? (Ed)

## Definitive Laser in Dubai

After having been established in the UK for only four years, The Definitive Laser Company (DLC), have now also set up in Dubai.

Based in an 8,000 sq.ft warehouse, office and demonstration area adjacent to Dubai airport, the operation is permanently staffed by DLC's Lorraine Ludman and Andy Wheeler, together with Mick Staplehurst from Britannia Row. As well as a full complement of laser systems, DLC will carry a varied stock of lighting equipment, including Golden Scan 3s, Jands Event and Zero 88 Lightmaster control desks, a ground support TFL truss and DF50 cracked oil machines. Sharing the premises with DLC are sound suppliers Britannia Row who will stock a range of sound equipment including a full Turbosound floodlight system. Since opening the office the company has been involved in a wide range of projects including product launches and fashion shows. DLC/Britannia Row's contact number in Dubai is (9714) 826778.

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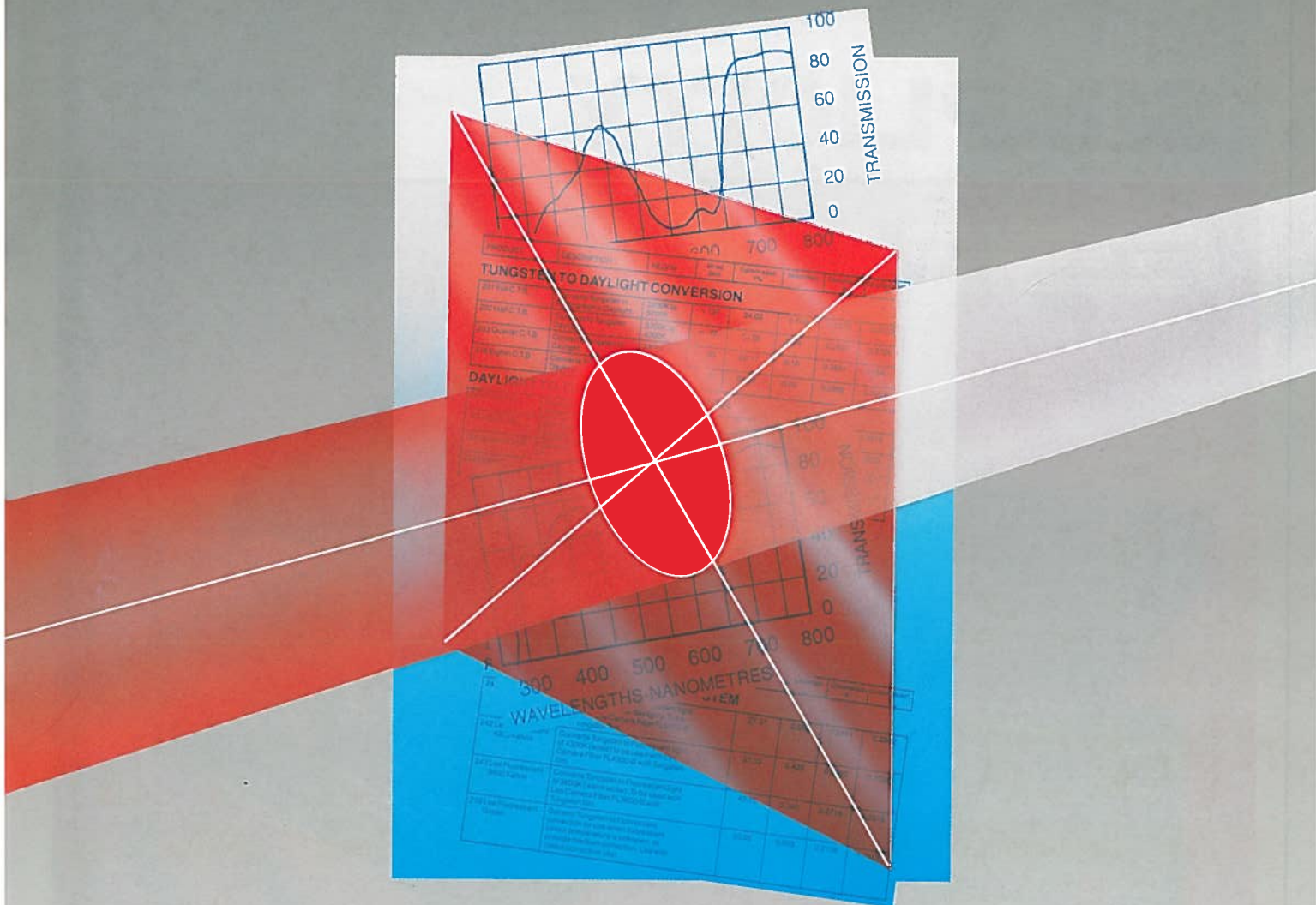
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**UK First for PLASA Member**

Central Theatre Supplies' David Harwood (second left) with his team and the BS5750 certificate.

Birmingham-based Central Theatre Supplies are celebrating this month having attained BS5750 accreditation.

Although a number of PLASA members are registered to BS5750, they are all manufacturers, and CTS believe they may at present be the only company in the UK offering a range of theatre products to the end user, to be registered to BS5750. "We have been working on our Quality Manual for just over 12 months," David Harwood, MD told L+S. "Many of the procedures we needed were already in place and with the help of a good consultant we were able to bring our quality system up to the required standard. Although it was time-consuming, writing our manual wasn't the daunting task we were initially led to believe it would be. I would recommend BS5750 and the benefits that are associated with it to any other company."

For CTS in the past 12 months, the accent has been repeatedly on quality, with their BS5750 assessments and internal audits coinciding with their site inspections for NICEIC registration.

**News on APRS 94**

The 1994 APRS Exhibition is continuing to attract new names to its already strong exhibitor line-up, including 12 companies participating for the first time. These include Totalsystems, Ghielmetti, Systembase, Tektronix UK and Trantec Systems. The event, which is taking place between 22nd-24th June at Olympia 2 in London, reflects the full breadth of today's professional audio industry, spanning recording, broadcast, post-production, live sound, duplication and replication.

Amongst the participating companies are many of the industry's leading players. Included amongst these are AMS Neve, Avid Technology Ltd, Dolby Laboratories Inc, Professional Monitor Company and Sony. Other APRS 94 news includes a number of additions to the schedule of 'Briefings', taking place for the first time this year. The latest line-up now includes: sound designer John Leonard on 'creating sound FX for the theatre'; Bill Foster of Audio Exchange examining the potential of ISDN on behalf of Studio Sound; journalist Tim Frost discussing the importance of multi media; Andy Bereza of BWG analysing 'multi media in practice'; Paul White of Sound on Sound magazine and Dave Ward on 'microphone techniques'; Brian Copsey of ASPFM Ltd talking about 'radio frequency management'; Jim Wilsher of EMI Music Services (UK) on why 'vinyl is not dead'; Mike Edwards of the international Federation of the Phonographic industry (IFPI) on 'protecting CDs against counterfeiting using the SID code'; Bill Foster, on behalf of Pro Sound News, leads a panel of manufacturers and users looking at the implications and application of top end recording technology; 'DAT: are you getting the best out of it?' - Phil Wilton of Sony enlightens users and lastly radio microphones - a team of experts and manufacturers discuss the uses and abuses of radio mics.

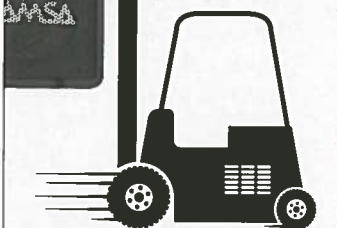
A number of major product launches and first UK showings are planned at the show. For further information, contact APRS in Reading, telephone (0734) 756218.

**Cross Atlantic Link**

Zero 88 Lighting Ltd have announced an exclusive trading arrangement with The Great American Market for distribution of their stage lighting control systems. The deal coincides with the nation-wide launch of the Lightmaster XL and XLS family of memory lighting consoles. The consoles got their first major US showing in April at the USITT Annual Conference & Stage Expo in Nashville, Tennessee (see full report next month). Zero 88 Inc will continue to operate from their offices in North Palm Beach, Florida but will now specialise in the club and architectural lighting control ranges.

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## ABTT Action

### John Bradley Honoured



Former technical services administrator for the Royal Shakespeare Company, John Bradley (centre) receives Technician of the Year award for service to the theatre industry from David Mellor, QC, MP, at the ABTT dinner in London in April. In picture (right) is ABTT chairman John Faulkner.

### Focus on Superscan Zoom



Doyens of the industry, lighting designer Michael Northen (left) and director Robert Nesbitt (right) are engrossed with the attributes of Clay Paky's new Superscan Zoom, first launched at SIB in Rimini (see L+SI April 94). The man at the controls is Pulsar's technical director Paul Mardon.

### PLASA On Tour



Pictured above, the P&O Events team of Nicola Rowland, James Brooks-Ward and Caroline Clark join PLASA's Anna Pillow (second left) on stand at the Show.

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## Going Live! Goes Live

More than 100 students attended Soundcraft's fourth Going Live! training course for live sound engineers, held in Manchester recently.

With three-and-a-half tons of equipment to play with, worth over £300,000, the students certainly got their money's worth in terms of kit. And the five professional presenters, drawn from pro sound, covered a huge chunk of the engineering landscape from basic principles to operational practice. Chrys Lindop (Jeff Beck, Bjork, The Cure, The Pretenders, Stevie Wonder) and Andrew Fregley (David Bowie, Beverley Craven, Deep Purple) took the main FOH and monitor console classes, with support from monitor man Mick Shepherd (The Stranglers, Erasure, Kim Wilde) and Mick Anthony (systems man at the former Town and Country Club), and a special appearance by Mike Spratt of Wigwam Acoustics.

The first part of the course, an introductory day for 'beginners', was well-attended with over 30 students. Another 70 people arrived Saturday morning for the main body of the course. Wigwam Acoustics supplied a full PA system to support the Soundcraft Europa console, used for FOH training, and the Soundcraft SM24 monitor console, which was actually making its first-ever public performance. Turbosound, Sennheiser, AKG and BSS also supported the course with the loan of equipment - including a Floodlight rig of window-breaking proportions!

The dates for the next Going Live! course are 18th, 20th and 21st August at Manchester University. For tickets call Katrina Davies at Soundcraft, telephone (0707) 665000.

## Turbosound Buddy

The Turbosound TCS-612 is making its theatrical debut in South Africa in a touring production of the musical 'Buddy'. Show designer Rick Price, together with local theatre specialist Craig Beyroot of 8th Avenue Sound, has specified an all-Turbosound rig for the show, featuring TMS-4s along with the new TCS cabinets. The Turbosound stacks are prominently displayed on stage, doubling as FOH system and Buddy's PA when the show calls for his 'live' performances. As well as two flown delay trusses which use a TCS/TSE0-215 combination, there is Rick Price's 'whisper system' for distributing spoken word around the theatre. The show, which will tour for 18 months, is South Africa's biggest musical theatre production to date.

## James Lawford



Jim Lawford passed away peacefully in his sleep on the 4th May this year after a three year fight against Aids. Jim, whose career spanned 14 years, worked in all facets of the industry from rock and roll to television, and despite the debilitating constraints of the disease worked on the Eric Clapton shows at the Albert Hall as recently as March this year.

His wit and dry sense of humour made working with him a pleasure. He had an inherent ability to raise laughter out of any situation which made light work of unpleasant tasks. A man of few words, he was devastatingly incisive when goaded by over-zealous production managers or inattentive stage crew. He took no prisoners and there were no sacred cows.

His competence in his chosen profession was second to none. With Jim on the team, it was akin to having Gordon Banks in goal. The dignity, courage and openness he displayed in facing and fighting a terminal illness such as Aids was a rare quality; one that we would all wish to possess, but present in so few. He will be sorely missed by friends and colleagues in a lighting industry in need of people with his attitude, ability and professionalism.

He leaves a wife, Beverley and Buster the spaniel.

**Rob Mackenzie  
Jean-Luc Michaud  
Dave Smith**

*Jim's wish was that donations, rather than flowers, be made to those charities which were so supportive throughout his ordeal including the Red Admiral Project, the Immune Development Trust and the Phyllis Tuckwell Memorial Hospice. Any donations should be forwarded to: Robert Ayling Funeral Services, 25/27 South Road, Guildford, Surrey GU2 6NY.*



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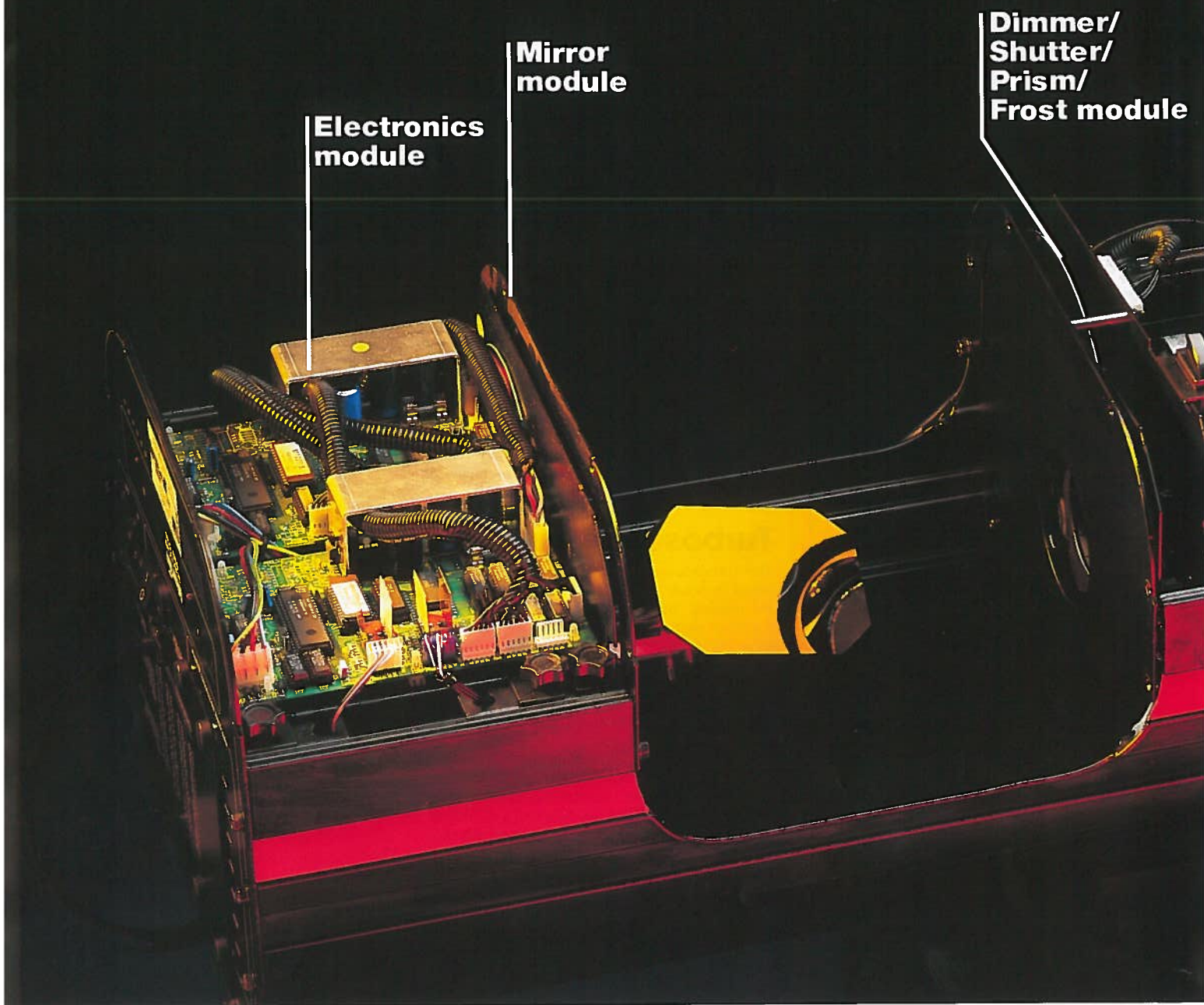
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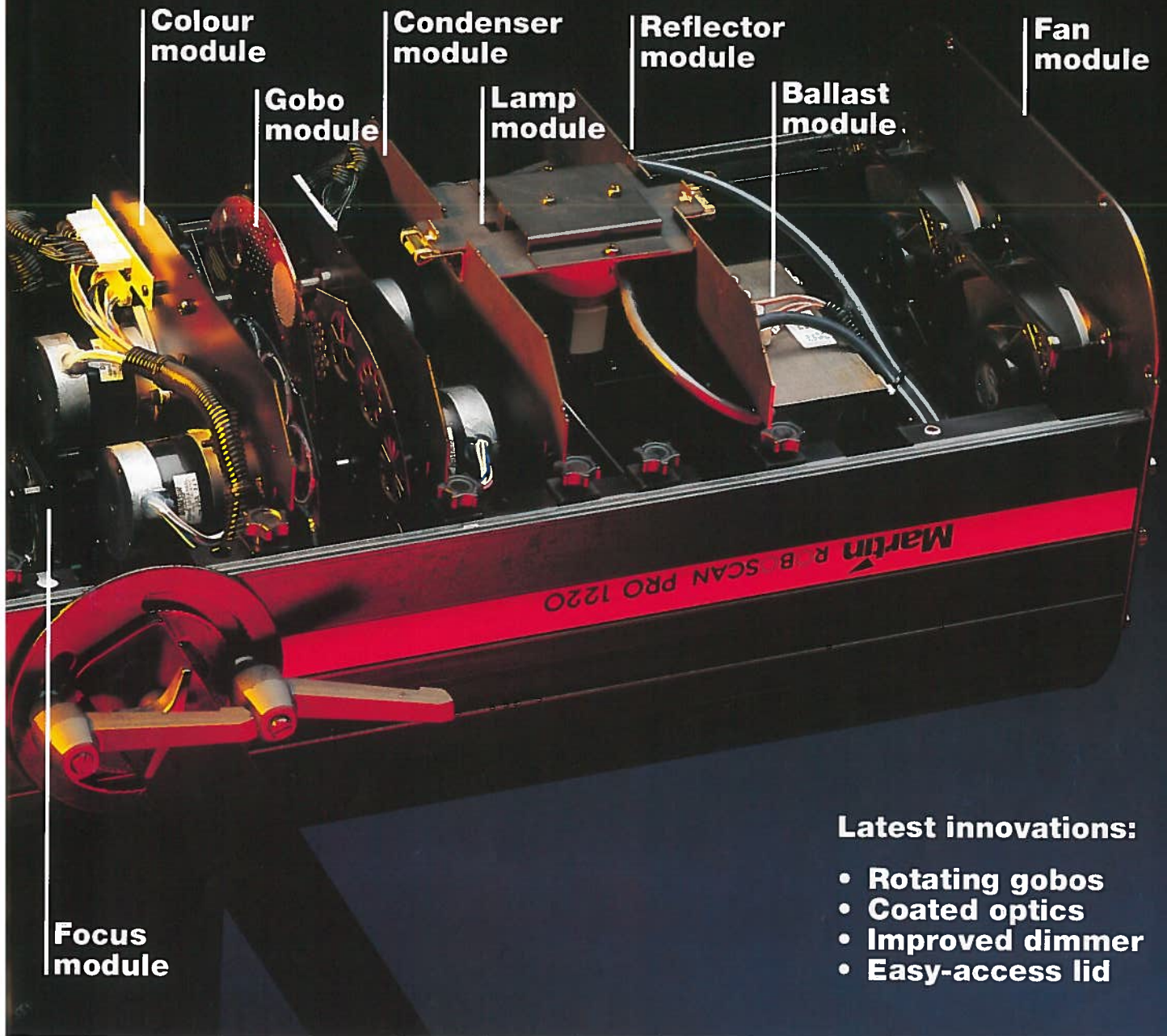
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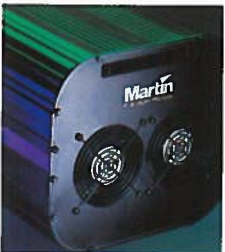


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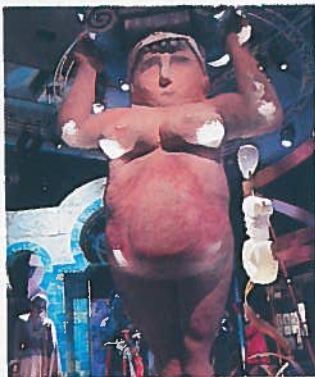


Second year students, pictured with college staff at 'Workshow 94'

## Workshow 94

Second year Theatre Design students at Croydon College recently presented 'Workshow 94', an exhibition of their set, costume and lighting designs, in the Denning Hall and Peter Jackman Studio Theatre at the college. This impressive exhibition offers an opportunity to view new talent in the theatre industry and discover backstage techniques, as the accompanying photographs (taken by Robert Muller, senior lecturer in lighting and production studies) will testify. The course has had many successes in its 56 year history with many ex-students in charge of departments or working freelance in theatres or workshops across the country.

The Workshow, now in its twentieth year, enables each student to build full scale sections of their set designs, costume and appropriate lighting



Student Chris Cahill's monstrous exhibit at the entrance to the hall.

from three projects set last term: 'Salome' by Oscar Wilde, 'Peter Grimes' by Benjamin Britten and 'The Nativity' from Tony Harrison's adaptation of the Mystery Plays.



A selection of the lighting designer's exhibits in the Peter Jackman studio.



Some of the student's work on the Salome project.

The recent Preview Evening was well attended by leading representatives of the theatre industry, sponsors and press (including L+SI) and is an important introduction to theatre employers for the students (many are offered placement work during their third year) as well as an opportunity to meet with the people they have contacted for sponsorship and assistance in the preparatory months prior to the show. In addition to the main exhibit, there is also a trade-show style presentation by the design students who undertake the management and organisation of the evening.

Many companies either gave or loaned equipment including Arri (GB) Ltd, Cerebrum, DHA, Gradav Theatre Services, Lee Filters, Leisure Services, LHS, Mushroom Lighting, M&M Camelont, Optikinetics, Pulsar, Rosco, Theatre Projects, Unusual Rigging, White Light, Zero 88 and Vari-Lite.

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## White Light Group add Production Company

Co\Ordination is a new company being set up by Siobhan Houlihan who recently left Apollo Leisure. She is combining her talents with the resources of the White Light Group which includes Modelbox and the Moving Light Company. The new venture, to be launched this month, will provide general management services to all types of productions. The aim is to provide a full service including planning, organising and co-ordinating events, both large and small, on a national and international basis.

In addition to the overall running of projects, preparation and controlling of budgets, the service will include direct liaison with directors, producers, PR and marketing, artistes, venues and technical staff. All tendering to suppliers and negotiating of contracts will be handled

independently. Co\Ordination is also available to research and prepare feasibility reports on potential projects.

Siobhan Houlihan was the general manager for the productions produced by Apollo Leisure and Barry Clayman Concerts. With over 12 years experience she is looking forward to the opportunity of working alongside the White Light Group.

John Simpson, managing director of White Light, told L+SI: "Co\Ordination is a natural progression for the White Light Group and Siobhan is certainly the right person to make it happen. I believe that the new company will help to rationalise all the areas of the group's expertise and help to make it a stronger company through a more efficient use of our resources."

## Sound Deals . . .



Operating from two busy London stores, Musical Images' installation and supply service specialises in audio and audio visual systems based around high performance products, selectively sourced from more than 100 manufacturers.

The company's successful philosophy is illustrated by the high quality - low visibility sound system just installed at Deals Restaurant (pictured above) in the newly opened Hammersmith Plaza. High-end components and top quality switching were selected to address the requirement for zoning while maintaining high audio quality.

Quad amplification was chosen with two Quad 34 pre-amplifiers and three Quad 606 power amps driving six pairs of Bose 305 speakers. QED MA15 2-way parallel speaker switches allow for zoning in four separate areas of the upstairs 120 seat bar and restaurant. The use of parallel rather than serial switching ensures minimal signal loss, maintaining sound quality, even over some of the very long cable runs required. The system has been coupled to an Aiwa AD-WX 929 HX Pro 'Quick Reverse' twin cassette deck.

## First Gig in Space

NASA has chosen a Soundcraft SM24 monitor console for its first gig in space. The concert, with a performance by three Space Shuttle astronauts, forms part of the June 17th opening ceremonies for the 1994 World Cup Final. Mission Leader Lt. Colonel David Schultz, Professor Emma Cooke and Dr. Steven Greenhaugh - collectively known as The Spacewalkers - will join an earth-bound 17-piece jazz band in a rendition of 'Football Crazy' as they orbit at an altitude of almost 90 miles.

"As this is the first time the US has hosted the event, we wanted the opening to be as spectacular as possible," Stevie Sackin of TDT Audio, monitor engineer for the event, told L+SI. "Dave Schultz is a brilliant guitarist, and does quite a lot of sessions. We booked him for the gig way back, but when the Shuttle mission came up he obviously had to cancel. He jokingly said 'Well, why don't I do it from orbit' - and I thought, why not? The other astronauts didn't want to be left out, so they're handling backing vox."

"Originally we wanted to build an entire PA rig in space, but the SPLs we'd have needed to make the system audible down here would have shaken the Shuttle to bits. And even if it hadn't, NASA technicians worked out that in zero-G the recoil from the drivers would shift the craft into a highly unstable orbit." In the end Sackin and FOH engineer Johnny Rich opted for high-bandwidth radio equipment and ISDN codecs, allowing near CD-quality audio to be transmitted from the shuttle down to the mixing positions, and back to the shuttle for monitoring. "The monitoring is critical," explained Sackin, "and that's where the SM24 comes in. It's literally out of this world!"

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## Touring Parties and a time to Celebrate?

A fifteenth century merchant's mansion in the heart of Essex is not quite the setting you might expect to find the likes of independent tour manager Laurie Small (who has worked with, amongst others, Thin Lizzy) and Cane Green's Yan Style chatting over a bottle of wine, especially not in the presence of a string quartet performing baroque chamber music contemporary to their surroundings. This was not, as you might expect, a devious new route to secure touring business, nor a weekend retreat to a health farm for two knackered old rock and rollers. The occasion was in fact Yan's official house-warming party.

Despite the epithet mansion the house was somewhat less than grand when he purchased it last year and Yan has spent the last nine months investing considerable amounts of his time and energy into restoring it to a habitable state whilst his long suffering wife Alex and children endured the rigours of camping out in variously completed rooms throughout the past winter. Not unused to building something from nothing Yan has made quite a home from an old wreck (don't you wish he could do the same for you?) and the weekend's fancy-dress party for over 150 people was carried off with similar aplomb.

Not exclusively restricted to luminaries from the music business, the party none-the-less featured a few. Tour manager Glen Smith (formerly with Britannia Row) came dressed in military regalia of the Napoleonic era, as did Yan's business partner Chris Redburn and the aforementioned Laurie Small. In fact, military attire was a noticeable favourite amongst the captains of the music industry which is perhaps no surprise. Just to break the mould, Robin Fox, who has finally finished touring with Rod Stewart, after what seems years, appeared as a

Georgian gentleman, very much a Middlemarch man. Cane Green's other stalwart Peter Edmonds was unable to attend due to pressing commitments of the Meat Loaf kind (no pun intended) so we shall never know what alter-ego Peter aspires to, though some wag at the time suggested Shylock. Peter Clark of SuperMick was also unable to attend but in his usual fashion, sent half a dozen 500W quartz floods instead.

April 6th saw Light & Sound Design's Simon Austin upon a beach in the Seychelles getting hitched for the second time - the delightful Angela Bickerstaff was the happy bride. Nice to see someone at L&SD is looking a bit further ahead than next month's figures for a change. Simon is a man who elicits mixed opinions from within the music business, but despite this, who would deny him happiness for the future. Congratulations Simon.

Nirvana were to have been featured in this month's On Tour and for obvious reasons this is no longer be possible. A few weeks prior to lead singer Kurt Cobain's suicide, I was fortunate enough to witness their performance in Paris at the start of their European Tour.

Unfortunately short notice did not allow for the issuing of a photo pass or an interview with Susan Sasic the lighting designer, hence no review this issue. A great deal of 'bad press' surrounds the history of this band, particularly Kurt and the manner in which he conducted his life and, undoubtedly there's no smoke without fire. However, he was an outstanding song writer even if his lyrics were tortured in the extreme, and doubtless albums like 'In Utero' will continue to be played long after the likes of Bros, New Kids on the Block and Take That have rightfully faded back into the swamp. Never mind. SM

## New Contracts for Northern Light

Northern Light has just won the contract to refit the Beach Ballroom, Aberdeen, following a fire earlier this year. The fire, in the stage area, damaged lighting, stage equipment and part of the sound installation. Northern Light is supplying and installing replacement lighting, sound, stage equipment and curtains. The work is being carried out in conjunction with Doric Construction.

The company is also handling the contract for upgrading the Greenock Arts Guild which includes the installation of a dimmer rack and a new Strand Lightboard M control desk. Motherwell Concert Hall has also just undergone an upgrade of equipment, with Northern Light installing a Slick Systems' Minibeam truss rig. The truss is in two sections, with a 14m x 3.5m box section over the front of the stage and a single 14m upstage truss. Trussing is suspended on CM Lodestar chain hoists, which are controlled through a custom built panel designed by Northern Light, enabling trusses to be moved independently or in synchronisation.

Further south, Northern Light will be working in Haverhill, Suffolk, during the summer months, in conjunction with theatre consultants TDL. Haverhill's old Victorian Town Hall is to be given a face lift with Northern Light supplying and installing lighting, sound, stage rigging and curtains.

## Atlantic Link-Up

Maryland-based Theatre Effects has announced that preliminary negotiations have been completed whereby Le Maitre Sales Ltd will stock and distribute Theatre Effects products for the European market. Theatre Effects is a manufacturer of pyrotechnics and confetti launchers, with the latter marketed under the trade name Aerotechnics.

A PLASA Show debut of the product line is planned. Le Maitre has taken on additional exhibition space, and Theatre Effects' representatives will be on hand to demonstrate the products and answer technical questions for prospective customers and dealers. "We are very pleased with this opportunity to offer better service to our European customers," Nathan Kahn, VP sales for Theatre Effects told L+S-I. "We look forward to a long and prosperous relationship with Le Maitre." Theatre Effects recently began distributing Le Maitre products in the USA.

## ShuttleCAD's Data Service Extended



Terry Taylor (second left) of Acoustical Supply, US distributors of ShuttleCAD, presents Randy Fuchs of Crescendo with a 486 laptop in appreciation of outstanding ShuttleCAD sales. Also pictured are Rob Robinson (left) sales manager for ShuttleCAD, and Bobby Brooks (right) of Crescendo.

ShuttleCAD's software programme has been specifically created for system presentation and documentation design which augments the cost saving process to system contract businesses, manipulating over 4,000 pre-drawn system components. More than half a million Data Service files had been shipped since ShuttleCAD's launch at the NSCA Show a year ago. ShuttleCAD now has over 60 manufacturers supporting its database with a further 90 in the process of coming aboard, with the following new manufacturers have been released: Allen & Heath, Apogee, ARX, Audio Logic, Biamp, Camco, Citronic, Clearcom, Community, DAS, DOD, Dukane, Dynacord, Fostex, GAE, LAB Gruppen, NEXO, PAS and Panasonic. The following manufacturers have been updated: BSS Audio, Electro-Voice, Middle Atlantic Products, Sound Advance Systems (formerly BEST), TC Electronics, TOA and White Instruments.

## AFM Lighting Move

AFM Lighting Ltd, the film and television lighting contractor, is relocating to a 55,000 sq.ft site in Acton, London, adjacent to the Black Island Studios. The new building will provide greatly improved warehousing, maintenance and administration facilities, combined with a demonstration studio. AFM can now be reached at 12 Alliance Road, London W3 0RA.

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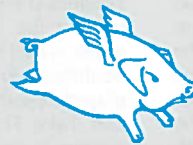
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## People News

Formerly South Eastern representative for Strand Lighting, **David Wilkins** has joined Cerebrum Lighting as business development manager where he will promote the company's comprehensive product ranges.

AMS Neve has promoted **Jim James** to marketing manager. He joined the company's sales and marketing department 15 months ago as marketing communications manager.

Leisure Resources International continue their planned growth into 1994 with the appointment of **James McKeown**, former contract sales manager at Squire Sound and Light. McKeown has whet their appetite already with the signing of the contracts for the sound system refit at Bojanglez night club, Guildford and a lighting refit at Tokyo Joe, London. The company has also appointed **Dominic Calvert** as design manager. Formerly with Cerebrum Lighting, the move will allow Calvert to develop CAD-based design and international project management.

**Graham White** joins the ever-growing team at Squire Sound and Light as southern area retail manager. His appointment demonstrates Squire's continuing commitment to the professional disco market and its expansion into the 'live music' sector.

High End Systems of Austin, Texas has appointed former Peavey product manager **Peter Cutchey** as marketing director. Also on the move within High End Systems are **John Adams**, who recently arrived at Austin from their English distributor, Lightfactor Sales, and domestic sales manager **Richard Cadena**. Cadena and international operations manager Adams have been lined up to spearhead HES' latest sales moves within the Asian market.

**Cliff Lake** has joined Sarner International to take overall control of project and technical management of corporate audio visual systems, as well as visitor attractions. As head of technical services one of his first tasks will be to further develop the engineering design department. **Simon Malseed**, previously responsible for European Sales, now broadens his role to encompass all client liaison and project co-ordination. **Jonathan Bean** will also join the company as a scenic designer and art director.

**Paul Stewart** has joined Abstract Design to Light as marketing and promotions manager. Colortran Inc has appointed **Hiram Prez** to director of international sales. Hiram's addition to the division will ensure that clients are kept up-to-date with the latest in product news and information, world-wide.

**Jonathan Howard**, formerly lighting designer with Imagination, has been appointed associate designer with DHA Design Services, the lighting design arm of David Hersey Associates. Jonathan's move coincides with the appointment of DHA Design Services as lighting consultants to Cunard's \$45m re-fit of the QE2, currently being designed by MET Studios and McNeece.

Formula Sound has appointed **Mike Parry** as its first sales and marketing manager. Parry has more than 20 years of senior marketing experience. He will assume responsibility for UK overseas sales and assist directors, Tony and Sandra Cockell, in the future development of the company.

Turbosound's new man about town is **David Bruml** who has joined the team as sales engineer. Bruml has a long track record in the industry having worked for both Bose and EAW. PC graphics specialist **Bill Bacchus** has been recruited by Creative Technology to join its team of



David Wilkins.



Graham White.



Peter Cutchey.



Mike Parry.

designers and operators. **James Dann** has joined Supermick Lights as sales director. Dann was originally a lighting designer working with artistes such as Queen, Eric Clapton and Elton John. More recently he was at Meteorlites before forming his own production company DLD. He will continue to look after existing DLD customers, but will now work closely with Supermick MD Peter Clark overseeing European and American clients.

**Tom Crellin**, formerly of Multiform, is about to go it alone when he sets up his own company, Libra Services. The company will offer electronics design and build services, together with computer support. Based in Uckfield, Libra Services, can be reached on (0825) 763194.

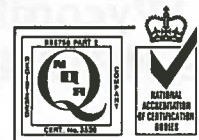
**Andy Gill**, aged 30, died as a result of mis-use of a Tallscope during the de-rig of a club night on March 10th. The gig was promoted by local club promoters Use Your Loaf in conjunction with Blue Room Loudspeakers and had been played by cult dance band Fluke, along with supporting DJs. It ended at 2.00am. Andy had been using the Tallscope during the load-in to dress the club.

It appeared that he knew what he was doing but in hind-sight it appears he did not lock in the snap braces or safety bars but proceeded to climb into the erected basket. As he climbed he counter-balanced the topple effect with his own weight, but once in the basket gravity took its toll and he was catapulted to the floor - the basket itself acting as pivot for his waist - head first.

The ambulance arrived 20 minutes later and health and safety officers took statements from all the witnesses. Andy died in Southampton Neurological Unit on Tuesday 15th March 1994 from brain damage. There was a benefit event at the 'West Wing' Brighton Centre on Friday 15th April to raise money for Andy's family.

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## Theatre Design '94

A national exhibition of theatre design is to be held this autumn in Manchester's newest performance/exhibition space - Upper Campfield Market, a superb Victorian iron and glass hall. The building is being refurbished by the City Council to be administered by the City Art Gallery and will be available to the City of Drama from late summer.

The proposed exhibition will be the first in this new space. Its theme 'Design for Theatre and Alternative Spaces' responds perfectly to the intended use of the building, combining different but related arts - in this case stage design, performance and theatre architecture. This is the first national stage design exhibition since 1987 (held at the Riverside Studios in London) and it will culminate in the choice of the British representation to the international theatre design exhibition - the Prague Quadrennial in June 1995, won in 1991 by the British national entry.

This is also the first exhibition of its kind to use a theme to explore the wide range of innovative contemporary stage design, making it accessible to students, professionals and the general public. Inspired by the extraordinary range of theatre spaces in Greater Manchester, the exhibition will include traditional fixed stages, purpose-built adaptable spaces, multi-space operation, touring theatres and event theatres. Opera and dance, musicals and all forms of theatre will be incorporated into these categories.

Model boxes, design drawings and production photographs will be accompanied by explanatory text and the designer's comments so that people can gain some understanding of the artist's process. Actual puppets, props, costumes and some of the extraordinary creations from experimental and art-based companies will dramatise the exhibition.

This will also be the first time lighting designers have had an opportunity to display their work - not only through photographs and plans, but also practically in a performance area and in relation to other exhibits, and indeed the building. There will be workshops, seminars and practical projects throughout the four week exhibition period. For further details contact project co-ordinator Kate Burnett in Manchester telephone 061-256 3512.

## Derngate Upgrade

Derngate in Northampton has recently been one of the first UK venues to upgrade their in-house PA to a system incorporating the latest JBL Sound Power cabinets. Installed by Willow Communications of Northampton, the 5.5kW system features a centrally flown cluster incorporating six JBL two-way high/mids and two JBL two-way full range installation cabinets. These are driven by three C-Audio RA 3001 and three C-Audio RA501 amplifiers, via two JBL electronic crossovers. Additional fills are placed left and right of the stage, comprising four JBL speakers, driven by two C-Audio amplifiers via a C-Audio sub-bass crossover.

## Floyd in Total Recall

It is no coincidence that Pink Floyd have built a reputation for their spectacular stage shows, from the beginning they always had visual impact firmly in their sights. Even 25 years ago, when the band were considerably greener and probably more pink also, gigging in small clubs and festivals to gain a reputation, they already had a resident lighting designer in the shape of one Peter Wynne Willson.

Now a partner in UK-based lighting design and entertainment technology company Wynne Willson Gottelier (WWG), Peter received a major dose of déjà vu when recently invited by Dave Gilmour to return to the fold. The idea was to work alongside the band's current LD Marc Brickman to recreate some of the Floyd's original lighting effects, updated with the power of today's discharge light sources, as an unusual feature of the band's current world tour.

"Naturally, there was an overwhelming desire to emulate the live liquid effects of the sixties," Wynne Willson told L+S. "So we came up with a couple of different ways of doing it and without frying the operative while using a 6k HMI Telescan projector. (A little different from the 1k mains Aldis Tutor projectors of the liquid shows of yesteryear). It worked really well when the crew remembered to include the heat filters I had specified."

Another huge effect is the so-called Dalek, of which four bombard The Floyd's stage. Though the name hails from the robotic extraterrestrials of the classic BBC Dr. Who television series, nobody is quite sure how these devices originally acquired the name. These Daleks are colour generators, which when used in pairs or multiples, projected onto a white screen and programmed with appropriate frequencies, produce visible beat frequency oscillations. The specially cut dichroics for the huge colour wheels essential to this effect were supplied by Lightwave Research of Texas.

The effect was first used by Wynne Willson in 1967, incorporated into a show that he and wife Susie had been touring with Pink Floyd from the previous year. At the time a Dalek's output was some 20,000 lumens, today's embodiment, with 4k HMI light source, yields some 1.5 Megalumens!

Until the current tour, Peter's last show with the Floyd had been at the Round House, Chalk Farm in 1968. For that show he created a small battery of moving mirror luminaires, possibly the first ever public outing of 'waggly' mirrors.



Laurence Duhamel, teleprojector technician, cooking up WWG's liquid effects with the Floyd.

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## Thanks from Sgt. Pepper

The Pepper Foundation was set up recently to continue the organisation of the Sgt Pepper concerts. Initially the concept of Karen Breakwell, these concerts (a stage set is pictured right) involve musicians from far and wide performing rock music from the sixties, seventies and eighties. They have raised over £78,000 in the last five years for local charities, one of the main beneficiaries being the Iain Rennie Hospice at Home.



The aim for the next series of concerts is to sponsor the first 'Pepper Nurse' to care for terminally ill children.

Without the support of many companies in the sound and lighting industry, these concerts could not continue. The Pepper Foundation would like to acknowledge the extensive support of the companies who have supplied equipment free of charge: Concert Sound - for providing the PA System for the past three years, Sennheiser - for the loan of radio mics, and Marshall Amplification - for the backline. Lighting equipment was provided by Control Hire, Meteorlites, Mode Electronics, Optikinetics and Supermick Lights.

All this has been powered through the generosity of Wysepower, who once again have agreed to provide a generator this year. Other offers of help have also come from Zero 88 and M&M Camelont. Anyone who may be able to help in any way should contact Richard Hollinshead on (0582) 868189.

## Trantec Supports DTI Licensing

In a bid to further support and endorse the correct legal use of radio microphones, Trantec Systems is introducing DTI license application forms in its packaging. In an agreement with ASP Frequency Management Ltd - the official licensing agency - Trantec is sending out DTI licensing application forms with all of its relevant radio mic systems.

For those who remain unsure as to the when and where's of radio licensing, you must have a license if you intend to use frequencies 176.4 and 177.0, which are aimed at theatres, conference halls and churches. There are also five additional 'IPM' channels which require a Multi-Channel licence. These are 191.9, 199.7, 200.3, 208.3 and 216.1. For more information on radio microphone licensing, call ASP's 'Helpline' on (0296) 770458.

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You will take enquiries from initial contact to specification, referring the job to the appropriate dealer and following through to customer satisfaction. Promotion of Strand "boxed-goods" and local dealer support are also important aspects of the job.

An understanding of the theatre, architectural or studio lighting markets and some project management knowledge are key requirements. A technical qualification, although useful, is not essential. You must be able to show evidence of success in a sales environment.

Well-presented and a good communicator, you will need to be self-motivated and organised in planning and executing tasks. You must also be able to keep an overview of the situation.

The position is home-based (ideally South of London) and involves significant travelling. A clean driving licence is required.

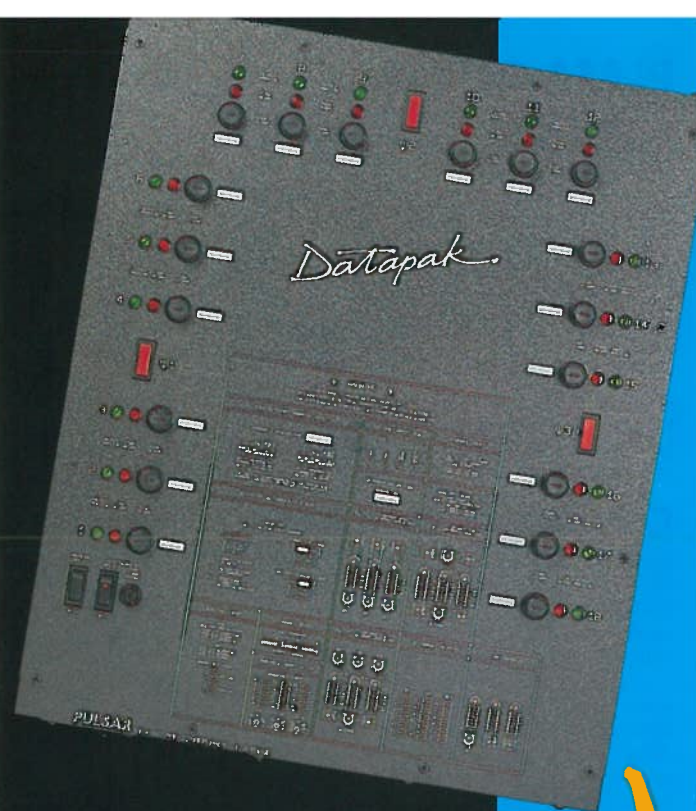
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## PLASA On Tour



Pictured above at the SOL South trade show at Southampton are John Offord, organiser Terry Lees and former PLASA chairman Kevin Hopcroft of NJD Electronics.

## Cyberlight Workshop

Lightfactor Sales recently held another Cyberlight Workshop at Greenford. Following hot on the heels of the first event, the second round offered another opportunity to test drive the lights working with Wholehog and Animator desks.

A champagne competition, in which people were invited to complete the sentence 'Cyberlights are the fixtures of the future because...' drew some imaginative entries, and it was eventually won by Ben Sullivan of The Spot Co. Meanwhile, as fast as the Cyberlights are coming off the production line they are being snapped up for the high profile events such as the Phil Collins (see L+S1 April 94) and ZZ Top tours, the recent Eurovision Song Contest and the forthcoming Torvill and Dean ice spectacular.

## Smithfield Eurovision

Smithfield Electronics supplied two Griven Skyrose HMI 1200 units, with their sweeping and patterned effects, for the recent Eurovision Song Contest in Dublin.

## Coloram On Stage

Not content with building the biggest colour changer in the world for Phil Collins (see L+S1 April 1994) and providing Meteorlites with 48 Coloram units, Wybron are also making a name for themselves in the theatre.

A selection of recent US credits on which Coloram units are extensively used includes Carousel, Sunset Boulevard, Show Boat, Blood Brothers, Angels in America, The Best Little Whorehouse Goes Public, Joseph and His Amazing Technicolor Dreamcoat and Kiss of the Spider Woman. The units are also featured in the touring productions of Tommy and Phantom of the Opera. With the establishment of Wybron UK last July, lighting designers in Europe now have direct access to the product.

## Irish National Show



The first Irish National Music Show, held recently in Dublin, brought together a range of products and services for the music industry including elements of the lighting and sound industry. A whole host of manufacturer's products were represented by distributors including Sennheiser, Trantec, Citronic, Optikinetics, Harman, Audio Technica, HW and Zero 88. In a separate event at the nearby Tivoli, Optikinetics' strobes were providing a psychedelic backdrop to Hawkwind.

## Marquee ShuttleCAD

Marquee Audio has been awarded the exclusive distribution rights for ShuttleCAD audio engineering and presentation software, throughout the UK. The announcement was made jointly by Spencer Brooks, managing director of Marquee Audio and Mark Burgin, managing director of Shuttlesound, at the recent NSCA Convention in Las Vegas.

"Marquee Audio is a very strong distribution company with a wide customer base in pro-sound. Their support will enable us to introduce the benefits of ShuttleCAD and Data Service products to an even broader range of users in the UK," Ewen Atkinson, ShuttleCAD marketing manager told L+S1.

Developed by sound contractors, ShuttleCAD is easy and fast to use, requiring no specialist operator training to create engineering drawings and bid documents to the highest professional standard. A comprehensive Data Service provides ShuttleCAD users with the added benefit of thousands of pre-drawn parts representing products from the world's major manufacturers.

## MGM Grand Display

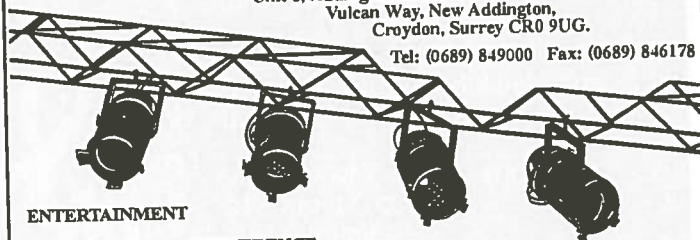
The Electrosonic Picbloc image processing system and the Procube videowall projector can be seen 24 hours a day at the 5,000 room MGM Grand Hotel in Las Vegas. The huge 80 screen video panorama is installed behind the reception desk to greet visitors to the world's largest hotel. The system architecture is based on five 4-source 4x4 Picbloc-3 systems, controlled by a single computer running C-Through control software, with playback from Sony CRV component disc players. A complete mini-production suite is on site to record new material to disc as required.

Electrosonic Systems Inc of Minneapolis delivered the Procubes and the Picbloc videowall control racks to Mobile Wall One, the videowall contractor.

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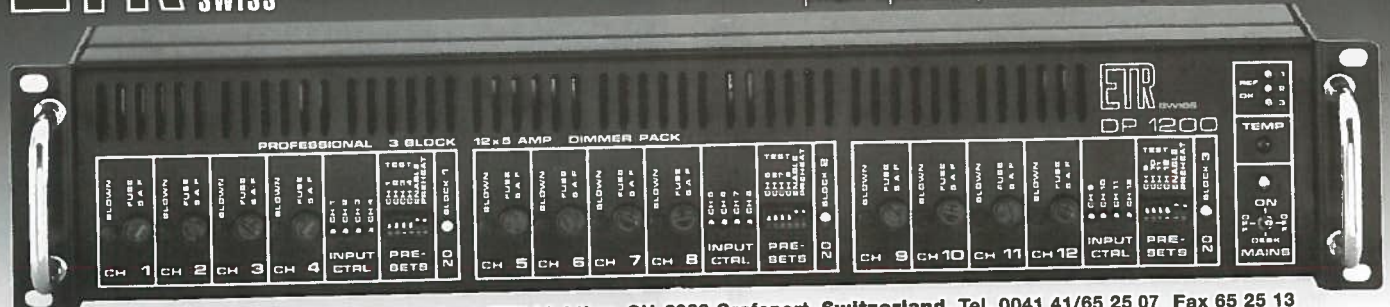
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## Chichester Festival Theatre Upgrade

The Chichester Festival Theatre has recently completed the installation of a new house lighting system designed by Theatre Projects Consultants (TPC). The scheme includes new house lights which not only improve the overall feel of the theatre interior, but also demonstrate an innovative use of low voltage GE Precise MR16 lamps. On a separate circuit a new series of workers/cleaning lights have also been installed.

The new house lights make the best use of the renowned shape of the Chichester auditorium, following the curve of the auditorium from various points around the 'circle' of the space towards the central apex. A blue wash of light above the low voltage lights lifts the eye away from the lighting bars towards the top of the roof. The design created for Chichester by Alan Russell, director in charge of the project from TPC, is the first installation of its kind in a UK theatre.

TPC designed a system using a low voltage cable system to carry the power - the alternative would have been a myriad of pendants which would have been very messy with conduits spinning everywhere and completely inaccessible. As it is, TPC, working with chief electrician Nigel Holloway-Howard at the Chichester Festival Theatre, have had to resolve quite a few potential problems with maintenance. Nigel confesses to some initial concerns about the new system prior to its installation. He was originally worried that there would be too much spill from the lights which would mar his control over the pre-lighting of the stage and thereby detract from any audience surprise over sets which are, obviously, not physically hidden by a curtain. He has been greatly reassured by the reality of the installation.

The worklights are on direct mains for use by house staff in the theatre and also for use during rehearsals. Asymmetric Hollophane fittings with metal halide lamps give excellent light over all aisles without creating shadows. Four sunfloods around the stage are on a separate dimmer that can be controlled by remote as well as from the control box. This is useful when focusing as it allows for quick control from the stage.

Two thirds of the cost of the work has been paid for by English Heritage, a confirmation of the important role which Chichester Festival Theatre occupies in the British theatre environment. Alan Russell, director in charge led the project for Theatre Projects Consultants. He was assisted by Chris Watts.

## Lights up for Olympia 2



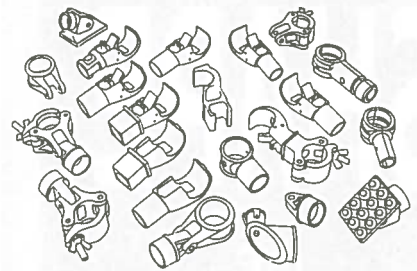
Olympia 2, part of the Earls Court Olympia complex in West Kensington, recently received the final touches to its £50,000 flood-lighting scheme. The lighting scheme has been developed to pick out and enhance the art-deco aspects of the facade, originally designed by Joseph Emberton. Its main features are the installation of 24 low energy lights on the canopy (carefully screened and adjusted to minimise light pollution), which provide a pale blue wash up the building. This is complemented by dark blue neon which is attached to the existing art-deco horizontal bars creating an effect reminiscent of the facades of the original Odeon cinemas.

The creation of the lighting scheme was undertaken by Simon Tapping (pictured above) an independent lighting designer currently engaged as LD for Torvill and Dean's World Tour. Lighting Technology Projects assisted with realising the full potential of Tapping's design by helping to complete the full specification. They also supplied all fittings including five Francis Searchlights.

## Double Dutch

Dutch rigging company Rhino Rigs and lighting company Flashlight have joined forces to enhance their specialist services to the entertainment industry. The merger has brought together the facilities of Flashlight and the technical knowledge of Rhino.

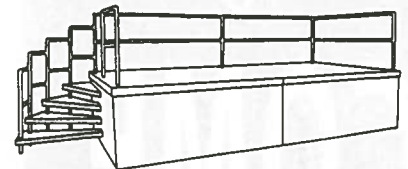
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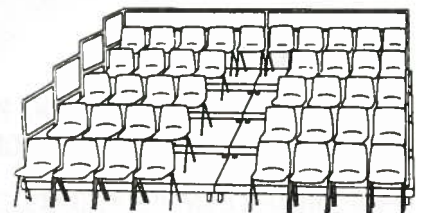
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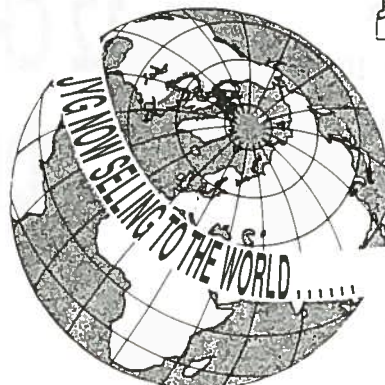
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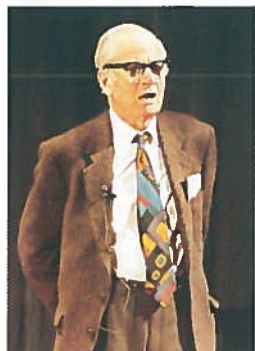
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# Fred Bentham Plays Colour Music

L+SI invited Jim Laws to offer a pictorial follow-up to Bob Anderson's Viewpoint in our April issue on Colour Music

Bob Anderson gave an enthusiastic description of the CIBSE organised illustrated lecture by Fred Bentham, assisted as always by Paul Weston. **Colour Music**, the subject of the evening, is traditionally played on a Light Console and, in fact, from 1936 to about 1980 you would have been mad to try to play it on anything else. If you don't know what colour music is, read Bob's article (paragraph 2), or imagine the best (not the brashiest) band lighting you have ever seen, but played to the music without the band in view.



The CIBSE evening in Cambridge was special - to celebrate Fred Bentham's 60 year romance with colour music and his console.

We had a great evening of nostalgia and one that I was proud to be involved in by reuniting the console with its masters. Fred Bentham, Paul Weston and the Light Console gave us an opportunity to 'play lighting', which was largely forgotten until the modern rock and roll boards came of age.

Now MIDI has given us keyboard facilities. Is nothing new? With today's control systems passing faster than shooting stars, what are the special claims to lasting fame of the Light Console? Well, I hope the accompanying photographs go some way to explaining its timeless appeal.

*Jim Laws, who provided the console, has a large collection of period stage lighting available for hire to which he gives access for private study. For details of his lectures on the history of stage lighting he can be contacted on (0502) 75264.*



Fred Bentham (right) with Paul Weston (left) and CIBSE's Ian Maclean.



The Light Console (above left) ran the lighting at the Theatre Royal, Drury Lane from 1950 to 1975. At 216 circuits it was (with the console for the London Coliseum) the largest of the 15 built. Based on Compton Organ hardware, it gave fingertip access to all circuits and the easy means, via keyboards, to fade up and down plus snap up and blackout any combination of circuits. These combinations could be pre-programmed or reset during performance. Semaphore colour changers could be actioned, via the black notes. It's a lovely piece of furniture in its own right, if somewhat hefty at four hundredweight. Note the essential foot controls. Paul Weston (above right) was the man who had to make it all happen in the big shows, as on *My Fair Lady*, for instance, when he re-programmed 10 sets of piston groups three times per show.



## SALES OPPORTUNITY

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## Huge Mobile Disco Set-Up from Orange

During the 20 years plus that Orange Discotheque Centre have provided professional discotheque services throughout the UK they have embarked on many projects. But perhaps the latest is one of the most unusual.

In February this year they designed and exported a £100,000 sound and lighting installation for a new nightclub to be built just on the perimeter of Red Square in Moscow. Other recent projects include a full discotheque/nightclub set-up in the whole basement area of a Paddington mansion. The set-up included intelligent lighting effects surrounding the indoor swimming pool, programmed on specially written software for the client. A spectacular nightclub was built into another part of the basement adjoining the bar. The total bill for this contract also topped £100,000. Another intriguing venture was to install a full sound and lighting system into a Mississippi Paddle Steamer, which now travels the River Thames in London.

Although the company has become well known in recent years for private quality installations, their main reputation is for retail of discotheque audio and lighting equipment, and they were recently approached by Marcus Etheridge to design and build one of the largest mobile discotheque set-ups in Europe. With the in-house skills of Alan Stowell, lighting engineer for concert tours for bands such as Hawkwind, along with Ian Fleetwood who spent many hours building the console, racks and fitting the sound system together, Orange have now created a

major rig for Marcus.

A budget in excess of £50,000 went towards the sound reinforcement which included eight powerful Wembley Loudspeaker Spydys supported by a further eight Wembley Loudspeaker Sub Bass units. The sound system is driven by six Citronic PPX 1600 amplifiers crossed over with the Citronic SPX 541 and racked in flightcases, build by the Orange team. Marcus is a Vinyl fanatic so naturally his discotheque console was designed using Technics SL 1210 turntables along with the Citronic SM 550 mixer, all flightcased. For smaller functions Marcus has a set-up including Orange's own amplifiers, Technics decks a Citronic SM 250S mixer and the more portable Peavey Loudspeakers.

Pogle designed a Tri-Lite rig with four legs and a roof which when set up would straddle a dancefloor enabling party goers to dance inside the rig and underneath the lighting just as you would in a nightclub. An array of Martin Roboscan 218s were programmed to give movement and excitement complemented by the new Martin Centre-piece. Other Martin effects used include several Robozaps, Magic Moons, Ministars and Star Flashes. Anytronics' Mega and Super Strobes, Ultra Violet and a Coemar Dominator complete the light show.

Finally, to enhance the spectacle, Marcus Etheridge has chosen two Martin Magnum 1600 Foggers and two Martin Magnum 1200 Foggers. All equipment has been securely cased for transport and neatly packs into a large Luton van.

## West End Stars Perform at St Pauls

Imagination Entertainments is to stage a unique performance of Sir Andrew Lloyd Webber's music at St Paul's Cathedral, in aid of the Lord Mayor's Appeal. Directed by Arlene Philips, stars from numerous West End shows will present selected extracts from the composer's work in the presence of HRH Princess Margaret.

The company is working on behalf of the Really Useful Group and the Lord Mayor's Appeal to produce this acoustically challenging event. Imagination Entertainments has appointed musical director Mike Reed, lighting designer Durham Marengi and sound designer Richard Ryan to devise an innovative production within this dramatic setting.

Imagination Entertainments is a specialist team within Imagination, which is committed to exploring new and exciting ways of entertaining the public. A number of projects are currently in development, including the European premiere of 'Once On This Island' in July 1994, a co-production with Birmingham Repertory Theatre. The company is also responsible for the concept and scenic design on Barry Manilow's 'Copacabana' (see L+SI, April 1994), currently on tour and opening in London's Prince of Wales' Theatre on 23rd June 1994.

## Jewel in the Crown

The Tower of London's new Crown Jewels display uses a fibre optic system supplied by Light Line Ltd of Barnsley. Light Line manufactured and installed the harnesses which pipe light from 25 light boxes - mostly metal halide, but with the addition of some tungsten - to 300 small eye-ball fittings in 14 of the 15 display cabinets. Ambient lighting has been all-but eliminated from the Jewel House to intensify the impact of the display. Close-up illumination is provided by precisely trimmed light heads.

## Showbiz Expo into Europe

The US-based ShowBiz Expo, will launch a new show serving the same industry in Europe. ShowBiz Expo Europe will take place on September 24-26, 1994 at the MOC Exhibition Centre in Munich, Germany. The show, aimed at professionals in film, television, audio-visual and theatre, will feature live-action areas and hands-on demonstrations, along with a conference and seminar programme. For further information in Europe contact ShowBiz Expo Europe, Advanstar Expositions, Advanstar House, Park West, Sealand Road, Chester, CH1 4RN Telephone (44) 244 378 888.

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including lamp  
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#### Comparative Performance Figures

	Beam Angle	Peak Candela		Lens Size		
		1200w	1000w			
Fresnels		Spot	Flood	Spot	Flood	
Compact 6	7.50°	165,600	17,640	120,000	13,680	150mm/6"
Selecon 1200	7.56°	228,939	27,158	126,000	14,040	175mm/7"
P.C.'s						
Compact 6	5-60°	306,000	15,840	205,200	10,000	150mm/6"
Selecon 1200	4.5-60°	342,000	14,220	226,800	10,000	175mm/7"

For Selecon quality and support contact:

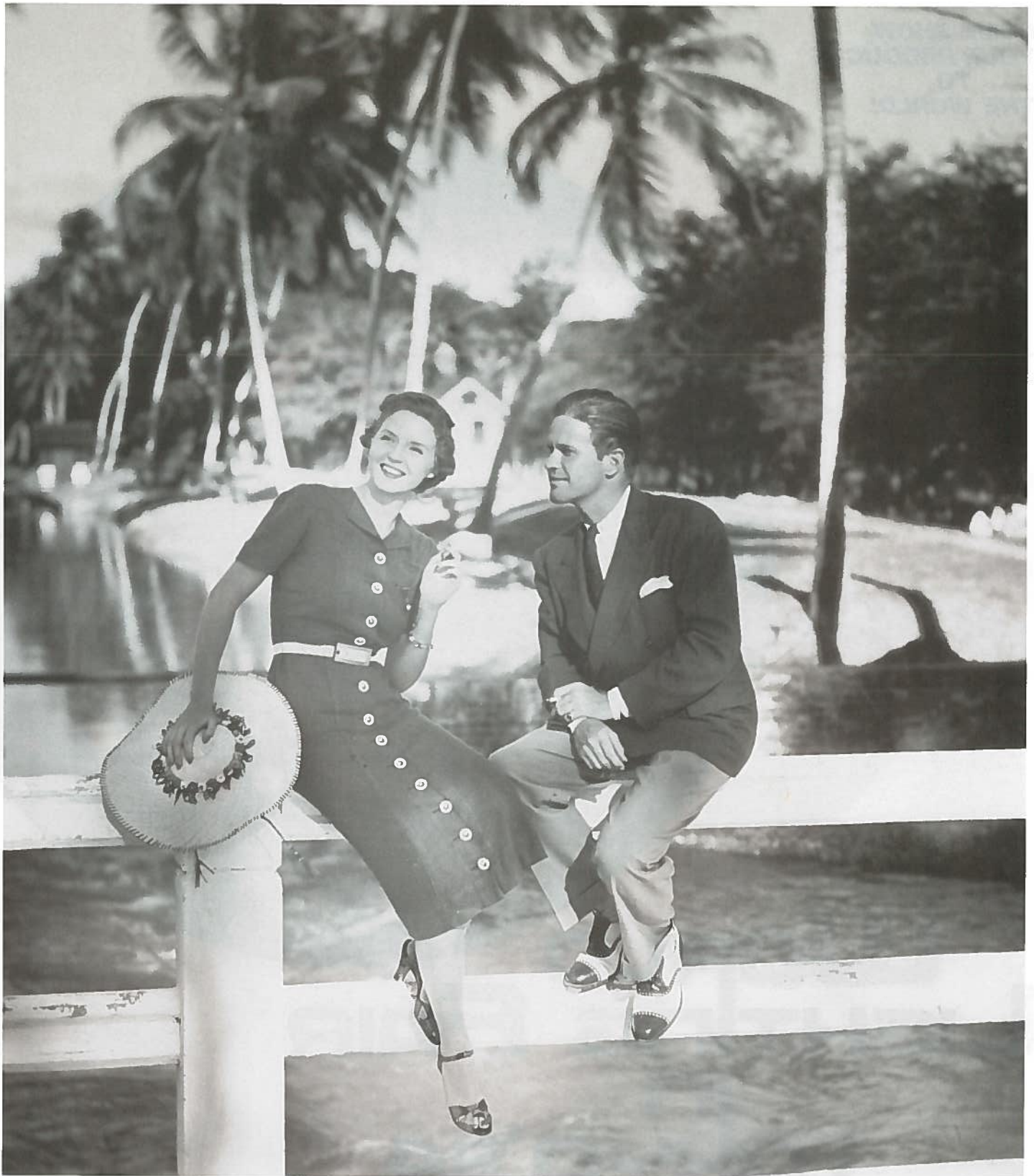
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# ASLEEP IN THE STALLS

It's not just the stalls - I've been snoozing in circles, perched in the Pit and on one unfortunate episode boozed on the bleachers this month. It's raised interesting questions of perspective and makes me wonder, where do the designers sit? Lighting men have come out from the wings and usually get a fine view from the back of the circle, albeit sometimes displaced by the sound man's mixing desk.

Do they, or the set designer, ever have to sit at the edge of the second row of the stalls, maybe craning upwards to read surtitles at the same time? That took some of the gloss off my evening at the St Petersburg Maly's wonderful *Cherry Orchard* last week, but even from there I could appreciate Eduard Kochergin's fine looking-glass set and the combined lighting and sound work of no fewer than six designers - obviously, labour is still cheap in Russia. It also meant that I heard loud and clear the famous snapping cable sound effect, which director Lev Dodin indeed repeats as old Firs dies at the end (on a magically lit set). Michael Billington, sitting a few rows further back, hardly heard it.

For David Thacker's *Merchant of Venice* at the Barbican I was down front centre, which gave me every opportunity to enjoy the bustle on Shelagh Keegan's split-level Stock Exchange set. All the Venetian scenes took place in and around its pillars, stairs and screens, with a plain screen dropping in for the scenes at Portia's house in Belmont. Clive Morris's lighting went for the hard edge effect implied by the modernity of Thacker's version, with a palette limited to blues and ambers. For me the only jarring note was the spots actually hung on the set to get at some of its nooks and crannies - surely these could have reached their target without interfering with the design?

In The Pit on the previous evening I was in the back row, right under the lighting box, to see Katie Mitchell's wonderfully atmospheric production of Ibsen's *Ghosts*. Whenever I'm in The Pit - especially when I'm just under the hanging bars as on this occasion - I get very indignant about the enormous number of lanterns they seem to need for what is, after all, a small studio space. Nobody there seems to have heard of Minims either - it all looks at least 1kW stuff. Still, if you've got it, you use it, and the oh-so-gentle changes in Tina McHugh's plot were a joy not to behold. Everything was a model of restraint: there's a fire at the end of the second act, but it's well away from the house and Ibsen doesn't even call for a glow until the opening of the third act, when it's almost over. So we get the softest of indications, where other lighting folk would offer a full-scale conflagration, no doubt abetted by the sound department's very best crackles.

The third act itself takes us through a sunrise, and must have provided one of the longest fade-ins on record, for Katie Mitchell lets it happen in real time.



The revamped *Sunset Boulevard*.



A scene from *Hot Shoe Shuffle*.

Photo: Donald Cooper

**"Our hero, shot by his ageing lover, walks out of the palazzo, down the garden steps and falls dead in the pool. Andrew Bridge, without obtrusive use of followspots, has him covered all the way."**

Next to the Stalls exit where I saw *Mark I*. I will say that Martin Levan's sound was just as good on the edge there as it was in the easier central circle position, but then his sound is always impeccable - contrast it with the tinny touring noise for *Aspects* when it returned to the Prince of Wales before Christmas.

A lot has been written about the design changes for this revised version but I can't say I noticed many. The deal panels that drop in to form studio walls or the screen for the car chase have acquired a dark stipple, and the swimming pool scene looks a little quieter, but I don't detect any serious revision to the main set, Norma Desmond's *Sunset Boulevard* palazzo. The film set for *Samson and Delilah*, where la Desmond stops the show in the light of a single studio flood (backed, in fact, by about five more unseen fresnels), would actually seem to have been brightened, rather than toned down.

What makes the show seem so different, I'd guess, is that scene changes have been both simplified and speeded up dramatically, so that (with the aid of one or two useful extra lines of narration) what was a ponderous spectacle now fair zips along as a story. Our hero, shot by his ageing lover, walks out of the palazzo, down the garden steps and falls dead in the pool, whose shimmering edge is also the orchestra pit. Andrew Bridge, without obtrusive use of followspots, has him covered all the way.

The ideal place not to watch *Hot Shoe Shuffle* is at the back of the Queens' stalls. You can't see the top of the set, you can hardly judge the finer detail of the twinkling feet, and worst of all you're exposed to the full horror of Jim Blackfoot's clunking sound palette. He seems to think it's important that the taps should sound like gunfire. Unfortunately, this means that the singers sound like daleks. It gets better, as does the entire show, in the second half, when the big band sounds really fine. (Curiously, my one reservation about the *Sunset* sound would be that it's a bit too brassy; I was really surprised to check my programme and find that its strings seriously outnumbered the winds.)

Embarrassing moment of the month was turning up somewhat the worse for wear at the Theatre Upstairs for *My Night with Reg*; my companion was even further gone, and had to be held down or would have exited across the set in the middle of the performance. Embarrassment doubled when who should I fall over on the way out but the designer, Bill Dudley. I mumbled that I'd thought his huge set for *Johnny on a Spot* the previous week at the National was the best thing about it, but hadn't read the programme to twig that he'd also been moonlighting on *Reg*. When my blushes subsided, I asked the price differential: £1500 for a very slick set for Kevin Elyot's equally slick play; about £100,000 more to fill the Olivier with Southern Fried Kitsch, complete with a more or less (less, on opening night) working elevator. Who says yer gets what yer pays for?

Ian Herbert

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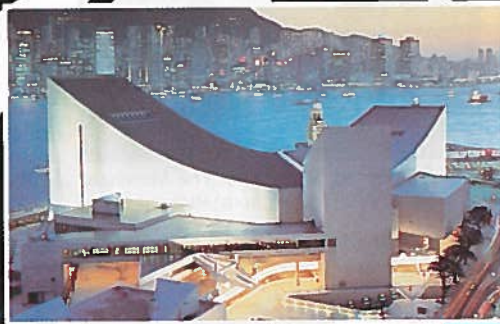
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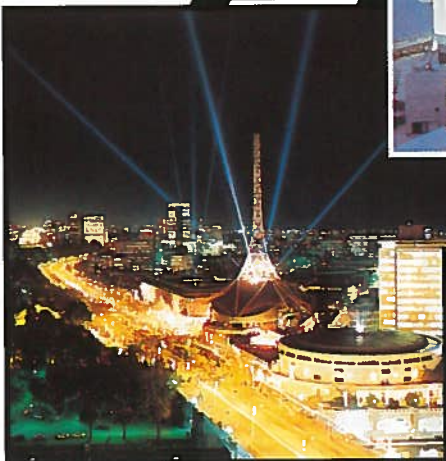
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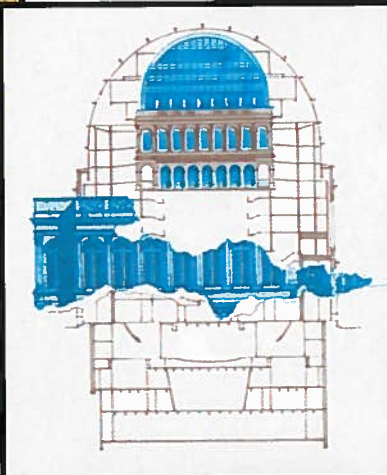
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# STRAND: 80 YEARS LIGHTING FOR ENTERTAINMENT

*An L+SI Special Feature which commemorates Strand Lighting's 80 years at the forefront of the lighting entertainment industry with features on the projects, the world-wide manufacturing and distributor base, the products, and, of course, the people*

## THE FIRST 80 YEARS . . .

1914

Strand Electric begins as an office with workshop in Garrick Yard, St Martins Lane, in the heart of London's Theatreland.

1918

Theatre electricians Arthur Earnshaw (Duke of Yorks) and Phillip Sheridan (Strand Theatre), who founded the firm are joined by Moss Mansell, a manufacturer of arc resistances and dimmers in Cecil Court.

1922

'Round in Fifty' at the London Hippodrome marks the first use of the Sunray compartment batten. It becomes the backbone of any Strand installation. The use of these with filters instead of colour-dripped lamps was essential to Aidrian Samoiloff's scenic tricks using complementary colours.

1923

The Theatre Lighting department is started by LG Applebee, later to become Strand's first well-known lecturer/writer. He ran it until retiring in 1957.

1924

The Old Vic of Lilian Bayliss: Strand's first 'dead front' switchboard was installed. Until then, contacts and busbars had been mounted on the front of polished slate panels. Shepherd's Bush Pavilion (later to become The Gaumont, then the Odeon) was the first of the great 3000-seat super cinemas to have full stage lighting and concealed colour-change lighting around the auditorium.

1924/5

Wembley Empire Exhibition: complete installation with cyclorama for Oliver Bernard's 'Battle of Zeebrugge' in the Admiralty Theatre. Except that its stage was a water tank, this single tier, steeply-stepped house anticipated by 35 years a form to become popular in the 1960s. Special lighting effects were also created in the new stadium for productions of 'Fire of London' and 'London Defended'. Special effects in other exhibition pavilions, especially the optical projection of the British Guiana waterfall.

1925

Royal College of Music, Parry Opera Theatre: Strand's first (and last for 30 years!) patch panel.

1926

Strand produced the famous 'The Centre Of The World' illuminated facade for the London Pavilion at Piccadilly Circus.

## The History of Strand: the Start of Something Big

The earliest clear documentary evidence of Strand Electric is registered design No. 642614 of the 7.10.1914 for a Lantern Housing in the name of Arthur Earnshaw and M. Woolnough, trading as the Strand Electric Co., 66a, St. Martin's Lane, London, WC2. Jim Woolnough, a traveller with the General Electric Company, had succeeded in bringing about a partnership between Arthur Earnshaw and Phillip Sheridan - chief electricians at the Duke of York's Theatre and Strand Theatre respectively - and himself, to form the company.

Later, on the 2nd June 1916, The Strand Electric Engineering Company was registered as a limited company with a capital of £750. A detailed history of the subsequent 50 years appeared with the Golden Jubilee publication of 'TABS' (Volume 22, No.1 - March 1964) which traced the development and successes of Strand. The epilogue to this fascinating history concludes with Strand's Head Office still in King Street, in London's Covent Garden, various premises in Britain and also further afield in Toronto and Melbourne. The final sign-off of this history is an extract from Henry V:

*Thus far, with rough and all-unable pen,  
Our unbending author hath pursued the story,  
In little room confining mighty men,  
Mangling by starts the full course of their glory.*

The next 30 years saw further expansion. On 1st January 1966, the acquisition of a small business in

Germany marked the start of Strand's third overseas operation. Soon after, in 1968, Strand Electric was itself acquired by The Rank Organisation and the name became Rank Strand. Eventually the central London links were severed as Strand moved west to the Great West Road at Brentford and manufacturing transferred to a new factory in Kirkcaldy, Scotland. The Rank Organisation also acquired Century in New York a year later and provided the basis for the global operation that Strand Lighting has now become. The purchase of Quartzcolor laniro in 1986 brought both manufacturing of studio and location luminaires within the company and an Italian sales operation. Strand Lighting France was established and Strand Lighting Asia based in Hong Kong added the Far East dimension.

Today Strand Lighting is based in modern premises at Isleworth, Middlesex, providing a base for UK and European regional trading operations as well as head office functions, marketing and R&D. The Los Angeles base serves the United States and South America with an additional facility in New York. In Canada a long tradition of supplying Strand product from Toronto continues, and Hong Kong is the centre of Strand's Asian region.

As Strand enters its eightieth year, it is a company proud of its heritage and reputation, but with a modern approach to what has now become a global business, well equipped to face the challenges of the late twentieth century. Read on.

## KEY PROJECT ~

### The Royal Opera House

It seems that the relationships with some important users of Strand equipment is enduring. In some cases it has resulted in Strand being selected to provide new generations of lighting equipment at appropriate intervals. Last year, for example, Strand noted that the Savoy Theatre first became associated with Strand in the reconstruction of 1929, then again in 1960, in 1980 and following the fire of 1990 for the latest rebuilding which led to the re-opening in July 1993.

It was also a fire at The Shakespeare Memorial Theatre at Stratford-Upon-Avon that led to a Strand re-equipment in 1932 and a long continuous history including the installation of Strand's 200th Galaxy in 1987. A current example is The Royal Opera House in Covent Garden which has chosen to have a new Galaxy Nova lighting control desk to be delivered in August this year. This is noteworthy because it was in 1934 at the Opera House that Strand undertook its first large-scale installation for Sir Thomas Beecham. Thirty years later, the company's first major thyristor dimming installation was also at this venue. So the current vote of confidence in a return of Strand control is welcomed by the company. Constructed in modular form allowing a high degree of customisation, Galaxy Nova has numerous top range features, including bi-directional communication with EC90 MDplus digital dimmers, direct control for colour scrollers and up to 249 automated spotlights. The Galaxy Nova will complement the ROH's touring system. Alan Luxford, stage project sales manager, and Bill Richards managed Strand's involvement for stage director Paul Watson.



The Royal Opera House, Covent Garden.

## StrandShorts . . .

*Did you know that when Strand started out in 1914, Archduke Franz Ferdinand, heir to the Austrian throne, was assassinated in Sarajevo . . . Germany declared war on Russia and France . . . Edgar Rice Burroughs wrote 'Tarzan' . . . Charlie Chaplin starred in 'Making a Living' . . . St Petersburg changed its name to Petrograd . . . the Panama Canal opened . . . Shackleton led an Antarctic expedition . . . the first successful heart surgery was performed on a dog . . .*

## Global Distribution

Strand has two routes to market - through local representation and through projects directly negotiated with the client or specifier. A global network of distributors and dealers provides the conduit which takes Strand product from the point of manufacture to the end user.

Over the last two or three years Strand has taken some radical steps with respect to its distribution policy and put in place some major distributor programmes. The underlying philosophy is to create a business partnership which seeks to support and encourage profitable partners who can provide added value through service and the supply of Strand product at competitive prices. The end of exclusivity and the easing of some of the administration procedures throughout Europe created an environment which encouraged more freedom in trading.

This had an impact on logistics, enabling faster response times and more direct shipments to distributors. The ability to improve overall efficiency, linked with volume increases, enabled the Eurosystem programme to be introduced in 1992 - recently updated as Strand System - and involved a number of control, dimming and lighting products to be supplied to distributors, providing the opportunity to differentiate through packaging competitively to the particular needs of their own business. It was backed by a Europe-wide direct mail campaign in some 15 languages. Strand's role is to provide an overall 'franchise' type package which gives the necessary sales support in the form of customised printed material, display advertising and exhibitions.

The Strand Catalogue introduced in 1993 was based on the need to reach large numbers of end users, with some quarter of a million catalogues distributed globally last year. At a regional level, the Strand 'Spring Collection Tour' this year brought the opportunity to see recent products locally, in conjunction with distributors. Meanwhile in North America, the Century System was developed as a complete dealer programme, modelled on the experience already gained in Europe.

### L+SI invited five of Strand's distributors to offer an outside view

#### BARNDOR BV - AMSTERDAM: HUIB SNIJDERS

Barndoor BV (Ltd), based in Amsterdam, is a rapidly growing company that has been the Dutch distributor for Strand Lighting for nearly two years, however, the history with Barndoor's management-team dates from much further back. Barndoor's commitment to Strand is based on



Strand's main regions showing sales, manufacture and head office locations.

mutual understanding and confidence. We need them for their excellent products, and they need us for our knowledge of the very competitive Dutch market. Barndoor's success formula is to hold a full and comprehensive range of stock and offer full service on all Strand products; something that has taken time to achieve but now is an operational reality.

#### STAGE ELECTRICS - BRISTOL: JONATHAN PORTER GOFF

The story of Strand in the West Country is closely allied to that of Stage Electrics. It is more than 30 years since Maurice Marshall first contacted Strand Electric in their Floral Street offices. The relationship grew slowly at first and then blossomed as the two companies sought to establish their place as primary manufacturers and suppliers to the industry.

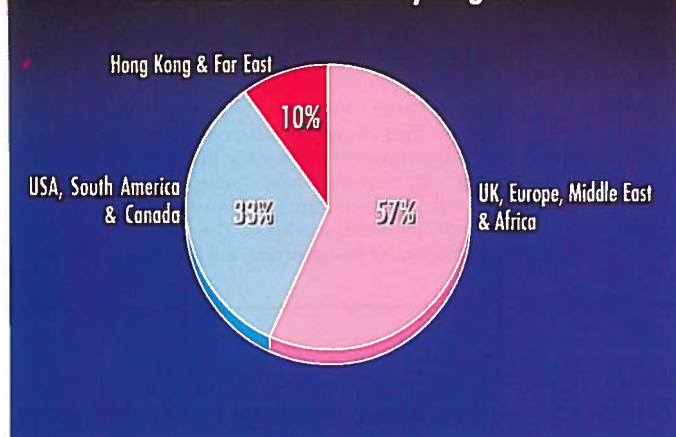
Stage Electrics started life in Exeter with representation in both Plymouth and Bristol. In 1980, Strand established a Bristol base that Stage Electrics took on 18 months later - providing a hire service to complement the established sales operation. Ten years later purpose-built premises in Bristol became the head office of the Stage Electrics Group whilst Exeter and Plymouth continued to supply all our services locally. Today, Stage Electrics sells and hires Strand equipment to users throughout the world.

For many of these years, Stage Electrics has been a major dealer for Strand, enjoying a unique relationship covering many different aspects of the company's activities. Strand's innovative approach to lantern design - ranging from the cast alloy bodies of the Patt 23 and 123 through to the fine optics of the Cantata range - allowed Stage Electrics to make sales of luminaires in the face of ever-increasing competition.

The same is true of the dimmers and control systems. The Junior 8 represented a huge leap forward in its day and now the LD90 dimmer rack and GSX control systems are coveted world-wide. Stage Electrics' experience as a service agent for Strand over the last 20 years has been fundamental in developing our own service policy. Strand's unique commitment to warranty and on site service has set a standard that other manufacturers struggle to match, and the continuity of staff in the service departments of both organisations has made for a close working relationship.

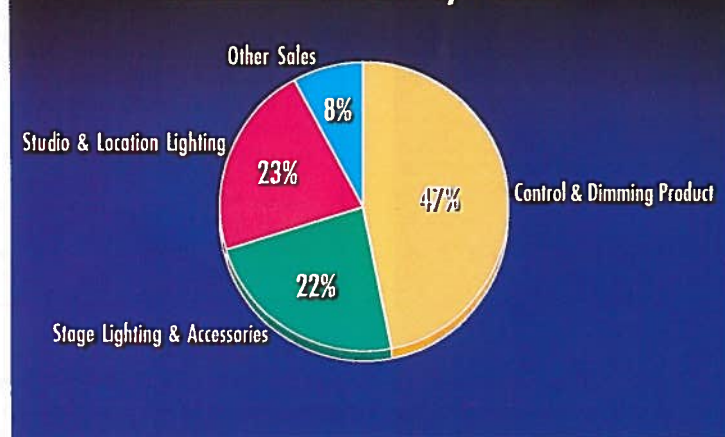
Regular training courses help to build both a clear understanding of the product and also foster good personal contacts between the two companies. 1994 may be a time for briefly celebrating the past. Stage Electrics looks forward to continuing work with Strand to provide creative solutions to meet the needs of the industry.

### Breakdown of Sales by Region



Breakdown of sales by region.

### Breakdown of Sales by Product



Breakdown of sales by product.

**NORTHERN LIGHT - EDINBURGH:  
JONATHAN ALLEN**

When Northern Light first started trading, the old 'Rank Strand Electric' still had a branch and hire store in Glasgow. But in 1974 Rank decided to alter its profile in Scotland and Northern Light became their Scottish agent, taking over not only the Glasgow premises, but all the members of staff also.

The Glasgow address has changed twice since then, but two of the original 'transfer listed players' are still with Northern Light. Mike Smyth is part of the management team and Willie Bell is in the installation department, still installing lanterns, dimmers and stage equipment. Willie's son, Gordon, who has also joined the company, is usually paired with his father, and a harder task master and better teacher it would be difficult find.

During 20 years of working with Strand there have been many changes, but Northern Light has continued to maintain a close relationship with and support the undeniable market leader in stage lantern and control manufacture.

In Edinburgh and Glasgow stocks of Strand equipment and spares are always maintained at a high level, with a value in excess of £100,000.

Northern Light's service department with Greg Joy and Dave Thom is highly skilled on all Strand products and when they are not on duty in Scotland, it's a sure bet that they can be found on a new course with James Flew at Isleworth. Ken Christie has been a more recent 'signing' from Strand, joining Northern Light's team in 1986.

All the staff at Northern Light would like to congratulate Strand on reaching this milestone, still occupying pole position in the market-place. May the next 80 years be as successful.

**WHITE LIGHT - LONDON:  
JOHN SIMPSON**

White Light was founded in 1971 and the first equipment stock was bought from Strand for the West End production of 'Alpha Beta'. As far as I can recall, the order included 30 Patt 23s and 20 Patt 123s, complete with barn doors. The total cost came to nearly £700. Since that time we have been major purchasers of Strand equipment and are delighted that White Light in Yorkshire and London are now one of Strand's major distributors.

Many distinguished names have passed through Strand's portals and the people at Strand today are just as dedicated to design, service, quality and standards. Innovative ideas are still forthcoming and we wish Strand another successful 80 years.

**OSCAR LIGHTING - STOCKHOLM:  
KRISTER BLOM**

Oscar Lighting has been a distributor for Strand Lighting since the autumn of 1991, and across that time, they have worked on many projects. The company recently completed an installation in two theatres in Stockholm with a Strand Mini Light Palette 90 and LD90 dimmers spearheading the technical inventory. Oscar Lighting has also supplied Strand lanterns to the new Gothenburg Opera.

Since Oscar took on the distributorship of Strand products in Sweden, the market share has grown considerably and the company hopes to continue this trend well into the next century. Oscar themselves are well-known as the manufacturers of the LightPaint colour scroller.

We wish Strand Lighting a happy birthday and look forward to representing them for the next 80 years!

**KEY PROJECT ~**

## Premiere Out East

Hong Kong is well-known throughout the world for its neon signs that display advertising for restaurants, hotels and tailors, but Central Plaza, the new 78-storey building dominating the city's skyline, uses neon as a bold statement of confidence and commitment to the city's continued long-term success.

Lighting designers Forma/Lightsource Division are credited for illuminating the 1,228 foot building situated in the heart of the business district of Wanchai. The facade was designed to incorporate golden yellow neon in the curtain wall, drawing the eye from illuminated columns at the base towards the sky. Both the intensity and shape of the neon can be controlled from a combination of Strand LD90 digital dimmers and a Premiere control system embellishing the silhouette against the night time sky.

On the top of the tower is a triangular-shaped glass pyramid topped with a tall spire. The base of the spire is illuminated by multi-coloured neon tubes, located at four levels. By using the Premiere control system and LD90 dimmers, the neon lamp colours are dimmed to various levels, providing a multitude of colour mixes such as white, violet, green and yellow which can be changed at any time. The Premiere is currently programmed so that it acts as a 'colour clock', changing the colour sequences of the four bands every 15 minutes through 52 variations synchronised via modem link to the Hong Kong Observatory.

As the fourth tallest building in the world after the Sears Tower, World Trade Center and the Empire State Building, Central Plaza's dominant location and strong visible presence prompted the suggestion that the 'clock' could be programmed as a public 'broadcasting' beacon for messages such as typhoon warnings. The flexibility of the Premiere system certainly lends itself to this type of creative application.

A glass pyramid located on the 75th floor will be used for functions such as receptions and cocktail parties, as well as a gallery for the most spectacular view of the city. Following the same concept used for the neon, using multi-coloured floodlights and more LD90 dimmers, the interior structure of the pyramid can be washed in a variety of different colours, creating an atmosphere of varying moods. These colours are visible from the building's exterior, providing an ever-changing appearance throughout the evening.

There is no doubt that Central Plaza sets an important precedence for Hong Kong, illustrating that a building can maintain its dominant presence day and night through innovative exterior lighting.



Central Plaza at night.

## Strand Lighting for Last Action Hero

One of the more unusual projects involving Strand equipment was the recent US première of the Arnold Schwarzenegger film 'The Last Action Hero'. The task of providing the lighting for this first screening was entrusted to John A Chuck, president of Entertainment Lighting Services (ELS), a Strand Lighting dealer in Hollywood. ELS temporarily closed off streets in Westwood Village, whilst the screenings were held at Mann's Village and Mann's Bruin Theatres. Red carpet was laid in the streets, which surrounded press pens, where the photo and television crews battled for advantageous positions. Crowd control barriers held back screaming fans and the event was relayed to them via the 'Mobotron' - a huge mobile video screen provided by Sony.

Adding to the atmosphere, a larger than life pressure balloon depicting the bust of Arnold Schwarzenegger's movie character, Jack Slater



Spectacular première of 'The Last Action Hero' in Hollywood.

was installed on Mann's Village Theater.

Lighting the event were a collection of Strand Quartzcolor Bambino fresnels, with control furnished by a Strand Mantrix MX board. All in all, quite an event for ELS.

1927

The first tennis superstar, Suzanne Lenglen, appears in a C.B. Cochran revue, lit by Strand Lighting, at Holland Park Skating Rink, London.

1928

The new Savoy theatre opens in London with a production of 'The Gondoliers' and a new lighting installation by Strand. With the Stelmar ellipsoidal spot patent applied for, Strand was set to make the first 1kW and 500W ellipsoidal profile stage spots in the world.

1929

Century Lighting opened in New York by Edward F. Kook and his partners, Joseph Saul and Irving Levy, to serve Broadway. In England, Moss Mansell patented his Magnetic Clutch - a major step towards remote control of lighting.

1930

The place where thousands of romances began - the Locarno Ballroom in Streatham, South London - is equipped with Strand architectural colour lighting. London's new Adelphi theatre opens with 'Ever Green' and an innovation from Strand: the cyclorama is lit from floods and spots instead of the then staple compartment battens.

1931

Strand ventures into public building flood-lighting. Nelson on his Column in London's Trafalgar Square is lit by two Stelmars. Strand also lights the National Gallery and St. Martin-in-the-Fields church. At the Alhambra, Strand's massed spots on the circle front and on stage are another 'first'.

1932

The Shakespeare Memorial Theatre, Stratford-upon-Avon: the only 'modern' theatre built in Britain between the Wars with facilities FOH and backstage that we have come to expect today. Stage lighting included Stelmar spotlights out front, cyclorama colour mixing and a 56-way Grand Master board (Strand's second, the first was in Halifax in 1931). The twenty-year-old Fred Bentham joins Strand Electric in Covent Garden! In the USA, Century Lighting develops the Leko ellipsoidal principle for Stanley Kingsley's 'Dead End' on Broadway, but it was to be several years before it found its way into the catalogue.

1933

Strand's first demonstration theatre (in Floral Street) is opened by C.B. Cochran, and used by Fred Bentham for Colour Music recitals and an R&D laboratory.

1934

The new permanent installation for Sir Thomas Beecham at the Royal Opera House was Strand's first job on a 'Continental' scale. The stage lighting load was 700kW AC and 150kW DC controlled by Mansell clutch driven dimmers from a unique 120-way remote control panel located on the perch.

## All for One at Strand

*Just over a year ago L+SI associate editor Tony Gottelier interviewed Chris Waldron, Strand Lighting's managing director, at the start of his campaign to re-invent Strand Lighting as a truly global operation. Now he talks to Waldron in an attempt to assess progress to date.*

From my previous conversation with Chris Waldron it was clear that the great challenge facing the steely Strand Lighting supremo was in welding together a series of connected, but operationally independent businesses into a coherent whole to face the global challenges of the nineties. The fact that this was a battle which had defeated many previous attempts at rationalization made it even more piquant. So how does Waldron gauge the success of his attempt?

When I suggested, that at the time of the previous interview, Strand had been going through a less than purple patch, Chris Waldron explained that any transformation had to include a complete re-evaluation of the group's products, many of which were showing their age. "This is often an invisible and extremely time-consuming process, at least until the new products are launched," says Waldron, "and what people focused on in the meantime were the various changes which are inevitable with the reorganisation necessary to transform any company into a genuinely integrated international business."

However, new products were in the pipeline all along, and were carefully thought through, not just to be state-of-the-art for the foreseeable future, but also to ensure that, whichever market they were designated for, they were designed with common componentry. "Each market has its own quirks, but that doesn't mean that you can't use the same PCBs, for example. After all, a dimmer is a dimmer, even with a voltage difference or different electrical standards," Waldron explained.

Historically the Group, which developed out of UK based Rank Strand Lighting, had its own European subsidiary operations in France and Germany, together with Quartzcolor in Italy, the Pacific operations in Hong Kong and Australia, plus the addition of the acquired Strand Century in the United States.

For many years, this was largely a matter of giving the whole Group a common image under the Strand



Chris Waldron.

***"There is an awful lot of international work these days: for example, a designer from the UK working with a consultant in the States, with a client in Sweden, for a project in Singapore. We have to be able to cope with that."***

serve world markets but do so in a way which is consistent with the needs of the territory of the sale."

This means that Strand will still produce what they see to be commensurate with the needs of the American market, the German market, the Asian market, as well as the UK market, and others. "We don't have to re-invent a product for each market because we have core technology which we can use world-wide." By doing it this way Strand are able to focus investment in development and manufacturing processes to support products and to maintain quality and cost-effectiveness.

By way of an example Waldron cites the new GSX board. "The control systems we have launched in the last year or so, particularly in the form of GSX will be sold world-wide. Such products have a heavy dependence on software, to give the user what he needs, and we tailor the products very much to the needs of the individual market. Now we can offer exactly what the customer wants, he can tailor his purchase to his budget and if his needs change in a year or two years time, because his own operation has expanded, then he can merely upgrade that product to suit, without having to go out and buy a whole new board."

Another example is in the Strand manufacturing plant in Kirkcaldy, Scotland where a little over a year

### KEY PROJECT ~

## Glyndebourne Opera

*Another world-renowned opera house is Glyndebourne - nestling in the Sussex Downs in the South of England. Strand has supplied opera houses from Sydney to Berlin and New York to Helsinki. Glyndebourne is a major project to rank with the grandest of these, but with its own unique style.*

*Some four and a half tonnes of digital dimming equipment was supplied to site representing 450 x 16A, 100x 32A, 12 x 50A and 96 x 32A non-dim contactors of EC90 MD plus digital dimmers with Strand's high technology reporting functions operating in conjunction with a Galaxy Nova lighting control system.*

*Strand also supplied most of the opera house's luminaires. Bill Richards and Alan Luxford were again involved in this project. Strand distributor Stage Electrics were recommended as sub-contractors to electrical contractors Matthew Hall. Many companies were involved and L+SI will run a major feature on Glyndebourne in its June issue.*



The new opera house at Glyndebourne.





ago they introduced a fully automated PC board manufacturing process. So here again Strand have been able to bring the advantages of that particular technology to products in Europe, America and Asia. "So our global strategy is all about making the most of the common elements of any particular activity whilst being able to address the specific needs of an individual market."

I noted that evidence of the impact of this 'one-world' policy was the fact that by LDI '93, Strand's US director of marketing, Steve Norman, had already begun to talk about product as an echo of the UK product list. So, I asked Waldron to elaborate on the success of recently introduced British and European-style theatre luminaires into the US at last year's LDI. "We decided, from conversations we had in the States, that far from the USA being a place in which nobody ever wanted to use anything other than Lekos, which was what we had been consistently told previously, that in fact, something different was probably the case. Some of the bigger theatres and opera houses are using luminaires traditionally only seen in Europe.

"For example, Sunset Boulevard in Los Angeles, uses Strand Optiques for pattern projection and Beamlights. It seemed like a sensible thing for us to modify these luminaires to conform to US standards so that they can satisfy world requirements and local practice and offer them to the American market. The response so far has been extremely good."

Within Europe there has also been quite a shake up as far as Strand are concerned, as the global 'one-market' strategy has started to bite. Part of that philosophy has been to see Europe entirely as a single market, supported from the UK through local offices and distributors, rather than through totally separate establishments acting as their own distribution points. Waldron again: "A lot of things have happened in Europe of course, which are specific to that market, and a lot of things have happened in the areas of technology which are part of being in the business of serving customers, which have enabled us to take a rather different view of the regions.

"Years ago, each country was an individual nation and had its own customs barriers and so on, and so the burdens which you had to bear if you wanted to sell there were enormous. The lack of physical distribution facilities was a major factor. If you wanted to serve a market then you would probably have to have your own operation."

"All that's changed. For a start the hassle factor in getting products from one part of Europe to another, has largely disappeared. The services that are available to you range from overnight delivery of products, to delivery in a matter of days. Making use of this, there is the same distribution facility in each and every market. There is still the requirement to support customers, but we don't need to have every facility that we had ten years ago, and we don't want to duplicate a lot of administrative work which can be done in one place, and the product distributed directly to the customer. "In this way, there is no reason why an order taken in Germany, for example, should not be delivered directly from the factory in Kirkcaldy.

In fact, by coincidence, my own business had some recent experience of how this new strategy can work to the customer's advantage and this was a good example of the refreshing new attitude which prevails at Strand's Isleworth base. Requiring some special fittings, normally manufactured for the film industry by Quartzcolor in Rome, for the current Pink Floyd



Strand's Isleworth headquarters.

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***"Strand will be able to become a truly global player supporting its clients world-wide as the entertainment industry itself becomes more and more international."***

---

world tour, my partner was able to acquire the products configured to his requirements at short notice from the London office with the minimum of fuss. Even the accounting was made simple and trouble-free. Then, when we needed spare parts during the US leg of the tour, they were ordered from Strand UK and delivered by the Canadian office, which happened to have stock, by overnight service to the next venue on the tour itinerary.

Waldron describes the interim process that went into the making of that satisfactory outcome. "Moving to a situation where a company can act on a regional basis in a much more integrated way and improve service to customers, clearly requires something of a change in structure and organisation. That is something which we have been going through for the past year or so, and which is now coming to an end." He points out that the distribution problems are much the same if Federal Express or UPS goes overnight from one side of the United States to the other, then they can do just the same thing in Europe.

Waldron then revealed his plans for creating a global computer system in the future. "A fundamental requirement for any business is of course information. Not information necessarily in the sense of external market data, but communication between different parts of the organisation. To satisfy a customer in any part of the world, the main thing we need to know is what it is he wants and where he needs it. If you can capture that information as concisely as possible and transmit it throughout the organisation, then you have all the requirements you need in order to satisfy your customer. With such a system the data would be common throughout the company, and the entire distribution process would be speeded up."

Waldron articulates his idea with the example of language. As he points out, one of

the key problems in any international project is language, and if you can key in one language and it outputs magically at the other end in the second language, then you can remove a lot of potential confusion and mistakes. Further, you would only have to key the information once, instead of many times. In this way Strand will be able to become a truly global player supporting its clients world-wide as the entertainment industry "The company that can operate everywhere will be the most effective in the market. There is an awful lot of international work these days: for example, a designer from the UK working with a consultant in the States, with a client in Sweden, for a project in Singapore. We have to be able to cope with that."

So what else is in store for Strand in the future? Chris Waldron promises more new products before the end of this year and a company which is more at one with itself world-wide and with its customers. One enormous advantage which Waldron recognises that Strand has over its competition, is in the resources of such a large group which cannot be matched by many others.

Taking advantage of this should enable Strand to become increasingly competitive. Waldron believes that they have made tremendous progress in their goals, and that the real benefits are only now just beginning to become visible. "The responses we are getting in conversations with our dealers and customers are very different to what they were only a year ago. This is an on-going process. Over the last year many of Strand's older product lines have now been replaced by new technology. After 80 years in the entertainment lighting business, we are in a process of renewal."

If you compare Strand Lighting and its regional centres to The Three Musketeers, and I leave you to decide which is cast in the fourth D'Artagnan role, then Dumas' motto, indeed, seems appropriate to Waldron's vision for his born-again organisation - 'All for one, and one for all!' or, as Chris Waldron would say, "We are all in the same boat, so we might as well all row in the same direction."

Stand by world for a resurgent Strand.

1935

The Strand Light Console is inaugurated with a recital of Colour Music in the Floral Street demonstration theatre and has national press coverage. It was the first lighting control in the world to use not merely a moveable console but the organ principle of 'select and play'; the common basis for today's memory control systems. Century's latest catalogue announces 'New Type Incandescent Leklites - A new application of an old lighting principle', to replace 'standard arc-carbon-fed lamps'. This advanced spotlight used an ellipsoidal reflector, base-up 1000-1500W lamp, and listed at \$155.

1940

Strand's first export of a complete continental opera house installation, including a Light Console, to Teatro S'Carlos Lisbon.

1941-5

Strand was committed to War work, but its involvement with flying and submarine simulators laid the seeds for improved optical and projection equipment post-War. The central Tactical Aircraft Trainer projector was the first to use remote control zoom objective lenses designed in Strand's pre-bombed Demo Theatre. This period marked the turning point in technology. Before the War, stage lighting development was in the hands of the practitioners - mechanics, electricians and 'metal bashers' from the theatre. Low volumes and very little export meant that fundamental engineering designs, basic materials and simple production techniques were sufficient for the industry.

1947

George Izenour, a member of Yale University's Drama faculty and long-time Century consultant, had been working on his electronic control system from 1940-44 before it was put on ice. The working system, a 2-tube Thyatron dimmer and the C1 (Century Izenour) 10 and 5 scene preset remote control, was demonstrated in 1947. The electronic age had dawned. During the next two years Izenour with Century developed the twin tube 'L' chassis electronic dimmer and the 'five scenes' edgways-on rotary preset module of which tens of thousands were made (and probably still exist!).

1949

In the UK, the electronic preset control emerged, based on Woody's 3-tube Thyatron design. The first UK system was at the New Theatre (now the Albery Theatre) in London's West End. On the first night of the production of 'Twelfth Night', the board operator got one cue behind in cross-fading, which did nothing for the play, and even less for the new board's reputation! Strand's London Palladium installation of 1949 is historic in that it marks the move towards more directional lighting.



The main manufacturing base at Kirkcaldy (above), with the manufacturing facilities in Italy and America (below).

**Kirkcaldy, Fife, Scotland**

Manufacturing moved from its original London base to its present site, Mitchelston Industrial Trading Estate, Kirkcaldy, early in 1968 with the operation housed in a single unit of approximately 130,000 sq.ft on a 42 acre site on the northern outskirts of the town. The growing reputation of Scotland's 'Silicon Glen' has been a positive advantage to Strand's Kirkcaldy plant particularly in establishing a major resource in electronics manufacture for Strand.

The Kirkcaldy operation is highly integrated with R&D, manufacturing, assembly and distribution operations supporting a full range of luminaires, lighting control systems and dimmers for theatre, studio and architectural applications world-wide. Around 70% of all production is exported to its main overseas markets in Europe, North America and the Far East.

The range of skills and facilities accommodated on the Kirkcaldy site is very wide, covering component manufacture, paint processes - with a new electrostatic powder coat plant recently installed, electro-mechanical assembly, assembly of printed circuit boards, digital electronic dimmers and sophisticated control systems. The PCB assembly facility is state-of-the-art incorporating highly automated surface mount and conventional through-hole techniques.

Close to £1,000,000 has been invested in the latest technology, manufacturing methods and quality improvements since 1989. The highly skilled and flexible workforce of more than 200 people employed at the Kirkcaldy site are at the core of the company's success as a manufacturer of high quality equipment which led to the company's registration as a firm of assessed capability with registration to BS 5750: Part 1: 1987, EN29001-1987 and ISO 9001-1987.

**Pomezia, Rome, Italy**

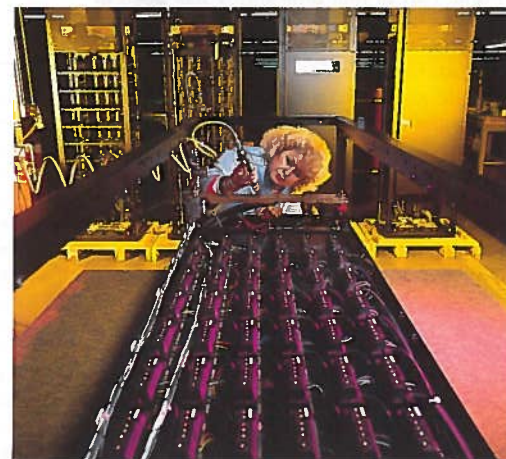


In 1986 Strand Lighting acquired the Quartzcolor Ianiro company and set about a programme of updating the manufacturing facilities. The outcome was a brand new £5 million factory located in Pomezia, an industrial zone 30 kilometres south of Rome. In April 1990 the plant came on stream, continuing manufacture of the world famous high quality film and television lighting products sold world-wide by Strand Lighting.

The company started by the Ianiro brothers in 1954 had grown to occupy seven buildings, so re-grouping under one roof became a goal for improved efficiency. The new site is set on 21,500 square metres of land with the low beige building covering 7,500 square metres, including 1,700 square metres of offices.

The Pomezia site also provides a base for Strand's Italian sales operation plus the R&D team responsible for developing the TV and Location lighting product line. In all about 100 people are based at Pomezia.

**Rancho Dominguez, California, USA**



Based first in New York as an addition to the Century Broadway rental house, this USA manufacturing arm then expanded to Santa Monica, CA before consolidating manufacturing in 1968 at a site near the Los Angeles airport. In 1982 manufacturing was consolidated with sales and engineering services from Elmwood Park, New Jersey, to the present Rancho Dominguez location. Originally a stand alone company, this operation was purchased by Rank in 1968 to join the global Strand organization.

The 140,000 sq.ft facility with its 180 employees, manufactures products primarily for distribution in North and South America, and also houses USA, and Latin America sales and engineering operations. Products from this plant are also exported to overseas markets, although no products from the Kirkcaldy or Pomezia plants are duplicated. Close to the vital Hollywood production market, there are also R&D and marketing annexes to the London-based departments.

The Elmwood Park facility still serves as a field service, sales and distribution centre, located close to the Broadway market. A Toronto-based facility, with an additional 17 employees, provides sales, engineering, and light manufacturing services for Canada.

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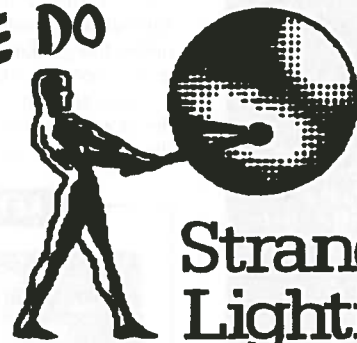
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1952

Strand's first branch office in Australia: 481 Malvern Road, South Yarra was the address and Alec Brown, ex chief of the London Coliseum, was the boss, with a small group of the crew from an Australian tour of 'Oklahoma!' which he had master-minded prior to the Strand opportunity.

1953

The most famous number in Stage Lighting - the Pall 23 - is born. The first die-cast aluminium stage lantern, and easily the most popular single unit ever made by Strand UK.

1959

The smallest and best event in Stage Lighting: Strand launch the hook clamp and free theatre from the old 2 nut and 2 bolt L clamp. Strand starts up in Canada.

1960

It all hangs out: 'Oliver!' at the New Theatre exposes all Strand lanterns over the stage - an absence of masking now totally accepted.

1963

The year of the Junior 8 four-slider resistance dimmer which could be shared over eight circuits. Hundreds are still in use in schools and village halls.

1964

Royal Opera House again: the first big all thyristor dimmer installation, with 240 ways.

1965

The presets march in: Junior Preset (J.P.) and Senior Preset (S.P.) boards arrive.

1967

Instant Dimmer Memory: now each lighting picture can be replayed exactly as the designer originally wanted it. On the other side of the coin, cues can be recorded as fast as a button can be pushed, so designers have to do their homework!

1968

Strand Electric becomes part of The Rank Organisation.

1969

Strand acquires Century Lighting of New York.

Strand becomes distributor of Quartzcolor studio lighting: the world's most widely used T.V. lanterns come into the fold for sales, but Quartzcolor remains an independent manufacturing company.

1973

The Modular Memory System (MMS) allows every theatre, studio or consultant to do their own control layout - but nearly everyone leaves it to us! The Strand control wheel, with optical encoder, is a complete winner. Many MMS systems are still in use in both theatres and TV.

## Project Route to Market

Although Strand has a policy of supporting its distributor and dealer network globally, the scale of some projects and the wishes of the client to work with the manufacturer, sometimes require direct involvement. Typical examples are major TV studios, a new arts or convention centre, or a major theatre. Such projects are usually distinguished not only by size and complexity, but also timescale from conception to commissioning.

Early involvement in a project is invariably beneficial as the consultants can have the requirements of lighting in mind from the beginning, rather than try to accommodate special needs later in the process. It's not uncommon for projects to have an international dimension, with specialist expertise within the design team being co-ordinated between different countries. Strand's global disposition is well suited to providing links between the various parties concerned. Strand has developed project planning and project management expertise in several locations, but it was with the Isleworth team led by Robert Copping where we took up the story.

### Strand Lighting Projects Division UK

Reviewing Strand Lighting's recent installations gives an insight into its impressive global capability to conclude projects, across a wide range of applications, including film, studio and location lighting and suspension systems, theatres and opera houses, hotels, museums and theme parks.

The Projects Division of Strand Lighting generally defines a 'project' as an order requiring some form of configuration, design or customised product and thus preventing a straightforward order to manufacturing. Such an order will require project management to ensure Strand product and equipment from various sources is co-ordinated through installation to project completion.

Project managers skilled in the required disciplines for stage, studio and architectural projects, operate within the Projects Division controlling many projects throughout all phases of implementation. At their disposal are various computerised tools including programme planning, scheduling and CAD. Projects frequently require customised or specialised product, designed and manufactured under the guidance of Strand's Custom Engineering unit, who work closely with the Projects Division.

There are two main ways in which a project may develop. The first is where a Strand Lighting main distributor has successfully concluded negotiation



Robert Copping (standing), manager of Strand Lighting UK's Projects Division, with Peter Daffarn, project manager.

with the customer and will implement the project. In this case Strand Lighting will be in support for technical advice about the product, its configuration and installation. The project will still be assigned a project manager at Strand and, where appropriate, a Strand commissioning engineer will visit the site for system testing and training.

The second is where Strand Lighting directly conducts the negotiation, possibly assisted by a local agent or distributor. In these cases, Strand Lighting's project sales consultants discuss a range of technical proposals to meet the customer's requirements. As a result, the customer will decide upon the most appropriate solution consistent with practical requirements, budget, and personal preference.

If necessary Strand Lighting can offer to manage a complete turnkey package, to include installation of not only the production lighting, but also houselighting, secondary steelwork, the suspension system itself, electrical distribution and switchgear, sound and communications, as well as drapes or cycloramas including tracks. The ability to take on an entire studio package has been greatly assisted by the acquisition in 1991 of Evans suspension systems.

Strand Lighting's assigned project manager will conduct site visits to determine the technical details and organise the product configuration and schedules. Where appropriate, installation may include locally recruited resources, under the guidance of an experienced site supervisor working closely with the project manager.

The UK Projects Division covers such diverse territories as Africa, the Middle East and the CIS as well as Europe and Scandinavia, except where an alternative Strand company operates.

### KEY PROJECT ~



## Bahrain TV Production Studio

Situated halfway down the Gulf is the small island of Bahrain which, despite its size, now has a very well equipped television station. During 1992 Strand Lighting won, amidst stiff competition, the international tender to equip the new 800 square metre production studio. The task was no minor project, Strand were required to design, manufacture, ship, install and commission a complete 'turnkey package' and ensure that the client was presented with a first class television studio. The supply of the lighting equipment was relatively straight forward, having

been selected from Strand Lighting's extensive range of studio suspension equipment and lighting controls, dimmers and luminaires. This all needed to be manufactured and shipped to Bahrain to ensure that installation proceeded smoothly and to enable programming. Prior to a site survey by the Strand Lighting project manager a number of local companies were invited to tender for the supply and installation of steelwork and mechanical and electrical installation. Following discussions locally with these companies, a sub contract was awarded for this work and the installation of the Strand Lighting equipment. A final task was to select the site supervisor who would be based in Bahrain for the duration of the installation. This unenviable task was awarded to a good friend of Strand - Malcolm White. Contract signature was in September 1992 and work commenced on site in February 1993 with steelwork installation. In June 1993 the studio was successfully commissioned and handed over to the client. Bahrain TV are now the proud owners of an 800 sq.m studio equipped with 100 self climbing hoists, 342 EC90 MD TV dimmers and a large selection of Quartzcolor luminaires. The project was managed by Peter Daffarn and Tony Dille, studio project sales manager.

## The MMC Studio, Cologne

The German TV market is positively booming. The reason for this is the success of the private programming companies which have been allowed to operate in Germany for the past few years, and are, quite rightly, challenging the established public organisations. Their rivals for the public's attention having been identified, an offensive has now been launched which has resulted in a severe shortage of studio capacity. In Cologne in particular, huge studio complexes have sprung up; this provincial capital having established itself as the stronghold of the broadcast media - and there is no sign yet of demand being satisfied.

One of the more sensational developments of recent months is without doubt the extension to the studios of MMC, the Magic Media Company in Hürth, just outside Cologne. A TV studio had been in operation on the site for several years, and this has now been considerably expanded in scale. The origins of the studio date back to a factory building which was converted with the help of Strand Lighting GmbH. Now, a new building housing three studios has been added. A further studio, the Maxima also needed re-equipping.

The entire project management of the new building was entrusted to Strand Lighting. Planning permission was obtained at the end of March 1993 with the first programme being produced on September 6th - a tight schedule for a project of this size. The CAD planning department at Strand's offices in Wolfenbüttel, which has been equipped with the very latest technology, proved its worth. A studio project of this scale requires a great deal of lighting equipment. Consequently, for weeks on end, Strand's Scottish manufacturing unit at Kirkcaldy put special resources to work on the project. The Italian operation in Pomezia also had their work cut out producing all the studio luminaires.

A total of almost 3,000 individual dimmers have been installed in 38 Strand EC90 dimmer racks in the MMC Studios. Installation began in mid-1993 and was supervised on site by the project leader Bernhard Berger, with Jens Stuckmeier. They set up a production office in the old MMC building and supervised the project over a period of weeks. The installation phase was speeded up thanks to the assistance of Malcolm White, who needed to use his entire box of tricks to ensure that the installation was completed on time.

A few figures may help illustrate the scale of the project. The MMC Studios contain, amongst other things, three Strand Galaxy Nova control desks, the 38 EC90 dimmer racks already mentioned, 28 cyclorama hoists, 262 motorised self-climbing hoists (with remote control and patching capability for the movements) and 100 pantographs. There are also 450 Strand Quartzcolor Castor 2kW spotlights, 225 Pollux 5kW and 120 Polaris 1kW in studios 1 to 3, plus a further 100 Castor 2kW, 100 Pollux 5kW and 100 Polaris 1kW in the Maxima studio.

All the dimmer racks and the requisite distribution equipment for studios 1, 2 and 3 are centralised in a room which, during the installation phase, gave any passing visitors the impression of being in a copper mine, such was the mass of gleaming metal cables.

The MMC studio project was only feasible because of close collaboration between Strand in Germany, Britain and Italy and in particular, the experiences and resources of UK-based project management and production planning. It was a real team effort.



# Product Focus

A key element of Strand's global philosophy has been to design products suitable for the world market, but at the same time to ensure that they meet the specific and various needs of users in local markets. This approach is summed up in the Strand concept of 'Marketing globally - thinking locally'.

The approach to lighting controls typifies the way this concept is being developed. A few years ago Strand had a wide range of lighting control systems, based on a British programme and a quite separate American series. Many of the products also carried the penalty of being the first of a particular genre. In the absence of any de-facto industry standards, these had to be invented and so with time they were different to other, later products. There was little relationship between one board and another - even the physical appearance was unrelated. It all added up to a great deal of capability, but confusion of choice and diversity of production. And to add to all this, there was a constant pressure to add more and more features against a background of reducing prices.

It was time to re-think the approach. Strand decided that the new programme would seek to maximise volumes by addressing the global market and segmented the product line into six categories. These would enable the resulting products to meet the needs and aspirations of Strand's customer base. The basic model proposed a hierarchy of control capability:

- Manual Control
- Manual plus Memory Control
- Entry Level Memory Control
- Memory plus Manual Control
- Mid Range Memory Control Systems
- High Capability Control Systems

Industrial design was a key issue in creating, not only ergonomically efficient control boards, but also providing a visual identity which marked out a Strand control desk as being different. The LX, MX, GSX and LBX controls - which address the first four segments - use the same high quality injection moulded engineering grade materials which allow detail to be incorporated as an integral element of the design. One obvious benefit is the custom key caps and slider tops which not only impart a unique Strand feel, but can be conceived as part of the control surface itself - instead of a standard component that merely pokes through a hole cut in a flat sheet.

This sort of detail, protecting slider tops from damage by inseting them into moulded channels, is only realisable through investment in tooling and that is only viable if a large enough market is addressed. Strand's flagship high capability controls - Galaxy Nova, LightPalette 90 and Premiere - have also been completely reworked, not only to reflect a related image, but the software has been constantly developed in response to user feedback.

Arguably the most fundamental change in philosophy is exemplified in Strand's GSX and LBX memory control systems, where the Genius application software is being marketed separately from the hardware platforms. This is a major benefit to users who need different levels of capability, but no longer need to overspecify on size at the initial purchase, instead increasing performance and facilities as they are needed or can be afforded.

'Lighting solutions' is another by-word



The Strand Quartet spotlight.



The LBX memory control system.



The Colour Call scroller.



Close-up detail of the GSX.



Quartzcolor portable studio luminaires.

for Strand, who see the provision of products as 'building blocks' which can be brought together to provide the most effective solution to a particular lighting requirement. Dimming is another element in this lighting equipment programme that has undergone a quiet revolution over the last few years, as the age of analogue dimming has been superseded by digital dimming.

EC 90 was Strand's first totally digital dimmer which now, with the introduction of EC 90 Supervisor, has developed into a flexible intelligent dimming system. The advent of digital dimming was a milestone in the control of light intensity, equivalent in its own way to the improvement in sound quality between CD discs compared to the phonograph! Digital dimming does not stop with the acceptance of a DMX control signal, it continues as digital values from the input right through to the thyristor output. Lighting intensity level, speed of response and dimmer law are all produced by digital calculation to give far greater precision, accuracy and consistency than an analogue dimmer could ever achieve. A quartz crystal, stable over both time and temperature, in combination with a micro-processor, give quartz precision timed accuracy for firing control. Add to this 16 bit processing with a fade resolution far smoother than DMX 512; then you get top quality digital dimming results every time. Also, occasional adjustment of set up potentiometers is no longer needed - they do not exist!

Another major change is the arrival of processing capability within the dimmer rack which can be used directly or remotely programmed using Strand's 'System Wide Control'. In the Strand LD 90 digital dimmer there are, for example, 99 presets that can be assigned and the EC 90 Supervisor enables reporting of information of dimmer status. So dimmers are no longer a passive element, but an active part of the lighting system.

Taken together the control, dimming and communication elements have now built into what Strand calls the 'Digital Theatre'. The recently completed Hannover Playhouse in Germany provides an interesting example of a fully digital theatre.

Of course this is not the end of the story. Arguably the most important element in the lighting system is the luminaire itself. The Strand range is extensive, providing solutions for stage, studio, location, motion picture, news reporting and architectural lighting. The introduction of Leko into the United Kingdom and Europe is the first time that a new ellipsoidal has been available that complies with European safety standards. It also offers a choice of a fixed angle hard edged spotlight that does not carry the cost burdens of a zoom profile.

By contrast, the Strand Optique introduces a condensor imaging system, giving very sharply defined pattern projection. The ability for Strand to have products like these, available globally, gives designers a wider choice, but with the reassurance that the safety aspects will be right for the country in which they are supplied.

For studio lighting the story starts with consideration of the method of suspension. Strand recognised that careful planning at this stage could yield benefits later in lighting a studio and if studied in conjunction with construction, actually save money over a total

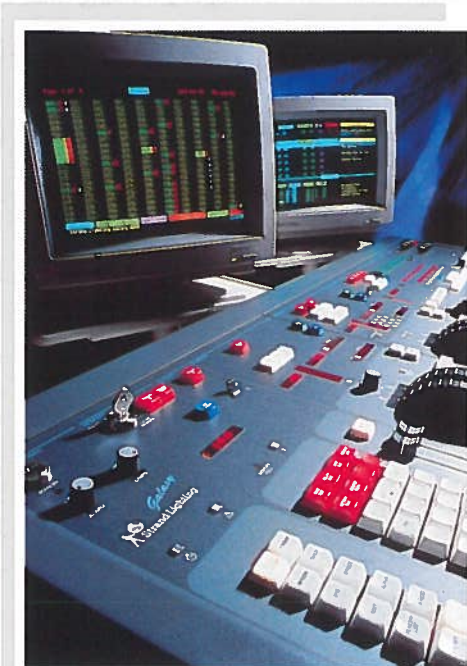
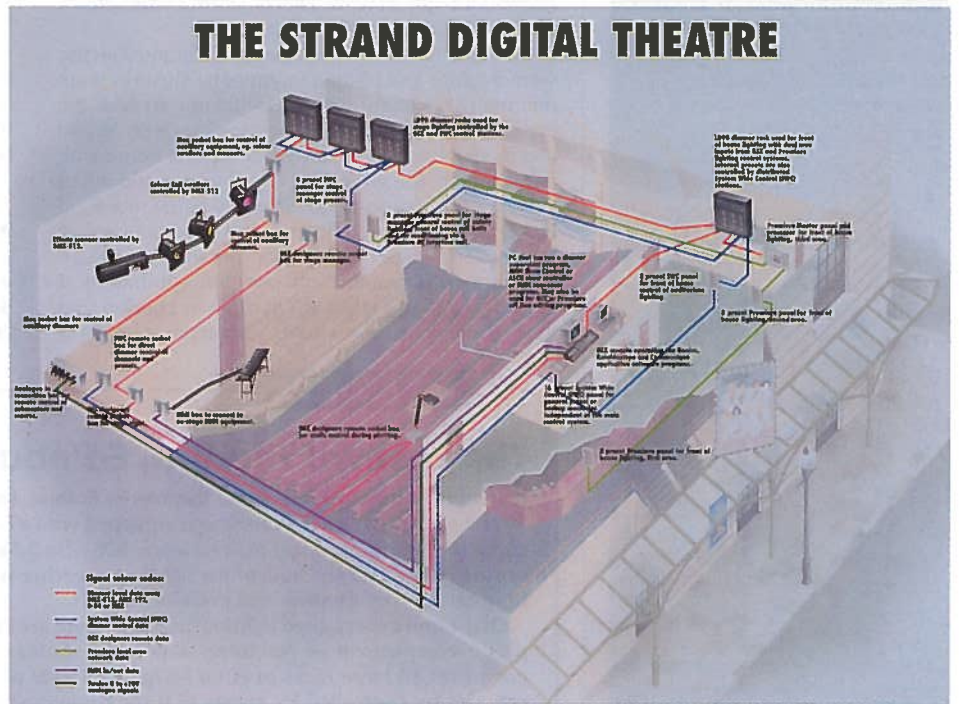


project. The co-operation with Evans Stage & Studio Engineering Ltd that followed, has created a successful partnership resulting in the completion of many major studio projects around the world. With suspension being manufactured by Strand who also supply complete packages of suspension systems, luminaires, dimming and controls. Interestingly, changes in production requirements and advances in the efficiency of camera technology have created an environment where, particularly in smaller studios, an alternative to the saturation rig can be considered.

News and continuity studios and smaller production spaces are good examples of what Strand has termed the 'Low Energy Digital Studio'. Generally ceiling heights are low - in fact such studios can be in otherwise standard office premises. Light Rig, a light weight suspension system gives considerable flexibility in placing luminaires.

The light source principally utilised in the low energy studio is a compact fluorescent with multi-phosphor, high colour rendering, which, when operated with high frequency electronic ballasts, provides not only a low energy solution, but equally important low heat. The relative coolness of fluorescent lighting should be welcome not only to the performers, but to

**The Strand Lighting showroom at the Isleworth HQ (above) carries at least one of every current main line Strand product, connected as a system with demonstrate digital dimming and status reporting, automated spotlights and colour change, and MIDI control. Below, Strand's system integration is portrayed in The Digital Theatre, a graphic collective of lighting control, dimming and communications.**



The Strand Galaxy.

the facility owners who pay electricity and air-conditioning bills! Combined with LD90 or EC90 digital dimmers and a GSX control, a comprehensive low energy digital studio package was created. Fluorescent lighting in studios is nothing new. The use of compact lamps and high frequency ballasts has been common place over the last decade. It is the circumstances which have now made the concept a practical reality.

The move towards globalisation of the product range to provide lighting solutions around the world, finds expression in the Strand Catalogue. Although published in a number of language editions, there is a consistency today of the products offered.

This enables a designer working in New York, for example, to specify product in Germany, with the added benefit that the version supplied there will be consistent with local safety regulations. This, of course, highlights the final frontier - that of differences in standards, custom, supply voltage and practice. There will always be differences in products as a consequence. But these are differences recognised in the basic design and this enables Strand to market globally, whilst still thinking locally.



EC90 digital dimmers.

1975

Completely new generation of lighting control was launched with the Lightboard for the National Theatre.

1976

Drury Lane changes the last light console in regular use for an MMS for 'A Chorus Line'. The one-hundredth MMS is installed at Nottingham Playhouse.

1978

Duet launched. The first micro-processor system.

1983

Now anyone can have memories: M24 - the system that brought memory systems within reach of virtually every professional theatre - and a surprising number of amateurs. R.I.P. Part 23. The end of an era. In 30 years half a million were sold. Almost all must be still alive and lighting.

1986

Strand and Century come together in one company. 'Strandlight' takes over from 'Tabs' to give a world view of Theatre and TV lighting.

1987

Quartzcolor becomes part of Strand Lighting.

1988

The year of Galaxy III and Lightboard M: Our top line system achieves installations for the BBC, London Weekend and Yorkshire TV, as well as many theatres and overseas television services. 330 Galaxies have been sold to date in the USA, Light Palette continued its successful run, again in both TV and theatre. Lightboard M became a world-wide success story, being as popular in Europe as it has proved in America. The World Expo in Brisbane consumes large quantities of Strand product.

1989

In the 75th year Strand launch the 'Strand Book' and introduce PALS - Precision Automated Lighting Systems - with installations in a number of venues bringing remote control to standard Strand and Quartzcolor product.

1990

'Lights' magazine is launched as the eventual successor to 'TABS' but reflecting Strand's global aspirations. The EC 90 dimmer announced new standards with digital dimming and full fault reporting facilities. PALS won a product innovation award at the Electrex show.

## 80 Years of Strand Lighting

*Fred Bentham reflects on a lifetime of lighting*

Strand is 80 years old, and that's a great age! Wait a bit. This author, whose career was to become so entwined with Strand is three years older than that. So when did he first learn of the firm and its work? No doubt among the small print credits in programmes for Lyceum pantos, *Chu Chin Chow* at HMT or *Peter Pan* at wherever.

That young boy would have become aware that there were two regular contributors to the staging of West End shows - Jeyes Fluid Ltd and Strand Electric. The former ensured purity in certain vital areas and the latter enabled the show on stage to be seen. Indeed, did he but know it, he as 'Mr Bentham' was to take regular calls with Mr Jeyes on stage at the London Palladium in 1941/2 having been introduced by Tommy Trinder as important contributors to Robert Nesbitt's *Gangway*. Back to Fred or Freddy, he was to learn one day that the two founders of Strand Electric in 1914 (Arthur Earnshaw & Phillip Sheridan) had been electricians at the Duke of York's and the Strand theatres. The first was associated with the launch of Barrie's *Peter Pan* and the other with the staging by Arthur Bouchier of the RLS *Treasure Island* with optical wave effects, storm clouds etc - a boyhood Christmas favourite of his.

The keys to the early decades of Strand Electric were the hire and fit-up departments. Theatres were minimally equipped with stage lighting so with the expansion of lighting and effects reliance on Strand and its staff became a habit; they were at home with one another. The greats like C B Cochran and Julian Wylie would drop-in to Strand's 'showroom' in Floral Street. Equally 'Strand' was the password at stage doors. Stage lighting soon became 'theatrical' lighting which meant it spilt over into exhibitions at the Royal Albert Hall and Olympia in London and their equivalents elsewhere, sometimes playing a



Fred Bentham.

Upon-Avon and 1934 at Covent Garden.

My own first actual contact with Strand was in 1928 due to the needs of a local amateur dramatic society. By June 1932 when I joined the firm stage lighting had really taken off and it was time for some R&D. I think we all know how that has accelerated over the decades since then, and with advanced technology, exports have flourished world-wide.

As for today, when Strand Electric is Strand Lighting - is all well? It must be. Otherwise how come they played such a large part in staging the Colour Music recital by Paul Weston and I at Cambridge for CIBSE in March this year? Whether Mr Jeyes played any part, I know not!

**Fred Bentham's book 'Sixty Years of Light Work' released last year is available direct from Strand or through PLASA's technical book service.**



large part in displaying at home or abroad the 'wonders' of the British Empire. Hire installations might consist of 90 spots or more, as in *Boy David* at HMT or *Stop Press* at the Adelphi, plus all the portable dimmer boards and cables to control them.

Large permanent installations began to feature in super-cinemas and in 1932 at Stratford-

### KEY PROJECT ~

## The Festival Theatre, Edinburgh

One of the largest performance theatres in Europe, the Festival Theatre in Edinburgh, has joined the Strand project list and has also been equipped with a Galaxy Nova, EC90 digital dimmer combination, plus a full rig of Strand Luminaires. Some 128 Alto 2.5kW, 132 Cantata 1.2kW and 20 prelude profile spotlights provide the bulk of the lighting, together with 36 Cantata PC spots, four Prelude PCs and four each of the Cantata and Prelude fresnels.

Of the more specialised lighting installed, there are Pollux 5kW fresnels, 500W and 1kW Beamlights, plus a complement of Nocturne floods. The Galaxy Nova is a 768 channel version and dimming comprises 10 large racks of EC90 MDplus - a total of 448 16A and 70 32A dimmers. House lighting can also be controlled by means of three back-up stations. The equipment was supplied to Glantre Engineering whose project was co-ordinated by Mike Rowntree and Mark Davenport, working with Simon Roose and Alan Luxford at Strand.

Once again Theatre Projects Consultants acted as theatrical consultants with Alan Russell being the man responsible at their end. The architects were the Law and Dunbar-Nasmith Partnership, whilst Graham Raith was the representative of the Edinburgh Festival Theatre, responsible for what is believed to be one of the largest deliveries of theatre product in Europe.

**L+S will be covering the full technical installation at the Festival Theatre in more detail in a future issue.**



The Festival Theatre.



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**FROM THE DIRECTORS & STAFF OF  
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## Addressing the needs of the market-place

Managing a global operation requires timely and accurate information, both at the centre and in all of the operating locations. As with most companies, Information Technology (IT) is the key to Strand's success and has developed to meet specific local, national and international requirements of the market-place. Today Strand is in the middle of a major investment programme to organise and implement a global IT strategy which the company confidently predicts will bring a further level of improvement to its efficiency and ability to respond to its customers.

Spearheading the sales attack is European distributor sales manager Ivan Myles. It is Ivan's role and that of his specialist and highly trained team of sales representatives to manage Strand's distributor business. With the simplification of cross-border trading throughout the European Union and beyond, this has enabled Ivan to develop an integrated approach to Strand's extensive distributor network. This responsibility includes tradeshow and local tours of new Strand product which are organised in conjunction with the distributors. In Germany, the distributor sales are managed by Harald von dem Stemmen operating from Wolfenbüttel and in Italy, Fulvio Cotogni is responsible for all sales activities.

Strand has a loyal and established customer base, many still contentedly using equipment which first saw the light of day many years ago. Providing support in the form of service to existing and new customers is the responsibility of Strand's trading operations. In the UK the man heading up that role is Steve Dawson.

Part of Dawson's responsibility lies in boxed goods. Now this may not be the most glamorous side of the industry, but it is a critical factor in the service equation and underpins the relationship between manufacturer and end-user. It's no good designing the best product in the world if you can't produce enough to satisfy customer demand. Strand are well aware of this and aim to supply those clients who are clear about their specific needs with fast, off-the-shelf delivery, handled in the main by their distributors.

For Strand, the heart of boxed goods lies primarily in the theatre market: the chain is not complex - it starts with the client, passes through the distributor and finishes on a computer screen at Strand: it's as simple as that. Operating this network at Strand's Isleworth HQ are four co-ordinators who are looked after by assistant customer services manager Nuala Flew.

One of the most significant developments of recent years was Strand's decision to end all exclusive distributorship contracts. In place of these the company set up a much more flexible structure which allowed those who acted as Strand distributors to stock competitors products: not a wise move you might think until you realise that Strand were determined that the products and the service they offered would make any

distributor a fool to do other than stock Strand. It also served to sharpen Strand's thinking.

The principle has been adopted world-wide, but as not all countries have the same infrastructure, the framework is adapted according to each. The move has brought many positive repercussions and has created a stronger foundation of mutual trust on which both Strand and their distributors are more determined to work together. In tandem with this, Strand have also taken steps to reduce the lead time needed for the supply of stock and as a result assist distributors to, in turn, minimise their stock - which has bred a great deal of confidence in the partnership. To cut down lead times, manufacturing has had to change and the increased flexibility that has resulted has fed through all the threads of the web carefully woven by Strand: the distributor can plan his pattern of business, and smooth out the hitherto artificial peaks and troughs that accompany second-guessing the needs of the market. A further step forward was taken when Strand introduced the EuroSystem programme, covered earlier, which is targeted primarily at distributors and ultimately designed to benefit the end-user.

Like all good business arrangements, it's a two-way street and for Strand to give of their best they look for the best in return. And this means that they have very strict criteria for the appointment of distributors which must be professional companies, known to the market, with a sales team, professional showroom facilities and training facilities.

In return Strand offer not only the product, but a legion of marketing material, a catalogue, the bi-yearly magazine *Lights!*, technical documents, roadshows, not to mention the 22 trade shows at which the company annually plies its wares. There is also a network of approved service centres around the country which provide product support to distributors and end-users. Allied to this Strand are also making a determined effort to increase the reliability of the product and as a result have invested in the BS5750 quality programme, to the extent that there is a quality control committee, chaired by managing director Chris Waldron. A team of six engineers are also on hand to offer back-up, and there's a helpline, manned 364 days a year.

Strand's customer care structure is now well in place, but the company have taken care to keep it as flexible as possible. The requirement will change as the product changes and as there is a move to more software-based products, then the nature of the service will also shift.



Steve Dawson.

### KEY PROJECT ~

## Bolshoi Theatre

Strand has recently been awarded a contract to supply the Bolshoi Theatre during August this year. Part of the package will include a 1152-way Galaxy Nova, dual system with full tracking back-up, custom Russian language software and 827 channel button mimic auxiliary control. Also in the mix are 22 EC90 MDplus digital dimmer racks with full fault reporting (162 x 50A, 336 x 32A and 264 x 16A dimmers). All thanks once again to Alan Luxford and Simon Roose.

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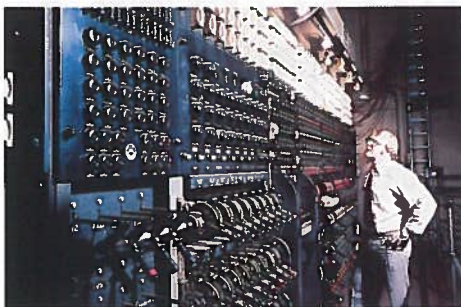
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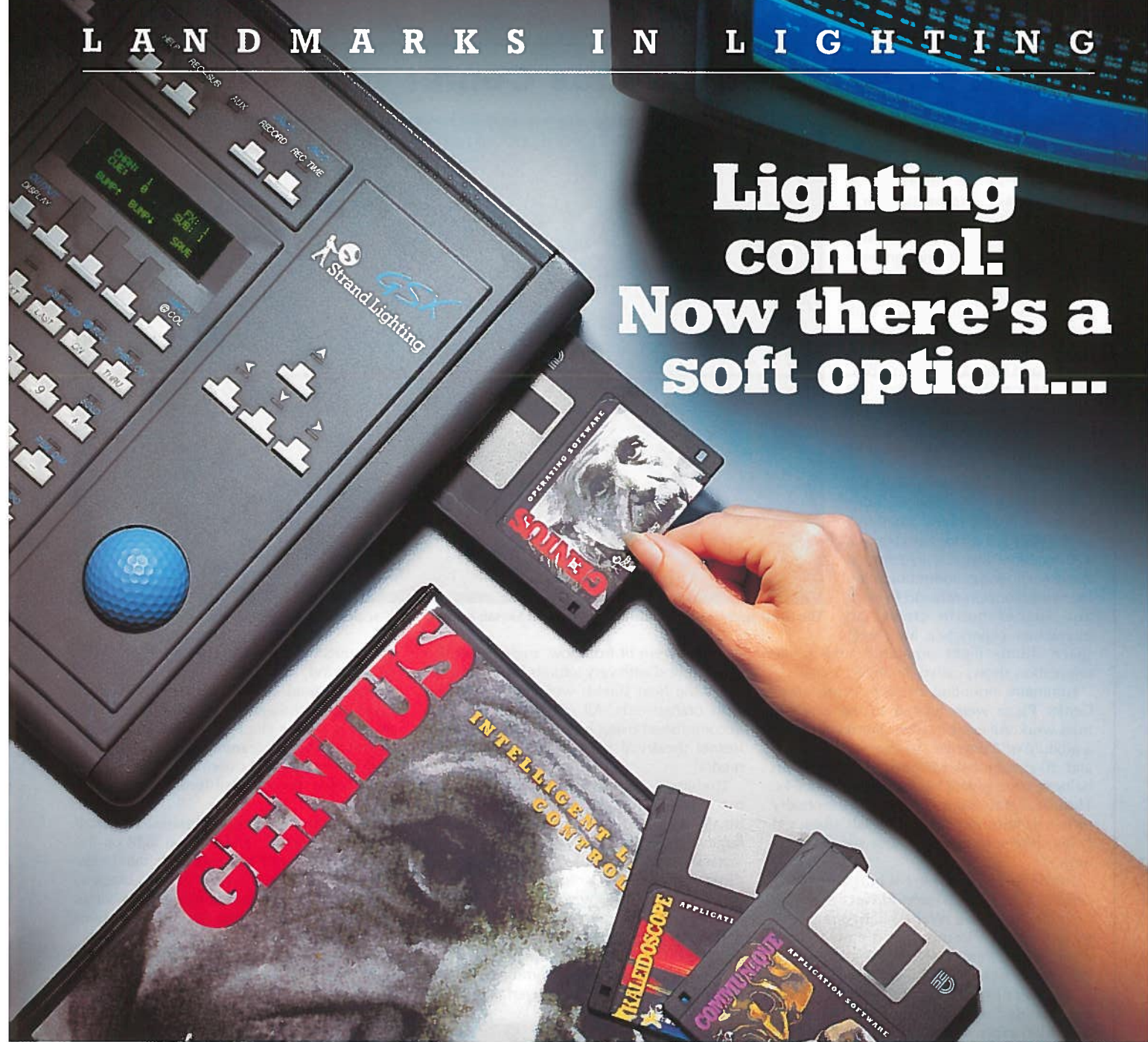
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## From the Strand archives . . .



Above left, the archetypal Strand Grandmaster was a standard backstage feature throughout the thirties, forties and fifties. Fred Bentham's Light Console of 1935 (centre) laid the foundations of single-operator remote control desks. This example was in use at the Theatre Royal, Drury Lane until the mid seventies. Right, the Light Console tradition carried on into the CD console of the sixties.

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## Strand at the Houston Space Center

The new visitors centre for the NASA Johnson Space Center in Clear Lake, Texas, provides a hands-on experience of the adventures of human space exploration in a visually dazzling environment.

The project was on an extremely fast track. The lighting design team S. Leonard Auerbach & Associates in San Francisco, co-ordinated by Larry French in collaboration with Clive Grout of architects Waisman Dewer Grout Carter and Bob Rogers and Chuck Roberts of BRC Imagination Arts, had just five months from beginning the design development to completion.

The Space Center Plaza is a large atrium which holds the original lunar module trainer and a full scale mock up of the Space Shuttle cockpit. Off the Plaza are IMAX and IWERKS film theatres, a 570mm film theatre, a 'live' format theatre showing communication between Houston Mission Control and space shuttle crews, an interactive experience area with space shuttle flight simulators and a live orientation show, called 'Living in Space'.

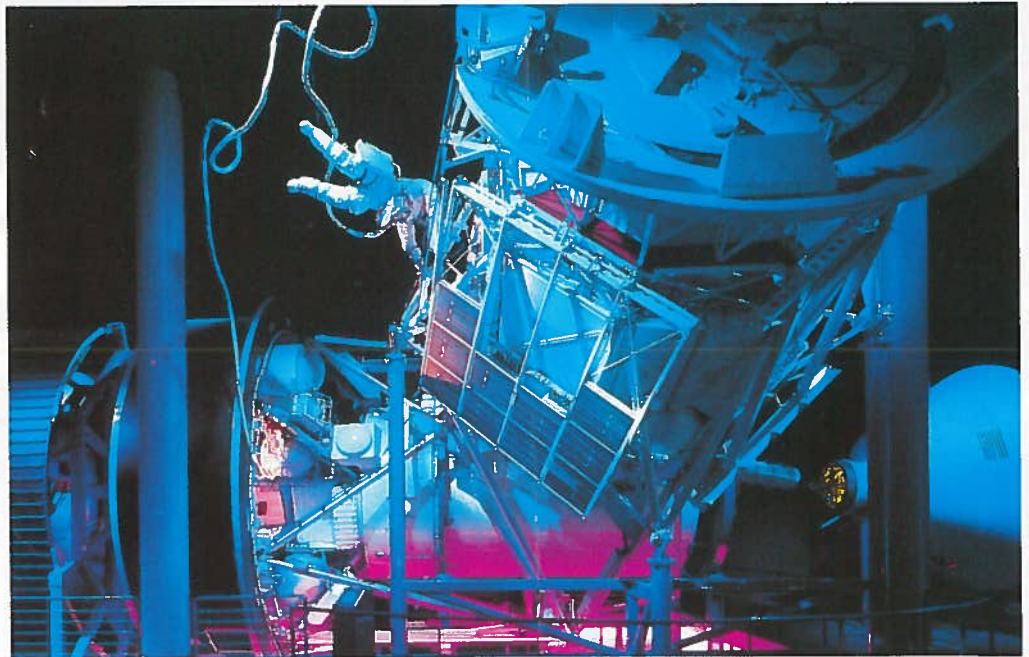
Luminaire mounting locations in the Space Center Plaza were limited to the exposed truss-work. All exhibits were illuminated with a mixture of 5 degree, 10 degree, 20 degree and 30 degree Leko fixtures using tungsten halogen sources and luminaires with Par 64s. Theatrical glass colour filters were eventually installed, after initial colour trials using gel colour filters, to ensure colour stability over time.

The 870mm film theatre is fully automated and is one of a few in the world incorporating both the IMAX and IWERKS film formats. All incandescent circuits are dimmed on a centralised system which receives automated commands from a show controller.

The Mission Status Theater often uses pre-recorded segments of film and video to provide information about current space missions. When a live mission is in progress, these pre-recorded segments may be pre-empted by the moderator at any time to live link footage with the astronauts. Both general lighting and console lighting using Leko spotlights dim automatically from a centralised system based upon pre-recorded or live commands initiated by the moderator.

A fibre optic star field containing a night view of the earth's surface with sunrise is a background to several space artefacts.

The isolation of humans in space was evoked through careful use of angle, source and colour. Colour was used to produce a 'cold outside/warm inside' feel for the artefacts. A rim light effect for the 'sun' side or key light for the artefact exteriors was created through use of a high focus angle and a pale cold blue colour. The 'dark' side of the



The most spectacular exhibit is the original Skylab trainer, a full-scale mock up of the actual spacecraft.

exteriors were lit from low angles wherever possible and with very saturate blues. In some cases the heat shields were subtly warmed with orange reds. All exterior lighting was accomplished using both mini zoom and 6" fresnel theatrical fixtures with glass colour media.

The visual expectation is that light on the moon will be single shadow, cold and harsh. Ideally, this would be accomplished using a large single source projector located a good distance from the subject. The Moonscape diorama, however, required a series of fixtures to light the foreground as the curved proscenium and low ceiling height did not allow the use of a single fixture. Custom designed HQI Linnebach projectors provided the very precise control to eliminate multiple shadows caused by beam overlapping and

spill outside the proscenium or onto the background.

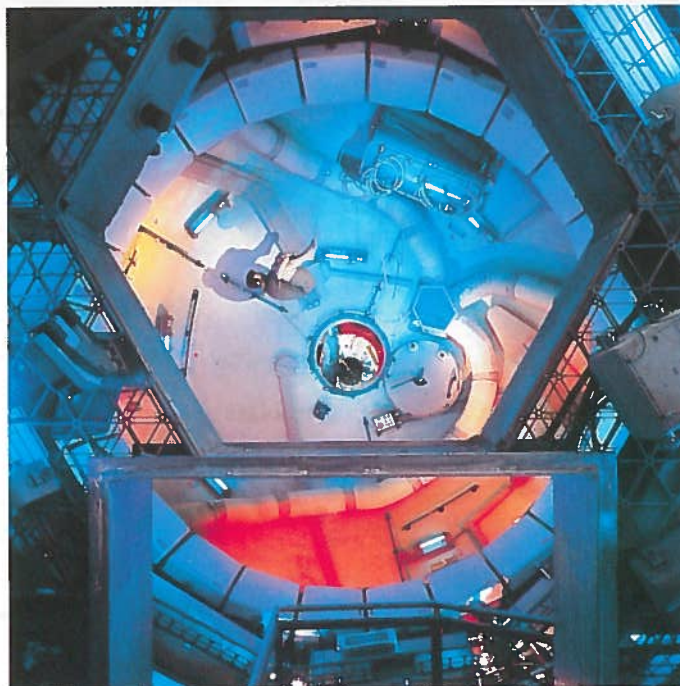
The original Skylab trainer, a full-scale mock up of the actual spacecraft, had been stored in pieces in a NASA warehouse since the end of the programme in 1974. Lighting both the interior and exterior of an object that large also posed problems of operatic proportions.

Eventually a decision was made to focus all light on the object and to keep light on the surrounding room surfaces to a minimum. The walls and ceiling were painted black to assist in making the room recede from view. The general exterior was lit with mini zoom fixtures and very saturate colour.

Each of the spaces indicated above was controlled on one of two Strand Premiere dimming systems controlling centralised

CD80 dimmer racks. Each space was identified as a room, or several rooms, within each system. In the case of the static exhibits, lighting presets were switched on in the morning just before opening and off in the evening after closing with the internal time clock. Another preset, with all channels at full, was activated for 45 minutes each night to ensure that the tungsten halogen cycle of the dimmed quartz sources was activated. A worklight preset, activated by a keyswitch in maintenance closets adjacent to each room, allows clean-up and work crews to turn lights on and off without access to the complex dimming systems.

More complicated systems were used in the automated film theatres. Each set of channels required to fade independently was identified as a separate room. A series of contact closures activated by a show control device caused various actions to be taken by the



Lighting of the surrounding room was kept to a minimum in order to emphasize the exhibits.



The Space Center Plaza.

Premiere controller. In most cases this action was a 'Go' command which cycled cues in a continuous loop. A 'Reset' command caused the lighting system to go back to the beginning of the sequence. An 'emergency' command accessed a preset to bring all channels in certain rooms to full. Other commands such as 'flash' and 'microphone on' were used to identify exits with lighting and to bring up lights automatically when microphone keys were depressed.

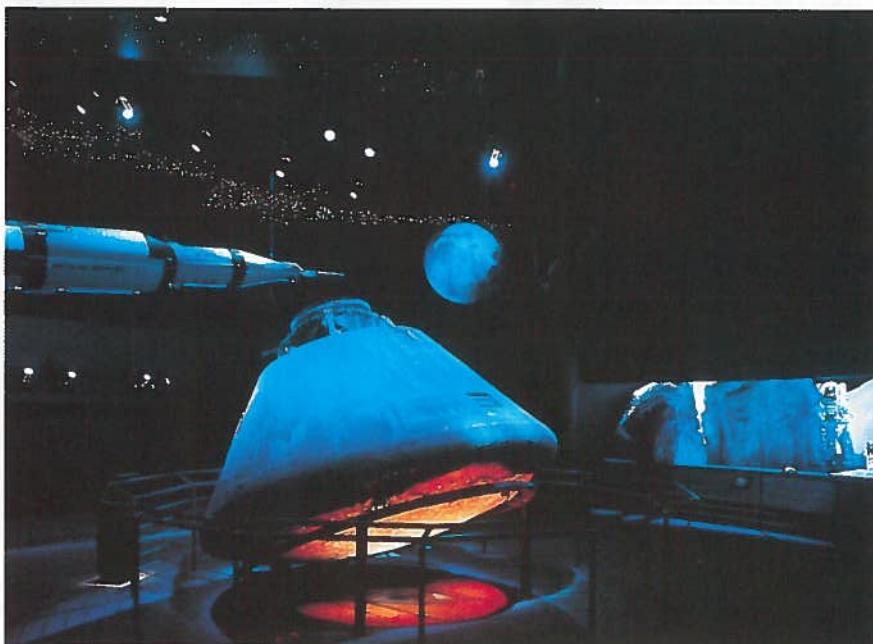
In the 'Living in Space' exhibit off the main plaza, a mock up of the interior of the proposed Freedom space station lights up one section at a time. The lighting for each section is controlled by a master of ceremonies who pushes a button on the floor at appropriate times during the show. The Premiere system prevents the sequence from backing up if a prior button in the sequence is depressed by accident.

Remote jacks were located in each space in the building to allow programming of presets through a portable master programming station. As late breaking changes were a major feature of the weeks leading to opening, the system programming flexibility and independence from other control devices proved invaluable. The ability to adjust software rather than hardware to solve functional problems in a rapidly changing setting proved its worth. Through a very theatrical approach to the lighting of the exhibits, the monumental achievements of man in space were emphasized. The incredible technical accomplishments are revealed through story and appropriate illumination of the artefacts. The rich and dramatic content of the lighting aroused the emotional responses of the visitors to the exhibits. From all reports, the original mission statement of the project "to inspire . . . and to instil a sense of pride" has been met.

**Architectural Lighting Design:** Larry French & S Leonard Auerbach

**Show & Exhibit Lighting:** Larry French & Patty Glasow

Article reproduced from *Lights*, February 1994 - all photographs Paul Hester



Amazing exhibits are skillfully lit to convey the effect of space.

## WHERE TO SEE STRAND LIGHTING'S NEW PRODUCTS

1-4 June  
*Broadcast Asia 94, Singapore*

7-10 June  
*Luminex 94, Hong Kong*

11-14 June  
*Showbiz Expo 94, Los Angeles, USA*

16-18 June  
*World Lighting Fair, Tokyop, Japan*

20-24 June  
*Electrotech, NEC, Birmingham*

6-8 July  
*Pro Audio/Light Asia, Singapore*

11-14 September  
*PLASA, Earls Court, London*

16-20 Sept  
*IBC, Amsterdam, Holland*

13-15 October  
*ABTT, Manchester, England*

18-20 November  
*LDI'94 Reno, USA*

## Strand People

Strand Lighting has over 690 employees world-wide all playing a key part in the company's global operations.

Leading the European region is regional sales director **Ian Haddon**, supported by Ivan Myles as European distributor manager, Robert Copping who heads up the projects sales team, **Steve Dawson** who is responsible for customer service and **Terry Twyford**, technical sales manager.

In Germany **Harald von den Stemmen** is responsible for sales with **Eike Hoebbel** managing the Projects Division. **Ulrich Kunkel** provides marketing support co-ordinated with marketing director David Brooks' team in London.

**Fulvio Cotogni** is the general manager of Rank Lighting srl, the Italian trading company in Rome, which shares premises with one of Strand's three manufacturing facilities.

In the USA, president **Gene Griffith's** team includes **Peter Rogers** as vice president of sales, supported by regional managers **Kam McCormick** (East Coast), **Randy Pybas** (West Coast and Latin America), **Anne Good** (Mid West) and **Leonard Wittman** who has overall responsibility for studio sales in North America. **John Booth** is dealer sales manager and **Steve Norman** is director of marketing as part of the central marketing resource.

In Canada, Strand's facility is located near Toronto airport and leading the operation is president **Donna Appleton** with national sales manager **Graham Likeness**.

Strand interests in Asia are centred in Hong Kong under the direction of **Phil O'Donnell**, with **KK Mak** and **Frank Scarlata** responsible for sales.

Back at Isleworth, central marketing is controlled by marketing director **David Brooks**, supported by business development managers **Edward Pagett**, **Andy Collier** and **Mike Cawte**, product managers **Peter Ed** and **Phillip Lehmann** and a marketing services team of **Richard Bunting**, **Jane Rose** and **Wendy Ellis**.

**1991**

A number of new products were introduced. Premiere brought flexibility to architectural control systems, Quartet - a range of pressure die cast spotlights set a new design challenge in the sub kilowatt product line recapturing in a modern idiom some of the style of the former Patl 23 and MX opened the new generation of control desks.

The implementation of single ended discharge lamps brought the new Super Quasar programme into being and Strand's arrangement with Evans brought manufacture of studio suspension systems to the Kirkcaldy factory.

**1992**

The launch of a new generation Leko in the USA co-incided with the 60th anniversary of the first product to carry the name, and listing at the 1935 price with an FEL lamp included for free!

'Lights!' North American edition was started and Fred Bentham's autobiography - 'Sixty Years of Light Work' published by Strand with the author signing copies of the book at the PLASA show.

Three different awards were won by Strand's innovative Premiere system.

**1993**

The 'Digital Theatre' became an affordable option with the introduction of the LD 90 dimmer and GSX lighting board, linked by System Wide Control (SWC) communication. GSX with separate software provides a low cost high feature entry option with upgrade capability through purchase of additional software.

**1994**

Strand Lighting reaches its 80th year. More new products are introduced - LBX memory with manual control, CD 80 SV dimmers, Leko available in a European approved version, ANDI DX and ACT 6 plus digital dimmer packs, Lightscope and Super Rig suspension systems, Super Quasar and Super Nova location lighting and low energy studio lighting systems. 'Lights!' is published in German, Strand CAD is established and Strand's showroom and visitor centre at Isleworth is opened.



Strand's Education Resource Pack.

As a global leader, Strand has throughout most of its history played a prominent role in the wider issues which help shape the environment in which we all work. This takes many forms from direct involvement with trade organisations and professional bodies to publishing guidance documents and providing training information and facilities.

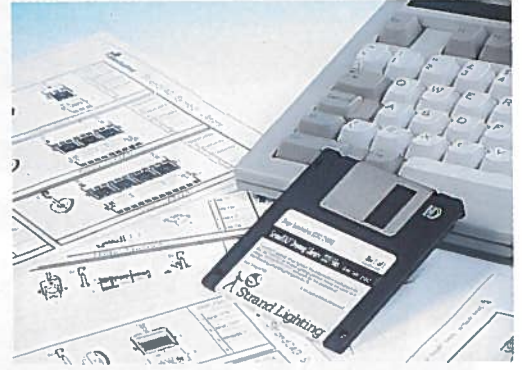
Strand as a company is a member of several trade organisations. Of course PLASA is high on that list, with business development manager, Andy Collier serving on the PLASA committee representing the views of the lighting manufacturers. Edward Pagett is currently serving his second successive term as President of The Lighting Forum, a professional society formed to promote the interests of lighting designers, particularly those involved in architectural lighting and David Bertenshaw is on the committee for BSI. In the USA regional manager Kam McCormick has an involvement with the Theatrical Dealers Association.

Strand is also a member of the Lighting Industry Federation, ABTT, STLD and CIBSE. One important aspect of this work is the evolution of new standards for safety and performance.

Publishing background information is implemented in a number of ways. Strand Lighting Fact Sheets cover a number of technical topics on such subjects as PAT testing, safety, EMC regulations,



Amateur Stage - regular Lighting Notes.



Disc-based CAD library.

ASCII cues and several more. For lighting designers Strand has published Strand CAD - a disc based package of product drawings intended for planning lighting rigs - an electronic stencil! For schools there is Strand's Educational Resource Pack which gives a complete introduction to stage lighting with teacher's notes, classroom posters and teaching aids, forming a comprehensive approach to the subject. Other publications are available. Regular readers of 'Amateur Stage' will have benefited from Andy Collier's monthly lighting notes and of course Strand publishes its own magazine 'Lights!' twice a year in English, North American and German editions.

At some stage practical hands on experience is called for and this is where Strand's demonstration theatre and visitor centre provides a valuable facility to amateur, school and professional lighting types alike. Recently re-equipped to include a full complement of product, this facility provides a valuable resource for experimentation with the latest controls or setting up lighting looks and effects away from the pressures of a real show.

Training courses are now also becoming available at this venue with well-known lighting designer Bill Lee providing the first series on television lighting. For further information call Wendy Ellis or Jane Rose 081-560 3171.



Strand's own publication 'Lights!'.

## Global Launch for LBX

Strand Lighting's latest control system, LBX, was first seen at the Frankfurt Music Fair in Germany (pictured right) in March this year. Its US launch took place at the USITT conference and expo at Nashville, and its UK launch at the ABTT Trade Show in London, both in April.

The LBX shares common software with Strand's GSX but is essentially a live music tool. The LBX and GSX break with tradition in offering separate user-selectable application software programmes. The new memory consoles can be configured to a wide range of applications and users are now offered the opportunity to purchase hardware and software separately. Strand LBX - the hardware platform - adds single or two preset fader control of channels with or without submasters. The extensive playback capabilities of the GSX have been further increased by adding a C/D playback, enabling simple manual control of the channel fader presets. Strand are anticipating great interest from multi-purpose venues.



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# ON TOUR

by STEVE MOLES

AND PRODUCTION NEWS

## Primal Scream Leeds Town & Country Club LD: Andy Liddle SD: Keith McCormick

Primal Scream appear to want to be seen as something akin to the Rolling Stones, or perhaps The Faces in their heyday. Singer Bobby Gillespie has a definite physical resemblance to Rod Stewart (though not facially), especially in his boozier days: the band's performance certainly pays tribute to these two inspirations breaking into 'Stay With Me' (the Faces) at one point and, in the third encore, a passage from 'Sympathy for the Devil' (the Stones). The band are for all that an odd mixture: bass, keyboards and drums are tucked away to the rear on a low, full stage width riser; the bassist and drummer look more like the type of chap your Mum would be happy to see your sister bring home as a first date; rhythm guitar is an anonymous statue stage left, whilst on stage right a Slash parody spends most of the evening with his face concealed behind a mop of long black hair (though it must be said Andrew Innes is a guitarist of no mean ability).

Mr Gillespie shares the vocal honours with Denise Johnson who, visually, is the complete antithesis of his elegantly wasted frame, and when audible above the rest of the band, has a sweet and pure voice to match. This then, in the words of the band's lighting designer Andy Liddle "is a gig not a show".

### LIGHTING

Andy's brief was to make the stage look like a sleazy night club or a cheap brothel: "I had to call several people to find out exactly what these places looked like," he told me. Although Andy wouldn't say which politicians and production managers he consulted, he seemed to have the look just right. Across the back of the stage was a white cyclorama which was overlaid at four feet intervals with a vertical section of gold slashed tinsel of similar width, which looked deliciously chintzy. The main riser had a Bacofoil front and dotted about the tops of the back-line and side fills were five hemispherical mirror balls.

The atmosphere was persistently heavy with mist from an LSD Crax Oil machine which, when necessary, was augmented by an F100 smoke machine. LSD also supplied all the lighting equipment but, unusually, this tour is a dry hire with the crew being employed directly by the band, with the exception of the Icon technician.

Each exposed section of the cyclorama is lit by a four-cell ground row which Andy has totally independently circuited so he can produce sweeps of colour across the back drop. Other floor lights include a set of Par 46 ACLs set in a fan along the front of the riser, and four Icons arrayed around the rear of stage at shoulder height on top of flight-cases. There are a further 12 Icons in the air, four on each of the three cross stage trusses: one truss is as far upstage as possible and supports the back-drop, one is positioned over the front mic-line and the third is way downstage, perhaps 20 feet out into what is a small hall. The rear and centre trusses also support 36 Par 64s each and two more sets of Par 46 ACLs.

With both an Icon console and a Celco 60-way desk out front, this is not a cheap lighting rig for



Leeds' Town & Country Club given a 'sleazy' feel for Primal Scream.



Greek' whose role is primarily rigger but who will do 'all manner of things'!

### SOUND

A Martin modular system with F1 bass bins all driven by Amcron Macrotech amps was supplied by Oz PA from Manchester. Keith McCormick, or 'Oz' as he prefers to be known, is both company owner and front

of house sound engineer. He includes the F1 bin in his system not just for its rich sound but also for its ability to, "get extremely low - you don't require a sub-bass cabinet with this set-up." Oz uses a Midas XL2 front of house, whilst the band's monitor man Ian Barton has an XL3 on-stage.

As with the lighting, the band's apparently out-of-control performance must present problems for both men; the stage level, especially from the guitars, was fearsome but, with the exception of a couple of feed-back howlers, all was well, if deafeningly loud. Primal Scream's material also features a high funk content with some vocal and musical support coming from eight track digital recordings. Three or four numbers approached Phil Spector's 'Wall of Sound' intensity by their conclusion and must have required a firm hand on the reins of the consoles.

For most of the show Bobby Gillespie wobbled around stage looking more like a limp daffodil than the next Mick Jagger, a bit too fey and wan. According to the crew, however, his demeanour was exceptional, although only in its severity. The gaps between songs, with constant exits to acquire another bottle of something/anything, also threatened at times to turn song breaks into intermissions.

However, apart from a short spell of booing after an initial 40 minute set, the crowd loved it all and a further 45 minutes encore more than made up for it. Like betting on whether the bass player from Graham Parker and the Rumour would still be standing at the end of the set, such dangerous behaviour adds a frisson of excitement.

Everybody had a great time, if only we could remember it all.

# Garth Brooks

## NEC, Birmingham

### LD: Dave Butzler

### SD: John McBride

Yes, there were 11,000 people dressed in cowboy outfits at the NEC on the 10th of April, and 'yep' none of them felt 'stupid' or self-conscious about being seen out in public that way. Country and Western music is easy to lampoon: its often soppy and sentimental lyrics, and its decidedly over-simplified solutions to the foibles of mankind, leave it exposed. It's an easy target for anyone wishing to deflect attention from their own inadequacies.

Garth Brooks is a phenomenon in his own country, the biggest grossing live act and record seller for 1993, and he could easily become one in Europe - and not for want of indulging the same characteristics outlined above. He brings something more with him. In straightforward logistical terms Garth was not prepared to tour Europe unless he could present the audiences here with the same show he gives in the US: "I want to let them see what I'm all about," he said. But more than that he brought his professionalism as a performer.

Country and Western singers have an easy way with their audience, they sound sincere. Why, even Martina McLaren, who opened the show, was able to get almost the entire audience to sing along to one of her songs. The prevailing ethos is, forget fashion, come as you want and have a good time.

#### LIGHTING

Lighting design is by Dave Butzler and his rig is probably the most startling thing you'll encounter if you've never been to a modern C&W concert before. Garth has a penchant for big shows, Kiss and Queen are two of his favourite bands, and Dave's design, weighing in at over 900 lamps, is no small 'hill 'o' beans'.

Bandits are the lighting supplier in the US and in view of their own growth as a lighting hire company, can vouch for the modern C&W show as a scene for extravagant lighting. Bandit shipped everything over from the States, bar the truss and Parcans which are being supplied by their now official partner in Europe, Meteorlites. Of course Meteorlites supplied much more than this in terms of support and equipment, as well as Andrew Stacey on dimmers.

Essentially the rig is a series of four closely packed concentric squares of pre-rig truss: the centre-piece is in fact a block, effectively three eight foot sections strapped together to form an eight foot square. Each square outside the centre-piece is unconnected on diametrically opposed corners to form two 'L' shapes. The unconnected ends alternate between squares so that, viewed from above, the first square is detached North and South, the second East and West and so on. With each 'L' suspended on three points the ability to move the rig is exceptional. A high concentration of lamps in a remarkably small area is put through manoeuvres that appear on the verge of catastrophic.

Bandit's own Moto Data Motor Control System is used to choreograph this and, apart from the expected safeguards essential in such a system, the controller has one other noteworthy feature. With such a concentration of motors in a relatively confined area a numbering system for each motor, although specific, can be less than easily accessible.

To this end, Bandit have designed a control board that actually has a plan view of the truss system engraved upon it, and toggle switches to select up/off and down for each motor are positioned on this schematic diagram in the exact location they appear above the trusses. Though

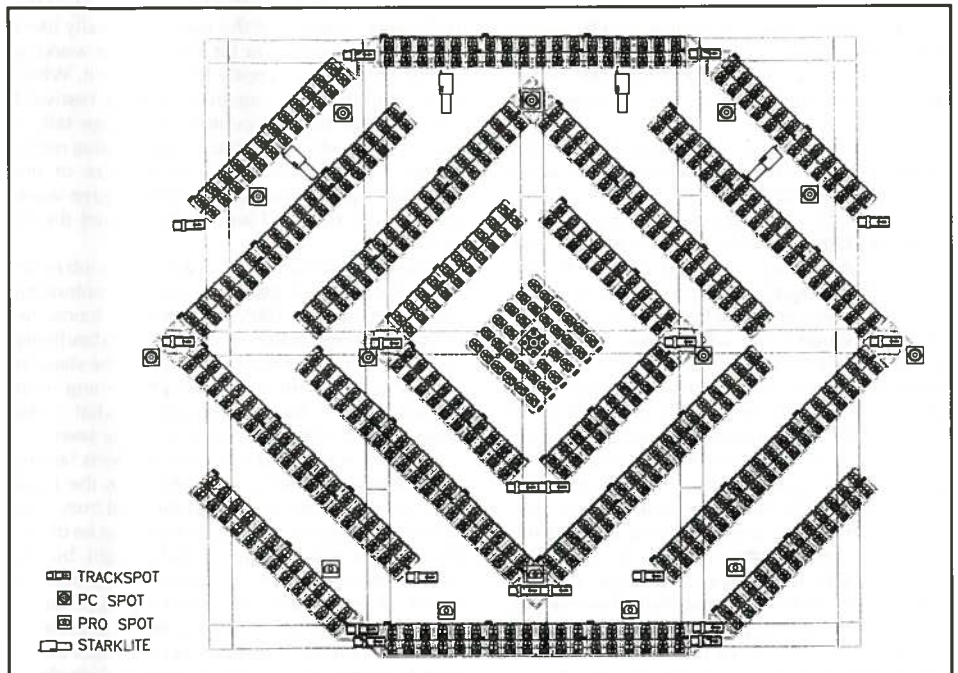


Garth Brooks bringing C&W to the UK.

not strictly relevant to the show, where the system is running on automatic, such a control board display makes the assembly, trimming and tear-down of the rig a great deal simpler and safer, especially when you consider these activities take place when there is a certain pressure on time. Bandit supply such custom fascias for any complex.

Dave has all the Pars on these trusses focused straight down, and although for many of the songs when the trusses are trimmed horizontally he can use them for wash lighting, they are mainly for effect, providing impact especially during truss moves. For more usable light, he has a front and rear truss, also of pre-rig, 60 foot spans with their ends cranked, 15 degrees upstage for the front truss and similarly downstage for the rear. Principles are lit in a variety of ways, four front of house Super Troupers and four Galaxy followspots on the rear truss do most of the work whilst there are a further two Galaxies up in the bleachers behind the stage.

Spread about the trusses are 14 Panaspots with a further 14 on stage set on poles at head height; there are also 20 300W Trackspots in the system which are used to highlight the silver finish of the trusses and Parcans. The stage, although set at one end of the arena, is played 'in-the-round' with approximately 500 seats backstage. Thus, with no backdrop to play against Dave is heavily reliant upon smoke to give dimension to what he does and as well as oil crackers he has four F100s paired with powerful downward pointing fans up in the motor grid above the truss rig.



Dave Butzler's concentric rig, weighing in with over 900 lamps.

Dave employed several lighting techniques during the show. Some songs like the 'American Honky-Tonk Bar Association', are big beam shows - as you might expect with a rig this size. In contrast, for 'The River' the rig was lowered to different heights resembling an inverted layered wedding cake, with only soft mauve and pink washes on stage and rotating gobos projected through and onto the trusses.

'Free' featured apparently random colour changing by both followspot and Panaspots against two alternating stage washes. But not all the songs were big looks: Garth sang 'What She's Doin' Now' alone with just followspots on him and the stage dressed by two fans of magenta coloured ACLs on the floor at the rear. Dave ran the show from an Avolites QM Diamond console and was assisted by John Hoffman on Pan

Command and Jason Robinson who was responsible for Trackspots and smoke.

#### SOUND

The PA was supplied by John McBride, Garth's production manager, and mixed on two Paragon Series consoles front of house by Dan Heinz. The speaker cabinets physically resembled Clair Brothers S4s although I was assured these, as well as being much lighter, were also quite different inside. Time did not permit further investigation of the PA, suffice to say the reproduction quality was first class with a pronounced emphasis on the vocals over the instrumentation.

The entire US production crew was brought over for this tour (reputedly Garth even brought his regular truck drivers as a treat) and for this reason Phey MacMahon was employed by Bob Doyle, Garth's manager, to provide a European liaison with a potentially busy job, Phey seemed to be cruising comfortably at the NEC and I hope this continues on the continent. I must also extend my own personal thanks to Phey for making space to accommodate this magazine's reviewer in what was a very tightly sold show.

Finally, for those of you who think such shows are only successful because of the support and patronage American GIs in the UK give them, a senior ranking US officer present at the NEC concert informed me that "the US Military in Britain have bussed in just over one thousand GIs for this show" - a pretty major exercise you might think, but less than one tenth of the sell-out audience!



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# TECHNICAL BOOK REVIEW

## Control Systems for Live Entertainment

John Huntington

Focal Press

ISBN 0-240-80177-6 - \$39.95

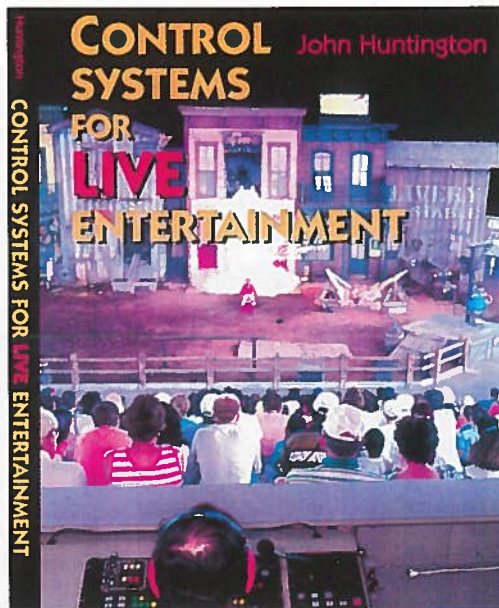
*L+SI invited John Huntington to provide the story behind his forthcoming book due to be released at the end of this month.*

While covering the 1991 Audio Engineering Society conference in New York as a technical editor for Theatre Crafts magazine (now TCI), a representative from Focal Press approached me with a form asking me to be a manuscript reviewer. One of the questions on the form was: "If you were to write a book, what would it be about?" I answered 'Show Control'. In April of 1992, I had a contract to write a book on the topic, and a long process began that finally culminates this May, when Focal Press releases my book, Control Systems for Live Entertainment.

As you might guess from the title, Control Systems covers the control of lighting, sound machinery, video/multimedia, projections, process control and pyrotechnics in the live entertainment industry (film/video production and other non-live applications are not covered - there are already plenty of books on those topics). As far as I know, this is the first book to cover the many control methods and protocols we use in our industry (listed here alphabetically): Avab's Protocol, DMX512, D54, IQ System, Medialink, MIDI, MIDI Machine Control, MIDI Show Control, NexSys System, SMPTE/EBU Time Code, SDX, SMX, and others. In addition, the book introduces readers to data communications fundamentals, which are not well covered in traditional live entertainment training (formal or on-the-job). Control concepts and protocols are brought together and demonstrated in several realistic (although fictitious) example systems: a theatrical production, a computer-multi-media trade show, a rock and roll concert, and a theme park.

I really got my start on the book as a graduate student at the Yale School of Drama, where I wrote a thesis with the rather unwieldy title of 'Methods of System Synchronisation and Interconnection for Live Performance', which I completed in 1990. I had adapted a few chapters from the thesis into articles for Theatre Crafts and Lighting Dimensions, but little did I know how much work it would be to actually write the book (the thesis ended up being only about a quarter of the book!).

It took me over a year to complete the manuscript, working nights after spending the days at Production Arts Lighting where I work as a systems engineer, giving up freelance sound design work and any semblance of a social life. It was, I hope, worth the effort, as my intent was to fill a major gap in the



information available about the technical side of our business. I didn't really realise how broad the gap was until about halfway through the writing process when I visited the Drama Book Shop in New York, probably the largest store of its kind in the States. On a lark, I pulled every lighting book off the shelf, and looked up DMX512 in each book's index, since DMX is probably the most ubiquitous live entertainment control standard in the world. To my astonishment (and horror), I couldn't find a single book that even mentioned DMX512, much less one that explained how DMX works. Of course, this was in no way an exhaustive search, but it does show how little information is available on the workings of entertainment control systems.

I tried to keep the book free of an American bias, but some is unavoidable, since I do live and work in the US, and it's hard to keep up with development on the European side of the pond from over here (short of reading L+SI, of course). It was also difficult to freeze in time such a fast moving field. For this reason, I concentrated on control methods and protocols rather than specific equipment (although discussions and photos of equipment are certainly an integral part of the work). This focus should keep the book up to date for some time, since the underlying concepts of entertainment protocols really don't date too quickly - it is the equipment in which the standards are implemented that ages rapidly.

So, I hope after all the effort, Control Systems for Live Entertainment finds a home on *your* bookshelf!

**Control Systems for Live Entertainment is available through PLASA's Technical Book Service. Telephone Sheila Bartholomew on (0323) 642639 for details.**

### Control Systems for Live Entertainment is divided into sections and chapters as detailed below

#### Part 1: The Basics

Basic Control Concepts  
Data Communications  
Networks

#### Part 2:

**Production Element Control**  
Lighting  
Sound  
Machinery  
Video/Multimedia  
Film Projection  
Process Control  
Pyrotechnics

#### Part 3:

**Show Control**  
SMPTE Time Code  
MIDI Time Code  
MIDI Show Control  
MIDI Show Control 2.0  
MIDI Machine Control  
SDX  
Networks for  
Entertainment Control  
Typical Commercial  
Show Controllers

#### Part 4:

**Example Systems**  
A Theatrical Thunderstorm  
Put On A Happy Face  
(Computer-Multimedia)  
Film at 11 (Rock and Roll)  
It's an litchy World After All (Theme Park)  
**Appendix 1:**  
Standards Organisation Contact  
Information  
**Appendix 2:**  
Manufacturer Contact Information

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# NEW HOME FOR FLANDERS OPERA

John Offord visits the Grand Theatre of Ghent in the company of theatre consultant Hans Wolff



View from the stage to the 1000-seat auditorium of the newly-refurbished Grand Theatre of Ghent, home of the Flanders Opera. Photos: Maarten Brinkgreve

The capital of Flanders, and one of Belgium's major cities, Ghent's southern limits abut the fast, straight and flat autoroute from Ostende to Brussels. I must have driven past it at least a couple of dozen times on the way to Frankfurt or wherever, and never had cause, or enough time (or enough sense!) to turn off E40 and sample the architectural splendour of its city centre.

Last month I had no such excuses. Armed with an invitation from Amsterdam-based theatre consultant Hans Wolff, I was able to stay in - and see - the city, and more to the point, have a guided tour of the newly re-opened Grand Theatre, Ghent home for Vlaamse Opera (Flanders Opera). (The company's other home is at Antwerp).

Now I know from long experience that every theatre building project, whether new or a renovation, has had its own particular hang-ups, but the privilege of working on a venue such as the Grand Theatre must have far outweighed all but the very worst of possible human or natural hindrances. To link hands with the past in such a way also imbues a great sense of responsibility, and one applauds all those involved with this scheme that so much

The history of Ghent Opera dates back to the second half of the 17th century when the Guild of Saint Sebastian organised performances in their hall in the city at Kouter Square, and in 1698 they built a new theatre on the same spot. Seventeen years later the theatre was destroyed by fire but immediately rebuilt and later taken over by the city. In 1835, the decision was taken to build a new opera house worthy of the city's wealth and standing, and Louis Roelandt, the city's architect, was asked to design the new theatre. It was constructed in his characteristic neo-classic style, and opened in 1840. A short time later, architect Charles van Rysselberghe emphasized this style when he extended the building, adding a new entrance hall.

The splendid auditorium and equally magnificent reception halls on the first floor were decorated by Parisians Philastre and Cambon, who were responsible for many beautiful theatre interiors across Europe in the middle of the last century. The Grand Theatre is noted as one of their most successful projects.

Although various changes have taken place along the way, the basic structure remained the same right through to the end of 1988 when the building was closed for safety reasons. Little maintenance had been carried out across the years, and even the 150-year-old stage machinery was still in place!

The city immediately decided to renovate the building in three stages with the first to include work on the main auditorium, the stage and fly tower and the dressing rooms. This was finished in September 1993, when the theatre reopened. In the near future it is hoped to renovate the facade, foyer and ballrooms, the offices will be renovated as well, although finance has yet to be arranged.

trouble has been taken to retain all the best of the venue's fabric and history.

After meeting theatre director Bart Doucet, joint editor of a massive and glorious book on the history of the theatre and opera in Ghent (right through to the theatre's re-opening last year), a specialist in the field, and managing director for the renovation, I asked Hans Wolff about the background to his own involvement.

"It all began with a phone call, two days after Christmas 1989," he explained. "I happened to

walk into my office to see if there was any post, when Bart Doucet telephoned from Ghent to ask if we were interested in joining a selection procedure to become theatre consultants for the renovation project.

"Two weeks later I visited Ghent and I freely admit that it was love at first sight! I realised this house had everything a romantic theatre lover like me goes for: beautiful ballrooms, a special entrance for horses and carriages, and lots of hidden rooms filled with one-and-a-half centuries of theatre history. Even the original wooden stage machinery was still in place."

Taking care not to allow himself to be blinded by the attractions of the venue, Wolff went to work on the figures and although not the cheapest competitor, got the job.

"Normally one starts a consultancy project by preparing all the necessary specifications, leading on with a brief for the architects. In this case, however, the architects had already begun their work, and it was based on a rather unusual idea. After closing down the theatre in 1988, local government made the decision to replace all the pass doors with 60-minute fire



Backstage, showing the working galleries at different levels.



Hans Wolff (right) with Bart Doucet.

doors. It was a very expensive operation, and the result was that when the architects decided to tear down and completely rebuild the stage tower and dressing rooms they planned to put them in exactly the same place and build them to the same size so that they could re-use these fire doors.

"Our first action was to stop this process and to formulate new starting points for the design. One of the first problems we were faced with was the loading situation. In the past the scenery trucks were parked in a small, very busy street around the corner. First, scenery was loaded into the hall of the law court, and from there to a court-yard of the Post Office. It was then hauled to the roof of this Post Office and finally made its way through a scenery dock to the stage! Nowadays when an opera production tours with anything from six to ten trucks, you can imagine how much time and effort would be wasted.

"It was obvious from initial observations that the simplest way to get scenery onto the stage was by parking trucks on the street facing the back of the stage tower. But unfortunately, a canal runs between the two, and I considered that a bridge would soon solve that problem. The design team thought this idea was hilarious and suspected it was a typical Dutch joke, well known as we are for our bridges and dykes. However, after endless meetings and plenty of alternative ideas such as craning in scenery trucks or even floating trucks to the theatre on special barges, it was eventually decided to build a bridge.

"Now the trucks can park on a bridge one level below stage level and the scenery is transported to the stage or the scenery dock courtesy of a 12 x 2.5m elevator. Sometimes the more simple solutions do work!"

What becomes immediately obvious to any visitor is that the whole backstage area, right through to dressing rooms and staff facilities, has been provided with a view to the long-term. Whilst front of house a huge amount of architectural restoration work has taken place



The refurbished entrance lobby. A great deal of work remains to be done in future phases, including the complete renovation of two grand reception and ballrooms and the front 'drive-in' entrance area, originally provided for horse-drawn carriages.

and in the auditorium itself audience comfort given its due priority, it is apparent from the major structural work undertaken backstage to achieve the desired goals of a practical working theatre, that this is no ten year re-paint and make-do job for a short or even medium-term future.

"To create a sufficient working space for artistes and technicians we enlarged the stage tower to its maximum by demolishing every staircase, storage and dressing room to the outer walls of this site," continued Wolff. "Inside the old walls we placed a 30m high steel structure to handle all the weight of the stage machinery, bridges and roof. New dressing rooms, a new orchestra rehearsal room and office space was created in part of the building alongside the stage area.

"Originally the under stage area was three floors high, and completely filled with 150-year-old wooden stage machinery. It was important for us to take into account that Flanders Opera has another base in Antwerp and that the stage of both houses had to be as near compatible as possible. However, the

stage elevators in Antwerp are too small and little used, so we decided not to copy them in Ghent. Instead, we decided to create two under-stage levels, both 3.5 metres high, which can be used for storage and scenery workshops. To facilitate ease of operation, there are five rows of removable floor sections on two levels, which can be used as floor traps, or, by using a movable elevator, for the employment of scenic effects.

"The stage machinery consists of simple single purchase flies. At the design stage we spent a good deal of time and effort creating an installation to the highest possible safety standards, at the same time attempting to provide the best working conditions for both artistes and technicians.

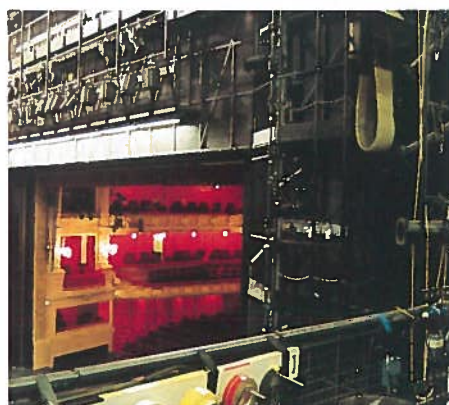
"This is typical of the attitude of our theatre consultancy practice. We all have backgrounds in the theatre industry and do realise that there is no such thing as the ultimate solution. However, for most problems there is more than one solution and we try, in collaboration with the users, to find the best answer for any specific situation.

"Basically, the whole renovation of this opera house had to be realised within a limited budget, and we therefore chose simple, well proven solutions in preference to high-tech experimentation. For example, instead of installing electric sets, we provided the theatre with a system of movable electric hoists situated on rails above the grid. With this system we are able to lift heavy pieces of scenery at any spot over the stage.

"For the stage lighting we also went for a simple, but flexible solution. For example, instead of installing a permanent cyclorama lighting as used in most European opera houses, we went for a 'portable' option. We gave all the individual cyclorama units Socapex connectors and by using multi cables are able to provide a cyclorama installation wherever it is needed. In total, the whole lighting installation is extremely flexible. Every dimmer ends in a CEE-form connector and



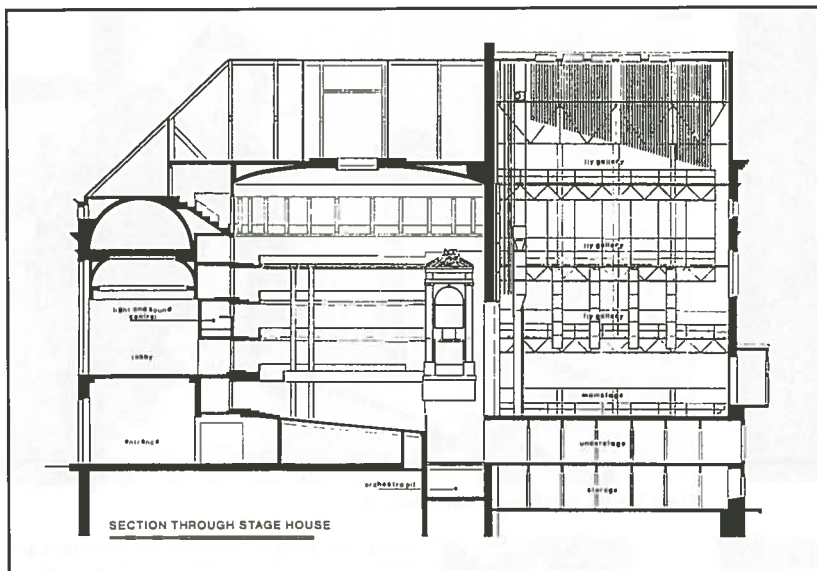
The power set-up in the roof, with a view across the over-stage grid.



View across stage from the control area.

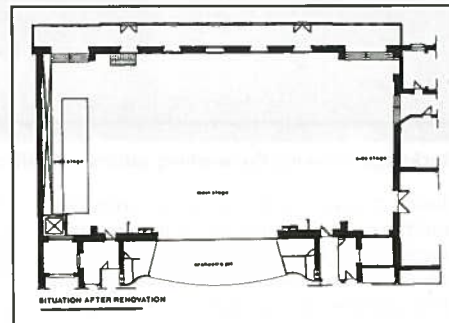
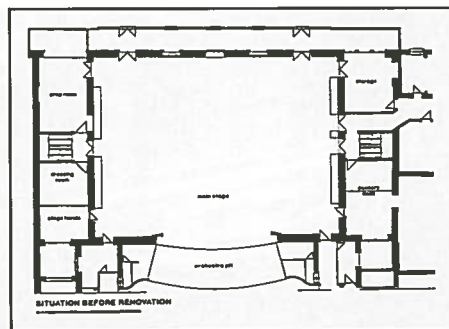


Stage management control.



Shown left is a cut-through section of the theatre following the renovation.

To the right and below are plans of the stage area both before and after the re-building process. Note the removal of all rooms to provide the maximum possible stage area within the existing boundary walls.



every six connectors are doubled as a Socapex connector. So, by using these Socapex connectors and multi cables it is easy and efficient to change the lighting lay-out. All connection points on stage and in the auditorium have an XLR/DMX512 connector to make it easy to install colour scrollers and other effect equipment.

"For the luminaires we undertook an extensive survey of the spots available on the market and, together with the client, chose an interesting mixture of different brands. In the auditorium I would like to have seen smaller spots which would blend better into the decoration of the hall, but the users preferred to install the same lights in the auditorium as on stage. There is always something that goes totally wrong, and in our case one 'wise' man had placed an earth-leak switch on the mains of the stage lighting installation, without consulting or telling anybody what he'd done!

"In the first instance, the Opera company's artistic director didn't want a sound system installed, but nowadays there are occasions when the availability of sound is essential, and this house is also used for ballet and musical performances which rely heavily on a good PA system. We therefore designed a system using very compact and almost hidden speaker cabinets. Those used for the delay system on the highest balcony are even plastered away. During installation tests the artistic director walked in and was amazed with the quality of

the sound produced by the system. It was another demonstration of the fact that many people in the theatre world have strong opinions about almost everything, often without taking the trouble of checking things out in reality.

"For rebuilding the dressing room and office buildings the architects insisted on executing their own ideas and used the old floor plans. This resulted in lots of stairs, hidden corners and small dressing rooms. They also designed the dressing room furniture, which looked very elegant but fell apart when leaned upon! In the end Bart Doucet put us in charge of designing furniture for all the dressing rooms for artistes, musicians and technicians.

"Specially designing the choir dressing room was particularly exciting - could we push 24 choir members into a telephone box? In the end we succeeded in providing the necessary space for a cast and musicians of up to 200. The whole operation was completed in well under four months, from design to hand-over."

I hinted early in this piece that theatre projects, like most others, have their share of hang-ups, and the process can be nerve-wracking at times, especially when you have to sit down with a design team which has no knowledge or experience of theatre, or, even worse, a bureaucrat who pretends to know everything about the subject.

The compensatory factor for Hans Wolff was the restoration side of the project, as he explained. "Sometimes one meets extremely good craftsmen like the restoration architect and the people who restored the ceiling-painting with an almost medieval patience - or the foreman of the electrical contractor who worked day and night to realise this extremely difficult project. He had to find the routes for his cables through a maze of thick walls in a highly protected ancient monument.

"These are the people who make a project like this worth working on. And, of course, there is this dream of a theatre!"

#### Hans Wolff & Partners

The company was founded in 1980 by Hans Wolff, senior consultant and designer in both theatre consultancy and architectural design. Wolff started his career as a teacher, but during his studies had already worked as a lighting technician, producer and designer for theatre and television. In 1975 he joined the teaching staff at Amsterdam Theatre School.

The company now has six staff and a wide network of freelance specialists to call on. It specialises in theatre consultancy, architecture, audio/video engineering, lighting design,

human resource management etc. It is based in a 17th century canal-house in the centre of Amsterdam. Its credit list is huge, and includes numerous new performance complexes throughout the low countries. Major briefs currently under preparation for new projects include five municipal theatres throughout The Netherlands and two in Belgium.

Senior members of the Hans Wolff team who worked on the Ghent Opera project were consultant and designer Rogier van der Heide, theatre technology and engineering specialist Fred Sieverts, audio and video specialist Cor Riethof and management and technical specialist Dhian Siang Lie.

#### Grand Theatre, Ghent, Belgium

##### Architect:

Tijdelijke Verengiging Team Opera Ghent

##### Project manager:

Regie der Gebouwen

##### Theatre consultant:

Hans Wolff & Partners b.v., Amsterdam

##### Acoustical consultant:

De Laere Associates, Antwerp

##### Stage machinery contractor:

Thyssen De Reus, Krimpen aan de IJssel

##### Electrical contractor:

Electrobegaux, Antwerp

##### Proscenium:

12m wide x 8.2m high

##### Stage:

34m(w)x17m(d); height to ceiling 23m.

Orchestra pit for 85 musicians, with split elevators

##### Stage machinery:

57 flying bars, with two in front of lighting bridge and four at side.

Length 19.8m, maximum load 300kg. Two electrical flying bars. Control area 4m x 17m.

##### Stage lighting:

360 channels, dimmers ADB Eurodim, console ADB S28. DMX network to every position.

##### Luminaires:

4 x Pani followspots

Profiles - 200 x ADB, 32 x Altman

PC spots - 44 x Robert Juliat

Fresnels - 16 x Sachtler

Cyc - 10 x CCT

Pars - 40 x CCT

12 x Reich & Vogel Beamlights

6 x Rainbow colour changers

##### Sound:

Mixer - Soundcraft Vienna

Amplifiers - Crown

Speakers - Meyer



A new bridge provides access for scenery.



# THE A-Z OF ABTT

## Robert Halliday at the Royal Horticultural Halls

Another year, another ABTT Trade Show - though this year it is but the first of two, since there will be an ABTT North show in Manchester later in the year. The London event, held on April 21st and 22nd at the Royal Horticultural Halls in London, seemed very similar to last year's, except that, to my eye, there seemed to be fewer visitors this year, the bar area in particular seeming much emptier. But I could well be wrong!

There are a couple of possible explanations for this: the first is that, because of the Northern show later in the year visitors from that end of the country decided not to make the trip all the way down to the capital - though there were exceptions, as visitors from Glasgow and Inverness proved. The second reason is perhaps that, for the first time in several years, heads of department were actually visiting with real money to spend, and so actually had to look at the stands rather than sit in the bar socialising. Money did seem to be much in evidence, and several exhibitors spoke of orders already placed for their newly-launched products.

ADB were one example of this, with their new Vision 10 lighting control already having built up a pile of orders, including the aforementioned Inverness. The desk follows most of the recent trends in control systems - a wide range of output options, some degree of control tailored for scrollers or moving lights, soft-keys which change their function depending on the operation being attempted, and an internal architecture based around the standard 486 PC design. ADB have added a number of nice touches of their own, such as the ability to swap the various control panels around to suit different operators, and the option to add extra submaster wings in a variety of positions to cope with different control rooms. At first glance, the operating procedures seemed similar enough to existing desks to avoid the need for long training sessions - an important consideration given the variety of lighting controls now available.

One of ADB's direct targets with the Vision is almost certainly Arri's Imagine 3



The team of MM Productions with their new 12-way MIDI-controlled relay rack which picked up the ABTT 'Product of the Year' award. Left to right: John Hoskyns, Fiona Simpson, Tim Speight and Richard Owers.

console. On the **Action Lighting** stand directly opposite ADB, **Arri** countered not with that top-of-the-range desk (though it has continued to be improved since its launch with features borrowed from the ETC Obsession console), but with a new 'lower cost' product, the **Finesse**. This basically brings Imagine 3's capabilities to the next price level down - with just one control wheel it looks more like the old Imagine 2, and it is limited to just 300 channels. But most of the 3's features remain, making the desk an ideal choice for the smaller venue that occasionally has to deal with a big, complex show. What must happen next, though, is that some kind of common disk/data format is adopted by the various manufacturers so that touring shows can easily make use of whatever control is available - spending two hours re-typing a show is no longer really acceptable in this high-tech day and age.

Action's stand also featured, amongst other

bits and pieces, the Caterpillar animated light effect; if you haven't seen it, you must try it at the earliest opportunity. This is a lamp which bends in any direction under joystick control - it's great for production desk stress relief during technicals, and is also probably the first lighting instrument cute enough to find a second market as a children's toy!

The Caterpillar would have won my unofficial 'campest product of the year' award if it hadn't been for **M&M Camelont's** new toy, the **Microscroller** - a teeny, tiny ten-colour scroller that fits MR16 'birdie' type lamps. Next, perhaps, a 'light curtain' version to fit the now-ubiquitous MR16 battens? The M&M stand also featured the best comedy performance of the show with **Smoke Factory's** Spaceball polystyrene

coffee-cup launcher - well, actually the Spaceball smoke machine, a smaller brother to the well-received Skywalker. The Spaceball comes built into a flight-case with its nozzle pointing upwards. The demo model was operated by a foot pedal (0-10V and DMX512 control also available), and would happily launch a polystyrene cup placed over the nozzle some eight feet into the air - to the surprise of passers-by!

While M&M were my unofficial prize winners, the official winner of the ABTT Product of the Year award was the similarly named **MM Productions**. This sound hire company were first-time exhibitors at last year's show, and caused quite a stir with their switch-to-MIDI control box. This year's product, a 12-way MIDI-controlled relay rack, carries out the reverse operation, allowing devices such as slide projectors and Revox tape recorders to be controlled from a MIDI keyboard or sequencer. They also showed the prototype of an integrated MIDI controller, which they hope will be product of the year next year! The company also had Akai samplers and the Renkus-Heinz loudspeaker range for hire, and is considering setting up a production studio for their customers to use when producing soundtracks for shows.

Along the aisle from MM, **Autograph Sales** also had new



Four little Caterpillars all in a row... to be found on Lighting Technology's stand.



Spot the coffee cup! The Spaceball launcher from M&M Camelont.



Nick Mobsby (right) conducts a technical tour of ADB's Vision 10.



Mark Thompson of Arri shows the new Finesse 300-channel console.



Thought mode: Peter Richards (left) of Rosco.

sound products on show, including the first European showing of the Klark Teknik DN320 and DN330 equalisers. They were also showing a new loudspeaker range from Meyer Sound, including the MSW-2 subwoofer and a series of ultra-compact units intended for use as delay speakers - or as the home systems of sound designers who just can't bear to be without Meyer! Aware that many of their customers are still operating on limited budgets, Autograph also showed a new set-up for their Micron radio-mic receivers for installations of less than six microphones.

Hire company **Gradav** also had sound equipment on show, including another sound effect replay device - a Denon Mini-disk player. This uses the Sony mini-disks, launched into the consumer market-place a couple of years ago and, so far, not a huge success. The medium seems to offer many advantages for theatrical use, though - comparatively low cost (the unit costs less than a new Revox B77), high quality recording of around an hour of sound, the ability to jump quickly from track to track, resistance to jumping even if the unit is knocked, and an operating method familiar from CD players and cart machines. It will be

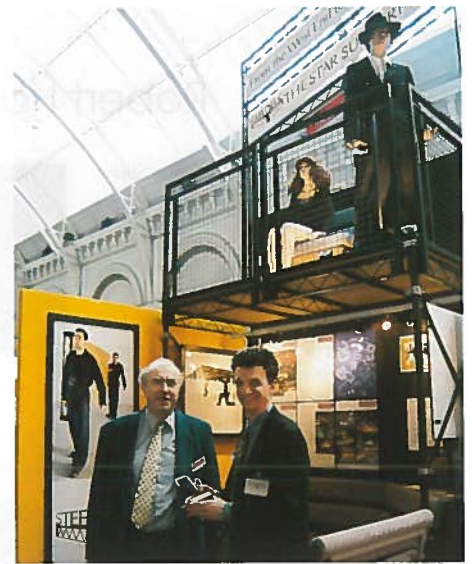


Phil Wright shows a Niethammer spotlight on the Gradav stand.

interesting to see whether the technology fares any better in our market, where lack of pre-recorded material is not a problem. Gradav also had on show the Niethammer range of profile spots, for those people who demand excellence and have the money to match. Other lanterns on view at the show included ranges from ADB, Strand (including the new Leko, now available in Europe), CCT, who had the wide angle lens-tube launched at PLASA on show, Selecon on the **AJS** stand, and Pani on the **AC Lighting** stand.

However, most people weren't launching new lanterns, but new accessories. **CCT**, for example, had a two-colour semaphore colour changer, reasoning that ten colours in a scroller can sometimes be too much. At around £100 per unit, the new semaphore offers great value for money for lower-budget shows.

**DHA** were also concentrating on accessories, with a new refinement of their DC controller boxes for gobo rotators, yo-yos and the like. The Mark 4 version can control up to four devices, with speed set either by a control knob or 0-10V input from a lighting desk. It also uses load compensation circuitry to ensure smooth movement of the effect, even at low speed. Not



The 'Best Stand' award went to Steeldeck. Christopher Richardson and Philip Sparks show it to L+S's camera.

a big, new, all-singing, all-dancing product, but a useful refinement which will make a technician's life easier.

At the control end, **Zero 88** were winning admiring looks for their ID1210 and ID1216 range of portable dimmer packs. In their tough, durable-looking cases and with their built-in DMX input, these units will be welcomed by people who have, until now, had to bodge together separate racks, demuxes and main distribution systems for smaller shows.

Smaller shows are also **Strand's** target for their GSX console, and its new larger brother, the LSX. These desks follow the trend by being upgradable via disk, but are based on a proprietary architecture. They are, however, easy to operate, since they can be set up to operate in a variety of modes to suit those familiar to UK Strand-type operation, Light Palette-type operation or Arri-type operation. The new LSX console adds 96 manual faders, which can be configured as channel controllers or submasters. I'm waiting with interest to see the market's reaction to the prices for some of the upgrade software.

A potential rival to the GSX/LSX range is the LSC Axiom desk, on show at the **XTBA** stand.



Zero 88's Freddy Lloyd with Daryl Vaughan of Wybron Ltd and Judy Jones of Proper Lighting and Sound.



Graham Fathers (right) of AJS demonstrates a Selecon followspot.



Tony Jenner of Triple E shows AC Lighting's Glyn O'Donoghue their track and motor systems.



Julia Munnings and Nigel Howd of sound specialists Canford Audio.



Richard Harris (Lighting Technology), Alan Luxford (Strand Lighting) and theatre consultant John Wyckham.



Graham Merritt and Paul Topliss of Lee Filters.



The stand of Harkness and Hall Stage also showed the latest Novalight lanterns from R&G Group.



Aliscaff showed their staging range at ABTT for the first time.



Strand Lighting's David Cusworth (right) checks out the spec.



Strand's David Brooks and Brian Myers with Teatro's Mike Lowe (right).



Steve Hawkins and Richard Thompson on the ALD stand.



Light & Sound Design's Dave Smith (left) with Adrian Offord of Wybron Ltd.



The stand of British Harlequin with PLASA's meeting point behind.



Terence Rees and David Wilmore with their 'live' ABTT Archaeology Committee exhibit.



AJS's Adrian Sant with Fiona Francis of Zero 88 Lighting Ltd.



Ian Albery of Donmar (right) with Nick Weeks, technical manager of Rothes Hall, Glenrothes.



Roland Hughes of Axon (left) with Lighting Technology Projects' Andy Stone.



Graham Paddon (left) of Autograph Sales with Mike Reay of EMO Systems.



Matthew Griffiths of TSL (AV) on the White Light stand with Howard Eaton.



Strand Lighting's David Bertenshaw inspects a Clay Paky Shadow followspot.



Paul de Ville of Lighting Technology Group (left) with John Coe.



Keith Dowzell of Powerdrive (left) with John Lethbridge of Cerebrum Lighting.



White Light's Bryan Raven (left) with Wyatt Enever of DHA (right) and Glyn O'Donoghue on the AC Lighting stand.



Rosco's Michael Hall (right!) and friend promote the latest Supergel competition. A bunch of bananas to the first reader to identify 'Guy' the Gorilla.



Mike Goldberg of M&M Camelont (left) with Howard Eaton.

This DMX-talking desk offers a huge amount of power for its low-cost, though its stack-based operating method, aimed more at moving lights, may put some purchasers off. XTBA also had their wide range of DMX goodies on show.

At the other end of the lighting control scale, **Cerebrum** had a live Aviator console on their stand, together with ShowCAD. They also had a new range of Andolite metalwork on show, allowing them to provide solutions to a whole range of rigging problems.

Like many of the suppliers, the hire companies at the show were talking of business picking up, and of their plans to ensure it continued to do so. Both **Futurist** and **Playlight** were talking of making themselves better known with a wider range of services: Futurist, in particular, seems to be working hard to expand its hire department. **White Light** have already been expanding, and their stand actually featured three of the group's divisions - White Light, The Moving Light Company, and Modelbox. No ProSpots were on show - they were all out on jobs - but Modelbox were showing videos of the very high quality 3D rendering they can produce with their new 'render farm' of high speed PCs. They also had available the European version of MaLux Pro, a lighting plan drawing and paperwork programme for the Apple Macintosh, and AutoCAD LT for Windows, a lower-cost CAD package which the company feel could become the industry standard for computer-based plan drawing.

Of course, the ABTT Show also continues to feature smaller scale firms, of which new exhibitor **Light Opera** was an example. The

firm offers a variety of services, including lantern restoration, equipment repair and the construction of one-off electronic devices. They also had on show a range of hand-made gobos constructed from thick aluminium. Although not suitable for intricate patterns, these gobos were great for company logos and the like, and **Light Opera** are so sure about their durability that they actually offer gobos for hire!

ABTT regulars **Ark Light** were exhibiting once again, and continue to provide their lamp restoration service; the stand included a Prelude in a particularly shocking shade of yellow to show just what is possible, and their price list shows just what great value for money they can provide.

Value for money was also a theme on the **Rosco** stand, where new, large-size paint pots were introduced for several of the paint ranges. The company also had a new folding screen system, based around a very durable front-projection screen material, some new Supergel colours, and their new smoke machine range, including a revised version of the Omega, which now works under DMX control. They also had, on occasions, a gorilla on their stand, to promote their colour competition. With a trip to New York as the prize, this is well worth entering.

Other new products abounded. **Par Opti Projects** had a new type of fibre optic, called StarTrail, on show. The result of some heavy investment in new equipment, the fibre has 'light points' at regular intervals along its length, and would seem to have potential beyond just star type effects - runs of it along theatre aisles could provide a clear route to

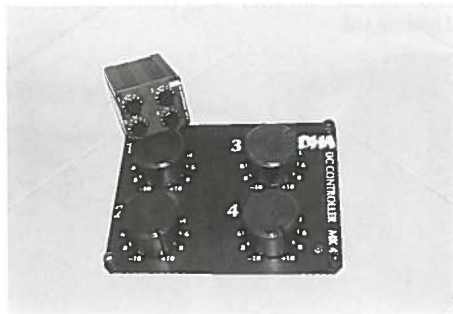
follow in the event of an emergency, for example. **Aliscaff** had a wide range of extruded aluminium fittings on show alongside their new truss system. **Pulsar** had the SuperScan Zoom as well as other products from their existing range, and **Mainstage** had a lot of people just sitting around their stand - which must have meant that the Topdeck Audience Seating system they were launching was as comfortable as they claimed!

But, in my opinion, the most unusual stand at the show was probably that of **Nobel Elektronik AB**, who were there discussing their System 2000 hydraulic winch control system and the complete automated flying systems they have installed at theatres in Stockholm, Gothenburg and Paris. I hope to get to see one of these installations, because from the photographs they look like beautifully engineered products. Not, the company freely admits, the cheapest powered flying installations, but probably the best built, longest lasting and most reliable.

Many people involved in British theatre have a notorious reluctance to look at new ways of doing things, and another ABTT exhibitor, the **Health & Safety Executive**, provided a hint as to why more theatres might have to consider such technology in the future, as regulations regarding manual handling and the like continue to tighten. Sharing a stand with Nobel Elektronik, and as interesting as the power flying, though in a different way, were **CFPTS**, the French vocational training centre for theatre technicians. While our own **AETTI**, who were also at the show, continue to talk about ways of assessing the quality of technicians, **CFPTS**



Mike Smyth, Jonathan Allen and Dave Pritchard of Northern Light.



Will DHA's real DC Controller step forward? The genuine article is dwarfed by a giant facsimile.



Richard Archer, Maureen Rivers and Paul Owens team up for a little Light Opera.



Patrick Brogan of CCT (right) with Noel Rees of Carmarthenshire College.



Mike Sweetland of Mainstage (left) entertains Multifilm's Iain Price-Smith on his Topdeck seating system.

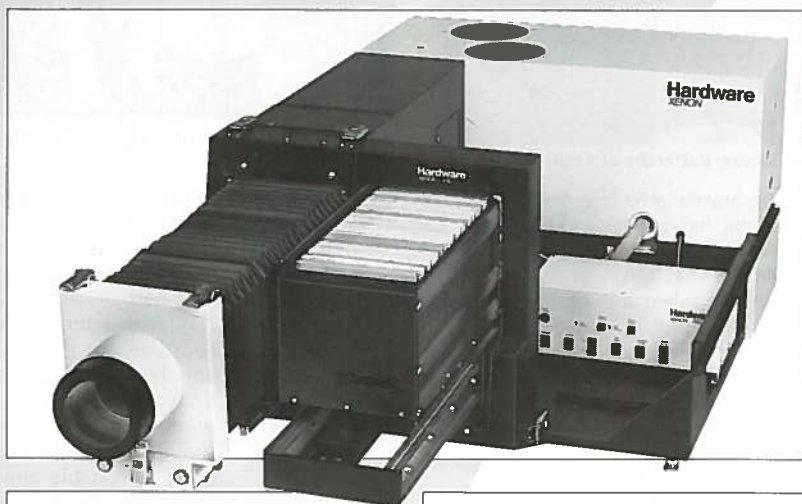


Richard Broadhurst of RB Lighting (right) with Alan Jay-Green from the Watermill Theatre.

# Hardware Xenon

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Paul Mardon (Pulsar), Raph Janssens (ADB), Michael Lister (Futurist), Jackie Staines (Stephen Joseph Theatre, Scarborough) and Russell Dunsire (Lighting Systems International).



Normally promoting structural support, Doughty's Mervyn Lister offers Lighting Technology's Jack Exell, winner of their caption competition, something to help him fall down.



Bruce Elliott and Steven Battersby of Multiremote.



Playlight's Ian Ferguson with Peter Nesbitt of Ancient Lights.

gets on with giving anyone who wants to come along hands-on training on a wide range of equipment. But then that's the kind of thing that is possible when a government insists that a percentage of every company's profits are given over to training - not the kind of approach that is fashionable in this country at the moment.



Par Opti's Paul Raymond shows StarTrail.

As technology continues to move on, equipment becomes more and more complicated, and legislation and insurance companies place greater and greater limitations on who is allowed to operate that equipment, some kind of training scheme is going to have to come into effect in this country as well. The ABTT could well be the ideal organisation to oversee this if it can continue to command popularity and respect

in the industry - it was making a great effort to attract new blood at the show with a special subscription offer for new student members.

Whatever the success of that recruitment drive, the organisation's show has again been a success as a chance to see new products and talk to people - both suppliers and old friends - in a quiet, hospitable atmosphere. It

seems to have survived all of the demands to scrap it or incorporate it into PLASA of a few years ago, and this year's show provided a valuable 'first look' at things for people with money to spend. Whether the Manchester show, falling just after PLASA as it does (October 13th-15th), will be as interesting or popular remains to be seen, but I look forward to it, and to next year's London show.



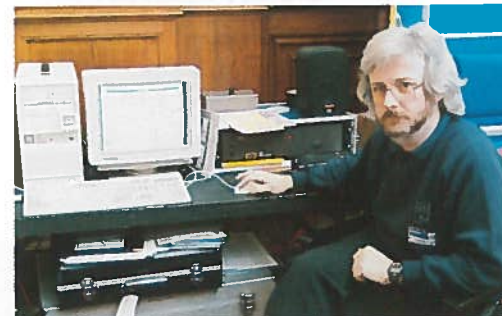
Ian Stanford and Kevin Connor of Primarc.



Olle Söderberg of Nobel Elektronik shows System 2000.



Alison Brett of Soundcraft with Tim McCall and Spencer Brooks of distributors Marquee Audio.



Simon Hare of Simon Hare Productions with his digital audio system.

# LEADING THE ELSTREE REVIVAL

Ronan Willson of Meteorlites creates Millennium Studios in the heart of what used to be 'The British Hollywood'. John Offord edits the script

Maybe the stars aren't there anymore, apart perhaps from 'Eastenders' at the BBC Studios at the other end of town, but they've seen the lot in this corner of Hertfordshire. You can trace the history of film and television at Elstree, from the early pioneering days in 1927 to 'Monty Python' in 1982 and with almost everything else you can think of in between, from 'The Saint' to 'James Bond' and from 'Look Back in Anger' to 'Star Wars'. However, many of the crafts and skills associated with film production are still alive and lingering in the area.

You and I know Ronan Willson as head of Meteorlites, major suppliers of kit and expertise to the world of major concerts and rock and roll. Not so many know that his company also supplies a great deal of equipment into the television production field. What none of us knew was that he's also a bit of a film buff and a collector of ephemera and equipment from the industry. One of those chaps who'd make a long and deliberate journey if there was a treasured item at the end of the road. A man after my own heart who would be quite prone to dive mysteriously out of sight for an hour or two into the nearest specialist bookshop or collector's corner.

So, having heavily hinted that there is a bit of a dream behind all this, I decided to find out more about the nuts and bolts first and asked Ronan Willson to talk me through the process of how he came to set up Millennium Studios.

"I realised that there were a tremendous number of diverse areas within Meteorlites and that a lot of it got 'lost in the wash'. There was a tendency for people to think of us as just a lighting company, and this was a shame because there are so many specialist areas we cover. Commercially, we felt we were missing opportunities, and a simple example of this was with power distribution. Unless you have specialists readily identifiable as dealing with power, people don't tend to think of you in that context.

"Similarly, we've been established on the film and television side for at least seven years, but again there's been a tendency for people to think of us as just a rock and roll lighting company dabbling in television. We've had to identify that this is a different discipline and style, involving different hardware.

"Structural work and rigging has again historically been part of concert lighting activity and, in fact, most of the trussing systems and rigging systems now used have actually been developed by rock and roll lighting companies. However, as with so many other areas of business, every one is having to specialise. We are undertaking a great deal of

major structural and rigging work for both film and television; also rigging for sound and lighting where we are not necessarily supplying the equipment itself. In the television field we're also asked to provide suspension grids for shows that we're not lighting.

"I didn't feel that Meteorlites as it was known did justice to its

---

***"We are one of a number of people who, when grouped together, form a unique tapestry of production skills. Rock and roll is now contributing a great deal to the techniques of television and the young blood moving from this to film and television is doing much to revitalise the area."***

---

own abilities in all these specialist areas, and this promoted our decision to separate our operations. Elstree Light and Power crystallised when in April 1993 a company called Rainbow Lighting in Acton came on the market. We bought the business, inheriting 11 production vehicles including TV silent generators, grip trucks and associated vehicles, and a large amount of HMI and daylight colour temperature equipment. This enabled us to put together the actual entity I had been planning.

"We originally moved Elstree Light and Power into Elstree Film Studios, but unfortunately within six months of doing that Brent Walker decided to close the place! We were turfed out, along with many other people, and this is what triggered the start of the Millennium Studios concept. It was an idea I'd been working on for some time, but it's only rarely that the perfect opportunity presents itself."

Things came together in the late summer of



The main entrance to Millennium Studios, Elstree.

1993 when the building next door to Meteorlites' existing premises became available. The necessary finance was arranged and Ronan Willson had probably the most hectic period of his life organising the whole operation and converting the building. When I visited Millennium in mid-March the first tenants had moved in and the complex was within a month of its phase-one completion.

Amongst the companies now in residence are: Elstree Stills, Studio Stationers, Mojo Associates, Showpower, Charter Broadcast, ShowCo, Elstree Design and Construction and KB Freight. From Meteorlites' own stable came Elstree Light and Power, the original key to the opening of the project.

"We have continuing interest from other sources, and we are still looking to attract a couple of production companies," continued Ronan Willson. "We will be moving our own CAD design department in soon, and my time is now largely taken up with pulling the operation together in a coherent form. We are planning to search out production projects that



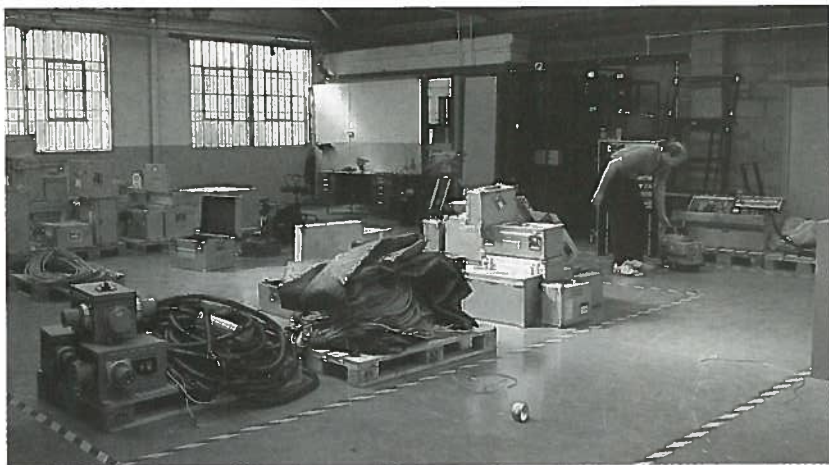
Tony Panico has assumed the role of managing director of Meteorlites.



Ronan Willson, the prime mover behind Millennium Studios.



Tony Slee manages the newly formed Elstree Light and Power.



Charter Broadcast have taken space at Millennium to enable them to pre-build elements of de-rig broadcast systems. They are currently working with host broadcaster Turner Sports for the televising of the 1994 Goodwill Games in St Petersburg and have just completed work on England's cricket tour of the West Indies.

numerous companies on the site can get involved with, and although there is no obligation, the whole idea is one of loose association. It is obviously beneficial for people to work together on one site as this promotes a gain in efficiency. If clients want to use Millennium as a one-stop production supplier then they have that option if they wish to take it up, but there is no intention of creating a kind of closed shop."

To cope with the changes, a number of key management changes have taken place. Tony Panico has been promoted to managing director of Meteorlites and Tony Slee has taken over as manager of Elstree Light and Power and Andy Slevin has joined the company to manage Meteorlites' hire division. Ronan Willson himself will stay 'next door' at Millennium to "develop the ideas and actually make them work." But there is more to it than that.

What had drawn me to make my original enquiries as to what exactly was going on at Elstree was the message on the Meteorlites 1993 Christmas card where the greetings were from Trilogy Entertainments Group plc and, confusingly, four companies listed underneath. I brightly figured out something was up, and made the necessary telephone call.

The financial package and company re-structuring necessary to get Millennium off the ground was arranged with the involvement of Chris Pantazis, financial director, and Trilogy's new company secretary and corporate solicitor Stephen Curtis. "With their aid we have set up a plc company and are benefiting from their experience," explained Ronan Willson. "They have been very instrumental in putting the money in place in order to finance much of what we are doing. The whole notion has been to break up what was previously just a concert lighting company into some of its component parts and give them the freedom to grow individually. Where possible we want to cast seeds for lots of new embryonic ideas rather than keep to our old course of just pushing ahead to get bigger and bigger.

"It is very difficult to compete on a level playing field when there is major input from multi-national corporations, so we are planning to push into niche markets. This way we can fit in around the others without treading on too many toes. Much of what we have done has been developed from new markets. The interesting thing is that across the past five or six years our cash flow from the rock market has stayed almost the same. All our growth has come from the diversified areas of television, special events, and so on."

As Ronan Willson admitted, there are other,

and more personal reasons for his close interest in setting up Millennium. "I am very enthusiastic about making progress. I've had a tremendous time working in rock and roll for many years, and I was fortunate enough to tour with many shows - I had a chance to let my imagination run loose with someone else's money! However, I feel I've gone just about as far as I can in rock and roll. I think my company can still support a lot of people and we now have so much young blood coming into the industry." Which brings us to where we came in with our story, and the links with Elstree's almost lost past.

"I am very keen on movie memorabilia," admitted Ronan Willson, "and I collect everything, including projectors, from the days of silent films. I also have cupboards and drawers full of movie stills posters and a huge collection of memorabilia about Elstree. Almost every time I go to the States I seek out the speciality stores. I have prepared lists of all the films produced here and target those I haven't got."

And it isn't just a rather quaint hobby. "We are based in Elstree and most people forget that until the early seventies it was second only to Hollywood as a production city. It is tragic what has been allowed to happen, but luckily there are still some remnants.

"My Millennium dream is to try to keep the skills of Elstree here. It is still a good place for productions. Harkness Screens and Hall Stages are located in what is left of the Gate Studios,



As the name suggests, Elstree Stills develop production stills for a range of TV and film clients.



Mojo Associates offer scenic design and construction.

and the BBC still have very active studios producing 'Eastenders', 'Top of the Pops' and 'Grange Hill'. There's also the remains of the Imperial Studios. I am very enthusiastic about promoting the whole thing. It is a terribly valuable resource. If you look at what the Americans do, such as building a completely fake Universal Studios studio in the middle of Florida, for the British to simply to ignore the real thing is quite ridiculous.

"There is a strong campaign to keep what's left going. Owners of the main studios Brent Walker want to demolish what is left of the site to make way for a retail park, but fortunately, due to the action of the local council, there is a high court injunction prohibiting them. At the same time, there has been a major upturn in demand for studio space, with the British film industry actually enjoying a renaissance. People are queuing up to use the studios and SOS - Save our Studio Campaign - has very positive plans in place which will hopefully secure the site's future.

"We are one of a number of people who, when grouped together, form a unique tapestry of production skills. Another factor is that rock and roll is now contributing a great deal to the techniques of television and the young blood moving from rock and roll to film and television is doing much to revitalise this area.

"We are planning to market Elstree as a production centre and an organisation to further our interests is being formed at the moment. There are still a few tenants at the main Elstree studios, and the ones who have long leases are putting up a brave fight. These companies, together with the local town and borough councils, ourselves, and all the other companies are working together and there have been many ideas put forward for the area. Some have been rather laughable, but many make good sense. There is so much history that could be signposted at the very least, and there is support for the idea of a movie museum.

"Obviously there is no one action that someone can take to resurrect the film industry or keep Elstree alive, but a lot of us working in our own way can turn it round. It is down to us to create the reality, and so long as programme production still takes place then it hasn't died. Admittedly, they are not shooting major block busters here, but maybe we'll get them back - you never know!"

According to Ronan Willson there has been a positive local authority feasibility study, big names in the movie business are working on ideas, and there are production companies interested in buying the main studio site. The council is even considering a compulsory purchase order. But Brent Walker seem intent





The changing face of Elstree. The sixties photograph of Associated British Pictures Elstree Studios (left) with the tank and reservoir used during the filming of 'Moby Dick' in background. In the second photograph (right), taken in the eighties, the imposing studio used for the filming of 'Star Wars' can be seen (dark building - top right). The stage was later sold to Shepperton Studios as scrap. Film buffs might be interested to learn that it was here that the first British talking picture 'Blackmail' was directed by Alfred Hitchcock. Sadly, a large part of the right hand side of the site has now been demolished (reducing the acreage from 26 to 17) to make way for a Tesco supermarket.

on holding onto their idea of a retail park.

What remains is worth hanging on for, despite what Ronan Willson angrily describes as 'pillaging' from the site. "It is common knowledge that part of the planning deal set up for Tesco was that they kept Stage 6. It was the biggest sound stage in Europe and was constructed for Star Wars. It happened to be in the way so they dismantled it and stacked it all up bit by bit. But instead of putting it up on the remainder of the site they sold it to Shepperton Studios for scrap value, which is reported to have been £25,000. Shepperton have now rebuilt it as two stages, and the fact that they purchased it proves that it was in demand. It's absolutely tragic that it's gone from Elstree. I

think there has been a great deal of pillaging of the site and I think it has suited the owner's intentions to have every possible facility removed. We have therefore been trying to rescue as much of it as possible.

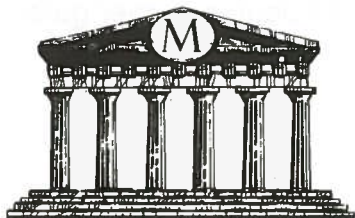
"We purchased all the rigging hardware from all the stages and stored it so that if the studios remain we can reinstate it. We also bought the whole preview theatre, complete with seats and other equipment from the editing facilities. We hope there will be the chance to put it all back."

So the Elstree revival has begun, and with people like Ronan Willson taking the lead and investing more into the area as we move out of recession, there is a better than evens chance that our British Hollywood can once again

provide essential production skills.

It has certainly re-energised him. "I have noticed a big difference between rock and roll and the TV and film industry. R&R is not often seen as a collaborative venture and credit is not often given to all the people who had an input.

"There is a major difference with film and TV production. There is a huge interaction between skilled and interesting people to obtain a result, and the magic is flowing. People are far more receptive to each other and credit is given where it's due! In R&R you'll be lucky to get your name in the tour programme. Film and TV relies on a cross-fertilisation of clever people who all realise they need each other's skills. You're all getting the 'high'."



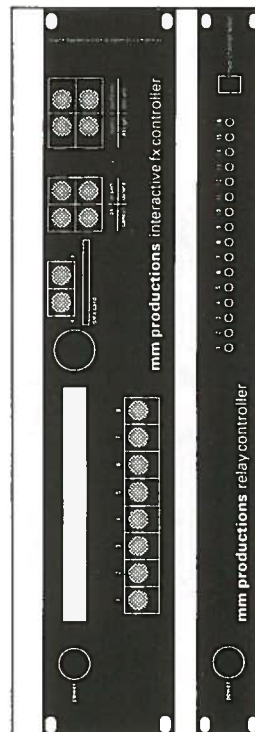
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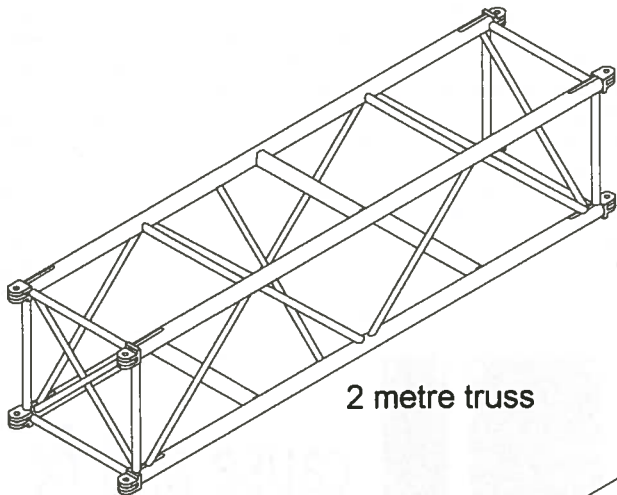


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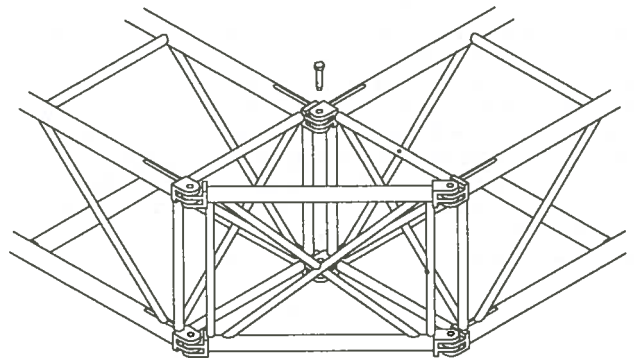
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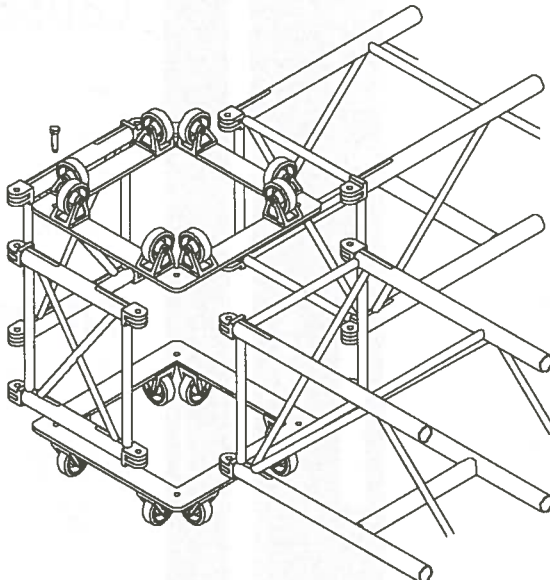
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# A CLASS ACT

## Ruth Rossington discovers why the RSC keeps the emphasis on sound quality

The Royal Shakespeare Company (RSC) at Stratford has just completed the final stage of a substantial investment in new sound equipment at its flagship venue, the Royal Shakespeare Theatre. At the vanguard of the installation is a new Meyer Sound system and a Cadac J-Type theatre mixer which have much to prove in what is a notoriously difficult auditorium.

The Royal Shakespeare Company is probably the best-known theatre company in the world, and renowned for the quality of its productions. Its theatres in Stratford upon Avon and at London's Barbican Centre play to audiences in excess of one million each year - add to that the UK and overseas tours, and its impact is considerable. The Stratford venue opened in its present guise in 1932, the design child of Elisabeth Scott who created the building on the site of the original theatre, which was almost completely destroyed by fire in 1926.

Whilst the auditorium broke new ground from the acoustic design point of view when it was built, it presents the current sound team with something of a headache despite recent refurbishment. Paul Slocombe, head of sound, takes up the story: "We have to cope with a very problematic situation at the theatre, due to the size and shape of the auditorium and its relationship to the performance area. The nature of the room is generally not very bright, with each of the three levels having very different acoustics with individual resonances. We conducted some extensive tests approximately a year ago, and this confirmed our suspicion that there was one major peak. As a result, we concluded that we really did need to use processors for the best solution."

The theatre is also very limited with regard to usable speaker positions, and with a typical five-show rep, they can find themselves constantly having to revise the set-up of the system. Previous experience involved flying large full-range cabinets above the forestage, with smaller units combined with delays to pull the image down towards the stage. The principal problem with this approach was that



The Royal Shakespeare Theatre on the banks of the Avon.

the distances involved proved to be too much for the delays, and Paul Slocombe and his team elected to think again.

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***"The production of Macbeth is typical - it has lots of percussion, which previously would have needed substantial EQ out front. This type of demand soon highlights any limitations in the loudspeakers."***

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"Having made our decision, Meyer was the obvious choice. We were already familiar with the speakers' performance and capabilities, hiring in Meyer units for a number of musicals and other productions in the past. The MSL-2A and the MPS-355 units are particularly attractive options, giving us high full range SPLs from relatively small boxes. By then using SIM to identify any holes and configure the system to remove them, we have arrived at a very good result - the image relates to the acting area without the need for flying huge boxes. I kept a very open mind regarding the SIM analysis procedure, but having heard the results I am now a firm convert. Used in conjunction with good listening skills, it is an exceptionally powerful tool."



The auditorium of the theatre which was refurbished in March last year.

In many ways, the RSC represents an unusual brief for a sound system. The range and nature of the productions staged by the company tends to require a very musical system - providing lots of headroom for the big historical dramas, as well as a very wide dynamic range to handle sound effects. The RSC generally uses a live band (located in the band room) for music, which means they need miking and balancing, involving extensive amplification. The sound element often involves a fair amount of low level operation, with the system needing to be left open without any noise problems. The current production of Macbeth, with Derek Jacobi in the

title role, is quite typical - it involves lots of percussion, which previously would have needed substantial EQ out front. This type of demand soon highlights any limitations in the loudspeakers. Paul is emphatic that he has made a major breakthrough with the new system: "Of the numerous solutions we have tried, this is by far the best. We now need much less EQ - the system is essentially working with the sound, complementing and enhancing the quality."

In the event, the RSC selected a combination of the high power, compact MSL-2A and MPS-355 loudspeakers, with S-1 and MPS-3 controllers. The Meyer Sound philosophy involves using the loudspeakers and controllers as complementary units, enabling the optimum combination of loudspeaker and amplifier performance to be attained. For example, the S-1 controllers include active crossover circuitry for bi-amplification, Meyer's SpeakerSense driver protection, plus frequency and phase response alignment. Autograph Sales was responsible for the supply and commissioning of the equipment, with the project also involving the use of Meyer's powerful sound system analyser - the already mentioned SIM System II - as an integral element in the alignment of the RSC installation. ASL also supplied the RSC with additional equipment including their own range of interface panels, cables and safety steels for Meyer products. The whole installation was fully commissioned during March 1994, ready for the start of the new 1994 Shakespeare season.

The RSC system uses the MSL-2A loudspeakers in fixed left and right positions (sited fairly low in the proscenium walls), with a third, balcony fill MSL-2A mounted just above centre stage. This extra MSL-2A is electronically delayed and balanced to the lower system. MPS-355s are used as front-of-stage fills and to centre the image for the front rows of the audience. These front loudspeakers are mounted in walkway positions to avoid being too close to front row listeners and are electronically delayed and balanced to a mid-stage position. MPS-355s also act as under-circle fills near the front, where the circle overhang shadows some stalls under-circle seats from the left and right MSL-2As.

The RSC team installed the system themselves during the usual short 'window' available in repertory, supported by consultant acoustician Jim Cousins who SIM'ed the venue. Jim explained how SIM was deployed on this



Paul Slocombe, head of sound at the RSC, with the new Cadac J-Type mixer in the confined quarters of the control room.



The recently held SIM School in the RSC auditorium in which Jim Cousins (back row, second from left) demonstrated SIM II.

occasion: "The big advantage of using the Meyer Sound SIM System II for measurement and alignment is that we can work with music or speech as the test signal, enabling us to hear the effects of our system adjustments whilst quantifying and storing them for future reference. It was important to take advantage of SIM System II's ability to show delay and echo structures, using music as the source, as well as giving information on vector (mainly direct) and rms (direct + some reverberant) sound pressure response at various locations in the room.

"The target is a sensible balance between a good solid, intelligible sound and what is natural for the particular room. SIM II is used as a measuring tool. We then decide whether to re-site or re-angle certain loudspeaker sections or apply suitable room treatment. We don't use automatic equalisation because equalisation is not necessarily the solution."

The SIM'ing of the auditorium took place overnight, with Jim Cousins using ASL's latest unit - the fourth now in the UK. Following completion of the RSC installation, it also provided the focal point for Meyer Sound's recent SIM School - a week-long event attended by 10 trainees from around Europe. During the latest session, Jim Cousins used the RSC example to demonstrate SIM in practice - underlining its value as a powerful and practical field tool.

In addition to the Meyer Sound system, the RSC also took the opportunity to update its mixing console as part of its '94 investment programme, replacing its faithful Cadac A-Type after nine year's service with a 32-output/40-input J-Type desk.


Specified with a 16 x 32 matrix, the J-Type has been literally 'shoe-horned' to fit into the theatre's small control room - with only 18" leeway for the operator and connection of the XLRs! The installation slot spanned just three days, involving the design of a purpose-built trolley for the mixer as well as new flooring to accommodate the cabling. The desk itself was already pre-wired, in order to minimise the time needed to get it up and running.

When asked about the range of desk options they considered, Paul highlighted the Cadac combination of reliability and theatre-led design: "Our A-Type was marvellous, providing us with nine years of constantly reliable operation. We took a careful look around the market before choosing our next desk, but there is quite simply nothing else, in our view, to equal the Cadac - it is a desk designed for the theatre environment and it shows. As far as the audio quality is concerned, we don't ever have to think about it with the Cadac. We also greatly value the detail on the J-Type, including the accurate legending and clear metering alongside the channel faders. Reliability is one of our paramount considerations, and it is very

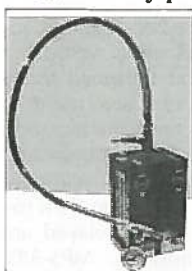
pleasing to compare the build quality of two Cadacs across a span of nine years - they are both equally superb."

Unlike their former desk, the RSC sound team now has access to the J-Type's full automation facilities, which they are looking forward to experimenting with on the varied and challenging programme for 1994. The new season typically involves a total of ten productions running simultaneously in the three Stratford theatres - the main Royal Shakespeare, The Swan and The Other Place.

The proof of the RSC's recent investment is in the pudding - Paul is well satisfied himself with what has been achieved: "We aimed at installing the very best equipment, and with both Meyer Sound and Cadac I believe we have achieved our goal. The RSC has a reputation for excellence which we are committed to maintaining. The nature of the productions we stage are in themselves unpredictable, involving often very complex demands being made of the sound design and equipment. Our role is simply to provide whatever is asked for, quickly and apparently effortlessly! Sound is still regarded as an ancillary service: it is not seen and is therefore not always understood. It must also be completely transparent, given the nature of productions we work on. Our equipment level now is a major step forward, giving us the best tools with which to achieve the right sound at a given time."



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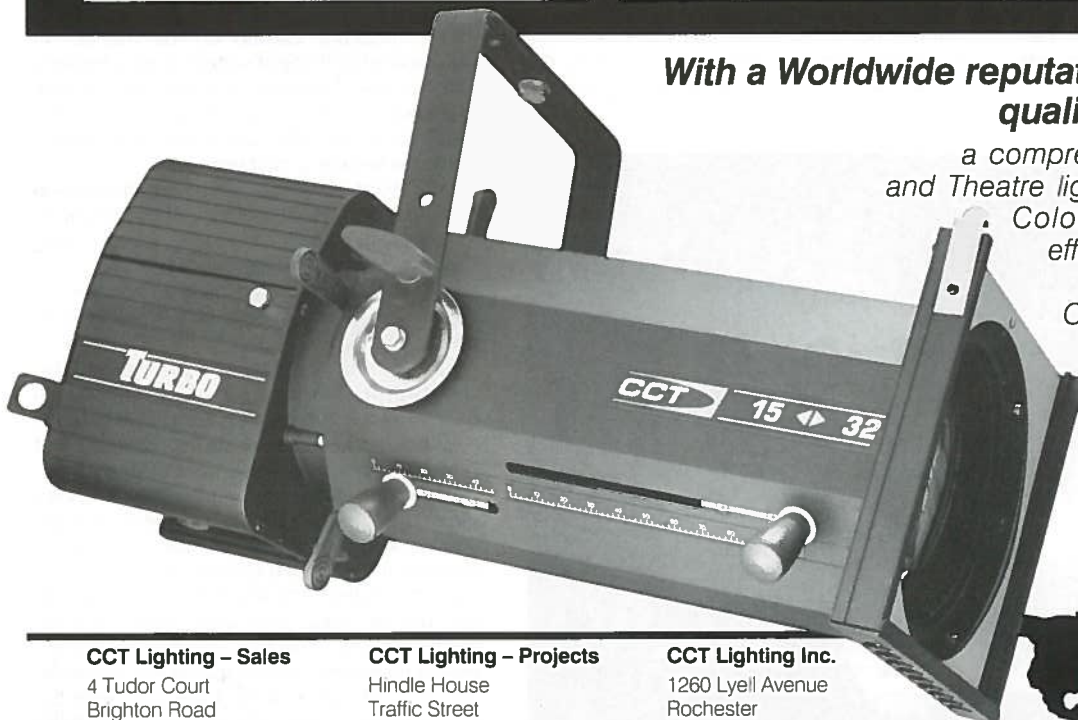
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# VANCO LIGHTING SERVICES

## John Offord goes to Stony Point, New York, and gets involved with the philosophy of automated luminaires

With two prime geographical locations, at Stony Point, one hour out of New York City, and Orlando, Florida, Vanco Lighting Services are excellently placed to service two very different but equally vibrant areas of the business. Quite naturally, much of their expertise has been built up around servicing the broad spread of the New York entertainment and presentation markets, and more recently the theme park business in Florida.

The company is perhaps most popularly known as one of the leading rental houses in the USA, and this activity provides the core of its business. However, its operations cover a wide field including automated lighting systems, television, industrial and special events, installations and sales and theatre, tours and concerts. Their focus also includes systems integration, new facility installation, and turnkey installations for major entertainment venues. Examples in this area include the installation of the permanent house equipment in many of the themed attractions at the Universal Studios Park in Orlando and the renovation of the Avery Fisher Hall. Other major projects recently undertaken include the US and Xerox pavilions at Expo 92, the Presidential Gala and the Miss Universe and Miss USA pageants.

So, Vanco has all the regular equipment, the expertise, and the contacts, and, from its personnel - all the necessary ingredients of a well-run company. However, the story that was of equal interest to me was their decision to change course on their moving light inventory.

In the late eighties, automated lighting was coming out of its formative years and into the open. At that stage, of course, it was synonymous with Vari\*Lite. In due course, Vanco became Vari-Lite Inc's east coast representatives. Move on about five years and Vanco and Vari-Lite have parted company, and in due course Vanco have signed up Pan Command as their 'house' choice for automated lighting.

I asked company president Dale Ward about the changes. "Soon after our involvement with Vari-Lite we started seeing other people becoming active with moving mirror units and we had a real tough sell at this point because people tended to use Vari\*Lites for concert tours and not much else. They were very rarely seen in TV or industrials, so we focused our energy on getting automated lighting accepted in the conventional lighting area, and it worked very well. However, we began to see an erosion of a fair amount of the market space because Morpheus was becoming ever more active with Pan Command and Intellabeam units were also taking over in the 'industrial' market place.

"We started looking at the list of changes we needed to make, and decided after discussions with Vari-Lite, that the exclusive arrangement with them wasn't working for either company. So, we had a very amicable split, and we still work with Vari-Lite on occasion."

It is obvious that a major rental house such as Vanco, with many markets to serve, needs as much flexibility as it can negotiate when it comes to provision in the market of automated lighting. The product is highly expensive to stock, and prone to the ever varying preferences of lighting designers as they skip onwards from project to project.

"Pan Command's ProSpot has now hit the market," continued Dale Ward. "It is a less expensive hard edge and soft edge unit and it has been very well accepted. With our new arrangement we are free to take on other automated products, and this is very important to us because there is no one type of unit that is right for everything.

"We also have access to the Intellabeam and other High End products. However, we have no plans at the moment to put any moving mirror units in stock until we can evaluate all our options."

At this point, chairman and chief executive of Vanco, Ted Van Bommel, joined in the conversation. "We have been selling

GoldenScans for installations and everyone is extremely happy with this from its power standpoint and for its reliability. The Intellabeam is very competitively priced, but it tends to be limited in the features it offers.

"What we are finding is that some designers are putting together a complement of different types of autobeam fixtures. We are seeing the linking of high powered mirror units and moving units, as well as conventional lighting to achieve various looks. This layering of effects started in rock and roll, but we are now seeing it in the industrial markets, and someday fairly soon it will find its way into theatre. It is possible."

Vanco's decision-makers took a lot of time over their deliberations on automated fixtures, and undertook a lot of research. Lee Magadini, the company's director of sales and marketing takes up the story. "We were all concerned about how Broadway designers would perceive using ProSpots and other Pan Command products. Ken Billington, one of the leading designers we spoke to, is very well researched in understanding the different types of consoles and he has given the Pan Command MP100 desk a very high rating. Pan Command has done its homework in making the system user friendly and as Ken has stated, it has literally allowed him to do shows he could not do with other automated systems because the MP100 was faster to programme."

Ted Van Bommel also emphasised the Pan Command attributes. "Pan Command manufactures a wide range of products, including the PC Spot, Fader Beam and two new units - the 2.5K HMI Blaster and the moving 8-lite Starburst. In co-ordinating a production with Morpheus these products are available to Vanco, and it allows us to offer designers a wide array of choices for specific effects that they have in mind.

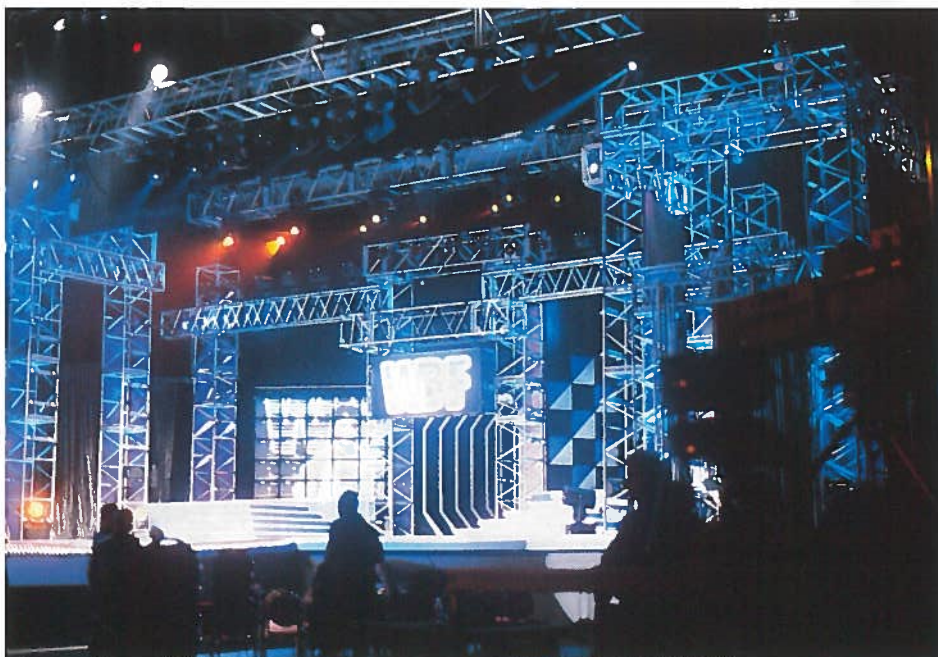
Lee Magadini carried on the theme. "In purchasing the ProSpot system, Vanco became part of a global network of companies carrying the product. Pan Command was smart to offer the ProSpot for sale, and it can only benefit Vanco to be part of that network."

Dale Ward felt encouraged by London-based White Light's decision to take Pan Command ProSpots into their inventory for the new Moving Light Company. "They are very affordable units," he said, "and I think we are going to see their involvement in many West End and Broadway shows."

Van Bommel emphasized the artistic standpoint. "More and more shows on Broadway are now adding automated fixtures, and not just as labour-saving devices, but because it's the only way that designers can achieve the looks they want. They are very important tools and a lot of people do not feel comfortable unless they have the capability to have some automated units on their shows."

Lee Magadini: "Designers don't need to sell the idea of using automated lights - I think producers now expect to have them. They are expecting the extravaganza, and the spectacle, and if the designer doesn't keep up with the understanding of the technology it's going to be a problem sooner or later. It's a simple fact.

"In the exhibition market, if a company is going to sell a product, they have got to make it fun. Companies are paying a fortune in real estate for their booths and they need to make it



Typical Vanco: the set-up for the World Body Building Federation convention and broadcast in Connecticut, autumn 93.

attractive enough for people to be drawn in.

"A small corporation will also hire a production team: a designer with a theatrical background to lay out the booth and a lighting designer that has experience in entertainment and presentation. Fortunately, lighting consultants and designers are having a big influence on how we apply our technology in these fields.

The company philosophy at Vanco proved to be very similar to the one I encountered at Production Arts (see L+S, March 94) which I covered on the same editorial circular tour in February. (That's why there's snow on the ground in the warehouse picture!)

Ted Van Bemmell has always been available to go out and help engineer a job. He's on hand for clients who just want a brainstorming session, or for ideas on how to work out a project or to decide where the truss should go. "We have had several clients who are just starting out - including up and coming lighting designers - and they can't quite figure out how much they might be able to get away with on a certain production," explained Dale Ward, "and it has been helpful for them to come here for advice and ideas. Having that kind of legacy in the company from Ted is a big asset, and it's typical of the way Vanco does business. From seniors to juniors, Ted is always happy to take care of every client that comes through our doors.

"One of the other differences I've noticed, after looking at many of our competitors, is that everyone in this company in a management position has had long experience in production. It gives us a broad basis of information which we can bring to any given



**Lee Magadini, Vanco's director of sales and marketing.**

project. We have found that it not only helps the client, but it also helps us. Sometimes we seem to spend a lot of time talking about things, but more often than not, a lot of good comes out of it when we do!

"There is a difference with the service you can offer if sales and service people, managers and presidents all listen to their clients and designers. And there is a big difference between hearing and listening to people. If you can solve problems, you can sell the equipment. That's what it is all about."

## THE PEOPLE AT VANCO

### Theodore J Van Bemmell Jr Chairman, Chief Executive Officer

As one of the founding members of Vanco, Ted Van Bemmell Jr has over 23 years of experience in the production of theatre, television and special events. He has been responsible for directing the growth of the company from its beginnings in a converted bakery in the Bronx, to its present location in Stony Point, New York.

Besides being the CEO of the company, Ted has been a consultant to the entertainment industry in the areas of television lighting, theatrical lighting and special effects. In addition he regularly consults in the areas of rigging, structural engineering, and the installation of lighting systems. Prior to the formation of the company, he was active in the production of Broadway shows as a production carpenter and electrician, as well as the production supervisor on many projects. His assignments have included '42nd Street', 'Eubie', 'Candide' and 'Shenadoah!' In addition, Ted has been active in the production of major industrial meetings and presentations, and his clients have included some of the major corporations in the USA such as IBM, Control Date, Xerox, Ford, Cadillac and Chrysler.

In the area of special events he's worked on major projects such as the 1992 Presidential Debates, Spoleto Festivals of the US and Europe, and the famous Live Aid concert in Philadelphia. Ted also had an active role in the lighting of the Centennial Celebration of the Statue of Liberty.

### Dale Ward President

Dale Ward has been in the entertainment industry for over 20 years, and his expertise has taken him from Broadway to television, to commercials, to music videos and feature film and international tours for the Metropolitan Opera. He started as stage manager for Kenley Players in the early seventies in Ohio. He left there in 1976 with the national tour of Fiddler on the



**A view of the main warehouse and some of the huge inventory of conventional equipment.**



**Ted Van Bemmell Jr, Vanco's chairman and chief executive officer (left) with Dale Ward, president.**



**Vanco Lighting Services' Stony Point facility in New York covers 60,000 square feet of warehouse space and offices.**



**Pan Command ProSpots on test with an MP100 desk in foreground.**

Roof, and when the tour landed on Broadway he shifted his base to New York where he resides today.

From numerous Broadway productions and tours, he moved to production management of live events, film projects and television events. He has been the production supervisor for various international tours for the Metropolitan Opera Presentation Department. In addition, he was the vice president of production for The Maverick Group, producing industrial events, film, videos and live theatre.

In 1987 Ward joined Vanco as head of business development. In his first year with the company he successfully negotiated a contract with the City of New Orleans to supply all the lighting and rigging for the Republican National Convention. In 1989, his accomplishments included opening Vanco's office in Orlando, Florida, as well as successfully negotiating a contract for the installation of the entertainment lighting for Universal Studios Florida. In July 1992 he was appointed President of Vanco Lighting Services.

In addition to the responsibility of the day-to-day operation of the company, Dale Ward is responsible for business development and long range planning.

#### **Steven D. Alper Executive Vice President**

With over 20 years in the administration and management of entertainment production and facility companies, Steven Alper has recently become part of the Vanco team as its executive vice president. His responsibilities include finance, administration, business affairs and business development.

His career began in the production of motion pictures as a production assistant and then as location manager. He worked on such films as 'Goodbye Columbus', 'The Godfather', 'The Kremlin Letters' and 'Shamus'. He then joined NBC-TV as a production manager where his assignments included a wide range of entertainment productions and specials including news coverage of the Watergate Hearings, the Impeachment Proceedings of President Nixon, the Democratic and Republican Conventions (1976 and 1980), and the Inaugurations of President Carter and President Reagan. He then went on to managerial positions in the business affairs, budgeting, and international divisions.

After almost 10 years at NBC, he became vice president, finance and business affairs for Radio City Music Hall Productions. He was part of the team that turned Radio City once again into the 'Showplace of the Nation'. Six years later Steve moved onto Madison Square Garden Corporation as president of MSG Enterprises. In this role he was responsible for the marketing, production, sales, development and administration of all sports (exclusive of Knicks and Rangers) and entertainment shows for the arena, Felt Forum, and all ventures outside MSG.

#### **Phil Hirsch General Manager**

Phil Hirsch graduated from Queens College in 1976 with a BA in Theatre Arts. Prior to working with Vanco Lighting Services, his extensive theatre experience included stage management of Broadway and off-Broadway productions, tour manager for several large dance companies and as a lighting designer for both professional and educational theatre.

In 1978, he began sharing his time between Vanco and his theatrical commitments, and in 1982 joined the company on a full time basis. At that time his responsibilities were to reorganise and streamline shop operations, and later that year he was promoted to shop foreman.

Phil was instrumental in co-ordinating two Vanco moves and most recently supervised the acquisition of Samuelson, US, Phil was named general manager in January, 1990 and is currently responsible for all day-to-day operations of Vanco, including stagehand hiring, transportation, purchasing, the installation of computer systems, automated lighting, and customer service.

#### **Lee Magadini Director of Sales and Marketing**

Lee Magadini has maintained an active sales career in the entertainment lighting industry for over 15 years. She was selected by Kliegl Brothers, Inc to manage the west coast sales and marketing efforts of the company including Alaska, Hawaii, and British Columbia. During her four years with Kliegl, she was responsible for installation sales for television and theatrical facilities located within her ten state

territory. In 1981 she relocated from Portland to Seattle accepting a position with Stagecraft Industries, Inc, managing the sales and installations of the theatrical and television lighting systems within the state of Washington.

Lee expanded Stagecraft's representation of Strand Lighting products into Washington State and tripled previous sales in that region within the first year of her employment. In 1985 she was chosen by Strand Lighting to fill the important position of special projects manager for New York City where she completed such projects as the Carnegie Hall, Rainbow Room and Waldorf Astoria renovations, as well as installations for ABC, NBC, CBS, and numerous other high profile projects. Lee was promoted to east coast operations manager for Strand Lighting in 1987.

Her wide range of experience and professional contacts were brought to Vanco in late 1989, and she is responsible for all marketing activities of the New York and Florida offices. In particular, Lee still specialises in studio and theatre installations and renovations. Some of her recent projects have included the renovations of Avery Fisher Hall and Lowenstein Auditorium.

#### **Martee Nuruddin General Manager, Florida**

Martee Nuruddin graduated from Queens College in 1976 with a degree in Theatre and Mass Communications. After a short stint off-Broadway, he joined Vanco in 1977, and has held numerous positions within the company, including field service technician, head of electronics, and head of special projects.

Over the past 10 years, Martee Nuruddin has also been given the time to work on various Broadway productions and industrial shows. As an example, he toured both the US and Japan with productions of '42nd Street' in a key production capacity. His biggest assignment came as the head electrician for the Centennial Celebration of the 'Statue of Liberty'.

Before relocating to Florida in December 1993, and assuming the position of general manager, he held the position of production electrician for the Vivian Beaumont Theatre at Lincoln Center.



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The total flexibility of the Event is seen in the Assign Master faders, these can be used to control a Page of memories just like

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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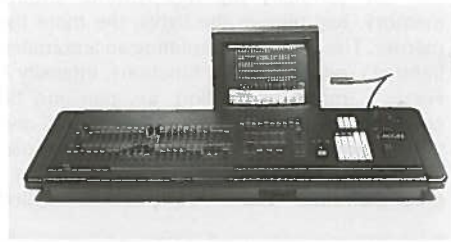
# EQUIPMENT NEWS

## Rosco Aluvision

Rosco has developed Aluvision, a complete framed screen system which is available in a range of standard sizes or which can be custom-built up to 6x4m. The system is totally flexible and can be permanently installed or demounted for compact storage. The surface is ideal for both back and front projection and a replacement service for the screen is available.

The system is ideal for schools, hotels and conference organisations, as well as the theatre, as the neat edge profile has no visible screen edge and there is no need for a pipe framework and bunjies. Full details are available from Roscolab in London, telephone 081-659 2300.

## New Encore



Colortran, Inc has announced the release of the newest member of its Encore family, the XL/2 lighting control console (pictured above). The XL/2 is UL listed and offers expanded memory capacity of 1,024 channels by 1,024 dimmers, 48 timed submasters with individual bump button control, a standard VGA color monitor, as well as automated channels for use with color scrollers and automated lighting. The XL/2 is also MIDI compatible (accepting general MIDI and MIDI Show Control Commands).

The advanced software and state-of-the-art electronics of the XL/2 allows the operator up to 400 cues and 99 effects per show, with 99 steps per effect. The XL/2 is also expandable to handle ColorNet remote video, allowing for remote video monitoring of the console's data from an independent operating location.

For more information on the Encore call Colortran in the US, telephone (818) 972 5538.

## Smoke from Squire

Squire Sound and Light continue their attack on the club and mobile DJ market with the launch of the new Squire Supersmoke II.

Following customer feedback, the Squire Supersmoke II now boasts a number of features including variable smoke output, that can be run continuously for more than 45 seconds without shutdown for reheat, double protection against false fluid pumping as standard, preventing the normal problem of a 'gooey mess' around the unit and, included in the package, a remote control that incorporates a variable timer.

For further details contact Squire Sound and Light in Guildford, telephone (0483) 451805.

## CoLoROCKET Scroller

After two years of development and application in the Toronto market, Christie Lites is releasing its new scroller, the CoLoROCKET, for sale.

The unit accepts either DMX or analogue control signals, has two fan speeds, takes up to 16 colours and operates at a speed of 10 colours per second. There are two removable take-up reels for easy gel string loading, attachable clips for barn doors and various size back plates. Currently the unit is manufactured in one size only (suitable for Pars, ellipsoids and fresnels).

For more information call Christie Lites in Toronto, telephone (416) 3680 0101.

## JEM Additions

JEM's expanding range of pyrotechnic products has been further enhanced by a number of additions. Following their Pyrotechnic success with the U2 tour, the rock and roll range now includes 10 and 20-second gerbs in silver, gold and gold to silver. All JEM gerbs are fitted with a screw-base to fit single and twin pods for quick changing during and between shows. Another new effect is the flame-protector cartridge, a red or yellow flame nearly two metres in height and of approximately two seconds duration.

The night-club industry has not been forgotten, and JEM now have available a range of 'flame' free, 'cold' cartridges. These are ideal for generating a party atmosphere and include confetti, glitter and streamer cartridges. These cartridges have been specially developed to ensure maximum safety within the confines of a crowded night-club environment.

For further details contact JEM in Spilsby, telephone (0790) 54052.

## Chris James Swatch

A new design of swatch book with eight filters to the page has been introduced by Chris James. Effects are grouped together, followed by cosmetic, diffusion, correction and neutral density filters in logically laid out sections. A 20-page section describes each colour, detailing its specific attributes and applications, quoting figures for mired shift, colour temperatures under HMI and Tungsten sources and absorption.

Each filter has been given a new colour code which is explained in detail. The colours are included in the sample section in their order according to the code enabling selection of the relative strength of primary and secondary colours and the density of the colour.

For further details call Chris James in London, telephone 081-896 1772.

## Encore Two Up

Encore Sounds have recently launched two new speaker systems.

The Concert System comprises the Proax 1250 speaker, developed by Pete Kellett and Harper Hug in conjunction with OAP. A fully functioning system is installed in The Clapham Grand. It works with the 2" TAD 4001 system at the top end - the system that houses some of the best 10" and 15" McAuley, and Beyma 18" in the universe! The Concert system has true high fidelity characteristics. It is compact and neat with immense reserves of power, and is possibly the smallest box for its power in the world. American-based OAP is currently manufacturing these for Encore.

The Club Sub is a sub bass bin that produces the undulating pulsations demanded by today's dance music. It is manufactured in the UK, and each system is custom-designed for each venue. The first two systems have been installed in the Ducie Street Club in Manchester, and the RAW Club in London. For further details contact Encore

## Animator Wing

Compulite have now introduced an Animator Wing which can be connected to any Compulite Applause or Ovation 386 lighting control desk to enable moving lights to be controlled as an integral part of the show without the need for a separate control system. The Animator Wing has its own colour visual display, playbacks and editor section, but operates as an extension to the main console.

Further details are available from Compulite in London, telephone 081-961 9750.

# AUTOMATED LIGHTING - THE SEQUEL

## Part 3 - Dedicated Desks

Richard Knight and Tony Gottelier follow up their moving lights survey (L+SI November 1993) with the definitive analysis of moving light control desks suitable for use in live performance.

*With the help of various lighting designers and programmers, Richard Knight and Tony Gottelier now turn their attention to moving light control desks of the proprietary kind. (Continued from the March issue of L+SI).*

### VARI\*LITE - ARTISAN

Richard Knight

**Independent freelance lighting 'automator' Richard Knight has made approximately 75 original programmes, and 15 adaptations from those programmes, using the Artisan. Consequently, to date, over 6,000 live performances have contained his work. The equipment hire bill for this work now exceeds US \$7 million!**

The Artisan was created to run the Series 200 system and came out in 1986. It has an attractive look and layout, is physically quite large and is very definitely in the heavyweight division. The front panel is divided into three sections: on the left, luminaire programming and manual control, a central panel for status screen and playback and the right-hand panel which consists of board control/feedback window, Chase and Matrix playback. The front panels include over 350, very high quality buttons, which must be some kind of record on any lighting console. A large proportion of the buttons did nothing at first, being implemented by a long series of software updates - approximately 12 to date. A number of faders were, and remain, without a task.

This was good forward planning - no need to recall the world-wide stock of consoles to add buttons or change the front panels. The console designers clearly had an idea of what the console should be able to do sooner or later. That most of it has been later, and some of it not at all, has been a shame. Nevertheless, the design of this console represented long term thinking by a company that had decided it, and automated lighting, were here to stay. This was the first serious automated lighting console.

The Artisan can control up to 1,000 channels which can be, either any of the full range of Vari\*Lite luminaires, or the intensity of conventional lights via a Vari\*Lite dimmer interface. This VLDI currently handles blocks of 64 channels. The console does not output DMX512, functioning instead via its own Vari\*Lite protocol.

There are two direct Playback submasters, two Chase playbacks and a rarely used manual Crossfade playback. There is also the Matrix panel consisting of 20 faders and a window with 50 pages of Patch available. These have a sub-master associated with them. The other three submasters, Blind plot 1 and 2, and Automatic Crossfade has never been implemented.

Series 200 luminaires have memory in the lights and not in a rack by the console. In Playback the console issues a cue number which is received by all units on-line. If they have this cue number they execute the instruction that has been recorded in their own memory. If they do not have that number they either fade out if previously active, or remain inactive. There are a large number of issues that stem from this implementation. The biggest

disadvantage is that one cannot programme without the lights being on-line, since there is nowhere for the information to be stored. An attempt at a blind, pre-programming package called 'Visionary' does exist, though it is very poorly thought out in my opinion. Another disadvantage is that one must save new work to disk constantly in case a light drops off-line or breaks and has to be replaced. Saving to disk is hugely time consuming, causing many a ruined lunch break.

The advantages are that there is feedback information available from the lights, and one can use seriously big rigs without adding memory. Just plug in the lights, the more the merrier. The principle of splitting an automated lighting control into four functions, Intensity I, Focus F (meaning position, i.e. pan and tilt combined), Colour C, and Beam B (iris and gobos), arrived fully formed with this console. This allows for the making of 'information - only' memories. The principle is well applied

Applying 'time' to a movement causes the lights to arrive at their destination all together, whereas 'speed' provides for the velocity of all units to be matched. Whilst more recent advances in timing treatment have passed this console by, it should not be forgotten that the separation of these functions, and the individual timing of them, started with Artisan.

The layout of the console is designed to allow for very quick manipulation of lights. The basic information for the grouping of Intensity, Focus, Beam/gobo and Colour, needed to make a 'look', is all on the left hand panel. Included is the now universally accepted principle of 'focus presets'. Thus, there are enough palettes available for the vast majority of shows and, if not, one can load an alternative set from a disk. There is a keyboard to enter timing values in whole seconds only, and intensity levels, which can be any number between 0 and 100. Speed values are also entered here, including the oddly ambitious 400%. The consequence

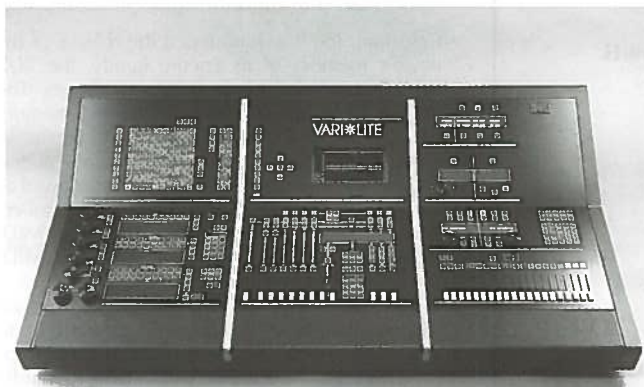
of the design of this panel is that the Artisan still remains one of the fastest consoles to make a 'standing-state' on, although the writing of Chase loops is, by today's standards, very time consuming.

The central Playback panel and the right hand Chase/Matrix panel have stood the test of time less well, though most of the difficulties could be fixed through software updates. I have always found two Chase playbacks to be painfully inadequate, as have a number of my contemporaries. The other

areas of consistent complaint are: insufficient cue numbers, currently 1,300, and the lack of both 'wait' times and 100ths of seconds for the Action times. Additionally, the maximum Chase rate is often too slow to achieve the required 'look'. There are clear and known solutions to all these problems so, obviously, waiting for these basic software updates is very frustrating, particularly when there is a general consensus by users as to what is required.

Most issues of software for the Artisan have been two steps forward, one back. The current software is tagged OD 3073 and this is one of the best editions there has been. It is, as far as I am concerned, virtually bug free and contains a much better version of the patching system than the previous one, which is very refreshing.

What has helped this console tremendously, especially in the last couple of years, is an independent off-board package that causes some of the console's difficulties to disappear. Richard Bleasdale's Serial And MIDI (SAM) show control software on an off-board Mac has opened up new possibilities in playback both with manually triggered sequences and SMPTE. With SAM it is now possible to write cue sequences that are immensely complex and which would be completely impossible to execute manually. Not surprisingly, in the light of the success of SAM (and I suspect the Wholehog modus operandi), there is a Vari\*Lite off-board package coming shortly



The Artisan from Vari\*Lite.

on this console making it very flexible in the area of mixing looks together, particularly on a temporary basis, in order to experiment with, and demonstrate, ideas. This also makes busking a realistic possibility which is always a comfort. The Artisan also uses the concept of 'Selective Recall', first invented on the series 100, which is how one pulls parts of memories out of storage and enables very quick mixing of, for example, Memory 1's Colour data, with

***"The design of the Vari-Lite Artisan represented long term thinking by a company that had decided it, and automated lighting, were here to stay. This was the first serious automated lighting console."***

Memory 2's Focus, and Memory 3's Beam with Memory 4's Intensity and then to store it all as Memory 5. In this way Memories can be used as additional palettes.

'Times' are connected to lights, not Memories, allowing these timings to be attached to the four individual functions of the light's I,F,C,B with B being both beam and 'Out' time. An excellent, and historically, a unique approach. There are two options regarding timing. One is 'time' and the other is 'speed'.

called Artisan VLQ and an early version was premiered at LDI 93. It is likely to take some time to be perfected, but is certainly the right direction in which to be moving and it should at least stimulate Vari-Lite's software department.

As it stands at present, the Artisan is showing her age. It is still possible to achieve most of the results that one wants by spending a lot of time crunching numbers and using work-around techniques, and some of the limitations can be forced into irrelevance. But with the increasing availability of sophisticated automated lighting control, the question has to be asked: Why are programmers still being forced to use time-consuming procedures when improved software solutions should be available? The major shortcomings of this console have existed for at least five years, with virtually no progress being made with the main problems. Software updates are aimed primarily at supporting new luminaire releases and not at the console user. Consequently, the Artisan has been allowed to slip far behind the latest techniques provided by others. An avoidable situation.

There has been talk for sometime about Artisan 2, eight years being a lifetime in the fast moving world of automated lighting. Certainly this could provide Vari\*Lite with the opportunity to move on and include some of the newer ideas already adopted by competitive consoles. Whilst thoughts are gathered about what an Artisan 2 should be, I hope that Artisan 1 will continue to have improved software written for it so that, when the time does come for it to retire, the potential that it originally promised will have been fully realised.

## VARI\*LITE - MINI ARTISAN

Richard Knight

The Mini Artisan is essentially, to my mind, a back-up and playback console. It retains two direct playbacks and two Chase playbacks. In practice, the main missing item over the full Artisan is the Matrix playback section. Whilst I have not used the Matrix for several years, I know that some people still do, so it is worth remembering that the Mini cannot back-up work programmed on the Artisan's Matrix. Whilst it is possible to programme on the Mini, and some people have become very adept at it, there seems little point if one can use the real thing. The Mini's main drawbacks are that the accessing of lights requires more than one button push, palettes are multi-function and there is no screen. Of these, the absence of a screen is the most significant as it prevents the



The Mini Artisan.

visual display of timing or intensity, or the indication of which lights are active, on-line or selected. The lack of intensity level feedback is a particular problem in theatre, where intensities may be plotted at low levels. Intensity and timing are very important in the theatre!

It has been Vari-Lite's policy to always send out a back-up console with a system, and the Mini Artisan fits that bill well. It is small, light and quick to set up. Its other main function is in the tech room where it is used to repair failed lights. It will be very interesting to see whether the VLQ's Mac screen will be available to display information from the Mini as well as showing its own data.

The potential inherent in the Mini Artisan is its small size and this potential could be realised by turning it into a playback surface while programming takes place via the Mac. This would make the lack of a luminaire access panel (as exists on the Artisan) irrelevant, access being by mouse, tracker-ball or similar.

### *"The potential inherent in the Mini Artisan is its small size."*

I believe there is a move to create a new Mini Artisan soon and hopefully this upgrade will incorporate some of the newer ideas that have since been developed by others in the meantime. The most significant change since the Mini was first made is the increase in acceptance of computers as adjuncts to lighting consoles. More recently the full circle of that relationship has come about where, in effect, the console becomes an adjunct to the computer. Interesting times!

## PAN COMMAND - LDS MP-100

Bradley K. Malkus

**Brad Malkus has worked as a lighting designer since 1975 and began programming moving lights in 1985. He worked for Morpheus Lights, Pan Command's touring and rental associate, until 1989. He then became an associate to the development team for the MP-100 console. Recent credits include tours with Dan Fogelberg, Huey Lewis and the News and Luther Vandross. He has also programmed several industrial presentations and theme park attractions.**

The LDS MP-100 is part of a new family of lighting controllers that has been designed from the ground up over the past four years by the engineering staff at Pan Command Systems in San Jose, California. The MP-100 was developed specifically to operate the PanCommand Pro-Spot, but it will also control other types of moving fixtures as well as colour changers, dimmers etc.

The design goals for the MP-100 were very ambitious. The following is a partial list of the most important specs that were defined at the



LDS MP1000 from Pan Command.

beginning of the project: 1) The ability to control at least 1,000 fixtures. 2) Allow 1,000 Cues per fixture. 3) Provide a useful graphic mimic of the lighting system in use. 4) Develop a diagnostics package that allows the system to report back to the console on various aspects of its condition. 5) Improve the operator's interface for better access to the fixtures and their functions. 6) Develop a method which will allow each cue to have a separate time for each function of a fixture. 7) Develop a user-definable effects library that can be transferred from show to show and be usable, regardless of the system configuration. 8) Develop a method to run an entire show on one timed fader and still maintain all the flexibility which is necessary for large robotic systems. 9) Put some fun back into programming shows!

Items 1 through 3 of this list are pretty straightforward, but the other features are what really set the MP-100 apart from other controllers and represent a major change in approach to programming robotic systems.

The hardware of the MP-100 consists of a 486 DOS computer (typically a Dell or Leading Edge), some custom cards to go in the PC, a programming console, and a video monitor. The console has a numeric keypad, buttons that are dedicated to special functions and modes, Macro buttons, encoder wheels, a tracker-ball, 12 Submaster faders with 'bump' and 'group grab' buttons, and 12 'Go to Cue' buttons. The 'autoexec bat' file of the computer automatically starts the MP-100 application on boot-up, and by pressing a key on either the programming console or the regular computer keyboard, you can start building a show.

There are two basic screens (or modes) in the MP-100 display, 'plot' and 'cue' edit. The plot screen is where most of the system housekeeping is done. This display is where you draw a graphic layout of your current lighting system and where you have access to the functions of the desk that do not involve cue writing. There are seven drop-down menus as follows: 'Plot' contains all the functions that are used to draw the graphic layout of the system and to define fixture types and names; 'Disk' - accesses all disk functions; 'Focus' - puts you into position mode and allows you to manipulate the focusing sequence; 'Update' is used to refresh the memory of any, or all, processors in the system; 'Kill' snuff or awaken any fixture by point-and-execute with the mouse, or by typing in its name; 'Diagnostics' allows you to receive information about the state of the system; 'System config' - several choices that let you set system defaults, clear different sections of memory, and perform other system-wide functions.

To open and move around in these drop-down menus, you can use the tracker-ball, which functions as a mouse in this mode; or you can use the arrow keys in the

numeric keypad; or you can press a button that corresponds to each menu. Once you have the system configured the way you want in the 'plot' screen, it is time to go to the cue 'edit' screen and start writing cues. The cue 'edit' display consists of one or more pages depending on the number of fixtures in the system. The computer automatically displays each fixture type separately, arranged alpha-

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***"The MP-100 is a controller that was designed by people who have a real understanding of what is required to make a show come together quickly and seamlessly."***

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numerically within each type. Fixtures can have names that are numeric, or alpha-numeric, but a mixture of both is not recommended. Basic cue recording is done pretty much like any theatrical memory desk. You grab the fixtures you want, adjust their attributes, record the look on stage as a Cue, and assign a playback time. Obviously, things can get much more complicated, but this is a good starting point.

The fixture name(s) will now be highlighted and the encoder wheels and tracker-ball will be active to adjust the attributes. There are dedicated wheels for level and size, a tracker-ball to adjust pan and tilt, and another wheel that can be assigned to any function (colour, gobo, etc.) by pressing the appropriate attribute key. There is a button above and below each encoder wheel. For Level and Size, these buttons set a value of full or zero. For the selectable wheel, the buttons change function depending on which attribute you have chosen. When you have selected colour, these buttons step you up or down in increments of 10, but for Gobo, they step through Gobo by Gobo.

After you have got the scene on stage to look the way you want, the next step is to record it as a cue. There are three types of cues to choose from: 'Snapshot' records the state of all attributes of all fixtures in the system; 'Sublook' records all attributes of fixtures that are currently grabbed; 'Channel' records only channels that are currently grabbed. These different types of cues interact in 'last takes precedence' mode. When you execute a cue, it only affects whatever fixtures or attributes were recorded into it. This means that for 'Sublook' and 'Channel' cues, the stage can look different depending on where you were before the cue was executed. With some practice and experimentation, this can be a very powerful feature.

After a cue is recorded, you can assign 'time' to it. The MP-100 is different from other controllers in that a cue can have a different time for each function of the fixtures. In other words, in one cue you could have levels bumping while the colours and positions are changing in 2.5 seconds or whatever. With other systems, this would require at least two cues that would have to be linked in order to be executed by one button push. In addition, each function has a separate delay time allowing the delay of the start of one or more functions until some time has elapsed from the beginning of the cue's execution. Let's say that you wanted the colour to bump to the new value just as the position was finishing its change. This feature can save a great deal of memory, as well as making very complex cues much easier to programme and edit.

Another major aid is the MQ package. MQs are user-definable, pre-programmed effects. They replace almost anything that you would

normally programme a loop or chase for. You can re-use the same MQ in different cues to create chases that run at different speeds and crossfade rates. On a normal desk, this would require several different loops whereas MQ can be a very flexible tool which can save lots of programming time as well as memory.

Another way in which using MQs makes programming easier is when the time comes to edit an existing effect. This can be done while the MQ is still running, and you can see the result immediately as you try different values. For example, if you want to change a colour, once you find the colour, press and the change has been recorded. To do this on other boards, you must find every fixture in each cue of the loop and change to a new colour value, and then re-record each cue individually.

The greatest power of the MQ package lies in the fact that the operator can transfer his own library of MQs into each show that he programmes. Because of the fact that an MQ only describes what one function of one lamp does in an effect, system configuration (the number of fixtures and what type they are) has no bearing on how the effects run. This means that an operator can build a library of MQs over a period of time that he can use in show after show, regardless of how big or how small the systems might be. He no longer has to build effects from scratch for each new system. This feature should greatly reduce the tedium involved in programming robotic systems.

There are a few other features that the MP-100 has to make programming easier and more flexible. You can have up to 200 preset focus areas which allow you to adjust the focus without actually having a cue on stage. This eliminates the possibility of accidentally altering a cue while trying to change a focus. Another feature is the custom colour editor which allows the operator to create his own palette of colours and to transfer it from show to show, as is the case with MQs.

The MP-100 is a controller that was designed by people who have been programming robotic systems for many years and have a real understanding of what's required to make a show come together quickly and seamlessly. The goal was to retain things about previous desks that worked, but also to develop some new, sometimes radically new, approaches to the problems of dealing with robotic systems. Hopefully, these solutions will truly begin to put some of the fun back into being a lighting programmer.

#### **Authors observations:**

This console has a number of quite brilliant innovations and I think it will gain great acceptance with a number of the inherent ideas being copied by competitors in due course. It is particularly forward in its use of processing power to do what computers are good at, namely quick number-crunching. Their use of 'Time' is also exceptional and includes the availability of wait times.

The concept of MQs is a major innovation, though the idea of a Chase-loop library has been around for a while. The problem on other systems is that the library stock that a console user, or the manufacturer, could build up was system size, and unit numbering, specific. A Chase loop made on a 32 light circle, saved to a library disk, and then uploaded into a 'three rows

of eight lights' configuration, will not produce a useful result. The memory sequence that constitutes the loop will no longer make visual sense unless it is a block-step-loop (all red, all green, all blue) which is invariably quicker to make from scratch anyway. This console uses a different principle altogether. The MQ is attached to the function of an individual light. A memory of 16 lights could, on one 'Go', cause 64 separate Chase-loops to run! The next memory could re-use those same MQs attached to the lights' parameters in a different way (and at a different rate) causing a completely different consequence.

Both the use of time and the use of library loops rely on the principle of applying information to a light rather than to memory. Information is attached to a light, lights are placed in memory. Structuring the information sequence in this way has clearly got massive potential which has not been fully understood by some software departments elsewhere.

The level of sophistication to which this console aspires is high indeed. It is apparent that there is an excellent line of thought involved in the use of both time and MQs which leads to realising Looks very quickly and flexibly, particularly Chases. PanCommand are one of the original automated lighting companies along with Vari-Lite and Telescan and it is very gratifying to see such good work coming out of their software department. They are clearly a long way ahead of some of the others, particularly in the treatment of time. (In fact, this gap should cause considerable embarrassment to those software departments who have been content for a number of years to rest on their reputations.) This is one of the most advanced consoles so far.

## LSD - ICON

Gary Westcott

**Gary Westcott has been consultant programmer, or lighting director, on a number of festivals and tours including The Cure, Sade, Van Halen, and UB40. At other times he has worked with Eric Clapton, Yazz, George Michael, Don Henley, Prince and Madness. He was closely involved as a consultant in the development of the Icon console and has since used it on The EuroVision Song for Europe television broadcast, MTV, and shows for Tina Turner, Heart, Rod Stewart, Coverdale/Page, Rush and The Scorpions, as well as various industrials.**

The Icon console is a full function moving light control system. The console can run from MIDI show control/ SMPTE. It can output MIDI Show



The Icon from LSD.

control. The Icon console is based on a 68020 processor and can be used in conjunction with all Apple Macintosh 020+ computers. It can be programmed blind, live and off line allowing for pre-programming at home, office or on a bus if you so wish!

What is unique about this console is that it can control all individual functions of the luminaires and has a layout that allows for complete control at the same time. The console keys themselves are 365 LCDs, allowing you to place legends, prompts and cue notes within the system - at last a console that you can read! The main display has a 280 character dot matrix display that can be used for cue notes and prompts, and these can be controlled and scrolled from any cues.

With the console keys being soft, you can assign any chases, sequences, cues, matrixes, macros or console snapshots to any of the 54 sub mastering keys (74 with the optional B matrix module in place). Of the 54 Sub mastering keys, 34 have manual Linear fader

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***"What is unique about the Icon is that it can control all individual functions of the luminaires and has a layout that allows for complete control at the same time."***

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and/or flash control. Each of the 999,999,999 cues available can be multi-tasking for any of the functions. For instance, a cue can contain multiple luminaire and fixture parameters (focus, colour, gobo, dimmer, edge, zoom, rotator and shutter), chases, multiple macro key presses and board snapshot information. So with a single cue incremental action you can set up the console, start a sequence, preset your desired instruments and give Wait and Action times to other console driven events.

While it is desirable to have full multi-tasking built into a console it is also very important to have complete manual control as well. This has been accommodated by giving the focus, colour and gobo palettes separate timing as well. This allows the operator to override cues being executed with manual colour bumping, focus moves and gobo snaps in the last played cue timing, or timing chosen from the custom timing palette.

Control of all Parameters can be by key-press incremental or encoder assignment. Chases and sequences can be stepped manually, triggered in step times (1000Ms increments, or BPM), driven by encoder wheels, or linked via MIDI show control/SMPT. Of course, not everyone wants to have the daunting task of learning a new console operation or programming, so we have made the operation as time saving as possible with on-board engineering focuses and cues, so when you start programming you have a library to reference from (this is also very helpful for off-line programming).

Making cues is as simple as selecting the fixtures, manipulating the parameters and pressing 'cue store'. All cues can be edited blind and all functions can have individual timing. All fixtures with on-board protocol are controlled from the manual panel and functions appear as instruments in the Icon select panel. All functions are controlled universally.

All cue information can be recalled in the console Edit window, so that you can see exactly what fixtures are in what focuses, colours, gobos, timings etc, while editing the console also selects the fixtures, just to make life a little easier. This feature is also extended to Mac-Icon emulation with which you can

convert your notes and cues to text files and print them in spreadsheet form.

All the palettes are referenced to the cue structure so that if you wish to change a colour, for instance, for a TV shoot, and the open white is causing camera flare, just update your palette to one of the several C.T.O. filters. The Focus palette has an auto update feature which allows you to update any number of lights from a live cue and they will update their individual or collective focus.

There are a number of other features in the software pipeline at the moment: 3D focuses, which allows for self focusing and will eventually turn into a CAD system; Priority cues, which allow fixtures to be overridden from other live Chases; System time-warp control; DMX remote fader control; Remote cue and feed-back monitor.

Though it is essentially a desk dedicated to the Icon luminaire, via the use of 'bodge boxes', the Icon console can also support protocol from High End Systems, Clay Paky, Martin Professional, Colour Mag 2 and many other fixture protocols.

I do think that this is definitely the most dynamically automated console on the hire market at the moment. It is extremely flexible and has some great features. It also sounds great due to the built-in speaker array and Alpine amp. No more lugging portable systems. It is also handy for fold-back and monitoring production cues.

#### **Author's observations:**

Though, for some, it may prove to be a new mind-set - for the Icon is a sweetie with a soft centre and a hard exterior - like others in this survey it is in reality, a computer inside a friendly package. These days the hard work is done long before the first show and, on the night, it should be a matter of simple manual response to the running order, without removing the option to fly should the need arise.

The Icon desk certainly addresses these issues, though one suspects that they might have gone a lot further, were it not for the surprising conservatism of lighting designers. It was probably a wise decision not to; you can't buck the market, and anything too radical is likely to get sidelined for the time being, until others catch up.

LSD have already confronted this problem by offering an on-screen Mac-based graphic version of the control surface which, in reality, must make the plotting of a complex show a great deal easier and quicker "So far, nobody wants to know about it," Keith Owen, Icon's head of development explained. "They don't seem to be able to separate the pre-show programming function from the performance itself which, to my mind, requires different hardware solutions. It's a useful back-up and great for editing shows away from the venue."

Nevertheless, the hard control surface is ergonomically designed and modular to enable the user to configure the control panels to his own taste. I suspect that it will not be entirely unfamiliar to anyone who has used an Artisan previously either. Based on the Motorola 68020, the system has bags of processor overhead. Giving numbers of possible cues, focuses, or presets is really misleading, as it is limited only by the capacity of the hard disk. So think of a big number, multiply it by another, and you

still may not be close.

The hands-on items are user-definable rotary encoders, for pan, tilt, colour etc, plus backlit LCD buttons which select presets and also behave like manual controls, scrolling through functions, with tactile clicks, double clicks and holding keys to give an intuitive feel. These LCD switches, which show their status in the key cap, and the alpha numeric displays associated with all functions and controls, make the whole console user transparent. There is a keyboard lurking in a drawer somewhere for the purpose of all the labelling which is required.

There are ten definable sub masters (which can be scrolled to yield 10 times more submasters), and 24 matrix faders for managing conventional lamps. Generally, programming and playback functions are intelligently separated. The heads operate on linear or harmonic tracking, and all moves can be timed, indeed all parameters can have different timings within a cue. In addition, you can crossfade between focus positions and initiate fades. Most valuably, there is a facility, enabling complex geometric moves, such as circles and ellipses, without the need to plot each point in the chase. The board can control 1000 channels, or 100 Icon heads, and is configured accordingly.

### **MARTIN PROFESSIONAL - 3032 CONTROLLER**

**Andrew Keightley**

**Freelance lighting designer Andy Keightley has worked a lot with DLD Lighting, but also with Meteorlites, Concert Productions and Supermick Lighting. He has toured with Gary Numan and Aztec Camera. His moment of fame, however, came last year, when Martin's stand at the PLASA Show was singled out as the 'best light show ever' and received the Best Stand award as the result.**

In these days of ever-evolving technology, the role of the lighting designer and programmer/operator is becoming more complicated. As one gets to grips with the latest tools of the trade, the actual control and manipulation of them sometimes seems such an uphill task that, by the time you've got past the introduction in the manual, rehearsals are over and you never seem to be able to realise what you originally imagined.

This Martin controller is not the ultimate solution, nor a press one button and 'whoa that looks great!', but anyone who has the dexterity to operate a mouse and is not colour-blind, a



**Martin 3032 Controller.**

bit of a disadvantage in our job, will find it user-friendly. With your average waggly-mirror you had to programme shutter, iris, position, colour, gobo. Add to that prisms, gobo rotators, fades etc and you had to go through a laborious routine of 'twist that dial' and 'pull that joystick' before, hey presto, here you gobo (terrible pun - Eds). A multitude of twiddle, look up and check, twiddle again before that lamp, or series of lamps, is looking the way you want it.

On the 3032 you can have a touch-sensitive VDU, or use a mouse or tracker-ball. The

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**"Anyone who has the dexterity to operate a mouse and is not colour-blind, a bit of a disadvantage in our job, will find Martin's 3032 user-friendly."**

---

controller is basically a hard-drive PC, like most moving light boards these days, though most of the others hide their microprocessors under huge exteriors designed to make those who have spent a lifetime on Avolites or Celco consoles feel at home. The on-screen display consists of various attributes: touch or direct the cursor to the section you require, say colour, and up comes a list of available colours and the lamp or lamps to which you have assigned that colour. Repeat from there on. Once you have the look you're after, place it in the cue-memory and trigger it by using the mouse or by binary coding via the Martin ADDA 12 analogue interface to a conventional desk. Moving or multi-part cues can be ganged up under the one matrix and subsequently triggered.

I believe that my job is to provide the visual and atmospheric complement to whatever my current project is. The easier and quicker that is achieved leaves more time for the fine tuning. The Martin 3032 was simple and quick to operate and, apparently, its software is constantly being updated. So far as I am concerned it did its job well.

#### Authors' observations:

As this is also a controller originally intended for purposes outside live performance, and especially for use with Martin's own range of products a library of which exists in the software, it is interesting to see how they responded to the challenge when they launched their Pro range of moving mirror lights.

Therefore, we will concentrate on the use of the 3032 in tandem with a conventional lighting desk such as a Celco 30, 60 or 90 or any similar board from your friendly rental house. It makes sense, once the programming is done via the graphical interface and the PC, to provide a hook-up between this desk and the 3032 computer so that one can run an entire show from this board, without needing to touch the 3032 at all except for prior set-up. This is achieved with the ADDA 12 interface.

Installing the ADDA 12 analogue interface means that you can have the ability to trigger multi-part cues, consisting of all sorts of Martin lights such as RoboColours and Scans simultaneously. And, surprisingly, you only need to devote up to 15 channels of the desk to access any number of cues, up to channel numbers in the thousands!

This is how it works. You install the ADDA 12 card in one of the expansion slots of the PC and hook it up to the desk via a small universal connector box. Then you allocate the 15 channels on the desk you wish to use - the first 12 can be used for binary selection of the cue by number, so that by combining the faders you can call any cue number you want. These

are called 'Cue Selects' and, of course you only need allocate the number of faders needed for the number of cues required. Then a fader allocated to 'Cue Enable', allows you to preset the next cue, while the current cue is running, so that it is sitting ready to be called as required.

A fader devoted to 'Dimmer Group', enables you to control the levels of all the lights connected to the 3032; whereas 'Dimmer Master' provides a simultaneous master fade for all the lights in any cue, irrespective of which control source. Thus, full multi-part cues called from a single fader can be easily accomplished. When you set the 3032 to 'cue', a friendly windows-type screen helps you with all these executions which are very quick and simple to implement.

So the ADDA 12, in combination with the 3032 dedicated control system, is a real power booster to any show where Martin moving lights are in use. And the lighting designer can feel comfortable in continuing to use his favourite desk, without having to worry about channel restrictions. A Martin protocol-to-DMX converter interface box is available for control of non-Martin products.

## HIGH END SYSTEMS - INTELLABEAM CONTROLLER

Paul Cook

**Paul Cook has been a moving light programmer for five years utilising Vari\*Lites, Intellabeams and more recently Icon equipment. He has worked on a wide range of presentations including trade shows, product launches and theatre.**

High End's LCD controller was developed to provide a control system for their emerging range of moving mirror instruments namely Intellabeams and more recently Trackspots (using High End's own communication protocol). It controls up to 24 of these instruments and can be 'slaved' with additional LCD controllers to enable more groups of 24 instruments to be controlled from a 'master console'.

The console's design follows High End's recognisable 'house style'. It is a 4U rack type unit coated with a multiplicity of anonymous buttons and knobs. Holding pride of place in this quirky front panel is a liquid display (8 cm X 2 cm) providing a grey and murky view of the virtual reality world of High End programming.

Standard features such as preset focuses, cue copy and cue-range copy, are all available if a little difficult to discover without close reference to the manual. The linguistic approach used by High End takes a little getting used to: "The console can store nine memories of 99 pages each." Call me old fashioned but shouldn't it be nine pages of 99 memories.

The main feature to recognise is that the



The Intellabeam LCD Controller from High End Systems.

console has only one Playback. So, for example, if a movement chase is required whilst other instruments are being used to hold a static look, the static look itself has to be programmed into every step of that chase. Due to the single playback feature only one chase can be run at any one time.

If more effects are required then complicated multi-part chases must be written (with the added disadvantage that all the parts of the chases will be in phase). As there is one playback, the subject of function filtering has not been addressed by High End. All this combines to make modifications to Pages and Chases a little cumbersome and time consuming.

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**"Clearly, the playback flexibility was paramount in the design of this console. Once the looks have been programmed, playback control can be given to the conventional board operator with ease."**

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Pages and Chases are loaded into presets (of which 1024 can be used) and these can be selected one at a time, by many and various means. The first 24 presets can be called up by pushing one of the tiny buttons on the front panel. Alternatively eight channels of an analogue desk can be used to call up a preset by describing its value in binary form. Computer control via MIDI or RS 232 is also possible.

Additional analogue control channels can be used as sub masters to control colour, gobo and intensity to add a hands-on aspect to playback. Clearly, the playback flexibility was paramount in the design of this console. Once the looks have been programmed, playback control can be given to the conventional board operator with ease.

#### Author's observations:

The Intellabeam controller was clearly not intended for live performance purposes, though with the success of the I-beam in that marketplace, it was sometimes used prior to the arrival of Wholehog, or where a Hog was unavailable due to budget constraint. It is designed to be programmed once and played back often - hence the automatic colour and gobo cycle-to-music feature. The arrival of the LCD controller gave a little more information plus the analogue submasters mentioned by Paul certainly helped, but it's still not the easiest console to programme.

We did not want to waste precious space on a unit which we believed would be superseded by the new Status Cue - a full-blown desk due to be launched to coincide with High End's new 'all-singing' Cyberlight. So you can imagine our surprise, on a recent visit to High End's Austin headquarters to discover that a new version of the LCD controller is on the stocks for the Cyberlight - apparently due to popular demand, though admittedly this pressure comes largely from the Far East. Because it has not yet been road tested, we decided to leave our report on Status Cue until the successive issue of this survey where it will be, somewhat inappropriately, conjoined to our survey of more conventional desks, sometimes used to run shows incorporating automated lights. By then it is hoped that some experience will have been gained with versions already out with Beta software on-board and that we can provide some educated comments as a result.



## ALTSTAR CO - ALTSTAR CONSOLE

Paul Morrill

Paul Morrill is a freelance lighting designer from New York. He studied theatrical lighting design at the School of the Arts at the State University, New York. He has been the lighting designer for Blues Traveller on A&M records and also at the Horde Festivals for the last five years.

Having used the LD 1000 console over the last year I have become fairly intimate with the variety of features the board offers. Laid out fairly ergonomically, the console is set out in three basic sections: The Parameter Section features colour, gobos (seven fixed and seven rotating), iris and dimmer etc. The Masters

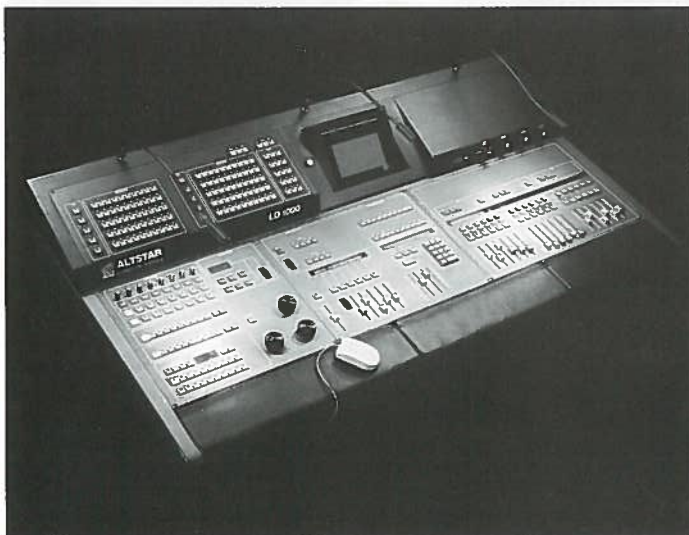
*"The ability to change any given parameter in a running cue is perhaps the most powerful feature of the Altstar console."*

Section includes a Grand Master which dims all units and six Programmable Submasters which can be assigned to any light, any handle, which gives the console a very conventional feel and the ability to dim separate groups via faders manually. Finally, there is the Cueing Section which gives the operator virtually instant access to hundreds, if not thousands, of cues at a given time.

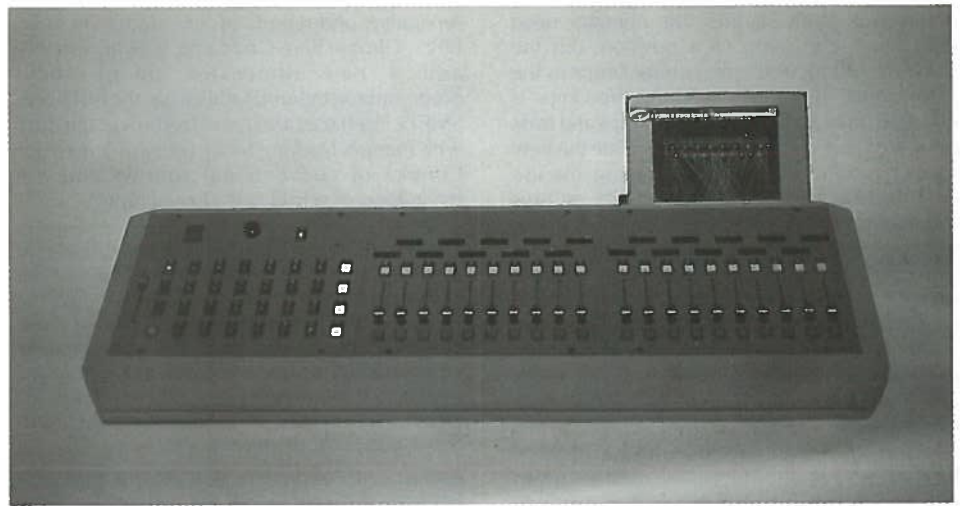
Cues can be accessed two ways, by typing the cue number into a slot, or scrolling through banks of cues either 6, 12, or 18 at a time. This gives the designer/operator the flexibility to view calmly or frantically search through groups of cues, while keeping other key cues running or standing by. It is also possible to have multiple cues running at once, as long as the parameters are not conflicting.

The ability to change any given parameter in a running cue is perhaps the most powerful feature of the Altstar console. Through the cue Rate system the operator can speed up or slow down cues from the rate that they commenced at. You can also, if you choose, change any colour or the speed of gobo rotation at the touch of a single button, a facility which adds great flexibility to the creative input of the designer.

As far as computer-based consoles go, the Altstar is very user-friendly and, unlike other



The Altstar LD1000.



Starlite console from Starlite Systems Technology.

desks that I have operated in the past, Cues can be easily created through simple commands at the front panel, or on any PC on the planet - just save to disk and you're mobile.

Because the Altstar is a PC-based system it allows cues to be created at home and brought to a tour or presentation adding valuable programming time not usually available to a designer. The PC aspect also allows the designer to cut-and-paste between shows, creating a library of effects and looks that can be transferred from cue to cue or show to show as required.

#### Authors observations:

The Altstar LD1000 is one of those large 'in your face' lighting consoles which brings with it the technical feel of a TV lighting desk. Since it is essentially for hire only in the USA (Altstar are an associate of Altman, the legendary American luminaire manufacturers), it has not been seen out of the United States. So, as we have only had the opportunity for a close encounter at trade shows, we will confine our comments to the main features of this computer-controlled desk.

Designed to run up to 250 Altstar Starbeam moving lights, the console provides direct access controls within a windows-type environment. It gives instant access control of all the luminaire parameters, with timed fade, motion and sequence memories. It is also the first desk since Oska, the forerunner of ShowCAD, to offer touch screen, soft key input, plus user-programmable faders.

The power of the PC hidden inside the carcass shows its muscle with direct access to 18 cues at one time, on-line access to all cues

in a show, and these cues can be of infinite length, triggering other cues if required. Over 1,000 shows, each of up to 10,000 cues, can be stored. In addition, 250 focus presets are provided with 15 group presets and over 100 attribute-dedicated presets, all of which are claimed to be instantly accessible. Mouse or tracker-ball can be used.

There is no getting away from it, this is one helluva control surface and it seems a shame that it's so commercially restricted.

## STARLITE SYSTEMS TECHNOLOGY - STARLITE CONSOLE

Jon M Pope

Having completed a course in stage management, Jon began his professional career in theatre working at the Gardner Arts Centre in Brighton and ICA in London). Moving to ESP Lighting in 1975, he then spent 10 years in the music industry as a lighting engineer and designer. During this time he worked for a number of artistes including tours with Whitesnake, Status Quo, Diana Ross and Elton John. Since 1984 he has worked as a lighting designer in the conference production/ industrial theatre industry including projects for British Airways, Rover, ICL, Saab, Mercedes and Rolls-Royce. He is currently working with Eurotunnel on their various launch events. He has his own company called Lighting Design Services.

The new Starlite desk neither attempts to attract with an array of pulsing red LEDs, nor appeal to the 'biggest is best' camp with a 'Starship Enterprise' control centre. Earlier desks were somewhat old-fashioned and cumbersome in design, and did not look 'state-of-the-art'. The new desk is compact and light but still maintains its sophistication through its IBM computer system. This reliably controls the Starlites with speed and efficiency as well as having the ability to interface to other instruments such as colour changers, Starlasers (Starlites with a fibre-optic laser feed), and, with the addition of a DMX link, dimmers.

*"The new desk is compact and light but still maintains its sophistication through its IBM computer system."*

The software currently runs under OS/2, and will soon be upgraded to the new Windows NT system. All lamp movement, colours, gobos, speed, iris and dimming are programmed through Windows-based software. Once trussing and lamp positions have been entered using the 3D drawing programme, you can preview the various scenes on the desk's high resolution monitor from anywhere within, or around, the stage area. With the release of Stardraw, the 3D lighting design drawing programme from Starlite, its export facility will provide the new desk with further flexibility and enhanced on-screen graphics.

As focusing and programming times are becoming critical, user-friendly technology is

paramount. With Starlites, the operator need only focus one lamp to a position and the software will focus the remaining lamps to the same point. If the trim height of the lamps is changed, then by redrawing the lamps and truss on-screen, the computer will calculate the new focus positions. During programming, the use of this powerful copying facility allows information to be sent to any number of lamps without the need to address each one individually. Being PC-based, the system enables pre-programming either before rehearsals or back in the hotel room.

During a show, the desk's ability to run from external time code has proved invaluable to me and given the production company that extra confidence, knowing the show is not dependent upon an operator who has been up for the last 24 hours! The Starlite desk has given consistently reliable service over the years, yet, like all moving light desks, it becomes meaningless without the creativity, patience, energy and above all - sense of humour - that a good operator brings with him.

#### Author's observations:

This is the desk whose light was hidden under a bushel for several years in the confusion that was Joe Brown's Tasco. Developed at massive expense, access was severely restricted. Now under the control of original software writer and ex-Microsoft development project manager Dave Snipps and Ray French, great things will be expected of any reworking of this board. (In the meantime, Starlite's lighting design CAD package has to be a Snipp - oops!)

The most innovative and unique feature of the Starlite console, and sadly probably the least utilised, is voice activation which enables you to programme and call cues via a voice

recogniser and remote programming via radio link - 'Gimme Blue Goddamit' would certainly add a new dimension to pre-show programming tedium. Otherwise, the MIDI and SMPTE interfaces are useful features of the desk with manual tracking focus well implemented. Control of conventional sources and the integration of scrollers is also included.

*Unlike the previous article on universal consoles, it should be noted that some of the comments have been provided by lighting designers and programmers who have a close working relationship with the manufacturer concerned, and in some cases, are employed by them. It should also be noted that repeated efforts were made to obtain a review from Syncrolite without any success.*

**Automated Luminaires will be the title of a book to be written on the subject by Tony Gottelier and Richard Knight and published by Focal Press.**

## AUTOMATED LIGHTING

This is the third part of a major L+SI survey into automated lighting and control systems. A comprehensive review of automated luminaires appeared in the November 1993 issue.

The follow-up, offering a major appraisal of automated luminaire control systems, has been divided into three main areas. The first part on Universal Controllers appeared in March 1994. This is the second instalment, and a third will follow in a future issue.

Following the publication of all these sections a definitive copy of the combined surveys will be available to readers only on written request from the offices of L+SI.

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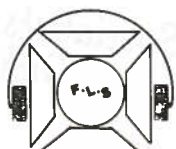
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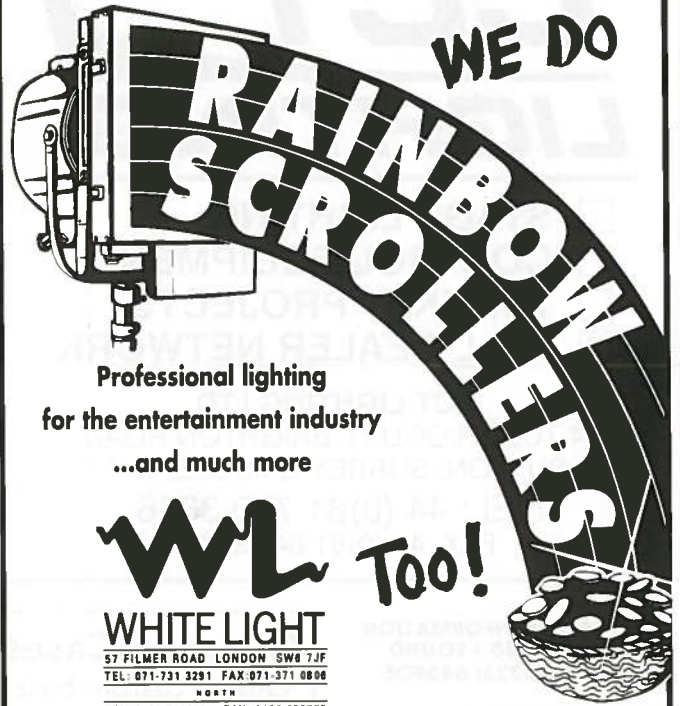
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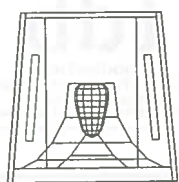
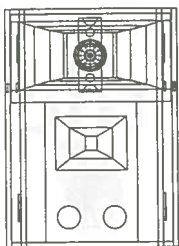
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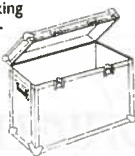
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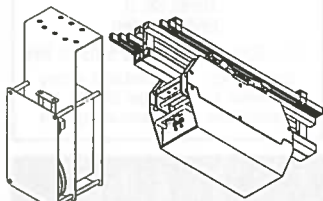
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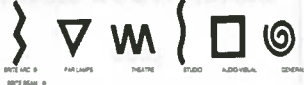


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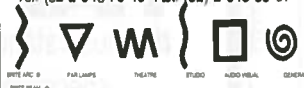
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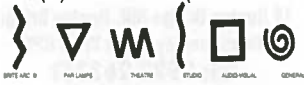


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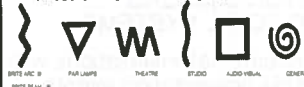
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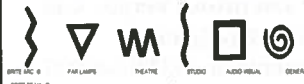
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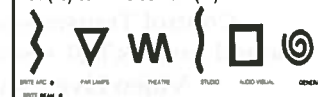
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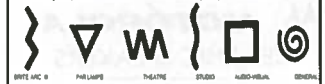


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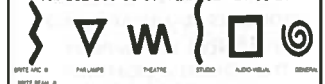


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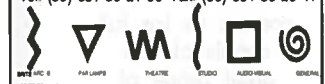
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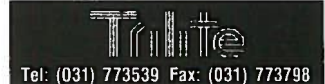
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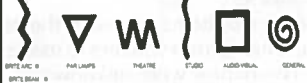
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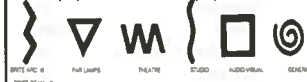
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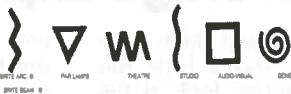
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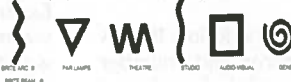


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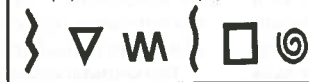
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# VIEWPOINT

## PLASA Standards Officer George Thompson provides an overview of The 1994 USITT Conference and Stage Expo

This grand meeting of the members of the US Institute for Theatre Technology was held this year in Nashville, Tennessee, the home of the famous Grand Ole Opry. The reason for choosing this venue was that the theme of the Conference was 'Country Crossroads' since, to quote the official handbook 'Nashville is a city where cultural diversities seem to collide'. This was certainly true in my case, as the American culture in the field of entertainment has to be seen to be believed! However, I was unable to detect any particular C&W flavour to the proceedings.

My purpose in going was partly to further the progress of the DMX Usage Project with our American colleagues, partly to help cement the intra-association relationship which John Offord has so successfully begun by making contact with some of the USITT officers in the technical field, and also to get some ideas about American standards and American ways of working, since I am frequently asked about these matters by PLASA members.

One of the first things that strikes all visitors to America is the vast scale of things, from the geography of the country to the buildings, trucks and in this particular case, USITT itself. They boast a membership of about 3500, and claimed 3000 had attended the conference, a claim I am inclined to believe.

Of course, everyone knows that USITT is not an American equivalent of PLASA, being more like ABTT in character, although writ much larger in ambition. It is interesting to note that the last word in the American title is 'Technology', whereas the corresponding British word is 'Technicians' and this subtle variance seems to epitomise the difference in approach. Technology was very much to the fore in the seminars, as there were 13 each on engineering and computers, 18 on lighting and 24 on sound. I was intrigued by the idea of a seminar on 'Conversion to Metric (SI) units and its impact on the Entertainment Industry', and went along to the meeting room, but it was inexplicably cancelled and replaced by the more mundane 'Pin Connections'!

The membership of USITT is an all-embracing mixture of professions, ranging from straightforward manufacturers of electrical and mechanical equipment to scenic artists, designers, stage managers, producers, university professors and students.

During the course of conversations with various delegates it became apparent that PLASA was held in very high regard, and more than once it was opined that USITT should

become more like PLASA, and there were suggestions that USITT was a little too academic and tended not to look at the practical side of things. One of their problems stems from the hierarchical structure of the Institute and the large numbers of people involved in taking a decision, not to mention the travelling for the participating individuals. It is not so easy to get things done quickly, especially if cross-commission liaison is needed. I gained the impression that PLASA was envied for its small tightly-knit committee which had the power to make almost instant changes.

One of the ways they intend to follow PLASA is to appoint a Standards Officer, and a number of delegates said how useful they found Standards News, even though it is mainly directed towards solving European problems. Here again, because of the sheer size of the country, they have to do things in a big way, and the figure of 'a hundred thousand bucks' for expenses was tossed around. (I'm going to have a word with our Treasurer about my expenses!)

One of the major differences between PLASA and USITT is that their's is a far more academic organisation, and it has a monumental structure. The Executive Committee is about the same size as PLASA's but they also have 20 Directors-at-Large, 10 Commissioners and a whole raft of Vice-Commissioners and Co-Commissioners. These Commissions are equivalent to PLASA sub-committees, but have many more people on them and cover much wider fields such as Education, Health and Safety, Engineering, Lighting etc.

There are a number of ways of course in which PLASA could become more like USITT, and in the years to come it may be possible to take on board some academic functions by setting up larger committees drawn from the membership similar to the USITT Commissions, or possibly by the employment of outside consultants.

The seminars ranged from the practical to the esoteric, and the organisers had determined to give value for money. There were over 230 of them, packed into four days. In order to get them all in, they had to run up to 11 simultaneously, which led to a number of criticisms from the troops, as it inevitably meant that some sessions could not be attended because they clashed. Consequently, I missed out on one or two that I would have liked to have attended. Another criticism was that no time was allowed during the day for meals, as the sessions started at 8.00 am and went on

until around 10.35 pm! Fortunately, such was the wide range of subjects that not all the sessions were of interest to all and so meals could be fitted in.

Running in parallel with the conference seminars was Stage Expo, which, as you might imagine, was an exhibition of items for use in theatrical productions, ranging from winches to make-up. Most of the companies were unknown to me, and I still wonder what quality of devices are sold by the curiously-named Bag End Loudspeakers company!

Although there was a small number of companies with familiar British names in the Expo, they were all exhibiting under the aegis of their parent/subsidiary, so there was no overt British representation. However, the exhibition was well attended throughout the four days by a large number of lighting and sound designers and specifiers, so it may have been an opportunity missed for someone.

On Wednesday afternoon Peter Brooks of Zero 88 Lighting and I were invited, nay commanded, to attend the annual meeting of all the members, which took place in the hotel Ballroom. The President of USITT, Sarah Nash Gates, made the keynote speech, and there were a number of others, perhaps the best being that from the Treasurer, a happily-smiling woman who said simply, "The finances are doing fine!" Peter and I were given places well to the fore and during the proceedings we were introduced as distinguished foreign visitors, our affiliations were mentioned, and we were invited to stand and be identified. A stunned silence greeted our appearance!

Another facet of American life which most visitors notice is the friendliness of the people, and again USITT was no exception. I was made welcome at all the meetings, and it was a pleasure to meet at last many people I have corresponded with over the past few years. I can only thank them collectively for making my short stay in the United States so memorable.

Next year's meeting of USITT will be in Las Vegas, so if anybody knows of a foolproof method of winning at the casinos, would they please tell me in advance!



George Thompson in Nashville.

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