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# The Art of Light



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#### CONTENTS -

#### **NEWS**

This month's cover shows PLASA 2000

#### International News Round Up .......6

#### REGULARS

No Comment Tony Gottelier	58
Second Take John Watt	70
Asleep in the Stalls lan Herbert	76
In Profile Mike Mann talks to Terry Jardine and Duncan Bell	22

#### **FEATURES**

Finnish Symphony5	5-	57
Steve Moles returns to Finland to visit the Sibelius House Concert Hall - the largest timber		
building to be constructed in over 100 years - and home to a number of acoustical firsts		

Liquid Generation	61-64
Luminar Leisure's chain of Liquid nightclubs has become a breeding ground for new graphics talent a	
technology. LOSI takes a look inside the latest venue to find out if this is progress or just another tre	nd

Reed & Dan	66-68
Steve Moles takes a look at Lou Reed at Sheffield City Hall and Steely Dan at Wembley Arena	

Steve Moies takes a	TOOK BE 200 RECU BE SHE	inclu City Hall and Steel	ly ball at wellioney mello	
Dream World				72-74

It was a definite case of algorithm meets allegory, Bottom in binary, scrambled Shakespeare on toast (flying evenI) in this ground-breaking virtual reality performance of A Midsummer Night's Dream at Kent University. Louise Stickland reports

Hot, Hot, Hot	79-112
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The L&SI team, together with Tony Gottelier, Rob Halliday, Mike Mann, Steve Moles, Jacqueline Molloy and Louise Stickland, sweat it out at Earls Court 1 in September

DI ASA NEWS	•	36

CATALOCHE COLLECTION	 48-53
LAIALUGUE CULLECTION	 40-33

DIDECTORY	11/	4_1	11	0

<b>CLASSIFIED</b> including full recruitment section	 120-121



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# International News Round-Up

# PLASA 2000 Creates a Buzz

From the first day of build-up to the last day of the Show, PLASA 2000 was applauded by visitors and exhibitors alike as the most successful event to date.

Despite the crippling fuel crisis and rising London temperatures, serious trade buyers were not deterred from attending and feedback from the show floor was very positive. 12,996 (subject to ABC audit) visitors

- of which a record 25% were international - made their way through the doors to experience the latest products, innovations and designs. From state-ofthe-art sound systems to safe rigging systems, innovative lighting and staging concepts to fog machines and trussing, PLASA 2000 had something for everyone. Spectacular light shows, a DJ mixing competition and a circus magician were among the Show's live acts bringing technology to life and entertaining visitors.

Other Show features included the New Technology Gallery, the PLASA Awards for Product Excellence, a comprehensive Masterclass and Training programme, 'DJ Sunday' - a dedicated day for DJs and a Champagne Taittinger bar for visitors. The

PLASA 2001: 9-12 September, Earls Court

Show's busy networking atmosphere was the perfect environment for

exhibitors to meet both existing and potential customers, with business at the top of the agenda.

Exhibitors were upbeat about the success of the show itself. Rob Peck, managing director of Gemini Sound Products Ltd, said: "We have had extremely positive feedback from the market here at PLASA, and on 'DJ Sunday' we felt there was more interest than ever from visitors." Mark Walker of Laser Light International added: "We come to PLASA to secure distributors. We have been overwhelmed by the

**PLASA Awards** Supplement with this issue

number of visitors and particularly the quality of overseas visitors." G-E-T.com, a database website for industry

professionals, made its world debut at PLASA. Ian Kirby reported that the site's auction area of used products reached a value of

00 AWARD

Karen Cronin, director of Total Fabrications. added: "Visitor quality at the Show gets better each year, and the fact that the show has the weight of PLASA and L&SI behind it makes it an even stronger proposition. PLASA is without doubt the premier international show in this industry which is why we chose to launch our T2 products here."

Phil Price, managing director of RCF Mackie said: "PLASA 2000 has been a great show for us. We have not only seen many of our regular customers, but have also met many new potential customers and specifiers."

L&SI's leading coverage of the show begins on page 79. A full report on the seminar programme will appear in our November issue. For online news you can also log on to www.plasa.org/news







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(clackwise from lower left)





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High End



# A New Identity for the The companies within the PRG PRG Lighting Group

The companies within the PRG
Lighting Group - Cinema
Services, Light & Sound Design
(LSD), Production Arts, Production
Lighting Systems and Vanco Lighting
Services - are to come together under
the name Fourth Phase.

However, whilst all of the companies except LSD will assume the new name, LSD will be known as LSD/Fourth Phase. The newbranding has been planned in tandem with a number of operational changes, including the establishment of an international delivery system and a new national sales team under the direction of Bill Gallinghouse, senior vice-president of sales and marketing.

Paul Edwards, director of standards, has established a team to create a unified standard for equipment preparation, packaging and interoperability. Bob Looney, previously general manager of the Atlanta operation, has assumed the role of director of inventory management.

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Entering a Fourth Phase - Dave Keighley, Jere Harris,
Anne Valentino and Jeff Senkovich

Jeff Senkovich has moved from his operational responsibilities with the PRG Audio Group to assume the newly created role of COO of the Lighting/Audio Group. As COO of PRG, John Hovis oversees the operational aspects of the organisation.

On the systems installation front, the Fourth Phase rebranding heralds a new level of national service and coordination between the company's locations. Systems project managers and sales

people are now located in New Jersey, Orlando,
Las Vegas, Detroit and Los Angeles. Project work
will be managed locally in these facilities, but will
be supported by the central engineering,
compliance and manufacturing resources located
in New Jersey, home of the original Production
Arts Systems Group. This change gives Fourth
Phase locations in Birmingham UK, London, New
York, New Jersey, Detroit, Orlando, Atlanta,
Nashville, Las Vegas, Burbank and Los Angeles.

Jere Harris told L&SI: "With the rebranding of our scenic division last year, PRG is now positioned as a full production resource with four companies under its umbrella. Entolo provides scenic services, Fourth Phase addresses lighting rental, large format projection and permanent installations, Electrotec services the needs of concert touring sound reinforcement, while ProMix addresses audio in all other market segments."

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#### Bryan Adams - A D-Liteful Vision

Canada's favourite son ended his mammoth 18-month world tour in Germany last month. Mike Mann was there to see the first rock and roll outing for the new Barco D-Lite LED screen.

The tour, which kicked off in the winter of 1998/99, encompassed the continents of America, Asia and Europe - and Adams' lasting popularity with audiences has led to several repeat legs. His second visit to mainland Europe took the form of a series of outdoor shows in smaller provincial stadia. This required the use of a suitable screen for daytime use: with the 14 concerts taking place in the height of summer, much of the performance would be during daylight hours.

The penultimate concert at Heilbronn's Frankestadion proved to be a tough test for the new Barco product. Having been assaulted by unseasonal quantities of rain at previous shows, the twin 4m x 3m screens had to deal with a day of bright sunshine and soaring temperatures.

Ray White, who was brought in by screen supplier Show Presentation Services to look after the new screens, was optimistic about the screens' ability to cope with the changeable climate. "We have had to put

them up in some awful weather, but they've been fine - they are sturdy and amazingly reliable. The screens aren't troubled by the extra heat at all." The D-Lite screens, which were assembled from blocks of 3 x 2 square LED 'tiles', are sealed to IP65, which effectively guarantees immunity to heavy rainfall.

White maintained a watchful eye over the screens from a remote laptop, connected via an RS-485 link. He pointed out that the mechanical design of the screens allows for the removal of tiles from either the front or rear of the screen and that each tile may be hot-plugged in the event of a mid-show emergency.



Above, daylight brightness from the Barco D-Lite screen, shown in close-up left

The screens were flown from a simple pair of motors, with the aluminium-framed modules pieced together in rows as the screens were raised. "Providing there is a flat field to build them on, the screens go together very quickly," explained White. "And, even more importantly, they come down just as easily."

# SMOKE FACTORY ears of excellence

In its 10-year-jubilee year, Hannover's well-known fog machine manufacturer SMOKE FACTORY is looking to appoint international distributors.













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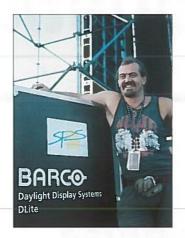
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Despite the limited wing space required by the diminutive Clair Brothers i4 PA system, the Barco screens were flown well outside the stage area. This was a source of some disappointment to the video crew - although the extra separation did help to differentiate between Willie Williams' striking lighting design and the video image.

Direction from Raurie MacPhie was as dynamic

as the show itself - no long shots were used, and the audience in the rear bleachers of the 16,000-capacity stadium were treated to some very tightly-framed close-ups of Adams and his two band members. The effect was magnified by the use of 4x3 portrait format for the screens; and at a visual pitch of 7mm per pixel, the dimensions of each screen meant that viewers were treated to more or less full video resolution. Even at the Heilbronn concert, where the strong summer sunlight



Ray White flying the Barco flag

resulted in a number of casualties among the audience, the Barco screens were set at 50 percent power to avoid drowning the adjacent lighting rig.

The feed for the Barco screens was provided by Nocturne Europe's alldigital production unit, which is based around a Grass Valley GV-1200

switcher and Sony cameras. The SDI outputs from the PDU were connected directly to the screens' digitisers, ensuring that the digital path remained unsullied.

With a number of existing installations under its belt, the D-Lite screen has already proved itself a viable presentation system. Thanks to its brief stint with the Bryan Adams productions, it has also shown itself to be up to the challenge of a life on the open road.

# ESS Announces Joint Venture with Orbit UK

Edwin Shirley Staging (ESS), the international staging and structure specialists, has bought a 50% share in the entertainment staging company Orbit (UK) Services Ltd.

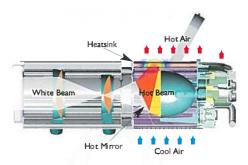
Paul Ladd, the founder of Orbit (UK), will continue as managing director of what will be known as ESS Orbit. This joint venture expands ESS' existing business, and it will now be able to service client demands for structures and staging equipment of all sizes. As a result, customers will benefit from access to a wider variety of products. Commenting on the joint venture, Tim Norman, managing director, ESS Holdings, told L&SI: "Our joint venture with Orbit UK brings together two like-minded companies focused on delivering value for money, and the efficient supply of quality products and services. We will now be able to meet all our customers' needs for large and small structures alike."

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For more details of the new Acclaim Axial and the rest of the Selecon range of luminaires please contact your nearest dealer.

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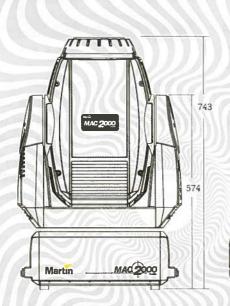
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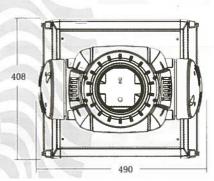
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# Centre Stage for \_\_\_\_ Stage Electrics

Stage Electrics, the Bristol-based supplier of lighting, sound and technical equipment, officially unveiled its new London office during PLASA.

The new branch, at 284-302 Waterloo Road, offers a trade counter selling consumables to London's West End and the South East markets and will also feature a new range of technological facilities.

The branch hosts a Virtual Lighting Studio housing a full WYSIWYG software programme and other WYSIWYG facilities. Clients can save

> pre-production time on site, thanks to a three-dimensional representation of lighting and scenic effects.

> Lighting designer Durham Marenghi has already used the facilities to great effect, when he pre-programmed the latest Classical Spectacular show, which was staged in Australia during August.



The Stage Electrics team of David Pearce, Linda Moore, Conor McGivern (who will run the London branch) and David Whitehead

Another unique feature of the Stage Electrics Virtual Lighting Studio is the dual screen 21" monitors which allow a designer or client to see, for example, a plan view on one monitor and a 3D view on the other, enabling accurate focusing on the 'virtual' stage.

Also available at the new branch is a demonstration suite, displaying lighting and special effects from major industry manufacturers, giving clients and designers the opportunity to review all the latest technology. Finally to complete the facility, there is a cafe area suitable for informal meetings.

# SCIVVY



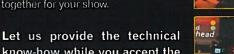
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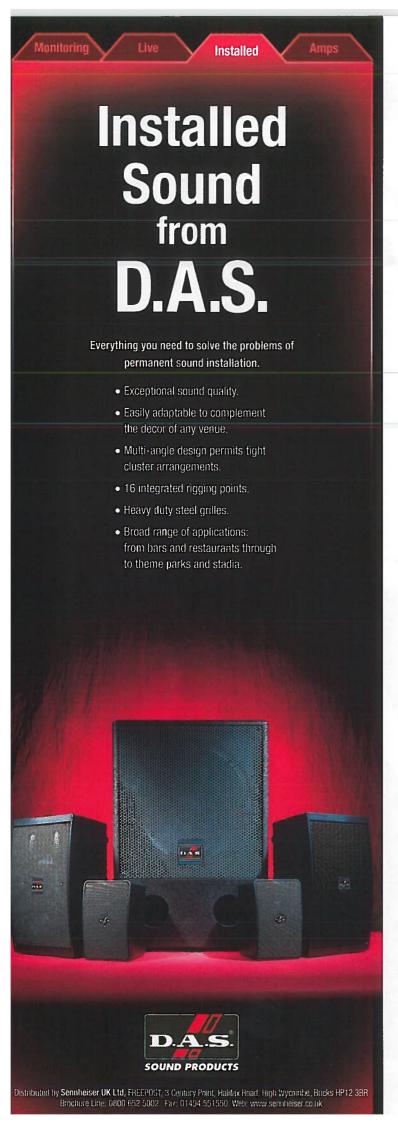


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#### MANCHESTER

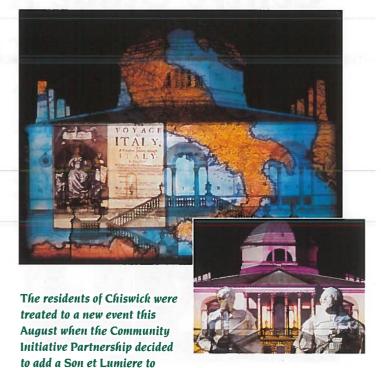
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## Illuminating History



their Millennium programme of events at Chiswick Park. Phil Butterworth co-ordinated the event for CIP, who, in conjunction with

Marion Docherty from English Heritage Hospitality, called in local company E\T\C UK to discuss the project and the possible use that could be made of the house. It was quickly decided to create a short history of the house and to illustrate the story with PIGI projection, using the entire facade of the building as a projection surface.

The show was projected from two PIGI Rotating Double Scrolling Slide Projectors and the images were projected 23m wide by 15m high. Using two scrolling projectors allowed the images to scroll across and through each other, and for elements to be dropped into travelling mattes. The images were made to exactly fit the architecture so that individual elements of the facade could be picked out in the image. Ross Ashton of E\T\C UK, was responsible for the picture research, with the help of the English Heritage Picture Library, and it took three weeks to create the 40m of film that made up the effects.

Canegreen supplied the sound system, made up of eight Meyer MSL 4s, eight Meyer PSW 2s and two Meyer R2650 Ps. The sound was controlled by BSS Soundweb running on a laptop PC and the sound was played back direct from the hard disk of a Macintosh. The sound team was headed by Andrew Frengley with technician Graham Devenish. Philip Butterworth of CIP, said: "With responses from the audience such as 'sumptuous', 'innovative', and 'cool', we could not ask for more . . . everyone that attended felt that it was both an artistic and technical masterpiece, so we're obviously delighted."

#### **Great Big Balls**

David Fitch Services, a leading supplier of mirror balls and sculptures for hire, reports that it has recently been supplying equipment to a number of TV shows such as Top of the Pops, SMTV Live, CD:UK, Barrymore and Lily Live. The company, which stocks mirror balls ranging from 8" to 39", has now announced the addition of 48" small-facet (70,695 of them) mirror balls. For more information, visit www.davidfitch.freeserve.co.uk

# ETC SENSOR AND UNISON



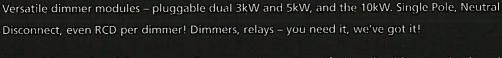




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#### **ISCE AGM**



Michael Leaver presents Doug

Edworthy with a Certificate of Merit

Over 30 members attended the AGM of the Institute of Sound & Communications Engineers (ISCE), held during the PLASA Show.

Outgoing president Doug Edworthy welcomed

PLASA's Matthew Griffiths and Ruth Rossington as guests before handing over the role of president to Michael Leaver of Adastra Electronics.

During the course of the AGM, Doug Edworthy was presented with a Certificate of Merit, to express the gratitude of all members for the devoted way he had guided the Institute for the past six years. It was agreed that the Institute would work more closely with PLASA to set up training and seminar programmes, and from 2001 members will receive complimentary PLASA Show tickets.

# New Company Offers Free Internet Marketing Consultancy

A new marketing consultancy received its official launch at PLASA. Technical Marketing - the brainchild of founders Andy Collier, David

Brooks and Steve Norman - has been set up to provide a different kind of marketing support for business to business companies.

It aims to offer its experience and expertise to companies who do not have a formal marketing team. A key part of the service is a new website initially aimed at the entertainment technology communities, offering marketing and



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Andy Collier and

David Brooks on the

L&SI stand at PLASA

internet news, a series of white Papers aimed at helping technical marketers, profiles and case studies, frequently asked

questions, plus useful links to related industry, professional and business sites.

To mark the launch, the company is offering a free 15-minute consultancy, aimed at evaluating background and opportunities for reviewing or setting market strategies. Current clients include BBC, IES, LDR and LSI-ADB.

The company can be contacted in London on 020 8878 6626.



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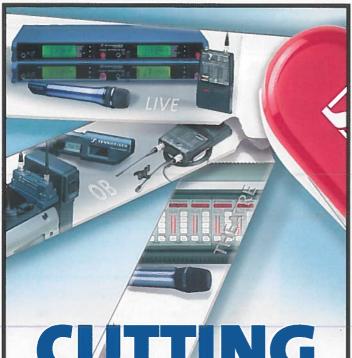
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#### Sound for the Masses



More than two million young Roman Catholics from all over the world invaded Rome's Tor Vergata **University Campus** in August for the 15th World Youth Day - all of whom were able to see and hear His Holiness. Pope John Paul II.

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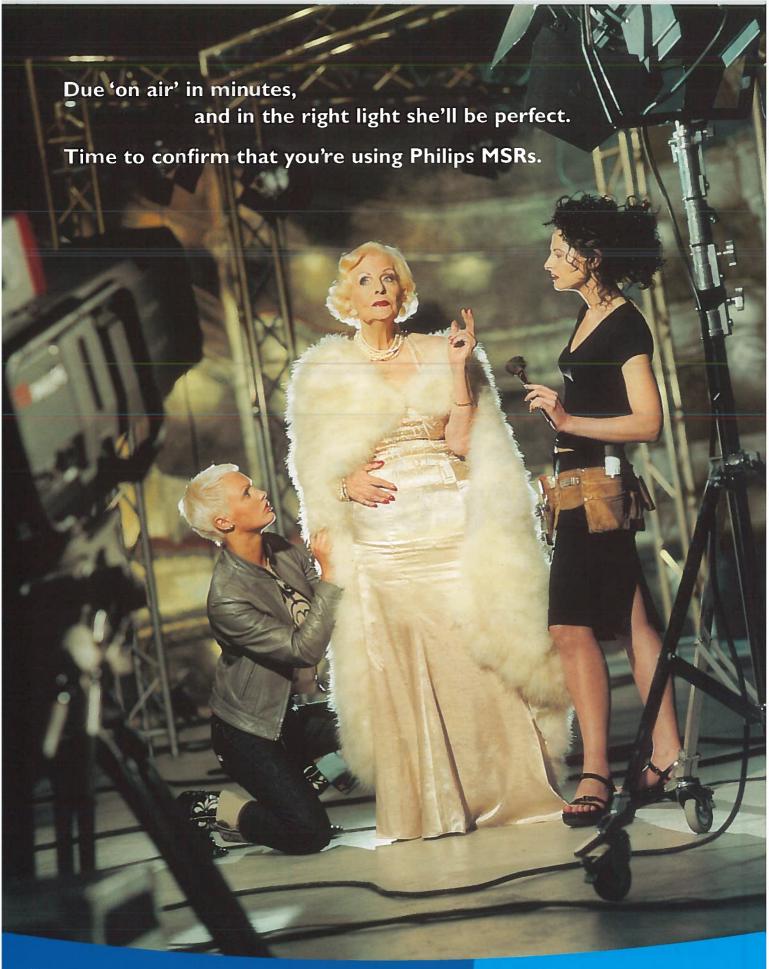


Top, the main cluster being moved into position. Marcello Notari (left) with Utilas site manager Di Rienzo after set-up

The sound system chosen to cover the 241-Hectare site was Martin Audio's Wavefront system, projected and supervised by Notari Allestimenti, one of the three members of a consortium formed for the occasion, which also included Carlo D'Apruzzo (responsible for general organisation and the satellite application) and Radio Centro Suono, who handled RF transmission of the audio signal. It required a major effort from several of Martin Audio's Italian Wavefront stockists - reinforced by Capital Sound's W8 fleet in the UK - to pull off this event. Martin provided CAD drawings and a simulation of the system, allowing Marcello Notari to plan the system distribution. In addition, the expertise of UK audio consultant Jim Cousins was called upon.

Two main clusters were flown from cranes behind the huge stage: each comprised two W8CTs with a CM and a CT between them on top, four W8Ss, then a row identical to the top, and lastly one with two more W8Cs, with two W8 top boxes between them on the bottom row. Amplification was by Lab Gruppen LAB 2000s and six LAB 1300s, with the main set-up connected via cable to the FOH Vienna II, where sound engineer Geatano Ria was based. The mics of the Pope and other participants were controlled directly by Radio Vatican engineers. The towers received their feed via a British Telecom satellite up-link with each tower having a Behringer MX 1604A mixer. The radio signal ensured a safety net had it been required, but was also used as an intercom between the control room and the towers.

There were 14 AV towers in the area used as relays, ranging from 400 metres to 2.02km from the main system, although three of them were treated independently for various reasons. Six tower clusters included Long Throw systems: four W8Cs, four W8Ss and a pair of W8CTs, plus two W8CHs on top. Four towers suspended four W8Cs and four W8Ss, and the remaining four also had four W8 top units. Amplification was all Lab Gruppen. On the aligned towers, XTA DP100 delay units were used, but where they weren't sufficient, since the show was working in mono, production was able to daisy-chain them with the XTA 226's channels to create longer delay times. Music Service supplied the eight relay towers and Fumasoli supplied the main clusters, six relay towers with long throws, FOH desk and controllers.





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#### HSL Investment in Cres

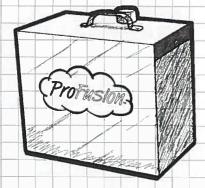
HSL Productions has made a large and carefully calculated investment in a Crest and Community touring system. The decision was made principally with the Performing Arts Management summer tour in mind, however the company wanted a system capable of reproducing any musical genre.



At its heart is the flagship 52-channel (48+4) Crest V12 mixing console. In addition to the V12, HSL has placed additional orders with Sound Dept for a 40-channel Crest XVCA console and a 32-channel XM monitor desk, to complement its existing Crest console range. Having converted the company's amplifier stock to Crest 18 months ago. HSL's Simon Stuart confirmed that the company has purchased an additional 60kW of Crest CA18s and CA9s to drive its newlyacquired PA system, which comprises 24 stacks of Community SLS-960 mid/tops, with VLF-218 bass cabinets. Pictured with the V12

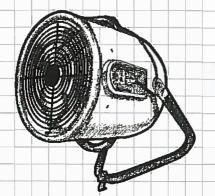
are (L-R) Andy Simmons (Sound Dept), Simon Stuart (HSL), Steve Smith (Sound Dept) and Lee Thompson and Paul Holdsworth (HSL).

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#### High End Expands in US and Europe

High End Systems is now making its presence felt in the Big Apple. Located just off Times Square, the company's new office has a fully-equipped demo facility and dedicated WYSIWYG room, as well as a training and seminar area and a client meeting room.

Sales, marketing and technical service representatives will be based at the office, which is headed up by director of special projects, Paul Sonnleitner.

The company has also expanded its presence in London by refurbishing the original offices of its partner, Flying Pig Systems. The new office in West London offers visitors a fullyequipped demo facility with a training and seminar area, technical workshops and a customer meeting room.

#### Reproduced Sound 16

The Institute of Acoustics will be holding its sixteenth Reproduced Sound Conference from Friday 17th to Sunday 19th November 2000 at the Stratford Victoria Hotel, Stratford-Upon-Avon.

Over the three days, the event will present a number of short seminars on topics such as Loudspeakers, Intelligibility, Multidimensional Sound, Environmental Noise Management of Music Events and Venues, Auditorium Design and Signal Processing/Transmission. The programme also features evening workshops and finishes with a backstage tour of the Royal Shakespeare

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# People

Mark White (pictured right), until recently a member of the team of theatre consultants at the Royal Opera House, has joined ETC Europe as sales manager for the UK and Eire. Having been part of the theatre industry since 1985, White's career has included the

development of bespoke lighting and control equipment for shows including Cats and Phantom of the Opera.

Following **Scott Callis's** move from Mad Lighting to Highlite UK, **David Linger** has been promoted to director of UK sales for Mad. The company has also made several new appointments: **Matthew Cragg** is the new contact for the UK dealer network, **Samantha Allen** has been brought in to look after general sales enquiries, and **Roger Poynor** will look after export sales and oversee the new French dealer network.

Continuing expansion at Logic System Pro Audio has seen the appointment of Jenna McKirgan as administration assistant. She will work closely with Dean Davoile, who will be the first point of contact for customers calling the office.

DPA Microphones in Denmark has recruited Steffen Leth Møller to the European team. He takes up the role of area manager, working across the continent. Prior to joining DPA, he completed a four-year technical course as an export technician and spent five years with the Michelin Group in Denmark.

Laser Grafix of Royston has appointed **Richard Wright** as Group sales manager. Wright has left his
role as general manager and director designate of
GVC Laserpoint.

David Bruml has joined Funktion One as sales and marketing manager. Bruml has been in the audio industry for many years, and was at one time with Turbosound, where he developed his initial passion for the work of Tony Andrews and his partners at Funktion One.

Lightfactor Sales continues its expansion with the appointment of Paul de Ville as managing director. De Ville will be working alongside the sales team in a move designed to free up Mick Hannaford to deal with group expansion, product line development and marketing. For the last 15 years, DeVille has worked at the Lighting Technology Group, where he

became a well-known and respected figure in the industry.

Live event company Hotcakes has announced the appointment of five senior figures to its new Board of Directors. This will consist of Chris Spencer (executive producer and MD), Helene Spencer (visual director), Sean Canning (creative director), Dick Tee (production director) and Alison Esse (communications director). In addition, former deputy show director of the Cosmopolitan Show, Matt Briggs, has joined Hotcakes as a full-time producer.

**Bob Gordon** has become president and chief executive officer of AC Lighting Inc. As one of the founding partners, Gordon has been instrumental in building up the company which distributes a host of lighting equipment to the North American entertainment industry.

Further emphasising DHA Lighting's expansion into international markets, the company has appointed Rainer Weggen, previously of Lightpower Showtechnik, as its fourth international regional sales

manager. Weggen, who will remain based in Germany, has experience of DHA's product range following six years at Lightpower.

**Michael Leaver** has resigned as managing director of Adastra Electronics Ltd. In a separate, but coincidental move, he has been

elected President of the Institute of Sound and Communications Engineers and officially took over from Doug Edworthy at the ISCE's AGM which was held at Earls Court 1 during PLASA.

Following the appointment of Allan Gallacher as its regional sales manager in the North, Trantec Systems has further boosted its sales force with the appointment of **Gary Waywell** to a similar role in the South.

Stig Poulsen (pictured left) has taken over as

Martin Professional's new R&D director replacing long-time head of R&D, Finn Kaellestrup. His principal role will be to develop the R&D department's flexibility and design capabilities, as well as to strengthen the company's infrastructure.

Coemar DeSisti Australia has appointed **David Lee** as TV and film

lighting specialist. Lee has 30 years' experience in the industry, having worked in theatre, concert and TV lighting.

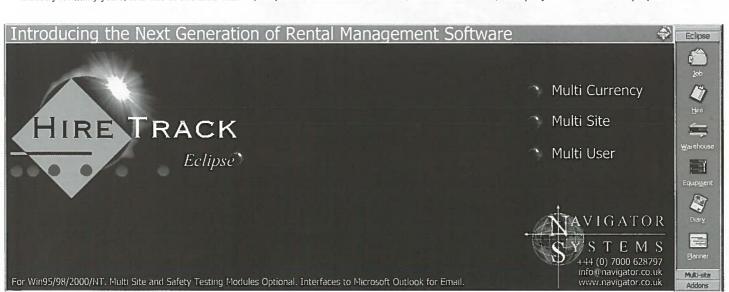
Canford now has a new sales and operations director. The ex commercial-radio engineer turned entrepreneur, lain Elliott, who founded the outfit back in the seventies, has returned to the fold. Whilst Elliot concentrates on the product and customer side of the operation, Phil Buckle has joined as chief executive.

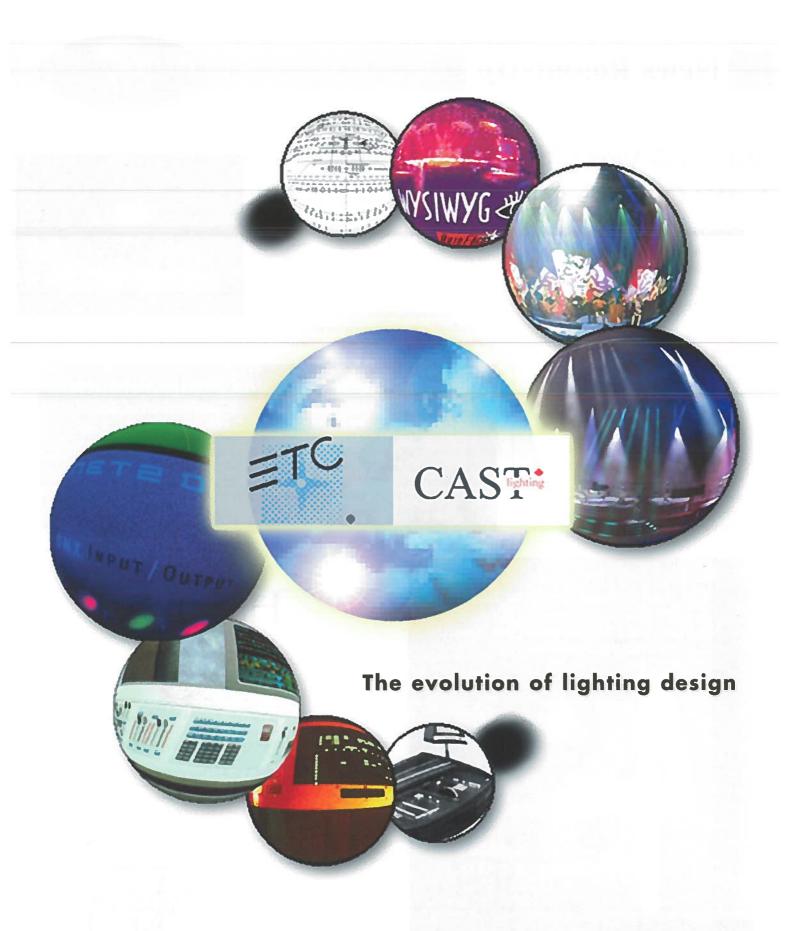
Aura Sound Design Ltd has appointed **Scott George** as show control director. Cited as one of the most experienced show control programmers

this side of the Atlantic, George began his sound career in Australia and has since worked on a wide range of projects.

Finally, L&SI has learned that Robert Bell (pictured left demonstrating WYSIWYG at the 1998 PLASA Show), one of the three co-founders of Canadian

software specialist CAST Lighting, has left the company to move on to new projects.











# Martin & Vari-Lite Settle Out of Court

Martin Professional A/S has reached a settlement with Vari-Lite Inc which sees the lifting of the injunction against the Martin MAC 500s, MAC 600s and MAC 300s in the US market.

The two companies had been locked in a long-running legal battle over the issue of the manufacture and sale of the MAC units, which also embraced Martin's Case series controller when sold in conjunction with these. Martin's most recent appeal fell on deaf ears when the United States Court of Appeals for the Federal Circuit reaffirmed the injunction, rejecting Martin's claim that the patent expired in July 2000, ruling instead that it did not expire until March 2001.

For Martin Professional, the independent settlement means a return to full trading freedom in the United States.

#### Strand on the Strand

Strand Lighting has applied theatre technology to solve a complex architectural problem, by custom-designing a timing control system, using a combination of standard products.

This allowed for the new exterior floodlighting at London's famous Somerset House, on the Strand, to be synchronised with the recently-installed fountains. The control system is based around Strand's Premiere programmable architectural control system which sets the floodlighting switch on/switch off protocols

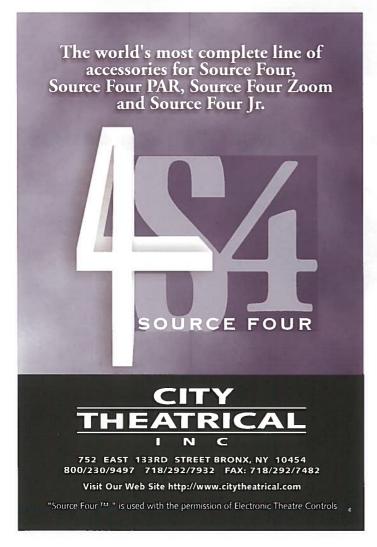
and interfaces with their 510 DMX Show controller to run the fountain lighting.



#### Canford Acquires ASC and Prodys Products

Canford Audio has acquired the design rights to the range of broadcast audio products previously supplied by Audio Systems Components Ltd (ASC).

This respected range, including the Buddy PC Workstation, MD-Report! location recorder, Minx OB mixer and the Talking Brick workstation loudspeaker, as well as VHF tuners with pro-conversions, is now manufactured at its Washington (UK) facility. At the same time, UK distribution and support of the ISDN products from Spanish manufacturer Prodys has also moved to Canford. This includes not only the established Pronto series, but the new Nomada portable contribution unit, and Multiplexer 2MB link equipment.





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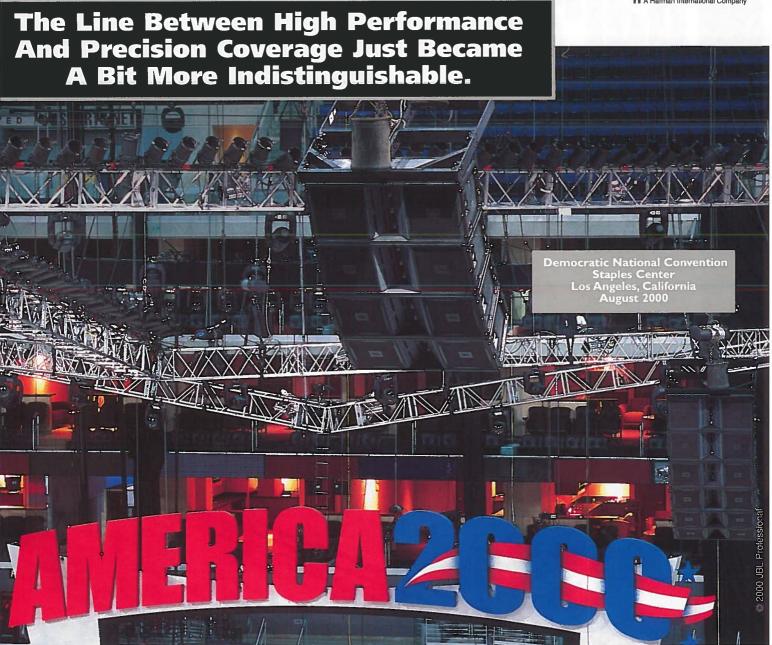




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# Theatrical London

This year's Theatrical London was a major success. The event attracted over 30 people from all parts of the industry, both UK and internationally, who in the two days immediately following the PLASA Show, met with the

technical teams

the scenes at

who work behind





Rob Halliday, the lighting operator for Witches (above) describes the lighting set-up, whilst Mark Ager of Stage Technologies talks about the flying elements

some of London's leading venues and productions.

Three main sponsors supported the event - Autograph Sound, Stage Technologies and White Light - who worked alongside organisers PLASA to create a full and diverse itinerary. The highlight of the programme was the chance to see two of the latest productions to open in the West End - Disney's highly-acclaimed adaptation of The Lion King and Cameron Mackintosh's The Witches of Eastwick. Since its launch on Broadway, Disney's Lion King has become one of the most successful stage shows of all time. Prior to the performance, delegates were introduced to the technical aspects of the production by Peter Willis of Howard Eaton Lighting Ltd, lighting programmer Alistair Grant and Nick Lidster from Autograph Sound.

The following morning, the group were at the Royal Opera House to meet with consultant Mark White and his team, lighting manager Dave Harvey and both John Hastie and Nikki Scott from Stage Technologies. Delegates were taken on a tour of the House - acknowledged as one of Europe's most technologically-advanced theatres. In the afternoon they headed to the Theatre Royal, Drury Lane, home to the Witches of Eastwick, to meet with set designer Bob Crowley, sound designer Andrew Bruce, lighting programmer Rob Halliday and the technical teams from Autograph Sound, Stage Technologies and White Light. The delegates were joined by clients and associates invited by the three sponsoring companies to swell the attendance to well over 100. In the evening, the majority stayed on to see the performance of Witches, starring Ian McShane.

On Friday morning Dara Brooks and Judy Monahan guided participants around Sadlers Wells, renowned for both classical and contemporary dance performances, before they departed for lunch at The Royal Court, the subject of a recent extensive refurbishment programme. Here they met with lighting designer Jo Town and Andy Hayles of Theatre Projects Consultants.



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# Autostadt, Wolfsburg

In 1996, car manufacturing giant Volkswagen, based in Wolfsburg. Germany, pushed the go button on Autostadt, an ambitious project to build a hybrid visitor centre/theme park development on a 25 hectare site next door to its vast manufacturing

The spectacular result has been heralded as a new concept in 'brandlands' and the 850 million DM Autostadt is a highly finished, 'no expense spared' park, containing entertainments, attractions and amazing buildings. Each of Autostadt's individual, contemporary buildings was designed by chief architect Gunter Henn. All over, the pastoral, but stimulating, environment embodies the fundamental principles of integrity, relaxation and fun. Autostadt is also home to a luxury 174 bedroom Ritz Carlton Hotel - this too designed by Henn.

At the massive circular KundenCentre (customer care), VW buyers can collect their vehicles in person. A large Auto Museum (ZeitHaus) houses a collection of classic cars of all types throughout the ages and an interactive exhibition. Seven VW Marken (Brand) Pavilions represent the diverse faces of VW. More immense still is the modern 20-metre high orangery-style KonzernForum. This is an imposing glass building that houses most of the site's attractions. The VW Marken Pavilions avoid external branding - the brief being that they should attain their individuality and form from their architecture.



VW called on the expertise of some of the US's best experts in the field of themed entertainments, lack Rouse Associates of Ohio came onboard as show

designers for the attractions areas in the KonzernForum, the KundenCentre and the AutoMuseum. The project was led for them by Rick Steele and art director David Ferguson. Edwards Technologies Inc of Los Angeles were selected as the main audio, video and show-control consultants for these same areas. Their team was headed up by UK-based European operations manager Andrew Shepherd.

ETI designed and installed nine integrated showtechnology systems for these areas. These included two multi-simulator shows, the AutoMuseum exhibition, the Autolab interactive exhibition, the cine-theatre, three video theatres and the 360° high definition video 'circle-vision' theatre.

Siemens GmbH supplied and installed AV equipment to ETI's specification and retained ETI to supply, install and programme the show-control and HD-video playback systems. The show control systems are based on Alcorn McBride controllers. The HD video-servers are nine QuBIT playback devices from Kansas-based QuVIS. Brian Edwards also managed the media for the 360° theatre in LA. There the HD data was extracted from nine 35mm masters and encoded to match the native resolution of the cinema's nine Barco Reality 6400 projectors - to produce a sharp, seamless image. Audio speakers in the 360° cinema are EAW - nine

> LA 460s and four SB 528 subs and the sound there was designed jointly by Michael Saddey from Siemens and Roger Goodman from ETI. The sound system in the 70mm cinema features GAE speakers, including customised sub-bass cabs. The audio network has 80

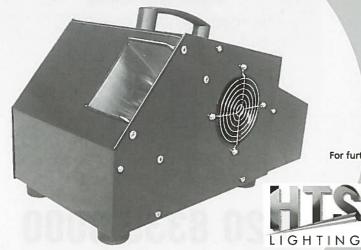
BSS 9088 Soundweb hubs with amps primarily Rane and OVS.

Overlooking Autostadt are two 48 metre-high glass Auto Turme (towers), each of which is 20 storeys tall and holds 400 cars. The towers have timed lightshows at night, each one illuminated by 140 Martin MAC 500 and 600 fixtures. Two further towers will be added shortly and there is space for a further pair.

Autostadt opened in June to coincide with the nearby Expo 2000 in Hanover - of which VW is also sponsor. It will continue as a permanent attraction and is expected to attract over one million visitors each year.

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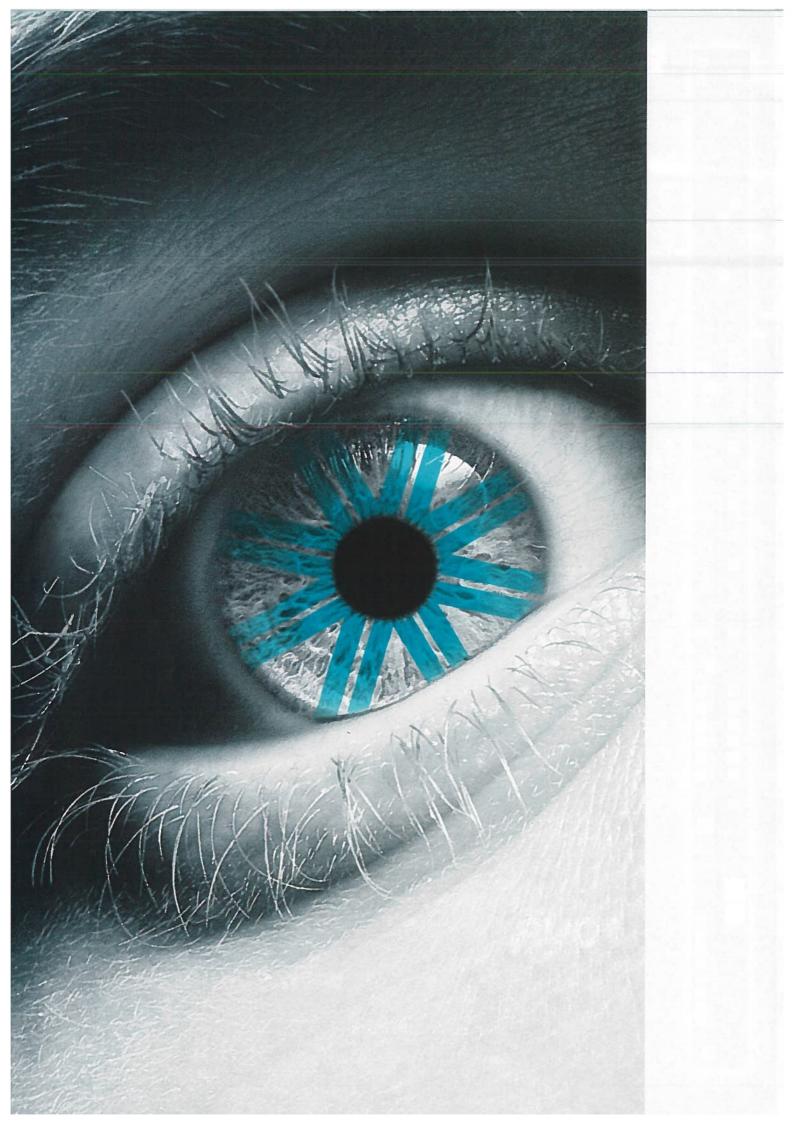
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# Le Maitre's New Le Maitre has Distribution Deals

signed two new distribution deals in Japan and India. The contracts were signed during the recent PLASA Show at Earls Court 1 in London.

The Japanese contract is with Kazoue Inoue, President of the Rock Co. Tokyo. Le Maitre sales director Rick Wilson told L&SI: "At last we have found a customer in Japan willing to take the trouble to cut through the enormous amount of red tape required to import pyrotechnics." Le Maitre has also been successful in opening up another difficult area of the world, India. Wilson added: "With huge tariffs on imported goods, India has always been a difficult market to crack. Our new partner Morani Fireworks, based in New Deli, is well connected in the film and entertainment industry which is burgeoning in India." Both companies will be taking Le Maitre's new range of ProStage II pyrotechnics of over 300 different products, plus the full range of professional smoke machines.



Kazoue Inoue of the Rock Co with Le Maitre's Rick Wilson

#### Beware of Cold-Call Pitfalls

If you make unsolicited calls or send faxes to anyone, including existing clients, whose number is on the TPS or FPS registers, you could find yourself facing a fine of £5.000.

That's the consequence of new legislation which provides for the set-up of Telephone Preference Service (TPS) and Fax Preference Service (FPS) registers, and which will ultimately change the

way in which businesses conduct sales campaigns in the UK.

Under the terms of the Telecommunications (Data Protection and Privacy) (Direct Marketing) Regulations 1998, the Direct Marketing Association (DMA) has been appointed by OFTEL to manage the TPS and FPS opt-out registers, which contain the numbers of individuals who wish to protect themselves from being targeted by cold-callers. Any company making a call or sending a fax to a number registered with the service could be liable to a £5,000 fine for every individual call made or fax sent. The Act. however, does not affect market research.

Any breach of the legislation will be dealt with by the Data Protection Registrar. Guidance notes on the legislation can be found at: www.dataprotection.gov.uk/telcomt.htm

#### Gulf Expansion for Laser Grafix

Laser Grafix has formed a new liaison in Dubai with lighting and sound specialists DLC.

The move comes at the right time for Laser Grafix, who have provided lasers and effects for a number of events in the region, including the celebrations of the 100 year Anniversary of the Founding of the Kingdom of Saudi Arabia. A range of laser equipment will be permanently based at DLC's premises in Dubai including water features, lasers, projectors and both inflatable and water screens.

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# Association NEWS Tel: +44 (0) 1323 410335

# **PLASA Backs Light Relief Fund**

PLASA has given its backing to a new fund which has been set up to provide financial support to Lighting Designers who find

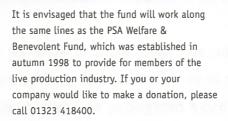
themselves affected by difficulties such as injury or sickness in themselves or their families.

The idea for the Light Relief fund originated in Tony

Gottelier's regular No Comment column in this magazine, as a result of the tragic situation which befell lighting designer Tom Donnellan and his wife Elena, when the latter was diagnosed with a debilitating brain disease. Sadly, Elena has since died.

Following a meeting between Tony Gottelier, PLASA's managing director Matthew Griffiths and ALD Chairman Rick Fisher, PLASA set the wheels in motion for the Light Relief fund to be formally launched over dinner at the PLASA New Century Party at the Natural History Museum during the recent PLASA Show (pictured). Several pledges of support were

> received on the evening. PLASA also designated Light Relief a recipient of one of the PLASA Show's annual Product Awards charity donations. This year, four charities each received a share of the £8,000 raised from Product Awards entry fees.



You can also make a donation online by visiting www.plasa.org



#### **PLASA Signs Up First Associate Members**

Following a review of its membership categories, **PLASA** has welcomed its



#### first Associate Members.

Lesley Harmer (pictured with PLASA MD Matthew Griffiths) runs a successful public relations company, Harmer PR, and becomes the first business to take advantage of the revised membership structure, while lighting designer Andy Grant, a specialist in lighting for corporate and conference markets, becomes the first individual Associate Member. PLASA introduced the new categories to encourage universities, colleges, charities, individuals and consultants, as well as businesses that operate on the periphery of the industry, to benefit from being a part of the industry's leading Trade Association.

#### Committee **Elections**

The annual election of executive committee members takes place this month, with three vacancies for three-year seats and one vacancy for a one-year seat. Letters requesting nominations for election will be mailed on Friday 20 October 2000 to all UK members of the association. The vacancies have been created by the retirement of Mick Hannaford, Peter Walker and Sammy DeHavilland by rotation and the resignation of Colin Whittaker earlier this year.

#### **PLASA**

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#### New Members - The following companies have recently joined PLASA.

**FULL MEMBERS** 

Blinding Light, Aberdeen, was formed in 1995 as an installer of sound and lighting equipment. NXT Plc, London, formed in 1960, initially specialised in the audio market but now develops and licenses technologies in the fields of sound and speech, one of NXT's current projects being the flat-panel loudspeaker. Mavco Inc, USA, is a provider of integrated entertainment, broadcast and communication systems for cruise

#### ASSOCIATE MEMBERS

ships and associated land-based facilities.

Harmer PR was formed in 1980 and is a well-known PR company within the industry.

Andrew Grant commenced business in 1987 under the company name of Luminance, as a lighting designer.



Names you Know...

### News Round-Up



### London Astoria Refits Under New Management

One of London's most famous live music venues, The Astoria, is currently undergoing an extensive technical refit, having been acquired by The Mean Fiddler Organisation, a dominant force on the British entertainment scene.

In addition to raising the specification for visiting sound crews, the objective was to make the Astoria's infrastructure more broadcast and TV-friendly, including the addition of a new 48-way patchbay, according to long-time resident technician Erik Sanderson-Evans, who put together the audio specification.

"Our intention was to gut LA1 completely and move some of the more serviceable equipment into our second room, LA2," Sanderson-Evans explained. "We have a long history with the installation companies Tarsin Entertainments and Marquee Audio, so it made sense to keep it in the family." On this occasion, Tarsin was awarded the

contract after a competitive tender, with the new inventory of kit mostly supplied by Marquee Audio. LA I, the main performance venue, which has a capacity of nearly 2,500, takes delivery of a Soundcraft Series FIVE (48 channel, plus four stereo groups) plus a Soundcraft 324 digital mixer for returning the effects, an ASS loudspeaker system, as well as a substantial batch of BSS

proprietary processing equipment. A new 44:24 Soundcraft Series FIVE Monitor console has been added to the stage monitoring system.

The Astoria's refit is taking place in two phases; in the second phase, Marquee Audio and Sanderson-Evans technical team will construct a sound control booth on the ground floor, below the balcony where the sound and lighting control has traditionally been sited.



### FAL Italy Announces New UK Distributor

FAL has appointed MilTec (UK) Ltd as its sole distributor for the UK and Ireland.

The company, which only started trading on September 1, and which made its first official appearance at PLASA, is headed by David Faulkes, previously sales director with Martin Professional PLC. He is pictured here with colleague Torben Heidemann.

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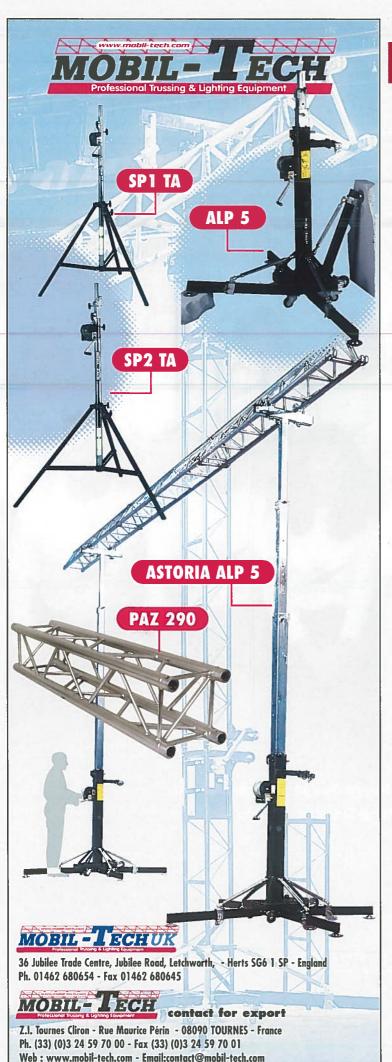
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Italy's Ideogamma video team is fast making a name for itself on the opera and classical music circuit - not one traditionally associated with cuttingedge projection technology.

Before the end of the year, they'll be back in Naples' San Carlo Theatre for a performance of La Bohème, staged by the venue with the intention of attracting younger audiences. The company has previously worked on Macbeth at the Macerata summer opera season and was also called in for the inauguration of the summer season in Italy's third largest Roman amphitheatre, located in the Sardinian town of Cagliari.

Even more unusual than the venue itself was the inaugural 'show': Beethoven's Choral Symphony Number 9. The set designer and director were Spain's Franc Aleu and Roland Olbeter. Ideogamma's MD Sergio Metalli explains: "The main structure used for projection was a huge (24ft) cube, on either side of which were two 24ft wide screens mounted up-stage. The differences between working on this specific project and in an indoor theatre were highlighted by the fact that the environmental lighting meant we had to use more powerful projectors. Since the areas were all square, we also had to fit barndoors to the units."

Sergio's son Mattia continues: "As far as the actual projected sequence was concerned, we had live shots of the orchestra and chorus, previously recorded and edited images of the mimes and a series of computergenerated images. Half-way through the fourth movement, the sides of the cube rolled downward and revealed an 18ft diameter sphere on which fire and rotating abstract wire frame designs were projected. The sphere then rose slightly and the dancers/mimes danced inside the cube, then the entire steel cable was let out and the helium-filled sphere rose like a second moon above the arena."

On this production, Cagliari Teatro Lirico LD Marco Mereu's role was effectively that of supervising the adaptation of the rig to the Spanish director's designs. He explains: "Lighting was relatively simple and installed on a three-sided open-front rig varying in height from 30 to 35ft. We used a large number of profiles to ensure sufficient lighting for the cameras without overlapping on projections. The Spaniards also brought custom 2k diffusers for the shadow play behind the screens."

Sergio concludes: "The projectors were Christie Digital Systems units based on 3-chip DLP technology: the cube had a Roadie X10 FOH, a VistaGRAPHX 5000 unit on either side and another mounted on a custom support projecting on the top through a tempered glass panel set in the stage floor. There were two more projectors FOH for the rear screens - an X8 and an X10. We used three digital cameras and a motorised MiniDV Sony VX i000 for the live sequences with recordings on two Omega HD recorders and three Sony UVW 1200 VTRs. The control set-up included a Sony DFS 700, DFS 500 and a DFS 300."

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### News Round-Up



### **Caribiner International Announces New Brand**

Caribiner International has launched a new name and identity. The company is now to be known as Jack Morton Worldwide after merging with its American counterpart of the same name.

Caribiner has an impressive client list and was responsible for the public arena installations in the Millennium Dome and at the Hanover World Expo 2000. Recent projects include the Special Olympics World Games Opening Ceremonies, The Royal Military Tattoo

and the Queen Mother's Centenary Celebrations on Horse Guards Parade.

The new combined company represents a worldwide community of over 1200 people in more than 30 locations in North America, Europe and Asia-Pacific. William Morton is chairman and chief executive, located in New York, whilst Josh McCall, located in Boston, has been named president and chief operating officer. Lois Jacobs, based in London, becomes executive vicepresident, regional director, Europe and Asia-Pacific.



Lois Jacobs (right) who takes on a higher profile role in Europe with colleagues Mark Wallace (left) and Mike Kent

### **HSE Sends Message to Explosives Firms**

The Health and Safety Executive (HSE) has sent a message to the fireworks and explosives industry to ensure proper precautions during manufacturing operations.

The reminder comes in the wake of HSE's prosecution of a fireworks manufacturer, following an incident in which two workers suffered burns to

their hands and faces while processing pyrotechnic devices. The company was fined £20,000 and ordered to pay costs of £13,240. This incident is not unique; other fireworks manufacturers have also experienced problems in the production process, one recently

reporting an explosion in a remotely operated production cell.

Andrew Train, Principal Explosives Inspector with HSE's Hazardous Installations Directorate, told L&SI: "The case highlights serious issues; employers must ensure they keep to a minimum the quantity of explosives present in any workroom. They must also provide adequate training to all employees working with explosives."

Whilst the warning is timely, it's essential to point out that this is an industry that has to exist in a permanent learning curve, and in both cases, measures were immediately put in place to prevent a reoccurrence. It's also worth adding that neither of these incidents impinged on the safety of the end users.





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### News Round-Up



### New Sound System for Gateshead Stadium

Clockwork AV has recently installed an RCF sound system at the Gateshead International Athletics Stadium.

Following a number of demonstrations, the stadium's local council chose the RCF system for its melodic feel - which was an important factor for the project. Clockwork AV specified

an RCF Vision system comprising 14 Vision PA121s and two Vision PA180 SWs situated in the main grandstand, five Vision PA261s in the East stand and 15 pairs of waterproof Monitor 4Ts located in the North and South seating areas.



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### New Distribution Channel for LD Software

CAST Lighting Ltd of Toronto, Canada, has announced that it has signed a letter of intent with Electronic Theatre Controls of Middleton, Wisconsin, that allows ETC exclusive territorial distribution rights for CAST's lighting design and visualisation software - WYSIWYG.

The move will mean an end to AC Lighting's exclusive distribution of WYSIWYG, though the company will continue to sell and support the product.

The news comes on the back of an earlier announcement that ETC and CAST have formed an OEM alliance that will see CAST's software integrated into ETC's range of lighting control products. R. Bruce Freeman, CEO of CAST, told L&SI: "It made absolute sense to us, once we started discussions with ETC about the OEM relationship, to pursue the idea of having ETC distribute our mainstream software product." Fred Foster, founder and CEO of ETC, is equally enthusiastic: "We also saw the benefits to both companies of using ETC's global distribution network."

### ESTA Research to **Quantify Markets**

The Entertainment Services & Technology Association (ESTA) has launched a programme of product research which will complement PLASA's Industry Research.

While PLASA's own much-publicised programme of Industry Research will aim to quantify markets and identify emerging trends across all the various sectors of the entertainment technology industry, ESTA's Market Research Program will concentrate on product data in the areas of lighting, rigging, staging and atmospheric effects. The intention is to provide manufacturers with accurate market information on market size and market share. Participation is open to manufacturers from around the world.

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### News Round-Up



### STARAS With Klark Teknik & Midas



One of Turkey's leading sound and lighting distributors, SF, recently reported a large sale of Klark Teknik and Midas equipment to STARAS, the largest rental company in Turkey serving major tours and corporate events.

The sale included two Heritage 3000 consoles, a Heritage 1000 and a significant amount of KT processing gear, including two of the new DN9848 loudspeaker processors and a complete DN3600 programmable graphic EQ system.

Chief engineer for STARAS, Jason Kelly, who specified the system, says the first job for the H3000s was an open-air concert for Alanis Morissette in Istanbul (pictured) - with one at FOH and another for monitors. Kelly explained that despite having less than five days to complete all new multicores and wiring for the racks, plus torrential rain on the day of the show, everything worked perfectly. "I'm especially pleased with the new DN9848s." said Kelly, "I cannot tell you what a life saver they have been. We used one on the monitor mixes, using all four inputs and eight outputs to run bi-amped Turbosound wedges. I was concerned that I hadn't had time to read the manual, but as it turned out, I didn't need to. The speed and ease of programming was truly impressive."

The second show was for Natalie Cole, another open-air event in an Istanbul fortress. It took 12 crew to haul the Heritage 3000 and the DN300 racks up 200m of stone steps. Of this show, Kelly said: "I was really pleased with the flexibility of the H3000. We just had the one on monitors and it coped perfectly with both wedges and in-ear systems."

### Tomcat's Brilliant Money Spinner



Motor chain bags have been put to many good uses over the years, but it was deposits of a different kind that poured into the chain bag hung out on the joint Tomcat & Brilliant Stages stand at this year's PLASA exhibition. Visitors drawn to the stand by the striking 'Whirly-Gig' spinning truss effect were asked to make a contribution to the fund in return for a Tomcat lanyard. The sister companies raised £175 on behalf of the PSA Welfare and Benevolent Fund. On the final day of the show Tomcat UK general manager, Adrian Forbes-Black, handed over the collection to Brian Croft of VLPS, chairman of the fund's Trustees.



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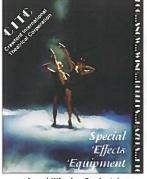
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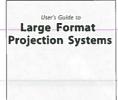




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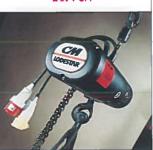


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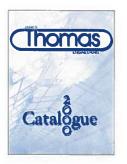
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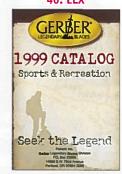
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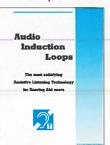
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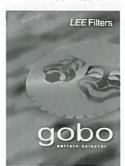
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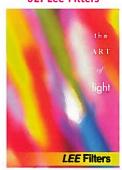
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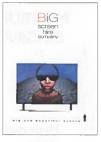








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Steve Moles returns to Finland to visit the Sibelius

House Concert Hall - the largest timber building

to be constructed in over 100 years - and home

to a number of acoustical firsts

I knew I was in trouble when I quizzed the hotel receptionist on what she thought of the Sibelius House. "Do you like it?" I asked. "I've heard the inside is lovely," she began equivocally. "But the outside . . . Well, it's just a box." Like the old Volvo joke then - safe, but boxy.

Travelling from Helsinki airport in a local bus - Lahti is exactly 100km north east of the capital - I was struck by two things. In all the times I've ventured to Finland, and it must be at least 50, I've never made it beyond Helsinki, and my memories of this are mixed. A profusion of copper-roofed buildings, especially the onion-shaped minarets of the Christian Orthodox churches (remember, St Petersburg is just four hours away by train), and the drunks on every street corner. In one aspect at least, Lahti was to prove different. "It's very new," a fellow passenger told me, "but then there's little in Finland that's more than 500 years old, so very new compared to England."

Lahti looms out of the forest suddenly, three weird abstract shapes towering above the trees, for this town is home to an all-weather Olympic ski-jump centre. It makes for a surreal backdrop. The bus pulled up close to my downtown hotel and as I stepped off I was immediately accosted by a drunk - no change there then.

In fairness to the architects (Hannu Tikka & Kimmo Lintula of Arkkitehtityöhuone), the Sibelius House deserves better than the epithet 'boxy'. Yes, it is a plain rectangular box, but the exterior is entirely clad in glass, revealing to the outside observer a mysterious and intriguing content. In the darkness of night, viewed from the water, the softly illuminated interior acts like a huge beacon to the many concert-goers who commute by boat from distant settlements across lake Vesijärvi.

Sibelius House contains a number of firsts. To ensure complete soundproofing from the outside, the insulating wall betwixt glass and concert hall is 300mm thick and filled with sand. Like all modern concert halls, the auditorium is a separate shell within a shell – as such this sandy wall stretches continuously and unsupported for 22 metres. The plywood to contain such a vast weight of sand needed to be very strong indeed, and in the absence of such a product, the timber technologists of Finland developed Kerto Wood from scratch. And no, you can't buy it from Ikea.

The lobby, aptly titled 'The Forest' is an open atrium of spectacular wooden columns, towering full height to splay, branch-like into the timber roof lattice. Compared to the somewhat claustrophobic public environs of somewhere like The Royal Festival Hall, the Forest is a revelation. Cathedral-like in its vaulted roof, open, airy, and natural, it's the perfect intermission retreat from the intensity of performance.

The auditorium and its acoustic is the work of Russell Johnson, founder of Artec Consultants in New York, a man who some readers may recall from the feature in L&SI on the Lucerne KCC a couple of years ago. Johnson has mastered the art of a variable acoustic, by including chambers outside the concert hall that can be opened to the auditorium altering reverb and spatial acuity. Add in the more commonplace variable height acoustic canopy above the performance area, and you have a concert hall that can be modified to suit a variety of musical styles - simple dry oratory to grand church organ music with its elastic decaying reverberations.

Johnson may be the elder statesman of acoustic design, but he has a restless spirit, always changing and experimenting. Sibelius differs significantly from what he did in Lucerne. Here the concert hall has 188 doors, approximately the size of a domestic doorway, that open to the void beyond. Two metres outside the open portals hangs a heavy, coarse-weave drape, from floor to five storeys up. With the ability to raise and lower the drape to any

"As with all such new establishments there now exists an imperative that they perform as 'multimedia environments'.

Personally, I think this is unrealistic, a ploy to ameliorate the accountants; you don't design something as fantastic as the Space Shuttle, and then expect to use it

for delivering hay bales to isolated Scottish hill farms when the Space business gets a little slack. But I digress." height, and use any combination of doors, in a variety of positions the ability to incrementally, and subtly influence the acoustic response of the room is virtually limitless. When I quizzed Jukka Kuanisto, the venue's engaging technical manager, he informed me that the hall has yet to receive a bad review from the many media critics who've visited. What more can you say? I'm an unashamed fan of Mr Johnson, the fact that a man of such advancing years is still vivacious enough to experiment, and then persuade the financiers of such expensive buildings to trust him, is just fantastic. In an era where

computer design may ultimately lead us to bland conformity, he plunders only what's best from such technology, and then applies his own humanistic spin.

On the technology side of the building things are a little more coloured. As with all such new establishments there now exists an imperative that they perform as 'multimedia environments'. Personally, I think this is unrealistic, a ploy to ameliorate the accountants; you don't design something as fantastic as the Space Shuttle, and then expect to use it for delivering hay bales to isolated Scottish hill farms when the Space business gets a little slack. But I digress.



for now," explained Kuanisto,
"as the hall earns money we
buy more things."

Before delving into the relatively complex area of the AV, it's worth a quick look at the lighting, for here is one problem area. The design for the lighting and AV control system was by United Engineers Ltd (Yhtyneet Insinoorit Oy in Finnish). The lighting of the stage is severely compromised by the

positioning and size of the acoustic canopies above the orchestra. The canopies themselves are not so unusual, but the relative narrowness of the auditorium is. Between canopy and outer wall there's less than a metre in which to squeeze stage lighting - just 52 lamps crammed in, an assortment of Selecon, RVE and DeSistis, profiles, fresnels and a few Par 64s. "When the money was calculated they put lighting at the bottom of the list," said Hedcom's lighting man Pauli Tervo. To solve the stage light problem, Tervo is already working on a solution: "We have an idea to use an ETC profile, and we're currently experimenting with a custom yoke that will sit the lamp directly over the opening for the existing Halogen flood. We believe that replacing just the lamps around the perimeter of the canopies, the back arc and the front line, will solve the problem.

"There was no specification on control," continued Tervo, "we put in an RVE HDI dimmer cabinet and the control desk is a Compulite Micron 4D/E. We chose the desk because it's part of the well recognised 4D family, will control moving lights if necessary, and will take and send Ethernet communication," a necessary function for the AV control.

There's a Crestron Processor control system to run simple multimedia events and conferences. Kuanisto has a flat screen terminal for access in the control room, and a neat little roll-out rack and secondary control screen (colour, with video preview) for the user in the auditorium. The rack, besides housing the Crestron control access, has a full complement of basic tools, VHS, plus a Mid-size JVC domestic hi-fi system, CD, MD, and an Extron RGB buffer to compensate for the long cable runs. "This was also specified by United Engineers," explained Hedcom's project manager Kurt Nybäck. (Nybäck was also the man instrumental in organising and co-ordinating L&SI's visit).

"It's fully integrated light and video control, with a connection to the BSS Soundweb system used for the house audio control, but this is restricted to volume control only." For the more finessed control, Hedcom installed a little eight-channel IRP mixer in the control room for the AKG radio mic system. Anything more complex and the house A&H GL2200 comes into play. Although the IRP is an automatic mixer which, relatively speaking, takes care of inexperienced users, Tom Young at Artec wanted this part of the system idiot-proofed so there's also a Shure DFR11EQ feedback reducer on the output side of the IRP.

The main PA system is essentially EV X-Array (the install version) 183s and 12s, 2181 subs on the floor, with a surprising 33 JBL Control 26Cs arrayed under the balcony edges. "The original concept was created by Tom Young," said Nybäck. "He was the system supervisor, with the details concerning the concert hall audio system specified by system designer Jan Holm





For sound reinforcement design, Artec was again in the driving seat, Tom Young the man charged with defining a system to provide a uniform coverage across the 1250 seats. Young's specification was handed to local (Finnish) sound system design consultants Akukon Oy (Oy is the Finnish word for Ltd and Ab is the Swedish word for the same thing) in the person of Jan Holm, and thence from him to installers Oy Hedcom Ab. Hedcom is an interesting company; unlike its many contemporaries throughout the EU, it turns its hands to all forms

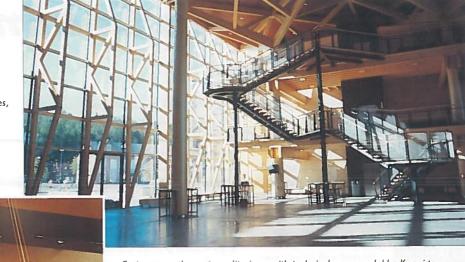
of media, light, sound, video and is strong in theatre, TV, and in fact all the performing arts. "We had to prepare a bid based on what Akukon specified," explained Hedcom's project manager Kurt Nybäck, "an EV system," a manufacturer for whom Hedcom is a dealer. Hedcom also installed the multimedia control and performance lighting: "We have just the essentials

from Akukon. Based on EASE modelling, Jan delivered the aiming details to finalise the loudspeaker rigging." There are three flown clusters, a large central element of five boxes (plus two rearward for the choir stalls), and a smaller pair of speakers to left and right. The addition of the JBLs was surprising because of their location. On the long arms of the balconies, two seating rows deep along the sides of the auditorium, the overhang is barely two metres deep. Seems very little to shadow what's projected from the flown arrays? With the two main cabinet types projecting 60/40 and 80/50

degrees respectively, at the midhigh controllable directivity end, one has to conclude a lack of cabinet numbers was responsible for the lack of coverage. After all the back, deeper centre of the balconies had no delay speakers, which means the system is perfectly capable of covering the distance, just not the necessary spread. There's nothing essentially wrong with putting a neat little system of ceiling-mounted delays under the balcony wings, but it does beggar the question - wouldn't it be more coherent, and a better match, to have

made a bigger central cluster?

All amplifiers in the system are Crown Macro-Techs and the system is driven with four BSS Soundweb units, as mentioned earlier. The BSS units act as the loudspeaker controllers (factory EQ and crossover parameters) and the house EQ, delay, matrix and control units. All the system programming and recalling is done with a laptop that is included in the system. The Sibelius Hall Soundweb system has a dedicated program which enables the user to reset and make desired adjustments quickly. "There are four presets accessible from the Crestron," explained Hedcom's Kari Lehtonen, the technician responsible for setting the system. "That's what we like about the Soundweb, it just makes things



Facing page, the main auditorium, with technical manager Jukka Kuanisto (pictured top) and Hedcom's project manager Kurt Nybäck (bottom). This page, the 'Forest' lobby and inset, the JBL ceiling-mounted Control 26Cs

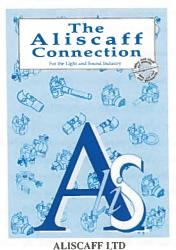
so easy." Lehtonen used Smaart to set-up the PA and, outside the issue of the balcony fills, admitted he'd found a pair of dead spots in front of both

balconies, "but these could easily be filled with a couple of small EV cabinets added to the central cluster." Again a matter of money.

Lahti is a small city. How they afforded construction costs equivalent to US\$21m dollars is a matter of Finnish determination, and an indulgent central government who devote a great deal of their revenue to supporting the arts, especially outside of Helsinki. There's no doubt the concert hall will be well supported by an ardent group of music lovers, one look at last years' attendance figures for the Lahti City Theatre, 120,000, and you get the measure of these people. There will also be other attractions to come; a disused carpentry factory that has been renovated as part of the total construction project, but remains currently

empty, adjoins the Sibelius House. The building is covered by a conservation order, as such it is only recently that permission was granted to treat its high, barrel-vaulted roof, with an acoustic lining to make the sound environment tolerable. The space is large and open, maybe 900sq.m, and would make an ideal dance studio or small concert yenue.

When looking at the Sibelius House as a whole, the problems mentioned are but small beer. Overall it's a notable achievement, due in large part to the virtuosity of the Lahti Symphony Orchestra and their international reputation, gained through their recordings of the Sibelius canon. Sibelius may not have been the most prolific of composers, but he was a pithy one and would no doubt have dismissed the epithet 'boxy' with short shrift. Like his modern counterpart, Frank Zappa, he could summon up a few well-chosen words when he needed to, and I leave the last to him. "Pay no attention to what the critics say - no statue has ever been put up to a critic."



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## ton Cathor No Comment...

s I predicted in my August column, my comments about the new corporate structure at PRG were none too well received, as witness the following letter, signed by Steve Terry and Nick Jackson, which landed on the editorial

desk within days of L&SI going to press.

"This led me to think that there may be scope here for some form of ad hoc competition, the prize going to the company or individual who can come up with the most interesting way to give money to Light Relief . . ."

"Dear Tony
We read with interest your
No Comment column in the
August issue of L&SI. We
know that you have been a
keen observer of events at
PRG over the last two years,
since the subject has had a
great deal of coverage in
your column. However, we
believe that you did not
portray the real situation at
PRG in the August column,
and now we'd like to give
you our point-of-view.

One key point to bear in mind is this: once PRG grew to a \$300million plus company, we needed new skills to manage it. The skills acquired by the individual entrepreneurs that make up the core of PRG do not scale very well to this level of business. People like us who knew how to run \$25 or \$35million companies did not wake up one morning with the experience required to efficiently manage an operation more than 10 times that size. People like John Hovis will bring those skills to PRG. This is allowing those of us who know the lighting, audio, and scenery businesses and have the close customer relationships, to get back to the real business at hand: satisfying those customers and producing a great product.

Your speculation about the appointment of our new president and chief operating officer, John Hovis is simply not correct. First, the senior management is thrilled to have John on board, and we are already seeing the benefits of his management wisdom. Second, no banker foisted John onto Jere Harris, our CEO. Jere personally pursued John over a period of four months, due in large part to John's success consolidating a large number of small railroads into RailAmerica, a skill-set that is eminently applicable to PRG. Third, John Hovis is a person who came up through the ranks of the railroad business and is about as far from your suit description as one can get.

Finally, it needs to be said that corporate press releases about new executive appointments do not generally contain the level of insight and detail that you are looking to cover in this column. For those of us in the trenches who are firmly committed to making PRG work, it's annoying when you speculate incorrectly about various PRG issues without having the facts, often taking a cynical or negative approach."

I OBVIOUSLY GOT the circumstances of Hovis's appointment wrong. Though it may have been an obvious assumption, I apologise to Jere Harris for any offence this may have caused and congratulate him on his decision. However, it is clear from this letter and from other conversations I have had that the worst four letter word in our industry is 'suit' - so best not take yours to the dry cleaners!

IN THE CIRCUMSTANCES I think it is right to call 'time out' and give Mr Harris and Mr Hovis a clear run. Therefore unless there is any significant change, I will refrain from further comment until July next year when he will have been in the hot seat for 12 months.

### WELL, ANOTHER PLASA HAS BEEN AND

GONE and for those who missed it, an armchair guide awaits on page 79. I won't retread the ground covered there, but would like to pause on the New Century Dinner at the Natural History Museum. My interest in this, apart from its being a splendid evening, comes from its being the venue for the formal launch of Light Relief which, gratifyingly, seems to have captured the imagination of the great and the good. Not least Vari-Lite, who on the night immediately pledged to support the fund. This led me to think that there may be scope here for some form of ad hoc competition, the prize going to the company or individual who can come up with the most interesting way to give money to Light Relief . . . (Answers on a credit card please!)

IF YOU'RE STILL UNMOVED by the cause, I hope the following will help - it's a letter I received from Tom Donnellan - the original inspiration for the fund.

Гопу,

I want to thank you, LBSI and all its readers for your support of our situation here over the last few months. Because of the donations received from friends and members of the industry in the British Isles, I was able to devote six months of my time exclusivly to caring for Elena and looking after kids and house, etc. Undoubtably this allowed Elena a calm and just end to her life - it made all the difference.

I am thrilled by your activities to generate the Light Relief fund, and am sure that people unfortunate enough to find themselves in situations similar to ours will undoubtably benefit enormously. Thank you Tony (et al) and 'hasta pronto' I All the best.

Tom Donnellan

So you see, you can make a difference.

### FINALLY, THERE WAS AN EMOTIONAL

moment of a different kind at the dinner when the assembled company said goodbye to Nicky Rowland, the PLASA Show's redoubtable marketing manager for the last several years. Ms Rowland fancies a shot at freelance events organising. Aside from the fact that Nicky can drink most able-bodied men under the table, and frequently does (or is that did?), she was universally popular and delivered the bookings to prove her worth. She will be missed by Clarion Events and by the rest of us, if she doesn't re-involve herself in some other capacity along the way.







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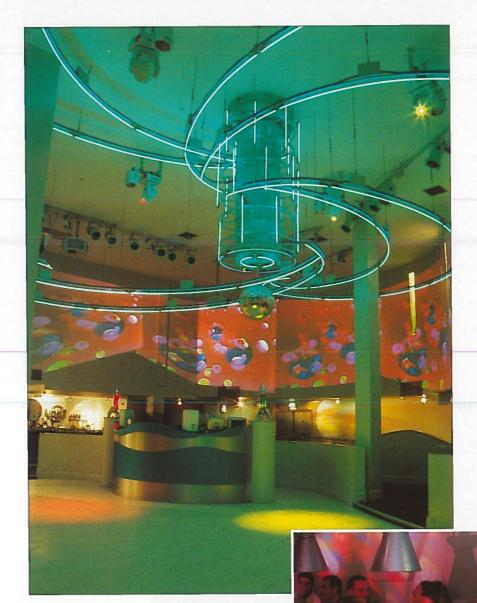
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## eneration pinbi





Luminar Leisure's chain of Liquid nightclubs has become a breeding

ground for new graphics talent and technology.

L&SI takes a look inside the latest venue to find out if
this is progress or just another trend . . .

irst impressions of Cardiff's newest nightspot are of its unmitigated whiteness. White walls, white ceiling - even white bartops (in fact, the colour is a slightly more practical light grey - but under totally artificial light there is no easy way of telling the difference). Add this to the almost complete lack of any parallel lines in the venue, and the effect is quite startling, and certainly reflects the fluidity of the club's name. The interior is arranged on two levels, with the balcony overlooking the main dancefloor along its longer side.

Though not a huge space by current superclub standards, the light décor and

contours employed by designers Tibbets make the club's 1300-capacity crowd seem comfortable rather than wall-to-wall.

Liquid is part of a £4 million redevelopment of the site owned by Luminar in Cardiff's city centre - above the subterranean club is the first of the group's Life Bar Cafés, with a capacity of 760, which is aimed at the dining/cocktail market. Luminar's chief executive Stephen Thomas is a local lad (and retains his roots despite the Group's £260 million profile and national coverage), so the building of a flagship venue in Cardiff was a personal, as well as a business decision. "This is an exciting investment, especially for me, as I was born and bred in Cardiff - so it is nice to put something back into the city that was my home," he

commented. "We chose Cardiff, as the venue for the first Life Bar Café and the most innovative Liquid, as it is fast becoming one of the hippest cities in the UK. There is a definite buzz in the city and we know that both Life and Liquid will be tremendously successful here."

### FRESH GRAPHICS

Lynx Lighting was responsible for the audio, lighting and projection installations, with DPS acting as main electrical contractor and MVG Media designing and supplying the venue's state-of-the-art graphics system. As is becoming the norm, MVG was asked to provide a complete package, including graphics content. The initial amount of custom footage will be refreshed by MVG under a contract that will update Liquid's images over the course of the year, keeping the venue's look fresh, even to regular clubbers.

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Liquid's amp room with BSS Omnidrive and Soundweb in control. Below, MGV co-director Dave Marsh

Once the six Sanyo 9005 projectors are running, the plain white curves of the venue suddenly make sense; the walls are simply a continuous projection screen. While the conventional lighting rig is used primarily to light the dancefloor and the air above it, the projectors are arrayed to form a seamless image at and above eye level. The

use of original source material is key to the system's success, claims MVG's co-director Dave Marsh: "Originally, graphics were seen as just moving wallpaper," he explained, "but if they are done well enough, they can be used to control the whole atmosphere and mood of the night. This changes over the course of the evening; from early ambient through floor-filling to full-on, the graphics are produced to reflect the DJ's intentions." Marsh praised Luminar for its forward-thinking attitude towards this new medium, pointing out that although the cost of generating high-quality graphics is quite high, the investment pays off in giving Liquid a unique feel.

### MIRROR, MIRROR ON THE WALL

In order to make best use of the projectors and the space available, Lynx installed the company's own motorised pan-and-tilt mirrors in front of three of the Sanyo units, allowing the projection beam to be fired at the dancefloor. Although this might have caused focusing problems (the projectors were focused on the straight path to the walls), the graphics used on the floor are limited to rippling water, creating a startling swimming-pool effect on the light-coloured surface, or to other generic images where pin-sharp focusing is not an issue.

The video system is, in some ways, a parallel of the DJ's booth; a library of 'tracks' lasting anything from five minutes to an hour (stored on two independent M-PEG2 servers) may be selected and routed to any or all of the six projectors. Thus the DJ or LJ can call up a clip that he or she knows works with a particular dance track, or can use a longer sequence to change the venue's mood over a longer period. At the heart of the system is an Avenger MiniConductor – a 1U unit that is more commonly seen in museum and exhibition AV installations.

The MiniConductor provides the interface between the source, routing and control elements of the system and allows (through Avenger's Improvisor software) the creation of



custom touchscreen control layouts that suit non-techical users. At Liquid, a touchscreen PC is used as the

system's main control surface, but the MiniConductor also provides a 25-channel DMX link to the ShowCAD system running the lighting rig. In this way, the ShowCAD control panel's assignable buttons can be used to retrieve and play a particular clip via a preset projector configuration without the LJ having to leave the console - which has proved ideal for busy two-man control booths.

### THE SWEET SMELL OF ...

Other interfaces include a pair of aroma machines that pump either chocolate or strawberry flavour scent through the airconditioning system. This is linked to relevant graphics clips (unsurprisingly, images of strawberries and chocolate!) and triggered from the lighting desk. For more adventurous use, the MVG team is working on more advanced control including speed-changing, bidirectional playback, looping and many of the features seen on DJs' playback devices.

One of the key factors in the installation stems from Luminar's policy of long-term planning. The Liquid concept is intended to be one with extended longevity, rather than an immediate fashion statement that will be refitted in a year or two. This means that the ability to upgrade and update the systems (and especially the graphics equipment, where technology is moving most quickly) is of paramount importance. MVG's solution to this was to provide the graphics system with links to the outside world so that, ultimately, new clips, control layouts or even operating programmes will be downloadable remotely as updates are introduced. The MiniConductor system itself is flexible enough to allow physical upgrades to the hardware; in fact, as Dave Marsh pointed out, the potential for a multi-channel video server and double the current number of projectors already exists.

### LIGHTWEIGHT LIGHTING

Conventional and moving lighting is kept to a minimum at Liquid, though a large number of

Par cans (52 in all) are used to provide colour washes on the dancefloor. In addition, five Roboscan 518s and a half dozen MAC 250s provide effects illumination, and a clutch of Optikinetics Solo 250s, complete with (of course) liquid wheels, are used to light the regions untouched by the projectors. The centrepiece of the main room is a suitably curvaceous neon sculpture hovering over the dancefloor, and suspended from which, somewhat incongruously, is a mirrorball. It seems we just can't do without 'em. Exterior effects are provided courtesy of Martin Imagescans.

### NOW YOU HEAR IT . . .

In keeping with the simple lines of the interior, Lynx provided Liquid with an almost completely concealed speaker system. Sound designer Gerey Denning recessed six Lynx 212N cabinets into the balcony, hidden away behind white steel grilles, and arrayed two stacks of three LX 118 subs either side of the dancefloor. The distributed system, while more complicated to line up, has two advantages at Liquid; as well as providing more even coverage over the length of the dancefloor, it also helps to minimise the effect of the huge areas of flat, reflective walls that would otherwise turn the main room into a vast echo chamber.

The balcony and other peripheral areas of the main room are equipped with RCF enclosures; no less than 21 Monitor 8 cabinets and eight Monitor 5s. The VIP lounge (which, says Lynx director Nick Searle, is sufficiently well isolated to be able to run its own programme of music when required) has a distributed system comprising eight RCF Monitor 8s. Though the VIP room can take a feed from the main house system, it has its own Denon combination CD/tape unit at the bar. The main DJ booth boasts a pair of the ubiquitous Technics SL1210 decks, plus Denon DN2000 CD players and a Cloud CXM mixer.

For zoning and final system processing, Lynx chose to use BSS Soundweb and Omnidrive Compact Plus digital units. "We have been using Omnidrives and Soundwebs since their early days, when we installed them in some of Luminar's Chicago Rock Cafés," commented Searle. "In fact, now that the Soundweb



concept has achieved maturity we'll probably be using them on their own without any other processing in future installations." Amplification is a mixture of Chevin (A750, A1000 and A2000) and Cloud (VTX1500, VTX750 and CXA6).

### **HIDE AND SEEK**

Nick Searle is pleased with the overall effect at Liquid - even though the venue's unusual colour scheme created more work than the average installation: "Liquid clubs are very unusual in that everything is finished in light grey - not just the décor, but also the technical side of the fit-out. This really sharpens everyone's attention to detail, as any cabling, connectors or parts of the system become much more visible. The installation is finished to a very neat standard, and we have even had to source light grey cable and get the lighting fixtures supplied in white to key into the whole colour scheme."

The clean lines of the venue have attracted a high level of customer to Liquid - and this.

according to the venue's manager Richard Jackson, is reinforced by the club's admissions policy. "We like to operate a very tight door at Liquid," he explained, "but in fact, we find that those who know the venue tend to dress up and make a real effort anyway. It's got a lot to do with being visible all the time!"

### **HOUSEHOLD NAMES**

Cardiff is the sixth Liquid to be completed the seventh has just opened in Peterborough and plans are underway for an additional three for the near future. The strong style thread that runs through the entire chain is reflected in a higher-than-average equipment spec, both in the audio and visual domain.

It seems that, far from replacing traditional lighting, graphic images are becoming a recognised complementary technology for shaping the mood of a club crowd. How long, then, before the names of top VJs are as universally recognised as the likes of DJs Sasha. Oakenfold and the Dreem Teem?

### Where Next?

Although this use of a sophisticated show control package may seem like overkill, Dave Marsh explained that MVG sees this as only the first stage.

While current cost-effective graphics systems are limited to conventional playback, packages are being developed that allow real-time rendering of images, interactive triggers and much more, which Marsh believes will open up the platform for a generation of Video Jockeys. "This is already happening in Japan," he told L&SI. "In several crowd applaud him in the same way they would a

but has the potential for a great deal of artistic show needs to know what they are doing, but the VJ also needs to be rhythmically aware and to know how to raise or lower the visual stimulation that the crowd is getting. You need to be able to of dancers just looking at the ceiling all night!"

already investigating the possibility, for example, of being able to overlay text onto graphics and to send messages to each other. "It's no longer enough for clubs to have a late night drinking licence," he asserts. "A venue has to give people a good reason for coming - and for staying. The competition between venues is extremely fierce and the cost of reinventing yourself every few months is high. The average person these days is interested in using technology to entertain us. If manufacturers keep developing products, VJs will

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### Reed & Dan





Steve Moles
takes a look at
Lou Reed at
Sheffield City
Hall, and
Steely Dan at
Wembley
Arena

ow Lou Reed doesn't look a day older than when he first appeared in the Velvet Underground 30 years ago. But then he has one of those faces: like Charles Bronson,

he's craggy, looks battered by the disappointments of life and well, frankly he's always looked over 50.

He also possesses one of those voices - whisky and woody, full of character and dark portents. It's a dusty bottle of Bourbon lost in the depths of a hickory wood and you won't be surprised to learn he still smokes cigarettes on stage.

A man with a reputation for prickliness, he has always sustained a cynical, but poetic, view of life. That said, few albums have come close to his first big solo hit, Transformer, but that may be about to change. Anyone who's heard the single 'Modern Dance' receive a spin on the airwaves will already suspect a return to form. The new Ecstacy album contains all his hallmarks: concisely written vignettes on life, wryly observed, a narrative style that's sparse and jaded, but always retaining a slightly humorous twinkle on the fallibility of us all. This was a concert received in reverence, hushed not rowdy, but I heard more people laugh at the end of songs than I think I've ever done.

### LIGHTING

This is one of those tours that started with a different designer. Without mentioning names, is it really artistic integrity that prevents some LDs from biting the bullet and doing what the star asks - especially when it's a star with Reed's reputation? Oh well, lucky for Mark 'Sparky' Risk then that someone stood by his or her principles.

Risk's is not a name that has graced these pages before, though I've known him for years. A closely-guarded secret, Risk disappears for years on end to push faders for the 'Stones. More an operator than a designer, he's the ideal personality to submit to Reed's demands, but has enough schmartz to squeeze every last ounce of creativity out of what is, by his own admission, a very, very minimalist show.

"My re-design had to be based around the original elements of the rig," he explained. "I turned three trusses into two, dumped some HMIs, and changed virtually all the looks. Reed is insistent: he doesn't want a light show, he wants to be lit. No flash, no strobing, just add texture and support the mood." Funny then that the rig is basically a moving light system - all VL7s (from VLPS London) with Lite Alternative supplying the two dozen Pars, ground rows for the cyc' and 12 floor floods. "They're just a basic Quartz unit, from a B&Q I think," said Risk.

That said, the floods encircle the band at close range, some facing into the audience, and all coloured either blue or amber, Risk using generally just a pair at a time. They are a potent force, throwing the musicians into sharp relief, dazzling us and isolating the band at the same time, or playing dark silhouettes across the cyc. It's one device that enables him to reduce the show to a 4kW nightclub scene, not a card he overplays, but entirely appropriate for much of Reed's repertoire.

The Pars too are worked with care: "I did five weeks of the tour around Europe with just Pars and an Avolites Pearl, and it was great." That's no small thing from a man who's spent almost his entire career at Vari-Lite.

With the cyc a dominant element, and with a restriction to maybe no more than five scenes a song, Risk has to give it a lot of attention. It's thus quite a dark show on the stage. "I've got VL7s and 7bs. The shuttering devices on the 7bs are a great help, I can put lots of interesting light onto the cyc and frame it so there's no spill onto the rest of stage. Also, I can overlap gobos, and cut them so they join." What he does on the cyc is considered - lots of interplay between the ground rows and the 7bs; out of focus gobos (sharp focus would be entirely too smart for this louche, relaxed performance) and some brilliant sunrise looks in the most vivid contrasting colours.

"Overall, I've found it a good discipline. No movement except between songs has forced me to think very hard about focus. It rmakes you look at what's necessary so I ask myself what's appropriate." And he's found it

### AUDIO

This is an Eighth Day account in the US so no prizes for guessing that Wigwam, its transatlantic partner, is the supplier over here. But there is one little twist to that relationship, for what the two have in common is d&b, but sound engineer Bill Fertig wanted V-dosc. Fertig had done a few festivals with the system, as well as a short tour with Elvis Costello in the US, so he knew what he was getting: "It's the perfect system for theatres. Other systems are designed to splay horizontally, but vertically you're left to guess, and often confined by a rigid bumper." Fair comment, especially when you can't get the right points, but PA

manufacturers do slowly appear to be addressing the issue. Mick Nash DeVilliers at MAN with his Transformer system being a case in point.

However, Sheffield City Hall, aside from its circular weirdness, has deep sideburns on the balconies that masked

an entire side of a stereo V-dosc hang: "Yes, a centre cluster mono would have been better, but there's not enough load capacity." A factor that ironically saw a pair of d&b C6s atop the Vdosc subs providing the mid high information in those shadows.

The system also had three dV-dosc cabinets under each side, as systems man Richard Trow explained: "These are not as tight as the main cabinet, 120 degrees spread rather than 90, so they're good for the first 10 metres." I did walk the front rows during a musical line check; at first I thought them to be as 'in your face' as the main cabinet, but when I walked further out, and recognised what a bright, loud and uncoloured sound Fertig aims for, I realised that in fact Trow's assertion that they're kinder than their big brothers is correct.

System aside, Fertig has a Midas Heritage 3000 in the house. Reed's band is small - four-piece. 32 input - and as such Fertig has gone for gold with the quality of what he's using outboard. Arguably that's a wanton indulgence, but one look at Reed's extensive investment in Pete Cornish gear for the backline and you realise that accurate controlled sound is paramount. Besides, Fertig finds ways to save the service company a few bucks. "You try getting a company to give you four Avalons in the FOH rack."

The outboard rack is deluxe: two Avalon 737SP4s, an Avalon EQ, a Focusrite Red EQ, and a four-channel Hardy M1 mic pre-amp just for starters. No surprise then to find the stage festooned with Neumann microphones someone in the hire shop must be wincing. Sound cannot pass without a brief look at the monitors. Jeremy Darby has been with Reed for 13 years, switching from house to monitors seven years ago. He's using a pair of Ramsa DA7



digital boards for control. "I chose the Ramsa over others because they recall perfectly, and are very reliable." He also finds the desk sound warm, "the desk pre-amp

is very natural, so I use no outboard gear," a particularly useful consideration for a tour that trots the globe on a budget, the desks being carry-on luggage.

All the wedges are Eighth Day's proprietary models, Darby providing just six mixes, "the drums and bass switch to headphones if it gets too loud." And it is a loud stage, the Cornish gear really projects, though thankfully it's not as beamy as the Marshall and Soldano 4x12 cabinets or Reed's rhythm guitarist. Nevertheless, Darby regularly measures 120dBA at the centre mic. All this came as a complete revelation; Reed is as old as he is craggy, yet his voice is rich and strong, and his hearing apparently undiminished by the ravages of time and abuse. "He had a hearing test done last year and was told, 'you have above average hearing for a New Yorker', whatever that means."

One final thing. Fertig made a passing allusion to the complexity of the V-dosc rental network situation in the US, something he felt detrimental to their business, but then as he pointed out, "Electrotech also bid on the European tour," they also being a V-dosc supplier in the UK. "Personally, I believe it to be a healthy thing, if two suppliers of the same gear, in the same network, are able to bid competitively against each other. They retain a competitive edge against the opposition." Beats a complacent, cosy monopoly.

few years ago, in a sudden surge of madness, I went out and bought the album that accompanies the

Inspector Morse TV series.

Written by Barrington Pheloung, the music is vague, airy, and in the absence on any visual Above - Lou Reed performs at Sheffield City Hall, and inset, lighting designer Mark 'Sparky' Risk: "Reed is insistent: he doesn't want a lightshow, he wants to be lit . . . "

information, utterly meaningless. While the same isn't quite true of Steely Dan, it would be fair to say that theirs is a musical oeuvre that is perhaps best heard in the absence of any live stimuli.

The truth is, attending a concert of theirs is unnatural, just as with Morse, only conversely it's the added ingredient that detracts. I knew it felt strange back in '96 when they last visited, but only now have I realised why. Steely Dan belongs in the hi-fi: the music is too pure, it demands an insolent inattention. It should be restricted to the postdinner brandy, when the tongues are loose and the conversation turns to the tittle-tattle of life.

"For once the association of set, lighting and video into one is absolutely correct. The three become a coherent 'one' on this show, in

a more complete

### LIGHTING, VIDEO & SET

sense than I have For once the association of set, lighting and video into one ever witnessed." is absolutely correct. The three become a coherent 'one' on this show, in a more complete sense than I have ever witnessed. In the most unlikely of evolutions, it's essentially down to the designer of the Steely Dan T-shirt, Carol Bobalts, who was gifted the set design.

She's devised a simple approach with interlaced taut white sails cloths. These basic shapes forced lighting designer Jon Pollak into a singular approach: "I couldn't just put gobos up there that soon wears thin. It's big, so I needed manipulation, and that's when I had the idea of using video." Pollack turned to Kevin Campbell, who some readers may recall from their collaboration on the Pet Shop Boys, "I had a simple

brief," said Pollak. "The band wanted a natural (as in the album title, 2 against Nature) imagery. Nothing too literal."

Pollak turned to Campbell and offered him a great deal of latitude in what he might provide for those images. "He'd just say single word ideas for a song - 'trees', 'winter' and off I'd go," said Campbell. With just a limited budget he used a Hi-8 camera and went hunting. Initially the two men agreed to transpose the results to Beta, but that soon exposed a problem. "It was just too real," said Pollak. "This is a jazz show, the punters want to see who plays, not to be distracted." They turned to VHS. "It's much grainier, and there's the added bonus of backup." Campbell went on to explain how one of the three domestic VHS machines they use failed one Sunday in the US: "I just popped off to Wal-Mart with the runner and \$150 later I was back in action. No weekend panic phone calls, no big Fed Ex bill, no stress. I couldn't have done that with Beta." Maybe he'll start a fashion. The truth is, for the use made of video here, definition is the lowest priority. The imagery is used to paint the set and the actual image is not important, more the way its form can relieve the monotony of a big white surface. (The projector comes from AVTS of LA, a 10k Christie Digital Roadie - bright as buggery).

I can offer no greater justification for this approach than the way video was used for the drum solo. Instead of the inevitable struggle to find a new way to make lighting technology follow the free form nuances of a great drummer's art. Pollak left a pair of High End Cyberlights fixed on Ricky Lawson, while Campbell played the out-of-focus flickering of flames, close-up, upon the sails. No matter where the drummer ventured in terms of tempo and emphasis, there was always one part of the flame image that flickered in sympathy.



Pollak's rig is supplied by Upstaging in the US, but LSD for Europe. A nice even mix of technology and modern steam lighting, S4 Profiles and Pars (with Colour Faders), 47 High End Studio Colors, and 15 Cyberlights, all run off a Hog II.

### **AUDIO**

Dave Morgan really holds the pack when it comes to live sound. In addition to Steely Dan, his two other regular employers are Paul Simon (watch out for a showcase of three shows at Hammersmith Odeon soon, to launch his latest album) and Bette Midler, arguably the most vivacious vaudevillian since the expression was coined.

Morgan, a long-time adherent of Clair Brothers Audio, is using the 14 system (CBA's new line array - see Sting, L&SI Jan 2000) and has the now dedicated \$4 cabinet loaded with just a pair of 18"s for sub-bass. "But the new 14 sub will be out soon," he was able to tell us. "It will match the main 14 cabinet dimensions, and will still contain a pair of 18"s, but I've heard it and it works better, mainly because of the baffle. And it will throw as far as the main 14." Morgan also let us know that the main 14 boxes come in three denominations 2.5, 5 and 10 degrees. "It makes it easier to control the reflections and less involved to set up. Left: Steely Dan at Wembley Arena.

I put six of the 2.5s at the top for the long throw, four 5s and three 10s at the bottom. That way, I get coverage right to the front row - and, incidentally, the security people behind the barrier are out of the direct field. Making sure I'm covered to the top row of the bleachers is just a matter of line of sight, if I sit at the top seat, and I can see the top of the uppermost cabinet, then I'm out of

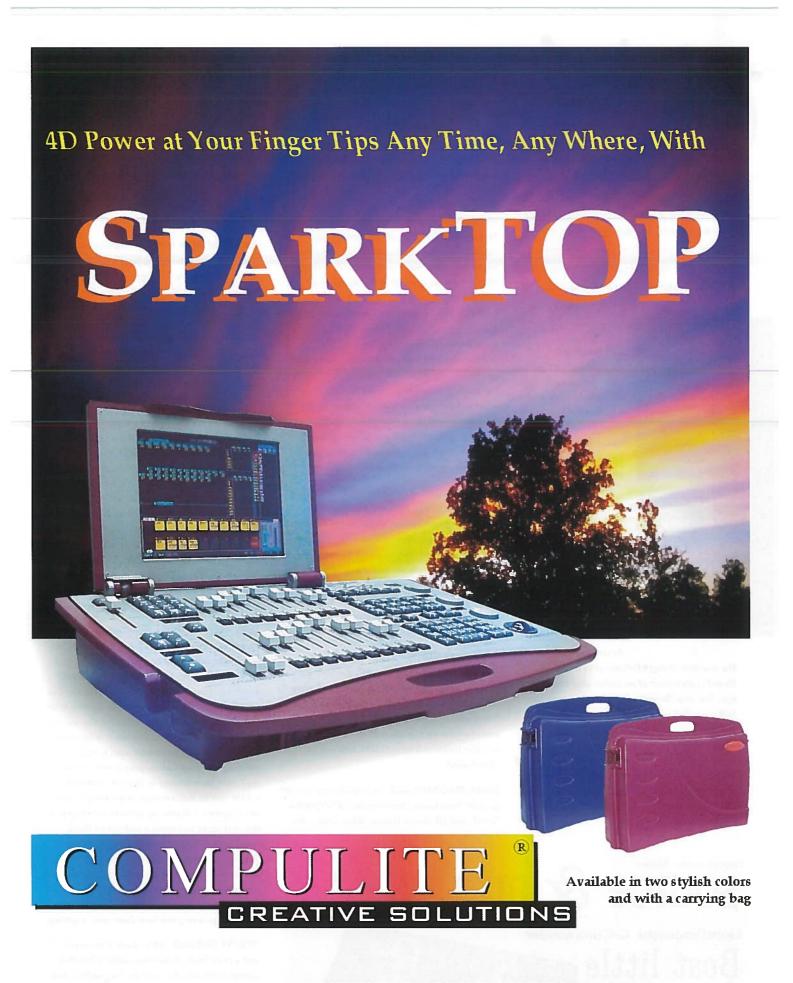
coverage and the stack needs raising or tilting. It's that easy."

The system is controlled from XTA226s, "for digital it's a great sound. Maybe not as warm as analogue, but the extended control it gives you well, it's optimised the system. I've got so much headroom I never hit limits." Morgan mixes from an old PM4000, as indeed does Don Garber on monitors for the band, and Roger Nichols doing monitors for Becker and Fagen. (For the history buffs, Nichols is also the engineer for all the Steely Dan albums. Nice job Roger).

Outboard Morgan has a big rack of compressors and pretty much all the leading manufacturers are represented. "These are complex musical arrangements and I need to have all the instruments there all the time, hence the compressors. But effects-wise I do very little. There's not much used on any of the albums and I only do the bare minimum for the live environment. I like it to be invisible, a bit of doubling on the vocals, and separate reverbs for vocals, percussion and guitars." Morgan, as an endorser of the product, uses nearly all Shure microphones, and very nice it sounds too. Something exemplified by Fagen, who is in better voice now, than he was in '96.







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## John Watt's view from beside the camera

o another year, another PLASA. As ever, I managed to catch up with the great and the good and as a result, saw very little equipment. Moving lights there were aplenty, and you can bet there were some amazing new developments, but without the fundamental knowledge to offer any real

insight, I had better keep quiet.

"The real gems of information during PLASA week are to be found at the evening events where the great thinkers of our world meet and I, for the most part, listen, happy to be a part of it."

### ON THE RARE

occasions when I get to work with moving lights, it's back to square one. I realise that the London mafia have all this stuff at their fingertips, but not I. If you think that's an admission of defeat, you could be right, but the unfamiliarity stems from an old-fashioned concept of wanting to see a need for moving lights and then ordering them, rather than the other way round.

### ANYWAY, I DIGRESS.

As usual with PLASA, it's

the low-tech things that appeal to me and Strand's refinement of an earlier idea took my eye. The small lamps in the Bambino range have a half yoke that only attaches to one side of the housing. It's cast and has two 16mm holes which allow a variety of clamping arrangements. Together with the slotted pivot point, a variety of height preserving ploys are possible, a facility close to my heart as I'm usually also close to the ceiling. You need to see it - it's difficult to explain on radio.

A BATTERY of Selecon lamps brought me to a halt at their stand. Was it the chrome finish on some, or that hark back to the past with the silhouette of a welly? Were they 263s and 264s? Strand will tell me. It's about time someone copied those double shutters again, where you could have some hard and some soft, a clever idea. Whatever it was that first caught my attention it was the idea of an 80-volt lamp that held it. Why a manufacturer would want to go to the trouble of lumbering himself with a transformer on every lamp I'm not sure. Something to do with the optimum voltage to produce the most lumens per watt is, I believe, the party line, and might even be true. They seem to have gone to a lot of trouble to get the heat away from the gate and the resultant exposed hefty heat sink should ensure a plentiful supply of toast while you look to see what else they've cooked up in this interesting range.

THE REAL GEMS of information during PLASA week are to be found at the evening events where the great thinkers of our world meet and I, for the most part, listen, happy to just be a part of it. For instance, just when the boffins have produced the nearly perfectly flat field with the aid of high quality lenses and reflectors, I hear lighting designers grumbling about the lack of character in modern profiles and the need for break up gobos to put a bit back!

NOW THAT LIGHTING controls can be purchased for the price of a PC, the back up will move in the same direction, i.e. a pound a minute while you hang on for some so-called help line. There won't be enough profit for the manufacturer to provide a 24-hour callout service and the traditional consultant's 10% will be 10% of not much.

PLASA ALSO PROVIDED an opportunity to catch up with both Gilray Densham (he of WYSIWYG fame), and LD Bernie Davies. What a trio - the computer whizz, the king of the big OB and me, the 'oik, in attendance for novelty value. Gil's Cast Lighting has formed a partnership with ETC: what will Fred Foster think of next?

AND NOW DEAR READER another cautionary tale about the job-finding jungle - if you are sitting comfortably, I'll begin. On holiday in Holland, I got a call from a designer friend saying he was putting my name up for a news set-up in Istanbul. He was designing the set and had been asked to recommend someone to light it. Apparently they like the British way of doing things. They are coming to London the day after tomorrow and would like to meet up to get the job underway immediately, as time is short.

TWO DAYS LATER, muggins is on one of Mr
Easyjet's stringbags out of Schipol into the
romantic ambience of Luton. Waiting in the
foyer of a West End Hotel, I notice a shady
looking group who I take to be arms dealers,
these being swarthy blokes with issue sunglasses
and foul-smelling cigarettes probably made from
Camel droppings (I've nothing against Camels
you understand). Yes, you've guessed, they turn
out to be the production team and know about
as much English as I do Turkish. Actually, that's
unfair - one does speak English quite well, but as
the day progresses he shows signs of overload.

THEY ARE STARTING a News Service in about six weeks' time and need to refurbish an office block-type newsroom to accommodate a very ambitious news set (presenters on a revolve!) and have allowed two weeks for rehearsals. The existing lighting is fluorescent. The lighting brief which I extract with some difficulty, the words 'pulling' and 'teeth' come to mind, is for a much more atmospheric treatment with several differing looks for various programme strands. I say I must have a recce as the site is difficult -2.85M slab to slab amongst other things - and this is agreed. I decline to provide a plot prior to this, but agree to supply a wish list of likely equipment which may be required. Back in Holland I fax the list through, but emphasise it's a wet finger in the air job and may not bear any resemblance to my real spec' after the recce. Back home a week or two later I e-mail every few days pointing out how short time is getting.

YOU'VE GUESSED, after about three weeks I get a note from an unknown lady in Istanbul saying it was nice to meet me (we hadn't) but they had decided on another approach as my quote was too high (I hadn't given one). They have my invoice for time and plane fare but, as yet, no shekels. If you've been given the run around lately do let me know, I wouldn't say it's becoming a habit with me, cue for a song, but I'm in need of new spikes at the next oil change.





Strand's new 300 series console and SL theatre spotlights



## Dream



THEATRE

World

It was a definite case of algorithm meets allegory, Bottom in binary, scrambled Shakespeare on toast (flying even!) in this ground-breaking virtual reality performance of A Midsummer Night's Dream at Kent University.

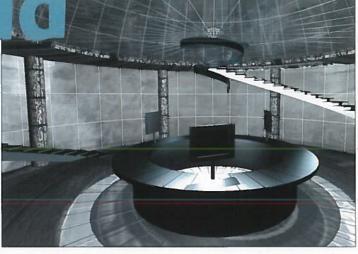
Louise Stickland reports.

The principal collaborators on this innovative production were production designer Mark Reaney from i.e. VR, the Institute for the Exploration of Virtual Reality at the University of Kansas, and Chris Baugh, Professor of Drama at the University of Kent, Canterbury, and head of the Kent Interactive Digital Design Studio (KiDDS).

Reaney is a world leader in the use of VR in theatrical contexts, exploring real-time computer graphics technologies in live performance. At the University of Kansas he has produced several innovative shows using VR backdrops and scenery including *Machinal*, Sophie Treadwell's chilling 1928 expressionist masterpiece. He also produced *Wings*, where the entire audience watched decked out in full VR headsets.

Chris Baugh arrived at UKC four years ago, determined to explore the use of computers within theatre design. Shortly afterwards, he founded KiDDS with colleague Gavin Carver. KiDDS has a twin focus - one aspect is using computers for historical and archival purposes - producing accurate computer modellings to document old theatres, stages and sets. The other is the creative and interactive potential of computers used in live performance.

Through a series of serendipitous communications, Carver came into contact with Mark Reaney and together pushed forward the research project that was to become MSND. Reaney was awarded a Leverhulme fellowship from UKC and came to Canterbury for eight months at the start of 2000 to further the cause of VR in the theatre. Baugh



explains that the essence of their interest is in using computers to allow creative collaboration early on in the design process. As an academic and theatre historian, he's also well aware of the many previous experimentations with interactive, 3D performances, different viewing angles and other forms of alternative presentation – dating back to the early days of cinema in the 1890sl

Baugh and Reaney agree that expressionist works translate well for VR and CG environments because, by definition, they place real actors and people in a designed and preconceived world – a world often at odds with them. "Expressionism just lets you do outrageous things to people," states Baugh.

Reaney chose MSND because of its vivid magical elements, the fairies and dreamworlds, contexts and locations that slide fluidly into cyberspace. Naturally, that's where this production was set, opening the visual equation to the heart of mathematics! Reaney adapted the original Shakespearean-length script to a neat 90-minute version, more in tune with Y2K attention spans. Also, 3D viewing and constantly moving backdrops can get tiring for an audience – unless they all happen to be arcade junkies!

The fast-moving world of computer technology means that there are usually several new tools and toys at Reaney's disposal by the time he comes to design his next production. On a VR production, designing and building the show is one and the same thing. The actual scenery is usually minimal as all the detail comes in the VR. MSND featured a sparse, but effective, stage set and three large screens, one at the back and two at the side, slightly angled. These were painted with an aluminium coating to make the 3D polarisation effective.

The actors and technical crew for the performance were all undergraduates from either

the four-year BA Drama course or the three-year combined honours in Drama. The acting was sculpted by professional director Josephine Le Grice. Reaney drafted in to his technical team two post-graduates - the unfazable Cat Fergusson, stage manager and parttime PhD student, and Michaeljohn Gold. Gold was assistant production

designer on the show, the culmination of his MPhil in Computer Aided Scenography.

Reaney and Gold worked closely on the design and modelling of the 12 VR environments with two second-year drama students - Bronia Housman and Rachel Wooley. This was a very ambitious project in terms of the number of environments created, a process carried out using 3D Studio MAX by Discreet. Once rendered, the environments were imported into VR developer programme World Up, an OOP version of EAI's WorldToolKit.

The sets ranged from the realistic to the fantastic. The real world was represented in monochrome with gently moving elements. It contrasted dramatically with the vivid, hallucinatory world of magic and illusion which exploded into rich and rapidly-moving multi-coloured surreal spaces. The high-tech office of the opening scene resembled a tastefully designed corporate HQ in San Francisco. Cyberspace was everything you would expect it to be – mazes for chase scenes and confusion, Technicolor forests, giant chess sets, floating web pages, menu bars and fragments of text blown about in the breeze.

The VR environments were often connected as you, the viewer, spun through them into the next scene, skillfully interwoven with the real actors coming on and offstage, and allowing seamless movement backwards and forwards in time and location. The feeling of motion was constant throughout the piece. A specially composed soundtrack by local composer Ethan Maltby further heightened the dramatic potency of the VR scenes. Preconceptions? Leave those at homel

The action pumped from start to finish, exhausting, but without a dull moment, and your imagination was kept active as live and VR worked seemingly effortlessly together. With plenty to absorb, it was not a show for those into passive,

vegetative entertainment! In return for some serious computing, the cerebral reward was an entirely invigorating, refreshing immersory experience. Look at the ass on that!

MSND was staged in the Joanna Lumley Studio on the UKC campus, and was further enhanced by a cracking cast – better than many a professional show I've seen! Amy Oliver as Bottom was hilarious, complete with virtual and actual ass's head – the vivid VR technoass replication lurking constantly on screen for the duration of Bottom's spell!

When Reaney arrived at Kent in January, the School purchased a reasonably high-spec computer for the time - a 650mHz P3 processor with 256Mb of RAM. They added an industrial-strength Evans & Sutherland Tornado 3000 video card, capable of running dual monitors in addition to rendering high speed, high resolution 3D graphics.

From the dual monitor card, they were able to create the virtual worlds in stereo, giving a right and a left eye view - making the computer work twice as hard because it's rendering two of everything in real time. The idea was to create the 3D worlds economically enough for the machine to run them at 15 frames a second or better - for smooth animation.

Five projectors were used, the two main ones (for the central screen VR) being Bell InFocus 35C DLP projectors. The Studio is a small space with an 80-seat auditorium, and backstage there's not enough room to swing a donkey's head, so these projectors were positioned under the stage and focused onto a diverter mirror which bounced them onto the rear projection screen.

In front of each projector was a polarising filter. This polarised the right and left eye views in different directions - 90 degrees opposite to each other, and the illusion of 3D was then made by the audience wearing the sunglasses - whereby each eye sees only its correct projector.

The side screens were front projected with 3D video throughout the show, sometimes showing the same footage as the main VR screen and sometimes different variations. It was originally intended to do these as live GC VR projections too, but they ran out of technical time to make it happen. Cutting-edge technology can sometimes be cantankerous and uncooperativel

The decision was taken to make 3D video tapes to front project onto the two side screens. Sources were replayed from VCR machines operated independently, and manually, by two operators with vision mixers secreted each side of the auditorium. Reaney explains that a VR production normally needs a longer tech period, but MSND was shaved to an absolute minimum of eight intense days in order to coincide with end of year schedules, graduations, etc.

In addition to the FOH video projections, the side screens were also used for inserting live 3D 'flashes' of the actors, filmed backstage in real

time, on two video cameras. In front of each backstage video camera was rigged a Heath Robinsonesque mirror device, and the FOH projectors also passed through a similar device.

The mirror device effectively split the image in two – each from a slightly different perspective. By obscuring half of the field of the camera/projector with the mirror, that half of the image was diverted to a second mirror that corrected the mirroring of the image and realigned it to the directly received image.

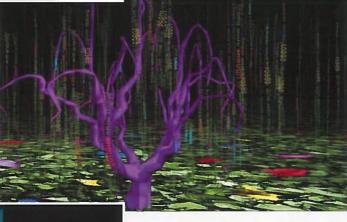
With the device in place, the camera produces two images side by side from slightly different perspectives - just like the eyes. When routed to the FOH projector with similar device attached, the image is thus split and realigned. While in the Mark Reaney explained that he intends to push forward the technical boundaries with each new VR production. This was the first show he's done with three stereoscopic screens running in serial, and other challenging aspects were the multilayered story itself and the large cast.

Initially developed as a VR research project, certain antagonisms arose along the way between the virtual technology and actual direction of the piece. However, it was very evident that the cast benefited from Le Grice's professional expertise.

Backstage, the virtual set was operated live by Bronia Houseman, whose expert manipulation of the joystick zoomed everyone through the performance with great flourish. With one eye watching the computer screen and driving the scenery, the other was fixed to a monitor showing her the onstage action and the audience eye view. Effectively she was another performer – a scenery performer.

The idea was always to keep the VR scenery as much in real-time and as interactive with the actors as possible. Only the really complicated VR







mirror device, the light from the projector is polarised, with left and right images polarised in opposite directions. The polarising filters work exactly like those in camera or sunglasses - they cut glare by reducing scattered light . . . Cat Fergusson makes it all sound simple: "When light behaves as a wave, it can only pass through the screen when its waves are aligned in a specific direction."

So the viewer wears a similar pair of filters, one on each eye, and because each image is polarised differently and the viewer is wearing corresponding filters, they see one image through the left eye and the other through the right. Humans are already equipped with the processing power to turn two slightly misaligned images into a single 3D one – so the rest is left to naturel

moves that involved changing more than three axes at once were pre-programmed on the computer. Lighting the piece in actual reality turned into a collaborative effort, primarily because of the eccentricities of lighting VR and the need to keep light off the screens whilst keeping the performers lit. In addition to LD Adam Owen, Reaney and Le Grice also pitched in with ideas and contributions to the lighting scheme which developed organically alongside the performance.

Lighting VR environments is a whole different ball game. Based on the geometry and polygons of the rendering programme, it won't light a polygon that's bigger than a pool of light and currently – to preserve playback speed – doesn't allow for more than eight lightsources to be turned on at once. However, advantages include the ability to select one lightsource to illuminate the entire universe along one side, which it does completely in proportion, with every object having the appropriate shadows, just by a single click!

Back in the Studio, lighting was mostly carefully focused and shuttered profiles, pulled from UKC's own stock



and augmented with some hires from White Light. Lighting was operated by Matt Wood, a first year drama student using the resident Zero 88 Sirius 24. The lack of dimmer channels meant some real-time re-patching of luminaires during the show, and although it all came good in the end, it was clear that the lighting department had been stressed!

Matt Wood, a budding actor and writer commented on his first lighting experience: "In future I'II definitely leave the technical stuff for those who're good at it! And I'II NEVER whinge during a tech rehearsal again - tecchies deserve all the respect they get."

Sound was designed by Kirree Seddon, a final year Drama student who worked with Ed Cullen who also operated the show. Maltby's musical soundscape for the VR sequences assumed an atmospheric, filmic, underscoring role. Seddon reflected this in her design, which melded with spot cues for the live action and other sound effects as the show flipped between real and virtual scenes to the tone of a modem connecting to the internet. The idea was to make the magical sequences sound like they were coming from inside a computer.

The sound effect sources originated from a miscellany of places. Some were recorded in one of UKC's studios using Cubase and various instruments including synthesizers. They were mixed in Syntrillium Cool Edit Pro, saved to WAV

files, and played back for the show via a PC. Others were pulled from Internet sound banks and the fight noises came straight off a shoot-emup computer game. There were a few sampled windows default sounds

in there too - the ones that make you cringe because they are accompanied by a trite little message telling you there's a Fatal Exception Error at Module 11XGXZZ00 and the machine will unceremoniously shut down!

The soundscape was recorded initially onto minidisk, then translated into Cool Edit files for replaying via the PC. Fergusson comments that Cool Edit's flexibility was invaluable during the intense tech period, enabling sound effects to be changed quickly and easily at the behest of the director.

The three fairies used radio mics onstage and their vocals were treated in a Multiverb 3 effects unit

Left, Mark Reaney and inset, Chris Baugh

using flange and reverb so that they sounded authentically electronic - this was the only live effect in the whole show. There was also a rifle mic backstage to pick up Titania and Oberon's vocals when their images were fed from the live video cameras onto the side screens. The Studio's sound system consists of four JBL speakers. There were some seat-of-the-pants technical

and dramatic moments in getting the show on, and the biggest challenge for everyone proved to be working with a totally new medium in a highly compressed time period. The show ran for six nights and received a great reaction. It demonstrated a whole new take on image, music and text and is just the tip of the iceberg in terms of the potential of VR applied to performance. For those who think UK theatre needs a kick up the ass, here it is!

For those interested in finding out more about drama courses and the new MA in IT Modelling at Kent University, check www.ukc.ac.uk/sdfva, and for more about i.e.VR, check www.ukans.edu/~mreaney.









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# Asleep in the Stalls...

ou never know what to expect on the Edinburgh Fringe. The five musicals I saw there this year make up a panorama of venues and producing companies that offers some insight into the problem of making art on a shoestring, of pulling yourself up by your own talented bootstraps. All this, and not an Arts Council grant in sight.

The joy of all five blessed at the

#### HARTLEY KEMP's C

Venue has moved its HQ this year from the Overseas League to the big union building in Chambers Street formerly occupied by the Scottishbased Famous Grouse House. In its wellequipped basement theatre, a group calling themselves Canned Productions offered Whatever! the musical.

LIGHTS UP on a very assured 12-piece band, perched on a bridge above a stage full of actors. The sound quality may not be the best, and

the lighting plot is pretty basic, too - no LD credited in the programme - but the book has some stand-out moments and the songs just get better and better. The story is a deceptively simple one, starting as a parody of Grease which goes on past the golden eighties and follows its characters into the more depressing nineties. Tongues remain firmly in cheeks throughout, and the final uplift number is so good and at the same time so consciously, deliberately bad, that you find yourself singing along to it with tears of laughter in your eyes.

THE CAVERNOUS upper half at Southside is in its second year of management by Brighton's Komedia, and though the tradition of ambitious student musical revivals set by their predecessors has not continued, there is one ambitious musical offering this year, Shrewsbury School's The Lost Domain.

LIKE THE Whatever team, this lot are not short of numbers in cast or orchestra. Equally, because they have other shows setting and striking before and after them, they rely on costumes rather than scenery for visual effect, and indeed a stage full of young, well-costumed actors works very well. Alain-Fournier's wistful novel (in French it's Le Grand Meaulnes) gives plenty of opportunities for rousing ensemble work, and the ghostly wedding celebration which provides the book's central image is a visual and musical treat on stage. Londoners can judge this one for themselves in January, when it plays a one-night stand at the Royal Opera House's Linbury Studio.

THE ORCHESTRAL SOUND for The Donkey Show, at Potter Row, the Pleasance's newest addition to its growing portfolio of venues, is not live, but it's very loud indeed. Neither plot nor songs in this event are original: it's a strippeddown Midsummer Night's Dream performed to all your favourite disco hits (even 'Car Wash' - don't ask, it just fits), sung over the original versions by a New York cast. The Pleasance team have done a stunning conversion job on the hall, which reeks of real disco atmosphere, with plenty of funky lighting from Black Light and a sound system from Orbital that rocks the ground under your feet. Some very nifty in-yer-eyes lighting, including followspots operated by the cast themselves, drives a fast-moving show that stands or falls on willing audience participation: the actor-singer-dancers are trucked pell-mell through the crowd, and a thin house would spoil much of the show's infectious effect. Let's hope the energy works as well at the Hanover Grand in London, where The Donkey Show has an openended transfer.

AT THE HUB of the Fringe, Odense's International Music Theatre booked the Ballroom, one of the Assembly Rooms' largest spaces, for their musical version of Wedekind's Lulu, and (perhaps not surprisingly) didn't fill it. The fact that two of the show's three female singers were recast suggests some of the difficulties a foreign company may have in transferring a show to Edinburgh, and you can make what allowances you will for the fact that the Danish principals were singing in English. As it happens, they were singing very well.

**ANOTHER OVERSEAS IMPORT** was the Australian musical Crusade, performed in Greyfriars Kirk. Billed as a concert version, the result of just two weeks' rehearsal in London, this was a remarkably finished piece of staging. Because it was the only production in the venue, the technical staff could purpose-build their lighting and sound installation - the set was a simple cruciform acting area with a couple of rostra where the largely processional scenes could unfold. A square of trussing at the centre of the

cross held most of the kit.

THE IDEA OF A MUSICAL based on the ill-fated Children's Crusade brings back sniggering memories of Bernadette, which Garry Young's clever production couldn't completely dispel, but the fine singing of a professional cast, some very clever arrangements (Graeme Brown) for a band that sounded a lot bigger than its actual numbers, and a sense of total commitment from everyone concerned did a lot to overcome the show's doubtful, downbeat premise. Its ultimate success owed a lot to Chris Paterson's discreet lighting design, making the most of a limited number of carefully hung lanterns, and a sound kit which held the band in check and offered reinforced natural singing rather than souped-up bravura, relying on half a dozen small but very effective speakers.

THE JOY OF ALL five shows, to a greater or lesser degree, was that you came away from every one of them refreshed from that great well of creativity, onstage and backstage, with which our stage seems to be blessed at the moment. None of these companies, amateur or professional, had ideal conditions in which to work, but all of them delivered their little moments of magic, and to properly appreciative audiences. We could be a lot less lucky.

In last month's column we made the mistake of crediting the flying sequence in The Witches of Eastwick to the wrong company. Our apologies to Stage Technologies, who were in fact the company that rose to the challenge of flying the three witches, thanks to their newly-released Pathway technology which allows the performers to follow any number of paths within a fly zone, and for these paths to be easily changed in software.



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# Hot, Hot, Hot...



'Crisis! What crisis?' seemed to be the cry of the majority of exhibitors at this year's PLASA Show, and this is not a reference to the fuel blockade that developed during this year's Show, though it certainly played a part in unsettling the participants. No, it is the apparent crisis within our own industry over falling prices, reduced rental returns and shrinking markets that the doom merchants have been peddling for the past several months, if not years. Well, if there is such a crisis there was little evidence of it amongst the exhibitors, though plenty amongst the chattering classes at the Bandit bar, the Platinum Club and PLASA Show Bar.

Record stand space and stable visitor volumes (just under 13,000 visitors, of which a quarter were international), do rather show the lie to talk of a crisis, and yet there are obviously fearsome downward pressures on margins at play throughout the business.

In contrast, there was also much levity in the hall with strolling entertainers occasionally spotted in the aisles, not quite up to SIB standards, but getting there for reticent London. So, what was new at the show? Well, it has to be said that for the most part this felt like an 'evolutionary' year rather than a 'revolutionary' one – a gentle slowdown after the hectic work of putting products together for Millennium events. There were new products, of course, but they all seemed to be minor refinements or variations of old products, or products launched to match or offer some minor improvement on a competitor's product.

The entries for the PLASA Product Excellence Awards in the lighting category were depleted by the absence of entries from Coemar, High End, LSD and Vari-Lite, all of whom had recently launched products that would have been in serious contention had they been entered. That is not to take anything away from Martin's MAC 2000 which looks to be a super product, but without any

competition from its peers it was not seriously challenged either. The audio side too was missing entries from some of the key players, particularly on the speaker and mixer front, which would have made for a more lively contest.

Other winners were Pani, for its light filter, Total Fabrications for its T2 'safety first' trussing system, Stage Technologies for its Pathway 3D flying system, Acoustic Solutions for the Homemix dual CD disco kit, and M+D Design, who won awards in both sound and AV categories for its Event System Monitor and 'The Podules' range of interface units. The environmental award was won by the Airoamer from Nu-Light Systems (full coverage of the awards winners can be found in the four-page supplement which accompanies this issue).

Such entries cost the exhibitors £100 each, really to discourage any frivolous contenders, but the money received goes to an industry-related charity so it's all in a good cause. This link gives us the opportunity to plug a new fund that was launched at the splendid PLASA New Century Party at the Natural History Museum on the Sunday night of the Show. Light Relief, which benefited a share of the proceeds from the Awards this year, is a joint effort of the ALD and PLASA to float a life raft for freelance lighting designers when things go pear-shaped in their lives.

There were many other good après-show parties as usual, ETC's 'beach party' at the London Aquarium, L&SI's annual bash at Langan's Coq d'Or and Paul MacCallum's regular jam session at the 100 Club, to name but a few. However the award for the cleverest way of ensuring that their guests actually got to the venue, goes to the Wholehog people at High End Systems for their trail of blue Flying-Pig stickers affixed to every third paving slab between Earls Court 1 and The Ifield pub, which seemed like a very long way at the time. God knows what the area's drunks made of that later on.

Now for the more serious stuff of trawling through the

team,
together with
Tony Gottelier,
Rob Halliday,
Mike Mann,
Steve Moles,
Jacqueline
Molloy and
Louise
Stickland,
sweat it out at
Earls Court 1
in September



#### **SHOW SHORTS**

For 5 Star Cases, the concept of a new product is a nebulous one since the company's core business is custom manufacturing. However, its recent relocation to a 27,000sq.ft factory and major investment in CNC technology has meant a dramatic move forward in the accuracy and intricacy of its designs.

AB Connectors has built its business supplying to the military industry and now hopes to push its product into the entertainment industry. On display was the ABXS connector with its ingenious ball-bearing push-pull release mechanism, aimed at audio and instrumentation applications.

ADDA Super Cases has exhibited at PLASA for 22 years and in that time has enjoyed considerable success with its range of polypropylene and aluminium cases. This year, however, the company has made a move into protection of another kind - the Con'Dome and Flight'dome inflatable systems for those times when your intelligent lighting system needs protection. New at PLASA was the Upside Down version, which can be used in many positions!

AMG-Féchoz was showing its asyet-un-named scenic computer software system, which allows for control of movement, speed and position of equipment with precise acceleration, motion and braking features.

Andolite was showing products aimed at the touring, hire and events markets, including a 19" rackmounting module, plus splitter boxes and patch boxes.

Anytronics' had a clutch of new products, including the Contract dimmer series, initially available as either an 18- or 24-way, which will hopefully move the company into bigger arenas such as the architectural and nightclub markets. The company now also offers a DMX option on its pro-dimmer range.

APS released RMS21 - the latest version of its Rental Management Systems (RMS) tracking software, which now includes on-line multi-site features

AWE Europe distributes audio visual equipment to the commercial installation trade. At PLASA, it had part of its wide range on show which includes background music equipment and home cinema through to professional AV systems including plasma displays and videowalls.

Batalpha Bobach showed the new Q-gar - a portable, wireless scenery controller. Light enough to hang comfortably around your neck, it features a touchscreen and a joystick for ease of control.

BDC Commercial Supplies was showing the new Tosumi monitors, available in 21", 25" and 28" versions – all with built-in sound. These were shown in a videowall configuration, where their ability to run cool and stack easily in a variety of configurations, will make them popular.

#### AUDIO

Acoustic Solutions'
Homemix package made its first ever appearance in the UK. Designed specifically for the aspiring young DJ, this system provides everything its name suggests, a teenage bedroom training ground. The unit features twin CD player, integral DJ mixer and amplifier (2 x 25W

RMS), mic channel with EQ, a pair of speakers (that won't frighten your folks), plus mic and headphones.

Adam Hall's well-known catalogue of flightcase hardware and equipment stands has been augmented by a range of pre-made and bulk cables. The distinctive pre-made leads include balanced and unbalanced variants, with bright yellow connector shrouds for ease of identification. Also



on show, audio tools and power amp products from Palmer, and Amphenol connectors and Commercial Acoustics Solutions' range of low-cost loudspeakers.

The 900 series from Adastra is a new range of single-zone amplifiers, with three different levels of power - 30, 60, and 120W. All 2U, 19" rack-mountable, the amps are intended for BGM in bars and other leisure environments and feature basic tone control, two mic inputs and level control. There is also a 120W slave amp in the series.

Following last year's launch of the flagship ML5000 console, <u>Allen & Heath</u> was at PLASA to launch its ML4000 – a VCA-equipped 12 aux, eight audio group mixer with eight mute groups, four-way matrix and enhanced LCR and IEM facilities. Like its big sister, the ML4000 incorporates the company's LCRplus panning system and an intelligent P/AFL system. The ML4000 will be available in formats between 32 and 48 channels, with

two additional dual stereo channels. An input sidecar was also announced for the ML5000, with the promise that a similar 24-channel unit will follow for the ML4000. Piggybacking on the stand was Audace Technologies, whose paging interface and intelligent wallplate controls are designed to operate the A&H DR series products for non-technical environments.

Maker of audio induction loops, <u>Ampetronic</u> has a new close field system, the ILD 120. Just 1U high, the new loop driver has higher amp output and loop checking. The ILD15BB is a battery-backed loop unit for installation in lifts (a notoriously difficult environment for AFILS). Reputedly the only one of its kind, this unit is already a standard for Otis lifts.

Apogee Sound International chose PLASA as the forum for the announcement that its UK distribution will now be handled by Lightfactor Sales. John Adams, Apogee's



director of international sales, commented on the dominance of Lightfactor's sales presence in the UK market, and welcomed the company's newest business partner on board.

On the stand, Apogee's new CA-1000 series amplifiers were on show, as well as the recently-introduced F-Series loudspeakers. This processorbased range comprises three

full-range cabinets (FH1, FH2 and FH4) plus the FS2 monitor wedge and FH18 4  $\times$  18" subwoofer, which uses planar coupling for extended high-power low-end response.

Arbiter Pro Audio provided two of the show's most notable launches; both from US speaker giant IBL. The Vertec line-array system is a three-way full-range design that promises 'more for less' and a repeatable, predictable performance in large-scale applications. The VT4889 enclosure is based around JBL's new Waveformer and Radiation Boundary Integrator technologies, which claim to offer improved consistency in coverage pattern over previous line-array designs. Key to the unit's high powerto-weight ratio is the 2250J 8" dual voice-coil mid-range driver, four of which are fitted to each VT4889 cabinet. Also included are a pair of 15" 2255H drivers and a trio of compact 2435 neodymium compression drivers. For more modest applications, JBL continued the one-stop-shop theme of its EON system by launching the EVO - a contractor system that offers intelligent self-alignment for non-technical users.

ARX Systems, hosted by UK distributor Raper and Wayman, introduced a pair of useful utility products at the show. The Level 8 is an eight-channel audio balancer and level optimiser, designed to interface unbalanced – 10dBV equipment with professional gear. The Mix 8 8:2 stereo line mixer offers unbalanced (-10dBV) and balanced (+4dBu) connections with simple level and pan controls for each channel.

The <u>Audico</u> Forte is a PC-controlled PA system designed for installation in environments such as ships and hotels. A matrix controller that can run up to 1km, the dedicated WAV software (runs in Windows 95/98 and NT4.0) stores fault information and can be used for standard paging and voice alarm.

Audio Design Services, now re-badged as ADS, has a new range of mixer amps and booster amps for the install sector, and particularly for BGM, a range of amps from 15 to 120W. Denominated as the ADS 1000 and 2000 series,

the amps feature basic input parameter control and switching, plus simple bass/treble on the output.

Renkus-Heinz distributor Audio Projects was showing the new Reflex series of loudspeakers, featuring the CCH (ComplexConicHorn) and TRAP (TrueArrayPrinciple) technologies developed by Ralph Heinz. The Reflex series consists of eight enclosures from a compact 6" plus

1" unit to a single 18" high-power sub, for fixed and mobile applications. The RFX121T and RFX151T are

Simon Priestley of Allen & Heath with the ML4000

.....

Adda's Derrick and Monica Saunders (left and right) with Cheryl Bereznyckyj

The Arbiter team of Phil Moon, Mark Gander, Michael McDonald, David Scheirman and Paul Gonzalez with the Vertec System



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- Fusion DMX Splitter 1.5.1 (5 way splitter)
- Fusion DMX Splitter 1.5.2 (5 way splitter and firewall protection)
- Fusion DMXdtr (a d and d a convertor)





#### dimming racks

- celcofusion
- Fusion Conference Racks (from 24 to 36 channels)
- Fusion Touring Racks (from 48 to 72 channels)
- Fusion Installation Racks (from 12 channels)



#### dimming packs

#### celcofusion

- Fusion 1210 Wall Mount (12 x 10A Installation Pack)
- Fusion 0632 Rack Mount (06 x 32A Touring / Installation Pack)
- Fusion 1210 Rack Mount (12 x 10A Touring / Installation Pack)
- Fusion 1216 Rack Mount (12 x 16A Touring / Installation Pack)
- Fusion 1220 Rack Mount (12 x 20A Touring / Installation Pack)



#### "conventional" consoles

#### celcopathfinder / celcoexplorer

- Celco Pathfinder (60 channel console)
- Celco Pathfinder EPX (60 channel console with XVGA monitor o/p)
- Celco Pathfinder Extension (120 channel upgrade)
- Celco Explorer (120 channel console)
  - Celco Explorer 2 (120 channel console with XVGA monitor o/p + fioppy)
- Cełco Explorer Extension (240 channel upgrade)



#### "moving" consoles

#### celconavigator / celcoventura

- Celco Navigator (240 channel console)
- Celco Navigator EPX (240 channel console with XVGA monitor o/p)
- Ceico Ventura 2 (1024 channel console with XVGA monitor o/p)
- Celco Ventura 2 Twin HUD (1024 channel console with 2 x XVGA monitor o/p)

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designed for point-source delivery even in large arrays, by designing acoustical centres to be as far back in the trapezoidal enclosures as possible. This, claims the company, results in a phase-aligned wavefront with uniform frequency response across the coverage area. Also on the Audio Projects stand were Carver amplifiers and Furman power conditioning products.

Audio Technica launched the 1400 Series UHF diversity microphone system; single-channel, and with detachable twin antennae, the 1400 module is sized to fit a pair, side by side, in a 19" rack. The buyer can select either a receiver and transmitter pack, or mic system with an ATW-T52. The AT 889 CW is a headset mic designed specifically for use in aerobic classes. Extremely water resistant, it's mounted in stainless steel; even the plug to transmitter is rubber sheathed to prevent sweat ingress.

Autograph Sales was showing Meyer Sound's recentlyintroduced USM-1P and USM-100P self-powered stage monitors, which offer narrow (45° x 45°) or wide (100° x 40°) dispersion patterns from a 15"/3" format design. Following customer feedback, the powered monitors have been equipped with Meyer's L-track rigging system,

enabling them to be flown as fills. From Avenger is a Soundweb-compatible plug-in for the Conductor and MiniConductor, giving integrated control of fades and crossfades from the central show controller, Duran Audio's Axys steerable

line-array system (as featured in the Millennium Dome) has spawned a smaller companion product, the Intellivox 1B. This compact digitally-controlled loudspeaker system is designed for applications where restricted height would prohibit the use of the larger line array.

Axcess Technology, as the UK distributor for Biamp products, was showing Biamp's latest product - the SPM723 audio mixer. All functions on this 1U box are

the back. Features include seven stereo inputs on RCAs, two mono inputs (balanced, mic or line level with phantom power) and three balanced stereo outputs (the third being either of the first two, or a mix of both).

Behringer showed its new B-2 condenser microphone. launched recently at NAMM. A high-quality device intended for studio use, this handassembled mic features a 1" dual-diaphragm capsule with gold sputtered membrane giving a flat frequency response across an enormous range - 20Hz to 20kHz. For added utilisation, the mic is switchable between cardioid and omni-directional

Beyerdynamic has made some changes to the Opus range of wireless microphones, all having now reverted to silver, wire baskets. The new Opus 69 has been designed as a

vocal mic, with high rejection characteristics from its hypercardioid pattern, and wide frequency response, from 35-16000Hz in close mic use. Complementing the 69 is the new Opus 81, a condenser mic for use on vox or instrumentation, with a maximum SPL handling of 138dB.

Brähler - A new eight-channel IR transmitter, the MS18D is designed for simultaneous translation

> systems. These compact units can be daisychained up to a

29-channel system. Makers of large interpretation systems, including electronic voting devices, Brähler also had VAN, its highly-stable softwarebased Virtual Audio Network. A typical high-quality digital routing matrix controller, the system has the usual limiter, compressor, parametric, crossover, etc.

The launch of the Minidrive from BSS Audio was welcomed by budget-conscious contractors and installers, as the two units (the FDS-334 and FDS-336) offer several of the features of their large Omnidrive cousins, but at a lower cost and simpler specification to suit more straightforward applications. Facilities include Bessel, Butterworth and Linkwitz-Riley crossover filters, input/output delays, 60 bands of EQ and mid-filter limiters. The Minidrive family is compatible with the

SIA Soft SMAART LIVE analyser program, and has a user interface that is designed to be familiar to Omnidrive users.

Canford Audio chose PLASA to launch its updated version of the EMO CM6 sequential master mains switcher, which now includes a



fire alarm interface. The 2U CM6 Master Unit contains all the control electronics required for a fully-equipped system including the keypad inputs, slave unit control outputs and power switched outputs 1 and 2. A fourdigit security code has to be entered by the user to initiate the power up or down sequence, providing a degree of security against misuse. A separate wired keypad is available to allow triggering from a distance. Canford have expanded the 'Bodge Plug Family'. The range features 10 frequently-used plugs and sockets, each with two or three spring-loaded terminals.

Celestion International brought the trade press together for a hot demo (in more ways than one) of the company's new CXi products. The latest introduction, and largest box in the range is the CXi 1531, a three-way full-range loudspeaker system designed for medium-sized music venues and club installations. The cabinet design, which features 15" and 8" cone drivers, as well as the CDX1-1750 compression driver, allows the MF/HF section to rotate to permit horizontal or vertical mounting. Though much smaller in scale, the new CXi 521 proved no less impressive. Intended for use as stand-alone small-scale reinforcement or as fill-ins for larger systems, the cabinet contains a 5" cone driver coupled with a 1" compression device mounted on a conical horn.

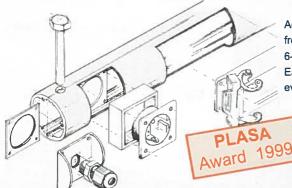
In a development that will open the way to full digital control from 'front of house' using crossovers and equaliser units, Chameleon Audio launched a new range of digital amplifiers. Using XTA crossovers, the new integrated system allows for full PC digital control of its high-end pro audio amplifiers with outputs of up to 1800W per channel. The system is also designed to be compatible with Microsoft Windows applications. Also new was the CT2600 full range FOH speaker - a high power bi-ampable enclosure which can operate at a total peak power of 2600W with 900W coverage for bass and 400W for the mid tops.

Citronic Pro Audio's offerings at PLASA included the CD-4 anti-shock dual CD-player, which utilises a separate 2U controller panel to allow a variety of mounting options. Unusually, the CD-4 provides users with as much as 20 seconds of memory per deck to allow for the worst mechanical disturbance. A seamless loop capability, auto-cue and programmable pitch control are also featured. The MSX-4 MixStation is a 10-input DJ mixer with three-band EQ, fully assignable crossfader (with hamster switch), three-band instant kill







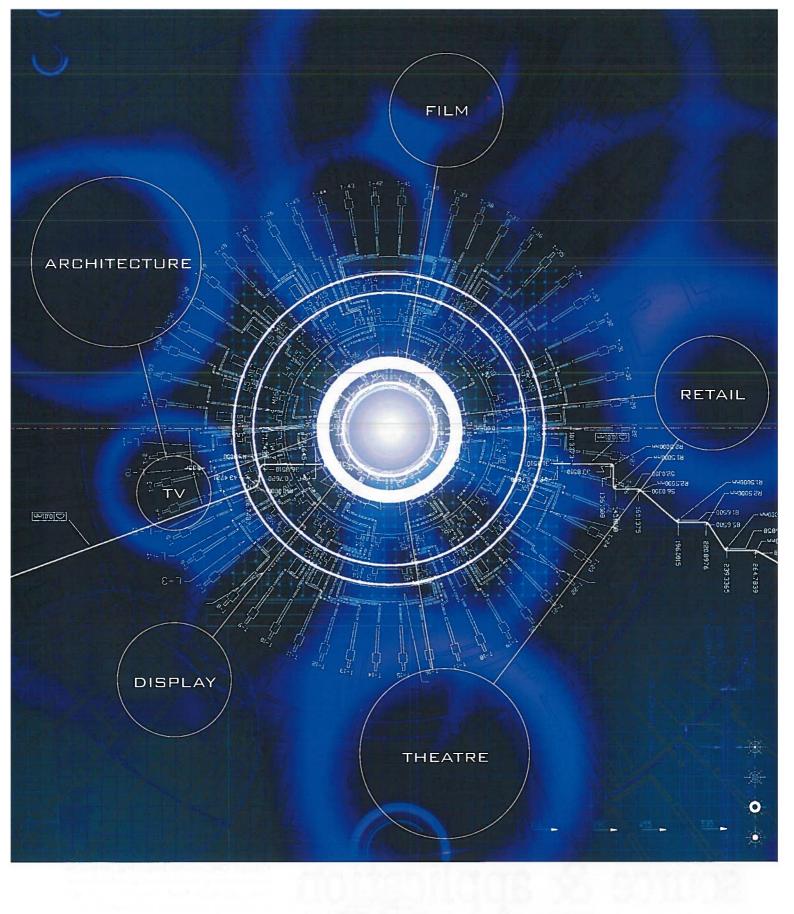


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E-mail: info@lighting-tech.com Website: www.lighting-tech.com Bretford Manufacturing showed its new fully adjustable yoke-style mounting brackets which have been designed to take monitor weight with maximum safety. Also on show was the Series 2100 electric projection screens with 24V switching for easier use.

An ingenious solution for anyone who

re the world's lead octucer of floors to

has ever had to lug dance flooring up and down stairs or figure out how to store it backstage are the new dance floor storage and carry bags from British Harlequin. The bags are made from water-resistant polyester vinyl and come in two sizes with a range of heavyduty roll straps.

British Optical revealed that many of its optical components are installed in various new products

in various new products being launched at PLASA this year.

Buster Cases was showing its 'off the shelf' 2000 series of cases this year – a departure from its usual custom products.

Caire International was showing a range of stage products including the Argonaut, a screen-based graphical local controller that can be used for virtually any control function within automation control systems.

Cardiff M Disco Services - seasoned PLASA campaigner - showed several products which it distributes exclusively, including Antari fog, smoke and haze generators and Zebra loudspeakers. It also reported the first sales of the new Numark mixer with integrated Kaos Pad.

After six years attending PLASA, Ceep feels it has established its presence and uses the show as a platform to meet with international visitors. The company's high-quality connectors are now regularly supplied to the entertainment industry.

Cliff Electronic Components showed the Soundcheck and Qualikit audio test and demonstration CDs, alongside the tamper-resistant contractor terminals, which aim to keep systems protected in public places.

Coffing Hoists, manufacturers of rigging products, reported an excellent show with strong interest from international visitors.

switching and Citronic's Syncro beat system. To complete the package, the CL-2 boasts a wealth of dynamics processing, including compression, limiting, gating, expansion and HF enhancement.

<u>CLD Distribution</u> distributes several products including <u>Neutrik</u>, and were showing Neutrik's new compact and cost effective 'Minilyser' audio analyser. They were also showing the new KD Electronics remote control mixer

AMP

FLOOP

which has eight ins and two outs, and its new computer controlled zoner router with eight inputs and eight outs. By the end of the first day, CLD had already taken plenty of orders.

Cloud also reported plenty of good quality visitors to the stand. They had considerable interest in their new Pumpstation headphone distribution

system - shown for the first time in the UK - aimed at the burgeoning health and fitness industry, a new market area for Cloud. They also showed their full range of zoners, signal processors and amplifiers.

<u>Connectronics</u> was demonstrating its flexible approach to business - at least in the world of microphone cables. The new Micflex 2020 cable is a low-cost

alternative to the established Flex and Flow ranges, and offers spiral-lapped copper shielding, and an ultra-soft PVC jacket coating.

<u>Dare</u> took the opportunity to launch a whole new range of architectural speakers including the Dare NXT panel, a totally flat loudspeaker based on NXT technology - two energisers on the rear which vibrate the panel. Capable of being disguised as virtually anything, it is ideal for discreet installations. Other neat new speakers include the Dare Cuboid and the Dare

Flat Speakers which feature a 6.5" cone, reversed, with the magnet to the rear. These are exclusive to Dare and claim to be the smallest ever traditionally-built loudspeakers!

<u>Deltec</u>'s Paul Von-Hinten expressed satisfaction at the high level of interest shown by visitors in the GX10/BX16F disco loudspeaker combination. The GX-10, which utilises the Kappa Pro-10 10" cone driver to reduce space requirements, is a 300W RMS enclosure, while the BX-16F is rated at the same power and contains a single 15" in an optimised vented cabinet.

Also reporting high visitor numbers on the stand was <u>DNH</u> <u>World-Wide</u>. The new CAS range of weather-proof extruded aluminium column speakers was being featured,



with 6W, 15W and 30W models on display. DNH's range of VA loudspeakers was also augmented by the launch of two new 6W models. The BSV560T firedome ceiling speaker and Safe 66T cabinet are both fitted with ceramic terminal blocks and thermal links.

Ecler from Barcelona was appearing with their new UK distributor MilTec (also the FAL distributor) and new products included the Sclat 100 scratch mixer and the Hawk 300 mixer (sister of the popular Hawk 320). They took the opportunity to launch two new amplifier ranges – the APA range and a multi-channel amp, as well as a new speaker range.

<u>Electrix</u> was represented by <u>SCV London</u>, and its new product is the Electrix Repeater (shown in preview format) a multi-effects machine (sampler, time stretcher, beat pitcher, etc) for loop-based music production. Since last year they have also introduced the 'Filter Queen' and 'EQ

Killer' devices, budget live DJ effects.

Eminence had the new Delta Pro 12 and 15 on display. This is the first time the Delta range has been upgraded to a Pro series speaker. The main difference between Pro and the standard Delta range is the use of a cast, rather than pressed, steel chassis. Eminence has designed these two units

for 300W RMS handling, the useable range of the 12" is 50Hz - 5kHz, the 15" a little lower at 35Hz - 4kHz.

The main news from the Expotus team was the launch of Audient's ASP510 surround sound mix/monitor controller. Offering control over 5.1 monitoring environments, as well as interfacing record/playback signals for stereo and multitrack machines, the ASP510 provides users with five preset monitor formats. Eight-in/eight-out signal routing (5.1 channels plus stereo) and switchable encoder/decoder insertion connections are complemented by six speaker outputs with individual level trim. From LA Audio, a plug-in RTA card for the flagship DigEQ processor was also

Fane Acoustics introduced a remarkable new speaker device at PLASA. The Primary Drive is mounted in Concept: One, a no-box cabinet that produces the most astonishing level and quality. A phase lamina moving coil design, Primary Drive requires no cabinet or air loading, and produces bass frequencies at source. In the Concept: One, the Primary Drive is matched with a high-frequency driver to produce a full-range device. Not much bulkier an NXT flat panel speaker, (approx 3" front to rear) the Concept One produces astonishing levels of bass, way beyond

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Fane's Ian Gair with the new Concept: One Bob Dagger and Monica Arnott

of British Harlequin

LA Audio's Julian Blyth and Jean-Claude LeCocq with the DigEQ remote control with RTA

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Constella launched their its Astra Scan and Astra Star lighting fixtures, the Chameleon 3E event effects projector and the Commando 2 DMX controller. The latter is specifically designed to work with Constella's range of DMX-controllable lighting effects, giving exciting lightshows at the touch of a button with no preprogramming requirements.

DJ Power was promoting its software for DJs, effectively a DJ playout programme allowing DJs to play and mix not just music, but videos too. The company had a busy first show and demo'd the product to hundreds

DMC was demonstrating its full range of products and services for professional DJs, including 7 Magazine, remixing and recording services, the United Clubwear range of merchandising, music CDs, a range of DJ hardware, Stress Records and DJ

First time exhibitor Dorleans was showing its innovative, inflatable 'Dancing Man' and orbs. The company uses silk as well as synthetic fireresistant fabrics for its inflatable structures but finds the silk allows for better movement.

On the stand of Dove Systems/Cartey & Associates was a neat range of portable dimmers that use the compact Neutrik Powercon connectors on their outputs. Also on stand was Great Performance Products who had the budget FS400 followspot, as well as Starport, a software/hardware package that allows schools to re-cycle old 386 PCs into low-cost memory lighting

ESP shared its stand with Mobil Tech, France, underlining the recent formation of Mobil Tech UK. New products included a mirror device using a 575 bulb - the washlight partner is due out in October - and also the world debut of a fixture combining profile and washlight in the same housing. This is currently the only such hybrid fixture available on the planet!

ETA was at PLASA for the second time with its power conditioning range of equipment, CE marked for the European market. Now well established in the US market, the company is looking to build distribution for its range of products.

Top to bottom

Denon's Hugh Williams, 'The' Les Adams, David Morbey and Elle Barraclough (front)

Christian Royer and Eric Parmentier of Innova Son - based on the Fuzion stand

> Inset, Stéphanie Madec and Edmée Dorleans of Dorleans

Tim Brown and Phil Brown of Apple Sound with Albert Van Der Hout and Jan Leerschool of Hacousto anything possible from an NXT, and reaches far lower frequencies. Likewise, mid-high frequencies out-perform those achievable with an NXT. The two drivers are enclosed in an outer structure, approximately 20" square to protect the unit, but the structure has no acoustic function,

other than to be transparent. This is a revolutionary addition to the studio monitor and high-end, domestic hi-fi market.

Systems Workshop, in its role as Fohhn's new UK and Eire distributor, was displaying the company's new FP1 and FP2 self-powered nearfield monitors. These 8"-based units utilise Fohhn's unique Easyport system of RF receivers mounted in the enclosures themselves. This, says Systems Workshop, makes the compact speakers ideal for remote feeds, delay/effects systems,

and a variety of other uses. The first of a new touring PA series was also onshow at Earls Court.

Formula Sound provided visitors with the first chance to see its new small mixer, the FSM-400. The four-channel, seven-input unit features three sets of RIAA pre-amps and a specially-tailored EQ section. Split monitoring, assignable

crossfader and Music Dim button for talkover are among the FSM-400's other features. The updated Sentry noise control unit. AVC2 automatic volume

control and Guardian CX4 Mk II fire alarm interface were also on show

Fuzion's portfolio of high-end products was increased by several ear-catching products at PLASA 2000. The diminutive Innova Son Sensory Live Compact Console (a scaled-down version of the Grand Live) was on show, with the majority of interest from theatre and multipurpose venues, who, say Innova Son, can best appreciate the advantages of an instant-reset digital mixing platform with a fairly conventional operator interface. From the USA, Madahcom introduced the WPA system - a wireless audio distribution system designed for public address use in temporary and permanent installations. The

372 SPL computer from Symetrix, which is the latest in a series of half-rack units. claims considerable improvements in ease of use over its predecessor. Contractors in need of a set-and-forget mixing processor were heartened by the introduction of the Crown IQ-USM-810. Finally, Crown's range of amplifiers now includes a Contractor series, with the CH1, CH2 and CH4 offering high- and low-impedance outputs per channel.

GAE's newly-formed UK division, under David Gledhill, was highlighting its Director high-end system for live events and the dance market. The Director system is based around a two-box 2x18", 2x12", 1x1.5" driver complement and can be readily ground-stacked or flown. Also on the GAE stand was the new Optocore digital audio multicore system. Developed from the company's modular system, the new product offers 48kHz/24-bit transmission of 64 audio channels,



configured as 48 inputs and 16 returns. Using a conventional stagebox concept, the system provides analogue and digital splits of the input signals, and uses optical fibre connections to provide up to 3km of error-free transmission.

Possibly the worst-kept secret of the show was the fact that IEM specialist Garwood is working on the final stages of its UHF radio microphone system. While the product was only being

shown to a select few, director Chrys Lindop assured L&SI that the system will be unveiled within the next month. On the same stand, Dutch manufacturer Apex displayed its Argos MkII Sound Leveller.

Gemini launched several new products including its 2410 turntable, an aesthetically-styled machine, similar in finish to the iMac - aqua and white - with blue LEDs. The turntable has high torque motor, pitch control, pitch display and height adjustment, etc. Gemini also showed the UMX mixer, launched earlier in the year at NAMM

> which is its first entry into the high-end mixer market.

Gentner presented the PSR 1212: a 12x12 sound matrix processor, it controls not just input/output but crossover points, and has a built-in eight channel microphone mixer configured in the software.

Hacousto International had two new products to talk about; the 'Accent on Audio Solutions' ACE 2x200 amplifier, which is destined for the voice evacuation market, and the Magic 88 zoner. This unit offers eight I/Os (selectable into stereo pairs as needed) and uses a front-panel LCD display to set up audio parameters. The company also announced that it has appointed Flintshire-based Apple Sound as its exclusive UK distributor for its range of Matrics pro audio products.

US monitor/amplifier manufacturer Hafler unveiled the start of a new range of touring power amps. The SR2300 and SR2600 (2x300W and 2x600W respectively) are claimed to offer consistent thermal performance at any impedance, and to be devoid of impedance problems associated with heavy loads. Also on display was the company's new passive nearfield monitor, the M5. The magnetically-shielded M5 is a compact, fourth order Butterworth-vented two-way loudspeaker, designed to work alone or in conjunction with the company's

amplifiers and voiced to compare alongside the existing Hafler TRM8 and TRM6 active monitors.

Hayden Laboratories featured the latest from Rolec Rane and Denon on their stylish stand. Denon launched its new DN-2100F twin CD-

player, a fully-featured mid-range model with all the build quality and engineering that Denon is famed for. The latest machine sits comfortably between Denon's new DN-2600F and DN-1800F machines which were also seeing their first PLASA show. From Rolec came the 'Minim' second generation hard drive background and foreground music system, an easy-to-use tool for creating imaginative and lively musical environments and soundscapes. Hayden was also showing the latest Rane





CobraNET devices, including the all-new NM 84 Network Mic Pre-amplifier which can send eight channels and receive four channels of high-quality audio over a single, low-cost computer network cable.

On the HW International stand, Shure's new product range was music to musicians' ears - literally - with the first PLASA appearance of the PSM400 entry-level IEM system. The PSM400 operates either as a UHF wireless system or a hard-wired version, with HF equalisation and built-in limiters. Other new products from Shure included the FP23 míc pre-amp, UP4 portable receiver and WL50 subminiature lavalier microphones. QSC's plug-in DSP-3 module, which is

compatible with all DataPort-equipped amplifiers, offers users a wide range of audio processing functions and is configurable by 'drag-and-drop' software. Phonic's range of low-cost mixers was supplemented by the PMX2300 zoning mixer and 406 and 740 Powerpods. HW was also showcasing the PreSonus family of audio processors.

Hz International was proudly displaying its new switch-mode amplifier, the Nexus 2.0. This 1000W pc 2U unit is designed specifically for use with subbass enclosures where, according to Hz's Doug Siddons, switch-mode designs have not yet proved popular. The secret behind the Nexus 2.0, he explains, is that the power output is rated with a four ohm load at 50Hz - which should be good enough to convince the sceptics.

John Hornby Skewes had HK
Audio's new Projector - a midlong throw PA system for venues of 1500 or more. The system comprises four 18" sub-woofers, and two mid/high cabinets, with power output rated at 3600W.

Also from HK was the DL 115
SubA, a compact 15" bass cabinet with two onboard 300W amps.

The third new item, again from HK, was the VT 115X, a three-

position 15" and 2" combination (60° x 40° CD horn) designed for flexibility of use. Wired for biamp use, the 115X can be used as a stage monitor, central cluster cabinet, or just about anywhere you want a small box with low-end handling.

A Chinese manufacturer based in Beijing, Kaifa Audio has developed a new small, but powerful, speaker cabinet for bars and clubs. The KA 803 is just 270 x 465 x 230mm and this two-way passive box has a reputed 100W power handling. New for PLASA were the MC10/2 and MC14/2 from EleC Control. Both are small live mix consoles with unusual features, on-board reverb and effects, and a nine-band graphic on the output side, as well as the more normal gain, EQ, and Phantom power.

<u>Kind</u>'s amplifier products were being displayed by <u>GAE</u>. The Italian-built range now includes models from 250W to 2050W per channel, and includes a four-channel 400W per channel unit with optional crossover/limiter cards.

Amid all the high-tech new products at the show, the latest offering from <u>Midas</u> was practical, rather than earth-shattering – a script tray for the Heritage Series consoles. The company's newest release (the Heritage 1000 console) was on display as part of the <u>Klark Teknik Group</u>'s walk-through 'experience',

Dave Wiggins of Klark Teknik with the DN9848

Martin Audio's Martin Kelly and Rob Lingfield

while the Heritage 3000 console was available for inspection outside the stand. Other KT hardware included the recently-introduced DN9848 (as featured in last month's L&SI) and DN9824 loudspeaker processors and DN7454 and DN7453 delay lines. Though not strictly a KT product, the PPR-EQ software package, developed by Handi Systems, allows a Palm II handheld computer to replicate the DN3698 handheld remote controller and access all the parameters of KT's range of digital FQ units

Though the dV-Dosc line-array system from L-Acoustics is not entirely new, the company was celebrating its first major West End show with the opening of Witches of Eastwick, designed by Andrew Bruce. While busy in Europe appointing a new distributor (Trius GmbH from Ibbenbueren), L-Acoustics' flagship V-Dosc system is now operated by four major UK rental companies, covering between them the entire spectrum of live audio work.

Lamba launched a new range of Nady radio mics, a series of Stage Audio products (mixers, amplifiers, graphics, etc) and new Cerwin Vegal loudspeakers – the V252 full-range cabinet, the LR36 bass and a new 218 2 x 18" bass box. Also new on the stand was the LCA background and paging system and, arousing much interest, the new Kingston vinyl cutter which is in production this month.

LMC Audio was showing its extensive range of analogue and digital audio products including Yamaha PM1D and Allen & Heath ML5000 consoles. The company is promoting its new-look website as a one-stop shop for product information and was also keen to talk about recent sales, including a

Midas Heritage 1000 to Stage Audio Services.

The CS 1296 from Logic Systems is an existing PA system with a redesigned mid/top cabinet to make the system fully arrayable. A 60° by 40° dispersion cabinet, the 1296 contains a 12", and a dual diaphragm (3" and 1") coherent horn. The sub cabinet is as before. The CM20 SV is a compact single 18" bass box intended for use with a CM20, the wedge and sub combination making a useful small side-fill or full-range mini system.

The triple PLASA Award-winning team from M+D Design must have felt at home at Earls Court - the company is in the process of refitting the venue's paging system with its touchscreen-driven zoned system. As well as paging and VA applications, the company also offers a wide range of audio and general control products and solutions for large-scale communications projects.

The Marquee Audio crew was in celebratory mood following the successful installation of the UK's first Yamaha DME32 DSP engine at London's Donmar Warehouse theatre. This is in addition to the recent sale of a Meyer Sound-based reinforcement system to the Lyric theatre and the announcement that the company has won a major contract to refit the Café de Paris later this Autumn.





Martin Audio unveiled its first series of switch-mode powered amplifiers at the show. The range comprises four models from 350W into four ohms up to 1300W. The company claims that the power supply and output design results in a threefold increase in efficiency over conventional class A/B products. The EM120 compact sub-bass system was also on show, and is designed to be paired up with the existing

EM15 and EM26 fullrange cabinets. The single 10"-loaded enclosure can be used with or without an external controller. Martin's Wavefront series now includes the oddlynamed WTUB. This slimline(!) design incorporates a line array of soft dome tweeters and twin 6.5" low/mid cone drivers and is specifically designed with underbalcony and infill applications in mind.

minutes later have a CDI Millbank had two new off-the-shelf items to show. A neat, pre-packaged single zone voice evacuation

machine offers numerous options to deal with all

which has a 6GB hard drive, play a set, and 10

aspects of CD recording, production and duplication.

DJs can put a feed from their mixers into the machine

system, the Diva, including amps and control and fully compliant to BS5839 Pt 8. The Verifire. meanwhile, is a more sophisticated, rackmounted multi-zone system for bigger organisations requiring up to 12 zones of control. Softwarecontrolled, the Verifire features inputs for general paging and

background music, with priority override for emergency broadcasts.

The MR700 from Mipro is a new plug-in four channel UHF wireless receiver (each channel plugs to a 1U chassis system) which can be computer-controlled, up to 64 channels. The main chassis includes pullout PSU for fast replacement, LCD monitoring display, and a built-in antenna divider.

A bewildering array of new products was on display at the MTR stand, including new passive and active DI boxes, phantom powers supplies and other utility items. Also on stand were McGregor with new topof-the-range power amplifiers, Dynamix mixers and a

> new range of power inverters providing 230V ac from 12V or 24V batteries.

Neutrik's Minilyzer ML1 is a small, hand-held audio analyser. Functions include Level RMS or Relative, Third Octave analysis, Polarity test for speakers and cables and signal balance error. Neutrik also launched some new BNC connectors; a Push-Pull BNC for 75ohm cable built for use in dense

patchbays and a new Rear Twist BNC with a 'soft touch boot' for easier twist lock.

Numark launched a raft of new products including the TT2 professional turntable - in chrome - which includes plus/minus 20% pitch and has a specialised

Matrix Audio announced the launch of a new active speaker system, married to its existing range of touring amplifiers. Mark Wallace of Wallace Audio designed the speaker system in collaboration with Matrix. The three-way mid/high box, the MA12X, contains a 3.5" VC coaxial driver (12" and 1"), turbocooled, with a ferrofluid-cooled tweeter mounted above. A tiny box, the additional high end (above 12.5kHz) of the tweeter makes this a 400W cabinet. Low end comes from the MA15XB, a single 15" driver with equally high handling capacity, thanks to demodulating ring technology.

MC2 Audio's new T-Series amplifiers were launched to the installation market. where the company believes that the T500 (250W pc) and T1000 (500W pc) models will be well received. The AB bipolar designs use MC2's current driven floating drive stage to maintain sound quality over a wide range of output loads.



first time in the DJ area on the Sunday, displaying its PC-based StartREC Digital Audio Editing System combined with multi-drive CDR duplication capability from US-based Microboards Technology Inc. This

arm. Other new products included the 1295 mixer with features including 110 seconds of sampling and the CM1000 fader and rotary club mixer. Also attracting much interest was the new Numark Kaos mixer, available in two versions, one with global EQ and one with independent trim, both complete with full-on Korg Kaos pad for effects. Numark also launched its new fully-featured CDN 88 CD player which includes auto-lock, beat keeper and an authentic vinyl tactile feel when using the scratch

Since last year's show, OHM Industries has been concentrating on developing its exciting loudspeaker ranges, including the flagship Moon series. Ohm's Roman Wieckowski explained that more and more of the production process is now being brought inhouse, resulting in improved efficiency from the same basic designs.



The latest news from Opus Audio Developments concerned the successful completion of a mammoth installation in one of Europe's largest dance venues the 4,000 capacity Republic superclub in Sheffield. This is the second Gatecrasher venue to be reequipped with Opus products, and MD Andy Fox was keen to point out that the company is now up to full strength after its move to new purpose-built premises in Plymouth.

Having more or less monopolised the West End with its TiMax source-oriented audio control system, Out Board Electronics introduced two new, budgetconscious members of the family. The TiMax ImageMaker 8 and 16 are non-modular units providing eight-in/eight-out and 16-in/16-out configurations respectively. These products use the same sophisticated Windows-compatible screen interface as their larger predecessor to set up the system, though the new products are aimed at a wider range of users, including clubs and themed

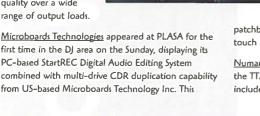
If awards were given for Most Obvious Good Idea, Italian manufacturer Outline would surely have scooped one with its Kangaru system. This innovative concept uses the large amount of free space inside a conventional subwoofer to store a high-mid cabinet whilst in transit. The three-way system is available in three versions: unamplified, self-powered and DSPcontrolled. Using pulse width modulation amps to keep weight to a minimum and DSP cards to offer parametric equalisation, limiting and crossover functions, the Kangaru system is supposedly small enough to load into a taxi after a gig.

Top to bottom:

Tony Reeves of MTR

Ohm's Paul Adamson (centre) with David Jones of DJ Elektronics (left) and Paul Florian of Paul King Roadshow (right)

> Martin Dowden, Robin Whittaker and Dave Hayden of Outboard Electronics







Main picture: the PLASA
New Century Dinner, held
at the Natural History
Museum on 9th September
Inset, John Ridley of
Performance Light & Sound
with the BassBox Pro
Bottom, Karel Nulder
and Alfred Van Wyk
of Philips CSI

Paso's modular PMS 2000 can control up to 31 amplifiers in total. A system software control, the 2000 checks line integrity and can be programmed to test from every five seconds to once an hour. The software allows individual control of amp level, determines voice alarm centrally or locally, and automatically cuts the LF when VA is activated for greater intelligibility.

<u>PC Werth</u>, a manufacturer of infra-red products for the hearing impaired, was promoting its two-channel IR system introduced last year for stereo broadcast. The company also stocks products from <u>Phonic Ear</u>, a California-based manufacturer of comparable equipment.

Peavey Electronics was showing the X-Frame 88/MM8802

combination, the latest additions to its MediaMatrix range. While the X-Frame 88 is limited to eight analogue inputs and outputs, the MM-8802 break-out box expands this by an additional eight ins and outs, as well as control I/Os. A/D and D/A specification is software selectable to 32, 44.1 or 48kHz at 24 bit. To

further expand its range of CobraNet systems, Peavey has introduced a range of CAB (CobraNet Audio Bridge) products. These include input and output units for eight or 16 channels, either at line or mic level, using the standard CobraNet technology to transmit potentially thousands of high-grade audio signals via a conventional Ethernet network.

<u>Penton</u> had the Century range – a re-box of existing voice alarm speakers. More stylish than its forebears, the Century range is altogether smoother, with rounded edges and corners. Also styled for looks, the PBC6 is a curved-front plastic-moulded speaker enclosure containing a 10T coaxial.

Performance Light & Sound represent a mix of manufacturers, the lighting elements of which appear later in this report. On the audio side is Beyma whose new neodymium drivers – the 102 nd and the 122 nd were on show. Also on stand was the new BassBox Pro loudspeaker box design software. This is a nifty piece of kit and enables sound people of whatever leaning to effectively design their own loudspeakers, courtesy of a huge loudspeaker database which allows for the examination of several different loudspeakers in the same box. More on this in our November issue . . .

Philips' Congress System, new for the UK, is a remarkably stylish multi-person debating and voting system. Each base station includes a thin speaker, detachable mic', and many standard features such as authorised voting, delegate name ID when any mic' is activated, and camera control to a CCTV system which will automatically switch the camera system to the right speaker when the mic' is activated (provided you programme all that in when setting up the system). The beauty, though, is in the simplicity of setup; the system can handle up to 16 channels of simultaneous translation, all digitally encoded, with

the speaker units simply daisy chained together.

Pioneer launched its new CMX 5000 twin CD-player which uses a slot mechanism as opposed to a tray, complete with Automix function – handy for those times when there is no DJ or he/she's on a toilet break. Other features include a BPM

reading on each track, etc. The device also has an audio out in the back for plugging into a home hi-fi.

A specialist large chassis speaker manufacturer, <u>Precision Devices</u> had two new items. The PD188 is an 18" speaker rated to 600W with a fast 4" coil for enhanced mid-bass. The PD808, however, is a bit of a diversion for Precision, being a new, rubber-edged 8" speaker.

On show from <u>Premier Acoustic</u> was a new range of laminated wood enclosures for an existing range of speakers. The company was also showing the FM5/FTVA, a voice evacuation ceiling-mount speaker, and the PMC6/T, a wall-mounted VA speaker. Both models are additions to the already large range of VA speakers from Premier. A nice touch to the ceiling speakers was the inclusion of a simple sprung mounting clip and a plug-in ceramic block connector that both make for simplified installation.

<u>Proel</u> (who also had the <u>Disco Tech</u> range of lighting fixtures for the small club and bar market on stand) introduced its own new product, the Smart Series, a range of speakers designed for the DJ and karaoke market. Available in either passive or active, the eight cabinets in the range cover every need.

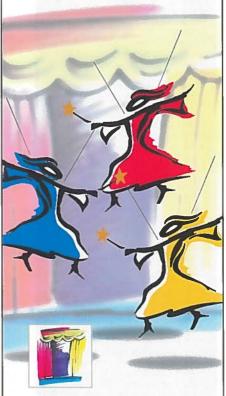


**Pathway** uses a curved trajectory technology for flying performers or scenery using point hoists.

This system is in use at **The Witches of Eastwick**, the new

Cameron Mackintosh musical recently opened in London.

There's nothing unusual about the rigging, it's Pathway from Stage Technologies that makes the magic!



#### Pathway technology

For more information contact:

Stage Technologies Aberdeen Lodge 22 Highbury Grove London N5 2DQ

Tel: +44 (0)20 7354 8800 Fax: +44 (0)20 7359 1730

Email: automation@stagetech.com Website: www.stagetech.com

Flint Hire and Supply's overflowing stand is an Aladdin's cave for the entertainment industry. Although a regular of the ABTT Show, this was Flint's first time at PLASA and the company was keen to show the nifty adjustable spanner with podger, the Gerber Legend, with all facilities accessible from the outside and the one-handed scissors. Get your Christmas shopping order in quickly!

Formative Systems was showing its new membership tracking and loyalty unit alongside its new touch-screen EPOS system. This latter is unique, allowing venues to monitor their income via a swipe card, which records where the money's being spent and by whom. This allows it to gather information needed to target specific promotions.

Freestyle Music is keen to develop its flight-case business beyond the music industry. As such this first-time exhibitor had lots of interest in its new, stylish, glass-topped range of 19" rack cases in addition to its new Unicase range of rackmount cases.

As a distributor of NEC plasma screens, Harvard Technology had the latest 42 VM2 and 50 PDI screens on stand. Much interest was shown in these, particularly from overseas visitors.

Human Induction Technology (HIT) showed two different variations of its vibrating floor systems - one responsive to all frequencies and one specifically bass orientated. The idea is that by sending vibrations through the body it effectively acts like a speaker diaphragm and the entire experience - whether dancing or watching a movie - is considerably enhanced.

If you're looking for bespoke equipment for a specialist application, then you might like to try lbex, a company which specialises in electrical, electronic and software design services.

Impact Diffusion is the company behind the Con'dome and Flight'dome protection systems and at the show this year added UpsideDome to the family.

International Hardware Systems had its usual huge range of components for the flightcase trade - you'd be hard pressed not to find what you're looking for on this stand.

Kupo's stand managed to show off a fair proportion of its comprehensive stand, lantern and accessory range. On Show was the new 1kW and 2kW Studio Fresnel which is intended for the TV, theatre and studio markets. Also of interest is the new Outdoor Par 64 Lantern designed for portable or permanent installations in wet conditions thanks to a sealed beam lamp and weatherproof housing.

Lagotronics introduced the LED-FIX - a replacement MR16 fixture using 45 LEDs with on-board processing to create 215 basic colours and 16.5 million variants. The LagoLED-DOT is suitable for starcloth applications, while the LagoLED-RGB positions LEDs in strips or lines, each of which is programmable in any colour. Suitable for various signage and colour-changing panel applications.

LBO Benelux had on show a range of lighting novelty products, including FLT (Fluid Light Technology) moving neon effects and the Omniglow range of glowing effects. Top to bottom:

Gemini's Rob Peck congratulates the winner of the Gemini Extreme V DJ battle - DJ Ideal David Miller of Freestyle is pictured with the Unicase

DJ Nick Conway with Pioneer's Neil Colquhoun

Quality, nothing

Sony launched the new CDR-W33. This is the company's first ever professional CD recorder and is unmistakeably a Sony product. The 2U machine incorporates Super Bit mapping technology and a CD-TEXT titling facility.

Lots of interest on the RCF/Mackie

stand: the SF500 is a cabinet containing a 15" speaker and 1" compression driver. A passive cabinet with a good quality built-in crossover, this unit is aimed at semi-pro bands and users who require good low-end handling characteristics. The Fussion 3000 first appeared at the start of the year. A four-way, self-powered PA system, the

amplifiers in the mid and HF boxes use output transformers to eliminate second and third order harmonics. Mediumthrow, the Fussion is designed for demanding theatre and cabaret environments. The 24-track HDR24/96 from Mackie is a stand-alone hard disk recorder designed to

editing in real-time.

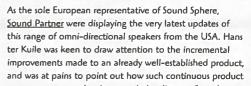


Three relatively new products from <u>Sennheiser</u>. The Neumann KMS 105, launched early in 2000, is a vocal condenser mic designed specifically for stage use. From German manufacturer <u>Elac</u>, came an NXT flat panel speaker, available in a range of printed-on images. Although not as powerful as some would like (handling

20W RMS) the panels have been improved to work in the wider 150-18000Hz ranges. A 100v line version of the panel will be available before the end of the year. Also well represented on stand, <u>DAS Audio</u> had a couple of new self-powered cabinets. The ST-8A is a small 8" cabinet useful for BGM. For more muscular environs there are the ST-1800A - a full-range system and the ST-218A, a sub cabinet rated at 1200W.

The <u>Showcom Audio</u> stand played host to the <u>Camco</u> Vortex range of power amplifiers, spearheaded by a 2U switched-mode design that develops an impressive 6000W into four Ohms. Camco's aim with the new series is to provide a range of products that would offer equivalent power outputs to its existing 'Classic' units, but with reduced weight and higher efficiency. The design features power transistor control with emergency shutdown in case of extreme malfunctions, overvoltage protection up to 400V, thermal protective circuitry for the transistors, and hum-free operation in cases of extreme undervoltage. Showcom was also exhibiting the <u>Nexo</u> PS-8 loudspeaker and <u>XTA Electronics'</u> SIDD processor.

<u>SigNET</u> presented the Integrity voice evacuation control system. Launched at Firex earlier this year, the Integrity can control up to 16 zones and is fully-rated. New for PLASA was the AVX PDA101 - an induction loop amplifier with two mic or line inputs, integrated power supply and with adjustable drive current (output level).



development helps distance Sound Sphere speakers from the burgeoning array of cheap, poor-performing copies that emanate from the far east.

Sharing the stand with NJD, <u>SoundLAB</u> presented two new CD-players for the pro DJ. The CDJ 620A and CDJ 700A are both twin-deck units with the usual antishock and Jog features. Most notably, SoundLAB has fitted a large LCD display for easy access to that vital information. The difference between models is either flat-mount or panel-mount.

New to the <u>Sound Dept</u> portfolio this year was US imaging specialist <u>LCS</u>, who demonstrated the VRAS (Variable Room Acoustics System) with startling effect. The system uses a complex electroacoustic processing system built around a network of microphones feeding into multi-channel digital reverberators, and out again to a set of loudspeakers in the room. The reverberation algorithm is implemented on a DSP card, plugged into an additional LD-88/LX-300 audio engine, that is, in turn, fed into the standard LD-88/LX-300 matrix where the routing, equalisation and level control of the microphones and speakers takes place.

Other audio manipulation products on display included the CueConsole – a modular control surface for the existing SuperNova and new Matrix3 audio engines. Also distributed by Sound Dept, Crest Audio has introduced the X-VCA mixing console and two new amplifiers – the LT and ST designs.



Samson, residing on the Sound Technology stand, was showing several new products for the first time, including its range of professional headphones. These range from the RH-100 neodymium-based units to the top-of-the-range RH600, which claim a linear 20Hz-20kHz frequency response and wide dynamic range. The Servo range of power amps has also been expanded with the addition of the Servo 700 and 1000 products.

Following the 1999 PLASA preview of the Series Four, Soundcraft Electronics announced that this long-awaited medium-priced console is now shipping. The company's touring flagship Series Five and Five Monitor can be seen on a variety of productions, and have just been installed as part of the London Astoria's audio refit (see news this issue). Spirit By Soundcraft's R&D effort in recent moths has been in refining the software for its digital products. The 328 V2.0 software allows MIDI sequencer control of the mixer's dynamic automation, and enhanced compatibility

# What's in a name? Flexibility.



#### The new TOA DP-0206 Digital Audio Controller

Are you one of those people who really enjoys a challenge? If so, the new DP-0206 is probably not for you. Not least because it has been specifically designed to make light work of even the most complex installations.

Configured using a basic PC, the brilliant DP-0206 not only allows all signal flow choices to be clearly visible on screen, but it's also easy to install, and even when it comes to setting up signal flow configurations containing multiple signal processing functions, it's still a breeze.

As reliable as it is flexible and with a powerful combination of operating functions you'll find that the DP-0206 will tame even the wildest venue.

The total TOA package is completed by our excellent after-sales support service. For help and advice call **020 8337 7878** or visit us at **www.toa.co.uk** 

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with third-party devices is also offered. The 324 Live now boasts improved control functions for live applications and the update is free to existing owners from www.spiritbysoundcraft.com.

Holland's <u>Stage Accompany</u> introduced the ES 40 power amp, which uses Class G topology to generate a peak output of 2600W per channel into two ohms. The design features SA's Active Clip Eliminator and Dynamic Damping Control systems and is compatible with the company's EFN crossover modules. The Entertainer loudspeaker series was extended with the launch of the E27, a compact full-range club/theatre enclosure containing the SA8535 Ribbon Compact Driver and SA1513 cone driver.

Stonewood Audio's range of communications products now includes the SA-WBP1 wireless duplex beltpack – which cannily uses the headset cable as an RF receiver antenna for improved reliability. Other



new products for specialist markets included IP67rated offshore intercom units and armoured cable headphones for physically demanding applications.

Studiomaster launched its new Fusion mixer and VX Series speakers. The Fusion is a hybrid machine with a video switching facility for karaoke use and a crossfader for DJ use. In-built 16-bit digital effects include reverb and delays. The VX speakers, meanwhile, are ideal for musicians, entertainers, DJs or karaoke applications. Also on show was a selection of smaller items including a range of amplifiers, graphics and crossovers.

As well as launching several new products for the installation market, <u>Tannoy</u> was proudly displaying the Focus 10 PowerDual - a collaborative product with renowned designer <u>Funktion One</u>. The two-way system (complemented by the Focus 18B bass unit) is Tannoy's first major push into the long-throw market and combines Funktion One's trademark Axehead horn design with Tannoy's traditional dual-concentric driver technology. The 60° x 40° coverage is intended to appeal to the mid-sized venue market where controlled dispersion is a must.

Rather than concentrating on product, <u>Thames Audio</u> used the PLASA show to promote its new Internet sales site – www.e-proaudio.com – where potential purchasers can choose between a huge range of pro audio equipment.

<u>TL Audio</u> launched the VP-1 voice processor, part of its Valve Classics range. Using elements of the established PA-1 pentode preamp, C-1

compressor and EQ-2 parametric equaliser, the VP-1 also offers an expander/gate, de-esser, peak limiter and optional digital output. The unit employs seven valve stages, comprising a Siemens EF86 pentode in the front end of the preamp, followed by six Sovtek ECC83/12AX7A stages split between the dynamics and EQ sections.

New from <u>TOA Corporation</u> was the DP-0206 modular digital

processor. This X-in, X-out unit provides on-board mixing and matrixing, as well as filtering, crossovers, parametric EQ, compression, delay and noise gating. Control is PC-based, using RS485/RS232 connection, with the DP-0206 being capable of storing up to 16 presets in its own memory. Also featured on the TOA stand was the H-series of loudspeakers, designed for unobtrusive mounting on walls or ceilings in applications where 180° coverage is required. Supplemented by the HB-1 subwoofer, the H-3 and

weatherproof H-3WP claim significant advantages over conventional bracket-mounted enclosures.

Based on the <u>Sony</u> stand, the team from <u>Total Audio</u>
<u>Solutions</u> was on hand to discuss applications ranging from multichannel rock and roll wireless mic systems to OB vehicle designs.

Demonstrating the new Sony DMX-R100 digital mixing console, marketing director

Adam Heath was keen to point out the product's relevance in the theatre market. "In a live situation, users need the confidence of having a clean, uncluttered layout as well as the right level of information about what's going on. With the Freedom radio mic range and SRP-F300 speaker processor gaining wide acceptance in the industry, the Sony name is definitely one which is appearing more frequently on peoples' sound reinforcement equipment lists."

Above: the Spirit Team of Jon Ridel, Trevor Coley and Andy Brown with a Series Four desk

Inset, Tom Back of Stage Accompany Left, Tristan Gregory of Studiomaster with a prototype of Fusion and E Series power amps

Below, Tannoy's Derek West, Sean Martin and Alan Lochhead with Funktion One engineered Focus-10 and Focus-18B

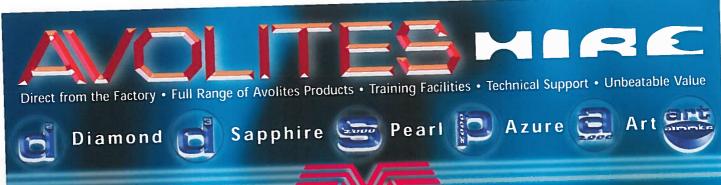
<u>Trantec's</u> new S3.2 and S3.5 systems offer single-channel or switchable low-cost VHF solutions to handheld, lapel or guitar radio requirements, while the new S4.2 is a single-channel UHF systems that offers four spot frequencies in the unlicensed Channel 70 band or 16

frequencies in the regulated Channel 69.

Additions to the Turbosound range this year included a self-powered subwoofer for the QLight series. The TQ-425SP is a dual 15" enclosure, designed to partner the TQ-440SP in theatre and corporate/industrial applications. Non-powered new

products include the TQ-220 and TQ-230 compact, wide-dispersion cabinets, and the TQ-259 trapezoidal passive two-way design. As a further supplement to its TCS contractor range, Turbosound has introduced the TCS-208 compact subwoofer. This employs two single 8" cabinets, which may be joined to each other in a variety of formats to suit architectural constraints. On a grander scale, this year's UK festival scene was awash with blue boxes, including the new TFS-780HF mid/high Flashlight 'Lemons'.





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## resco colour

be moody

"Shabbatai, an original rock musical in New York shimmered in a world of mysticism and divinity. Low scrollers on ACL's gave broad walls of deeply coloured light in glossy blues and intense lavenders. The gel strings included Supergel #74, #56 and #170 which painted the actors and costumes with deep, rich bases against which the crisp practicals and keylights set off their faces and hands."



## be bright

"The acclaimed revival of Look Back in Anger for London Theatre Laboratory required intense realism - an updated kitchen sink reality of bare lightbulbs and dusty 1950's bedsits. Supergel #11 and Cinegel #3410 provided the dominant sources in three quarter backlight, and a softened fill from sandwiched Supergel #14 frost and double Supergel #04 rounded out the sepia image."





David Taylor is a director of Theatre Projects Consultants, the world's leading theatre designers, and lights shows in the US and Europe. His recent credits at lighting designer include seasons for Theatre Royal, Plymouth and at the Watermill Theatre, Newbury as well as tours with Wayne Sleep, shows for the Gate, Tricycle and Orange Tree Theatres and Susan Bloch Theatre New York, New Jersey and for San Jose Rep.

For free swatch books or more information on the Rosco colour range please contact us at the address below

be f SCO

Le Mark has had a great response this year to the launch of its venture with GAM Products Inc through which it is now offering selected GAM products to the UK market place. Also new, and sure to be a hit within the industry, is Grid Rule: a range of stretch fluorescent measuring tape that can be custom designed to your specifications,

Although having nothing new to show this year, Lee Filters was still making its familiar colourful splash at the show, and enjoying its usual contact with many of its international distributors who attend PLASA. New additions to Lee's gobo range are just around the corner, we are told.

Light Engineering handle such a diverse range of products that it's impossible to have them all on display, so the company concentrates on a few key items. One such is the Promosphere, which resembles a propfrom a Sci-Fi film. It allows you to display a spherical moving message and comes in four colours

The hot product from Linebacker Cable Protectors was the new wheelchair Access Ramp that is compliant with the American Disability Act. The ramp is lightweight, easy to install for one person and an affordable option for venues.

Link produces and manufactures a wide range of connectors, cables and distribution networks for the audio, lighting and video markets. Its attendance at the show will surely strengthen interest in its products.

Litton Veam was showing its new KLM high-density connector.

MGC Lamps was showing a 2000hr, longer life, single ended lamp alongside the Philips MSD 575 lamp for architectural use.

Melody Corporation debuted its retro range of disco light boxes - now undergoing an amazing renaissance! Once a custom-only item, Melody stepped up production 18 months ago as the craze gripped the country. By the end of Day 1, the company had taken enough orders to more than cover its show costs!

When you stock 5,000 different types of lamps, you tend to have all the bases covered and so Mico Lighting was at PLASA to "reinforce previous relationships" and maintain the profile of its high-quality product.

Modul Sound, Light & Music, a Turkish rental and production company which carries some of the leading brand names, came to its first PLASA to raise its profile in Europe. With its market rapidly expanding into the Middle East and Europe, it was keen to meet as many people from these territories as possible - a goal they had definitely achieved by the end of the show.

Monacor introduced three new silver turntables, illuminated by trendy blue LEDs (from the IMG Stageline product range) and assorted new lighting effects no to mention a range of competitively-priced ABS rack cases.

NitenDay had its developed range of fibre-optic products on stand, including the patented linear emitting RadiaLyte range and the FocaLyte end-emitting cable. Also on stand was, Dawn152, a 150W metal-halide illuminator.

Featured products on the W Huber & Söhne stand included the TL230 two-way horn-type music speaker (rated at 30W and with a frequency response of 370-16,000Hz) and the range of low-profile wall-mounted architectural speakers. The metal-clad WL8, 10 and WL10/2 are offered in two RAL paint finishes (though others may be produced to order), with power ratings from 6W to 50W. Wide horizontal dispersion and even frequency response make the WL series suitable for applications where vocal clarity is



Above, Bob Salt presents a cheque for £5,555.55 to Hilary Bailey, director of RAFT - a charity for burns and plastic surgery research. Also pictured are many of the audio industry supporters who helped raise the money at RW Salt's annual Golf Day earlier in the year

> Right, Trantec's Richard Ganley, Tim Riley and Steve Bickford with the \$4000

Below, Jack Kelly, John Austin and Gaston Goossens of XTA Electronics

Bottom, Rowland Sleep of Lax with Paul MacCallum of Wembley Loudspeakers

Vestax had a bunch of new products including its VRX 2000 vinyl-cutting machine, available at the end of September, alongside its new PDT 2000 direct-drive

turntable, featuring a new DC control motor system and ASTS tone arm. Other features of the PDT 2000 are instant start, zero feedback and no jumping or skipping. Amongst the many DJ products on the stand was the PMC07 Pro ISP, a joystick-operated quad mixer.

Volt, a manufacturer of large-frame speakers, had its spider-like, front chassis, 18" on display. The spoked design enables the chassis to work as a heat sink, making for more efficient

cooling and thus a better-performing low-end driver.

Wembley Loudspeaker Co, as well as its own range of Spyder enclosures, was showing the range of B.Line chassis drivers. Also on stand was the Sound Block from Sonic Solutions/Lax - a neat little environmental noise limiter.

ideal for pubs, clubs, or indeed anywhere that has live music systems liable to abuse from over-excited performers. The system is tamperproof, and allows a range of hidden settings; tolerance of sound peaks can be set between 5-90 seconds, levels of between 75-110 dBA slow, and although the Sound Block



is designed to actually cut power to the system, it does deliver a visual (rotating beacon) 30 second warning so there's no excuse.

Wharfedale International showed the new Focus series for the first time in the UK. The eight enclosure designs include two and three-way variants, with compatible 15" and 18" sub-bass cabinets. The EVP range has been extended by the addition of the EVP-1208 three-way fullrange speaker and EVP-15SB sub. For nearfield monitoring,

the Program 60 and active Link 800 are being marketed as complementary products to the Force and Program 30 ranges. LoudPanel products (in ceiling tile and Picture Panel form) were also being demonstrated throughout the show.

Williams Sound Corp. specialising in hearing assistance products, was featuring its Hearing Helper VHF listening system, which is aimed at the tour guide market, in addition to the SoundPlus WIR TX800 twochannel infra-red system, designed for a coverage area of between 10 and 15,000sq.ft.

XTA Electronics' new box of tricks is SiDD - standing for Seriously Intelligent Digital Dynamics. This dual-

> channel processor combines EQ, dynamics and delay facilities in a 1U unit that borrows heavily from experience with the DP226 loudspeaker processor family. Intended either for insertion into a pair of channels or as a finalising processor across a mix SiDD offers 24-bit ADC and DACs and 40-bit internal processing.

Yamaha Kemble's two-pronged attack on the market was led by the MI division, which was showcasing a variety of DJ-oriented products, including the unique Red Sound Infader digital DJ mixer. On the top deck, the Yamaha Commercial Audio team was showing off its latest DSP products, the AW4416 workstation and DME32 digital audio 'toolbox'. The AW4416, which combines the mixing engine of the 02R with a 16-track hard disk recorder, is aimed at the project market, but with a number of applications in the live sphere, including theatre effects

production and playback. The DME32, which has been specified for London's Café de Paris and is also based around the 02R technology, is a rackmount unit that provides mixing, routing, dynamics and effects control for sophisticated multi-zone sound reinforcement systems.

Yorkville Sound's new lightweight NX20 is

huge weight saving over conventional loudspeaker cabinets. The 350W, 12" + 1" enclosure weighs in at less than 12kg and also uses custom-designed neodymiumbased drivers for LF delivery.

constructed from variable density composites, which, claim the company, result in a Zeck Audio was exhibiting under the

banner of its recently-formed UK subsidiary. The featured product at the show was the DS800 UHF wireless system, which uses an XLR-based adapter to convert any balanced dynamic microphone into a 16-channel selectable UHF system. 12-hour operation is claimed for the transmitter, while the freestanding receiver is a diversity design, with removable antennae and RF/AF level indication.





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Right, Simon Allan and Tracey
Patterson of Artistic Licence

Below, Rick Salzedo of Avolites with Nicholas De Courten of NDC

#### LIGHTING

Abstract launched a new series of recessed scanners, ideal for ballrooms, retail and architectural applications. They use a 150W arc discharge lamp, have excellent optics and an auto-focus and rotating gobo option. They sit flush to the ceiling and are featured in the new Hilton Hotel in Edgware Road, London. Also on the stand were preview models of Abstract's new VR series composite scanners - to be launched in March 2001.

With the Starlite MkV now directly represented by <u>AC Lighting</u>, a notable development for this popular automated lamp is the addition of a zoom system. Giving a beam angle of 18 to 35 degrees all that's lost from the standard luminaire is a rotating feature wheel, which still leaves two others intact. The lamp also features remote reset and re-strike from the desk. AC now also provides a Project Management service offering to manage and maintain an installation, as well as providing the lighting fixtures.

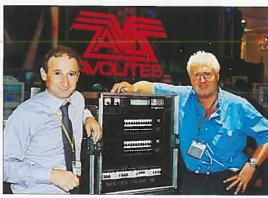
ADB was showing its Eurodim 3 dimmers, each rack capable of holding 108 3k or 54 5k dimmers and with the racks all having a large service door to one side, allowing installation electricians into a service chamber to install cabling while keeping them away from the dimmers themselves. ADB was also showing its Advanced Dimmer Network dimmer monitoring system, and the Ethernet networking now available for its Phoenix and Vision 10 consoles; the new Phoenix 10 console also features a touch-screen to aid in moving-light programming.

In terms of 'conventional' lanterns, it was interesting to note how having dropped down to 575W bulbs and found them to be brighter than the 1K or 1.2K lamps of old, wattages are now starting to creep up again. Some old favourites live on: Altman's 360Q, the light we all think of as 'the leko' in the UK, keeps going, but now has a new reflector offering added brightness.



Altman was also showing its television and architectural ranges, including a new version of its tiny MicroEllipse profile spot with an optional gobo rotator.

Amptown Lichttechnik of Hamburg, on the Lightstorm stand, had the new PLM Zoom fixture which features two gobo wheels and a sophisticated focusing system.



The team from <u>Apollo Design</u> in the US was exhibiting for the first time this year showing a huge range of custom gobos, plus several new related products.

Artistic Licence was showing its LED fixtures alongside its spectacular – and seemingly ever-increasing – range of control and interface boxes. New additions this year included the baby Snap1024 console, the LVD low voltage dimmer range and the Common-Sense interface that seems to be able to take in any form of data and spit out any other form of datal

<u>Avolites</u> launched the latest additions to its new ART digital dimming range - the ART 2000-24 way and the ART 6000 and also introduced the latest operating

systems for its 'Gem' console range. The ART 6000 is designed for the film and television market, taking the proven design from the Avo TV-dimmer and combining it with the electronics of the digital ART dimming range. The ART 2000 24-channel dimmer is a ready-to-roll compact dimming system and distro panel, ideal for small tours or locations requiring distributed dimming over a large area.

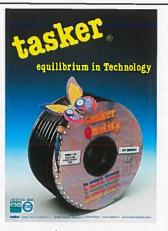
It would be easy to dismiss the <u>Bandit Lites</u> stand as a cop-out, but truth is, the absence of any equipment and the inclusion of a free Guinness bar to all invitees proves astonishingly successful. A talking shop for many attendees from the concert touring market (Bandit's main workplace), the networking that occurs is beneficial not only to Bandit themselves, but the whole industry at large. There's more than one way to promote a brand.

<u>B & K Braun GmbH</u> (German Lighting Products) showed its diminutive Pocket Scan which also has a laser pointer and wireless remote control, weighing in at just 4kg. The unit is aimed at small clubs and mobile DJs as well as display lighting and retail. It also showed a selection of other scanners and moving heads, including the Patend mirror light which can rotate 360 degrees and produce fast, almost mesmeric effects.

<u>Batmink</u> launched several new products, including the <u>Genius</u> Motor Colour moving yoke luminaire, a colour wash fixture with full CMY mixing, and the Motor Show, a moving yoke effects unit with eight rotating gobos, eight static, prism, dimming, etc. Also new was the Genius Next Scan projector, available in three colours of polycarbonate shell. Audio-wise, Batmink showed selections from the <u>American DI</u> range.

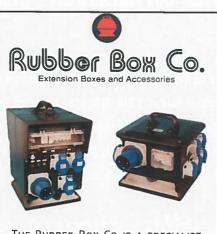
On display on the <u>Bytecraft</u> stand was its new Bytesize APC (Advanced Phase Control) dimmer, which is part of the lighting system Bytecraft supplied for the opening and closing ceremonies of the Sydney Olympics (see feature next issue). The APC is designed around new technology and is accessed via the unique user interface first pioneered with the Bytesize VST dimmer.

The award for 'bravest exhibitor at the show' goes to lantern manufacturer - CCT, the only company to line up its products against two of its competitors' and allow people to play with them and judge for themselves which was best. The aim was to show that the redesigned Freedom 2000 range offers the flattest field in its class, and in this they certainly succeeded: these will



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be great lamps for gobo projection work. The new lamphouse is also smaller, able to take 600W or 800W lamps and available in black. CCT was also showing the neat U-Form architectural lighting range available in spotlight, washlight and fibre-optic source versions, and a neat variation of its Freedom modular dimming system, whereby the dimmers are radio-controlled by the Regal six-way cordless control desk that can be up to 100 metres away potentially useful for little hotel-room jobs.

From Celco, on the Lightstorm stand, was a new, as yet unnamed, PC-based show control system. This powerful programme, runs on a high-spec PC and is based on Windows NT. Operators can use a mouse, working together with a small device with wheels and flash buttons, to programme the system, which the company is looking at developing into a console version. Also released was a new effects generator for Celco's Ventura console, and whilst this may not be as sophisticated as the Wholehog, it certainly does what it does well. Alongside this was a WYSIWYGstyle visualisation system, which will also come under the Celco umbrella. Finally, there was the new

Fusion 2000 dimmer pack intended for the touring market.

ChamTech's X-Distro is a robust 1U rack-mounting unit designed to provide reliable power and DMX distribution in harsh environments. The unit transmits low voltage and DMX along a four-core cable to the X-Buffer LV: these can be placed around a complex rig taking up a minimum of space, and negating the need for

separate mains supplies.

Chauvet - the fast-growing affordable US brand demonstrated several new lighting effects including its Micro DMX range - comprising Micro Scan, Micro Barrel Micro East DMX controller, the Multilink series and the Light Bar portable 'self-contained' lightshow. Its impact on the UK market will be bolstered by the opening of a UK-base in Leeds.

Cirrolite's 200kW Lightning Strikes Par is of such

believed - you'd be blinded for a week (as we were). As with other high-powered devices from Lightning Strikes, this unit can happily run all day from a Thunder Volt battery unit, trickle fed by a domestic mains outlet. Cirrolite also represent Dedo Lights, the German manufacturer, who had three new units to show. The 400 series profiles include a 400W MSR daylight source; a 400W tungsten (36v) and a 650W tungsten (240v).

Several theatrical-style moving lights could be found around the show, particularly on the City Theatrical stand where a number of AutoYokes were quietly going about their business. This product is remarkable: on paper it offers very few features, yet it has taken the theatrical world by

Clay Paky launched the Astroscan lighting effect, which adds a new dimension to the designer's choices by providing aerial beams reminiscent of the helicopter blades in Miss Saigon. Based on the Golden Scan HMI 1200W projection system, this device has an arrangement of crystal shaped mirrors

that generate 10 continuously revolving beams of light, for which the angle of inclination can be varied by up to 12°, and to which colour change, iris, gobos, strobe and fades can be added. Multiple Astroscan units played an impressive role in the Pulsar & Clay Paky stand's lightshow which, combined with the Ministry of Sound bar revealed to

the audience at the end of the show, won the 'Best Overall Use of Product on a Stand' award.

Coe-Tech and Coemar, revealed two new moving head luminaires first seen as prototypes at SIB - the CF7 Hard Edge and CF7 Wash Zoom. Both units offer significant improvements in the quality and consistency of the CMY colour mixing, which has apparently been achieved by placing Coemar's 'flag' system differently in the optical axis and through the use of two motors. Another big feature is the DMXcontrolled zoom facility that delivers 14° to 36.5° of auto-zoom and a massive 7° to 69° of



Above, Patrick Eagleton and Gary Fails of City Theatrical with Philip Nye of Engineering Arts

Left, Coef's Luca and Alfonso Ceccarelli and Franco Natali with the MP700s and MP250s

programmable zoom. The CF7 Wash Zoom dispenses with conventional fresnel optics and instead uses Coemar's own anti-halo, plano-convex lens. The result is peaky, but it is also very bright and there is a diffusion filter to smooth out the creases. Tas products were also shown on Coe-tech's stand as were Futurelight Poly Optics and Fluid Light Technology (FLT), while in another area, ShowCAD Control Systems was launching its new and muchawaited object-orientated, PC-based lighting and show control system called Artist.

COEF was showing the latest additions to its MP family of moving head luminaires: the new MP 700 Zoom (MSR 700 SA lamp) is the biggest of the range, featuring six metal and two dichroic gobos, 540° pan x 270° tilt, 33 colour combinations, rainbow effect, blacklight filter, mechanical shutter, etc. COEF's MP (Moving Performance) 250 Zoom and Fresnel models, meanwhile, were also on show. The MP Zoom offers six metal and two dichroic rotating gobos, 10 colours plus white and seven bicolours, while the Fresnel offers 80 colour combinations plus white and bi-colours. Both include black light filter and adjustable strobe, among other features.

Color Kinetics had a very colourful stand - and very cute colour-changing badges worn by all of the staff on the stand, their impact only slightly diminished



Mushroom shared the Slick Systems stand this year, highlighting its long association as a Slick distributor. Mushroom announced the division of its brand into two entities, Hire Projects, and an autonomous Design and Installation section. As such, its London hire office has been closed, with all stock relocated to larger premises in Northampton. Both parts of the company will continue to draw on their existing range of well-known brands, Avolites, Zero 88, Mad, Simplex Staging and, of course, Slick.

Music Factory Mastermix launched its latest karaoke CD, Beatles 1 and 2, a new classics pack of karaoke CDs and its latest Pro Disk 4 featuring Madonna and other contemporaries which is out this month. Also new on the stand was its DJ collection of number ones from 2000 – which joins an archive collection of number ones dating back to the fifties.

After launching HireTrack Eclipse at PLASA in 1999, Navigator Systems has been working on a wide range of compatible barcode scanners which met with a positive reaction at this year's show. Visitors from Scandinavia were particularly keen to

spend, possibly due to their favourable currency position. The company has recently secured direct distribution in Australia through Premier Technology Group Pty Ltd and Active Audio.

OCLI was demonstrating its skills in manufacturing coloured dichroic glass products - an interesting example of how the PLASA Show is now used to sell components to manufacturers as well as completed products to dealers or end users.

Oxtron Control Systems, a manufacturer of lighting, audio and video systems since 1985, was showing its powerful new MPEG2 video playback system, VideoMaster. Available from single-channel up to 16-channel, this system is based on hard disk storage of audio and video in MPEG2 format. Daily/weekly playback schedules can be set; also available is a video jockey software option permitting 'live' playback of two channels simultaneously, for bar, club, presentation, etc.

Right, Fred Foster of ETC establishes an air-conditioning fund
Inset, Jean-Louis Maurice (left) of Robert Juliat,
Edd Bridges (centre left) and Tom Mannings (right)
of Decoupe and Clas Malm of Transtechnik with the
Ice Fog Touring from MDG

Diane Grant presents DHA's new distributor for Belgium - Ivo Dielen of Goboland - with a specially-manufactured gobo

wear! As well as a new range of LED fixtures, Color Kinetics was showing ColorPlay, a software package designed to control the company's products.

A new entry into the 'moving light for theatre' category was the <u>WWG/Robert Juliat</u>

Fantôme, on show on

the <u>Decoupe</u> stand - a double-axis mirror head fitted onto a Juliat lightsource with remote-controlled shutter blades also installed to allow precise beam-shaping. Originally created for the Royal Opera House in London, favourable

reactions mean that this is now likely to become a 'real' product rather than just a one-off. Decoupe was also showing the Juliat range of followspots, including the Cyrano 2500W unit.

DHA Lighting's Gecko image projector, launched at last year's PLASA, is now

available in a range of colours and in a flood version. The Geckos were doing a fine job of demonstrating DHA's evergrowing gobo range, while DHA's staff were doing an equally fine job of re-introducing company founder David Hersey to the noise and bustle of showbiz after his two year round-the-world sailing trip!

A noticeable trend this year was the adaptation of theatrical lanterns into architectural lanterns by replacing the tungsten bulbs with long-life, low-wattage, high-brightness discharge lamps. As well as the Inno-Four range and Strand's own adaptation of its SL, a range of such products could be found on the stand of Enliten, who has made something of a speciality out of this kind of adaptation. Its original entry into this field, the CDM

Source Four, has now been joined by an Exhibition Par – a Source Four PAR adapted to take a 575W MSD lamp, giving a bright, punchy beam. A related trend is for tiny architectural profile spots, allowing logo projection in retail or similar environments.

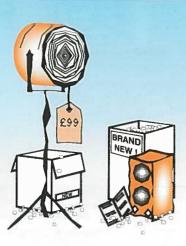
First time PLASA visitor, <u>Equipson (Work)</u> is a Spanish manufacturer with two new

products. The Work DMX Dimmers come in three types: D-20K is a six-channel x 3kW dimmer with on-board individual faders, test/flash buttons and DMX control; D-40K is similar, but rated to 12 x 3kW whilst the D-66K is a 12-channel x 5kW. It's worth noting that Work manufactures not just lighting control, but audio equipment, and an extensive range of manual crank lift towers and trussing for lighting.

ETC was showing off the first fruits of its new collaboration with CAST Lighting, manufacturers of the WYSIWYG lighting visualisation software. WYSIWYG can now sit in an ETCNet2 network system, listen to fault reports from ETC's dimmers and immediately show you where a fault is in the rig by drawing a big cross through the affected light on the WYSIWYG plan. Useful as this is, it is clearly just a start, though, and WYSIWYG and Obsession/Expression will grow closer as time passes. ETC also had the rest of its product line on show, including the 750W version of the Source Four and the variable-beam Source Four Parnel. Fred Foster had also started a PLASA air-conditioning fund collection, though the few quid in various currencies in his collecting bowl by the end of the show probably won't be enough to keep us all cool next year (High End Systems had found an alternative solution and were giving out paper fans!).

French manufacturer <u>Eurotech</u> added to its range of budget discotheque lighting effects with the launch of its own fully-automated DMX-controlled moving head - the 'Moving Plus'.

<u>FAL</u> revealed a plethora of new products originally seen at SIB earlier this year. Gobostar, Acrobat, Colour Spot and Colour Dance are all sound-animated beam generators



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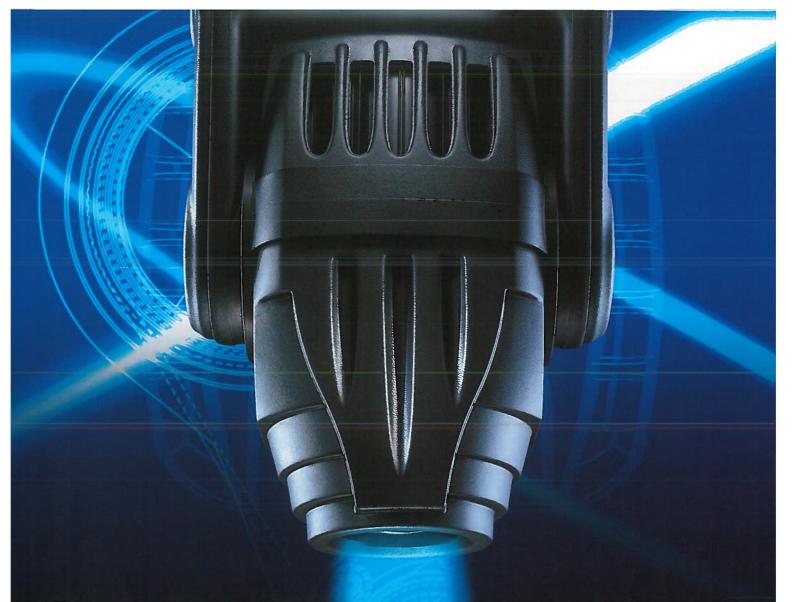
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- 2-tone beam, analog color selection and 16-speed rainbow effect
- 2 rotating 4-faceted prisms with variable speed in both directions
- Frost filter smoothly variable from soft-edge to full-wash
- Wood filter, CTO filter.
   Electronic ballast 90-245 V
- Automatic repositioning with black-out
- 16 bit movement, 540° Pan (2.8 sec) and 270° Tilt (1.7 sec)
- Power Factor Correction.
- Safety cooling fans only operate in the event of overheating
- Macro
- Remote lamp on/off and reset via DMX
- Microcomputer with display for setting fixture functions and status

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It was hard to miss Par Opti's fairyland-like stand with its glorious display of fibre optic trees. Recognising the fact that visitors are often overwhelmed with paperwork at the Show, Par Opti applied some internet logic by offering visitors the chance to have their photo taken with a particular product on stand, which was then E-mailed to them as a visual reference for the product.

Perkin Elmer Optoelectronics is a manufacturer of specialist lighting products including a range of Xenon lamps and metal halide krypton arc lamps. The largest one on show was an 18,000W single-ended metal halide.

PJ Lighting was showing the Mix Station, which has plastic mouldings designed to hold a varied range of standard equipment, offering everything a DJ/bedroom mixer needs. The Mix Station is also fully interchangeable/compatible with the Ultimax range. Also on stand were the award-winning truss adapters, and the Ultra winch stand.

Point Blank offers weekend intensive courses on DJ and Studio skills. As well as promoting these courses, the company gave demonstrations on the stands of Pioneer and Gemini, as well as on the main stage where the DJ competition took place.

Power Gems showed the new Mole Richardson 4kW Beamlight HMI S/E system and a range of ballasts for xenon projectors and followspots. Also on show was a range of lighting products under the company's Daylight House banner.

Procon Multimedia was basking in the glory of having acquired the contract to supply virtually all the lighting kit for the Sydney Olympics. With the knowledge that huge numbers of Space Cannons searchlights and High End Systems' automateds were on the roster, for a system that required significant channels of control, that must have been quite a coup for the German-based rental company.

Promo Only is a US-based subscription service for DJs that has an excellent reputation with record labels and programmers, and covers every type of music from hard house to pop and everything in between.

Right, Oliver Schwendke and Leif Witte of Procon with Martin Lubach of Essential Lighting UK

Below, Jose Vila Ortiz of Equipson with the C-72 DMX lighting desk

aimed at the club market, whereas Opera MMD and MCC are 2.5k and 1.2k followspots (crossword fanatics will have already worked that out), and Storm24 and 48 are two new preset lighting desks to accompany the Storm 620 dimmer rack. FAL also showed the new

Three-Sixty3 - a high-powered moving yoke projector using an MSR 575/2 lamp and a cold-light ellipsoidal reflector. Features include seven interchangeable indexable rotating gobos, four and five-face prisms, nine dichroic filters, strobe and frost effect.

Goboland from Belgium was hidden away in the 'noisy' end of the hall, but was showing superbly-produced, high-definition glass gobos to those who did manage to find them. Its custom gobo pricing looks very competitive, too.

Griven's UK distributor, Ambient Lighting, has high hopes for the new Kolorclip range of compact colour changers using the 9000-hour, CDM-SA/T 150W lamp in a housing suitable for both exterior (to IP55) and interior

use. The unit delivers eight selectable colours plus open and closed, all from a single DMX channel.

HELL - Howard Eaton Lighting Ltd was showing some of the custom projects it has created using LEDs, alongside its DMX distribution system, radio-controlled dimmers and various Lightstick and fibre optic products, including a new pocket fibre-optic light source.

Flying Pig Systems, recently swallowed by High End Systems, introduced the Hog PC, which transfers many of the Wholehog 2 lighting console's functions to a PC. Born out of the company's existing Hog Edit software, Hog PC runs on any Win95/98 computer, and includes a USB device to output DMX via a range of DMX output devices, including Printer Port dongles, USB dongles and Ethernet output boxes. Up to four DMX universes can be controlled from one Hog PC which is a useful back-up for a lighting console. Once Hog PC is running, by using any widely available third-party software (such as PC Anywhere or Timbuktu), the operator can programme cues and run a show from any location, even halfway around the world.



HES and FPS also launched Fixture Talkback to integrate fixtures more closely with control, which will both enhance and simplify the programming experience. This will allow Wholehog 2 operators access to bi-directional

communication between the console and the luminaires, and enables the desk to detect the presence, type and DMX address of connected fixtures, set the DMX address and modes, while checking lamp hours and other useful fixture information. HES plans to expand this protocol to other fixtures in the near future.

Highlight International from The Netherlands brought plenty of new products, the main ones being six new scanners, a new DMX followspot and its 'Speedy' lighting controller - a four-channel unit with four in-built chases. Also in the control section was the Lightfoot DMX foot controller, complete with 20 in-built programmes - great for those moments when you run out of hands. It shared the stand with

new UK distribution company Highlight UK.

Dimmer monitoring was the theme on the stand of Dutch manufacturer <u>IES</u>, where the Dim Stat PC-based system allowed remote monitoring of faults on the company's still-revolutionary IGBT 'silent' dimmers.

Illuminatum PLC - specialists in outdoor lighting and laser displays - launched its new range of AliStuff products - customised, weatherised aluminium housings for anything from cables to ballasts and power supplies - also designed with quick drainage in mind should the contents get a good soaking. It also showed its huge Diablo megasearchlights, demonstrated in 7kW version.

<u>IRAD Information Services</u>, founded by two software programmers, was at PLASA for the first time with its Java Lamp software, which takes DMX in from any lighting console and outputs it to a projector, videowall or plasma screen. It produces similar effects to moving lights - but with pre-recorded video or graphic images as source material.



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Tel: +44 (0)1827 60009 Fax: +44 (0)1827 313877 E-mail: info@spider-engineering.co.uk LDR launched two new ranges to coincide with PLASA. Tono is a range of 2000W zoom profiles offering a choice of 18-36° and 8-22° field angles, while Canto is a range of four followspots all having a variable field angle from 8° to 22°, iris and integral dimming. LDR has also extended its range of architectural spotlights with the new Soffio range. Using

the Philips 150W CDM-T 3000K, 4200K or 4200K short-arc lamps, the range comprises a compact Fresnel and two zoom profile spotlights.

While Light & Sound Design continues to promote itself as a full service production company with an impressive corporate brochure and a list of

projects as long as the proverbial arm, the main focus of the stand was inevitably the Icon-M, its muchanticipated DLP-based automated light. LSD has repeatedly said that it will not release the product until it has managed to improve the light output. That time has now come thanks to a switch to a different light source, which LSD say has doubled the lumens. Consequently it is now planning to go into production, with first deliveries expected next spring.

<u>Lightfactor Sales</u> launched its new distributorships of <u>Apogee Sound International</u>, with top-range audio

products from the US; <u>SGM</u> lighting products from Italy and the <u>Sagitter</u> lighting range, also from Italy. These join its rapidly-expanding inventory of High End Systems products - for whom it is the UK distributor, LDR theatrical lanterns from Italy and Zeck Audio from Germany - sold via the newly formed Zeck Audio UK.
Lightfactor also introduced Paul de Ville to the team as newlyappointed MD.

Lighting Technology just keeps adding to its product portfolio. Earlier this year the company became UK distributor for the Derksen range of image projectors designed for the retail and architectural markets. This innovative line begins with the GL100 low-voltage halogen model, increasing in power to a 1200W metal halide outdoor unit. Accessories include real-time clocks, variable speed cloud, fire and wave effects as



well as DMX controlled programmable mirrors and animation effects and image changers. A fast turnaround of well defined gobo images for custom applications is also offered as part of the service. Lighting Tech also introduced Colourfast, its new expanded colour filter service, which includes the supply of all major filter brands as well as the production of scroller streams. A major investment has seen colour stocks increased and the company's

colour room expanded and refurbished. To expand the service a custom-built air-suction preparation table has been installed for scroller stream assembly on site. Also on the stand was the Brightline range of fluorescent TV fixtures and the Aureol image projector.

Lightprocessor was concentrating on solving another all-too-common problem with dimmers, and with touring dimmer racks in particular: how to deal with the increasing percentage of the rig that is automated and doesn't actually want dimmed power! The redesigned Paradime touring rack helps with this by

allowing independent mains to be patched into multicores very easily. Also on show was an upgraded version of its Commander lighting console, now capable of driving 512 channels or 36 fixtures.

Lite Puter from Taiwan showed its new 24-channel lighting desk, CX12 desk and its Junior Simple DMX desk as well as its CX1 DMX tester

and CX5 Lighting Controller - for five fixtures. It also showed its DX1220 dimming pack.

LSC Lighting from Australia released a new range of dimmers, which included the e24, ePRO, iPRO and the return of the popular monoPAK single-channel dimmer. The company supplied a large quantity of the e24s to light various corporate and hospitality suites at the Sydney Olympics.

Left, Three Little Maids (or should that be pigs)... Chris Deighton, Nils Thorjussen and Tom Thorne of Flying Pig Systems with what some felt was the product of the show

Inset, Jan de Jonge of IES with IGBT dimmers

Bottom, Lisa Papi and Fabiano Bessio of LDR with the Soffio F150

LX Designs' felt it had established some positive leads for the company's LxDesigner - a 2D lighting design package, which has been updated in the last year and is a tool to aid in the production of lighting plans. The company is currently considering a new entry-level version of the package as a result of feedback from PLASA 2000.

Another company providing kit to the Olympics was Lycian, whose 1290XLT 2000W Xenon followspot has been used in Sydney. The company was also happy to report that it took some major orders at the show, which should "lead to bigger and better business abroad".

MA Lighting was proudly showing off the GrandMA as if it were a new product some three years after its first appearance. Maybe that's what changing software can do for you! It still looks like it will be fabulous once you get your head around the way it works, and is now also available in 'junior' (GrandMA light, in a smaller package with just one built-in touch screen and just ten motorised faders) and rack-mount versions. Also on stand was Rainbow who was showing its current range.

MAD Lighting's dramatic and spectacular stand was built by Lite Structures - and was actually part of the Steps stage set, featured on their latest tour and based on the nightmarish future cityscape of Fritz Lang's classic Metropolis. MAD's new product was the AX1S-250MR moving head, a single-arm fixture utilising an MSD lamp and DC motors for speed and smoothness. MAD also showed its ITM 250R scanner, based in the generic MAD plastic case.

Martin Professional, fresh from settling its patent dispute with Vari-Lite, launched the MAC 2000 profile. This new moving yoke luminaire boasts a multi-coated, 10-lens optical system and HMI 1200W source, two dual rotational and indexable pattern wheels, an additional combined colour and effect wheel with seven replaceable colour/effect positions plus open. A newly-designed CMY colour-mixing system is much enhanced by the addition of a graduated CTC system, and variable and smooth dimming, as well as strobe effects, are possible via a combined dimmer/shutter. Having said all that, one of the nicest features of the MAC 2000 is its flightcase, which has been intelligently designed to assist with set-up and get-out and even to



First-timer Quentor is the biggest supplier of flightcases to the Formula One industry, so was at PLASA to expose its products to a wider market. The company relies on a manufacturing process developed by the aircraft industry, which provides the combination of strength and lightweight qualities needed. The cases can be designed in any colour with stylish signature panels incorporated into the product.

RAT (Music Stands) proudly launched Tony Ciniglio as its new sales manager at the show, though Ciniglio met with stiff competition for the spotlight from the new cordless, DMX radio-controlled opera stand, which would be a stunning and practical asset to any pit or stage. The stand has a cold cathode fluorescent lamp with minimum spillage and five hours continuous light, powered by a battery pack. A single transmitter can control numerous stands via one DMX channel.

RentalPoint Software was inundated with enquiries from the moment the doors opened on Sunday, and judging by the crowds on the last day, things weren't going to let up until the doors finally shut on PLASA 2000. On display was the company's Rental Point2000 software for the entertainment industry.

S+H Technical Support Group was showing its range of fibre optic products.

Sapphires Sound and Light came to PLASA for its slot in the DJ pavilion on the Sunday. The company sells DJ packages from entry level to full blown PA and installation systems, as well as distributing the Abstract range.

Scandinavian Leisure Systems (SLS Holding) from Finland was in ebullient spirits, enjoying a packed stand for most of the show, highlighting its computerised MusicBOX integrated DJ AV products.

Schulz Kabel's full range of audio cables and connectors was on show at PLASA, with designs for a wide variety of pro audio applications.



double as a workbench for maintenance purposes. Martin's MiniMAC Maestro is a compact automated moving head that should prove useful in a variety of locations, especially in view of

the long life (6000H) 150W CDM lamp. The Matrix is a black-box solution for control of a grid of fixtures and/or conventional lights that considerably reduces programming time. Even the most complex sequence can be entered and recalled intuitively.

Mode Lighting launched the world's first (and currently only) DMX-controllable, fully-dimmable neon converter,

alongside its new Tiger Power unit - an architectural or theatrical installation dimmer available in modular panels for quick and simple installation. Also showing was Mode's range of Mirage dimmers and DMX-controllable Neotran.

<u>Multiform Technology Group</u> had a host of new products on its stand. From the

Multiform stable came the Mini 6 DMX and Mini 12 DMX control desks. There was also a new DMX Output module for the Aquarius and Scorpio desks which can be used to convert the output of any 0 to +10V controller to DMX. Sharing the stand with Multiform was Sagitter, who, following on from its launch of the Moving Spot MSD250 and Moving Wash MSD250 at Rimini, had the Murales 1200 - a CYM exterior colour wash luminaire,

alongside a higher powered version of the Moving Spot MSZ575. Meteor, another name in the Multiform portfolio, released the Universal DMX Relay, which should find favour with lighting technicians who can control any mains-powered item from a DMX control desk.

The Mirage from NID is a neat little colourmixing device based on three MR16 bulbs with dichroic filters, using proportional fading to provide full colour control. This compact unit fits inside the smallest trussing, and with a 12° bulb is an ideal truss teaser. Available in 12v and 230v versions, NJD also provides a matched dimmer, with colour control coded into the mains line for simplified cabling. The controller will accept Midi, DMX and 0-10v, or work as a stand-alone unit.

The <u>Lighting Innovation</u> MotorYoke was on show upstairs on the <u>Northern Light</u> stand. Feature-for-feature this is very

Left, The MA Lighting team of Katrin Discher, Michael Adenau, Ernst Ebrecht, Ralph-Jorg Wezorke, Michael Althaus and Thomas Brockman

Centre, PLASA Chairman Mick Hannaford was drafted on to the Mode stand to draw out a winner for the Mode Tiger. Richard Cresswell of Navigator was the lucky chap.

Bottom, Martin Professional's Larry Beck with new recruits Graham Barron and Mark Ravenhill

similar to City Theatrical's yoke, though AutoYoke does offer the 'plug-and-play' advantage of a built-in dimmer. Lighting Innovations was also showing its Inno-Four range, which fits a 575W HMI bulb into a Source Four; a DMX dimmer shutter is also available. Northern Light itself was showing its programmable touchscreen stage management

desk and talking about the many projects it is now involved with, this side of its work having been expanded by an influx of ex-Glantre people.

While wandering around the show, it was interesting to note one immediate result of the ETC/CAST deal: a renewed interest in developing WYSIWYG-alike systems.

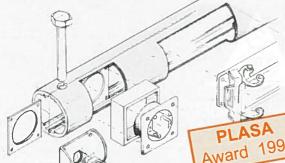
Onoff by Digital Image, for example, showed its Emulator visualisation package. Using a rack-mounted graphics workstation linked to a PC, previously

loaded with the stage design and lighting fixtures, complete moving light shows can be downloaded from the lighting desk and displayed and rendered in real-time. OnOff also featured some neat 16° Birdie washlights, powered entirely by LEDs, but with a homogenising filter on the front to even out the field and reduce the usual blobbiness experienced with other LED-powered fixtures.



Optimusic showed its directive light control system which, when linked to a MIDI trigger, allows sounds and samples to be activated by the breaking of a light beam - by a performer for example. The company has been awarded Millennium product status with this system which is also appearing at Expo 2000.

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Spanish manufacturer <u>Strong Lighting</u> on the <u>Performance Light & Sound</u> stand had two new moving heads - the Moving Spot 575 and the Moving Colour 575 - together with the Nocturne 256 prototype desk which is aimed at small theatres with moving and conventional lights to control.

Pulsar's Masterpiece 216 has been improved by the welcome addition of a Chase Generator. A software upgrade, it comes free of charge, and works by mathematical progression of channel levels for specific effects. Its two main advantages are a reduction in programming time, and a reduction in the number of scenes required to build a complex sequence effect. Also in the control range is the Masterpiece Replay Unit 216 which, as the name suggests, takes a scripted show programmed on the Masterpiece (216, 108 or 48 units) and runs it for you.

# Do you want total control? Mayterpiece 216 Mayterpiece

The London Hippodrome recently installed a new control system using the latest Masterpiece and Replay Unit technology, capable of providing total control of their vast 2000 channel lighting rig.

#### Connectable

Masterpiece is packed with multiple inputs and outputs as standard to enable system integration. Three output formats are provided, these being +10V analogue (36 channels), Pulsar MultipleX (216 channels) and DMX (512 channels). Four control inputs are provided these being Pulsar MultipleX (RS-232), Musical Instrument Digital Interface (MIDI), Analogue +10V and Audio. This array of digital and analogue inputs and outputs makes it possible to connect the Masterpiece to almost whatever you have in mind.



#### **Upgradeable**

Masterpiece is driven by powerful software, written in machine code for the ultimate in controller response. Software upgrades are free of charge enabling you to keep your system state-of-the-art at all times. In fact the latest Masterpiece 216 upgrade features an exciting development called "Chase Generator", an extremely quick and powerful way of creating complex chases from just a single Scenel It works by using mathematic functions to automatically calculate channel levels for predefined lighting effects.



#### **Expandable**

Masterpiece is easily expandable and can be used in a modular way to provide large and complex control system solutions. The use of multiple Masterpieces and Replay Units along with Outstations enables the designer to specify logical integrated control. Use of the remote inputs additionally allows linking to MIDI keyboards and remote devices.

The Hippodrome's Technical Manager Derek Chalmers states: "The new system allows for fast total control of the lighting rig and rig movements. The flexibility of control allows us to offer an integrated production capability for multi-media shows, presentations and a whole host of other diverse events."

If you want total control, take a look at the new Masterpiece 216.



#### **Programmable**

Masterpiece is great to program and operate, just ask someone who uses onel The fully multi-tasking programming structure makes the creation of complex lighting Environments simplicity itself. 8 Shows each contain 216 Scenes, 54 Chases, 48 Environments and 6 Environment Chases. This structure together with the new Chase Generator provides enough capacity for even the most demanding project.

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For equipment manufacturers, Sellmark Electronics was displaying its new motorfader products, alongside more traditional fader and rotary controls and accessories.

Set Lighting and Sound is a Maidstone-based hire company with a stock of Martin Pro Macs. The company works in television and live events with a variety of lighting designers and directors and can provide the full package including lighting design and crew or equipment only.

Showtec Communications from Singapore is a sales and rental company distributing several brands, in addition to manufacturing its own intercoms, loudspeakers and lighting equipment in China.

Slingco designs and manufactures the amazing Cablenet wire rope platforms. The platforms are constructed so as to cast no shadows from lighting rigs positioned above and are almost invisible to the casual observer. The product has found itself in a wide range of applications from Aerospace projects to conventional theatres.

Smart Sound Direct, an audio marketing company, was at PLASA for the first time exploring different avenues for sales, keen to make contacts at the high end of the semi-pro and low end of the professional market. With a full range of audio products available, they had a very busy show and made good contacts.

SoundRanger are builders of selfcontained radio mic, wireless PA systems, ideal for the small conference and event market. Powered from lead acid gel batteries, or mains, the systems include mics, built-in amplifiers, and being totally wireless, are impossible to misconnect.

STBC, UK distributor for Soundtube, showed the new parabolic Focus Point speakers, as well as the new high-power range of omni-directional speakers, the Omni360°, for applications requiring high levels of audio.



Rosco had a jam-packed stand that not only featured gobos, including a new and as-yet un-named range of colour/breakup glass gobos, but the Horizon lighting control system, a preview of their forthcoming new smoke machine, new colours and I-Cue, the company's low-cost

moving mirror attachment for a Source Four which turns it into a basic moving light.

RVE Technologies, on the ESP stand, showed its new digital Cube dimmer packs (4 x 1kW), small, light, single-phase and mountable in a 19" rack and its IGBT dimmers – both products arousing much interest. The company also revealed three new models of

cost-effective colour-changers, featuring DMX and analogue control.

Ryger Electronics gave front line placing to its Navigator

lighting controller, an easy-to-use machine for fast programming of up to 16 fixtures of eight channels each. Ryger's established range of controllers also made their appearance, on the <u>CLD Distribution</u> stand.

<u>Scanlite</u>'s Static Bottle display is a variant on the Plasma Ball light technology, for which the company is perhaps best known. Aimed squarely at the retail and display markets, these are very neat, and if you want more than 250 of them, cheap too.

<u>SES Film & Television</u> introduced the Powerpro plug-in distro system, a first for the movie production business which should eliminate

Top, Christian Allabauer with Hermann and Harald Sorger of Lighting Innovation

Centre, The Pulsar/Clay Paky team

Bottom, Duncan Smith of Rosco with the I-Cue Intelligent Mirror

the usual spaghetti. A variety of configurations are available through a series of plug-in modules: 125A, 63A or 32A three-phase, 63A or 32A single-phase, in three or four-way format, all protected by RCD-activated MCBs, and a Socapex 36-way module, protected by MCBs. Also new, Towerlux is the ultimate in temporary lighting, this being a five metre high inflatable tower supporting a Halogen Vapour lamp. Brilliant for those outdoor events or where temporary work lights are a necessity.

<u>Selecon</u>'s Pacific range of spotlights has had quite an impact since its launch two years ago. The range continues to grow, and the company was showing the 90° lenstube that a number of lighting designers have fallen in love with over the last year and a new narrow-angle (5.5-13°) zoom lens. More interesting though, was the new lamphouse that uses a 1200W 80V bulb to give a dramatically bright and 'white' beam that heads towards the white colour now popularised

by the discharge lamps in moving lights but without any of the flickering or colour-shift-on-ageing nastiness found with such lamps. The only slight drawback is the bulky transformer box required. Selecon was also showing its Finelite image projector - basically a scroller that fits into the gate of a Pacific, allowing changing images or, more usefully, true linear movement of effects such as clouds, the images just being printed onto plastic film in either case. Selecon is refining this

American product into a quieter, more 'theatrical' version which will be available soon.

SGM first introduced its new Giotto 250 at Rimini earlier in

the year. Essentially a trimmed-down version of the Giotto 1200, the unit features a Philips MSD 250/2 discharge lamp and a quality dichroic reflector, and includes eight indexable rotary gobos and three fixed, all of which can be easily changed.

Show Connections upstaged the vertical 'coffins', already on offer to protect moving mirror lights when used in the outdoors, by producing an air-conditioned case. This can flat mount lens-forward projectors, such

as video projectors, and provides complete protection from dust, dirt, vapour, water and even ingress by microparticles, while eliminating condensation.

Italian manufacturer <u>Spotlight</u> was showing its range of lanterns: all now feel slightly old-fashioned in terms of their use of aluminium reflectors and 1K or 2K lamps, rather than dichroic reflectors and 500-600W lamps, but they are nevertheless well-made and the Piccolo effects projector







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TEL.: 0031 10 521 6992 FAX: 0031 10 521 8204 has the advantage of being compact. Spotlight also had a moving panand-tilt yoke for an ADB Svoboda light curtain, adding an incredible amount of versatility to one of the most distinctive lanterns in the lighting designer's armoury. All they need to do now is add a colour scroller . . .



A new modular dimmer system could be found on the <u>Stagetec</u> stand who used the show to launch <u>Compulite</u>'s new CompuDIM2000 dimmers, while also showing the ever-evolving range of Compulite desks.

Starway International from Italy showed its new moving yoke spot and wash fixtures - the Servo Spot and the Servo Color - and two new scanners - the Servoscan 575 HMI and

the Servoscan 1200
HMI. Its DMPX 615
digital dimmer pack (6
x 2k per channel) also
attracted plenty of
interest, as did its 250
Spectrum Scanner
complete with its
tactile casing which
Ivano Burato described
as "like a baby's bum!"

<u>Strand</u> launched SLD, a new modular dimmer system. This will replace

Strand's other dimming products throughout the world, with a wide range of modules (including dual 15A, dual 20A, single 50A and dual 20A contactor) on offer, all available with RCD or double pole breakers if required. The blue finish of the dimmers matches that of the popular 500- and 300-series consoles which were also on show, as were the new architectural discharge version of the SL lantern.

Strong Entertainment launched a new 2K xenon fixture - the Nexus II. This features an integrated power supply and will surely prove popular in the stage, studio and architectural markets. Also on show was the company's latest followspot - the Truss Trouper.

Studio Due, the innovative Italian company that brought us the CityColor and its successors, has now come up with Shark. First seen at SIB in a 150W HTI version, this moving head projector now also comes in a 250W version. Seven colours, seven gobos and strobing shutter are the other attributes you get in one bite from this ultra-compact fixture. CityColor, meanwhile, is now available in both 1.8kW MHD and 2.5kW HMD versions.

Top to bottom:

Mark Cooper, Mark Thompson and Gordon Cooper of SES Film & Television

SGM's Alida Paolini, Ermanno Tontini, Franco Zaghini and Alessandra Giorgi with the Giotto Spot 250

Studio Due's Franco Bertino, Anna Rossi and Roberto Fraioli with the Shark 250

Graham Eales of Zero 88 presents Linda Moore (left) and Conor McGivern (right) of Stage Electrics with an Illusion desk for their new London office The Flame Light
Company enjoyed its
first PLASA, showing its
spectacular range of
silk flame effects that
come complete with
in-built lights and fans.
The company had on
stand a prototype of its
new silk lantern and
was also showing its
new Mad Max flame
machine which
includes a rear-

mounting fan allowing units to be stacked.

TMB had its usual eclectic range of indispensable lighting products. From Mobolazer were the ML-10 1.0G and 2.5G, 1W and 3W respectively, diode pumped SS green lasers. Compact and air-cooled, Mobolazer claim these units appear four times brighter than comparable gas lasers, and they come mounted to a scanning table with a huge range of

effects heads available, including graphics. Also on stand, the Power Par 575 is a 5,600K based around the ETC Source 4 Par. Using the same interchangeable lenses, but with a different back and reflector, this is a flat, evenfield daylight lamp, ideally suited to architectural, film, or video work. Of most interest to live show producers will be the Pro-Plex Cat 5 cable specially developed by TMB. Highly rugged and durable,

this is a trash proof Ethernet cable that will save many a headache.

<u>UV Light Technology</u> had a new 250W UV flood on show. The lamp is designed to compete against 'canon'-type UVs, the makers claiming the output from the lamp is more uniform and covers a bigger

spread: a single unit is equivalent to two to three canons. The lamp is rated for 700 hours, and is certainly more robust than the big tubes used in canons.

Vari-Lite was banging its 'luminaires for sale' drum loud and clear with its new

products specially designed for the install market. The VL2201 is a 400W automated spot luminaire but with turbo light output, courtesy of a dichroic coated reflector and superior optics. It offers 3:1 zoom, 11 colours and gobos, five rotating gobos, iris, strobe and full field dimming. No fans are used. The VL2400 is more strictly a series of automated wash lights with a choice of Arc or Incandescent lamps and flood or collimated beam from options from 10° to 55°. The parabolic optical system is crucial to the quality of the beam, according to Vari-Lite, and colour-fading is enhanced and speeded up to less than 0.35 seconds.

White Light had a very attractive stand next to the main door, with the cut-out of lanterns, bulbs, gobos and the like from perspex screens neatly recycled into give-away keyrings! Products on show included the new LOLER fully-rated lighting ladders and the Swing Wing Truss, ideal for touring mixed rigs of moving and

conventional lights, as well as a twenty-first century update of an invaluable lighting product: CE marked grelcos! The Moving Light Company were discussing the WYSIWYG facilities they now offer, while White Light were also providing a home for ShowMagic (a PC-based lighting control system) and HTS Lighting (showing the new Unique variable-haze machine from Look Solutions and the LITEChat, which allows DHA Light Curtains to be controlled from a Psion Series 51). HTS also showed the powerful Viper DMX fog



machine, capable of propelling smoke up to 15m, and the DMX Widget from Clever Little Box - a test tool designed for use in conjunction with your Psion 3 or 5. The advantage of big screen display bypasses the usual snowstorm of menus and sub-menus necessary to navigate older, smaller devices. Widget transmits, receives and analyses DMX from 1 to 100 channels at a time. HTS promise a Palm Pilot version in the near future.

Wybron had a prototype of a similar product to Rosco's I-Cue on its stand, though was really concentrating on the CXI colour-mixing scroller system and its new variations, including a waterproof version and another that replaces one of the scrolls with a variable frost system allowing controlled, variable diffusion of lamps. It was also previewing Autopilot II, which seems set to dramatically simplify the

configuration of Autopilot systems by allowing control through a PC and automating all of the hard parts of the set-up procedure!

Showing a revised dimming product was Zero 88, whose Contour touring dimmer has now metamorphosised into the Contour 12 installation dimmer, complete with built-in bungee cords to hold the front panel when opened for maintenancel Zero also used the show to launch Illusion

240, an expanded version of the Illusion 120 memory console capable of controlling – as you might expect from the name – up to 240 channels while still offering the cueline system for editing cue timing that Zero first introduced with the Sirius 250 range.



Barco was showing off its D-LITE family of Digital Daylight Displays with an eye on the lucrative concert market, while also giving visitors the chance to see the new substantial mounting structure of the ELM projectors, a choice of two triple DLP projectors that it produces with outputs rated at 10,000 and 12,000 ANSI lumens apiece. The built-in frame allows stacking, while the chunky rigging points show that they have been listening to the touring industry too.

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Stage Electrics was promoting its new London office, complete with sales stock, demonstration area and WYSIWYG studio (see news this issue). At the same time as setting up this new facility in the ground floor of DHA's building, they're also building a new headquarters in Bristol to keep themselves busy!

First time exhibitor, Staging Concepts had a good response to its portable staging systems. The company was interested in establishing a distribution network for its product and was happy with the interest generated.

Stardraw was exhibiting its new Stardraw Audio and Stardraw AV variants of its popular CAD package and discussing the new subscription symbol upgrade scheme.

Studiospares' new catalogue will shortly be available, with the usual cornucopia of studio and live audio products plus several new lines and additions to existing ranges.

Telestage Associates was happily discussing the expertise it can bring to projects, in particular its new-found involvement in the cruise ship market.

First-timer TES Industrie of France was showing its range of internally-lit balloons. Available in a myriad of different shapes and sizes and with a variety of lightsources, these come complete with their own air source and add an eye-catching element of fun to events and parties.

The CD Pool, a DJ promotion service, launched its latest 'digital DJ' mix CD for DJs.

Totally Brilliant Software was showing the latest version of its equipment rental software, aimed at large set-ups and multiple site operations. It has an internet browser enabled option and will run equally smoothly on both Mac and PC.

TTP is a major plastics manufacturer with a specialist expertise in fluorescent materials. It can provide anything from UV sensitive skin creams, to paints, plastic extrusions, basic granulate and colour tints. Its range of plastic extruded profiles is vast.

TW Electronics' range of OEM components was on display to equipment manufacturers, including faders, rotary controls and encoders from Alpha and push-buttons from Toneluck Electronics.

Ultimate DJ showed the new Ministry of Sound headphone range - the largest such collection to be released at once, five models from bedroom to pro, ranging from £30 to £120 in price. It also demonstrated its huge range of DJ jingles, 4,500 of which are available off the shelf

New products from XTBA included a low-cost DMX tester which was selling directly off the stand such was its popularity. The Focus DMX radio remote unit also attracted interest since it can merge with a control desk and store up to 30 scenes.

Right, Keny Whitright (left) and Rand Clark (right) of Wybron with Stefano Cantadori of Audio Link

> Centre, Barco's Ross Burling and Benjamin Vandorpe

Bottom, Jean Luc Michaud, Gerald Froment and Yves Ruellan of Hardware for Xenon with the new 77mm lens

which must have been a wonderful business in recent years because of the high rate of consumption (though if Pani have their way that may all be about to change. See below). Diap gets all this business because its image

and processing quality is superb, not forgetting that it also offers full design services for those who don't want to produce their own artwork.

Using Diap's material, <u>E/T/C Audiovisuel</u>, and new smooth operator Patrice Bouqueniaux, was demonstrating both manual and automated versions of its rotating double film strip scrollers. The automated version provides the ability to rotate the image through 360° at a variable rate, and up to 20 projections can be controlled at the same time, with remote focus.

Hardware for Xenon and Airstar, the lighting balloon specialists, were again in close association, while the indefatigable Yves Ruellan was proudly showing his Optimal Light System for which he received a well-justified LDI Award last year. OLS is a clever device that evens out the light from a xenon source to eliminate the hotspot and spread all the light uniformly

across an 18x18.5 cm rectangle slide. This means not only that the projected image quality is much improved because of the evenness of the field, but even with a 7kW xenon lamp, no deterioration is experienced. Airstar had the new Airslide, a joint co-operation with Hardware, which sees one of its own balloons fitted with an internal Hardware projection system.

<u>Liesegang</u>'s new DDV1111 projector is an ultra portable (2.9kg) presentation projector, using Texas Instruments' DLP technology to produce an astonishing 1200 ANSI lumens from a tiny machine. German-built, this extremely bright projector features a Carl Zeiss lens.

<u>Ludwig Pani</u> started making news again this year announcing spectacular

improvements in light output by up to 65%, coupled with an antibleaching filter which can increase the lifetime of the slide or scroll by up to 72 times. While this may be bad news for our friends at Diap' Assistance, it is very good news for designers who have had to contend with a huge overhead on consumables in the past when using scenery projection. In fact the judges were so impressed they gave a Technical Innovation

Award to Pani for this Universal filter, which blocks UV radiation to achieve this result.

It doesn't seem credible that <u>Unitek Displays</u> launched its Megascreen giant screen technology as recently as 1998. It quickly went on to pick up an award and has since been spec'd on some very high profile entertainment and sports events. The company has maintained its module design integrity with the latest generation Mark 3, launched at the end of last year.



#### STAGING/TRACKING

<u>Blackout Triple E</u> was attracting a lot of interest with its new ChainTrack product which, among other features, has the ability to turn a flat drape through 180° within around 30mm of depth. The track had its first official outing at the NEC motor show earlier this year, where 400 metres of it was used to great effect.

<u>Bühnenbau Schnakenberg</u> was hoping to expand its list of contacts at this year's show whilst displaying its range of

NIVOflex aluminium platforms and risers aimed at the club and event markets. These systems are designed for portable and fixed use.

Easy Deck 750 from <u>Doughty</u> is a lightweight deck system intended for schools and colleges. Deck sections come in at 750mm<sup>2</sup> of 18mm ply, and the main feature is its tool-free assembly.

and Zenith wind-up towers include re-engineered masts, a bigger box section allowing for greater lift, and mast sections have been increased from three to four.

Flexset was exhibiting its portable staging/sets for the first time. The system easily clamps together with no technical skills or beefy crew required for assembly. The connection clamp enables the system to be erected fuss-free and it reportedly generated a good deal of interest.

<u>Gala</u> had a number of new products on stand, key to which was the company's new 6" Spiralift. Thanks to a simplified internal drive arrangement, this will solve the needs of small stage lifting applications, such as piano lifts, chorus lifts and compensating lifts, making spaces

more versatile and flexible. Also new from Gala was the Matriox table lift - a low-cost alternative to podium and small stage lifts, and the Modular Electric Vertilift - a new generation of electric Vertilift motorised rigging systems.

Indu Electric Gerber is a custom power distro manufacturer which

seems to have produced something to satisfy just about every need - stackable location boxes for the film industry, electrical measuring devices, electronic RCDs to name but a few. Nothing can better illustrate its central role in this market, than the fact that the company was the main supplier of the electrical distribution systems for the Olympics opening ceremony.

German cable manufacturers <u>Klotz</u> had several interesting new products. Composite audio/video cables, ideal for







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OB and pop show users were proving popular, as were a range of new cables for voice alarm systems - E180 and E30 - both fully compliant for 30-minute operation. A series of difficult-to-make, but highly functional hybrid digital and mains cables were also on display.

Philip Sparkes, managing director of Maltbury, the company behind the Metrodeck portable staging and seating system, was another busy man at the show, dealing with a rush of enquiries. Chief amongst these was one from an Indian production company planning to shoot a film in the UK, whilst another visitor to the stand requested a quote to install a hospitality suite into a double decker bus!

Above, Doughty's Andy Cook, Stephen Wright and Julian Chiverton with Zenith Mk3 stands

Right, David Edelstein of Blackout Triple E with Howard Eaton of HELL

Below, Wilkie Dickinson Sparkes (son of Philip) on the Maltbury stand

Two system

Ra'Alloy manufactures a range of products, which include non-slip ramps, stage frames, rest-on stairways and scenery bases. It was showing a selection of its ramps aimed at the entertainment and related industries.

Our apologies to Stage 1 Enterprises and Stage One Creative Services who we stupidly managed to hybrid into one company in our last issue. These are, of course, two quite independent companies who just happen to share a similar name, and we are sorry for any confusion caused.

Stage 1 Enterprises came to PLASA with its Simplex Ultralight Staging Platform, developed to work in conjunction with the 'original' Tetrart expanding aluminium riser support system for which Stage 1 is now the exclusive UK distributor. The Ultralight stage platform is a sandwich of a lightweight centre

core within two sheets of birch ply, bonded into an aluminium frame housing the patented locking systems which located both the platform to the riser and platforms to each other. This construction produces an incredibly strong, yet lightweight stage platform, and the proof of the pudding comes from the fact that a 2m x 1m platform weighs less than 20kg, but is capable of bearing a distributed load of 1000kg per sq.m.

For staging and trade show specialists Stage One Creative Services, the Q Motion system has been augmented by the new Independent Chain Hoist Control. A six-way modular system, the CHC can plug into any standard

hoist distro' and take over power switching, and - with the installation of a Hall effect reader - will control movement parameters. The latest version of the Q Motion software was also on demo: Windows based (95/98) for 32-bit operation, the new software features QMP, which enables cues to be laid directly on top of each other, i.e. a new cue will Stage Technologies seems to pick up a PLASA Award every time it exhibits! This year it was a PLASA Product Excellence Award for Technical Innovation in the Stage Engineering Category for Pathway, its software that allows motors to be linked together to move scenery or performers in 3D space. Originally developed for the Dome, the system was refined into its present form to fly the witches in The Witches of Eastwick (this entire flying sequence runs on Stage Technologies' equipment) and was very clearly demonstrated on Stage Technologies' stand.

<u>Stageline Mobile Stage Inc.</u> a specialist in mobile stages, having made a name for itself with its SL and SAM series, had an excellent response from the show this year. In fact, the company's experience at PLASA illustrates exactly what the show is all about - making contacts. Less than a week after his visit to PLASA, an Egyptian client was on the plane to Canada to follow up his meeting with Stageline.

Steeldeck, the UK distributor for Buhnenbau Schnakenberg, was showing a variety of staging including Stagebase, the demountable staging for which Steeldeck bought the manufacturing rights from Andolite. It was also testing the waters for the first time with the Canadian product Smartstage.

# LASERS/PYRO/EFFECTS

C & W Professional Lighting from Guangzhou, China, came to PLASA for the first time, booking its stand on the international reputation of the event. It showed examples from its range of fog machines, strobes, Gobo Scans and other DMX lighting effects.

In addition to having a rather catchy and surreal company name, Fishbanana launched the Terrafog and Koolfog high-powered fog cannons. The blast of the chilly fog from one of the cannons made this a popular place to stand during the show. The products are aimed at the

theme park industry and use synthetic liquid air (SLA) which make them 100% safe.

The new ZR33 Hi-Mass from <u>JEM</u> is designed to generate instant atmosphere in large clubs, major stage productions and industrial applications. It requires only 1500W to produce a massive 1000 cubic meters

of dense fog per minute. The Sharky fogger is a low-cost, yet versatile smoke generator for small- to medium-sized venues. Although this machine is extremely compact, it is capable of long, dry bursts of dense white smoke. There was some surprise that JEM is still using Martin's nonstandard version of 3-pin DMX on its equipment, even though the parent company have conceded the point some time since.

Laser Light International had their range of Stealth Lasers on show, including a new 500mW version for smaller club applications. Laser Light were also publicising a new 5W laser which runs on two amp, 240v

Le Maitre's new Neutron XS Hazer should put an end to those embarrassing messes that tend to collect around smoke machines.

> Thanks to the company's world patented STAR (Sequentially Tracked Automatic Re-Issue) technology, the Neutron produces pure haze with no water, no oil and thereby no residue. The forthcoming 'baby' version of Le Maitre's remarkable LSG low smoke system looked particularly promising.

> MDG had a good show with its many new and established products and was rushing from PLASA to smoke up the tunnel between France and Italy for an emergency rescue mock-up exercise! The new Ice Fog Touring machine was kept busy, noiselessly producing low, dense fog for show visitors.

> MTFX's Master Blaster is a compressed-gas confetti cannon with a difference. Using the Venturi effect (ask at your local pond suppliers) the Master Blaster can be continuously fed with confetti in a manuallycontrolled stream until your gas source is exhausted. A 34kg bottle of CO<sup>2</sup> will last 2.5 minutes continuously and blast out a massive 20kg of confetti.



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Nu-Light Systems showed its 'Airoamer' machine for dispersing scents across large areas. This works via Venturi (see above) negative air pressure, which exists in the essence jar, whilst positive air flows over the top, drawing the scent out. This method is completely

'dry' and leaves no residue. Nu-Light also showed its DMXcontrolled range of Graphics lasers which include 25 preprogrammed patterns and six banks of userprogrammable text. The company's Image Scan logo projector also received a lot of interest.

Pyrotechnics were on show from Skyhigh FX, who used

the show to launch its new PDS-2 and PDS-4 two- and four-channel firing systems that link the stainless steel control box and firing pod using rugged, locking fourpin XLR connectors, and which have an 'armed' lighton the firing pod to warn that the system is active.

It was hard to know where to look on the Smoke Design stand - attention was divided between the new fibre optic carpet (David Taylor said he'd been asked for a quote for 1,000 during the show) the mesmerising Flame Effect, which comes in four versions and the range of fragrance machines with 60 available aromas.

Swefog introduced the Ultimate III, an oil-based hazer. With its own, self-contained compressor, the unit is almost totally silent, but if you're really picky, the compressor can be detached for remote operation up to 10m distant. It comes in two versions, base model with manual on/off, and a DMX operated unit with manual override.

New from The Smoke Factory, a niche manufacturer of portable smoke machines, was the flight-cased Fan Fogger 3KW DMX, a high-powered fog generator with a wind machine built in.

# **RIGGING/TRUSSING/HOISTS**

ChainMaster was showing its new VarioLift VBG-70 (500kg, 19m/min) and VarioLift VBG-8 (1000kg, 19m/min). In a perfect demonstration of the repeat positioning accuracy of the VBG-70, it was used to continuously raise and lower a cube onto a pillar without ever allowing the two to touch. When the cube came within a business card's

thickness of the pillar, the raising process started again without a visible stop. New control software was also being demonstrated that allows for troubleshooting solutions and exact synchronisation.

Given that it routinely takes quite a modest stand on at PLASA, one could be forgiven for forgetting that Columbus McKinnon is the largest North American manufacturer of electric chain hoists. With that sort of pedigree you don't need to make a big statement and the guys at CM wisely let the product sell itself.

Event Rigging showed an extensive range of Petzl safety products, alongside its useful radio-controlled hoist system, launched at last year's show.

James Thomas Engineering was celebrating its recent move to new 4900sq.m premises in central Worcester and also launching its new Moving Light Truss (MLT). This variation of the MLT has the same dimensions as regular pre-rigged truss, but houses three moving heads (all popular fixtures accommodated). Each fixture can be individually handled for maximum

convenience. JTE also had a new followspot chair on the stand, plus its usual range of theatrical lanterns.

It was hard to miss the gleaming truss on the Lite Structures' stand with its new added polish. Considerable time has been spent developing the

> powder coating to give the aluminium truss this sheen, and stand visitors were justifiably impressed. Also new is the company's online rent-a-set.co.uk, rent-astage.co.uk and rent-astand.co.uk. where everything imaginable is available for hire.

Milos Structural Systems was enjoying its fifth PLASA, with interest generated by its

MRI and MR2 roofing systems. The MRI is designed for

the smaller band and street festivals and can cover up to 517sq.ft of stage, whilst the MR2 is aimed at the outdoor event/concert market with its ability to cover up to 1292sq.ft.

PCM showed a selection of its extensive range of Lodestar motors and launched a new range of motor controllers that can be used locally or remotely. The tiny-but-tough Prostar motor is now available from PCM with limit switches of a geared type, and the

company is also now offering a rainproof Lodestar or

can supply a retro-fittable kit which can be fitted back at its HQ. Also new is the Lodestar Type FX, to VBG70 specifications. The new Beta Silverline electric winches attracted plenty of interest ideal for flying scenery, not to mention people. PCM also took the high profile opportunity of PLASA to present its fourth cheque to the PSA for the organisation's Welfare & Benevolent Fund, bringing the total now contributed by PCM to over £10,000.

Penn Fabrication had lots of

new flightcase hardware: a range of catches, clips,

handles and corners, all in high-impact plastic, with stylishly-contoured, rounded edges, intended to encase high value small electronic parts. Penn have also developed a 19" Utility rack with a customdesigned all-purpose clamping drawer for nonstandard (i.e. non 19") equipment. Slotted vertically, and horizontally, front and back, and with foam rubber padding to the clamps, the drawer is a surprisingly easy fit for odd objects.

Pfaff-Silberblau was at PLASA for the first time to launch its new range of PMB electric chain hoists which have been specially adapted for the theatrical and entertainment markets. These are available in standard and VBG 70 versions.

Prolyte had the new \$100F, a large-format foldingtruss, designed for spans up to 30m. An open web allows standard Prolyte folding truss to pass through to form large grids. The S36R is a new heavy-duty small (14") square truss, which differs from its existing standard in that it has diagonal web on all four sides

making it suitable for side-loading.

Rolight Theatertechniek showed its new Admiral multibar truss that comes in a square truss format in lengths of two and three metres. It features one 16-pin input and six outlets.

Sergio Cazzolaro from Italy was showing its Sixtema aluminium-constructed modular staging system which is small, light, strong (1000kg per sq.m), easy to use and available in different versions, including the Dekx version for professional use. The system comes with a full range of connectors, stairs

Serious Structures took a stand to confirm the arrival of its Space Roof, launched in May last year. Identical in appearance to the ever-popular Orbit roof, the Space Roof can span up to 45m and has a high weight loading - five tonnes per arch at 45m, 12 tonnes at 28m.

Slick Systems showed the new Tiny Beam lightweight trussing system. This small truss is aimed at the display

Victoria Hamilton and Mark Ager of Stage Technologies demonstrate the Acrobat 4 to Fred Maeder of Waagner Biro

.....

Mark Turner of MTFX with the Master Blaster confetti cannon

> Chris Mills and Jacqueline Mitchell of The Flamelight Co

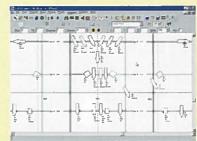




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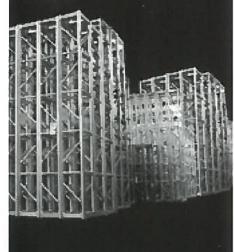
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market and was designed in direct response to industry feedback. It attracted excellent interest, is competitively-priced and attractively designed and manufactured.

There were two interesting items from Tomcat: the striking Whirlygig feature – a three-ring gyroscopic truss contraption, built in partnership by Tomcat and Brilliant Stages to demonstrate the synergy of the two companies, and Tomcat's new Convertible Truss (CT). A simple solution to truss obsolescence, the 20" x 20" format features full gusset plates, and insertable fork-end connectors, to facilitate connection to most types of popular older truss. Although the truss wall is thickened to 3/16ths to support the spigot/fork end connector, the truss is de-rated to the weakest truss type it can be connected to.

The launch of T2 by <u>Total Fabrications</u> was signalled in the pre-show issue of L&SI (see Sept 2000). To summarise, the T2 concept is a trussing system with personnel safety at its heart. A revolutionary design, the main cords are all

profiled extrusions with a continuous slot that is primarily designed to lockin safety harness lanyards. The stimulus behind the design is the potential weakness and unsuitability of the catenary lines currently used as security for truss climbers. The T2 addresses all

the catenary shortcomings (too numerous and complex and through the slotted attachment point, offers an unhindered safety system



that travels along the truss with the operative. The slots run on all four cords - as such Total Fabrications has already begun the process of creating a whole range of attachments that can utilise the slot, including lighting and equipment fittings and pedestrian platforms. A worthy PLASA Show Award winner

A neat little gizmo from <u>Unusual Rigging</u>, the Life Span is a horizontal shock absorber designed specifically for use with catenary static safety lines. CE marked, and rated for two people, the Life Span reduces the

need for shock lanyards on every harness. Used by Unusual at the Dome, LiftKet hoists (German made) are now represented in the UK by Unusual. Main

features of the hoist are silent running and easy servicing (the entire clutch and motor mechanism is removable through the chassis, with the hoist in line use) and speeds from 2-20m/min. A varispeed hoist will be available soon.

<u>Verlinde</u>, a company with a 140-year pedigree, is France's leading builder and exporter of lifting equipment, manufacturing a range of chain hoists and lifting equipment specifically designed for handling stage equipment. It recently added new products to its Eurochain and Eurowinch ranges.

### **ONLINE**

It was interesting to see a number of new exhibitors this year, who ply their trade on the internet.

Under the banner of <u>Cereco</u>, John Lethbridge launched an on-line internet auction site which should further stimulate the flow of equipment around the industry. Manufacturers and distributors will be able to release stocks of audio, AV, lighting and special effects, which are new, but like maiden aunts have remained 'on the shelf' for I2 months or more. Auctions will kick off every Friday and run for 10 days.

Global Entertainment Technology, better known as G-E-T.com, believes that it has the answer to the eternal problem of resourcing the concert and touring business. Promoters and production managers can log-on to this interactive b2b site to post their kit requirements and match availability, search for venues and obtain their stats and plans, search for crew and transport and all the other ingredients

needed to make a tour happen. It will even send e-mails direct to all those matching companies or individuals advising them of the parameters of any requirement. There is also an auction site for secondhand gear. Ian Kirby and his team have worked very hard to g-e-t this site to its present level of usefulness they deserve to succeed, for production managers it seems like 'the answer to a maiden's prayer'.

One area where the internet really comes into its own is in recruitment so it's no surprise to see specialist agencies springing up at the Show. Taylor-Phillips was only formed in January 1999

but has already established itself as a key resource for personnel. Likewise <u>The Jacobs Partnership</u> whose recruitment consultancy concentrates on providing people to the AV, install and corporate events markets.

Above, David Wilkin

and Adrian Brooks of

Left, Michael Fisher

Stage 1 Enterprises

lan Kirby of G-E-T

and Mark Andrews of

Lite Structures

So, all in all a good show. If it felt slightly quiet on the final day, that was perhaps attributable to the

shortage of petrol that at one point threatened to leave all of the exhibitors and freight stranded in the hall at the end of the show (lock the doors and film the lighting and sound version of 'Big Brother', anyone?). It has also been suggested that in these days of the Web, people feel less compulsion to visit trade shows, but the fact that visitor figures for the first two days, before the fuel crisis really made itself felt, were well up on last

year would tend to disprove this. And anyway, in this industry, such an approach would be to miss the point. This is very much a 'people' industry - it's the rich, global networking opportunity that PLASA provides which so many people find invaluable.

Our November issue will carry a full review of the seminar programme at the Show. In the meantime, we continue to update our website with show news and photographs so log into www.plasa.org/show for the definitive guide to PLASA 2000.



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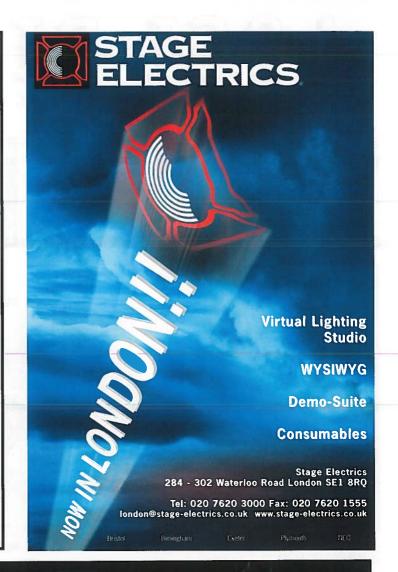
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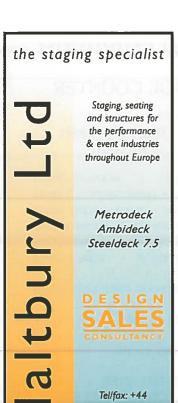
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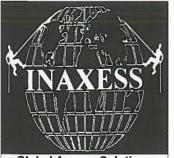
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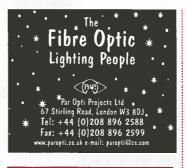
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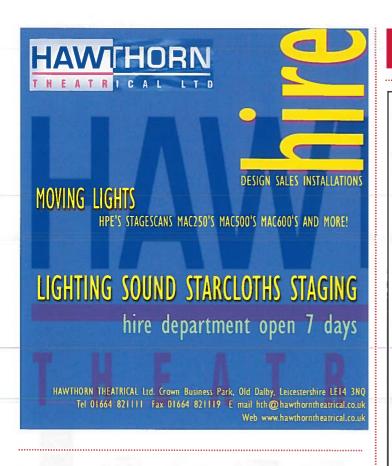
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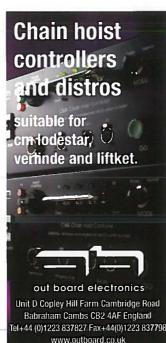
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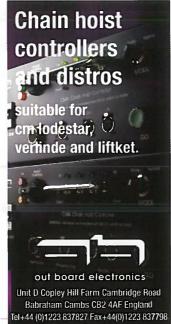
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# L&SI Talks to the Industry Trend-setters

he new duo now heading up the West End's largest audio specialist are no strangers to the inner workings of a theatre sound system; Jardine's design credits include worldwide productions of Les Miserables and Cats, as well as Crazy for You and Oliver! in the UK and Canada. Duncan

**Following Andrew** Bruce's hand-over of Autoaraph Sound Recording's managerial reins, Mike Mann talks exclusively to his successors, Terry lardine and Duncan Bell

Bell's career path led him to become production sound engineer on a plethora of West End and touring productions, where he acquired an indepth knowledge of wireless mic systems.

Both Jardine and Bell believe that this strong technical grounding is vital to their new roles as managing director and financial director respectively. "In this business, you do lose a certain amount of

credibility if people see you as being deskbound," argues Bell. "You have to be very conscious of what's going on around you in terms of new technology and methods - especially as we move increasingly into the digital age."

One of the pair's key tasks over the next few years is to manage the transition into new areas of audio. "Our main business is still in major musical productions," explains Jardine, "although the demands on sound in straight plays have escalated 100-fold in the last five years. We are also working on an increasing number of large-scale amplified opera projects and outdoor concerts, and of course we would like to see the dry hire and sales sides of the company continue to grow."

Bell adds that although being seen as an expert in a particular field has its advantages, it can make it

**David Fitch Services** 

more difficult to persuade clients that the company is capable of tackling a much wider range of projects. "This is changing, though," he comments, "and though we will remain good at what we have always done, there is a huge amount of experience in different fields inside the company."

Although Autograph was the first major player in the West End musical market, success has not always been

easy to achieve, as Jardine illustrates. "The current trend for arena-sized opera productions, which has been spearheaded by Raymond Gubbay, put us in the path of a lot of criticism from the purists. For a while, it felt as though we were always having to say 'We're the guys who amplify opera would you like to smack us?' But now that people have heard the difference between amplifying live sound in a rock and roll style and our more theatrical approach, we are hearing less criticism and a lot more praise for this kind of work."

Bell adds that much of what the company is able to achieve has been aided by technology aimed directly at the theatre market, and cites the Out Board Electronics TiMax system, Cadac audio mixing consoles and Sennheiser radio microphones as good examples. "The whole way in which these products developed came about because no-one else would target the theatre as their primary market. People who were there at the start have a huge lead over other manufacturers."

The musical market is undoubtedly changing, a fact which is seen with mixed feelings by Bell and Jardine. "People now classify a long-running show as lasting for three to five years, whereas good shows used to run for 15. Of course, we would like every show to run for a long time, but when a production does close it means that we have some equipment in stock for the next design." The increasing diversity of equipment being specified has meant a corresponding expansion in the company's inventory, though Bell is philosophical about the commercial viability of keeping such a

Terry Jardine and Duncan Bell

breadth of products on hand. "We're good at planning our schedules so that equipment is earning money - and luckily the changes in the way that designers specify systems has largely affected the less expensive parts of the audio chain. We simply have to take designers' product choices on board and hope they can be used again and again."

So does Andrew Bruce's appointment as chairman signal an

early retirement for the industry's best-known sound designer? "Not at all," says Jardine. "Andrew is still very much involved in the technical aspects of the company, and is continuing to work towards the digital desk of tomorrow. This is in addition to his design work which is what he has always done brilliantly."

Interestingly, one of the issues closest to Jardine's heart at the moment concerns the industry as a whole, rather than Autograph itself. He is saddened by the prospect of having to wait for the craft of sound design to be recognised by an American, rather than British institution. "Sound designers have only recently become accepted as part of the creative team in the theatre," he points out. "At the moment their work goes unrecognised, and it looks like we will have to wait for the Americans to come up with a Tony Award before we have a sound design category at the Oliviers. Sound is such an integral part of today's theatre productions, and we on this side of the pond have been responsible for so many of the exciting innovations in present use. It would be nice to think that the recognition of this could come firstly from within these shores."

It is often said in audio circles; indeed it could almost be a motto for Terry Jardine, Duncan Bell and Autograph - the audience never leaves the theatre humming the set.



101

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100

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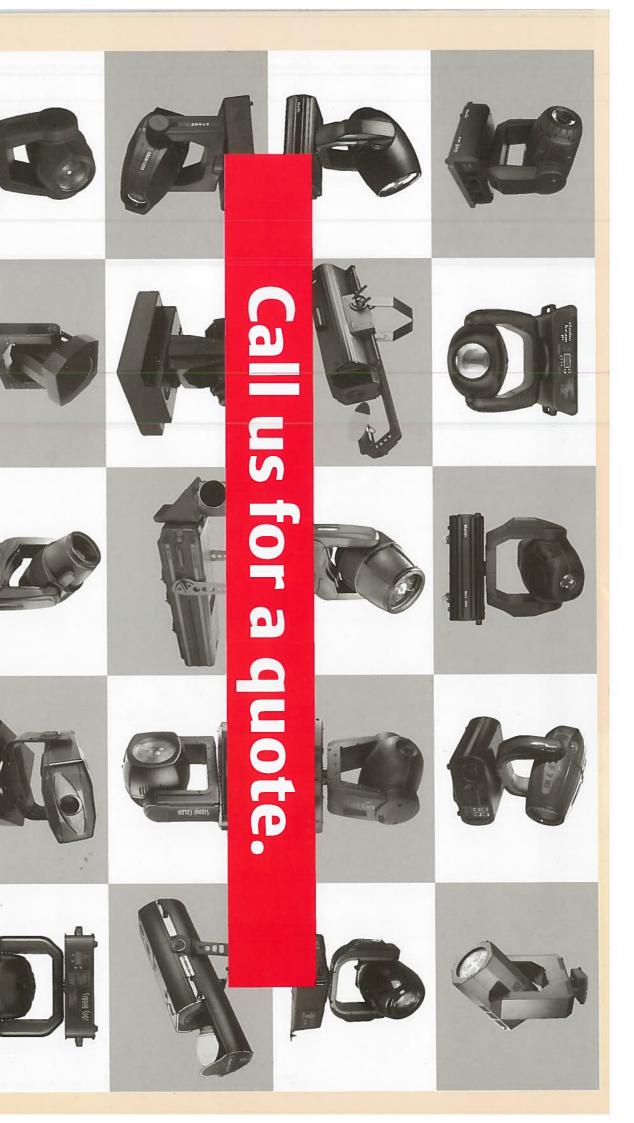
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