

THE EDGE

Issue Ten | September 2004

AQ Series Unveiled

In this Issue:
Barcelona Forum
Kylie & The Corrs
Red Square Parade
Elevate to the top
Aboard the QE2



The Martin Experience

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Where to see us

Sept 12-15	Plasa 2004, London, UK
Oct 22-24	LDI, Las Vegas, N. America
Oct 28-31	AES, San Francisco, N. America
Dec 7-9	Cine Asia, Bangkok, Thailand
Mar 10-12	NSCA, Orlando, N. America

Cover: On Duty with Live Audio Event Technic at Volkswagen HQ



RIGHT AT THE CUTTING EDGE

Welcome to the new edition of *The Edge* — which we hope provides a substantial curtain raiser for the PLASA Show in London, the much-anticipated launch of the AQ Series (see *opposite*) and the onset of the Autumn season.

The last two quarters have seen Martin Audio consolidate the success of the new Mini Line Array (W8LM) — first shown at last year's London Show; with its release, it is gratifying to see the former Eastern Bloc countries moving towards Martin Audio Line Array technology in their droves.

Included in this is the Synco Network, and on the subject of that partnership, we should congratulate the management team of UK-based RG Jones for successfully implementing their own company buyout. Having been through a similar experience ourselves, we know what it is involved — and we wish the new administration well.

The company has certainly enjoyed a busy summer season with our products — and the use of just two W8LM enclosures ground-stacked on either side of the Philips big screen on what has become known as 'Henman Hill' at the Wimbledon Lawn Tennis Championships, underlines the breadth of application which these easy-to-rig enclosures are now being put towards. RG Jones admit that to their surprise this solution proved more than adequate for the masses who assembled.

We should also congratulate our friend Dave Parry of Most Technical (the technical wizard behind London's leading club **fabric**) for successfully exporting Western expertise into New Delhi. When he first experienced the Martin Audio sound at **fabric** Elevate club owner Monty Chadha's dream had been to replicate this level of club dynamic in India — and with Dave Parry as the guiding hand, this has been achieved.

Finally, with this edition, *The Edge* has welcomed contributions from territories which we are hearing from for the first time. It is a true measure of Martin Audio's growing global authority — and a nice challenge for the editor when the biggest dilemma now faced is not how to source the material, but what to leave out.

AQ's Ultra Compact New Age Integration

In true Martin Audio fashion, the new AQ Series loudspeakers are designed to be acoustically correct, stylish, powerful, efficient, easy to drive and a breeze to install – a dead cert for any installation.

The new AQ Series is an integrated ultra-compact package, designed to fulfil the need for high performance installed sound in pubs, bars, restaurants, retail outlets, conference facilities, post production suites, theatres, educational institutions, places of worship, museums and exhibition centres.

Styled to be architecturally unobtrusive, six full range enclosures make up the range, from the ultra-compact dual 5" (130mm) ICT™ AQ5 to the very high power AQ15 with its 400W AES (1600W peak) 15" (380mm) direct radiator and high efficiency HF compression driver.

The AQ5 and AQ6 are thick-walled structural ABS foam enclosures with the remaining models constructed in heavily braced MDF, with flush mounting, tough, acoustically transparent steel grilles. All models are finished in RAL7030 grey, as standard but other RAL colours are available to order.

AQ Series loudspeakers are equipped with high-current, low profile input and link connectors, supplied with easy-to-fit mating plugs for ease of installation. Specially designed wall, ceiling and barrel clamp brackets are available for AQ5 – AQ12 to cater for construction industry standard 1st and 2nd fix installation methods. This allows installers to pull cables and prefix wall or ceiling mounts during building construction without having to bring the loudspeakers to site until the more secure pre-opening phase of a project.

The horn-loaded AQ Series loudspeakers feature generously sized mid/high frequency horns and high order crossovers for superior pattern control down into the low midrange and smooth off-axis characteristics. Passive crossovers feature air-cored inductors and high quality capacitors for exceptional precision and low distortion.

AQ Series low frequency sections feature efficient, wide bandwidth, high excursion drivers with generously proportioned voice coils for high power handling. The smaller AQ Series loudspeakers feature acoustically rigid industrial foam enclosures whilst the larger enclosures in the series are well damped for accurate, non-resonant operation.

The six full range AQ Series loudspeakers are complemented by four dedicated, high power sub-bass enclosures, ranging from the ultra-compact, 400W AES (1600W peak) single 12" (300mm) AQ112 to the very high power, 1000W AES (4000W peak) dual 15" (380mm) AQ215.

A high performance AQX controller has been specially designed to manage AQ Series loudspeakers. The controller is housed in a single rack unit and provides user-selectable active crossover, limiter and trim functions for all AQ system combinations.

The precise acoustical performance, style and ease of installation of the AQ Series will provide the contractor with all the answers in a single package.



The complete family of AQ Series enclosures



The New Barcelona Forum

Barcelona's latest architectural statement is the iconic new 180-metre equilateral triangle known as the Forum. Built for 141 days of summer concerts and cultural conventions, it was designed by the brilliant Swiss architects, Jacques Herzog and Pierre de Meuron (who were also responsible for London's Tate Modern).

Situated on a 30-hectare coastal site, north east of Barceloneta and Port Olympic (at the Diagonal

sustainable development and conditions for peace, covering a wide range of universal geopolitical issues.

The Forum building itself rests on 17 pillars, its walls built from coral-like blue concrete, while water flows from the giant reservoir on the roof to keep it cool in summer. Forged into the depths is a 3,200-seat auditorium (above which is a vast triangular exhibition space). Across the Forum Plaza is an international convention centre (which is

AdagioPro liaised with sound contractors AGE Control (under project manager Miguel Guindulain); the acoustic consultant was the eminent Dr. Higinio Arau and the sound system design was masterminded by Martin Audio's senior project engineer Jim Cousins, in collaboration with AdagioPro. The signals are routed via a CobraNet digital network designed by consultants, AudioScan (working on behalf of the owners).

ensure lobe-free vertical performance and minimal ceiling excitation.

Eight WTUB underbalcony speakers were recessed into the stage risers to provide nearfield coverage for the front rows, while four groundstacked Blackline S18's, set side by side, handle the sub-frequencies.

The entire system is powered by Lab Gruppen FP3400's with six each controlling the two W8LC hangs. System control is via three DP6i's — XTA's



Auditorium subs



The International Convention Centre



Auditorium hang

Mar), it has been in the planning since the mid-1990's when former Socialist Mayor, Pasqual Maragall, put forward the idea. But in May this year it became a reality.

The 'Universal Forum of Cultures' (to give it its full name) is co-organised by the Barcelona City Council, the Catalan Autonomous Government and the Spanish Government, with UNESCO as its main partner. Three main themes define the Forum: Cultural diversity,

also used for visitor attractions).

Both these venues are heavily equipped with Martin Audio loudspeakers, processed with XTA digital management systems — supplied by the companies' joint Spanish distributor, AdagioPro.

The design of the auditorium is particularly impressive — its two tiers looking up to the scaly, reflective blue roof at ground level, which was to play havoc with the acoustics.

Cousins used the Martin Audio Line Array's ViewPoint™ predictive software to calculate the optimum positions for the two 11-enclosure hangs to provide even coverage.

Cancellation of the acoustic reverberations proved problematic, but the 7.5° tilt between boxes three and four weakened the coverage sufficiently to avoid audible reflections from the balcony edge and rear glass walls, while continuing the line to

dedicated installation processors — controlling the main W8LC Line Array system, WTUBs and subwoofers.

Across the concourse at the Convention Centre three interactive 'in the round' exhibitions kick-started the exhibition season with civilisations as its theme.

Again absolute priority had been given to preserving the pristine quality of the soundtracks, and high in the roof are flown an inner ring



of four clusters of two Blackline F15's and an outer ring of four clusters of four W8LM's.

Statistically, the four-and-a-half-month event (which is being operated by management company, General Location) will feature 450 concerts, 44 theatrical and dance performances, 20 circuses, 10 major exhibitions and 45 seminars – among many other events – all designed to reflect on the major challenges for the 21st century. Expecting more than five million visitors,

the organisers hope this will become a recurring international event.

But in the meantime, the realisation of The Forum remains a tribute to the hard work of all the designers and contractors responsible, and a particular source of satisfaction for Jordi Roselló and his team at AdagioPro, who had worked so hard to broker the deal.

WTUB speakers recessed into the stage risers





Medieval Merriment



Distributed in Germany by Atlantic Audio, Martin Audio systems have been in action at a variety of events recently.

Every summer a medieval festival draws 100,000 visitors to Prince Luitpold's Kaltenberg Castle, near Munich, Germany. And amidst the merriment of fools, jugglers, wenches and medieval marketplace activities, the popular highlight is the Kaltenberg Tournament of Knights.

The competition of horsemanship and weaponry took place in a 10,000-seat arena over ten days. Rain Age specified Martin components, and their crew, led by Pascal John and Jochen Petri, enhanced the festival with 36 x Blackline F12's, six W8C's and six WSX subs, powered by Crest Pro 8200's and controlled by XTA DP 226 units.

Rain Age and Martin Audio were in action again, equipping the second stage at the sold out *Southside Open Air* in Germany.

Whilst Sirius filled the centre stage with their big Martin

W8L system, Rain Age provided 24 x W8LC's, 20 x WSX's, eight W8C's, eight W8CS's, four Blackline H3's, four S218's and 16 LE12JB monitors.

System tech was Martin Heining from Rain Age, who reported, that not only were the FOH techs happy with the system, but many of the monitor engineers also expressed their enthusiasm for the punch of the LE12JB monitors.

Meanwhile, Live Audio Event Technik GmbH, located in Braunschweig, have invested in a combination of 16 x W8LC, 16 x W8LM and 16 x LE12JB monitors. After evaluation, Georg 'Schorse' Hentschel's company favoured the versatility of the Martin systems, reasoning that his production company caters for a wide variety of shows — from classic and jazz, to sporting events, industry shows for Volkswagen and bands such as Motörhead. He says, "With the combination of LC's & LM's I can cover all these events without compromise. The system is like all the

Martin Line Arrays in Germany — powered by the new Crest Pro Series amplifiers and controlled by XTA DP 226 units."

Finally, Michael Enchelmaier has invested in 16 x W8LC's, 16 x W8LM and 16 x WSX subs. Having been in business for 25 years Michael has been a long-time fan of Martin systems, recalling his first experience with Martin bins — back in the late 1970's!

After hiring the Martin Line Arrays several times during 2003, it was logical for him to invest in his own system. What impresses him most is

"the unbelievable impact in the low mids, the smooth coverage and brilliant rigging system — exactly what I need for my open air festivals and tour productions." He also stressed the importance of having a touring system "that is accepted without any discussion."

Aside from his open air events, Michael was on duty with the W8LC system on shows for Marla Glenn and Bill Wyman in 2004.

Other events on Enchelmaier's roster include *Kieler Woche 2004* (in Kiel,





Eastsee). This is the biggest sailing event in the world, with more than 500,000 people attending over ten days.

Finally, Martin enclosures were on duty at the Nürburgring Truck Grand Prix 2004 — the biggest Trucker and Country Festival in Europe, combined with the FIA Racetruck European Championship, located on

the well known Nürburgring Grand Prix race track. 30.000 people saw country artists like Tom Astor, Joe Hodgkinson, Gudrun Lange & Kactus and Silverwood on the main stage, using 16 x W8LC's, eight W8LM's and 20 x WSX subs. Another smaller stage — located in the Paddocks — was equipped with W8LM's and WSX subs.





Game Set and Matchless Audio

When Philips again provided their 40 sq metre big screen to entertain tennis fans gathered on the Hill (now affectionately dubbed 'Henman Hill') during Wimbledon Tennis Fortnight, RG Jones — Wimbledon's public address contractors — provided auxiliary audio playback via two W8LM Mini Line Arrays, ground-stacked on either side of the screen.

Simon Hodge joined overall project manager, Tim Speight, to help design and install the system. Said Simon, "The All England Lawn Tennis and Croquet Club felt that as the popularity of the Hill has grown, the existing sound system was starting to prove inadequate. This year, the chosen position for the system dictated that each array could be only five elements deep.

"Admittedly, I doubted that this would be sufficient, but my fears were quickly allayed — it was a difficult project but using ViewPoint™ (Martin's proprietary predictive software) as a guideline, I need not have worried."

He added that despite arriving on site armed with his processing tools "the W8LC sounded great straight out of the box."

'Henman Hill' is situated adjacent to the new No. 1 Court. And Simon Hodge says one of the advantages of the W8LM system was not only the projection upfront but lack of spillage from the rear. "Because of the proximity of the screen to Centre Court the Club had experienced problems with the programme sound leaking into the audience — but this was so much more directional. I was surprised how far it threw, but at the same time it provided even coverage over a very wide, 180° area."

With a crew anchored in the large Broadcast control room, RG Jones took the feed from host broadcasters, the BBC, and injected their own paging calls. "We were delivering either a direct source feed to the Hill from the BBC — or DVD during downtime," said Tim Speight. "The general consensus was



Crowds enjoying the relay to Henman Hill

whether it was handling programme feeds or paging calls, the Martin system behaved exceptionally well."

Celebrating their recent management buyout, RG Jones, have also completed a season working in the picturesque setting of Leeds Castle, near Maidstone, for Relevant Productions.

The flown Synco Martin W8LC Line array (configured 16 enclosures a side) was put through its paces during a variety of performances spanning a ten day period, including a classic event, children's concert and a Glen Miller tribute orchestra.

"We had only just taken stock of the new kit and we had the entire 32-box system straight out on duty," reports Simon Hodge.

"We ran the Compact Line Array reasonably flat — and so far we just love it. It was a joy to use, both in terms of the ease it went in and out and the way it sounded.

"What was particularly impressive was the amount of gain before feedback — there was loads of headroom in the system."



New Wine, New W8LC

August saw the Royal Bath & West Showground in the West of England's rural Shepton Mallet besieged by 'pilgrims' from all over the country attending the annual Christian New Wine Festival, followed by Soul Survivor.

During the changeover to Soul Survivor, the ranks of 11,000 people swelled to 14,000 — stretching the site's services to the limit — when the 96m x 69m Albion Woods Big Top was reconfigured for the more youth-oriented event.

Some of the traditional problems experienced by the promoters were eased this year when both events converted to a Compact Line Array (W8LC) for the first time, provided by Wigwam Acoustics.

Shepton Mallet has been the site for their fast-growing festivals since 1989, and when Wigwam took over the contract nearly a decade ago they immediately increased the sound specification. In those days the event took place on the site's Showering Pavilion but more recently had to employ the 6,000-capacity big top, where conventional loudspeakers were groundstacked.

"There had always been a desire to fly a directional system, to reduce the spill outside the tent and minimise the impact on the surrounding villages," explained production manager, Greg Szabo. "On top of that we now have far fewer speakers dotted around the tent."

Long-standing FOH engineer Charlie Jones takes up the story. "People had been raving about the Martin

system. With the W8LC we now have absolute control and can focus the sound where we want it."

Both men paid credit to the efforts of Martin Audio's Jim Cousins, who set up the system, using Martin Audio's predictive software ViewPoint™ to set the correct array angles — which both optimised the performance and obviated any spill. As a result Charlie and his team (co-engineer Steve Phillips and monitor man Ian Hopkinson) were delighted to be mixing the wide range of source material — from lectures, seminars to full ensemble live performance — through the system.

A lot of the low-level conversational chat that takes place on stage using Lavaliers, is now intelligible to the entire audience. "Wigwam's W8LC front of house rig — plus the six W8LM Mini Line Arrays we have used for delays — have solved that problem," says Charlie.



Helping achieve the coverage from the stage were a further four (per side) W8LM's, while at the delay points a pair of WLX subs were also flown.

The Martin W8LC proved itself sufficiently versatile to be quickly reconfigured for Soul Survivor. The stage and FOH array were moved back, the delays re-angled to

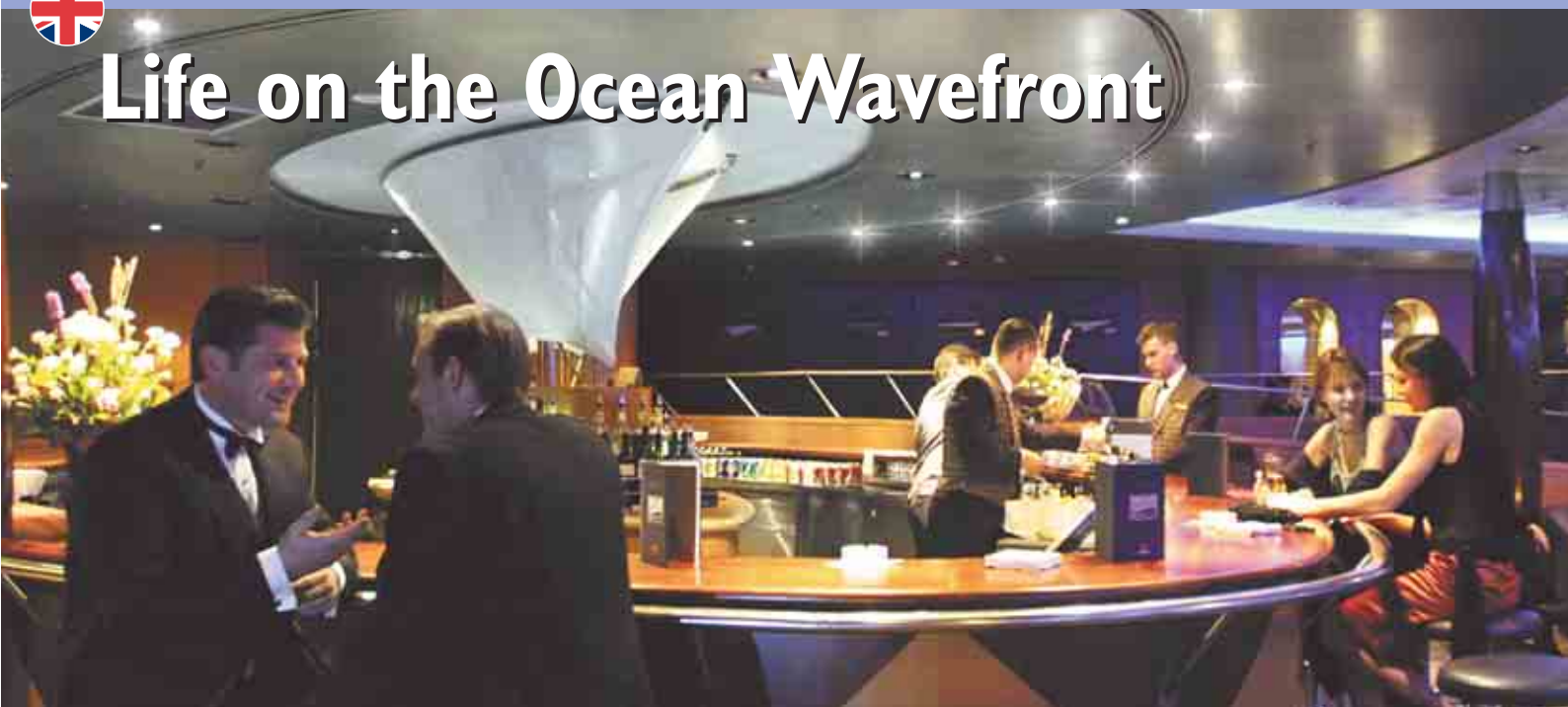
allow for the grandstand removal as production company Sound Foundation took over from Greg Szabo.

Summarising, Greg reports, "We have had a lot of good feedback with the Martin system and people are amazed that such a small system could fill a 6,000-capacity tent."





Life on the Ocean Wavefront



Passengers on one of the world's premier luxury cruise ships, the QE2, are enjoying the results of an extensive technical refurbishment of the Grand Lounge, the largest entertainment venue on the ship. A new Martin Audio sound system has been installed to handle the Lounge's diverse programme of events.

The Grand Lounge stretches over two decks of the ship, accommodating 450 people in cabaret-style seating on two levels. Twice a night, the ship's on-board cast present theatrical production shows, and occasionally guest cabaret artists perform, as well as dance bands. Cunard's Entertainment Technical Manager Andy Pygott had to search for a sound reinforcement system that was flexible enough to handle these shows, as well as all the other events that are hosted by the Grand Lounge throughout the day.

"We were looking for a system that would deliver even sound coverage across the whole room, with a particular emphasis on vocal clarity," says Pygott. "The system needed to have the ability to handle all these different types of shows and provide the levels required without feedback for everything from a speech to a full theatre production. We looked at a lot of options, considering also what would be easy to install. We'd used Martin Audio speakers previously, and concluded that this

system would be the ideal passive solution for our refurbishment."

With the stage thrusting slightly forward into the audience area, Andy Pygott and Ross Portway, the sound designer, couldn't use a conventional theatre configuration. Either side of the stage is a column where two W2 full-range cabinets are mounted, one facing inwards, the other facing outwards. Behind each of these columns, an EM26 provides fill for the left and right wings of the room. At the front of the stage, EM15s provide the front fill for the first rows, while a single W2 flown 30 feet above the stage provides a centre presence. 20 feet into the Lounge, a pair of EM26s is mounted on a column each side of the room: further back still, two EM15s are ceiling-mounted under the balcony. Two WS2A subs have been stacked on either side of the stage.

Installed by Stage Electrics, Ross Portway and the Cunard technical team, the system is powered by Crown, with Media Matrix to align and EQ the system because of the number of delay speakers in the room. "The verdict on the Martin system is excellent," says Pygott. "We're getting reports from everybody – the passengers, the staff and the acts – that the new system is fantastic."



Elevate gives Delhi Fabric Style Luxury

After seeing fashionable London club **fabric** in action, Indian entrepreneur, Manpreet 'Monty' Chadha could see the potential for introducing this cutting-edge Western-style concept to Delhi.

Last month the man whose empire is founded on cinemas and shopping malls saw his dream fulfilled when Elevate opened in the suburb of Noida — with Most Technical's Dave Parry, overseeing the concept and creating the same kind of audio luxury as he had at London club, **fabric**.

The new 1200-capacity venue has been custom-built on the top three floors of a new eight-storey shopping centre, while above that a roof terrace offers spectacular views overlooking New Delhi. At 3am a separate water garden opens up to allow the crowd to witness the sunrise over the city.

Elevate's sound system is thus split into four zones. Control throughout is via a BSS Soundweb network — all designed by Most Technical's Fluke.

Some 46 x 1K 'Buttkicker' Bodysonic dancefloor transducers are at the heart of a Martin Audio sound system on the Main dancefloor, powered by six Custom Linea Research amps under BSS process control — similar to that found in the Clerkenwell club.

The main sound reinforcement system comprises four Blackline H3's and six S218 subs, infilled with a pair of Blackline F15s and four F8's — and powered by a combination of Martin

Audio MA2.8, MA4.2, MA1.6 and MA1400 amplifiers.

In the DJ booth are a pair of Pioneer CDJ-1000's, Technics SL1210 MkV and Allen & Heath Xone:464 mixer, with the DJ's reference sound being provided by a pair of the now standard Blackline F12's (and single S18 sub).

Above that on the Mezzanine level, six Blackline F8's, underpinned by a pair of S18's, are powered by MA1400 amplifiers,

Multiples of tiny EM15's infill on the stairways and further up in the VIP booths, while on the Terrace eight EM26's are supported by four EM120's.

All the main dancefloor lighting was supplied by Dave Martin at Total Audio Visual.

The beam lighting is punctuated by a laser supplied by Laser Electronics and controlled by their Zion controller, while the VJ has two 5K ANSI lumen DLP projectors at his disposal.

All this will make the club mighty attractive to the international DJs that the venue is looking to attract (already there are plans to bring in Sasha, Ali B and James Lavelle).

The entire club was designed by Soo Wilkinson of Igloo Design (also responsible for Rehab in Leeds — where the sound was again designed by Parry — and Baby Cream in Liverpool).

"We were conscious of not wanting to go over there and create the west in the east," she said. "You can go into any hotel bar in Delhi or Bombay and quite frankly you could be anywhere in the world. We wanted the experience of



The main room DJ station

Elevate to feel like you were in India." In order to make sure this was the final result Soo and partner, John Grant, travelled as much as possible around India, particularly seeking inspiration in Rajasthan, Kerala and Goa.

And it looks to have paid off. For Dave Parry reports after

the opening night, "The locals love it and we actually had Miss Universe (a Bollywood star) visit on the Saturday."

And so delighted is Monty Chadha that he is already scouring sites in the fashionable Mumbai region of India with a view to opening a second venue.

The Mezzanine





Wavefront adds Power to Mercedes

The concept of the 'AMG Dream Gallery' was to show off some of the most beautiful designs and leading technology developments in the Automotive world.

Primarily it came into being as a key part of the 2004 Mercedes Benz dealer conference but such was the buzz and public interest in the latest from Stuttgart, Germany, that a couple of days were put aside for general admission.

What better location than The Overseas Passenger Terminal at Sydney's Circular Quay, with the Opera House just across the water and Sydney Harbour Bridge just around the corner. Still used to berth the big boats, the Terminal has completed something of a renaissance with a thorough face lift and the incorporation of some high profile restaurants.

A key feature of any dealer conference is entertainment, and Iain Reed of 3200 chose his Martin Wavefront W8CL compact line arrays for the task. "We needed extremely high power in a very compact package," explained Iain. "The system remained in situ during the show and the package really rocked the place.

"We used four W8LC's a side each stacked on top of a single WSX subwoofer. In terms of the audio requirement this was more than adequate but what impressed Mercedes the most was the system's appearance. High tech compact boxes were

just the ticket ... so much so that they became part of the visual fabric of the show. So we had a stack sitting right next to an ML430 4WD and the second stack right next to a CL Coupé!"

The king-pin of the whole event was the first Australian showing of the resurrected 'Maybach' a super premium, chauffeur-driven limousine. Mercedes were supremely careful to ensure that nothing stole its thunder; consequently it was located some considerable distance from the Wavefront Line Arrays!



C Series Boosts Tasmanian Casino

Martin Audio loudspeakers have been used extensively as part of an ongoing audio upgrade at Country Club Resort, one of only two casino venues in Tasmania, Australia.

As one of the largest, and longest-established electrical contracting companies in Northern Tasmania, Contact Electrical has for some time been a service provider to Country Club Resort. Derek Philipson from their audio visual division has been working on a timed project to upgrade the sound system across the entire venue including the main casino gaming areas, bars, hotel and restaurant areas.

The audio system chosen for the project consists of up to 280 loudspeakers from Martin Audio. "I have around 20 years experience in the audio industry and have installed thousands of speakers in my time," says Derek. "However when Martin Audio released the C516 and C115 Contractor series I had a demo of each. The speakers performed far beyond my expectations; the C516 is very suitable in corporate environments — and when I need the extra power these Martin loudspeakers deliver the goods without question."

On the main Gaming floor Contact also installed 35 x C115 surface loudspeakers, to create the directional approach they were looking for.

Martin Audio equipment was supplied by Technical Audio Group, the company's Australian distributors.





EM Provides Weapons for Bush



Like many towns across Ireland Enniskillen has seen its fair share of modernisation. One such popular venue is the town centre Bush Bar public bar and nightclub, which has recently undergone a major refit and redesign, including furniture, décor, PA, audio visual and lighting systems. Every last detail had to be addressed in this multi-functional venue.

After discussions with many suppliers throughout Ireland, owner Nicky Cassidy opted for a Rea Sound and Martin Audio solution. Choosing Rea Sound provided them with a well established and recognised company, offering all their technical requirements within budget, from a single source.

The venue is divided into three zones. The main bar has a relaxed modern interior; leather bound seating and simple interior colours. The main function of the sound system is to provide a high quality background sound for music playback and sports commentary, and the use of 12 x EM15 enclosures, complemented by three compact EM150 bass units was perfect for this requirement. Each speaker has been placed to provide even coverage across the main bar area, and being compact, they are also largely discrete. Uniquely positioned LED colour-changes are located throughout the bar to provide soft touches of colour and ambience.

This ultra-compact theme was carried through to the first floor area, which has sound provided through 12 x EM26's,

complemented by four further EM150 bass units. Although considerably smaller than the area below, it was designed to attract large crowds for sporting events, since Rea Sound installed a 3.3m wide IR remote electric screen and projector system, together with a number of 42in plasma displays.

The third area is the nightclub venue, a computer-controlled lighting experience installed, programmed and commissioned by Rea Sound. This time the suppliers went for a Martin Audio Blackline solution for the sound, with four F12 cabinets and four F8's, supported by six S15 sub bass units. The long narrow venue is divided in two by the dancefloor, with one F12 hung in each of the four corners, to provide good sound level and quality throughout the area. Above the dancefloor, a nightclub lighting rig was installed and programmed for the purpose and is complemented by behind-seating LED strip lights. The F8's are positioned to provide coverage of the alcoves, with the S15 subs concealed under raised floor/seating areas.

All areas are controlled through an Allen & Heath GR05, with local control in each area, and powered using Martin Audio controllers and amplifiers. All neatly fit into the DJ area, along with with an Allen & Heath Xone 424 mixer and Technics turntables.



W8LM Gives Italian Rental Firms More Options



Pistoia Blues



Procopio Nicola's rig in Genova



Italy has enjoyed an active summer with Martin Audio line array systems, including two of the major summer events — *Gods of Metal* at Bologna's Made in Bo — Arena Parco Nord, and *Pistoia Blues*, the most famous blues festival in the country.

This year (more than any other) Audiosales, the Martin Audio distributor, has consolidated itself as the leader in the live concert arena. "It is showing that the commercial policy, professional attitude and service given to our customers is really paying off," says Audiosales operations manager, Mauro Codeluppi.

He says Audiosales has been assisted greatly by Martin Audio, and the introduction of their Line Array series. "It has helped our customers meet modern production requirements," he says.

He paid tribute in particular to the W8LM (Mini Line Array). "I remember how well this was received by the audio industry at its first showing — at PLASA last year.

"This seemed the natural development for our many customers who until then had been using the traditional W8 system."

He explained that the W8LM had given rental companies the opportunity to win jobs which would otherwise have gone to other firms.

For example, Genova-based Planet Service employed the W8LM at shows by Pat Metheny Trio, BB King,

Michael Bubl , David Byrne and Giorgia, fielding 24 x W8LM enclosures and six Blackline S218 subs in systems driven by Lab Gruppen amps and XTA processors.

At *Pistoia Blues* in Tuscany, Procopio Nicola also fielded 16 x W8LM, in conjunction with 12 x W8LC and 12 x WSX subs for artists such as Buddy Guy, Steve Vai, Joe Satriani, Robert Fripp, Steve Winwood, John Mayall, Richard Johnson and Carlos Santana.

"Of course we shouldn't forget the original W8L — the biggest of Martin's Line Array family," says Mauro. This was used by Fumasoli (Aosta) during the touring Free Music Festival in Milan, Turin and Naples, where the crowd always reached around 60.000 and the PA inventory consisted of 28 x W8L and 12 WLX. Some of the artists performing included Stereophonics, Alicia Keys, Susan Vega, Sting, Carlos Santana and Pino Daniele.

Renato Fumasoli's company also flew 28 x W8L alongside 12 x W8LS, with four W3's (for front stage) for the aforementioned *Gods of Metal* festival in Bologna.

Martin's classic LE12JB floor monitor was also fielded by Fumasoli — but only on the first day. A heavy storm tore the cover off the main stage and a ton of water flooded the stage drenching the LE12JB's, which had to be replaced — although the four Martin WSX's used as sidefills survived.

Synco Network Alliance goes from Strength to Strength

In the two years since signing an exclusive agreement to provide specially-configured versions of their Line Array systems to the Synco Europe Network, Martin Audio are delighted that the relationship continues to go from strength to strength.

After underlining their faith in the original W8L line array with a substantial investment, Fred Heuves, MD of Synco Europe, placed an order on behalf of Synco Europe for 64 enclosures (and necessary amplification and rigging) the moment Martin Audio announced the arrival of the W8LM at last year's PLASA Show.

"We were waiting for this cabinet to arrive, since we were lacking a smaller version of the Synco line array," remembers Fred. "Based upon the experience we had with the other Martin Audio line array products we placed an order, based on its specifications, without even seeing or hearing the new cabinet. It shows the trust we had in the product and also gave us the opportunity to show the products to the rest of the network."

Far from plateauing out at the end of the honeymoon period, the Martin/Synco alliance just gets tighter. "The Network now has 250 of the various Synco Martin Line Array enclosures, in different combinations," confirms Fred. And he announced that Synco Europe have just signed a new member to the network — Christian Singer's Paradigma Production of Bucharest — who have opened their account by purchasing a substantial combination of Synco Martin W8LM Mini and W8LC Compact line arrays.

He sees this as a breakthrough, opening up greater potential in Eastern Europe. In fact Paradigma have already extended their order with a further six W8LM enclosures to cover a show by Sarah Brightman, and with Romania aiming to gain EC membership in 2007 Fred Heuves believes it is the perfect time to expose the system to the old Eastern bloc countries.

The Synco Group originally had their own OEM brand. "But when line array technology came into the picture we auditioned a number of systems," Fred recounts. "The beauty of the Martin Audio line array systems, besides their stunning performance, is that we were able to match them seamlessly with the current equipment, available in the Synco Network."

Furthermore, he says, the Synco line array equipment is fully compatible with the original Martin Audio line array, which gives new potential clients for the system the opportunity of choosing either Martin Audio, or joining the Synco Network ... depending on their commercial needs.

At the same time Synco Europe standardised their Synco line array systems on Martin Audio amplification, changing the fascia plates and badging them 'Synco Martin'. They made their own control software compatible with the system to optimise the performance, and used ViewPoint™, Martin Audio's predictive software, to optimise the splay angles of the hangs.

As a result, the eight European partners now have the resources



Synco debut the W8LM on tour with Mayumana

to cover every type of show imaginable — from large outdoor events, to corporate shows, theatre and television.

"The relationship is extremely positive and the Synco partners are really feeling the benefits," believes Fred, "and there seems no end in sight."

Over at Martin Audio, managing director David Bissett-Powell shared the Synco MD's optimism. "The relationship between Synco and Martin Audio has excelled well beyond that of manufacturer/customer. The feedback gained proves invaluable, and combined with our own R&D, will fuel our quest to provide the ultimate in tour sound."



Fred Heuves (left) with David Bissett-Powell

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Kylie's Date with Deutsche Bank

A unique private concert was given by Kylie Minogue in a converted Barcelona casino recently.

The audience comprised 500 VIP guests of Deutsche Bank, who were treated to a 70-minute *Greatest Hits* show, with sound reinforcement provided by Kylie's system providers, Capital Sound Hire.

Forming the repertoire was a mixture of arrangements from the last two major tours, *Fever* and *On A Night Like This*, although the staging was on a much smaller scale than the conventional touring production.

The venue was the *Finca Mas Solers* outdoor casino, just outside the Catalan capital, and Cap Sound was contracted on behalf of Kylie Minogue, by the event production company, Outer Sanctum.

Although this was only a one-off show, the preparation took in excess of two weeks, with ten days rehearsals and four days on-site time.

"The production was quite specific," explained Paul Timmins of Cap Sound, who has been working with Kylie for the past four years. This was because the full ensemble — including drums, guitar, bass, keyboard player, two backing vocals and Kylie herself — were all on in-ear monitors.

At front-of-house, Martin Audio W8LC Compact Line Array loudspeakers were flown in two hangs of seven per side, under a pair of WLX subs, with a floor-mounted W8LS on each wing. The



The Line Array hang, scaled against the casino

system was optimised using Martin Audio's ViewPoint™ software.

The stage was built by Outer Sanctum to Kylie's specifications, but with the system flown about three metres behind the front line of the stage, the dispersion was quite adequate to cover the nearfield, obviating the need to use the front fills.

Paul Timmins remained confident that this configuration would not induce feedback. "When we did the *Fever* tour in 2002 there was a similar thrust; it worked then, with Kylie performing in front of the PA."

The bigger problem, he says, was in access and loading. "We had eight trucks of equipment, including the Vari-Lite lighting," he said. "In total we carried a crew of 93 people — for an audience of just 500!"

Engineering the show were Kylie's trusty team of Chris Pyne (at FOH) and Rod



Matheson (monitors), who agreed that the use of Martin's W8LC line arrays had been perfect for the requirements of one of Kylie's first ever private corporate shows.

"This was the first time I have used the W8LC's as a main system and I was very happy with the result," retorts Chris. "I also think Martin have one of the best rigging systems on the market today! Dispersion wise the system worked well and we were able to aim it just over the front lip of the stage and avoid any feedback problems with Kylie's vocal mic."

The system was driven via XTA devices. Four DP 226's

controlled the 16 x W8LC line arrays, four WLX and two W8LS subs. The W8LC's were Band-zoned - running 6-way, with two mid bands and three high bands in use. The subs were also controlled using a DP226.

Production managing the show was Kevin Hopgood, working alongside tour manager, Sean Fitzpatrick. Cap Sound's Dave Wooster was system tech — and Colin Partridge superintended the DiGiCo D5 mixing desk.

FOH engineer Chris Pyne prepares for action



Corrs Showcase W8LM for John Henry's

London PA company John Henry's provided a Martin W8LM mini line-array system with Martin Audio WLX Hybrid™ subwoofers and Martin Audio monitors for The Corrs. The band was performing an exclusive showcase for fans in London's Cochrane Theatre.

In addition to performing several numbers from their new album *Borrowed Heaven*, including their new single *Summer Sunshine*, the band played old favourites like *Runaway* and *Breathless*.

The date furnished an ideal opportunity for John Henry's to audition the Martin system, which is on the company's shortlist for purchase. "We are looking to buy a small line-array system," confirms John Henry's Pepin Clout.

The set-up featured just four W8LM's left and right, with two WLX subs a side, all managed by Martin Audio DX1 system controllers and MA2.8S and MA4.2S power amplifiers. The system was optimised using Martin Audio's ViewPoint™ array software.

Martin Audio's Jim Cousins commented, "The showcase was a good test for the W8LM mini line array. Although the Cochrane is a small theatre it can be tricky acoustically, with the mix position tucked away at the back under a very low ceiling. ViewPoint™ optimised coverage from the front row to the 'under-balcony' mix position without causing feedback or exciting slap-back from the 'balcony' front wall. The gig was a very relaxed affair with plenty of light-hearted conversation between The Corrs and their audience. The powerful little W8LM system really brought out the group's

exquisitely Irish sound and provided the intimacy and detail required for such an event."

"We liked the way the boxes go together," says Clout, "it was very easy to rig and to set up, and it delivered excellent coverage in the theatres."

And another fan was industry veteran live sound engineer Ange Jones, who declared, "Martin Audio have a real winner in the W8LM Mini line array system."





Worshipping the W8LC at Church of Hope

As with many parishes across the country, the Lutheran Church of Hope outside Des Moines, Iowa, is growing fast.

Their Easter Service used to be manageable enough for a small high school gymnasium down the street. Now, with almost 10,000 congregants in attendance, they had to hold their popular Easter celebration in the Des Moines Memorial Veterans Memorial Auditorium — with a full-blown audio system capped off by a W8LC Compact Line Array system.

As articulated by Brian Ingwell of Go Audio, contracted by the Lutheran Church of Hope's Media Ministry Director Josh Kaiser to provide sound, the challenges were substantial: "The Church had done this event in smaller venues and had coverage issues with people near the stage being adversely affected by high volume levels, so they were interested in exploring the benefits a line array could offer. It was imperative to have a system that sounded natural and allowed everyone speaking to be clearly heard and understood. Finally, directivity and isolation were a concern as there were two large choirs on stage to contend with."

The hall itself "was a traditional auditorium with quite a long reverb time, and a lot of low end buildup ... typical problems for this type of venue."

Go Audio's solution? Martin Audio played a big role: "When it comes to compact line array systems, we have yet to find a mid-size box that

has the vocal clarity and low-end output of the W8LC. The sensitivity for the box is great given that it's fully horn-loaded. The output is amazing; the low-end extension is unbelievable for a single 12in driver. We've done several jobs where we've brought in subs and put them on an Aux, and didn't even have to use them because there was enough low-end coming out of the main array."

Specifically, the system consisted of 28 W8LC compact line array cabinets — four hangs (two 10-deep front hangs and two 4-deep side hangs) plus 12 Martin Audio WSX subwoofers and four EM56 front fills.

The rest of the system consisted of a Midas Heritage 2000 with a Midas Venice 160 submixer at FOH, a Soundcraft MH4 as monitor console, tc electronic 1128 EQ, and QSC PowerLight amplifiers with Ashly Protea 4.24C processing.

Josh Kaiser echoes Brian Ingwell's sentiments: "As a first-time line array experience for us, it was very good. The sound was very natural. I didn't have to apply much EQ."

"For small boxes, the W8LC's produce a lot of sound and I have yet to hear a person at the event say they couldn't hear and understand everything. Even in the back, at the top of the arena in the 'nose bleed' section, everything was crystal clear."

"My supervisor, head of the Worship, even said, 'We've got to have those boxes in our worship centre!'"





Pulse's Dramatic Debut

Taking off like a multi-coloured rocket over the downtown Orlando, Florida club scene on July 4th weekend, the Pulse Ultra Lounge immediately set new standards for design, audio quality and lighting as part of a total environment designed to overwhelm the senses.

Putting a new spin on the concept of Ultra, Pulse was designed by Jimi Beach of GIST, with audio, video and control systems provided by Jeff Kenney and Heavier Than Gravity, one of Florida's most progressive installers. Because Pulse owner Ron Legler wanted the finest sound imaginable in every room to match the outrageous decor, Martin Audio was used throughout.

Much anticipated, Pulse wowed the opening night crowd with a triple-themed layout featuring a white Martini room bathed in colour-changing lights, the exotic red plush Jewel Box room, and black Adonis room with a stage area.

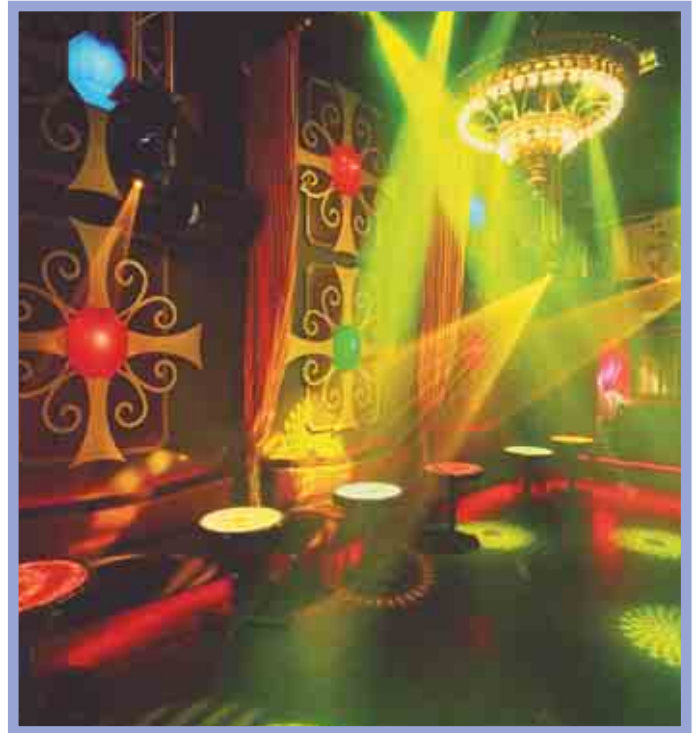
For audio in the all-white Martini room, 12 Martin Audio CI15T's are recessed into a soffit that traverses one half of the room. Three EM15T's were deployed to provide piano monitor for a Yamaha mini grand in the satellite bar system as well as additional impact — or “oomph” as Kenney puts it — around the bar area, all powered by QSC amps. The control area provides DVD music/video on the plasmas or switcher to the upstairs DJ booth video system. The main room can be mixed in, with piano and wireless microphones.

In the plush red Jewel Box room, Kenney selected the Martin Audio Blackline F15 for the main dancefloor. As he puts it, “dance music can really beat up a speaker. The F15 simply laughs at these kinds of problems. Out of the box with just five minutes on the workbench, we had raw CD output into the amplifier and smiles on everyone's face.”

For subwoofers he went with a horn loaded design. “It was important for me to find a bottom end that could keep up with the F15's in volume and clarity – and my cabinets can do just that. The DJ has a nice little cozy spot on the second floor.” Sitting in the booth are an Allen & Heath Xone 464, two Technics 1200 MK5s and a Denon DN-9000 CD player.

DJ booth monitors are also Martin F15's, while below that is a small live performance stage which doubles as a VIP room during the busy nights. “Blackline F8's provide all we need and more as stage monitor, while doubling as VIP room fill,” continues Kenney. The centrepiece of the dance floor is the original chandelier from the legendary Moulin Rouge club in Paris.

A study in basic black, the Adonis is a long narrow room with a bar running the length of the room and a stage at the end, a layout which presents a unique set of audio challenges. To address these, Kenney used two Blackline F12's slung up snug against the ceiling “to provide enough throw to get the tunes down most of the length of the room. A pair of F8's at the back of the room are used to pick up the rest of the sound, and we used another pair of F8s' as stage monitors. A single-horn sub sits in the corner for additional fill in the room.”



Jeff Kenney concludes, “The owners were really knocked out by the sound in all parts of the club. They wanted the kind of ‘wow’ sound they'd heard about in London's **fabric** club, and that's exactly what they got!”





Genesis takes Hip Hop on the Road

Culminating a three-week tour of one-off shows, The Beastie Boys, Ludacris, Exzibit, Big Boi from Outkast, Kanye West, Ying Yang Twins, Too Short, and several others, all came together in Anaheim for a Power 106 FM radio concert at The Arrowhead Pond.

Following smaller shows in Denver, Dallas, Greensboro, and North Carolina — all of which were broadcast live in local markets with variations on the all-star hip hop lineup — this show was the largest, with an audience of around 24,000 filling the 270-degree seating. The Beastie Boys brought their own DJ riser, complete with video wall, and Big Boi was traveling with

the source material at the levels the artist wanted. From there, Genesis had to provide a decent but not ridiculous wedge set-up for the DJ, according to Mike 'Milk' Arnold of Genesis. "They really don't like it too loud ... it skips their needles." As Arnold goes on to explain, "Most DJ rigs consist of an Instant Replay and DJ scratching over that. These guys have spent too many years with records skipping in bad situations, and they want reliability on these shows."

Digging deeper into the special challenges of a Hip Hop show, Arnold points out that "Many monitor techs complain about the fabled 'rap grip' on mics, and too many wireless mics on



A walk-on part for Mariah Carey

both support musicians and singers, requiring several additional rolling risers for quick changeovers.

It is 135ft to the grid in The Pond and with 29 points in the show, Genesis Audio Systems had to plan ahead. Additional audio, including another 12 2 x 18in subwoofers, was added due to the show's high profile in a major market, and the Beastie Boys having just released their *To The 5 Boroughs* disc. "Sometimes less is more, but sometimes more is better — and you need to know the difference", said Jim Jorgensen at front-of-house

The PA for the show consisted of 24 W8L's (12 per side), with eight W8LC's (four per side underhung), 24 Audio Analysts AALTO (12 per side outfill), supplemented by 36 2x18in subs — all driven by Martin Audio MA4.2 and Crown power amps.

Genesis' crew welcomes the challenges of doing Rap/Hip Hop shows. The basic set-up for monitoring this show was eight to ten wedges on the downstage line on one mix, plus big sidefills with lots of low end using four tops and four subs to reproduce



Big Boi from Outkast

stage, and not being able to get it loud enough for the artists. Here are a few things we found helpful: First, flip every other mic out of phase (it really helps). Second, prepare two or three 'artist' mics that can be turned up incredibly loud. Ring these out at great length and at the same time. Then prepare two or three 'Posse' mics that don't need to be as loud, but can be given to the shout-out guys that don't often take a lead. Third, have a stage manager who makes sure the right guys get the right mics. Fourth, 'Rap grip' changes the pickup pattern of the mic, so expect more feedback and prepare appropriately. It also changes the way sound gets to the capsule."

The Genesis Audio crew that pulled off this successful show and tour consisted of Jim Jorgensen (FOH Pond), John Clark III (FOH tour), Tim Colvard (FOH Beastie Boys), Devin Kelley (Systems Tech); Mike 'Milk' Arnold (Project Manager/Monitors), Jon Cook (Stage Manager/Monitor Tech), Bryon 'Hotdog' Tate (Production Manager/Stage Manager with Phoenix Music Group), Mike Kowalski (LD/Programmer), and Jon Bryant (Master Electrician).



Mini Passes the Paseo Test

Genesis Audio Systems, a relatively new but already extremely busy production company, headed up by Jim Jorgensen and based in Phoenix, recently completed another successful commercial installation for the Bud Light Paseo project outside the America West Arena.

A major feature of the \$67 million expansion project currently underway at AWA, the *Bud Light Paseo* is located adjacent to the east side of the popular arena, extending from Jefferson Street on the north to Jackson Street on the south. Its most dramatic physical feature is the 50 x 350-ft canopy, which provides shading and serves as a projection surface for spectacular lighting effects, still images and video. More than \$1 million of state-of-the-art audio and video technology has been installed in the *Bud Light Paseo*, which features a new bar and a combination television studio/live performance stage that extends onto the Paseo from the arena.

This ambitious install involved four outdoor kiosks filled with lighting and projection equipment, and an audio system covering the entire east side with an even, balanced sound, plus a smaller audio system specifically designed to cover the entertainment stage area for small concerts.

Audio for Paseo is provided from an all-Martin W8LM system. Large steel columns hold the roof system in place. From five of these columns, four W8LM speaker enclosures (painted all white and specially built with weatherproof back panels), were hung, pointing practically straight down. On three of the posts, opposite the W8LM cluster, a single S218 enclosure is hung for low-frequency reinforcement. The entire system is driven by Crown Macrotech amps, and controlled with a Crown IQ-USM810 system controller. Source audio is provided via Pro-Tools in a 5.1 configuration. Individual control of each column

allows the audio to travel with the video. A basketball can bounce from one end of the Paseo to the other in real time.

An additional audio system was installed on a small stage in the Paseo. This stage was intended for pre and post show commentary in broadcast situations, as well as smaller concerts surrounding larger events. This system is comprised of four W8LM enclosures per side as well as a WLX sub enclosure under the stage for additional bass extension. This system is operated from the Paseo control room in the basement of an adjacent building, with tie lines to one of the roof posts near the FOH position.

Each kiosk contains state-of-the-art lighting and projection, and enough air conditioning to keep the environment cool and functioning in the Arizona summer heat.

The canopy that was built over the Paseo was constructed of perforated steel and painted white in order to provide greater contrast and act as a screen, as the four projectors cover the entire block-long Paseo with individual video imagery.

Asked to convey any challenges in the audio design of the Bud Light Paseo, Genesis Audio's Jorgensen commented, "The single biggest obstacle for audio was the sheer number of reflective surfaces. By using a very small line array with precise coverage patterns, we were able to control the area of coverage and not spill up onto the glass.

"The W8LM provides precise pattern control and still sounds full range. There are several products on the market that would work as a complement to a main array, but as a stand alone system with no processing required, this one simply sounds better."





Phlipppo Sets the Pace at Sportpaleis

The TMF awards (MTV Belgium) took place in front of a 12,000 audience in the Antwerp Sportpaleis.

Phlipppo Audio and Phlipppo Showlights were contracted for the complete sound and light production as well as the staging, in cooperation with the designers. Phlipppo Audio flew 12 x W8L line array enclosures on each side of the stage; six W8C's were used as outfills, and the frontfill was secured with 16 x WT2's. As the design dictated that the sound system had to be invisible, this combination was totally integrated within the décor.

For the delay towers Phlipppo used a pair of 8 x W8LC

(Compact) line array enclosures and for the balconies the fixed Martin Audio F2 house system was used.

The TMF Awards kick-started the success of the W8L series, and many concerts with the three Martin Audio line array systems followed in the Sportpaleis, where most tours begin.

Last January, the renowned club, Cherry Moon, gave its first full blown mega-party in

the Antwerp Sportpaleis using 24 x W8LC's as main PA, W8C outfills and WT2 for frontfills. Cherry Moon is one of Belgium's most popular dance clubs, with more than 8,000 youngsters attending. This mega party was not only loud, but the sound was simply massive!

Phlipppo Audio was the first Belgian company to purchase a 24 x W8LM (Mini) line array system. They will use this system mainly for their theatre jobs and as well as the Urban Trad tour (who finished runners-up in the 2003 Eurovision Song Contest).



Historical Vooruit Chooses WT2

Vooruit, a historical theatre complex with five separate venues, is located in the south of Ghent city. The main venue hosts a standing audience of 1,000 and is often used for the more intimate concerts and as the starting point for Belgian tours.

In 2001, the Vooruit Café was already equipped with acoustic panels and Martin

Audio speakers (30 x EM15's and EM150 subs) which are used for small concerts and as delay system.

Vooruit recently set out a renovation programme for the entire building, and asked Ampco Belgium's project engineer Steven Kemland, together with Vooruit's chief sound engineer, to design an additional acoustic amplification system for the

main venue, and a versatile sound system with optimal spread for the Ballroom, which is used mainly for parties and disco nights.

Needing to be controllable in three separate sound zones, after testing various systems Vooruit's chief engineer opted for the combination of 10 x WT2's and a pair of WT3's, which could also be used as delay speakers in the

main venue. A simple analogue control panel also gives the bartender local control.

All the venues are powered by Crest CK amps and equipped with Soundwebs to ensure central network control throughout the whole building.

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The Martin Experience



Ampco introduces W8LM at the Singel

Back in December, Ampco Belgium introduced the then new W8LM Mini Line Array system to the Belgian pro audio industry, hiring the Blue Hall at 'The Singel', the Royal Antwerp Conservatory concert hall.

Ampco Belgium's Steven Kemland set up four W8LM's, flown at 3.5m high, with a single WLX sub on either side of the stage.

All the theatre engineers and rental company owners who attended were unanimous in their praise. "The way a single voice, accompanied by just a piano and acoustic guitar, sounded through the W8LM was truly refreshing," was a typical comment.

Following the demos, since the system was tuned and ready to use, FOH engineer and sound designer Alex Fostier used it for a series of concerts with a full symphony orchestra, reporting afterwards: "I've tried a lot of small line arrays, but I've never heard a system that sounded so transparent and complete — it's the first time I have heard a perfect stereo image."

Ampco report that besides Phlipppo Audio, three other companies purchased W8LM systems following the demo at The Singel — SBE, LGR, and Big Dynamic.



Sparks Fly for Stephan Bohez

Stephan Bohez has been a fan of Martin Audio for some time, and when the W8L line array was introduced, he was one of the first to adopt the system.

In recent years the focus of his business has been directed more towards corporate business and open-air events. And so when he won a contract to provide sound for a fireworks show that tours Belgium during the summer months, he set out in search of a system that could easily project the sound over a wide area (without loss of definition), was compact and lightweight and easy to set up. His search ended where it started ... back at Martin Audio with the W8LM.

"We need to set everything up in an hour or two maximum," he said. "Due to the fact that we set up in public places we try to keep the inconvenience to a minimum.

"W8LM makes our lives simple. Two of us arrive with a van, set up our six boxes aside

with subs in no time, and have time to enjoy a nice glass of white wine on the beach before showtime.

"There's always a couple of thousand people to see the sparks fly at night and it's not the first time that we had to tone the system down. It's amazing how much punch these little speakers provide and I love the way it sounds."

The added software is easy to comprehend and does exactly what it promises, Stephan continues. "It puts clear sound exactly where you want it and provides maximum stereo coverage. And the fact that I can ground-stack the enclosures in smaller venues is the icing on the cake."

Ampco, he says, have helped smoothe the transition from the traditional sound reinforcement approach to the line array principle. "If everything goes to plan we will further invest in the W8LM at the beginning of next year," he promises.





Madam Wong dons Black



Mohd Sultan Road, a landmark on Singapore's social scene, is a street frequented by the local party-goers. Along the crowded entertainment strip, one extraordinary pub shines like a beacon among the highly dense 'Lan Kwai Fong' of Singapore. This pub

has consistently stood out, with a steady pool of patrons supporting it throughout its six years in operation.

Madam Wong, a name associated with good music and fun nights, has a capacity of over 600 people, and is mainly frequented by the early 20's and young executive types.

As the number of people heading for the club increased, so it became evident that the current PA system just couldn't cope with the demands of the DJ's. The venue's main DJ, Jason Tan, had also voiced his opinion that the current set-up was unable to cope, and hence began the search for an upgraded system.

When the Martin Audio Blackline system was proposed Jason Tan was invited to audition it. He was so impressed that he requested a second demo — this time on site, where everyone involved in Madam Wong had the opportunity to review it. The entire operating team were so impressed with Blackline's performance — which matched all expectations — that immediately four H3 three-way, horn-loaded enclosures, driven by QSC amplification and controlled by XTA DP-226 processors, were commissioned.



Club Deluxe Boasts First Compact



The new Club Deluxe has opened in Guangzhou, in the Canton region of China, courtesy of a W8LC/WLX sound installation.

This is the first installed system using the Compact Line Array in China, and from the earliest stages, Martin Audio had been the preferred choice of the owners, who have wide experience in the club and dining business (with chain restaurants in Guangzhou, Dongguan and Beijing).

Martin Audio's Chinese distributors, DCH Pro recommended that the six W8LC's and four WLX subwoofers all be flown in



the main performance area — in order to keep the stage area nice and clean for the 45-minute cabaret-style shows presented each night. The venue will also host fashion and variety shows, as well as modelling competitions among its entertainment mix.

Martin Audio amplification was also used in the shape of an MA4.2S and six MA2.8S, while all processing was done in a pair of XTA DP226 management systems.



Salzburg Festival

Martin Audio fielded a large Line Array system at this year's *Festspiele Eröffnungsfest* — the opening event of the Salzburg Festival season.

The system was supplied by Technik Design, Martin Audio's Austrian distributor, to LTV-Markus Schwenter, the Salzburg-based hire company who were awarded the contract to provide the Festspiele sound system.

A large part of the city centre was commandeered to stage a spectacular, consisting of concerts and fireworks. However, the main system was set up on the banks of the Salzach River where powerful classics were broadcast to the audience via 16 x W8LM Mini Line Array enclosures and eight WSX subs, choreographed to an impressive firework display.

Hung in Layher towers, eight W8LM's (per side) provided even coverage to the entire crowd, gathered along the banks of the river.

Elsewhere, in the area of the Mirabell Palace (the residence of Salzburg's mayor) four Layher towers (two W8LM's per tower) fulfilled the requirement for classical and esoteric music, while on yet another stage a further eight W8LM's and eight WSX subs were used to reinforce famous acapella group, Bauchklang.

Martin Audio also provided the sound for the auxiliary stages. In the location of Chiemseehof a concert by Sabine Hank and Künstlerfreund took place on a small stage, reinforced by four Wavefront W1's and two Blackline S15, while in Domplatz — the most important location for Hugo von Hoffmannsthal's play, *Jedermann* (Everyman) — a concert was given by the band Seesaw on the Jedermann-stage (where the Jedermann



performers also signed autographs). Four Wavefront W2's and a pair of WS2 subs provided high-quality sound.

On the Reitsamerplatz several string quartets performed through four further W2's and a pair of Blackline S15's, while on Residenzplatz a huge video screen (measuring 33m x 9.5m) was mounted on two cranes, while below, two towers of four W8LM's per side (plus WSX) provided cinema sound for the audience.

According to Technik Design's Klaus Teufel, the promoter was so happy with the performance of the Martin Audio systems that he immediately rebooked next year's sound system for all shows on the Jedermann main stage (comprising 16 x W8LM's and eight WSX subs).

Vivas Opens in Vietnam



Distributors, Sing Viet have equipped Vivas Nightclub in Ho Chi Minh City with a Martin Audio Blackline system.

Sing Viet made a presentation to the venue's owners, Mr Tai and Mr. Vinh, who liked the good, clean sound produced by the Blackline Series, and felt it ideal for their 350-seat club.

Aimed at the youth market (and young business execs) Vivas' dancefloor sound has been designed around four Blackline H3 (three-way) speakers, a pair of F15 two-way speakers, four S18 single subwoofers and a pair of S218 (dual 18in subwoofers), driven by a pair of Martin Audio's dedicated M3 system controllers.

The system was designed and installed by Sing Viet, who purchased the equipment from Swee Lee in Singapore.

A combination of Martin Audio and QSC amplifiers power the system, with a pair of Martin MA4.2's driving the S218 and mid-low section of the H3, and three MA2.8 amplifiers running the S18's and F15's.

Sing Viet predict that this will open the door to other similar projects in the City.





H3H for Club Honolulu

The 300-capacity Club Honolulu forms part of the Hotel Klaipeda — the largest hotel in Klaipeda city on the Baltic Sea. Audio consultant Dainius Okunevas specified a Martin Audio system, because of its worldwide reputation in the club market, favouring the powerful new design of the Blackline H3H. The equipment was supplied by Audiotonas, Martin Audio's Lithuanian distributors, who also carried out the installation.

A pair of the new H3H (horizontal format) loudspeakers were flown in the front, with a pair of F15's flown at the rear, and a further two S218 subwoofers groundstacked. Eight C115 Contractor series loudspeakers act as satellites in the main area.

The system is driven by Martin Audio MA2.8 and E1300 amplifiers with processing via Martin Audio's dedicated DX1 controller.



Nigel Kennedy gives Thumbs Up to W8LC

One of the world's most famous violinists, Nigel Kennedy, presented a series of three concerts in Belgrade recently with the Dusan Skovran String Ensemble. Featuring his famous and unique Guarneri violin, the programme included Vivaldi's *Four Seasons*, the best selling classical CD of all time.

While the first concert took place in the 3,500-seat Sava Center using the house PA, the second was held in the 1,300-capacity National Theater in Novi Sad.

After checking the acoustics, sound engineer Gerry Falkental, insisted on bringing in outside production, whereupon the promoters contacted rental company, Audio Constructor. The company installed six Martin W8LC's, purchased from Teknik Design of Austria, along with four WSX subs and four ICT 300's for infill. The sound engineer was delighted with the sound quality — particularly the absence of feedback. At the soundcheck, Mr. Kennedy personally controlled the sound from seat to seat, describing it as "superb" and "fantastic".

As a result, the promoters insisted on using the same PA rig for the third concert — back at Belgrade's Sava Center. It was a huge success for the W8LC and the view was that this was the first time that sound had been properly projected into the upper balcony and back rows.



Sreten Kovecovic from Audio Constructor, Mrs. Milena from Sava Center and Gerry Falkental — with the Martin Audio PA equipment derigged after the concert



“On an island across the bay, they thought it was thunder...”

In August the Norwegian port of Stavanger hosted the *Tall Ships' Race 2004*.

The curtain raiser for the event was an outdoor free festival close to the bay, where the ships were lined up ready to start the race. PA Compagniet sub-hired two arrays of eight Martin Audio W8L line array enclosures, and two stacks of eight WSX powered subs — along with QSC PLX amplifiers — from Danish colleagues ETP, to provide suitable coverage over the large area.

Some 55,000 people enjoyed the final show featuring Norwegian band Kaizer's

Orchestra. To quote local newspaper *Stavanger Aftenblad*: “The sound was excellent, and very impressive. You are supposed to feel a thump in your chest at a rock concert, and on this occasion you really did. The sound travelled so far that people living on an island across the bay thought they heard thunder. Then they figured it must be the neighbour's son practising his drum kit.

“But in fact it was Kaizer's!”

The local city council of Stavanger was responsible for the event and the superlatives kept pouring in: “We are lost



for words; this is the best festival ever.

“The sound was sensational and all the technicalities were handled excellently!”

Front-of-house engineer was Øystein Wierli; monitor engineer was Eirik Watne and stage co-ordinator was Sigurd Syvertsen.



Deep Purple go Bananas for W8LC

Wojciech Musnicki, of the Polish rental company, Musnicki Sound Systems, launched his newly-acquired Martin Audio W8LC Wavefront line array system with a bang by supplying the sound for Deep Purple's concert in the Legia Stadium, Warsaw, Poland recently. The Deep Purple concert was part of a world tour to promote their new album *Bananas*.

The main Legia Stadium PA system for the concert comprised 16 x W8LC Wavefront line array systems, 20 x W8C Wavefront Compact systems, configured as eight W8LC plus two W8C inners per side, and eight W8C outers per side with eight WSX subwoofers per side. A number of W8C's were also used as stage floods.



Martin Audio 2-input, 6-output DXI Loudspeaker Management Systems were used for system crossovers and band zoning. Amplifier racks were equipped with Martin Audio MA2.8S amplifiers for the W8LC's with Martin Audio MA4.2S amplifiers for the WSX



subwoofers and Hill TX1000 amplifiers for the W8C's.

Commenting on the unusual system configuration, Martin Audio's Jim Cousins said, “Legia Stadium has heavily raked seating to the sides of the audience but the far end of the pitch is completely open to a distant residential area. The Deep Purple system configuration used the

16 available W8LC's to form a tight, vertically-controlled pitch system. Wavefront Compact W8C's were used as “mosh pit” fills. The rest of the W8C's were used in 2-wide, 4-high progressive curvature side hangs to form shorter-throw, wide-coverage systems for the side seats.



Red Square Parade

The military parade in Moscow Red Square, held annually on Victory Day, is an amazing celebration, which hides the complex preparation of a technical show.

The parade rehearsals are held on Khodynskoye Field, in the suburbs of Moscow. The model of Red Square is laid out right on the surface of the field for troop training, and the sound adjusted accordingly.

Talk of renewing the sound systems has been in negotiation since 1995. In 2003 two companies, Atex and Telecom, finalised a contract with A&T Trade Company for developing a new sound system for the Red Square parades.

The system for parades in Red Square traditionally represents two packages – mobile and fixed, with complete backup. With

microphones installed in the cars of the Minister of Defence and Commander-in-Chief which drive around inspecting the troops, the PA equipment generally receives high-quality signals from mics for distribution, with the signal taken from the mixing desk.

The sound is reproduced by loudspeakers installed in the Kremlin wall, with additional infill set in Lenin Mausoleum and on the walls of GUM, a big department store in front of the Kremlin. The Khodynskoye field parade sound system is provided by Martin Audio speakers.

In August 2003 Atex contacted A&T Trade asking for a compact, mobile, reliable and powerful sound system, with the result that a Martin Audio line array was chosen, consisting of a package of four cabinets and a mobile rack. The system was tested at the most



unfavourable points, and the result exceeded all expectations, passing the rigorous procedures laid down by Atex, whose specialists were highly appreciate of the sound quality, reliability and construction of the new Martin Audio system.

The entire system includes 20 x W8LC speakers. One set comprises two hand carts, each containing two speakers. The speakers are housed in two buses, eight pieces in each bus (with one package in reserve). The field system is fed by a diesel generator or UPS battery, able to provide half an hour's

functionality of the system.

The Martin Audio line array has to work in the most extreme conditions.

Yuri Shilin, head of Atex, says: "We were principally interested in the quality and reliability of the sound system. Working with Martin Audio and A&T Trade was very effective — the Martin Audio specialists were sensitive to our requests, while the A&T Trade team not only provided information and advice, but helped us to adjust the processor and other equipment."



The New Sound of Metal



Nizhni Tagil, an important centre of the metallurgic and engineering industry, is situated in the Ural region of Russia. On the eve of 'Metallurgist's Day', the Nizhni Tagil Integrated Steel Plant (NTISP) presented a

gift to its staff — a large concert hall equipped with high-quality sound systems. The project was developed and implemented by A&T Trade.

The main concert hall is a monumental structure dating

back to Stalin, and bearing the majesty and pomposity of that period. It can seat 850 and has multilevel internal architecture. With its luxurious upholstered seats, the hall was initially designed for concerts, meetings and festivals — but its interior structure implies a more versatile application.

The Ekaterinburg branch of A&T Trade faced the challenge of installing the sound system without disturbing the interior architecture — ie to make it as unobtrusive as possible. The acoustic requirement was to provide uniform sound pressure at all the three tiers of the hall, with a

sound level not less than 119dB.

Furthermore, the new system needed to achieve both transparency of musical texture during concerts and speech intelligibility during conferences.

The audio infrastructure was thus built around Martin Audio line array elements — with W8LC and WSX horn subwoofers. Eight W8LC's (with four subwoofers underneath) are suspended on each side, and the systems were set up using the Martin Audio dedicated DXI controller.

Sound reinforcement is provided by Martin Audio MA 2.8 amplifiers and on stage are Martin Audio LE12J, LE700, and LE400C

reference speakers. Side fills include, on each side, a single W8CS compact touring horn subwoofer and suspended EM186 three-way cabinets. The active signal digital isolator eliminates any interaction between the stage and auditorium sound.

The principal chose a white finish for the installed package to match the lightness of the interior.

The very first event at the hall was a complete success, which proved the excellence of the sound installation.

Viktor Rukavishnikov, commercial manager of NTISP Recreation Centre, said, "The Martin Audio installation maintains the theatre's historical design reference and the flown systems not only look appropriate but the sound

quality and power exceed all expectations. Now we can welcome world artistes without the need to rent in additional equipment — which makes this extremely cost-effective."

Ogni Ufy's Coliseo

The sound and lighting installation of Coliseo Dance and Concert Complex — part of Ogni Ufy — is one of the most important projects ever implemented by A&T Trade Company, since it is the largest dance and concert complex in Eastern Europe.

Ogni Ufy (meaning 'Lights of Ufa') also includes two restaurants, equipped with facilities exclusively distributed by A&T Trade.

Coliseo is decorated in ancient Roman style, with a large dancefloor that can transform into a concert hall stage. In the Sportivnye Khroniki Hall there is a wrestling ring comparable with the best in the world.

Complex calculations were employed during the construction of the venue, ensuring that it would become a real acoustic masterpiece. The installers applied sound-reflecting and sound-absorbing materials and calculated the angles of sound incidence and reflection. As a result, the hall is well-suited for concerts and discos.

Two independent sound systems were developed especially for Ogni Ufy: one for concerts the other for discos. And when a particularly powerful sound is needed the two systems can be used simultaneously.



The sound installation includes Martin Audio Wavefront and Blackline systems — a single Wavefront W8, four W8S sub-bass, two compact W8C's, eight Blackline F215's (with four S218 subwoofers), and LE400C monitors for the stage.

The entertainment at Ogni Ufy is already in full swing. Audiences can witness unforgettable shows, while the country's most famous artists look forward to appearing on the Coliseo stage, since the sound and lighting production are on a world level. All this is due to the specialist company A&T Trade, who implemented the original installation for this unique venue.

First Russian Tour a Big Success



Mobile TeleSystems Company (MTS), the largest mobile phone operator in Russia and CIS, has been undertaking a promotional tour throughout the regions of Russia including Vladimir, Tver, Nizhni Novgorod, Kazan, Yaroslavl, Arkhangelsk, Ekaterinburg and Smolensk. Besides advising on mobile phone contracts, the event provides various entertainment — including discos, exhibitions and rock concerts.

MTS awarded the contract for technical support to the rental company, Martin Tour, who were chosen as exclusive supplier of sound and lighting, with all engineering solutions for the tour unique standalone systems.

Featuring Martin Audio sound and Martin Professional lighting, Martin Tour has enjoyed a long co-operation with A&T Trade Company, for whom this project was extremely important, since these legendary brands were being toured for the first time in Russia under rigorous conditions.

Thus, the rental company piloted a touring package utilising Martin Audio line array systems. These comprised W8LC Compact line arrays, WLX subwoofers, LE400C floor monitors, Blackline F215 2-way trapezoid systems (as side fills) and MA series amps.

Audio professionals from different regions had the opportunity to see the systems in use, in arduous situations, and A&T Trade believe this will be a powerful spur to generating larger applications of the technology in mobile touring situations.



Boxing Clever in Tijuana



One of the best entertainment venue corporations in México is Archibald Wolf Productions SA de CV, who mix fun and culture with a state-of-the-art centre, which covers and surpasses the expectations of the regional market. Their enterprises include Live At the Box (Mazatlán Sinaloa), El Foro and Box Underground (Tijuana BC) — as well as a group of co-service companies like Box Records and Box Management. All their venues are equipped with Martin Audio PA systems

Within a year of setting up, The Box Corporation has consolidated as the fastest-growing entertainment business in México, at the same time expanding heavily into Central and South America, as well as the south of the USA.

Live at the Box Mazatlán

In modern times Mazatlán has grown enormously as both a tourist and business destination. With its entertainment and cultural

requirements similarly expanding, a growing need developed for a quality performance space equipped with first class technology in order to stage top quality events. As a result, Live at The Box opened at December 13 2002 and is currently operated by Archibald Wolf Productions S. A. de C. V. Here a Wavefront

W8C/WSX combination has been installed.

The Box Under Ground

Box Under Ground is a new venue in Tijuana — the perfect environment to enjoy a good show from any part of the venue (the furthest point being less than 50ft from the stage). Being strategically built at the border with California,

it is able to host shows for both Latin and American audiences, which is again pumped out through a W8C/WSX system.

El Foro

Finally, on the site of the the ancient Palace of Jai Alai, the 3,000- capacity El Foro has become Tijuana's newest concert venue. The building has wide open spaces inside and is ideal for live performances, delivered through a Martin W8LC/W8LM line array system, and WSX subs.

Originally built in 1929 it was reconstructed after a fire in 1959. Players from all over the world gathered there to take part in Jai Alai, a sport that has its origins in the Basque region of Spain.

Although games have not been played there for several years local promoters have recognised its potential, bringing in numerous shows, Today it is run by prominent concert promoter Enrique von Borstel, along with The Box Organisation, who have brought high-profile, Spanish-language shows to the Tijuana region.





RMS Commit to Line Array Compact

Martin Audio have announced yet a further Line Array purchase in Eastern Europe, with a W8LC/W8C combination sold to Hungarian rental company, RMS.

Tibor Kiss's company has added 12 x W8LC Compact Line Array enclosures, along with eight conventional Wavefront 8 Compact (W8C), a pair of WSX subs and two DX1 system controllers to its rental inventory.

RMS specialise in providing sound reinforcement for rock and pop concerts, and count heavy metal icons such as Slayer, Manowar and Anthrax among their accounts, as well as Clawfinger, TNT, EDDA and events like the Sommer Rock Festival.

"The reason we chose the Martin line array was because of its amazing price/performance ratio," said Tibor. "We auditioned a lot of different line array

systems — but always found something that didn't quite fit the picture.

"However, Martin really hit the spot. The sound clarity is fantastic and you can hear the slightest tweaks to the system, which lets you work without compromise. Rigging is also a breeze and we can run the system up quickly and easily. What more could we ask for?"



Taking Martin to Martin



Rigging the W8LC line array, for the celebrations in Martin



Rock Centrum, the Slovak distributor for Martin Audio, supplied a W8LC system to rental company Elektronik Plus — in time for the celebrations in the city of Martin to mark the Slovak Republic's membership to the European Union. The 12-enclosure system is believed to be the first line array in the country.

Immediately after delivery, a full training and demonstration session was supervised by Martin Audio's Martin Kelly and Rock Centrum's Peter Foldvari, who showed how different box configurations might be implemented.

"The system sounded excellent — right from the word go," exclaimed Peter, adding that a week later it was making its official debut during four days of celebrations. "The result was amazing, confirming everything that had been spoken and written about this system."

"The W8LC proves that we no longer need to transport large, heavy boxes in order to achieve perfect sound," added Branislav Kucerik from Elektronik Plus. "The Martin Audio system provides everything that we need."

Wavefront Rental Companies Around the World

* = W8 * = W8L/W8LC/W8LM

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* ANDY J SOUND	+ 61 8 8376 2771
* AVL ELECTRONICS	+ 61 3 9387 1055
* AVLA	+ 61 8 9221 1888
* AVSOUND PRODUCTIONS	+ 61 2 9949 9000
* CENTRESTATE PRODUCTIONS	+ 61 2 6362 0587
* DAVIDSON AUDIO SERVICES	+ 61 2 9368 1159
* DERRINGERS	+ 61 8 8371 1884
* ENTERTAINMENT INSTALLATIONS	+ 61 2 4324 3873
* JAZZRIGHT PRODUCTIONS	+ 61 2 9311 1197
* JOHNSTON AUDIO	+ 61 3 9329 3311
* MARTIN PARKS PRODUCTIONS	+ 61 2 6360 4411
* MASTER SOUND PRODUCTIONS	+ 61 2 9683 4971
* PHASE ONE AUDIO	+ 61 8 9227 7979
* SIMON STAVENUITER AUDIO PRODUCTION	+ 61 425 795 492
* STEPHEN SOUND	+ 61 3 9436 8981
* TOP END SOUNDS	+ 61 8 8981 7744

AUSTRIA

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* KRAXBERGER VERANSTALTUNGSTECHNIK	+ 43 7242 45193
* LTV - LICHT/TON/VIDEO	+ 43 662 828 989
* MAYRHOEFER VERANSTALTUNGSTECHNIK	+ 43 7667 6090
* SHOWPARTNER VERANSTALTUNGSTECHNIK	+ 43 676 4004404
* SOUNDRISE	+ 43 699 11722838
* TOPLAK MOBILE POWER	+ 43 22 39 50 58
* VIDEO & SHOW	+ 43 7229 81717

BELGIUM

* ALL AUDIO ACOUSTICS KORK BVBA	+ 32 475 5745 17
* BSL	+ 32 93 48 80 20
* DEE	+ 32 38 44 092
* DELTARENT NV	+ 32 50 49 00 81
* D-RENT	+ 32 3 324 02 97
* FLASHLIGHT/APR	+ 32 11 60 91 92
* PHILIPPO AUDIO BVBA	+ 32 3 491 91 76
* SOUND & LIGHT SYSTEMS	+ 32 59 27 66 46
* SOUND ART PA & LIGHT SERVICES	+ 32 50 81 61 30
* STAGE PROJECTS BVBA	+ 32 75 721710
* STUDIO 2000 BVBA	+ 32 89 30 89 54

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* SOUND SERVIS	+ 420 235364098

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* RINGSIDE TOURPRODUCTION	+ 45 3645 0701

ESTONIA

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* ATC	+ 33 5 56 69 60 60
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* AVANT SCENE	+ 33 534 63 02 60
* BALLOON FARM STUDIO	+ 33 2 99 32 11 11
* BGM	+ 33 466 84 39 34
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* FRANCK SONO	+ 33 164 29 26 79
* GPS	+ 33 251 686 900
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* PRODUCTION 44	+ 33 2 40 52 07 07
* REGI-SON SONORISATION	+ 33 555 06 20 20
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* SCENIKAL	+ 33 473 77 19 62
* TECHNISCENE	+ 33 2 35 88 86 86

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* SAL EVENT TECHNIK	+ 49 5132 4823
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* ASR PRO EVENTS	+ 1 407 767 5776
* AURATEQ SYSTEMS INTERNATIONAL INC.	+ 1 718 861 1416
* BLIZZARD SOUND	+ 1 920 451 1343
* DELICATE PRODUCTION	+ 1 805 388 1800
* DYNAMIC PRODUCTIONS	+ 1 770 529 8100
* EMS INC	+ 1 401 331 5247
* GENESIS AUDIO	+ 1 602 426 0930
* GO AUDIO	+ 1 414 764 8290
* IGS INC.	+ 1 608 441 0106
* LA SOUND COMPANY	+ 1 818 765 6900
* LOUDSOUND	+ 1 916 481 3679
* MAX AUDIO	+ 1 401 228 4287
* MHA AUDIO	+ 1 301 733 9337
* NORTHEASTERN PRODUCTION	+ 1 716 427 8760
* OPRYLAND PRODUCTIONS	+ 1 615 228 0491
* PHIL REIGH SOUND	+ 1 814-742-8291
* PRO SYSTEMS	+ 1 858 430 0330
* PRODUCTION SOLUTIONS	+ 1 610 374 6998
* PROLINE	+ 1 918 260 0503
* RALEIGH MUSIC BROKERAGE	+ 1 919 965 4300
* ROLLING THUNDER	+ 1 401 331 5427
* SACRAMENTO PRODUCTION	+ 1 916 481 3679
* SAI	+ 1 612 724 5395
* SATIN SOUND SYSTEMS	+ 1 724 983 1270
* SLAMHAMMER SOUND	+ 1 612 724 5395
* SOUND CONSTRUCTIONS	+ 1 718 893 7352
* SOUNDCRAFTERS	+ 1 619 697 4500
* SOUNDWAVE PRODUCTIONS	+ 1 520 327 5590
* STICHA BROTHERS	+ 1 608 276 5570
* TECHNICAL PRODUCTIONS	+ 1 314 644 4000
* TECHNOTRIX	+ 1 815 935 0233
* VERTICAL SOUND	+ 1 216 521 9994
* WAVETRIBE PRODUCTIONS	+ 1 541 618 9499
* WORLD AUDIO	+ 1 210 472 3932

UNITED ARAB EMIRATES

* ALMOE	+ 971 4 390 8390
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