Unite Your Audience
The Martin Audio Experience
Martin Audio

At Martin Audio we believe that uniting audiences with exciting sound creates shared memories that sear into the consciousness delivering more successful tours, events and repeatedly packed venues.

We achieve this by an obsessive attention to detail on the professional sound system’s acoustic performance, frequently challenging convention and involving a sophisticated mix of design, research, mathematical modelling and software engineering, to deliver dynamic, full-frequency sound right across the audience.

With over forty years of live sound and installation expertise to our name, Martin Audio offers a wide range of premium professional loudspeakers so customers can be assured of selecting the right system for their chosen application, whether it’s a small scale installation or a festival for over 150,000 people.

Auditoriums

Auditoriums, by their very nature rely upon a rich variety of usage and the importance of intelligible speech and music that envelops the audience, front to back, is critical to their success. Martin Audio has utilised a range of systems to deliver this experience around the world.
A fixture in Washington DC live entertainment since the Second World War, George Washington University’s Lisner Auditorium has hosted an eclectic mix of performers from Ingrid Bergman to Pink Floyd, along with leading world music artists, local opera and symphony companies and celebrated political dignitaries over the years.

But without a significant upgrade for many years, the university recently decided to overhaul the venerable auditorium with special emphasis on the sound systems in a bid to make the venue more competitive in terms of attracting high-profile talent. Selecting Martin Audio’s new MLA Compact system was a natural choice because its technology is definitely state-of-the-art.

The 1500-seat venue was the perfect size for the system, with eight MLA Compacts per side with a centre array of six DSX subs under the stage.

Since the upgrade, Lisner has presented a series of popular and well-attended world music concerts by artists such as the Brazilian singer-songwriter Gilberto Gil and Acoustic Africa, as well as the sold-out debate between Fox’s Bill O’Reilly and the Daily Show’s Jon Stewart.

Eric Annis, Production Manager and Technical Director for Lisner, was enthusiastic about the new MLA Compact, “We think it’s fantastic and so do all the users who have come in since the installation. We’ve had several televised events in a row and maintaining the sightlines within the auditorium is wonderful. The shows have run the gamut from loud electrical music to a single mic bluegrass band, and the MLA Compact system has proved to be equally articulate and clear.”
AUDITORIUMS

MLA Mini Chosen for Oslo Uni’s Famous Aula

A Martin Audio MLA Mini Multi-cellular Loudspeaker Array has been installed at the University of Oslo (UiO) flagship auditorium - replacing the previous PA system.

The integration was carried out by Atendi AS, Martin Audio’s pan-Scandinavian distributors, and the installation itself is in the Aula, the University’s famous ceremonial hall, known for its festive events, concerts and art. In fact from 1947 until 1989 it hosted the Nobel Peace Prize, but when that auditorium gradually became too small, the ceremony was moved to the Oslo City Hall.

The Aula’s connection with Nobel today revolves around the Nobel Lecture, which is frequently presented there, while many other civic dignitaries also give lectures. In addition, the Aula is used for a number of high profile events such as the Oslo Opera Festival, as well as classical concerts ranging from the Norwegian Radio Orchestra 70th year jubilee concerts to small jazz concerts.

According to Øystein Wierli, Head of Audio Sales at Atendi, this is the conclusion of a long-running journey, which began nearly two years ago. During the bidding process six speaker brands were invited to conduct demos, with Atendi successfully auditioning the award-winning Martin Audio MLA Mini at the end of September 2015.

COWI Norway was the specialist consulting company, and Geir Kristoffersen, Head of Section Acoustics, Noise, Vibrations, Electroacoustics, Stage and AV, produced system specifications in collaboration with the technical crew at UiO and colleagues at COWI.

Having had experience working on concerts in the Aula some years ago, Wierli knew the task he faced. ‘My first idea to solve the problematic room, with its long reverb time, was MLA Mini. The venue itself has a glass ceiling, a wooden floor and marble walls decorated with Munch paintings. This makes it acoustically very challenging.’

However, MLA Mini was only adopted after intense testing and measurements conducted in September last year by COWI, but consistently MLA Mini provided the system with the most even coverage.

‘One of the requirements was that the PA system needed to be supplied in white in order to minimise the attention the loudspeaker system normally commands in a setting.

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like this,' Øystein continued, ‘with consistent coverage throughout the whole venue being a further prerequisite.’

During commissioning, it was very obvious that a distinct ‘slap-back’ echo could be heard in the front row of seats from the upper balcony at the rear of the hall. By using MLA’s unique ‘Hard Avoid’ feature, it was possible to reduce the energy in that part of the room, losing the distinct echo completely.

The new PA design is based around eight MLA Mini and two MSX subs each side of the stage. Atendi also installed a front fill system consisting of four DD6 speakers, a delay system comprising a further pair of DD6, with two more DD6 as floor wedges. All amps were installed in a single rack in the attic above the Aula.

The new PA rig will now be used on a daily basis, as the Aula conducts guided tours of the venue (the attraction being the Munch paintings). Hence the tour guides will also use the new MLA Mini for speech reinforcement. In addition, the venue will also host concerts, receptions, press and media events, and so the sound system will be subjected to an arduous duty cycle.

The installation was project managed by Atendi’s Lorry Kristiansen and Øystein Wierli himself, while Martin Audio’s Product Support Engineer, Robin Dibble supported both the demos last year and the commissioning. ‘He is a fantastic person to have on jobs like this,’ Øystein enthuses, ‘and the success of this project has meant that MLA Mini in white will be an ongoing available variant from Martin Audio.’

As for the Martin Audio distributors, Atendi Norway started out in 2010 as Elektrik Solutions, before changing their name at the beginning of this year. They formed a joint venture with Bico in Copenhagen, and also opened an office in Gothenburg at the beginning of this year. So the Atendi name is now consistent throughout the Nordic countries, with distribution of Martin Audio beginning in September 2015.
University Chooses Martin Audio for College Of Arts & Media

Lakeland, FL—The recently completed College of Arts & Media facility at Southeastern University benefits from a full complement of Martin Audio including an O-Line micro line array system in the auditorium along with CDD and CDD-LIVE speakers in the music and practice rooms.

MABE in Lakeland was the integrator for the project and Lead Account Manager Steve Griner explains, ‘The College of Arts & Media is a new multi-use facility, with classrooms and an auditorium on the ground floor. The Martin Audio O-Line is installed in the auditorium that serves as a large multi-purpose lecture hall used for lectures, guest speakers and music ensembles.

‘The space has a raked floor with the seating sloping down to a podium on a sunken stage below a large 16 x 9 projection screen in the center and the speakers alongside. We mounted the O-Line on the wall in a left-right configuration with eight enclosures on each side and two CSX subs flown from the ceiling—all powered by Martin Audio amps. The original idea was for a Surround system which led us to the O-Line because we felt the University could build off those speakers and add side fills and a center channel later if we needed.’

Asked about the O-Line’s performance, Steve says, ‘We really didn’t know O-Line that well before the install but we loved the compact size, sleek, curved shape, and how the speakers fits seamlessly into the space. And, most important, the University is very happy with the system and pleasantly surprised by the impressive volume, SPL, clarity and lower frequency response from such a small box.’

Ian Fritzsche, Director of the Media Services Department for the University, confirms Griner’s comments with added perspective: ‘We think of the facility as a ‘live-learn’ building with four stories and a mezzanine including the College of Arts & Media and standard classrooms, a food...’
The building is split with a walkway in the middle.

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“The 200-seat lecture hall is the flagship space for the building,” Ian continues, “but challenging in terms of finding the right speaker system because it’s bigger than a classroom and smaller than a huge auditorium so a typical line array system would be overkill in terms of being visually obtrusive and overwhelming in terms of the sound.

“We needed a speaker system that could easily cover anything from one professor with accompanying video or PowerPoint presentation to a theater for films and a concert space for electric bands and small acoustic ensembles. So, we had to put in a sound system that was capable of handling anything we could throw at the room.

“In terms of the installation, we flattened out the unique triangular pointed acoustic wall framing on either side of the projection screen so the O-Line speakers could be easily mounted on the wall. We also installed an Allen & Heath GLD-80 console with a Crestron control system for the audio so a professor can walk in and play a video without a technician. But we can also use it with an engineer and fire up additional inputs, so we have exceptional flexibility with the system. It’s very scalable for all kinds of events.’

“THE O-LINE HAS BEEN GREAT. THE SYSTEM EASILY FILLS THE ROOM WITHOUT BEING OVERBEARING OR OBTRUSIVE. IT HAS A VERY SMALL FOOTPRINT, SO YOU HARDLY KNOW THE SPEAKERS ARE THERE UNTIL THEY’RE ON.’

Martin Audio CDD and CDD-LIVE speakers are also a centerpiece of the College’s music spaces: ‘We have two CDD8s mounted in the rooms that are used for music and piano instruction and percussion practice where they need better playback quality,’ Ian points out. ‘Also, there’s a large orchestra rehearsal room with two CDD-LIVE 15s, which sound fantastic and really fill out the room.’

Asked about the O-Line’s performance, he concludes, ‘As it turns out, the O-Line has been great. The system easily fills the room without being overbearing or obtrusive. It has a very small footprint, so you hardly know the speakers are there until they’re on and their appearance blends right into the feel of the room. They have more than held their own for every event, so I’m very happy with them.’
TSI Global recently upgraded Brauer Hall, a handsome and elegant 800-seat auditorium at the Mary Institute and St. Louis Country Day School (MICDS), with a Martin Audio O-Line system.

Asked about the project, Paul Murdick, General Manager, TSI Global Companies LLC, explains: ‘The school came to us because they wanted a more multifaceted sound system for background music and pep rallies instead of voice only.

‘We recommended and designed a Martin Audio solution with O-Line based on the system’s compact size and unobtrusive aesthetic appearance that blends seamlessly with the hall’s modern, curvilinear architecture while delivering the coverage that was required.

‘The client thought they would need under balcony fills,’ Paul continues, but once we mapped it out, they were pleased to find out the additional expense of dedicated speakers wouldn’t be required—which added real value to the system. Now they’re getting excellent coverage in the main seating, balconies and under balconies and are very pleased.’

Describing the acoustic challenges implicit in Brauer Hall, TSI Global Audio System Designer Lee Buckalew adds, ‘The auditorium is all hard surfaces and the room’s shape is essentially oval or parabolic with curved front and back walls. We know that O-Line would provide consistent balcony and under balcony coverage along with a level of coherence in the reflected sounds that we would inevitably have to deal with in such a live space.

‘The under balcony section floor to ceiling measures only around 8 ft. tall at the beginning, while the balcony wraps around the back side of the room facing the stage. Also, the front rows are located roughly within six feet of the speakers, which makes it even more challenging.’

To overcome these issues, TSI set up 16 O-Line enclosures at each side of the stage. They also installed Martin Audio PSX powered subs in niches alongside the acoustic reflector at the proscenium wall.

‘The previous system was powered and housed in those niches,’ Lee points out, ‘so we had existing line level wire and power circuits available. That eliminated the need
to install new speaker cable back to an amplifier room, which would have required a lot more expense and labor. In addition to bass reinforcement, the PSX has a second channel of amplification to power the O-Line arrays. It also provides full compatibility for VU-NET software and access to a full range of DSP functions as well.

‘From a coverage standpoint, the issues had been overall level balance throughout the room and intelligibility in what is an acoustically ‘live’ room. Given that we couldn’t do acoustic treatment to the space, we wanted to provide even coverage so that reflections were also phase and frequency coherent, and O-Line was a good choice for that in a very compact enclosure.’

Commenting on the client’s reaction to the upgrade, Lee sums up, ‘O-Line is a night and day difference from what they had before in terms of the coverage and audio quality. Tom Wyman, Director of Technology, and other MICDS staff are just ecstatic. Before, teachers who would come into the back of the hall couldn’t understand what was being said on stage. All of that has changed completely with Martin Audio O-Line. The system represents a truly phenomenal change.’

*Photo credit: Catina Bryant*
The Congress Palace (Ciudad de Oviedo), which opened in 2012 in the heart of Spain’s Asturian capital, has already become a new symbol for its spectacular architecture. Designed by Valencia-born architect Santiago Calatrava, this visually stunning 2000-seat auditorium has complex geometry with high reverberation time. The choice of sound system was therefore critical — and after an extensive study of electro-acoustic systems the decision was taken to specify an O-Line® micro array system from Martin Audio.

According to Marc Rovira, product manager at Adagio Pro, the Martin Audio distributor in Spain, in order to achieve optimum intelligibility given these challenging conditions, it was logical to propose a system with a large coverage control pattern, especially in the vertical plane. Thus two hangs of 24 O-Line elements, with a 2.82m drop, have been flown on either side of the stage.

As well as providing the acoustic quality and coverage necessary, it also speaks volumes to O-Line’s discreet design that perfectly suited the Congress Palace.
One of the UK’s most important gothic buildings commissioned a new audio infrastructure to extend its functionality within the precincts of Bristol University.

With its two balconies, The Great Hall of the Wills Memorial Building can seat up to 900 people for plenary lectures and 270 for banqueting. Hosting a vast range of functions and events, including Christmas carols, organ recitals, graduation day ceremonies, VIP and academic lectures — as well as third party rental providing an additional revenue stream, it therefore required a versatile sound system.

The entire integration at Wills Memorial Building was undertaken by locally-based contractors, Sounds Commercial, and was constructed around two 24-box hangs of Martin Audio’s O-Line micro line array.

O-Line is a versatile, micro line array designed for installation in a wide variety of architectural environments. Its modular approach and scalability extend its use from foreground applications to sound reinforcement in large acoustic spaces. Intelligent software enables an array to be configured to deliver sound precisely over any vertical angle to fit the venue profile, without spilling onto surfaces where sound is not required. Additionally, elimination of high-frequency side lobes gives O-Line the advantage over currently available DSP-steered columns, making it suitable for high quality music reproduction as well as speech in large reverberant spaces.

“Perfect criteria then for a high vaulted space such The Great Hall, surrounded as it is by the academic teaching spaces of Bristol University.

“What we were looking for was clarity, evenness of coverage and directivity because it’s all teaching space around here and so containment was important; there were also the aesthetic concerns. We just fed the system with a CD and radio mics — it sounded stunning, whilst looking discreet and so passed the test with us, and the people from the university”, said Sounds Commercial’s project manager, Blake Gifford.

A biamped solution was recommended, with the entire system run from Martin Audio’s four-channel MA6.8Q. By splitting the system into biamp mode Sounds Commercial were able to provide increased punch at the back — with 3dB boost for the top eight boxes, firing at the balcony. Given the high directivity of the line array no delay system was necessary.

In addition to O-Line, two Martin AQ28’s face back from the stage pillars to provide performance monitoring, while a further pair of AQ6’s provide booth monitoring up in the control room.

“We have been fortunate in that there hasn’t been any kind of acoustic treatment necessary,” summarise the Sounds Commercial project team. “In fact very little processing has been necessary.”
Products Featured

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MULTI-CELLULAR LOUDSPEAKER ARRAYS

[link to MLA Systems product page](martin-audio.com/products/series/mla-systems)

**Wavefront**
PASSIVE INSTALL/TOURING LINE ARRAYS

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PASSIVE OPTIMISED MICRO LINE ARRAY

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**CDD**
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**CDD-LIVE!**
ACTIVE POINT SOURCE LOUDSPEAKERS & SUBS

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