A COLLECTION OF GLOBAL AUDIO SOLUTION REFERENCES FOR SPORTS VENUES
Modern sound reinforcement solutions are based upon multi-functional, multi-domain integration and networking concepts. From the parking lots to the VIP suites, from the concourses to the front-of-house system, professional sound is delivered with maximum intelligibility and clarity.

The ideals of Bosch, Dynacord and Electro-Voice are to provide solutions for small, medium and large system applications. With regard to audio quality and intuitive operation, we also utilize our OMNEO media networking architecture. This architecture is built upon open public standards supporting today’s protocols like Dante audio networking and AES70 control. It is future proof for new norms, and with its additional functions it provides the highest levels of system reliability and redundancy. It provides the platform for our Professional Sound as well as for our certified public address and voice evacuation systems for fully comprehensive and customer focused solutions.

Our team of experienced application engineers around the world is ready to support our clients in the selection, design and implementation of our products in their sports venue projects. These solutions are based upon extensive experience, while helping to ensure an optimal total cost of ownership and utilizing our environmentally friendly product portfolio.

Oliver Sahm, Director of Application Support

INTRO

With our wide product portfolio and a proven track record, we can satisfy all sports venues’ stakeholders – no matter how complex the requirements are.”

Oliver Sahm, Director of Application Support

SOFTWARE AND DESIGN TOOLS

- PREVIEW Loudspeaker Software is a tool to configure Electro-Voice loudspeaker systems for the desired coverage in any venue
- Full-color 3D interface helps specifiers, designers, and audio engineers to quickly find the optimum configuration and position of loudspeakers, amplifier drive and delay requirements, and more
- For line-array designs, PREVIEW will only allow mechanically valid combinations of cabinets and rigging hardware, depending on the selected safety factor
- Data export feature allows users to import PREVIEW designs into Dynacord’s SONICUE Sound System Software
- SONICUE Sound System Software simplifies the set-up, tuning and operation of professional sound reinforcement systems
- Intuitive operation and direct interaction are ensured by a comprehensive overview of the entire sound system
- Guided workflows offer maximum flexibility to save time and achieve the best results with minimum effort
- Peace of mind with integrated system visibility, immediate parameter access on the fly, and error prevention through automated configuration checks

For over 70 years, Dynacord has designed and engineered professional audio electronics — products that offer unparalleled performance and premium quality, the perfect balance of power and precision.

PRODUCT CATALOG

- Electro-Voice
- Horn-loaded point source speakers
- Subwoofers
- Microphones
- Fronted-loaded point source speakers
- Commercial speakers
- Line arrays

Electro-Voice

From historical performing arts centers to the largest sports arenas to the corner pub, we offer an extensive installation portfolio to craft the right sound system for your venue. Our installation loudspeakers are acoustically and aesthetically matched, so whatever combination of products you select, your system looks as good as it sounds - blending into the architecture while filling the room with superior audio quality.
System summary
To tame the acoustic challenges of this asymmetric venue, the integrator built a system around Electro-Voice XLD line arrays, which incorporate a unique approach to horizontal steering. The entire system is powered by Dynacord IPX series multi-channel DSP networked amplifiers with Dante and OCA networking for audio redundancy, remote monitoring and remote control. The end result is a system that accurately reproduces music and the voice of the announcer – as captured by an Electro-Voice RE20 microphone.

"The new EV sound system checked all our boxes with a greatly improved listening experience throughout the arena. We are also very happy to have improved flexibility of use to fit our varied types and sizes of shows and events."
Spectra's A.J. Johnson, Production Manager for Wells Fargo Arena

**WELLS FARGO ARENA**
**Des Moines, Iowa USA**

MULTI-PURPOSE ARENA – 16,980 SEATS

<table>
<thead>
<tr>
<th>Main system equipment</th>
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<tbody>
<tr>
<td>XLD line-array loudspeakers</td>
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<tr>
<td>EVH-D series horn-loaded loudspeakers</td>
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<tr>
<td>EVID-S compact surface-mount loudspeakers</td>
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<td>IPX series amplifiers</td>
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**AT&T STADIUM**
**Dallas, Texas USA**

MULTI-PURPOSE ARENA – 80,000 SEATS, EXPANDABLE TO A TOTAL CAPACITY OF 105,000

<table>
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**System summary**
It takes a powerful yet nuanced system to deliver great sound to every corner of the world’s largest covered stadium, which is why the home of the Dallas Cowboys chose EV line arrays and Dynacord-engineered amplifiers and system controllers. A major upgrade that expanded the number of line-array cabinets in the upper levels was completed in 2019.

"We've used this system for every type of event at AT&T Stadium, and it's amazing how flexible it is. After 10 years, we're happy to say everything still looks and sounds new, and you can't ask for more than that."
Gary French, Audio Engineer in Charge for the Dallas Cowboys
System summary
More than 3000 EV loudspeakers ensure that this stadium lives up to its name! To keep the main bowl rocking, XLCi line arrays are matched with X-Line Advance Install dual-18" subs. EV sound provides seamless coverage to all seating areas, concourses, offices and public areas.

Main system equipment
- XLCi line-array loudspeakers
- EVF-S series front-loaded loudspeakers
- EVH-D series horn-loaded loudspeakers
- ZX1i compact surface-mount loudspeakers
- EVID ceiling loudspeakers
- NetMax N8000 system controller

System summary
The Dolphins team are pleased to report that the system has exceeded their performance expectations while meeting budget and timing requirements. The system is at its best when the stadium is full, enhancing the fan experience with clear, effortless coverage, and rising to the occasion to amplify crowd energy in big moments.

“We’re manufacturer agnostic. It’s my job to find the best product for the application, regardless of brand. For outdoor venues where you have to worry about bleed-out noise being disruptive to the neighborhood, I’ve found Electro-Voice EVH and EVF speakers to be a great choice.”

Kent Stevenson, Sales Engineer Electronic Design Company (EDC) of Minneapolis

HARD ROCK STADIUM
Miami, Florida USA
MULTI-PURPOSE ARENA – 74,767 SEATS

Main system equipment
- XLCi line-array loudspeakers
- EVF-S series front-loaded loudspeakers
- EVH-D series horn-loaded loudspeakers
- ZX1i compact surface-mount loudspeakers
- EVID ceiling loudspeakers
- NetMax N8000 system controller

System summary
More than 3000 EV loudspeakers ensure that this stadium lives up to its name! To keep the main bowl rocking, XLCi line arrays are matched with X-Line Advance Install dual-18" subs. EV sound provides seamless coverage to all seating areas, concourses, offices and public areas.

CHS FIELD
Saint Paul, Minnesota USA
BASEBALL PARK – 7,210 SEATS

Main system equipment
- EVF-S series front-loaded loudspeakers
- EVH-S series horn-loaded loudspeakers
- EVID series ceiling and compact surface-mount loudspeakers

System summary
EVH horn-loaded loudspeakers mounted on the light poles cover the entire field, augmented by EVF and EVID fills in the main seating areas. EVID 6.2 loudspeakers bring sound to spectators seated on the lawn beyond the far side of the outfield.
**System summary**

To cut through the extremely loud roar of the racetrack with powerful, clear audio quality, the main grandstand's loudspeakers were upgraded to Electro-Voice EVH models. Arrays of EVH two-way horn-loaded loudspeakers, powered by Dynacord IPX series multi-channel DSP amplifiers, provide seamless coverage and high intelligibility – even in reverberant areas – effectively solving the sound reinforcement challenges posed by such events as F1 races.

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**SHANGHAI INTERNATIONAL CIRCUIT**  
Shanghai, China

**Main system equipment**
- EVH-D series horn-loaded loudspeakers
- IPX series amplifiers

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**ION-OBLEMENCO STADIUM**  
Craiova, Romania

**Main system equipment**
- EVH-D series horn-loaded loudspeakers
- CPS series amplifiers
- Dx46 system controller

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The combination of Electro-Voice and Dynacord not only meets the challenges inherent to the world's loudest sport, it also delivers to the audience and the racing drivers the authentic, powerful sound of the event, to feel the speed and passion of the F1 Shanghai.

"The goal was a sound pressure level of 110 dB, with a difference of less than 6 dB, across all areas of the stadium. From past experience we knew that Electro-Voice speakers would deliver."

Alexandru Tican, Gerom International’s Technical Director

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The current sound system in the historic Berlin Olympic Stadium was installed during a complete renovation in 2004. In 2018, the Electro-Voice XLC line arrays were upgraded with DVX components that increase both sound output and intelligibility. Newly installed Dynacord IPX multi-channel DSP amplifiers with Eco Rail Technology greatly reduce energy consumption and cost. IPX amplifiers also make it possible to implement redundant Dante audio networks.

“System summary

The current sound system in the historic Berlin Olympic Stadium was installed during a complete renovation in 2004. In 2018, the Electro-Voice XLC line arrays were upgraded with DVX components that increase both sound output and intelligibility. Newly installed Dynacord IPX multi-channel DSP amplifiers with Eco Rail Technology greatly reduce energy consumption and cost. IPX amplifiers also make it possible to implement redundant Dante audio networks.

Frank Neubauer, Technical Director of the Olympic Stadium

Celtic Park is an awesome stadium, and one of the loudest places I’ve ever been for a match. The club wanted a state-of-the-art emergency notification system, and wanted to integrate that with an audio system that would provide clear sound for every seat in the house. It’s a challenging project, but the combined solution of Bosch and Electro-Voice works perfectly.”

Vic Swain, engineering director for PEL

CELTIC PARK
Glasgow, Scotland

MULTI-PURPOSE STADIUM – 74,475 SEATS

Main system equipment
XLC-DVX line-array loudspeakers
IPX series amplifiers

System summary

The current sound system in the historic Berlin Olympic Stadium was installed during a complete renovation in 2004. In 2018, the Electro-Voice XLC line arrays were upgraded with DVX components that increase both sound output and intelligibility. Newly installed Dynacord IPX multi-channel DSP amplifiers with Eco Rail Technology greatly reduce energy consumption and cost. IPX amplifiers also make it possible to implement redundant Dante audio networks.

Main system equipment
EVH-D series horn-loaded loudspeakers
EVF-S series front-loaded loudspeakers

System summary

Electro-Voice EVF and EVH loudspeakers aimed at the areas above the seats improve coverage, clarity and fidelity within the main bowl of the stadium. The Electro-Voice loudspeakers are amplified, monitored and controlled remotely with Dynacord-engineered matrix controllers and amplifiers. The integration of the front-of-house system with a Bosch voice-alarm system represents a commitment to both comfort and safety.

OLYMPIC STADIUM
Berlin, Germany

MULTI-PURPOSE STADIUM – 74,475 SEATS

Main system equipment
XLC-DVX line-array loudspeakers
IPX series amplifiers

System summary

The current sound system in the historic Berlin Olympic Stadium was installed during a complete renovation in 2004. In 2018, the Electro-Voice XLC line arrays were upgraded with DVX components that increase both sound output and intelligibility. Newly installed Dynacord IPX multi-channel DSP amplifiers with Eco Rail Technology greatly reduce energy consumption and cost. IPX amplifiers also make it possible to implement redundant Dante audio networks.
MORE REFERENCES FROM AROUND THE WORLD

TCU SCHOLLMAIER ARENA
USA, Fort Worth
BASKETBALL ARENA – 8500 SEATS
Read the full story HERE

CADILLAC CENTER
China, Beijing
BASKETBALL ARENA – 18,000 SEATS
Read the full story HERE

Suzhou Olympic Sports Center
China, Suzhou, Jiang Su
MULTI-PURPOSE SPORTS STADIUM – 45,000 SEATS
Multi-Purpose Stadium - 13,000 seats
Read the full story HERE

GRÜNVALDER STADIUM
Germany, Munich
SOCCER STADIUM – 15,000 SEATS
Read the full story HERE

Foshan International Sports & Performance Center
China, Guang Dong
BASKETBALL ARENA – 15,000 SEATS
Read the full story HERE

TEDDY (KOLLEK) STADIUM
Israel, Jerusalem
SOCCER STADIUM – 34,000 SEATS
Read the full story HERE

KARBALA OLYMPIC STADIUM
Iraq, Karbala
SOCCER STADIUM – 30,000 SEATS
Read the full story HERE

YI SUN-SIN STADIUM
Korea, Asan
MULTI-PURPOSE SPORTS STADIUM – 17,376 SEATS
Read the full story HERE

See the latest references on our websites electrovoice.com and dynacord.com