UNIQUE SOLUTIONS for ARCHITECTURAL and ACOUSTICAL CHAL-

DIGITALLY STEERABLE LINE ARRAY LOUDSPEAKER SYSTEMS
To deliver performance that used to be impossible without bulky clusters or complex systems, Renkus-Heinz engineering integrates today’s most advanced audio technology into a compact, powerful and sophisticated system - Iconyx. Arrays are rapidly assembled on site using the compact IC8-R-II module.

Each IC8-R-II module has eight high performance coaxial transducers. Each transducer is individually controlled by its own pure digital processor/amplifier. By controlling the behavior of each sound source, Iconyx can tailor its performance to the venue and the audience in ways that are impossible using conventional technology.

For instance, a single Iconyx array can cover both floor and balcony seating by producing multiple beams of acoustic energy. Each beam can be as vertically wide as 30° or as narrow as 10°. Each beam can be aimed up or down by 20° while the Iconyx array remains flush against the wall or column to which it’s mounted.

Even the acoustic center (the apparent origin) of the beam can be raised or lowered without moving the physical enclosure.

“Experts told us the atrium of the Nasher Museum of Art at Duke University would be unusable for public speaking and events without adding acoustical treatment. Iconyx proved them wrong.”

Wendy Livingston
Duke University, Durham, NC, USA
“On behalf of the Ministers, Session, Property Committee and the entire congregation of First Presbyterian Church, Durham, please accept our deepest appreciation for the marvelous job that you and your associates have rendered to us in the newly installed sound system. Your results were nothing short of breathtaking.”

Lanny Pratt, Chair - Property Committee
First Presbyterian Church, Durham, NC, USA

“In Notre Dame du Cap Basilica, two IC32s have replaced 26 loudspeakers, amplifiers, crossovers, racks and cabling - and perform far better. With Iconyx, we have restored our cathedral to its original - uncluttered beauty. Congregants appreciate that.”

Jean Giroux
Siscom Inc., Quebec, Canada

RENNUS-HEINZ AUDIO OPERATIONS NETWORK

RHAON (Renkus-Heinz Audio Operations Network) is the culmination of more than 20 years experience integrating electronics with loudspeakers. RHAON makes it easy to connect multiple Iconyx Mk II arrays and other Renkus-Heinz powered loudspeakers using standard Ethernet cabling and switches. On the network, you can distribute multi-channel digital audio with CobraNet, control array-specific DSP functions, and supervise the entire system from a centrally located computer. RHAON’s comprehensive network capabilities make it easy to add one-touch presets, zone control and life safety functions to any Iconyx R system. RHAON gives you Maximum Control of:

- Real time digital audio distribution over standard Ethernet: proven CobraNet technology delivers up to 64 channels of high quality digital audio over a single CAT 5 cable.
- A powerful DSP inside each Iconyx MkII array on the network. Adjust eight bands of parametric EQ, high and low frequency shelving filters, input level control, muting, dynamics and 340 milliseconds of delay in real time.
- Monitoring and supervisory functions. RHAON tracks critical operating parameters such as signal clipping, amplifier output voltage, current and temperature with automatic alert functions.

Connect
Control
Beams / Presets
Supervise
"Iconyx loudspeaker technology provides highly controlled sound delivery in difficult acoustic spaces, and the sound quality one would expect from a well designed conventional loudspeaker system. The results we have achieved have exceeded our expectations and our clients have been thrilled with the naturalness of sound and the fact that the loudspeakers disappear into the architecture."

David May

ADVANCED DSP / AMPLIFIER SYSTEM

Renkus-Heinz engineering team developed the pure digital Iconyx multi-channel processor/amplifier to make individual control of each array element - a theoretical ideal for decades - into a practical reality. Its high-current audiophile output stage ensures articulate, natural and musical reproduction.

REFERENCE QUALITY COAXIAL TRANSDUCERS

Controlled sound coverage is a very effective sound designer’s tool, if that sound is accurate, natural and listenable. The advanced coaxial transducers used in Iconyx MkII modules deliver high output, full range response and wide horizontal dispersion. Unlike conventional “full range” speakers, coaxial Iconyx transducers deliver consistent wide coverage in the upper octaves, so every listener enjoys crisp, detailed sound.

"We have two Iconyx IC16s and one Iconyx IC32, and actually, an interesting point to consider is that this job used to be over 100 loudspeakers and now just three arrays of Renkus-Heinz Iconyx has eliminated around 30 loudspeakers."

Steve Sockey
Senior Consultant at SIA Acoustics
New York, NY, USA

Iconyx Certified Dealers have completed special training in the advanced acoustical concepts behind Iconyx, the technology we use to implement those concepts, and the application of Iconyx software and hardware to complex situations where both architectural and acoustical factors must be taken into consideration. If you want to know more about what Iconyx can do for you, and you are not already working with an Iconyx Certified audio professional, please contact us for a list of qualified firms.
Communication is about more than consonants – meaning is conveyed by the tone of voice as well as the text. Architecture and music project powerful messages of their own: beautiful spaces deserve beautiful music. That’s why Iconyx MkII modules use audiophile-quality multi-channel amplifiers to drive purpose-designed coaxial transducers with three dome tweeters.

Each trio of tweeters is aligned vertically, acting as an “array within an array.” By controlling vertical directivity at higher frequencies, they produce more coherent output with greatly reduced grating lobes.

The vertical alignment maintains consistently broad horizontal dispersion, allowing each Iconyx MkII array to cover a wide section of the audience. The coaxial transducers reproduce the full frequency spectrum with accuracy and balance, so instruments and voices sound as they should. Iconyx Mk II arrays and subwoofers bring music alive with full detail and impact throughout the entire listening area.
The apparent origin of Iconyx sound beams (the “acoustic center”) can be raised or lowered in software without moving the enclosure. This feature alone can save hours of time and hundreds of dollars in labor costs.

Jo Tore Baeverfjord
Molde Forum, Norway

“The loudspeakers are of course more expensive as items, but we saved so much of the electricians’ time and the cables that the overall cost of the Kirkelandet installation was less than with a conventional solution. The Iconyx system works extremely well for both speech and music.”

Jo Tore Baeverfjord
Molde Forum, Norway

“Iconyx is a good choice for the Temple. Listening to the system with the Temple both unoccupied and occupied revealed extremely good performance. Sound coverage was very uniform including the rostrum and the choir loft. The quality of the spoken word was very natural and extended well into the balcony without energizing the large volume of the space. Music sounded particularly good as well.”

Ian Wolfe

To suit different needs, Iconyx MkII systems are available in four sizes: all are constructed from a basic eight-channel module to simplify shipping and transportation.

A single module forms the IC8-R-II, two modules form the IC16-R-II, three the IC24-R-II and four the IC32-R-II. All bring high output, crisply articulated, naturally balanced sound to every listener.

The 16-transducer IC16-R-II and 32-transducer IC32-R-II are available in two versions, the basic model with a DSP processor/amplifier channel for each transducer and the IC16/8-R-II and IC32/16-R-II with a DSP processor/amplifier for each pair of transducers. These models serve applications that need the beam control offered by the basic models but don’t need as much sound level.

The modules are easily transported and quickly joined together in the field.

FLEXIBLE COVERAGE PATTERNS & MOUNTING POSITIONS

The apparent origin of Iconyx sound beams (the “acoustic center”) can be raised or lowered in software without moving the enclosure. This feature alone can save hours of time and hundreds of dollars in labor costs.

Iconyx IC32-R-II - Acoustic Center at 28

Iconyx IC32-R-II - Acoustic Center at 5
ICONYX saved us - and Salem Lutheran Church - the time and expense of installing a delayed cluster to cover the rear seating. ICONYX sounds better as well, because its tight vertical beam eliminates any delayed reflections from the 30 Ft. high ceiling. The client is thrilled.

"ICONYX has enabled us to achieve high levels of intelligibility in reverberant spaces without compromising natural speech and music reinforcement. ICONYX has proven to have superior horizontal coverage, sometimes eliminating the need for extra sidefill speakers. The software-movable acoustic center adds great flexibility to the mounting height and beam control for difficult applications. This is a real advance in technology as compared to previous designs. Our clients have been very pleased with the results."

Peter Borchard AV Design Office
MuSonics, Golden, CO, USA

ICONYX MkII can store multiple configurations in memory. For example, you might optimize one BeamWare configuration for small events on the main floor, and another for larger occasions with listeners in the balcony. Once the configurations are stored, it’s easy to switch from one to another. Up/Down buttons and indicator LEDs on the rear panel allow an operator to scroll through the available presets. This function can also be performed remotely from the controlling computer, from a wall mounted remote control or from third party controllers such as those provided by Crestron.

"ICONYX saved - and Salem Lutheran Church - the time and expense of installing a delayed cluster to cover the rear seating. ICONYX sounds better as well, because its tight vertical beam eliminates any delayed reflections from the 30 Ft. high ceiling. The client is thrilled."

David Bick
McClure Engineering Associates, St. Louis, MO, USA
<table>
<thead>
<tr>
<th>Model</th>
<th>Height</th>
<th>Beam Control Effective Down To</th>
<th>Peak SPL @ 100W/1.3 m</th>
<th>Coverage</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC8-R-II</td>
<td>37 5/8&quot; 96 cm</td>
<td>80 Hz</td>
<td>96 dB</td>
<td>66 ft / 20 m</td>
<td>Houses of Worship; Traditional and Modern</td>
</tr>
<tr>
<td>IC16-R-II</td>
<td>74 3/4&quot; 190 cm</td>
<td>400 Hz</td>
<td>99 dB</td>
<td>195 ft / 40 m</td>
<td>Transport Terminals; Train Stations; Airports, etc.</td>
</tr>
<tr>
<td>IC16/8-R-II</td>
<td>111 7/8&quot; 284 cm</td>
<td>250 Hz</td>
<td>102 dB</td>
<td>195 ft / 60 m</td>
<td>Stadiums &amp; Sport Arenas; Lobbies and Foyers; Convention Centers, Warehouses, etc.</td>
</tr>
<tr>
<td>IC24-R-II</td>
<td>140&quot; 378 cm</td>
<td>200 Hz</td>
<td>103 dB</td>
<td>270 ft / 80 m</td>
<td>Museums; Lobbies, Galleries, etc.</td>
</tr>
<tr>
<td>IC32-R-II</td>
<td>140&quot; 378 cm</td>
<td>200 Hz</td>
<td>103 dB</td>
<td>270 ft / 80 m</td>
<td>Performing Arts Centers; Vocal/Orchestral &quot;pit&quot;, Lobbies, etc.</td>
</tr>
<tr>
<td>IC32/16-R-II</td>
<td>140&quot; 378 cm</td>
<td>200 Hz</td>
<td>103 dB</td>
<td>270 ft / 80 m</td>
<td>Large-scale Video; Signage Applications; Casinos</td>
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For more information visit us on our website [www.renkus-heinz.com/Iconyx](http://www.renkus-heinz.com/Iconyx)

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