ICONYX

Steerable Array Systems



## UNIQUE SOLUTIONS for ARCHITECTURAL and ACOUSTICAL CHALLENGES



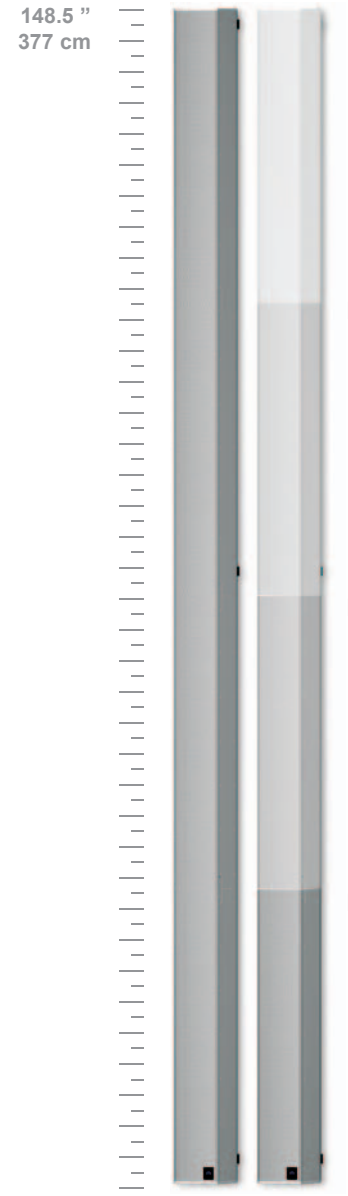
RENKUS-HEINZ

FOR A BETTER SOUNDING WORLD

# SEAMLESS ARCHITECTURAL INTEGRATION

Both inside and out, Iconyx is designed to be heard but not seen. Tall, slender Iconyx columns virtually disappear in almost any architectural environment: there's an Iconyx array in every picture on this page, and we challenge you to find all of them.

We can't take you inside all of these stunning buildings to hear the detailed and full bodied sound of Iconyx. But we hope you'll pay attention to what professional listeners - owners, managers and consultants - have told us.

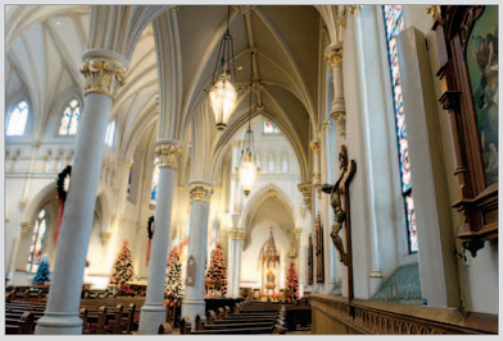



NASHER MUSEUM OF ART - DUKE UNIVERSITY, DURHAM, NC, USA

“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**

ST PETER CATHEDRAL, ERIE, PA, USA



"We have gone from wholesale complaining every weekend to a quiet satisfaction. In-house surveys have been conclusive that we have hit the mark. I am grateful to all who worked with us in this critical project. Finally, we have solved the unsolvable."

**Monsignor William E. Biebel,**
**Rector St. Peter Cathedral, Erie, PA**

# MUSICAL INTELLIGIBLE PRACTICAL

Give Iconyx just six inches (15 cm) of wall space, and it will give everyone within 300 feet (90 m) over 99 dB of articulate, detailed, naturally balanced full range sound. Iconyx has proven itself in acoustically challenging environments around the world.

This advanced techology is a powerful new solution for any application that demands:

- flexible, precisely controlled coverage
- natural sounding music
- articulate, clearly understandable speech
- wide-angle sound projection
- fast, cost-effective installation
- highly competitive total system cost.

Basic IC8 module

"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 Bæverfjord**
**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**
**Acoustical Design Group, Inc., KS, USA**

## MODULAR - EXPANDABLE DESIGN

To suit different needs, Iconyx systems are available in four sizes: all are constructed from the basic eight-channel IC8 module.

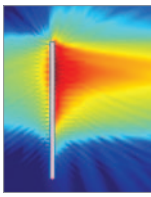
IC8 modules are easily transported and quickly joined together before being mounted in place.

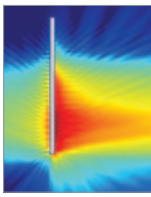
Two modules form an IC16, three an IC24 and four combine in the IC32.

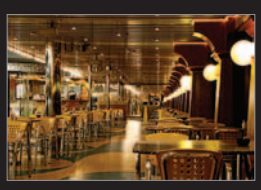
The size of the Iconyx array is determined by factors such as desired output level, distance to be covered and reverberation time.

## FLEXIBLE MOUNTING

The apparent "acoustic cente ware without m alone can save dollars in labor







“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**

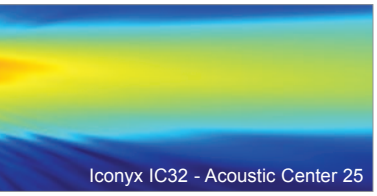
“In Notre Dame du Cap Basilica, two IC32s have replaced 26 loudspeakers, amplifiers, crossovers, racks and cabling - and perform far better. With Iconyx, we have restored our cathedral to its original - uncluttered beauty. Congregants appreciate that.”

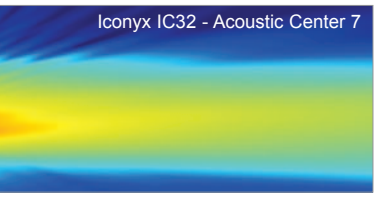
**Jean Giroux**
**Siscom Inc., Quebec, Canada**

## COVERAGE PATERNS & G POSITIONS

Vertically Adjustable Acoustic Center VAAC

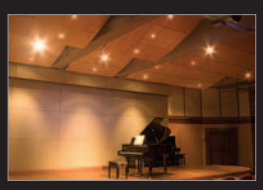
origin of Iconyx sound beams (the er") can be raised or lowered in soft- moving the enclosure. This feature e hours of time and hundreds of r costs.

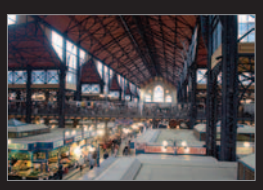


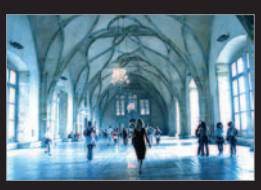




## REMOTE CONTROL & SUPERVISION

With the R-Control option, you can monitor input levels, output signal presence and loads (normal, shorted & open) and control power on/off, muting and output levels from a central computer. Based on Echelon's LonWorks protocol (ANSI/EIA Standard 790.1), R-Control includes features and functions that make managing large systems and entire buildings easy: Event Scheduler, Fault Logger, Operator Alerts for critical conditions, Scene Store, Recall and more.





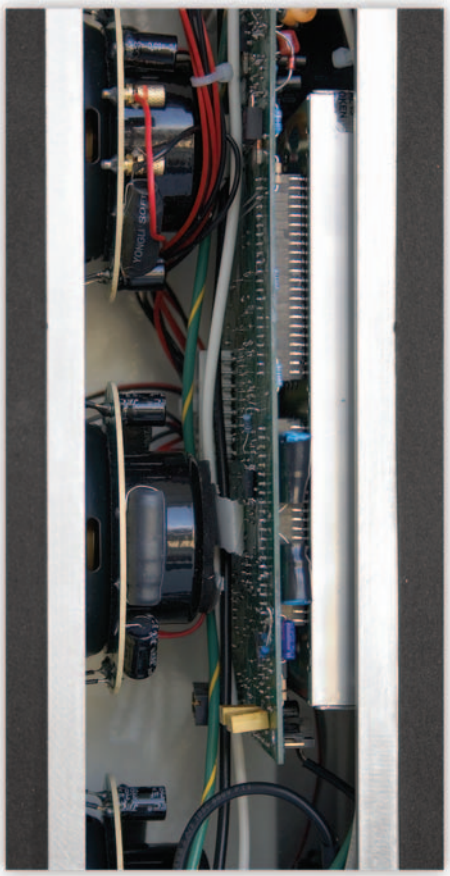
# BREAKTHROUGH AUDIO TECHNOLOGY

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 module.

Each IC8 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 5°. Each beam can be aimed up or down by 30° - 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.



"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**
**Principal, DCI Sound, NY, USA**

## ADVANCED DSP / AMPLIFIER SYSTEM

D2 Audio 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 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.

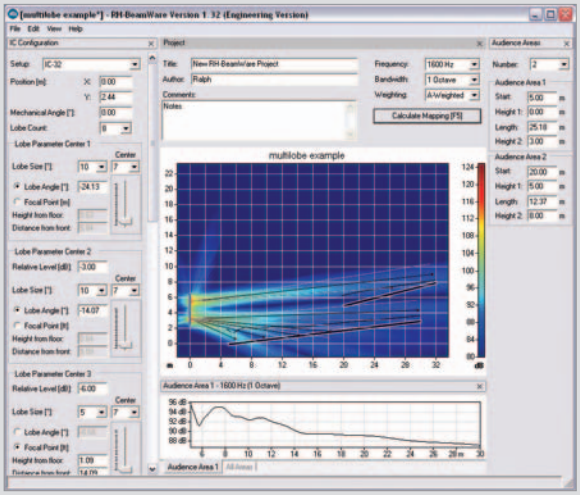
***ICONYX CERTIFIED DEALER***

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.

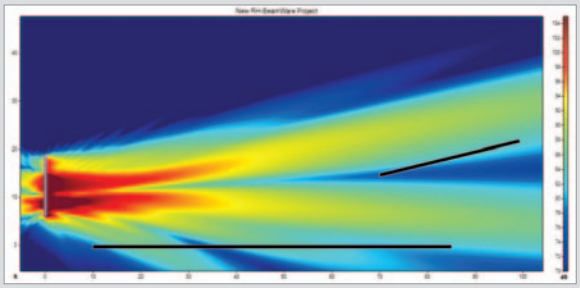
## BEAMWARE - COMPLEX MATHEMATICAL CALCULATIONS BEHIND AN INTUITIVE GRAPHIC USER INTERFACE

BeamWare (below) is software with an intuitive Graphic User Interface that helps system designers program the powerful DSP engines inside Iconyx. BeamWare produces a set of FIR (Finite Infinite Response) filters that control the array. At installation time, simply download the FIR filters to the Iconyx modules using your computer.

Software-driven Iconyx arrays focus sound on the listeners, not on walls, windows or ceilings. The results? Clear, musical, intelligible sound in places where conventional technology made listening and understanding impossible.



BeamWare's intuitive graphic interface



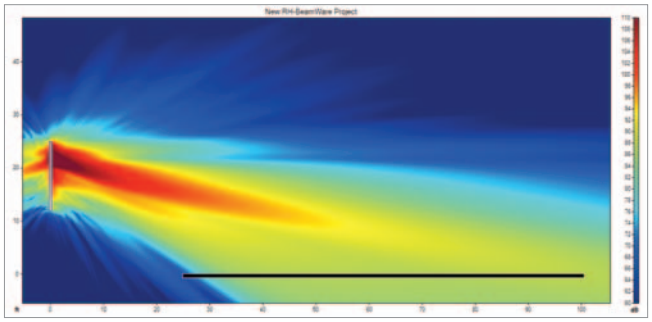
BeamWare display showing the IC32, dual beam, one acoustic source

"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."

**David Bick, McClure Engineering Associates**
**St. Louis, MO, USA**

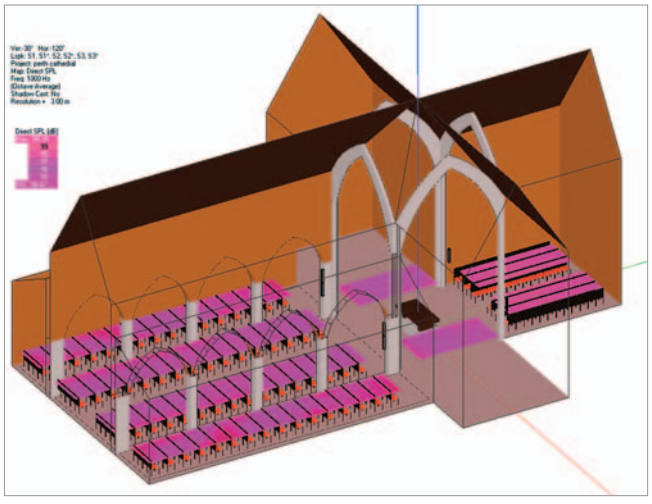
"Iconyx has enabled us to achieve high levels of intelligibility in reverberant spaces without compromising natural speech and music reinforcement. Iconyx has proven to have superior horizontal coverage, sometimes eliminating the need for extra side-fill speakers. The software-movable acoustic center 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**



BeamWare display showing the IC32, multiple beams, one acoustic source

BeamWare data can also be transferred to EASE, the industry-standard modeling program, for further analysis (below). The 3D mapping provided by EASE is an essential tool when designing systems using more than one Iconyx array.



Direct SPL (Sound Pressure Level) coverage as shown in EASE




| Model | Height | LF Control Limit | Peak SPL @100 Ft / 30.5 m | Coverage | Applications |
|---|---|---|---|---|---|
| IC8 | 37.5" / 95 cm | 800 Hz | 96 dB | 66 Ft / 20 m | Houses of Worship: Traditional and Modern<br>Transport Terminals: Train Stations, Airports, etc.<br>Stadiums & Arenas: Lobbies & Forecourts<br>Convention Centers, Warehouses, etc.<br>Museums: Lobbies, Galleries, etc.<br>Performing Arts Centers: Vocal/Orchestral "lift", lobbies, etc.<br>Large-scale Video Signage Applications<br>Casinos |
| IC16<br>IC16/8 | 74.5" / 189 cm | 400 Hz | 99 dB<br>96 dB | 135 Ft / 40 m | |
| IC24 | 111.5" / 283 cm | 250 Hz | 102 dB | 195 Ft / 60 m | |
| IC32<br>IC32/16 | 148.5" / 377 cm | 200 Hz | 103 dB<br>100 dB | 270 Ft / 80 m | |

For more information visit us on our website **www.renkus-heinz.com**

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