

# One Venue, Two Sound Systems



ERIC OLSHOFF

Dual independent, but intricately connected sound systems—one for sound reinforcement, the other for an ERES (Electronic Reflected Energy System) for subtle enhancement of hall acoustics—allow Uihlein Hall in Milwaukee's Performing Arts Center to handle a variety of musical performances, from pops to symphonic.

The 12 musicians of the Mariachi Cobre, conducted by Doc Severinsen, and the Milwaukee Symphony, playing Richard Strauss' atmospheric "Alpine Symphony," will appear in early October at Milwaukee's Uihlein Hall. Both performances—Severinsen and Strauss, pops and classical—will benefit from two completely different, but intricately connected sound systems: a high-performance sound rein-

forcement system, and another system aimed at the subtle enhancement of hall acoustics.

Both sound systems feature Crest Audio's CK family power processing amplifiers driving EAW speakers and Tannoy speakers. Twenty-four CKS Series amps drive the hall's sound reinforcement system—seven model 400s, nine 800s, and eight 1200s, while a combination of 14 CKS and

14 KKV Series amplifiers provide power primarily for the ERESTM (Electronic Reflected Energy System), though some of these amplifiers are shared by the sound reinforcement system.

In all, the sound reinforcement system consists of 27 EAW speakers, including a center cluster (comprised of three KF850e's, two KF300e's and one SB330e), and concealed side stacks on either side

of the proscenium. Twenty-four additional EAW speakers comprise the ERES system—12 UB80s, eight SB180s, four JF80s—plus 64 Tannoy CMS65 ICT-60 ceiling canister speakers, some of which are also shared by the sound reinforcement system. (The control room includes a 56-input Crest Audio Century GTX console, and EAW speaker systems.)

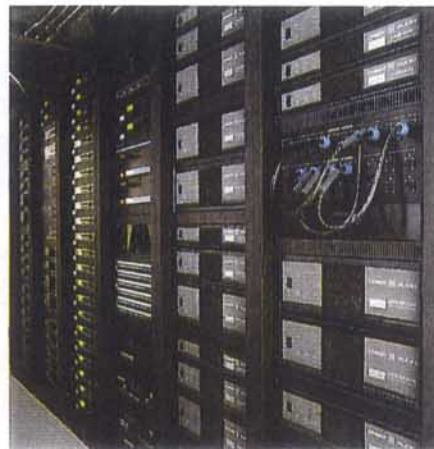
Three computer subsystems by Crest, Crestron and LARES Technology Inc. (for the ERES) communicate with each other—and a host of Yamaha EQs and delays—via MIDI and are tied together by the Crest NexSys Hub (NDP-JTH), a single rack-space unit used in larger NexSys systems.

Designed by Jaffe Holden Scarbrough Acoustics Inc. (JHS) of Norwalk, CT, and installed and contracted by Professional Audio Designs of Wauwatosa, WI, the sound reinforcement systems and the ERES were part a \$7 million make-over of Uihlein Hall, completed in November of last year, which included extensive acoustical renovation under the direction of JHS also. The primary designer for both sound systems was JHS's director of electro-acoustic design, David W. Robb.

"This is a highly complex system," said Professional Audio Designs' Kim DeSpears, "combining a full-blown sound reinforcement system with a relatively new way of solving acoustical problems in multi-purpose hall often used for concert music."

Among the many reasons she detailed for using Crest NexSys, DeSpears emphasized the ability to be certain that the very subtle ERES system—which would be under the closest scrutiny from musicians, critics and concert-goers alike—is

■ *Dual Sound System A  
Success for Milwaukee's  
Marcus Center, Uihlein Hall*



Crest Audio's NexSys system controls 52 Crest CK family amplifiers powering 51 loudspeakers from EAW, and 64 from Tannoy in the hall's (almost) discrete sound reinforcement system and ERES.

working at peak performance all the time. She also noted the system's ability to flag and correct difficulties before they become problems: "NexSys' load monitoring and fault monitoring capabilities alone are worth the price of the system," DeSpears said.

Speaking of the sound reinforcement system, DeSpears said that when the Broadway touring version of "Peter Pan" (starring Kathy Rigby) came to Uihlein, they examined the hall sound system and decided to leave their own system on the truck: the ultimate accolade, DeSpears suggested, for a house sound system.

#### **ERES: NOT AMPLIFIED, ENHANCED**

ERES, unlike a sound amplification system, does not amplify direct sound, and does not increase program volume. JHS's Robb explained: "An acoustically 'dead' space is best suited for amplified music," he said, "while classical music and opera are best heard in a livelier space. ERES adds reflected energy that normally occurs in a lively acoustic space, but may be lacking in certain venues, especially those designed for multi-purpose use."

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Uihlein (pronounced, "E-line"), the largest hall in Milwaukee Marcus Performing Arts Center, is home of the Milwaukee Symphony Orchestra, the Milwaukee Ballet and the Florentine Opera. But it also hosts an entire season of pops concerts. Since Uihlein Hall opened, in 1969, Symphony players complained about their inability to hear their colleagues and even themselves clearly, making ensemble playing and balance difficult.

JHS's extensive acoustical treatment, and ERES, have changed the musical experience in Uihlein for musicians and audience alike. An extensive redesign of the orchestral shell—which Robb described as the "orchestra's monitor system"—allows the musicians to hear themselves, and ERES allows them to hear their own sound come back to them from the hall as they have never heard it before.

Andreas Delfs, music director of the Milwaukee Symphony since June 1996, it was reported, would not have programmed the delicately orchestrated "Alpine Symphony" in the "old" Uihlein Hall. But now he feels that the Strauss' score will bloom in the warm and lively acoustic of the "new" Uihlein.



*Information provided by Charles Conte, Big Media Circus, Nashville, TN*

*For more information on the following companies, indicate corresponding number on Fast Facts Card: Crest 167, EAW 168, Tannoy 169, Crestron 170, LARES Technology 171, Yamaha 172*