



### **ATC LOUDSPEAKERS GO TO COLLEGE**

The performing arts center in the new Tech Center at Missouri Valley College features ATC (Acoustic Transducer Co.) 7.1 surround system.

#### **MARSHALL, MISSOURI:**

With the opening of the new Tech Library building that features the latest in computer science technology, Missouri Valley College, Marshall, Missouri, a privately funded liberal arts institution, decided to renovate the adjoining 27-year-old antiquated Mabee Memorial Chapel which has served as its performing arts center and chapel.

Dramatic advances in technology, however, coupled with the schools commitment to keeping live theater, education and religious events up to the highest standards, resulted in a decision by the administration to completely redo the theater audio and video system in 2002. MediaOne, a Kansas City-based company was contracted to design and implement a new system from the ground up. Chris Isom, Jim Surber and Nick Whitaker were the principle designers of this project. All of the existing audio and video equipment was stripped out and rewired from the ground up. Al Eckilson, A MediaOne principal, says that the installation of an ATC (Acoustic Transducer Company) array was critical to the success of the project.

"This was an interesting project for us because the standards we were asked to adhere to were very high," says Eckilson. "The performance space has two major applications; audio reinforcement for live theater and concert events, and audio playback. We were asked to provide a 7.1 speaker system that would provide the best surround sound available for a giant 22-foot digital projection system."

When it was built, the Mabee Memorial Chapel used a JBL horn-based speaker system. "That was really the state-of-the-art at the time," says Eckilson. "But we wanted to eliminate the horn-based speaker concept entirely. Horns color the sound too dramatically. All you have to do is speak with your hands in front of your mouth to realize that while horns are effective in directing sound, they change the nature of an audio signal."

"We were very pleased that the college accepted our plan to incorporate an ATC system into our design. ATC has proven they can deliver high quality sound in demanding applications. Prestigious opera houses, performing arts centers, recording and film studios primarily use ATC loudspeakers, and the results are uniformly excellent. They have a unique mid-range driver design that provides horizontal dispersement for the entire listening area."

MediaOne installed three ATC SCM 300ASL speakers above the stage for left, center and right channels and four SCM 0.1/15 powered subwoofers under the stage. "Why four subwoofers? We really wanted to make sure that the bass impact was powerful. I really like the fact that ATC designed the subs to be front firing. Designed with drivers in front, the ATC's give better control of bass frequencies. We custom designed the enclosures to accommodate the subs, and the sound is superb."

Three pairs of ATC SCM 20 Pros were installed to handle the surround information being sent to the sides of

the theater, and a fourth pair was installed in the rear. "We're using the new DTS-ES Discrete 6.1 surround processing, which essentially outputs as the rear center channel. We're also going through a MediaMatrix DSP processor, which is handling all of our phasing, delay and room equalization. All of this is sent to the ATC array through a Soundcraft 64-channel mixer."

Interestingly, Al Eckilson says that venues like the 280-seat theater at Missouri Valley College are being spurred to higher standards by the home consumer industry. "Home audio systems have evolved to a very high level over the last several years. In small spaces like these it's much easier to achieve natural and real sounding environments. Large spaces have a harder time. We believe that the MVC performing arts venue will be one of the first of its kind to reach the level of audio reproduction that matches the best home theater systems. Installing the ATC speaker system was critical to our being able to reach this level of performance."