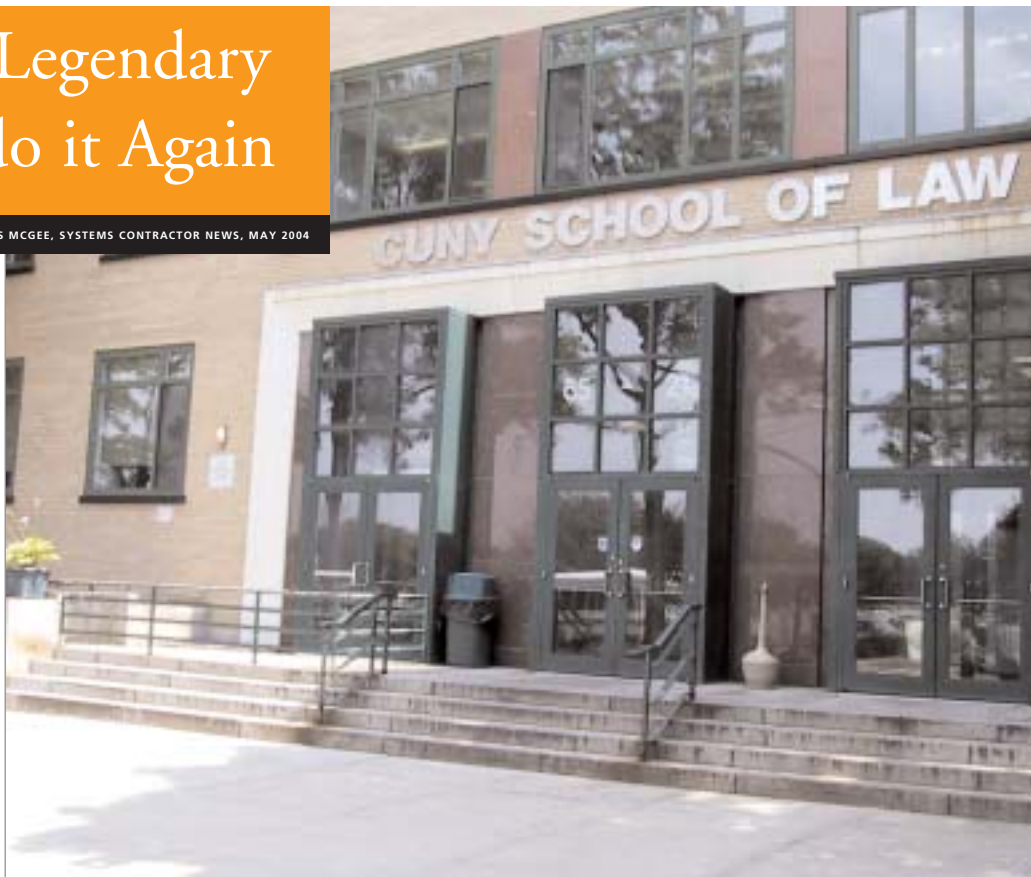# CUNY School of Law

King of Queens: Legendary Monte Brothers do it Again

BY TRAVIS MCGEE, SYSTEMS CONTRACTOR NEWS, MAY 2004

In August 2003, two respected institutions came together in the form of the Monte Brothers sound design company and the City University of New York Law School at Queens College in Flushing, NY. Looking to upgrade the once-state-of-the-art sound system it had installed in 1991 in the school's main lecture hall, Monte Brothers responded to the school's need of a system with improved intelligibility and ease of use.

CUNY School of Law at Queens College in Flushing, NY.

"Over the years, the analog system of 1991 slowly transformed from a high-end luxury to something of a liability," noted Greg Koster, director of the CUNY Law Library and Professor of Law. "First of all, the system was 10 years old, and there was some deterioration, the speakers had paper cones," he said. "We didn't realize this at the time, all we knew was the system didn't have the same clarity. Additionally, we only had one mic for every two students. The old system, when it was first put in, worked great, everybody loved it. But it was time for a change."

Not only was the system becoming difficult to hear, but the 80 microphones originally installed came out to an average of one microphone per two students--a ratio that translated into usability problems. "When you got students involved in the conversation during class, if you have 160 students and half that number of microphones, you could

have two students talking to each other and you wouldn't hear them," Koster said. "The other problem was that because of the analog technology we were using at the time, one of the ways that they countered the feedback issue was to put very tight gates on the microphones, so that you had to get your mouth within two or three inches of the microphone."

These gates caused students to uncomfortably lean into the microphones, which led to frustration. "Whenever we tested the system, it would work perfectly, but when we used it in real-life situations, it didn't work quite as well," Koster said. "Some students have such high-end voices, that even when they were practically swallowing the mic, they would sometimes not be heard."

Working with Demetrios Iliou, CUNY operations manager, information technology department, Monte Brothers co-directors Steve Minozzi and Bob Pelepako doubled the number of tabletop microphones--159, to be exact. The team, however, did not change brands, sticking with Audio-Technica and changing to its new ES905/H hypercardioid condenser rigid-pipe microphones

from the previously used AT859 goosenecks. "The 859 has a good sound," Minozzi said. "But over a period of 10 years, we found that there was a lot of maintenance issues concerning security. So we went to Audio-Technica and said we needed something that could be removable for service, but secure as well."

Because of the versatility of the ES905/H, the microphones were installed so that each student had access to his/her own microphone, providing a more comfortable learning environment for student and teacher alike. "It looks a lot better, too," Pelepako added. "It's not as bulky, and we doubled the number of microphones."

Because of the size of the room, wireless microphones are a necessity for professors. For this, Minozzi and Pelepako chose Audio-Technica's ESW-T214 wireless handheld microphones and AT899cW lavaliere mics. "The most common use of this classroom is one professor at the front, and there's a huge blackboard that goes across the

BIAMP

Rack of Audia*FLEX* units and Audia*EXPI*'s used in the installation.

front wall," Koster said. "Because of the size of the blackboard and the size of the auditorium, the professors have to walk around a lot. They can't be limited to the podium. The professors typically use the lavaliers, because they can put them on and forget about them."

The difference of a decade's worth of technology, however, is probably most apparent in the system's change from analog to digital processing. Using BIAMP's® Audia*FLEX* Digital Signal Platform immediately solved a number of issues for Iliou and company. "With the old system, if the professor wanted the tables to be shut off, he had to go to a big analog panel and hit every button, which the students could override anyway," Minozzi said. "Now, you only have to hit a "Table Mics Off" button on a simple panel, and that's it. Technologically speaking, this is a classic example of analog versus digital. Most people who have high-grade analog systems and are happy with them, when they hear digital, they can hear the difference. DSP cleans up the whole system."

Because of the BIAMP software, maintenance has become less of a concern, as changes can be made quickly and without a long shutdown of the system--quite an advantage when considering that the room is in constant use from 9 a.m. to 6 p.m. "With the power of DSP, the mics are laid out in zones, and even though it's running CobraNet™ and we're using Audia*EXPI*s to get the microphones off the inputs, if one of the CobraNet units went down, we could go in by following this design, and we could disconnect the other lines to

> *"Technologically speaking, this is a classic example of analog versus digital. Most people who have high-grade analog systems and are happy with them, when they hear digital, they can hear the difference. DSP cleans up the whole system."*
>
> STEVE MINOZZI, CO-DIRECTOR AT MONTE BROTHERS

the other inputs," Minozzi added. "The software will then calibrate that it's a 16 x 8 Audia*FLEX*, and then all the professors' mics and line level inputs would still work, while we could resolve whatever failure occurred and where it occurred. The user is assured that in less than a half-hour, the key microphones are going to work."

On a simple note, the disappearance of the old system's plethora of cables has saved the crew a few nightmares. "The amount of wires in the old system was incredible, it was impossible to keep everything in order," Iliou said. "But now it's as simple as having a red cable, a blue cable and a green cable."

Perhaps best of all, CUNY didn't even have to throw out its old system, which is now being used in another classroom. "We were able to relocate the analog system into another classroom, so the school essentially gained a sound system," Minozzi said. Pelepako added, "Relatively speaking, it's still a good system, and if they want to eventually make that digital, it's not going to be difficult at all."◄

Biamp Systems is an acknowledged international leader in the field of professional audio electronics. The company is recognized for delivering innovative and high quality electronic products, including the Audia, Digital Audio Platform, to meet the audio requirements of corporate boardrooms, conference centers, theater complexes, stadiums, transportation, Houses of Worship, educational centers and other installed audio applications..

BIAMP