

# systems contractor news

## systems snapshots

# Kings Of Queens

by Travis McGee

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.

"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."

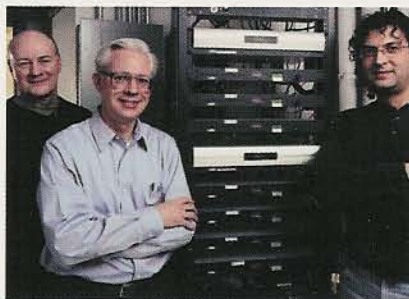
Not only was the system becoming difficult to hear, but "the other problem was that because of the analog technology we were using at the time, one of the ways that they countered the feedback issue was to put very tight gates on the microphones, so that you had to get your mouth within two or three inches of the microphone," said Koster.

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



▲ The City University of New York Law School at Queens College in Flushing, NY has upgraded the sound system in the school's main lecture hall. A total of 159 Audio-Technica Engineered Sound ES905/H rigid-pipe microphones (below, right) were installed in the hall.



▲ Members of the project team in the equipment room at CUNY Law School (l-r): Bob Pelepako, Monte Brothers co-director; Greg Koster, director of the CUNY Law Library and Professor of Law; and Demetrios Iliou, CUNY operations manager, information technology department

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.”

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 lavalier mics. “The most common use of this classroom is one professor at the front, and there’s a huge blackboard that goes across the 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.”

The difference of a decade’s worth of technology, however, is probably most apparent in the system’s change from analog to digital processing. Selecting products from Biamp’s Audia Digital Audio 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 Biamp’s Audia 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 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 Biamp’s AudiaEXPIs 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 the other inputs,” Minozzi added. “The software will then calibrate that it’s a 16 x 8 AudiaFLEX, 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.”

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.

---

Travis McGee is a freelance writer based in New York, NY.

► **Monte Brothers**  
**914.693.2600**