# Harvard University

## Harvard Graduates to Intelligent AV

BY DANIEL KELLER, PRO AV, NOVEMBER 2003

**The John F. Kennedy Jr. Forum is Harvard University's premier arena for political speech, discussion, and debate. The student union-like space at the heart of the John F. Kennedy School of Government has played host to everyone from heads of state to community groups.**

"The space reconfigures itself practically by the hour," says Darren Clark, a senior project engineer at HB Communications, which recently installed new AV equipment in the three-story, open structure. "The vast range of events held there demanded a system that would accommodate a considerable amount of flexibility."

The building was recently reopened after an extensive—and intensive—renovation project. The AV system was designed by national media firm MCSi and installed by engineers from HB's Connecticut and Waltham, MA, offices.

"It's a difficult space," Clark says. "The mezzanines and various corners of the interior create some interesting challenges, both acoustically and visually."

The room can be repurposed using various modular stage and podium components, as well as movable drapes and partitions. "We had to look at all the potential configurations and come up with a set of solutions

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that would be as flexible as the architecture," says Ed Hondzinski, HB's project manager. "The task was made far easier using a DSP-based system."

The primary audio system features Eastern Acoustic Works' Digitally Steerable Array loudspeaker systems, employing two DSA 250 full-range boxes and two DSA 230 LF-only boxes on either side of a main plasma display.

Processing for the distributed system is built around four BIAMP® Audia*FLEX* units. "The Audia

is really the glue that brings the audio end together," Clark says. "It provides literally all the signal and speaker processing—EQ compression, feedback suppression, delay—and allowed us to set up a series of profiles for use with the DSA speakers. The graphic interface on the Audia software is really refreshing. You can literally just draw what you want and let the computer do the work."

Telex Safe-1000 wireless systems are supplemented by Shure MX-series podium mics with a Shure SCM268 auto mixer. Clark says the system allows two audio modes, depending on the need. "In one mode, the Shure automix runs through the Mackie 1604 mixer. In the other, the inputs are assigned to the auto mixers in the Audia," he says.

The three-story interior at Harvard University's John F. Kennedy Jr. Forum presented multiple acoustic and visual challenges.

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All system configurations and controls are accessed by a touchscreen panel located in a mezzanine.

The main video display, an existing rear-projection system, is located at the room's focal point, visible from all three levels of the building. The projection system is augmented by a 61-inch NEC plasma unit, which performs as a confidence monitor for the presenter, as well as two supplemental Pioneer 50-inch plasmas.

A selection of eight Viewsonic VP230MB 19-inch monitors can be lowered from their perches in the ceiling via custom-built Inca motorized lifts. Two NEC 50-inch plasmas, primarily dedicated to digital signage, are located in the entryways. The system side of the video is all Extron, built around CVDA6MX distribution amplifiers and a Matrix 3200 routing switcher.

Crestron TPS-6000 and TPS-5000 series touchpanels are used for system control, with a selection of TPS-series video and data display modules as well. A Crestron Pro-2 series control processor runs the show, with a CP2E at an operator position for more I/O.

The Forum offers various means of connecting to the outside world, including streaming via a Polycom VS4000 codec and VBrick streaming encoders. Most of the Forum's live events are offered on its website in Real Media format.

Along with the design challenges, the installation demanded flexibility from the HB crew as well. "We knew going in that we had a pretty aggressive schedule," Hondzinski says. "The entire project had to be completed during the short summer break."

Furthermore, it had to be completed while other renovations were being made. "It's always a challenge coordinating with the various crews," Hondzinski says. "We can't open up a plasma while someone else is making sawdust. And there were several last-minute changes due to field conditions. Any time you open up the ceilings and walls in a 30- or 40-year-old building, you're in for an adventure."

Flexibility ruled, and the Forum's reopening was on schedule. The renaming of the Forum to celebrate the late John F. Kennedy Jr. was marked with an emotional dedication ceremony presided over by Senator Ted Kennedy. The Forum is back in session. ◂



Pioneer 50-inch plasmas provide alternative viewing stations of images projected on the main RP screen.

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