



MAKING THE GRADE

DIGITAL INFRASTRUCTURE HELPS FUTURE-PROOF MIT SLOAN SCHOOL OF MANAGEMENT

by Don Kreski

To put in an analog system in this day and age is to limit its longevity and the capabilities of what it can carry.

That's Michael Merrill, project manager at Sudbury, MA-based Adtech Systems, talking about audiovisual systems Adtech installed in a new academic building at the MIT Sloan School of Management.

Each classroom has two screens, using side-by-side Mitsubishi WL-6700 projectors showing images from computer, DVD, cable TV, a document camera or a videoconferencing system. Crestron DM is the digital backbone.

classrooms. Merrill and the Adtech engineering group installed all-digital systems throughout the facility.

A DIGITAL INFRASTRUCTURE

"The MIT expectation is to build for the long term," says Wesley Esser, Associate Director, Technology Consulting and Support Services for MIT Sloan. According to Esser, the university's goal for the new facility is to use it for at least 100 years. "No one thinks the technology will be there 100 years from now, but we do want to use it for as long as possible."

That's why Adtech Systems went with Crestron, Merrill says. "They are a company that understands that redoing infrastructure is not appealing."

The single-platform DigitalMedia backbone carries virtually any mix of digital and analog AV signals including uncompressed 1080p HD video with Deep Color, 3D video, and 1900 x 1200 computer signals, plus HD digital audio and all control, data, and Ethernet on a specially engineered single-cable



AJ Abrams, Adtech Systems

equip list

- Crestron DigitalMedia System
- Crestron DVPHD-GB high definition video annotator
- Crestron 21-inch HP 2105TM touchscreen monitor
- Mitsubishi WL-6700 projectors
- Vaddio TrackVIEW Camera System
- Tandberg Content Server, C20 codec, and camera

The new building, E62, includes AV systems in eight classrooms and lecture halls, plus 40 study rooms, eight conference rooms, an executive dining room and a lobby dining area. In addition, Adtech installed new AV systems in four lecture halls in an older building, the Tang Center, to keep them on par with the new

solution. This added capability and high bandwidth ensures that the newly installed infrastructure will be able to handle the higher resolutions and color depth that future computer and video systems will require.

"A big advantage today is DigitalMedia's ability to handle all the video and audio signals through one switch, together with the EDID and HDCP copy protection information that digital systems require," says Merrill.

RECORDING AND WEBCASTING GAIN ACCEPTANCE

According to Merrill, MIT Sloan, known for its rigorous curriculum, asked for a very sophisticated system that would still be as user-friendly as possible in the classroom. A Cambridge-based consulting firm, Acentech, designed the new AV systems, and Adtech engineered, programmed, and installed them.

Each classroom has two screens, using side-by-side, 5000-lumen Mitsubishi WL-6700 projectors showing images from computer, DVD, cable TV, a document camera or a videoconferencing system. "At the most basic level, professors can use PowerPoint to guide the subject matter, with the document camera and second screen available for them to write out equations and notes," explains Merrill.

Professors also have the ability to mark up any still or moving image on screen using Crestron's DVPHD-GB high definition video annotator. They can access the annotation processor using the same 21-inch HP 2105TM touch-screen monitor used as the interface to the Crestron PRO2 control system.

KEY ELEMENTS /// FOR THE END USER

ROI:

"The MIT expectation is to build for the long term... [and] Ultimately, video is the next word processing."

—Wesley Esser, MIT Sloan

"We've gotten good feedback from the faculty and students who especially like the group study rooms and the classrooms."

—Michael Merrill, Adtech Systems

Many professors have begun experimenting with recording their classes as well—now an easy option since Adtech equipped each classroom with a Tandberg C60 codec tied into a Tandberg Content Server. The system records video of the instructor as well as all visual materials, including PowerPoint slides and even handwritten notes, then makes it available for live or on-demand viewing over the Web. "Recording is really simple," says Merrill. "Just press a button and it's ready to go. One nice feature is the use of a Vaddio TrackVIEW camera system, which will follow an instructor moving across the front of the room, but does not require him or her to wear a tracking device."

"One faculty member is currently using it for an advanced class in mathematical analysis for marketing," says

Esser. "It's a very complicated subject and it may be challenging for some students to take accurate notes. He's excited by the fact that they can now review his lectures and demonstrations online. Ultimately, video is the next word processing."

While not every faculty member has embraced the recording technology, "most see its potential to improve learning."

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Some think it's really cool; others are neutral. We have not had any negative responses," says Esser.

EMBRACING THE TECHNOLOGY

In addition to the recording functions, each classroom has full, multi-point videoconferencing capability. "We considered a Webcasting-only system, but those devices only do one thing," Esser says. Having two-way capabilities allow faculty and student clubs to regularly book guest speakers for their meetings. "We

recently had a speaker from Mexico talk to our Executive MBA program via video."

Videoconferencing and recording are not limited to the classrooms. Adtech also installed a Tandberg C20 codec and camera into 25 of the 40 student study rooms, giving students easy access to these capabilities. They may also use the systems to prepare presentations for club activities or even for job interviews at out-of-town companies.

"We've gotten good feedback from the fac-

ulty and students who especially like the group study rooms and the classrooms," says Merrill.

Esser says faculty have asked the IT department to revisit those conference rooms that have minimal AV. "They're perfect for smaller classes, and so the faculty wants us to add to their systems. That's especially encouraging because we have more in those rooms now than we had in any of our classrooms a year ago. For faculty to ask for more means they are definitely embracing the new technology."