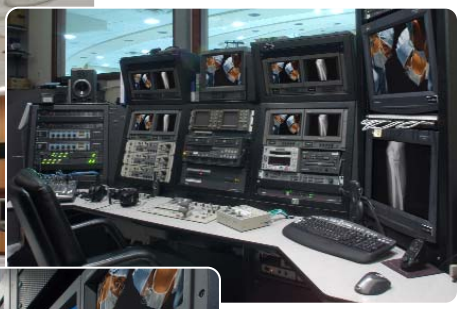
Central Learning

by Wendy L. Ellis



An Aethra videoconferencing system makes it possible to share the learning experience across great distances. A single operator in the OLC's control room can monitor video and computer feeds, audio, switching, digital recording and playback

For the past ten years, orthopedists from all over the world have come to the Orthopaedic Learning Center (OLC) in Rosemont, IL to learn new techniques and perfect their surgical skills. For those doctors who cannot make the trip, the installation of an Aethra videoconferencing system has made it possible to share the learning experience across great distances.

"We recently did a resident course where one of the surgeons in Texas transmitted to us from his surgery center," recalled Pat Cichlar, director of the OLC. "He was doing a live surgery procedure on a shoulder, so the residents here could see what was going on." The 48 surgeons who watched the procedure were free to ask questions while the surgery was being conducted. "Typically we have one surgeon as a moderator at the podium and he will communicate to the person doing the surgery. That doctor has a headset and he can communicate back and forth. It's very much live," she said. "The video is much more sophisticated than it used to be. Because of the type of surgery you want the higher bandwidth connection so that the movements are good."

Don Kornfeind, technical consultant for the Orthopaedic Learning Center, chose the Aethra codec when he rebuilt the center's video system last year. "You get more bang for the buck," Kornfeind said. "You can hold up to three calls at 768, which is more than other systems offer. Operations are simple and one thing I really like about it is that it has professional locking connectors. That was a huge point as far as I was concerned, to make sure things stayed tightly connected while housed in the rack."

The new codec is part of a major upgrade to the technical capabilities at the OLC. At the heart of the Rosemont facility are two large lecture halls, complete with Sony and NEC projectors, Panasonic 5050 remote-controlled color video cameras, a WolfVision document camera, an Extron System 8 VGA-RGBHV switcher, Shure wireless mics and videoconferencing hookups-all controlled via an AMX system.

The 5,600-square-foot Bioskills training lab holds 25 surgical workstations, each equipped with its own audiovisual feed on Sony monitors. Supporting these feeds are three Sony 357 color video cameras, Sony 200 video projectors and 25 Arthrocam systems.

"I have the system wired so that everything is routed into the control room," said Kornfeind. A doctor may have his or her scope plugged in to one monitor, while a related program is routed to the other. There's a surgical demonstration area at one end of the Bioskills Lab and doctors often follow their lecture with a live demonstration. Kornfeind captures the procedure from the three Sony 357 cameras and uses a Pesa 32x32 router to transmit the images to other participating surgeons.

Alongside the Bioskills Lab is a control room that rivals a television station in its sophistication. Kornfeind designed the room so that one person can control all of the audiovisual systems. Wired and wireless audio, video and computer feeds from the lecture halls; along with audio, video and computer signal monitoring and switching devices and digital recording and playback devices are all within easy reach. An equipment rack holds Extron scan converters, video scalers and matrix switchers, in addition to Sony and Panasonic video players and recorders and the Aethra codec. Audio is handled by a Mackie 1404 14x stereo mixing board, Yamaha 103 graphic EQs, Shure 267 mixers and TOA 900 amps.

Although just beginning to break into the American market, Aethra has found in more than 60 countries for many years. The Italian company develops, manufactures and markets audio- and videoconferencing systems, plus management solutions for audio, video and data services, ISDN and xDSL and test equipment.

For information:

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