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USER REPORT

Leightronix Controls Hospital Video

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BOSTON

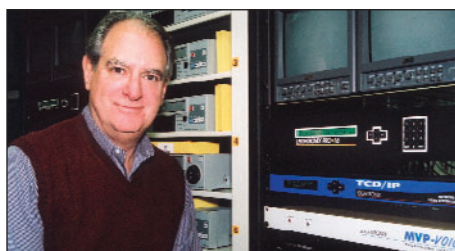
I've been director of this department long enough to remember when it was primarily a black-and-white photographic lab that included a couple of overhead and 35mm projectors, a seldom-used PC loaded with "Harvard Graphics," and a master-antenna system that—on a good day—pulled in five local channels.

The department was located in the basement (where else) of an early-20th-century nursing school located across the street from the hospital's main entrance. The hospital was on track to implement a hospital-wide integrated, client-server architecture information system. My job was to transform the technology of the hospital's photography/audio visual department from analog to digital and upgrade its in-house television network to be more responsive to the needs of its patients and staff.

Children's Hospital Boston is located in the heart of the Longwood Medical Area, in the shadow of Fenway Park, home of the Boston Red Sox. The hospital is a 325-bed comprehensive center for pediatric health care and is the primary pediatric teaching hospital of Harvard Medical School and home to a large pediatric research facility.

The research community, medical staff, hospital management and the patients presented a particular set of challenges in providing relevant programs through the hospital's cable network. We used a variety of approaches, depending on the audience and confidentiality of the material.

For example, medical instruction held in the hospital's auditorium is routed into our broadband system on a scrambled channel. When popular performers put on shows in the Patient



Fred Mirliani uses Leightronix automation and servers to provide scheduled and on-demand video for Children's Hospital, Boston.

Entertainment Center, we route the live feeds to the nonambulatory patients on an open channel.

These two sources were easily patched through an analog patch panel. However, when the program sources expanded to include surgical rounds, anesthesia rounds, off-site feeds from a satellite dish as well as microwave feeds of live lectures from Harvard Medical School, it became necessary to look for a solution that would automatically route and schedule all the various programs.

To handle the routing and scheduling, we purchased Leightronix routing, scheduling, and server products. The PRO-16 was an ideal choice and, through its PRO-BUS machine control, we were able to schedule playbacks, recordings, and routing through its 16x4 matrix. No more manual patching of signals—routine feeds could be scheduled and controlled by a PC.

When the nursing department asked for its own patient education channel, pastoral care asked for spiritual and relaxation channels, and the emergency department asked for a way to provide video-on-demand in situations when the ER was overcrowded with patients and their families, we again expanded with Leightronix products.

This time help came in a new line of IP-network-managed video system controllers, PLUS-BUS interfaces for DVD players, and a series of digital video recorders. At the heart of this new system is the Leightronix TCD/IP, a network-managed video system controller.

MANAGED FROM A PC

Through Leightronix's WinTCD network access software, I now manage the headend from my PC. For example, recently I loaded three DVD players with patient education programs on asthma, eating disorders, and smoking, while a VCR handled on-demand playbacks of a program on weight control.

A VIDEO A DAY...

From my PC, I recorded the programs onto the Leightronix TCD R/P digital audio/video recorder and scheduled them to play on the patient education channel at specific times. Now a nurse tells a patient with asthma that the program will be on the hospital's cable network Channel 26 at 1:30 p.m., 4:30 p.m., and 9 p.m. The programs are automatically and dependably viewed at scheduled times, and the nursing staff is very pleased with its capabilities.

In my tenure at Children's Hospital, we have chased technology and adopted what we needed to provide our services. The smell of stop bath is gone; my photography staff uses digital technology exclusively in photographing patients. Overhead projectors and 35 mm projectors have been replaced by laptops and LCD projectors, and the hospital's cable television network now carries 47 channels. This includes local origination channels that, thanks to the Leightronix line of digital video and control systems, I can manage from my PC with feet thankfully propped up on my desk. ■

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