Photo courtesy of Hardin-Simmons University

Extron XTP System Helps Houston-Lantrip Center Connect with Special Needs Learners

"Extron's technology offers our faculty and clinicians an easy to use toolset for automating both the classroom and conference center experience. Additionally, the system's ability to digitally capture what is happening in this space allows Hardin-Simmons University to rapidly disseminate autism and dyslexia learning materials to other clinicians in our region and beyond."

Travis Seekins
Associate Vice President for Technology Services
Hardin-Simmons University

The Houston-Lantrip Center for Literacy and Learning, HLC, provides support for individuals with dyslexia and autism disorders. HLC recently opened its newly constructed facility on the campus of Hardin-Simmons University in Abilene, Texas. HLC helps educators and parents understand dyslexia and autism spectrum disorders and serves as a center for students and faculty to conduct related research. It also provides therapeutic support for individuals throughout the Abilene community with dyslexia, autism spectrum disorders, and other learning differences.
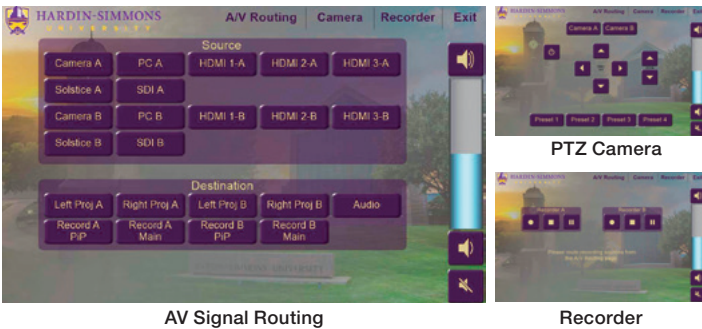
Challenge

The new facility is a welcomed improvement over HLC's previous quarters and provides adaptable learning environments through the integration of embedded technology, flooring, wall finishes, and audiovisual enhancements. These multi-sensory experiences are a vital part of effective therapy for learning and behavioral disorders.

System integrator Elite Solutions of San Angelo, TX designed and installed the AV system in the building's largest educational space, a multipurpose room divisible by an operable partition wall that creates two 20' x 60' classrooms. Each classroom is outfitted with two ceiling projectors, a pan-tilt-zoom video camera, and a speaker system. AV wallplates and wireless

A partition wall can divide the Multipurpose Room into two classrooms, each able to use the AV system to display, store and live-stream multimedia content from a variety of sources (Photo courtesy of Elite Solutions, Inc.).

AV Signal Routing

PTZ Camera

Recorder

Wall-mounted TLP Pro 1025M 10" TouchPanels on both sides of the room control AV system functions (Photo courtesy of Elite Solutions, Inc.).

An equipment closet houses AV system central switching, scaling, streaming, and control equipment (Photo courtesy of Elite Solutions, Inc.).

access points allow sharing of AV content from a variety of sources. Extron equipment performs AV switching, distribution, session recording, streaming, and control.

Solution

An Extron XTP II CrossPoint 3200 matrix switcher, configured as 20x20, is the heart of the system.

Switcher Inputs Support a Variety of AV Sources

The Matrix Switcher accepts 3G-SDI inputs from the PTZ cameras and also from wall box connector panels where users can plug in additional 3G-SDI sources. The podium PCs and other HDMI sources from room users connect to switcher inputs via eight XTP T HWP 101 4K HDMI wallplate transmitters located around the room. Wireless devices share content via WiFi access points connected to HDMI switcher inputs. An audio mixing console connects to the switcher via line level stereo inputs.

Switcher Outputs for Many User Devices

The room's four projectors receive 4K video from XTP twisted pair outputs via Extron XTP SR HD 4K HDMI Scaling Receivers. Two SMP 352 Dual Record Streaming Media Processors also receive HDMI signals from the XTP switcher. The SMP 352 units record, archive, and live stream AV media content and PTZ camera video from class sessions. Several auxiliary HDMI outputs are provided via XTP SR HD 4K Scaling Receivers feeding pass-through HDMI wallplates. Six of the switcher's HDMI outputs are fed through HDMI-to-SDI scalers to provide 3G-SDI signals to users through wall box connectors. Line audio outputs from the switcher connect to the sound system and drive speakers throughout the room. An Extron IPCP Pro 350 controls the AV system in response to selections made at two TLP Pro 1025M Touchpanels located on opposite walls of the room.

Result

Houston-Lantrip Center hosts seminars and workshops where educators and parents receive training that equips them to help clients with dyslexia or autism to read, write, and learn. Not only does the AV system facilitate seminars; it also directly aids clients. Studies suggest that multimedia stimulation is effective for rehabilitation therapy, and the AV system at the Houston-Lantrip Center provides an easy-to-use, reliable tool to bring a variety of multimedia experiences to life for clients who come to the Center for help.