



## Case Study: Simplifying AV for Teachers

Modesto, California City Schools create a simple, cost-effective way to bring AV to the classroom

In Modesto, California, school teachers' requirements for audio-visual support in the classroom increase every year. Computer/internet content, DVD, VHS and document projection are becoming a regular part of instructional media. "We recently built a new high school that has about 100 classrooms, and we needed a way to incorporate several AV devices into one localized small area," explains Harold Rhodes, Supervisor Computer Systems, Information & Technology Services Division, Modesto City Schools. "There wasn't any place in the high school classroom designs to permanently install all of the devices needed by teachers. We could have installed these devices in the learning walls in each classroom, but that was too costly. We needed a mobile solution that was easy to use but completely self contained, and could be stored in a secure location," Rhodes says.

The District began researching options for custom rolling carts that could contain all of the AV equipment and computer connections needed for classroom media. Each cart required an interface for the teacher's notebook computer, a projector, document camera, VHS and DVD players, audio amplifier, and control system. After reviewing a number of designs, the District selected a design from Exact Furniture. The project bid was awarded to two vendors, one of which is Oliver Worldclass Labs (OWL) of Benicia, California for integration of the carts.

Each cart includes a short-throw multimedia projector which projects an image in reverse onto a cart-mounted mirror, which in turn reflects the image in proper perspective to a screen in the room. By using this setup, Rhodes says, teachers can remain at the front of the room, maintaining eye contact with students, while operating the AV equipment. Connection cables for the teacher's notebook are available at the top of the cart and all other equipment is hard-wired inside the cart. Rhodes says a major concern was the learning curve for teachers and their ability to easily operate all of the equip-

ment that was available on the carts. Simple device control was key to smooth operation, and Rhodes wanted to eliminate easily-lost remote control units. In researching various options, "the SP Controls PixiePro came up, and we finalized on that design because I knew it could handle everything we wanted to do from one control panel," Rhodes says. As part of the carts' integration, OWL set up the PixiePro controllers to seamlessly handle all of the devices on the cart. "With one touch control, we can switch the cart's projector to the notebook, DVD, VHS, document camera, or whatever. We can use the PixiePro to fully control any device, along with its audio, without needing the device's remote," he notes.

In addition to projecting computer and video images, the carts' VHS players have direct cable TV connection for viewing special TV programs in class.



*Inside view of an AV cart. The projector throws a reverse image onto a mirror, which bounces to the classroom screen. The SP Controls PixiePro panel, which controls all of the equipment in the cart, is to the right of the projector.*



*SP Controls' PixiePro panel replaces remote controls for the projector, DVD player and other equipment, making AV control simple.*

The PixiePro controller is able to handle TV channel selection as well as control of the projector and VHS player.

Rhodes says the recently constructed high school now has 52 of the custom-built AV carts, with 22 more on order. Additionally there are about 30 carts of this type at other schools in the District. "We're pleased with the carts and the PixiePro controller," says Rhodes. "That little device handles everything -- stereo audio, volume, image selection, TV channels, and control of the projector, DVD player, VHS player, and document camera. It is very easy to use."

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#### About SP Controls:

SP Controls, Inc., founded in 1995, is a manufacturer of innovative audio-visual control products. The company is based on the belief that simple, intuitive control of complex audio-visual equipment is both possible and necessary. SP Controls' AV control, video/audio distribution, audio, networking, and mounting products are widely used in educational and corporate environments, making AV systems easier to use for everyone.

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