

Case Study

- Subject:** Keywest Technology delivers extensive, turnkey digital signage network for event center
- Location:** Garland, Texas USA
- Application:** The company has completed a significant digital signage network installation for the Garland (TX) Independent School District at its Garland Special Events Center.

The Garland Independent School District in Garland, TX, last year selected Keywest Technology of Lenexa, KS, to design, install and customize a turnkey, state-of-the-art digital signage system for its Garland Special Events Center.

The \$31.5 million multi-purpose complex is home to a 7,500-seat arena used for sporting events and concerts, a tiered lecture hall and modern conference center that includes an 8000-square-foot ballroom.



The school district selected Keywest Technology after issuing a Request for Proposal (RFP) and evaluating competitive bids from multiple vendors.

Keywest Technology's winning bid included an extensive array of the company's MediaXtreme Signage media servers, Media POD players and customized digital signage content from the Keywest DSX Media division. It also encompassed numerous flat panel LCD displays, conventional static backlit signs, creation of detailed designs and plans, systems integration and custom work to interface the network with a variety of closely aligned systems, including a 96-square-foot LED arena display, outside mobile video production vehicles and third-party event business management software.

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The Process

The seven-month completion schedule for the Garland project required Keywest Technology to make multiple site surveys to determine what types of displays would be most appropriate, where they would best be positioned, and how to mount them securely on irregularly shaped surfaces. Other important considerations included determining how best to run more than 26,000 feet of Cat-5 cable used to carry all video, audio, and control signals from the digital signage controllers to individual displays, working with outside third-party vendors to integrate their hardware and software into the digital signage network and creation of customized templates that would be used to meet the specific digital signage content needs of the school district.



After winning the contract, the Keywest Systems Group worked closely with the school district to develop a design that would offer the digital signage display, control, content and management required. In creating the design, the Systems Group specified technology that not only would meet the school district's existing needs but also was flexible enough to accommodate future updates as they become necessary. After developing a detailed schematic and specifying the appropriate third-party hardware, Keywest Technology ordered all equipment and oversaw delivery of the system to Garland, TX.

During the installation, between two and seven Systems Group engineers were on site at any given time to run cable, install equipment, mount displays and integrate Keywest Technology MediaXtreme and Media POD digital signage systems. Upon completion, the Keywest Systems Group provided an initial round of training for the staff of the facility and a follow-up training program to ensure workers at the center were proficient in building digital signage pages, scheduling content for playback and managing schedule changes as they occur.

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The System

Completed in August 2005, the Garland Special Events Center is much more than a typical school gymnasium. When not in use for athletic or drama events, the center is available to outside groups for special events and meetings. With a variety of conference facilities, lecture halls, a banquet room and a large athletic arena, the digital signage system had to accommodate a variety of communications tasks, including wayfinding, menu boards, concourse displays, reader boards and door cards.



To meet these requirements, Keywest Technology's installation included:

- Seven Keywest Technology MediaXtreme MXS-MZ event players
- A dozen Keywest Technology Media POD players
- Sixteen 17-inch LG Electronics LCD flat panel displays
- Six four-inch LG Electronics LCD displays
- Sixteen 32-inch displays
- Three large static backlit signs, designed and printed by the Keywest DSX Media division
- 26,000 feet of Cat-5 cable
- Keywest Technology custom-built color skew adjustment box

Depending upon their placement and application, the various LCD panels used were mounted with landscape (horizontal) or portrait (vertical) orientation. Keywest Technology specified RS-232 serial controllable LG Electronics LCD panels to make it easy for the center to maintain on/off control of the multiple monitors from a centralized location.

As installed, the digital signage network supports delivering of video, audio, graphics, text, animation and logos to all individual displays. Keywest Technology's MediaZone software makes populating the school district's specially created digital signage templates quick and easy.

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In addition to hardware, installation and training, the school district receives 24/7 support of the digital signage network from Keywest Technology and is considering acquiring an extended system warranty that will cover the installation for 10 years.

Special Challenges

Every digital signage network installation is unique, and the Garland Special Events Center is no exception. Five aspects of the project required custom solutions from Keywest Technology to satisfy the school district's need, including:

- Integrating MediaXtreme with Ungerboeck Event Business Management Software
- Building digital signage page templates to meet specific needs
- Creating a custom low-cost, proprietary color skew adjustment box
- Working with existing monitor mounts and designing custom solutions to accommodate curved and irregularly shaped surfaces
- Designing and printing three large static backlit signs used for wayfinding applications.

To diminish the impact of the new digital signage network on the existing workflow of the center's staff, the school district needed a way to populate reader boards and door cards automatically with booking data –such as the name of an event, time, speaker and other pertinent information– from its Ungerboeck Event Business Management software. Working with Ungerboeck, the Keywest Systems Group developed a software plug-in that allows the MediaXtremes to retrieve such data and insert it into customized templates.



Those templates, designed and created by Keywest Technology's DSX Media division, were built to accommodate the majority of day-to-day digital signage content page requirements. Relying on the templates allows the center's staff to minimize the impact of the new system on its workflow and gives those who are responsible for content creation a comfort zone in which to learn how to use the system.

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In a clear demonstration of Keywest Technology's ability to satisfy the varied requirements of a turnkey installation, the company's DSX Media division designed and printed three large backlit signs and secured the appropriate frames in which to mount them.

When it came to mounting the LCD monitors, Keywest Technology accommodated a special request by the school district to use existing monitor mounts that it owned. Doing so along with need to mount them on curved and oddly angled surfaces required the Keywest Systems Group to get creative and make necessary modifications to ensure secure mounting of all monitors.

Additionally, because the distance from the central equipment room to the farthest monitors ran 700 feet over Cat-5 cable, Keywest Systems Group designed a custom, proprietary low-cost color skew adjustment box. Simple adjustments to controls on the box made it easy to compensate for any color skew and maintain accurate, true-color images.



The Garland Special Events Center is an example of Keywest Technology's ability to bring about the successful completion of a turnkey digital signage network project from design to installation and training.

The project demonstrates the company's ability to deliver a complete digital signage network on budget and on time. It also shows that Keywest Technology has the expertise and the resources to accommodate specific, custom user requirements. Above all, the Garland Special Events Center is a testament to Keywest Technology's ability to devote the resources to a large end-to-end project and complete it to the full satisfaction of the customer.