Extron Quantum Ultra Videowall Processor Drives Entertainment at Iowa City’s Hotel Chauncey

Challenges

Hotel Chauncey in downtown Iowa City is close to the University of Iowa. This 51-room boutique hotel provides a family-friendly entertainment area that includes movie theaters, an arcade, a restaurant, a full-service bar, and two six-lane bowling alleys. When designing the hotel, architects planned a large video display for the bowling alleys that would include a wall-to-wall videowall just above the lanes. On the first floor, bar patrons as well as bowlers would be able to watch televised sports and programs interspersed with advertisements for upcoming hotel events. Bowlers on the second floor could watch the same or different content.

The videowall needed to be flexible to show content in a variety of ways, with multiple sources displayed in any desired arrangement or a single image filling the entire display. In addition, the installation needed to be economical yet provide rock-solid, seamless performance.

Design Solution

Hotel Chauncey’s two SpareMe bowling alleys are high-usage environments, especially during events such as football bowl games, March Madness, the World Series, and World Cup matches. Sources include four CATV receivers, two Blu-ray® players, and a computer that functions as a media
The Extron Quantum Ultra 610 videowall processor works in concert with four professional-grade projectors to create an engaging display with exceptional clarity. The system provides the flexibility to present multiple windows from various source signals in various configurations and can also show a single image across the entire canvas. The videowall processor is rack-mounted in the technology room on the second floor, driving content over shielded CATx cable to the eight projectors divided between two floors.

Server. All are HDMI sources, supporting specifications up to HDMI 2.1. A majority of the content is pulled from the CATV receivers mixed with images and video clips from the computer. To provide a high-performance solution that was both economical and reliable, Tri-City Electric installed a twisted pair cable infrastructure and integrated eight Christie® DWU850-GS 1DLP® projectors driven by a single Extron Quantum Ultra 610 videowall processor.

One Quantum Ultra Easily Drives Multiple Videowalls

To create seamless videowalls, four of the professional-grade projectors are ceiling-mounted within each six-lane bowling alley. The projector's HDBaseT™ input accepts AV signals directly from the Quantum Ultra 610 videowall processor, eliminating the need for individual receivers and reducing system complexity. The processor's 10-slot card frame is configured with two Quantum IN4HDMI four-channel HDMI input cards and two Quantum OUT4DTP four-channel DTP® output cards. The remaining slots are reserved for system expansion.

Quantum Ultra was chosen because of its extensive feature set and maximum up-time. Along with flexible windowing capabilities, the processor's output overlap function met the key requirement for a seamless image scaled across the entire canvas in both or either bowling alley, independently. A few other sought-after features include a 400 Gbps HyperLane® video bus, Extron's Vector® 4K scaling engine, selectable window borders, and frame-locked outputs. Also, an embedded operating system that resides on a write-protected, solid state storage drive and redundant, hot-swappable power supplies ensured reliable operation.

Transmission includes both AV and control signals. Both videowalls are controlled using either the touchscreen in the manager's office or an identical touchscreen located in the second-floor technology room that houses the rack-mounted AV sources and the Quantum Ultra processor. The support staff appreciates that the system is isolated from the hotel’s other systems and helps them maintain security over videowall presentations.

Results

In regular operation since September 2021, both videowalls have proven to be a big hit with the university students, hotel guests, and the community at large. For example, the first-floor bar and bowling alley drew record crowds on Super Bowl Sunday, with overflow going to the second-floor bowling alley. In all, the venue is fulfilling its promise of bringing those living in and visiting the area to the Hotel Chauncey for family-friendly entertainment in Iowa City.

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