

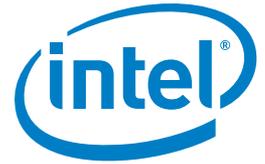
CASE STUDY

Intel® Core™ Processors

Daktronics* Integrated Display Systems

KFC Yum! Center*

Digital Signage



Energizing the Sports and Entertainment Experience with Digital Signage

KFC Yum! Center* guests enjoy a multimedia extravaganza delivered by a Daktronics* digital media network solution using Intel® processors



VENUE

The KFC Yum! Center* in Louisville, Kentucky

BUSINESS CHALLENGES

- **Enhance the live event experience:** Complement a great live experience with dynamic, high-definition (HD) displays showing replays, statistics, animations and special effects.
- **Drive new revenue:** Expand advertising opportunities and provide new media capabilities to live events.

TECHNOLOGY SOLUTIONS

- **State-of-the-art control system:** Presents captivating and informative content throughout the facility to augment the event.
- **IPTV system:** Sends HD video, game stats, other game scores and sponsorship messages to 440 LCD displays located in concourses, concessions, suites, retail areas, etc.



Venue

Since opening its doors in the fall of 2010, the KFC Yum! Center has taken the sports and entertainment experience to a new level. Patrons are treated to the latest technological advancements, including WiFi and an engaging, multimedia production broadcast to hundreds of displays and screens throughout the venue. This 22,000-seat arena - located on the banks of the Ohio River in downtown Louisville - is home to University of Louisville Cardinals Basketball, and hosts concerts, family shows and other live events.

Business Challenges

The KFC Yum! Center was designed to be the ideal venue for concerts, family shows, conventions, corporate gatherings and various sporting events. The goal was to give guests the feeling of being in a special place from the moment they walk into the arena. The atmosphere is charged by a skillfully-produced digital experience that generates excitement and spans the entire facility.

A key objective was to increase revenue by enabling advertisers and live events to have a more impactful presence in the arena. Using the facility's technically-advanced network of professional displays, it's possible to play any content - video, animations and graphics - that captures the audience's attention. For instance, this capability was used by the Ultimate Fighting Championship (UFC), with assistance from the center's IT staff, to choreograph and play more than 800 images during their live event.

"Our mandate was to build a state-of-the-art facility, the finest in the nation."

*Alicia Dunlap
Director of Information Technology
at the Kentucky State Fair Board*

"The KFC Yum! Center* clearly demonstrates our ongoing commitment to offer the latest technology."

Jim Host
Chair of the Louisville Arena Authority



Center-hung Scoreboard and Video Display

Technology Solution

The KFC Yum! Center selected Daktronics* to provide a complete display solution engineered to meet the specifications of the facility's IT staff. The Daktronics solution consisted of large screen LED displays, professional-grade LCD screens, and a back-end system with a comprehensive control package, an Internet Protocol Television (IPTV) network, video encoders and media servers. The decision makers felt the back-end piece for pushing data to the screens was the most critical requirement and truly differentiated the vendor solutions under consideration.

Displays

The arena is filled with digital signage displays dispersed inside and outside the bowl. Inside the bowl, an enormous center-hung scoreboard based on LED technology towers above the court. LED technology offers more brightness and contrast than LCD. A fascia ribbon encircles the arena bowl and is accompanied by four corner endwall boards, various clocks and a long display at the scorer's table.

Outside the bowl, there are 411 screens in the concourse, clubs, bars, lobbies and meeting rooms. The arena plaza features a large outdoor marquee, measuring approximately 18 feet high by 31 feet wide.



Control Room

Control System

At the center of the control solution is Daktronics' Show Control* system that delivers high-definition digital content throughout the venue. It manages hundreds of video and animation clips, scoring, timing, statistical data and out-of-town scores, and even point of sale information. One system provides total control and total integration, including powering displays on/off, controlling their volume or changing the channel.

The control system also offers the unique opportunity to create true sponsor exclusivity. Operators have the ability to override content on any or all LED or LCD displays in the arena to show a sponsor's logo or advertisement, guaranteeing venue-wide exposure and greater value for marketing partners, and increased revenue opportunities for the property and its tenants. With one touch of a button, synchronized content appears on all the displays throughout the venue, a feature called Moment of Exclusivity.

Daktronics' Show Control runs on the Intel® Core™ i7 processor 2600, which has the computing horsepower needed to coordinate the backend systems. The processor runs a monitoring solution that shows the operator what is being displayed anywhere in the arena. When choreographing content, users can mouse over a thumbnail and simply play animations and video.

"We are sure to have Intel® processors in our servers and workstations. It makes us feel better if it's Intel."

Alicia Dunlap
Director of Information Technology

Creating the NCAA Experience

When the KFC Yum! Center* hosted the NCAA Tournament, the IT staff had to satisfy special league requests, some that impacted the signage in the arena. For example, the league prohibits alcohol sales at events, so they asked to have concession signs modified to remove references to beer and wine. This was relatively easy to accommodate since the Daktronics solution supports dynamic concession menu updates. Another request was to change the channel lineup by adding an interview station and bringing in a truck feed with some special channel requests, such as truTV. The integrated display system easily supported this request by running the feed through Daktronics' Show Control*.



"We just finished hosting second- and third-round games of the NCAA men's basketball tournament. NCAA coordinators were impressed with our facility, and we hope to have a regional tournament here in a couple years."

Alicia Dunlap
Director of Information Technology

IPTV Network

The most unique feature in the arena, among many new capabilities, is a digital media display network covering the entire facility. It is a next-generation, broadcast solution based on Internet Protocol Television (IPTV) that sends multiple live content channels to any display in the venue. The solution is built around a computer network structure, so it can be expanded to accommodate nearly any form of digital media. Users can connect to a complete collection of news wires, databases and scoring devices to instantly present up-to-the-second scores, statistics, news and information to any IPTV channel. Different channels can offer different information simultaneously, ranging from live video feeds to data-focused information for fantasy league participants.



Back-end Systems

Video Decoders

The video decoder composites and transcodes the media content before it is sent to a screen. This allows several zones to be displayed at one time and ensures the media format is optimized for display.

Media Servers

Media content streams sent to screens are first captured by a media server, which then renders them for display on the screen. The media servers, based on Intel® processors, also perform other functions, such as enabling concession stands to dynamically change their menus. For example, when an item runs out, it can be deleted from the menu board. Or a concession stand can post an end-of-game special, like two for one hot dogs, to move remaining product.

To view a video of the KFC Yum! Center, click on this [URL](#) (video)



Outdoor Marquee Display

Big Stakes

The digital signage not only creates atmosphere, but it also reflects on the reputation of the entire facility. That's why it's extremely important to have a highly reliable system - failure is not an option. This is one of the reasons Daktronics uses Intel processors, which are known for their very high quality and computing performance. "When we are working with Intel-based products, they work out of the box, and we don't have to mess with things, like the BIOS," said Brian Tucker, system engineer at Daktronics.

Raising the Bar

The IT staff at the KFC Yum! Center understands the importance of providing guests with an engaging and enjoyable experience. Crucial for creating the right atmosphere is the Daktronics integrated display system that reaches every corner of the arena. "We have a big responsibility to do this well and make it better than what people expected it to be," said Dunlap.

To learn more about Daktronics integrated display systems, visit www.daktronics.com.

For more information about Intel in digital signage, visit www.intel.com/go/ic.

SOLUTION PROVIDED BY:

