



Case Study

Philips Color Kinetics Lightfair 2011 Booth

Location | Philadelphia, Pennsylvania, USA
Philips Lighting | LED Lighting

PHILIPS

Integrated multi-purpose control solution

The award-winning Philips Color Kinetics booth at Lightfair 2011 in Philadelphia, Pennsylvania, USA, demonstrated the extensive capabilities of the line of LED lighting fixtures and controllers from Philips Color Kinetics. A multi-protocol Ethernet-based system produced an extraordinary range of functions and effects through tight integration among controllers, triggering devices, and media servers from Philips Color Kinetics, Pharos, and third-party suppliers.

The Philips Color Kinetics booth required different styles of control for its main components: product kiosks for showcasing a wide range of Philips Color Kinetics LED lighting fixtures, a video curtain and theatrical chandeliers for displaying spectacular full-color video and effects across the ceiling and rear wall, a pair of 42-inch LCD monitors for presenting interactive slide shows highlighting Philips Color Kinetics products and installations, and an innovative reception wall displaying artistic color-changing effects. The control system also managed a system of truss warmers, a color-changing installation at the bar, and the booth's general lighting. An Apple AirPort Extreme access point in the network provided a gateway for control via a set of mobile apps from Philips Color Kinetics and Pharos.

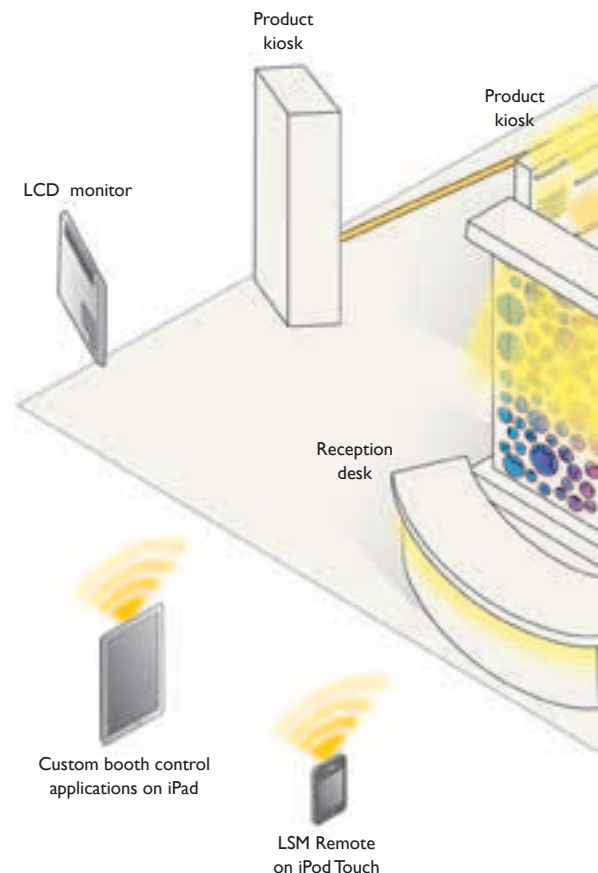
The booth's control network consisted of a series of Ethernet switches, a Pharos LPC 2 unit which served as a master controller, and an LPC X controller providing additional Ethernet outputs. The LPC 2 unit performed minimal lighting controls while synchronizing outlying systems, using different Ethernet protocols as required. To trigger shows for the product kiosks, the LPC 2 sent KiNET commands via RS232 to a Light System Manager (LSM) controller, which managed a set of nine shows in multiple zones, one for each set of Philips Color Kinetics fixtures on display. To trigger shows and effects on the video curtain, the LPC X sent Art-Net commands to a media server, which served video content to the video wall and synchronized audio to the booth's sound system.

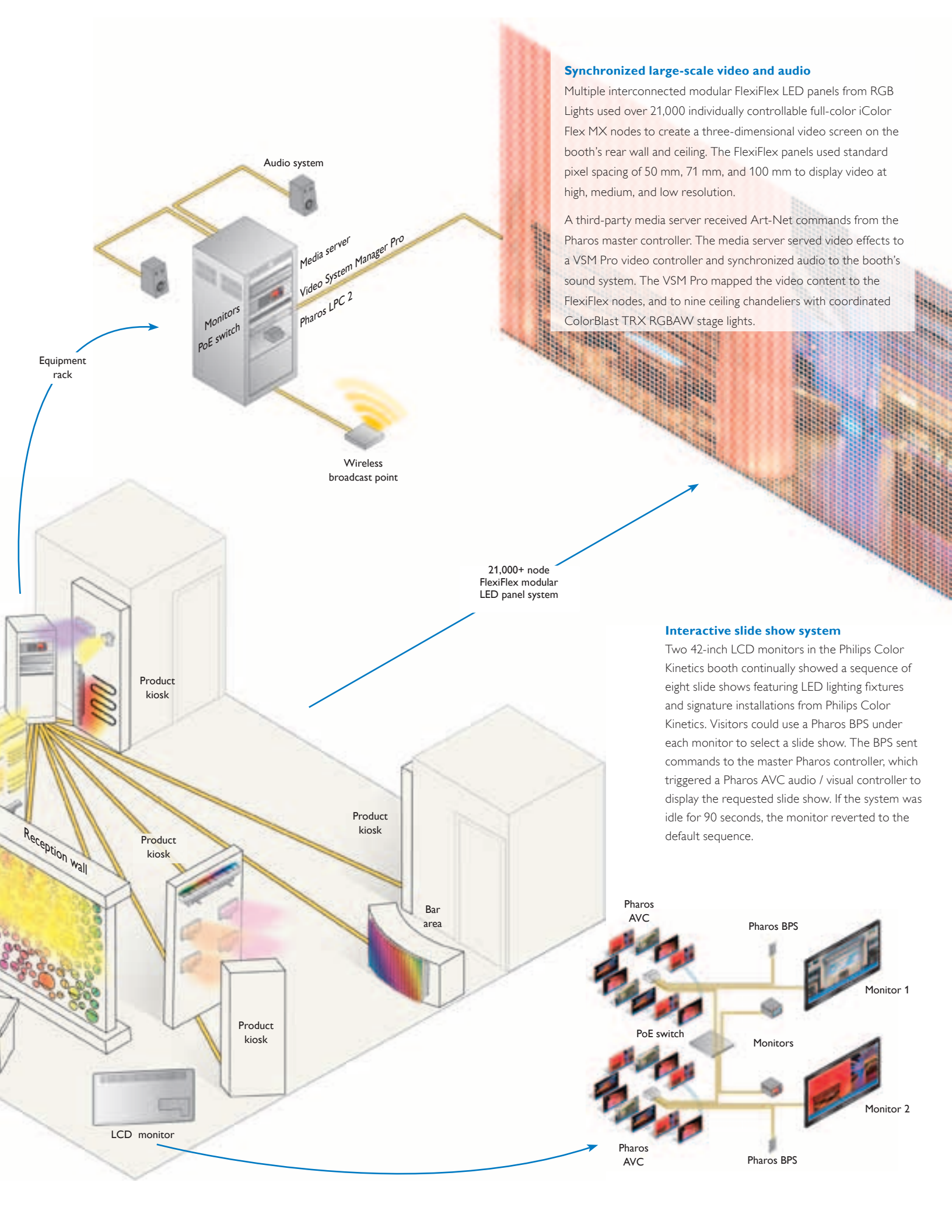
A combination of manual and automated control strategies gave presenters and visitors the ability to interact with the fixtures and installations while ensuring that the booth displays were always changing and fresh. The LPC 2 ran a master script with nested conditional logic that managed the morning startup routine, the schedule for video events on the video wall, and the default dynamic behavior for each booth component. Pharos Button Panel Stations (BPSs) let visitors choose from a set of slide shows to display on the flatscreen monitors, while booth personnel could control individual sets of fixtures on the product kiosks and select from a library of video effects using Apple iPhone, iPad, or iPod Touch mobile applications.

Timers on all zones and effects monitored how recently a change was made with a BPS or mobile app, and reverted to the default light show or scene for that system component when the timer expired.



Philips Color Kinetics booth at Lightfair 2011, Philadelphia, Pennsylvania, USA. Lightfair International awarded Philips Color Kinetics the 2011 Best Booth Award for booths of 900 square feet and larger.





Synchronized large-scale video and audio

Multiple interconnected modular FlexiFlex LED panels from RGB Lights used over 21,000 individually controllable full-color iColor Flex MX nodes to create a three-dimensional video screen on the booth's rear wall and ceiling. The FlexiFlex panels used standard pixel spacing of 50 mm, 71 mm, and 100 mm to display video at high, medium, and low resolution.

A third-party media server received Art-Net commands from the Pharos master controller. The media server served video effects to a VSM Pro video controller and synchronized audio to the booth's sound system. The VSM Pro mapped the video content to the FlexiFlex nodes, and to nine ceiling chandeliers with coordinated ColorBlast TRX RGBAW stage lights.

Equipment rack

Monitors
PoE switch

Audio system

Media server
Video System Manager Pro
Pharos LPC 2

Wireless broadcast point

21,000+ node FlexiFlex modular LED panel system

Product kiosk

Product kiosk

Bar area

Product kiosk

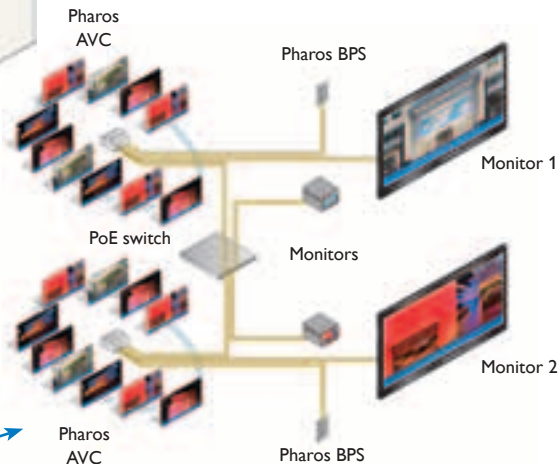
Product kiosk

Reception wall

LCD monitor

Interactive slide show system

Two 42-inch LCD monitors in the Philips Color Kinetics booth continually showed a sequence of eight slide shows featuring LED lighting fixtures and signature installations from Philips Color Kinetics. Visitors could use a Pharos BPS under each monitor to select a slide show. The BPS sent commands to the master Pharos controller, which triggered a Pharos AVC audio / visual controller to display the requested slide show. If the system was idle for 90 seconds, the monitor reverted to the default sequence.





Fast Facts

Industry Sector
Trade Shows / Entertainment

Lighting Design,
Audio / Video Content
Lightswitch

Booth Design
Philips Color Kinetics

FlexiFlex Installation
RGB Lights

Control Solution
Philips Color Kinetics, Pharos

Photography
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