Driving Simulator

Project: University of Iowa’s National Advanced Driving Simulator (NADS)

If you’ve travelled a roadway in the United States, you’ve likely benefitted from the work accomplished at the University of Iowa’s National Advanced Driving Simulator (NADS) facility. Known worldwide for creating custom simulated driving environments for public and private organizations, the NADS facility offers a premier destination for driving data collection. In order to extend their reputation as a future-focused solutions provider, the facility is in the midst of a major video upgrade in their NADS-1 immersive driving simulator. The full system upgrade will be completed, to the relief of the NADS team, by the end of January, 2014, as the facility has, per Omar Ahmad, director of operations at NADS, “a huge backlog of studies waiting for the facility to reopen.”

Located within the NADS facility, the NADS-1 is a 360-degree driving simulator with one of the largest motion envelopes of any simulator in the world. Already well recognized for its immersive experience, the team is upgrading the NADS-1 from an eight-projector to an all-encompassing 16-projector imaging system. Sixteen M-Vision LED projectors from Digital Projection International (DPI) were chosen to deliver the immersive content in the wraparound simulator. “From the projector capabilities to the incredible support we received from Phil Laney throughout the research phase,” shared Ahmad, “DPI stood out as the obvious choice.” The 40 degree vertical field of view plus 360 degree horizontal plane ensures that when sitting in the seat of the NADS-1, the viewer experiences 100% projected imagery with no break in the content.

Projectors Used
• Sixteen M-Vision LED projectors

Feedback
“By using DPI’s affordable WUXGA LED projector technology, the National Advanced Driving Simulator will benefit from a 63% increase in resolution that not only improves the display performance of the simulator, but makes maintenance minimal for years to come. Rich, saturated LED imagery will improve fidelity in day scenes, LED dimming will improve night imagery and Fast Frame blur reduction will help the realism of any projected scene.”
- Phil Laney, Digital Projection

M-Vision Cine LED

Key Features:
• Single-chip DLP display w/ unmatched color performance
• 60,000 hours of illumination - no lamps to replace
• Remarkable image stability
• Incredibly low cost of ownership due to low maintenance platform with virtually no consumables

We would like to thank the University of Iowa (www.nads-sc.uiowa.edu) for the use of images and content in this case study.