IGI Breathes New Life into Nissan Design America PowerWall

Along with most major automobile design studios worldwide, Nissan Design America (NDA) in San Diego, California has been utilizing full scale design visualization for many years. NDA has found that the visualization of full scale, 3D, digital renderings and models of new vehicles under development yields significant internal communications efficiencies, and significant speed-to-market and quality improvements. Given the current state of the economy and the substantial pressures facing the automotive industry in particular, technologies capable of getting better products to market faster are now more important than ever to automobile manufacturers like Nissan.

Application Story
Automotive
IGI | PowerWall

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Unfortunately – and unexpectedly - a few years into their use of their original PowerWall visualization system, the digital design team at NDA began encountering a steadily increasing number of problems with their system's performance. Ultimately, its operational condition became so unreliable and had reached such a state of disrepair that it was essentially deemed useless. Unable to find an adequate resolution to the problems with their existing system, Nissan finally decided to invest in an upgrade to restore it back to its intended usefulness while hopefully also improving the overall image quality of the system.

Nissan found its way to IGI to discuss its objectives. With years of experience in advanced visualization system design, installation and maintenance in the automotive industry, NDA was satisfied that it had encountered a partner who well understood their predicament and goals for the system upgrade. IGI engineers soon began rolling up their sleeves to assess the problems with the current system.

Since The Nissan Technology Center North America (NTCNA) in Farmington Hills, Michigan, had an identically configured PowerWall at their facility, Detroit-based IGI was able to quickly dispatch system engineers to that location to conduct a technology assessment, determine what needed to be corrected, and develop a design upgrade. With the assessment completed and the proposal approved by NDA, the project to update Nissan's San Diego PowerWall began.

IGI retained some of the existing hardware, including the three Barco Galaxy Warp DLP projectors. However, the previous analog signal processing equipment was replaced with a DVI matrix switch and an NVIDIA Quadro Plex graphics processor running NVIDIA's SLI Mosaic driver to drive the system's new digital graphics across all three projectors. A new Polycom Soundstructure C series audio processor was installed for better echo cancellation during videoconferences and a new 17" Crestron touch panel controller was installed with the existing Crestron control processor to achieve video previewing directly on the touch screen display.

As a result of careful preliminary planning and the comprehensive assessment performed on Nissan's Farmington Hills PowerWall, the IGI installation team was able to tear down the NDA system and rebuild it in its new configuration in under a week. David Glenn, Nissan's project manager for the upgrade was impressed with IGI's professional approach, execution and, in particular, the final result.

"The first thing that jumps out at you is just the quality of the image," says Glenn. "The quality of the image improved dramatically. IGI converted an analog system to a digital system. The edge blending virtually went away, which was a huge issue with us before because it affected the quality of the image."

IGI has restored Nissan Design America's ability to once again use their PowerWall as a daily productivity tool, including for design reviews where numerous cross-disciplinary team members gather to make critical design decisions. And Nissan's digital designers are able to enjoy never-before-seen image quality even though the same projectors are being used.

Glenn admits to being a very satisfied, new IGI customer. "IGI was great from the very beginning – from when we first explained our needs and desires and budgetary considerations – all the way until they showed up and started ripping things apart. They turned a real mess into a jewel."