State-of-the-Art Interactivity with HDBaseT

End Customer: Queensland University of Technology (QUT)
Vertical: Education
Equipment: AMX

About the End Customer

The Queensland University of Technology (QUT), located in Brisbane, Australia, is home to roughly 45,000 students and over 10,000 staff, and is one of the leading universities in Australia focused on science, technology and engineering.

The Challenge

The Science and Engineering Centre sits at the heart of the Garden Points QUT campus, with 700 researchers and academics taking advantage of the lecture halls and student facilities. The University wanted the building to be more than a learning place for its students, but to be a science and engineering outreach tool for the community. Instead of relying only on architecture, the University turned to its own interaction experts to define the kind of AV experience that could draw in visitors.

The space dedicated to the process, right inside the entry door, was mostly a hole through the building, and the team had to figure how to fill it in a manner that would be a showpiece for the Science and Engineering Centre, attracting, engaging and inspiring the next generation.

The Solution

The end result was "The Cube," one of the world's largest digital interactive learning and display spaces. The Cube consists of six separate display zones, totaling 145 Mega pixels. It is a composition of 48 multi-touch screens soaring across two floors. It allows intense interaction with visitors, allowing them to experience, discover, and visualize research projects. It is more than a teaching space, as it allows for representation in scale and data visualization, to explore the big questions of the 21st century.

The large screen is a spectacular 9m high by 14m wide. The display zones are split between edge-blended images on top and 48 interactive monitors in the bottom. The images are real-time animations, created by 30 custom-built servers, housed two floors above. Everything is controlled by the AMX Enova Netlinx programming and control infrastructure. Content from the servers is delivered to the servers and to the touch screens by five AMX's HDBaseT-enabled DGX Enova Digital Media switchers, and a total of eight km of Cat6a cables.

Results

The design, installation and integration, by Pro AV Solutions (Qld), took two years, and it was understood that the chosen signal transport needed to provide flexibility. AMX's HDBaseT-enabled DXLink Digital Media platform was the right solution for the project. The simple, yet reliable connection infrastructure, guaranteed the performance expected, and enabled the complex multi-touch functionality and edge-blended technology. Every piece of video and audio is routed and transported by AMX's HDBaseT-enabled Enova technology, and managed by AMX's RMS Resource Management Suite for breadth of controlling and monitoring features and capabilities.

Learn more about this project in this video.

About HDBaseT

HDBaseT technology, powered by the Valens chipset, enables all-in-one connectivity between ultra-HD video sources and remote displays through a single 100m/328ft CAT6 cable or fiber, delivering uncompressed high definition 4k video, audio, USB, Ethernet, control signals and up to 100 watts of power.Ethernet, control signals and up to 100 watts of power.