Festival of Learning Showcase

Facilitator(s): Mr Joshua Hollick, Visualisation Technology Specialist, Humanities Research and Graduate Studies

Strategic theme: Rich interactive learning experience

Subject Title: Hub for Immersive Visualisation and eResearch (HIVE) demonstration

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Brief Description:

The HIVE allows for multidisciplinary research from all schools and faculties from across the University; from Science and Engineering to Humanities, Health Sciences and Business, creating opportunities for collaborative projects.

Each of the four large-scale visualisation systems in the HIVE has unique characteristics to suit particular types of content:

1. The Tiled Display suits the presentation of very high-resolution images, including multi-megapixel mosaics or even gigapixel-sized panoramas. It comprises 12 full-HD LCD panels, creating an ultra-large display surface of 24 megapixels over a 10 square metre area.
2. The Cylinder is designed for the presentation of immersive stereoscopic panoramas, virtual environments and performance art. This three-metre high, eight-metre diameter, 180-degree cylindrical projection surface is filled by three high-end projectors that are warped and blended to provide a continuous display surface of about six megapixels. This system is fitted with an optical tracking system and content can be displayed in stereoscopic 3D, using supplied 3D glasses.
3. The Wedge comprises two rear-projected, 3.8 metre diagonal display surfaces mounted in either a 90-degree wedge configuration or a double-wide flat screen. This system also supports stereoscopic 3D content and provides the best support for scientific 3D volume visualisation, 3D virtual environments and 3D video content.
4. The Dome provides an immersive experience via the four-metre diameter domed screen that entirely fills the observer’s primary and peripheral vision. The dome can be used to explore 360-degree ultra-realistic panoramas, omnidirectional video and virtual worlds. It has many potential uses, including virtual tourism.

A range of visualisation software and imaging hardware is available for users to access with the displays and the HIVE includes highly skilled technical support. Video conferencing is also available.

Benefits: Discover the HIVE and explore opportunities for innovative research and learning

Time/Day: Friday 20 March 2015; 11:30 – 12:00pm

Duration: 30 mins

No. of Sessions: One

Venue: The HIVE, Building 200A