

# QCIF Technology Diffusion Project

## Cityscape Prototyping Virtual Environment

### Applicant

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### Industry Partner and Contact

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### BACKGROUND AND AIMS

The overall aim of this project is to:

1. Develop software for the rapid construction of virtual environments suited to the property development industry
2. Construct a Virtual Environment delivery platform to suit laboratory and remote desktop visualisation equipment.

The project is in collaboration with v2i, a Gold Coast-based company and aims at making use of advanced visualisation technology to support urban planning, master planning, project visioning and community creation.

### CURRENT PROGRESS REPORT

#### Report #1: January 2008 – March 2008

#### Progress To Date

The funding from QCIF was primarily to support research staff engaged on the project. In January, the principal research staff member who was to have undertaken the project left Griffith University for an employment opportunity in the USA. Recruitment searches were undertaken to find a replacement and another staff member appointed to the project, effective mid-April.

Despite these setbacks, progress has been made. The project, to a significant extent, builds on existing research and development in human-computer interaction in projection-based virtual environments[1]. Several prototype VR interaction software tools have been under development, and negotiations have been undertaken for their incorporation and use in the project.

Initial discussions were undertaken with v2i principals, and a large group of v2i staff, including programmers, architects and designers visited the immersive visualisation facilities at the University's Gold Coast campus. A number of the prototype VR interaction tools were demonstrated and the projection capabilities of the facility informally evaluated for high-resolution presentations.

## **Current Activities**

- Development of a selection of VR interaction tools is proceeding, including their incorporation into a dynamically-linked library for use in the project programming, development and presentation environments.
- Discussions are underway with the industry partner to further clarify project priorities and deliverables.

## **References**

1. He, C., Lewis, A. and Jo, J., “A Novel Human Computer Interaction Paradigm for Volume Visualization in Projection-Based Virtual Environments”, *Proceedings of the 7th International Symposium on Smart Graphics*, 49-60, Kyoto, Japan, June 25-27, (2007).