



Master Thesis Report

Place the title (maximum 2 rows)

Place the subtitle (maximum 2 rows)

David Bergvik

February 9, 2017

Student

Fall 2017

Master Thesis, 30 ECTS

Master of Science in (state your degree), 300 ECTS

1 Introduction

This is a section of this chapter. use subimport subsections/filename to add subsections

2 Thoeretical Framework

This is a section of this chapter.

2.1 Interaction Tools in VR

This is a subsection of the chapter.

2.1.1 Raycast techniques

This is a subsection of the subsection.

2.2 Problems with interactions in VR

Fatigue is one of the biggest problems with VR [A survey of 3D object selection techniques for virtual environments]. Selection techniques are more severe on arm and wrist strain/pain while navigation can induce simulation sickness.

2.2.1 Interaction Technique issues

[New Directions in 3D User Interfaces] presents four ways that the majority of interaction techniques exhibit generality:

- Application- and domain-generality: The technique was not designed with any particular application or application domain in mind, but rather was designed to work with any application.
- Task-generality: The technique was designed to work in any task situation, rather than being designed to target a specific type of task. For example, the design of the ray-casting technique does not take into account the size of the objects to be selected and becomes very difficult to use with very small objects (Poupyrev et al. 1997).
- Device-generality: The technique was designed without consideration for the particular input and display devices that would be used with the technique. Often techniques are implemented and evaluated using particular devices, but the characteristics of those devices are not considered as part of the design process. For example, the HOMER technique (Bowman and Hodges 1997) is assumed to work with any six-degree-of-freedom input device and any display device, but all of the evaluations of this technique have used a wand-like input device and a head-mounted display (HMD).
- User-generality: The technique was not designed with any particular group of users or user characteristics in mind, but rather was designed to work for a “typical” user.

3 Methodology

This is a section of this chapter. use subimport subsections/filename to add subsections

4 Results

This is a section of this chapter. use subimport subsections/filename to add subsections

5 Discussion

This is a section of this chapter. use subimport subsections/filename to add subsections