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Evaluation of an Appearance-Preserving Mesh Simplification Scheme for Configura AB

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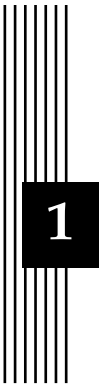
Contents



1 Introduction

1.1 Motivation

Rendering of large polygonal meshes in real-time consumes valuable computation time that could otherwise be used for other problems. If the amount of polygons can be reduced without affecting the visual quality of the final render significantly, then we can save computation time and memory. Algorithms that reduce the polygon count of a mesh based on some metric are called mesh simplification algorithms. An issue that has been found in industry and research is that the quality of the texture coordinates use for texture mapping are degraded when this simplification algorithm is applied.

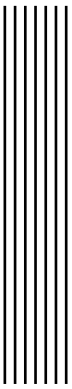
1.2 Aim

1.3 Research Questions

1. How can *mesh simplification* be done without affecting the *visual apperance* significantly?
2. What are the alternatives to achieve *mesh simplification* with *apperence preservation*?
3. Which alternative gives the best effect considering *performance* and *apperance preservation*?

1.4 Delimitations

2 Background



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