Title: Level of Detail AI: a prototype of a large virtual world
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Abstract:

The Level Of Detail technique (LOD) is an established means of optimization in computer graphics. It uses the limitations of human perception to spare system resources. Progressively, this approach has found its use in artificial intelligence. This adaptation, commonly known as LOD AI, is used to optimize autonomous agent control in large virval worlds.

This thesis consists of two parts. The first part deals with standing LOD AI uses, mostly focusing on the IVE project. The second part directly uses the IVE project to implement a LOD AI game using the LOD based reactive planning algorithm called S-GHRP over the ISMA representation. The above game is then tested on respondents to verify the practical usability of S-GHRP/ISMA.

In its conclusion, this thesis briefly ponders the possibilities of further development of techniques used in the IVE project, based on previous findings.

Keywords: artificial intelligence, LOD AI, virtual agent, large virtual world, IVE