Shadow Volume in real-time rendering

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Abstract

This paper presents an implementation of the algorithm of shadow volume, with an acceleration allowing a rendering in real-time. This technique is based on (1), which makes it possible to obtain shadow in real-time, where the computation of the silhouette requires the evaluation of the geometry by the CPU. By the use of the last version of the GPU, we propose to improve the computing times by using the geometry shaders so that the calculation of the silhouette is carried out by a GPU program. We present the step which allows us to lead to a concrete implementation of this algorithm, the modifications which were made, as well as a comparative study of results, followed by a discussion.

Link http://academic.research.microsoft.com/Publication/51135865/shadow-volume-in-real-time-rendering