

Title (en)
VOLUMETRIC SHADOWS FOR COMPUTER ANIMATION

Title (de)
VOLUMETRISCHE SCHATTEN FÜR COMPUTERANIMATION

Title (fr)
OMBRES VOLUMETRIQUES POUR ANIMATION

Publication
EP 1844445 A1 20071017 (EN)

Application
EP 05812297 A 20051018

Priority
• US 2005037488 W 20051018
• US 97521604 A 20041027

Abstract (en)
[origin: WO2006049870A1] A computer-rendered image of a three-dimensional scene includes a volumetric shadow cast by one or more objects in the scene. The data for the objects are rasterized to generate occlusion information that describes how objects within the volume occlude light. This information may be stored in an acceleration structure, which relates the occlusion information to volume elements within the occluding volume. A volumetric shadow is computed by tracing a ray through the occluding volume, the shadow based on the accumulated shading, effects of the volume elements on the traced ray. An artist-driven lighting model may be used to compute the shadow rather than a model based on pure physics. This model may provide a number of adjustable tools for controlling shading effects, including falloff, blending, motion blur, and coloring.

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G06T 15/60 (2006.01)

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Citation (search report)
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