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(54) Title: SYSTEM FOR AND METHOD OF IMPLEMENTING REFRACTION MAPPING

(57) Abstract

A system for implementing a refraction mapping is arranged that a refracted texture address is determined, as a normal vector at an intersection point of a boundary surface of at least two different media and a visual line vector is defined to be n , and as a visual line unit vector is defined to be v , a variable k is determined so that the sum $(n + kv)$ of the normal vector n and a value kv of which the visual line unit vector v is multiplied by a variable k becomes parallel to the texture plane. At least two different media are an air, water or a glass. In such system, an object has a portion projecting from the water surface, and a portion sinking under the water, and for at least a portion of the texture associated with the portion sinking under the water, a refracted texture address that is to be displaced according to a refraction phenomena can be determined.

