
Subject: Re: range ordering of triangular facets
Posted by [nasalmon](#) on Wed, 26 May 2004 18:05:36 GMT
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"Karl Schultz" <kschultz_no_spam@rsinc.com> wrote in message
news:<10b9as5hf48h41a@corp.supernews.com>...
> "Neil" <nasalmon@onetel.net.uk> wrote in message
> news:74039481.0405251329.69e88002@posting.google.com...
>> Does anyone have any idea how i can obtain a routine that will range
>> order a series of triangular facets, such that each triangle can be
>> rendered to appear on top of predeccessing ones, without triangles
>> appearing out of order? The assumption of course is that no triangles
>> cross, but they can of course share common pairs of vertices?
>>
>> Unfortunatley, simple range ordering the facets according to the mean
>> of the distance to the viewer doesnt always work, particularly for
>> long triangles. This is annoying when rendering, as some triangles
>> that should be on top lie underneath, leading to an imperfect image.
>> This must be the bread and butter of some mathematicians, but it's
>> certainly got me fooled.
>
> An analytical solution is the Binary Space Partition tree. There is a
> sample implementation in Graphics Gems.
>
> If all you want to do is render these triangles, then Object Graphics or the
> Direct Graphics 'Z' device will render them correctly using a depth buffer.
>
> Karl

Karl,

For reasons, i have decided to opt for Direct Graphics, and i need a
routine that takes the "connectivity" and uses the geometry
information from the "vertices" to give a range ordering index to the
triangles, so when i render, no triangles are obscuring things they
shouldnt be. This would seem such a general problem, there must be a
simple IDL or C routine that i could slot into my programme.

many thanks
Neil