

Strata 3D - Legacy Versions

Raytracing > Flickering and Noise Reduction - 2002-04-10

Question: I'm noticing that with animations rendered in SSP there is a lot of "noise" resulting in raytraced animations with lots of detail and also in textures (especially procedural) where SSP will render a detail in some frames but not in others. Or will render a small highlight in one frame but not in the next. The result being terrible looking animation with "noise" flickering in the details all over the place.

Answer: This is a common problem. Without seeing your model, it's hard to make a specific recommendation, but I have found the following approaches can work:

First, enable MIP-mapping in both the textures and the Strata preferences.

- - Use compositing. Render the offending textures in a separate pass, at a much higher resolution. For example, a ship's windows can be rendered separately from the ship itself at double or triple the resolution of the ship. The rendering time is not too bad. You then scale down the windows and composite using a luminance-based key.

- - Blur the texture maps. This will reduce the twinkling effect, even if you blur the maps just a bit. Try several levels of blur.

- - Use motion blur in combination with blurred texture maps.

- - If you use the compositing approach, you can try fading out the twinkling textures as the camera moves away from the subject.

- - Use separate texture maps for close and far objects. Use high-detail maps for close passes, and low-detailed, blurred maps for distant objects. This will require rendering some shots in multiple passes, and later editing them together.

Author(s): Jim Royal

Unique solution ID: #1011

Author: Jim Royal

Last update: 2010-01-06 15:57