Subject: IDLgrVolume RENDER_STEP does not scale
Posted by Sebastian Loebbert on Mon, 21 Oct 2002 12:07:51 GMT
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Hi all,

I am trying to implement a Level-Of-Detail system for a volume renderer:
While the volume is rotated, only a low-detailed rendering shall be done
(in the dvolrendr.pro example they only show a wire frame/ coord system).
I tried to use RENDER_STEP to get high speed but low quality renderings,
but I can't improve rendering time for more than a factor of about 5 for a
given dataset no matter what I use for RENDER_STEP:
E.g. for a 128^3 volume in a 300^2 window i get the following
RENDER_STEP vs time values:
[1,1,1] - 4.9 s
[1,1,3] - 2.6 s
[1,1,10] - 1,65 s
[1,1,15] - 1.6 s
[10,10,10] - 1.2 s
for reference: merging two 300^2 rgb color images and drawing the
resulting takes 0.12 s

Theoretically, I would expect a factor 1000 between [10,10,10] and [1,1,1]
plus some overhead, why is the difference so small?

Is there another method for getting high-speed/low-quality images?

Thanks in advance for all tips,

Sebastian

BTW: I also use VTK, there I only have to tell the renderer to use LOD and
it automatically calculates the quality it needs to achieve a given
framerate - that's really comfortable....