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Subject: Re: Geant4 floating point exception

Posted by [Sebastian Neubert](#) on Thu, 02 Aug 2007 09:30:03 GMT

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Hi florian!

I came to the same conclusion concerning the UrbanMsc.

I tried to just run G4 4.9 yesterday, but somehow the libraries seemed to have changed. I got some dynamic link problems.

Then I looked a little bit closer to the UrbanMsc and I found out that the error occurs when

a) the steplength is smaller than stepmin (in ComputeGeomPathLength)

and

b) the steplength is larger than  $0.05 * \text{currentRange}$  (in SampleCosineTheta)

This surely appears to be an exotic case, but it leads to an inconsistency in the calculation of tau which culminates in a division by zero.

I have to admit that I can only guess what all the variables mean. So at the moment I have to think about what would be a reasonable fix.

Cheers! Sebastian.

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