

BornAgain - Bug #2025

Core: slicing: makes mesocrystal simulation very slow

03 Apr 2018 16:48 - pospelov

Status:	Backlog	Start date:	03 Apr 2018
Priority:	High	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
<p>Simulation for MesoCrystal (5 rotations and basis made of FormFactorSphereLogNormalRadius with 10 sub-particles) gets stacked even before Simulation::runComputations. One thread is busy for several minutes and most of the time is spend inside TruncatedEllipsoid shape calculations.</p> <p>I have created dedicated functional test in CoreSpecial. To see the problem run</p> <pre>./bin/CoreSpecial MesoPerformance</pre> <p>in Qt-creator using "calgrind" debugger. The problem can be decomposed on three parts</p> <ul style="list-style-type: none">• We are cloning too much For example, FormFactorSphereLogNormal radius is cloned 4000 times.• We are calculating same vertices again and again Here Jan's approach with weak+shared pointers to the object with vertices + scaling looks attractive• It is not possible to disable slicing machinery. <p>Unfortunately, before the issue resolved, we can't proceed further with meso crystal simulations.</p>			

History

#1 - 16 Apr 2018 16:58 - herck

- Assignee set to herck

#2 - 17 Apr 2018 13:24 - herck

- Assignee deleted (herck)

#3 - 24 May 2018 12:45 - pospelov

- Target version changed from Sprint 37 to Sprint 38

#4 - 13 Jun 2018 13:12 - pospelov

- Status changed from Sprint to Backlog

- Target version deleted (Sprint 38)

#5 - 18 Sep 2020 20:05 - wuttke

- Subject changed from Slicing machinery makes mesocrystal simulation very slow to Core: Slicing: makes mesocrystal simulation very slow

#6 - 19 Sep 2020 10:10 - wuttke

- Subject changed from Core: Slicing: makes mesocrystal simulation very slow to Core: slicing: makes mesocrystal simulation very slow