

## BornAgain - Testing #1122

### Provide functional tests to validate particles rotation and positioning

07 Jul 2015 10:21 - pospelov

<b>Status:</b>	Archived	<b>Start date:</b>	07 Jul 2015
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	pospelov	<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	Sprint 28		

#### Description

The task is to write a number of functional tests which will validate our transformation & positioning machinery. One possibility is to create python functional tests which will compare scattering image from simple shapes with the one obtained from composed shapes representing same geometry.

The disadvantage, is that in principle one have to run such test in three domains (PyGen, GUI and Core)  
This can be done using existing machinery, but it will require creation of a number of reference files  
As alternative, new type of functional test, where two different sample builders are tested against each other, should be created

- Testing simple rotations
  - Rotate symmetric particles (box, pyramids) around one axis on certain angle, so the geometry stays the same
- Testing Euler rotation
  - ?
- Testing particle composition
  - Two half-spheres, one is rotated by 180 degrees, made of same material. Comparing with full sphere.
  - Two boxes made of same material (rotated or not) to compare with one big box.
  - Validating custom "cross" form factor against "cross" shape made via particle composition.
- Rotation of ParticleDistribution
  - ?
- Core shell particles
  - two spheres of same material (one inside the other) against full sphere
  - Two boxes, placed one inside the other, whole thing is rotated, against one big box
- Testing rotation within 2D lattice and 2D paracrystal.
  - Composed particle in a lattice against a single particle
- Testing positioning
  - ?

#### History

##### #1 - 08 Jul 2015 17:42 - pospelov

- Description updated

- Assignee set to pospelov

##### #2 - 15 Jul 2015 17:29 - pospelov

- Status changed from Sprint to Resolved

##### #3 - 31 Jul 2015 14:51 - pospelov

- Status changed from Resolved to Archived