

## BornAgain - Feature #1670

**Provide interface for adding particle shapes in different layers that are to be treated coherently (at fix relative position)**

24 Nov 2016 11:28 - herck

<b>Status:</b>	Resolved	<b>Start date:</b>	24 Nov 2016
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	herck	<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	Sprint 33		
<b>Description</b>			

### History

**#1 - 24 Nov 2016 11:30 - herck**

- Parent task set to #1645

**#2 - 24 Nov 2016 11:31 - wuttke**

Add one particle to several layers? Or add particles at Sample=Multilayer level, and let the internal machinery figure out which layers are concerned?

**#3 - 24 Nov 2016 11:31 - wuttke**

- Status changed from Sprint to Rfc

**#4 - 07 Dec 2016 15:50 - herck**

- Status changed from Rfc to Sprint

- Assignee set to herck

**#5 - 14 Feb 2017 14:27 - herck**

In pull request [#147](#), the following changes have been done:

-For each IParticle in a layout, its bottom z position is used to determine in which layer it sits; this is then used to set the correct ambient material and Fresnel coefficients

-As an oversimplification, all FormFactorBorn classes return the origin of their local coordinate system (which coincides with the bottom-most z-coordinate in the absence of rotations); only FormFactorBox has the correct implementation

-ParticleComposition still creates just one single form factor that will be put in a single layer (determined by its bottom z-coordinate)

**#6 - 28 Feb 2017 13:45 - herck**

- Status changed from Sprint to Resolved

Particles are however still not split over layer interfaces. Their bottom z-coordinate is used to determine in which layer they reside. For ParticleComposition, the constituent particles can be in different layers.

**#7 - 18 Sep 2020 18:13 - wuttke**

- Parent task deleted (#1645)