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Subject: How to apply transformations on the geometry? (Alignment)

Posted by [Felix Boehmer](#) on Tue, 30 Jul 2013 14:24:33 GMT

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Dear experts,

is there some way of manipulating the geometry of single detectors in order to be able to study mis-alignment effects (or do proper tracking on real data...)?

Since the geometries are modular it looks like the framework would be (in principle) well-fitted to do this, for example `FairModule::ConstructRootGeometry()` could take an optional `TGeoCombiTrans` as an argument which is then applied on the nodes before adding them...

As far as I see it, right now one would have to create a new geometry file for every such case and smuggle it into the above routine. This seems extremely hackish to me. Are there plans for such an implementation? Or is there such a thing already? (I am working on an older branch as some of you might know...)

Cheers

Felix

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Subject: Re: How to apply transformations on the geometry? (Alignment)

Posted by [Florian Uhlig](#) on Wed, 31 Jul 2013 09:36:02 GMT

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Hi Felix,

please have a look at the trunk version of fairbase. The class `FairModule` has a new function to modify the original geometry. You can find an example how to use it in `example/Tutorial4/src/mc/FairTutorialDet4.cxx`.

Sorry for this only very short answer, but I am on holidays and I will get a lot of trouble if I work.

Ciao

Florian

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Subject: Re: How to apply transformations on the geometry? (Alignment)

Posted by [Felix Boehmer](#) on Tue, 06 Aug 2013 11:55:47 GMT

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Hello Florian,

cool! Do you know when this will make its way into a new release? And how do I get this from svn into a pandaroot checkout? Getting it as external from `root/fairbase/trunk/base` (and creating links accordingly to circumvent the subfolder structure) gives me compilation errors. Is

there a clean method how to do this before I start hacking?

Cheers

Felix

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Subject: Re: How to apply transformations on the geometry? (Alignment)  
Posted by [Stefano Spataro](#) on Tue, 06 Aug 2013 13:26:54 GMT  
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Go to the pandaroot root folder, and type:

```
svn propedit svn:externals .
```

There you can edit the links, and use the trunk of the base folders you need. After, just do a svn update and you will download the trunk code.

No idea if it is compatible with the current pandaroot or not, at present we stick to tags/v-13.05

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Subject: Re: How to apply transformations on the geometry? (Alignment)  
Posted by [Florian Uhlig](#) on Wed, 07 Aug 2013 12:47:36 GMT  
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Hi Felix,

the fairbase trunk should be compatible with pandaroot.  
Probably we will create a new tag after everybody is back from holidays.

Ciao

Florian

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