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Subject: Definiton of Glad center of Glad magnetic field map center

Posted by [sunny](#) on Wed, 31 Aug 2016 15:46:18 GMT

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Hello,

I have two questions on the Glad geometry definition and field map definition:

1)

From the create\_glad\_geo.C,

```
>>>Double_t DistanceToTarget = 350.0; //cm
```

```
>>>Double_t Correction = -119.94; //cm
```

```
>>>...
```

```
>>>t0->RotateY(+7.3);
```

Therefore, I think the distance of glad to the target-center will be  $350 - 119.94 = 230.06\text{cm}$ , with an angle of  $7.3\text{deg}$ .

But I'm not sure this distance is relative to which point of Glad. To be specific, what is the coordinate definition in the create\_glad\_geo.C macro ?

2) There is one magnetic field map under R3BROOT/field/magField/R3B/R3BGladMap.dat, the format is x/y/z/Bx/By/Bz. The x/y/z definition is relative to which frame ? Is it the same as the geometry definition in question 1 ?

In the R3BGladFieldMap.cxx, the translation from lab to local frame of the magnet is done using  $14^\circ$  rotation and the transporation gTrans is (0,0,-113.4), which seems not consistent with the values in the geometry defition. I'm confused.

Best regards,

Yelei

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