Subject: CALIFA-SiTracker-GLAD geometry conflict
Posted by Anna Corsi on Wed, 08 Mar 2017 15:26:54 GMT

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Hello,

I find a conflict of geometry among the following detectors, as in attached picture.
  detGeo.Add(new TObjString("GLAD"),   new TObjString("glad_v13b.geo.root"));
  detGeo.Add(new TObjString("CALIFA"),   new
TObjString("califa_17_v8.11_cc0.2.geo.root"));
  detGeo.Add(new TObjString("STaRTrack"),   new
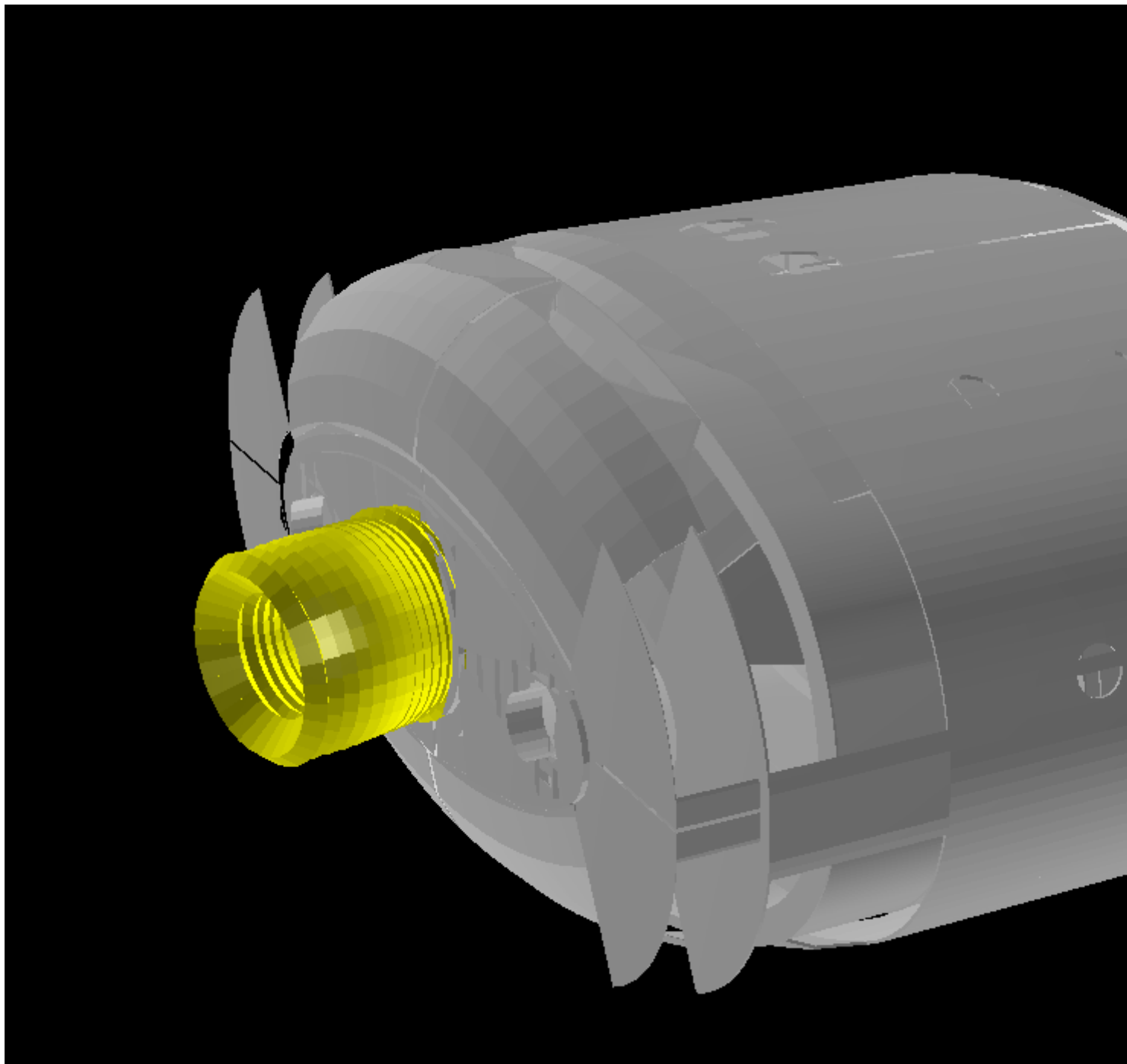TObjString("startra_v16-300_2layers.geo.root"));

Could you tell me which detectors should be moved to simulate experiments with setup
expected for 2018?

Thanks in advance.
Best regards,
Anna

File Attachments
1)   ,
downloaded 612 times

Subject: Re: CALIFA-SiTracker-GLAD geometry conflict
Posted by Hector Alvarez Pol on Thu, 09 Mar 2017 18:25:12 GMT
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Hi Ana,

last time I was testing the CALIFA position, it was correctly located with respect to the nominal target position.
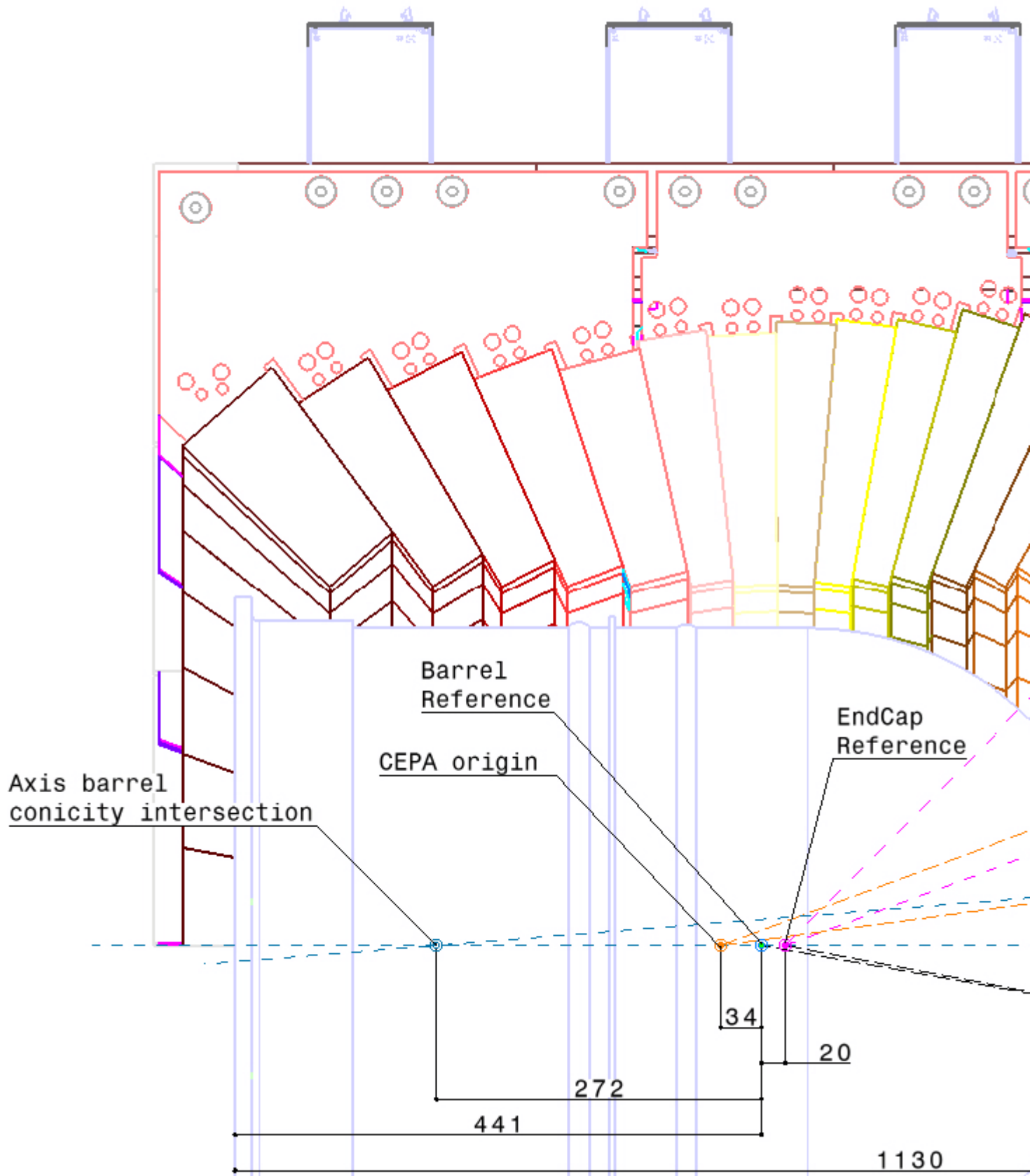If this is true, the magnet is misplaced by around half a meter in this geometry file.

For a fast check to determine if CALIFA is correctly centered, you could find where the origin is

in your plot or simply visualize a reaction vertex...
the CALIFA barrel should be located as it is in the attached picture (side view).
A displacement of half a meter as it is shown in your pic would mean that the vertex could be
located outside the Barrel.

Regards,

File Attachments
1) 1211.jpg, downloaded 675 times

Barrel
Reference

CEPA origin

EndCap
Reference

Axis barrel
conicity intersection

34

20

272

441

1130

Hello Anna,
here is my view of how to solve this problem: We used to have the target Position at x=0, y=0 and z=0 per Definition. The distance from the target position to the entrance flange of GLAD is 1062 mm. And Califa has also a nominal position relative to the target. If both are at this position there should be now overlap anymore.

Subject: Re: CALIFA-SiTracker-GLAD geometry conflict
Posted by Anna Corsi on Tue, 14 Mar 2017 21:31:21 GMT
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Dear Hector and Michael,

Thank you for your replies.
In my understanding (see attachement) the GLAD position is such that the entrance flange is rather ~50 cm from the origin (target center), so it should be shifted downstream.
For information, the create_glad_geo file I used originally has DistanceToTarget = 350 (cm).

Best regards,
Anna

File Attachments
1)   ,
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