Subject: Re: PandaRoot meeting, Tuesday 7th of October, 10:00, EVO
Posted by Lia Lavezzi on Fri, 10 Oct 2008 10:13:19 GMT
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Hi Tobias,
thank you for your reply!

I write here some more explanations on the different STT classes, just to clarify some points.

Concerning the STTPoint all you say is correct (including the translation of "da cancellare", very good! ). Since the geometrical information can be accessed via the geoManager, this part can be changed (we will do it as soon as possible).

Concerning the STTHit, just a question about nomenclature: is it correct that for you Digi comes from the digitization and Hit comes from the reconstruction? I ask this because for me Hit comes from the digitization and HelixHit from the reconstruction. In fact, as far as I understand from your description of the "STTDigi", the STTHit is our STTDigi, I mean it contains the info coming from the single straw tube simulation, i.e. the tube response: all the info are filled during digitization.
There is just a point to think about, but I will talk about it later.

First, about the list of variables, here are some remarks:
3. fRadial: this is only the radial position of the tube center (this is a heritage of the old stt2 code... now we don' t use this info, maybe this could be deleted)
5. fRsim: simulated drift radius
6. fRtrue: true drift radius, the geometrical distance of closest approach of the particle to the firing wire (this must be removed because the real data won' t have it, but up to now it was present in order to easily compare the simulated drift radius to the real one)
7. fXint, fYint, fZint: actually this is a variable which is filled with the center of the tube position (at the digitization stage) and is updated during the reconstruction procedure, with the intersection (that' s what the "int" stands for) point found in the Intersection Finder... let' s say that it is the point on the drift circle where the particle most likely really passed, i.e. the one later written in the HelixHit. Ok, this might be a point to think about...

So, the main "problem" could be that actually here there is a mixing between the digitization and thevery first part of reconstruction: i.e. we get the drift time from the detector and the transformation to the drift radius can be considered part of the reconstruction instead of the digitization... I agree that this could be handled in a different way, but I should think about it before changing it, just not to mess up the whole code

So, if I understand correctly, a part from what concerns the difference between the Hit and the Digi, I think we agree on three main points:
1) to get rid of the geometrical info both in the PndSttPoint and PndSttHit;
2) to substitute it with the identifiyng number of the tube;
3) to delete all other unused info.

Please feel free to correct me if I' m saying something wrong.

Ciao,
Lia.