Subject: Hits reconstruction
Posted by Anastasia Karavdina on Tue, 03 Apr 2012 12:52:31 GMT
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Dear colleagues,
I have a question concerning reconstruction of data from digital information. In general the question is quite simple: how to go from a fired strip\pixel to a hit with (x,y,z) in some system?

So far for hit reconstruction in the Luminosity Monitor we use approach which was implemented by MVD group. It calculates (x,y,z) in local sensor frame and then makes rotation and translation according to position of the sensor in global frame. Detector description in global frame is given by root file with geometry. It works fine and give (x,y,z) of each hit in global system.

But if I would like to have hits coordinates in some arbitrary system, it seems the easiest way is describe my detector in geometry file in this arbitrary system.

Next, if I do alignment correction to each sensor, I again should do this correction in geometry file and afterwards hits reconstruction procedure will work fine.
Is there another way how to take into account small correction to sensors description except rewriting every time full geometry description?

Best regards,
Anastasia.