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Subject: Re: Crash in DIRC with G4

Posted by [Mohammad Al-Turany](#) on Wed, 28 Mar 2012 14:40:48 GMT

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Hallo Oliver,

The ConstructRootGeometry was specially implemented for ROOT files which are produced by the CAD2ROOT converter where the keeping volumes are always "Assemblies" and maybe that is the reason we did not see any see the crash there, in any case if you discover an error there then thanks a lot we will check that and correct it and write in the credits that you discover it!

now if you read the posts before yours, you will notice that the crash was reproducible without FairModule and without the error you discover.

Quote:The reason is simple: the material of the first volume is ignored. Hard to believe that these geometry files have ever worked in Geant4 - how was it possible without proper material information? Somehow I doubt that they worked ever. With which version of pandaroot and external packages did they actually work? I would like to check that.

This is very easy to test, in the g4Config.C set the option: geomRootToGeant4

This works with the same DIRC geometry and the (according to your comments) crappy code in FairModule, for your info, this option means use the native G4 geometry and navigation, and this works with all versions of PandaRoot and external packages, the problem when you set this option is that some detectors (STT and emc) relay on the herachy of volumes to create set some variables, in ROOT the Assembly has an ID and can be a mother of a volume, in G4 the assemblies do not show up at all during the simulation, and this create some problems (Stefano mentioned this in the second post here!)

About the documentation I cannot promise to document every single line in the code, but we will try our best!

regards

Mohammad

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