
Subject: Geometry input in ROOT (TGeo) format
Posted by [Volker Friese](#) on Wed, 16 May 2012 12:56:55 GMT
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Hi,

we (CBM) would like eventually to step away from the ASCII geometry format and use ROOT files instead. The main motivations are that the creation of the geometry file seems easier when using TGeo, and that the geometry of a certain subdetector can be viewed and browsed with the ROOT TBrowser standalone, i.e. without invoking the FAIRROOT framework.

Now the documentation of FAIRROOT says that

Quote:Detector geometry in FairRoot can be defined via:

- ASCII files (Hades Geometry interface)
- Root files (TGeoManager Object in ROOT file)

However, I was told by Florian that instead of saving the TGeoManager object to the file, one should save the top volume, which must be of type TGeoVolumeAssembly. If that were true, it will have certain drawbacks:

The top volume of type TGeoVolumeAssembly is not browsable (the geometry is not expanded). Of course, this can be helped by saving both objects, the top volume and the full TGeoManager to the geometry file.

All media defined when creating the geometry file will be ignored by the framework, which will use at runtime those defined in the media.geo file.

Is it possible for the framework to read the TGeoManager instead of the top volume, and add all media defined there to those already defined from media.geo (checking, of course, for double occurrences)?

Best regards,

Volker