
Subject: FEEMC from ROOT file

Posted by [Aleksandra Biegun](#) on Thu, 10 Jan 2008 16:24:24 GMT

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Hi "Emc Friends",

I just submitted to svn changed macro for creation geometry for forward endcap (FwEndCap) of emc at

/pandaroot/macro/emc/ called createRootGeoFileFwEnd_changed.C (rev. 1996).

The way of creation each of 4 volumes - top, QuarterVol, SubunitVol, BoxVol (except for CrystalVol) is changed from TGeoVolume(name,shape,medium) to TGeoVolumeAssembly(name). The reason was a problem with G4, which could not recognize medium (even air) always for the most outside volume (G3 also had the same problem, but it went over the problem while G4 did not). By changing volumes into TGeoVolumeAssembly(name) we can also avoid overlaps.

There are also PndEmc.cxx (h) classes submitted (rev. 1995), where you can find solution for reading 2 types of geometry format. Changes are in:

a) ConstructGeometry(), where one can see the possibility of using "standard" geometry of FwEndCap of Emc, called module 3, and read together with other volumes of Emc from emc_module12345.dat and new version of FwEndCap of Emc read from emc_module3new.root;

b) ConstructRootGeometry() functions, where reading of the ROOT geometry is done.

Now, ROOT is exiting without any errors.

You can still use "standard" or "new" version of FwEndCap (of course not at the same moment!).

If somebody wants to use "standard" geometry, there is nothing changed, but if somebody wants to use geometry of Emc with NEW FwEndCap, in the sim_emc.C macro you should write:

```
PndEmc *Emc = new PndEmc("EMC",kTRUE);
Emc->SetGeometryFileNameDouble("emc_module1245.dat","emc_module3new.root ");
fRun->AddModule(Emc);
```

This changes were checked successfully at lxi008.gsi.de and at operon cluster in Groningen and it works with G3, and _thanks_to_Mohammad_ with G4 as well.

If you have any problems, please let me know.

Best wishes,
Ola B.