Subject: Barrel DIRC simulation in GEANT3 and GEANT4 became slow!
Posted by Maria Patsyuk on Wed, 27 Oct 2010 11:15:15 GMT

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Hello,

some time ago (I mean I update whole svn regulary, so after one of the updates) simultaion of barrel DIRC became really slow - in GEANT3 it is now 23 s/event and in GEANT4 it is 120(!!) s/event.

In the simulation I use only barrel DIRC detector (no Pipe) and shoot 3GeV pions from the origin, box generator has following parameters (the macro is /u/mpatsyuk/PANDA/trunk/macro/drc/work/sim_dirc.C):

FairBoxGenerator* boxGen = new FairBoxGenerator(211, 1);
  boxGen->SetPRange(3.,3.);
  boxGen->SetPhiRange(12., 12.1);
  boxGen->SetThetaRange(75, 75);
  boxGen->SetXYZ(0., 0., 0.);

The simulation used to be at least 6 s/event in GEANT3 with the same macro!
Since then we have slightly changed the geometry of barrel DIRC, but that should not matter..?

I would be grateful if you tell me how to speed up the simulation again (both in g3 and g4).