Subject: [FIXED] problem with Dirc - SciTil geometry?
Posted by Gianluigi Boca on Tue, 25 Sep 2012 18:05:27 GMT

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dear all,
when I simulate with the following macro :

```
{
  TStopwatch timer;
  timer.Start();
  gDebug=0;
  int verboseLevel = 0;
  Int_t nEvents = 10;

  //FileNames
  TString simOutput="MvdStt_Test.root";
  TString parOutput="MvdStt_Params.root";

  // Load basic libraries
  gROOT->Macro("$VMCWORKDIR/gconfig/rootlogon.C");
  gSystem->Load("libSciT");
  FairRunSim *fRun = new FairRunSim();

  // set the MC version used
  // -----------------------

  fRun->SetName("TGeant4");
  // Choose the Geant Navigation System

  fRun->SetOutputFile(simOutput);

  // Set Material file Name
  //----------------------
  fRun->SetMaterials("media_pnd.geo");

  // Create and add detectors
  //------------------------

  FairModule *Cave= new PndCave("CAVE");
  Cave->SetGeometryFileName("pndcave.geo");
  fRun->AddModule(Cave);

  FairModule *Magnet= new PndMagnet("MAGNET");
  Magnet->SetGeometryFileName("FullSuperconductingSolenoid_v831.root");
  fRun->AddModule(Magnet);

  FairModule *Pipe= new PndPipe("PIPE");
  fRun->AddModule(Pipe);

  FairDetector *Mvd = new PndMvdDetector("MVD", kTRUE);
  Mvd->SetGeometryFileName("Mvd-2.1_FullVersion.root"); // only sensors, update follows
```

```cpp
Mvd->SetVerboseLevel(verboseLevel);
fRun->AddModule(Mvd);

FairDetector *Stt= new PndStt("STT", kTRUE);
Stt->SetGeometryFileName("straws_skewed_blocks_35cm_pipe.geo");
fRun->AddModule(Stt);


PndEmc *Emc = new PndEmc("EMC",kTRUE);
Emc->SetGeometryVersion(1);
Emc->SetStorageOfData(kFALSE);
fRun->AddModule(Emc);


PndDrc *Drc = new PndDrc("DIRC", kTRUE);
Drc->SetGeometryFileName("dirc_l0_p0_updated.root");
Drc->SetRunCherenkov(kFALSE); // for fast sim Cherenkov -> kFALSE
fRun->AddModule(Drc);

FairDetector *SciT = new PndSciT("SCIT",kTRUE);
SciT->SetGeometryFileName("SciTil_Barrel_woPCB.root");
fRun->AddModule(SciT);


PndMdt *Muo = new PndMdt("MDT",kTRUE);
Muo->SetBarrel("fast");
Muo->SetEndcap("fast");
Muo->SetMuonFilter("fast");
Muo->SetMdtMagnet(kTRUE);
Muo->SetMdtMFIron(kTRUE);
fRun->AddModule(Muo);

FairDetector *Gem = new PndGemDetector("GEM", kTRUE);
Gem->SetGeometryFileName("gem_3Stations.root");
fRun->AddModule(Gem);

PndDsk* Dsk = new PndDsk("DSK", kTRUE);
Dsk->SetGeometryFileName("dsk.root");
Dsk->SetStoreCerenkovs(kFALSE);
Dsk->SetStoreTrackPoints(kFALSE);
fRun->AddModule(Dsk);

FairPrimaryGenerator* primGen = new FairPrimaryGenerator();
primGen->SmearVertexXY(kTRUE);
// set the X Y  coordinates of the beam and their smearing;
primGen->SetBeam(0., 0., 0.1, 0.1);  // <X>, <Y>, sigmaX, sigmaY.
fRun->SetGenerator(primGen);



// Box Generator
FairBoxGenerator *fBox = new FairBoxGenerator(13, 1);  //1 (negative) muon events
```

```
    fBox->SetPRange(0.3,0.3);
    fBox->SetThetaRange(10,120);
    fBox->SetPhiRange(0.,360);
    fBox->SetCosTheta();
    primGen->AddGenerator(fBox);



  // Field Map Definition
  // --------------------
  // 1- Reading the new field map in the old format

  fRun->SetBeamMom(15);
   //--------------------Create and Set the Field(s)----------
   PndMultiField *fField= new PndMultiField("FULL");
   fRun->SetField(fField);

   fRun->SetStoreTraj(kTRUE); // toggle this for use with EVE
   fRun->SetRadLenRegister(kFALSE); // toggle for material budget study

    fRun->Init();



  // Fill the Parameter containers for this run
  //------------------------------------------
  FairRuntimeDb *rtdb=fRun->GetRuntimeDb();
  Bool_t kParameterMerged=kTRUE;
  FairParRootFileIo* output=new FairParRootFileIo(kParameterMerged);
  output->open(parOutput.Data(),"RECREATE");
  rtdb->setOutput(output);

  // Transport nEvents
  // -----------------

  fRun->Run(nEvents);

  rtdb->saveOutput();
  rtdb->print();


  timer.Stop();
  Double_t rtime = timer.RealTime();
  Double_t ctime = timer.CpuTime();
  printf("RealTime=%f seconds, CpuTime=%f seconds\n",rtime,ctime);
}
```

I don't get any SciTil hits, but if I comment the line :

```
  Drc->SetGeometryFileName("dirc_l0_p0_updated.root");
```

I obtain the SciTil hits again. Is there a conflict between the
two geometries or am I doing something wrong?
Thanks   Gianluigi