Subject: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 12:59:52 GMT
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Hi all,

I'm running a slightly modified version of macro/run/run_sim1.C with Pandaroot Revision 4484 for simulation.
Unfortunately, after a few hundred events, I get the following error:

*** Break *** segmentation violation
Toggle Spoiler
Using host libthread_db library "/lib/libthread_db.so.1".
Attaching to program: /proc/24598/exe, process 24598
[Thread debugging using libthread_db enabled]
[New Thread -1227835696 (LWP 24598)]
0xb7f89410 in __kernel_vsyscall ()
#1 0xb6dcb5c3 in __waitpid_nocancel () from /lib/libc.so.6
#2 0xb6d75d3b in do_system () from /lib/libc.so.6
#3 0xb6e7b51d in system () from /lib/libpthread.so.0
#4 0xb7a4a24d in TUnixSystem::Exec ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#5 0xb7a4f717 in TUnixSystem::StackTrace ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#6 0xb7a4e71e in TUnixSystem::DispatchSignals ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#7 0xb7a4e7ed in SigHandler ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#8 0xb7a47734 in sighandler ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#9 <signal handler called>
#10 0xb6899b3f in TGeoNavigator::CdDown ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#11 0xb689bccb in TGeoNavigator::SearchNode ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#12 0xb689ca1e in TGeoNavigator::CrossBoundaryAndLocate ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#13 0xb687f8f2 in TGeoManager::CrossBoundaryAndLocate ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#14 0xaf9631ad in TG4RootNavigator::LocateGlobalPointAndSetup ()
from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libG4root.so
#15 0xb1d06e18 in G4Navigator::LocateGlobalPointAndUpdateTouchableHandle
(this=0xb0773c0,
position=@0xe403fcc, direction=@0xe3fb488, oldTouchableToUpdate=@0xd0d745c,
RelativeSearch=true)
at /usr/local/panda/fairroot/fairsoft/transport/geant4/source/geometry/navi
gation/include/G4Navigator.icc:321
#16 0xb1d03cf2 in G4Transportation::PostStepDoIt (this=0xd0d72f8, track=@0xe403fc8)
at src/G4Transportation.cc:623
#17 0xb05bd622 in G4SteppingManager::InvokePSDIP (this=0xb07fea0, np=0) at
src/G4SteppingManager2.cc:503
#18 0xb05bd909 in G4SteppingManager::InvokePostStepDoItProcs (this=0xb07fea0)

    at src/G4SteppingManager2.cc:479
#19 0xb05b9566 in G4SteppingManager::Stepping (this=0xb07fea0) at
src/G4SteppingManager.cc:210
#20 0xb05c7c96 in G4TrackingManager::ProcessOneTrack (this=0xb07fe78,
apValueG4Track=0xe403fc8)
    at src/G4TrackingManager.cc:126
#21 0xb047d341 in G4EventManager::DoProcessing (this=0xb07fe30, anEvent=0xb08c078)
    at src/G4EventManager.cc:185
#22 0xb047dade in G4EventManager::ProcessOneEvent (this=0xb07fe30,
anEvent=0xb08c078)
    at src/G4EventManager.cc:335
#23 0xb04164db in G4RunManager::DoEventLoop (this=0xb07fd80, n_event=3600,
macroFile=0x0, n_select=-1)
    at src/G4RunManager.cc:235
#24 0xb0414e4e in G4RunManager::BeamOn (this=0xb07fd80, n_event=3600,
macroFile=0x0, n_select=-1)
    at src/G4RunManager.cc:140
#25 0xaf903fb7 in TG4RunManager::ProcessRun ()
   from /home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux/libgeant4vmc. so
#26 0xaf9082e7 in TGeant4::ProcessRun ()
   from /home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux/libgeant4vmc. so
#27 0xb4253669 in CbmMCApplication::RunMC (this=0x8745420, nofEvents=3600)
    at /home/mertens/pandaroot/pandaroot/trunk/base/CbmMCApplication.cxx:228
#28 0xb42677f1 in CbmRunSim::Run (this=0x86b8890, NStart=3600, NStop=0)
    at /home/mertens/pandaroot/pandaroot/trunk/base/CbmRunSim.cxx:286
#29 0xb42a9b80 in G__CbmDict_531_0_5 (result7=0xbff10970, funcname=0x86b6128 "\001",
libp=0xbff0a504,
    hash=0) at /home/mertens/pandaroot/cbuild/base/CbmDict.cxx:9272
#30 0xb718974a in Cint::G__ExceptionWrapper ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#31 0xb7245cf8 in G__execute_call ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#32 0xb7246d4d in G__call_cppfunc ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#33 0xb721ede7 in G__interpret_func ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#34 0xb720ddd3 in G__getfunction ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#35 0xb72fac22 in G__getstructmem ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#36 0xb72f0a80 in G__getvariable ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#37 0xb71e0751 in G__getitem ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#38 0xb71e7df2 in G__getexpr ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#39 0xb7278e9d in G__exec_statement ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#40 0xb7220d9c in G__interpret_func ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#41 0xb720de36 in G__getfunction ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20

#42 0xb71e0841 in G__getitem ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#43 0xb71e7df2 in G__getexpr ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#44 0xb71f4600 in G__calc_internal ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#45 0xb7281f8a in G__process_cmd ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#46 0xb7a3cd65 in TCint::ProcessLine ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#47 0xb7a3ca1f in TCint::ProcessLineSynch ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#48 0xb79718e8 in TApplication::ExecuteFile ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#49 0xb7971c24 in TApplication::ProcessFile ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#50 0xb796ed6b in TApplication::ProcessLine ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#51 0xb6fd72b9 in TRint::Run ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRint.so.5. 20
#52 0x08048e23 in main ()

Can anybody confirm this or point me at what might be going wrong?

Thanks in advance,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Ralf Kliemt on Wed, 04 Feb 2009 13:19:45 GMT
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Hi Marius,

What did you change exactly in the macro?
What is the output before the segfault backtrace?

To me it looks like the geometry you use is not well. Maybe a corrupted file or a second TGeoManager?

Regards, Ralf.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by StefanoSpataro on Wed, 04 Feb 2009 13:37:31 GMT
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I have run 2000 events without any error.

Could you please send us exactly the macro that you have used?

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 13:41:50 GMT
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Hi Ralf,

the only changes in the macro were the use of PndFlatParticleGenerator and taking the number of events to generate and the output file to generate as parameters.

I have included the output before the actual error in the spoiler below, which basically looks that way for a few hundred events before the crash.

Toggle Spoiler
>>> Event 1825
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 182.7 20 1
phi, cosTheta, p: 182.7 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 1826
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 182.8 20 1
phi, cosTheta, p: 182.8 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 1827
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 182.9 20 1
phi, cosTheta, p: 182.9 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 1828
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 183 20 1
phi, cosTheta, p: 183 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 1829
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 183.1 20 1
phi, cosTheta, p: 183.1 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 1830
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 183.2 20 1
phi, cosTheta, p: 183.2 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 1831

*** Break *** segmentation violation

...

What irritates me a little is that it worked a while ago before I updated my Pandaroot installation.

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by StefanoSpataro on Wed, 04 Feb 2009 13:45:34 GMT
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You could try with the normal BoxGenerator, and tell us if it works.
You should also attach the first part of the log message, before all the

>>> Event 1
CbmMCApplication::GeneratePrimaries()

Maybe you have a corrupted file that give you problems.
On which system are you running?

Again, please attach your macro. So that we can reproduce your error.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 13:47:34 GMT
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Hi Stefano,

these are the contents of my modified version of the macro.

Toggle Spoiler

```
// Macro for running Cbm  with Geant3  or Geant4 (M. Al-Turany , D. Bertini)
// Modified 22/06/2005 D.Bertini

Mrun_sim1_PndFlatGen(Int_t numevents, TString basefile)
{
  TStopwatch timer;
  timer.Start();
  gDebug=0;
  // Load basic libraries
  gROOT->LoadMacro("$VMCWORKDIR/gconfig/rootlogon.C");
  rootlogon();

  CbmRunSim *fRun = new CbmRunSim();
```

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

  fRun->SetName("TGeant4");
  // Choose the Geant Navigation System
  // fRun->SetGeoModel("G3Native");

  //fRun->SetOutputFile("testsimu10.root");
  fRun->SetOutputFile(basefile);


  // Set Material file Name
  //----------------------

  fRun->SetMaterials("media_pnd.geo");

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

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

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

  CbmModule *Dipole= new PndMagnet("MAGNET");
  Dipole->SetGeometryFileName("dipole.geo");
  fRun->AddModule(Dipole);


  CbmModule *Pipe= new PndPipe("PIPE");
  //Pipe->SetGeometryFileName("pipebeamtarget.geo");
  fRun->AddModule(Pipe);

  /*
    CbmDetector *Stt = new CbmStt("STT",kTRUE);
    Stt->SetGeometryFileName("stt24.geo"); // 14 = 1 solo 2layer pablo01.geo 3 layers stt24
    fRun->AddModule(Stt);
  */
  /*
    CbmDetector *Stt= new CbmStt("STT", kTRUE);
    Stt->SetGeometryFileName("straws_axial.geo");
    fRun->AddModule(Stt);
  */
/*
  CbmDetector *Stt= new PndStt("STT", kTRUE);
  Stt->SetGeometryFileName("straws_skewed_blocks_35cm.geo");
  fRun->AddModule(Stt);
*/
```

```
  CbmDetector *Tpc = new PndTpcDetector("TPC", kTRUE);
  Tpc->SetGeometryFileName("tpc.geo");
  fRun->AddModule(Tpc);

  CbmDetector *Mvd = new PndMvdDetector("MVD", kTRUE);
  //Mvd->SetGeometryFileName("MVD_v1.0_woPassiveTraps.root");
  Mvd->SetGeometryFileName("MVD_v1_2addDisks.root");

  fRun->AddModule(Mvd);

  PndEmc *Emc = new PndEmc("EMC",kTRUE);
  Emc->SetGeometryFileNameDouble("emc_module1245.dat","emc_module3new.root "); // if
you want to use new geometry for FwEndCap
  fRun->AddModule(Emc);

  CbmDetector *Tof = new PndTof("TOF",kTRUE);
  Tof->SetGeometryFileName("tofbarrel.geo");
  fRun->AddModule(Tof);

  CbmDetector *Drc = new PndDrc("DIRC", kTRUE);
  Drc->SetGeometryFileName("dirc.geo");
  fRun->AddModule(Drc);

/*
 CbmDetector *Muo = new PndMdt("MDT",kTRUE);
  Muo->SetGeometryFileName("muopars.root");
  fRun->AddModule(Muo);
*/

  CbmDetector *Dch = new PndDchDetector("DCH", kTRUE);
  Dch->SetGeometryFileName("dch.root");
  fRun->AddModule(Dch);

  // Create and Set Event Generator
  //-------------------------------

  CbmPrimaryGenerator* primGen = new CbmPrimaryGenerator();
  fRun->SetGenerator(primGen);

  PndFlatParticleGenerator pndFlatGen;
pndFlatGen.SetPDGType(211);
//pndFlatGen.SetMultiplicity(10);
pndFlatGen.SetPRange(1, 1, 1);
pndFlatGen.SetPhiRange(0, 359.8, 0.1);
pndFlatGen.SetThetaRange(20, 20, 1);

primGen->AddGenerator(&pndFlatGen);


/*
   //EvtGen Generator
```

```
    CbmEvtGenGenerator* evtGen = new
    //CbmEvtGenGenerator("/home/ralfk/Pandaroot/pandaroot/macro/mvd/output.evt ");
    //CbmEvtGenGenerator("
/private/mertens/fairsoft/cbmsoft/pandaroot/pgenerators/EvtGen/lambdalam
bdabar_15gev_100k.evt ");
    CbmEvtGenGenerator(eventfile);
    primGen->AddGenerator(evtGen);
*/

  /*  // Box Generator
      CbmBoxGenerator* boxGen = new CbmBoxGenerator(13, 200); // 13 = muon; 1 = multipl.
      //  boxGen->SetPRange(1.,1.1); // GeV/c
      boxGen->SetPtRange(1.,1.); // GeV/c
      boxGen->SetPhiRange(0., 360.); // Azimuth angle range [degree]
      boxGen->SetThetaRange(0., 90.); // Polar angle in lab system range [degree]
      boxGen->SetXYZ(0., 0., 0.); // mm o cm ??
      primGen->AddGenerator(boxGen);
  */
  /*
      // proton 2212 pi+ 211 pi- -211
      Double_t randx, randy;
      for (Int_t n =0; n<10; n++){
        randx= gRandom->Gaus(0,1);
        randy= gRandom->Gaus(0,1);
        CbmParticleGenerator* partGen = new CbmParticleGenerator(2212, 1, 0.3*randx,
0.3*randy, 0.3);
        primGen->AddGenerator(partGen);
      }
  */


  // Ion Generator
  //CbmIonGenerator *fIongen= new CbmIonGenerator(79, 197,79,1, 0.,0., 25, 0.,0.,-1.);
  //  primGen->AddGenerator(fIongen);


  //
  fRun->SetStoreTraj(kFALSE);

  PndMultiField *fField= new PndMultiField();

  PndTransMap *map= new PndTransMap("TransMap", "R");
  PndDipoleMap *map1= new PndDipoleMap("DipoleMap", "R");
  PndSolenoidMap *map2= new PndSolenoidMap("SolenoidMap", "R");
  fField->AddField(map);
  fField->AddField(map1);
  fField->AddField(map2);

/**
 // New field oct.2008
  PndTransMap  *tmap= new PndTransMap("Trans1", "R");
  PndDipoleMap *dmap1= new PndDipoleMap("Dipole1", "R");
```

```
  PndDipoleMap *dmap2= new PndDipoleMap("Dipole2", "R");

  PndSolenoidMap *smap1= new PndSolenoidMap("Solenoid1", "R");
  PndSolenoidMap *smap2= new PndSolenoidMap("Solenoid2", "R");
  PndSolenoidMap *smap3= new PndSolenoidMap("Solenoid3", "R");
  PndSolenoidMap *smap4= new PndSolenoidMap("Solenoid4", "R");

  fField->AddField(tmap);
  fField->AddField(dmap1);
  fField->AddField(dmap2);

  fField->AddField(smap1);
  fField->AddField(smap2);
  fField->AddField(smap3);
  fField->AddField(smap4);
*/




  //magnetic field
  /*  PndConstField *fMagField=new PndConstField();
      fMagField->SetField(0.,0.,20.); // values are in kG
      fMagField->SetFieldRegion(-50, 50,-50, 50, -100, 100);// values are in cm
(xmin,xmax,ymin,ymax,zmin,zmax)
      fField->AddField(fMagField);
  */
  fRun->SetField(fField);



  fRun->Init();
/*
  // -Trajectories Visualization
  // ----------------------------
  CbmTrajFilter* trajFilter = CbmTrajFilter::Instance();
  // Set cuts for storing the trajectpries
  trajFilter->SetStepSizeCut(0.01); // 1 cm
  //     trajFilter->SetVertexCut(-2000., -2000., 4., 2000., 2000., 100.);
  //     trajFilter->SetMomentumCutP(10e-3); // p_lab > 10 MeV
  //     trajFilter->SetEnergyCut(0., 1.02); // 0 < Etot < 1.04 GeV
  trajFilter->SetStorePrimaries(kTRUE);
  trajFilter->SetStoreSecondaries(kTRUE);
*/
  //
  //   // Fill the Parameter containers for this run
  //   //-----------------------------------------
  //
  CbmRuntimeDb *rtdb=fRun->GetRuntimeDb();
  Bool_t kParameterMerged=kTRUE;
```

```
 //if a field is used save the parameters in the RTDB
 /*
PndSolenoidPar* Par1 = (PndSolenoidPar*) rtdb->getContainer("PndSolenoidPar");
if ( map2 ) {  Par1->SetParameters(map2); }
Par1->setChanged();
Par1->setInputVersion(fRun->GetRunId(),1);

PndDipolePar* Par2 = (PndDipolePar*) rtdb->getContainer("PndDipolePar");
if (map1 ) {  Par2->SetParameters(map1); }
Par2->setInputVersion(fRun->GetRunId(),1);
Par2->setChanged();

PndTransPar* Par3 = (PndTransPar*) rtdb->getContainer("PndTransPar");
if (map ) {  Par3->SetParameters(map); }
Par3->setInputVersion(fRun->GetRunId(),1);
Par3->setChanged();
 */

 PndMultiFieldPar* Par = (PndMultiFieldPar*) rtdb->getContainer("PndMultiFieldPar");
 if (fField) {  Par->SetParameters(fField); }
 Par->setInputVersion(fRun->GetRunId(),1);
 Par->setChanged();

 CbmParRootFileIo* output=new CbmParRootFileIo(kParameterMerged);
 output->open("testparams.root");
 rtdb->setOutput(output);
 rtdb->saveOutput();
 rtdb->print();
 // Transport nEvents
 // -----------------1

 Int_t nEvents = numevents;
 fRun->Run(nEvents);

 timer.Stop();

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

 cout << " Test passed" << endl;
 cout << " All ok " << endl;
 exit(0);

}
```

If it works for you, it might indeed well be something with the geometry file of the MVD, which is

the only really different input parameter I have found until now.

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Ralf Kliemt on Wed, 04 Feb 2009 13:54:44 GMT
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Hi Marius,

Try first the usual Mvd geometry. If that works...

Ralf.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by asanchez on Wed, 04 Feb 2009 13:55:03 GMT
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Hi Maybe you should change the name of the macro accordently
to run_sim1_PndFlatGen(Int_t numevents, TString basefile).
Anyway the M before run_sim1_PndFlatGen(Int_t numevents, TString basefile) looks suspicious.!!

regards
Alicia.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by StefanoSpataro on Wed, 04 Feb 2009 13:57:41 GMT
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Hi,
where have you taken the MVD geometry:

Mvd->SetGeometryFileName("MVD_v1_2addDisks.root");

?

Probably that geometry is not stable, or at least it is not in svn, so it could be the cause of your error (it looks like some geometry error).
try with the standard MVD geometry, and let us now. Unfortunately I do not have that geometry so I cannot cross ckeck.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 14:01:52 GMT
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Hi Stefano,

I also tried with the CbmBoxGenerator, which gives me the same results.

When I just reran the macro to reproduce the first lines of the output (they were not included in the history buffer of the previous run anymore), it unfortunately crashed even earlier.

Actually I have no idea whether this is related, but I'll just post the output I got and retry after a reboot.

Toggle Spoiler
Processing Mrun_sim1_PndFlatGen.C(3600,
"/home/mertens/pandaroot/myoutput/20090204_flatgen_g4_crashtest.root")...
- RTDB container factory CbmBaseContFact
- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact

PSaid instance created... access via gSaid->f()

- RTDB container factory PndEmcContFact
- RTDB container factory PndTpcContFact
- RTDB container factory PndSttContFact
- RTDB container factory PndMvdContFact
- RTDB container factory PndTofContFact
- RTDB container factory PndDrcContFact
- RTDB container factory PndMdtContFact
- RTDB container factory PndDchContFact
- RTDB container factory PndLheContFact
-I- CbmRun::SetMaterials() Media file used:
/home/mertens/pandaroot/pandaroot/trunk/geometry/media_pnd.geo

============== CbmRunSim: Initialising simulation run ==============
Info in <TGeoManager::TGeoManager>: Geometry CBMGeom, CBM geometry created
-I- CbmGeoMedia Read media
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/TransMap.root
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/DipoleMap.root
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/SolenoidMap.root
Loading Geant4 granular libraries ...
Error in <TUnixSystem::DynamicPathName>: libG4OpenGL[.so | .sl | .dl | .a | .dll] does not
exist in .:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib::/usr/local
/panda/fairroot/fairsoft/tools/root_v5.20.00/lib:/usr/lib:/usr/X11R6/lib
:/home/mertens/pandaroot/cbuild/lib:/home/mertens/pandaroot/cbuild/lib:/
home/mertens/pandaroot/tools/root/lib:/home/mertens/pandaroot/generators
/lib:/home/mertens/pandaroot/generators/lib:/home/mertens/pandaroot/tran
sport/geant3/lib/tgt_linux:/home/mertens/pandaroot/transport/geant4/lib/

```
Linux-g++:/home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux:/ho
me/mertens/pandaroot/transport/vgm/lib:/home/mertens/pandaroot/cern/clhe
p/lib:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/cint/cint/s tl
Loading VGM libraries ...
Loading libraries ... finished
Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave
Material aluminium is not defined
Create Medium aluminium
Material iron is not defined
Create Medium iron
 --- Building TPC Geometry ---
Material silicon is not defined
Create Medium silicon
Material carbon is not defined
Create Medium carbon

 ====== EMC::  ConstructASCIIGeometry() ======
 ============================================
PndEmcReader: EMC geometry file ==
/home/mertens/pandaroot/pandaroot/trunk/geometry/emc_module1245.dat
Emc module = 1
********
Emc module = 2
********
Emc module = 3
********
Emc module = 4
********
Emc module = 5
********

 ====== EMC::  ConstructRootGeometry() ======
 ============================================
File name = /home/mertens/pandaroot/pandaroot/trunk/geometry/emc_module3new.root

 =======  DRC::  ConstructGeometry()  ========
 ============================================
Info in <TGeoManager::CheckGeometry>: Fixing runtime shapes...
Info in <TGeoManager::CheckGeometry>: ...Nothing to fix
Info in <TGeoManager::CloseGeometry>: Counting nodes...
Info in <TGeoManager::Voxelize>: Voxelizing...
Info in <TGeoManager::CloseGeometry>: Building cache...
Info in <TGeoNavigator::BuildCache>: --- Maximum geometry depth set to 100
Info in <TGeoManager::CloseGeometry>: 464664 nodes/ 1248 volume UID's in CBM geometry
Info in <TGeoManager::CloseGeometry>: ----------------modeler ready----------------
Material DCHmixture is not defined
Create Medium DCHmixture
Material DCHmixturePassive is not defined
Create Medium DCHmixturePassive
CbmMCApplication::ConstructGeometry() : Now closing the geometry
Warning in <TGeoManager::CloseGeometry>: geometry already closed
Info in <TG4RootNavMgr::SetNavigator>: TG4RootNavigator created and registered to
```

```
G4TransportationManager
Running TVirtualMCApplication::ConstructGeometry
*************************************************************
 Geant4 version Name: geant4-09-01-patch-02    (9-May-2008)
                      Copyright : Geant4 Collaboration
                      Reference : NIM A 506 (2003), 250-303
                            WWW : http://cern.ch/geant4
*************************************************************

Info in <TG4RootNavMgr::Initialize>: Creating G4 hierarchy ...
Info in <TGeoManager::ConvertReflections>: Converting reflections in: CBMGeom - CBM
geometry ...
Info in <TGeoManager::ConvertReflections>: Done
===> GEANT4 materials created and mapped to TGeo ones...
===> GEANT4 physical volumes created and mapped to TGeo hierarchy...
### INFO: TG4RootDetectorConstruction::Construct() finished
TG4PostDetConstruction::Initialize
G4 Stat: instantiated 2175 logical volumes
                      75673 physical volumes
The tables for UV photon tracking set for FusedSil
The tables for UV photon tracking set for NLAK33A
The tables for UV photon tracking set for Mirror
The tables for UV photon tracking set for Marcol82
The tables for UV photon tracking set for DIRCair
The tables for UV photon tracking set for DIRCairNoSens
Info in <TG4RootNavMgr::ConnectToG4>: ROOT detector construction class connected to
G4RunManager
Adding HadronPhysicsList QGSP_BERT_EMV

<<< Geant4 Physics List engine packaging library: PACK 5.4
<<< Geant4 Physics List simulation engine: QGSP_BERT_EMV 1.0

Adding SpecialPhysicsList stepLimiter+specialCuts+specialControls
Debug mode is switched on.
Visualization Manager instantiating...
Visualization Manager initialising...
Registering graphics systems...

You have successfully registered the following graphics systems.
Current available graphics systems are:
  ASCIITree (ATree)
  DAWNFILE (DAWNFILE)
  G4HepRepFile (HepRepFile)
  G4HepRep (HepRepXML)
  RayTracer (RayTracer)
  VRML1FILE (VRML1FILE)
  VRML2FILE (VRML2FILE)

Registering model factories...

You have successfully registered the following model factories.
Registered model factories:
```

```
  drawByCharge
  drawByParticleID

Registered filter factories:
  None

Geant4 has been created.
 -I g4Config() using g4conf  macro:
/home/mertens/pandaroot/pandaroot/trunk/gconfig/g4config.in
Physics cuts with script
 /home/mertens/pandaroot/pandaroot/trunk/gconfig/SetCuts.C
SetCuts Macro: Setting Processes..
SetCuts Macro: Setting cuts..
SetCuts Macro: Setting Processes..
SetCuts Macro: Setting cuts..
### Adding Neutron tracking cut for neutron
###  cut value is 10 microseconds
### Hadron physics constructed.
### Processes mapped to VMC controls ok.
### Step limiter physics constructed.
### Special Cuts constructed.
### Special Controls constructed.
### User particles physics constructed.
### Processes mapped to VMC codes ok.
 -I- Initializing PndMvdDetector()
 -I- PndDrc: Intialization successfull

************************************************************
     initialisation for run id 1306213214
************************************************************
Error in <CbmBaseParSet::init()>: CbmBaseParSet not initialized
Error in <PndGeoPassivePar::init()>: PndGeoPassivePar not initialized
Error in <PndTpcGeoPar::init()>: PndTpcGeoPar not initialized
Error in <PndGeoTofPar::init()>: PndGeoTofPar not initialized
Error in <PndGeoDrcPar::init()>: PndGeoDrcPar not initialized
Error in <CbmRuntimeDb::initContainers()>: Error occured during initialization
 -I- CbmMCApplication ->  simulation RunID:  1306213214

*********************************************
    GEANT4 Geometry statistics:
          2175 logical volumes
         75673 physical volumes
            22 materials
            21 user limits
          1259 sensitive detectors
*********************************************

 -I- CbmMCApplication:: Monte carlo Engine Initialisation  with TGeant4
create PndFieldPar container PndMultiFieldPar
create PndFieldPar container PndTransPar
create PndFieldPar container PndDipolePar
create PndFieldPar container PndSolenoidPar
```

```
 *** Break *** segmentation violation
Using host libthread_db library "/lib/libthread_db.so.1".
Attaching to program: /proc/5660/exe, process 5660
[Thread debugging using libthread_db enabled]
[New Thread -1227651376 (LWP 5660)]
0xb7fb6410 in __kernel_vsyscall ()
#1  0xb6df85c3 in __waitpid_nocancel () from /lib/libc.so.6
#2  0xb6da2d3b in do_system () from /lib/libc.so.6
#3  0xb6ea851d in system () from /lib/libpthread.so.0
#4  0xb7a7724d in TUnixSystem::Exec ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#5  0xb7a7c717 in TUnixSystem::StackTrace ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#6  0xb7a7b71e in TUnixSystem::DispatchSignals ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#7  0xb7a7b7ed in SigHandler ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#8  0xb7a74734 in sighandler ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#9  <signal handler called>
#10 0xb6dd7d8b in strlen () from /lib/libc.so.6
#11 0xb79b19ac in TDirectory::cd1 ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#12 0xb79b1a44 in TDirectory::cd ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#13 0xb6b4dbd9 in TDirectoryFile::cd ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#14 0xb6b5bafc in TFile::GetStreamerInfoList ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#15 0xb6b59f62 in TFile::ReadStreamerInfo ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#16 0xb6b5d7bd in TFile::Init ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#17 0xb6b5eb61 in TFile::TFile ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#18 0xb435dc52 in CbmParRootFile (this=0xd41ba50, fname=0xd412e0c "testparams.root",
    option=0xb439da4f "UPDATE", ftitle=0xb439e5cc "", compress=1)
    at /home/mertens/pandaroot/pandaroot/trunk/parbase/CbmParRootFileIo.cxx:46
#19 0xb435ddad in CbmParRootFileIo::open (this=0xd41b668, fname=0xd412e0c
"testparams.root",
    option=0xb439da4f "UPDATE", ftitle=0xb439e5cc "", compress=1)
    at  /home/mertens/pandaroot/pandaroot/trunk/parbase/CbmParRootFileIo.cxx:114
#20 0xb438f174 in G__ParBaseDict_153_0_3 (result7=0xbfe228a0, funcname=0xd412f00
"\001",
    libp=0xbfe1c434, hash=0) at
/home/mertens/pandaroot/cbuild/parbase/ParBaseDict.cxx:5167
#21 0xb71b674a in Cint::G__ExceptionWrapper ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#22 0xb7272cf8 in G__execute_call ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#23 0xb7273d4d in G__call_cppfunc ()
```

```
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#24 0xb724bde7 in G__interpret_func ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#25 0xb723add3 in G__getfunction ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#26 0xb7327c22 in G__getstructmem ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#27 0xb731da80 in G__getvariable ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#28 0xb720d751 in G__getitem ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#29 0xb7214df2 in G__getexpr ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#30 0xb72a5e9d in G__exec_statement ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#31 0xb724dd9c in G__interpret_func ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#32 0xb723ae36 in G__getfunction ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#33 0xb720d841 in G__getitem ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#34 0xb7214df2 in G__getexpr ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#35 0xb7221600 in G__calc_internal ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#36 0xb72aef8a in G__process_cmd ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#37 0xb7a69d65 in TCint::ProcessLine ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#38 0xb7a69a1f in TCint::ProcessLineSynch ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#39 0xb799e8e8 in TApplication::ExecuteFile ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#40 0xb799ec24 in TApplication::ProcessFile ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#41 0xb799bd6b in TApplication::ProcessLine ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#42 0xb70042b9 in TRint::Run ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRint.so.5. 20
#43 0x08048e23 in main ()
Root > Function Mrun_sim1_PndFlatGen() busy flag cleared
```

My system is a Suse Linux 10.2 running kernel 2.6.18.8-0.13-default #1 SMP on an Intel Core2 6600.

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 14:08:11 GMT
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Hi Alicia,

thanks for your suggestion, the M is actually caused by me copying the standard files to a different name before I make any modifications in order to have the original for comparison just in case anything goes wrong

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 14:13:00 GMT
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Hi Ralf,

changing back to standard geo gives me this:

Toggle Spoiler
Processing Mrun_sim1_PndFlatGen.C(3600, "
/home/mertens/pandaroot/myoutput/20090204_flatgen_g4_crashtest_standardg eo.root ")...
- RTDB container factory CbmBaseContFact
- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact

PSaid instance created... access via gSaid->f()

- RTDB container factory PndEmcContFact
- RTDB container factory PndTpcContFact
- RTDB container factory PndSttContFact
- RTDB container factory PndMvdContFact
- RTDB container factory PndTofContFact
- RTDB container factory PndDrcContFact
- RTDB container factory PndMdtContFact
- RTDB container factory PndDchContFact
- RTDB container factory PndLheContFact
-I- CbmRun::SetMaterials() Media file used:
/home/mertens/pandaroot/pandaroot/trunk/geometry/media_pnd.geo

============== CbmRunSim: Initialising simulation run ==============
Info in <TGeoManager::TGeoManager>: Geometry CBMGeom, CBM geometry created
-I- CbmGeoMedia Read media
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/TransMap.root
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/DipoleMap.root
-I- PndFieldMap: Reading field map from ROOT file

/home/mertens/pandaroot/pandaroot/trunk/input/SolenoidMap.root
Loading Geant4 granular libraries ...
Error in <TUnixSystem::DynamicPathName>: libG4OpenGL[.so | .sl | .dl | .a | .dll] does not exist in .:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib::/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib:/usr/lib:/usr/X11R6/lib:/home/mertens/pandaroot/cbuild/lib:/home/mertens/pandaroot/cbuild/lib:/home/mertens/pandaroot/tools/root/lib:/home/mertens/pandaroot/generators/lib:/home/mertens/pandaroot/generators/lib:/home/mertens/pandaroot/transport/geant3/lib/tgt_linux:/home/mertens/pandaroot/transport/geant4/lib/Linux-g++:/home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux:/home/mertens/pandaroot/transport/vgm/lib:/home/mertens/pandaroot/cern/clhep/lib:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/cint/cint/s tl
Loading VGM libraries ...
Loading libraries ... finished
Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave
Material aluminium is not defined
Create Medium aluminium
Material iron is not defined
Create Medium iron
 --- Building TPC Geometry ---
Material silicon is not defined
Create Medium silicon
Material carbon is not defined
Create Medium carbon

 ====== EMC:: ConstructASCIIGeometry() ======
 ==
PndEmcReader: EMC geometry file ==
/home/mertens/pandaroot/pandaroot/trunk/geometry/emc_module1245.dat
Emc module = 1
****
Emc module = 2
****
Emc module = 3
****
Emc module = 4
****
Emc module = 5
****

 ====== EMC:: ConstructRootGeometry() ======
 ==
File name = /home/mertens/pandaroot/pandaroot/trunk/geometry/emc_module3new.root

 ======= DRC:: ConstructGeometry() ========
 ==
Info in <TGeoManager::CheckGeometry>: Fixing runtime shapes...
Info in <TGeoManager::CheckGeometry>: ...Nothing to fix
Info in <TGeoManager::CloseGeometry>: Counting nodes...
Info in <TGeoManager::Voxelize>: Voxelizing...
Info in <TGeoManager::CloseGeometry>: Building cache...
Info in <TGeoNavigator::BuildCache>: --- Maximum geometry depth set to 100

```
Info in <TGeoManager::CloseGeometry>: 464316 nodes/ 1251 volume UID's in CBM geometry
Info in <TGeoManager::CloseGeometry>: ----------------modeler ready----------------
Material DCHmixture is not defined
Create Medium DCHmixture
Material DCHmixturePassive is not defined
Create Medium DCHmixturePassive
CbmMCApplication::ConstructGeometry() : Now closing the geometry
Warning in <TGeoManager::CloseGeometry>: geometry already closed
Info in <TG4RootNavMgr::SetNavigator>: TG4RootNavigator created and registered to
G4TransportationManager
Running TVirtualMCApplication::ConstructGeometry
*************************************************************
 Geant4 version Name: geant4-09-01-patch-02    (9-May-2008)
                      Copyright : Geant4 Collaboration
                      Reference : NIM A 506 (2003), 250-303
                            WWW : http://cern.ch/geant4
*************************************************************

Info in <TG4RootNavMgr::Initialize>: Creating G4 hierarchy ...
Info in <TGeoManager::ConvertReflections>: Converting reflections in: CBMGeom - CBM
geometry ...
Info in <TGeoManager::ConvertReflections>: Done
===> GEANT4 materials created and mapped to TGeo ones...
===> GEANT4 physical volumes created and mapped to TGeo hierarchy...
### INFO: TG4RootDetectorConstruction::Construct() finished
TG4PostDetConstruction::Initialize
G4 Stat: instantiated 2178 logical volumes
                      75663 physical volumes
The tables for UV photon tracking set for FusedSil
The tables for UV photon tracking set for NLAK33A
The tables for UV photon tracking set for Mirror
The tables for UV photon tracking set for Marcol82
The tables for UV photon tracking set for DIRCair
The tables for UV photon tracking set for DIRCairNoSens
Info in <TG4RootNavMgr::ConnectToG4>: ROOT detector construction class connected to
G4RunManager
Adding HadronPhysicsList QGSP_BERT_EMV

<<< Geant4 Physics List engine packaging library: PACK 5.4
<<< Geant4 Physics List simulation engine: QGSP_BERT_EMV 1.0

Adding SpecialPhysicsList stepLimiter+specialCuts+specialControls
Debug mode is switched on.
Visualization Manager instantiating...
Visualization Manager initialising...
Registering graphics systems...

You have successfully registered the following graphics systems.
Current available graphics systems are:
  ASCIITree (ATree)
  DAWNFILE (DAWNFILE)
  G4HepRepFile (HepRepFile)
```

```
  G4HepRep (HepRepXML)
  RayTracer (RayTracer)
  VRML1FILE (VRML1FILE)
  VRML2FILE (VRML2FILE)

Registering model factories...

You have successfully registered the following model factories.
Registered model factories:
  drawByCharge
  drawByParticleID

Registered filter factories:
  None

Geant4 has been created.
 -I g4Config() using g4conf  macro:
/home/mertens/pandaroot/pandaroot/trunk/gconfig/g4config.in
Physics cuts with script
 /home/mertens/pandaroot/pandaroot/trunk/gconfig/SetCuts.C
SetCuts Macro: Setting Processes..
SetCuts Macro: Setting cuts..
SetCuts Macro: Setting Processes..
SetCuts Macro: Setting cuts..
### Adding Neutron tracking cut for neutron
###  cut value is 10 microseconds
### Hadron physics constructed.
### Processes mapped to VMC controls ok.
### Step limiter physics constructed.
### Special Cuts constructed.
### Special Controls constructed.
### User particles physics constructed.
### Processes mapped to VMC codes ok.
 -I- Initializing PndMvdDetector()
 -I- PndDrc: Intialization successfull

************************************************************
     initialisation for run id 1838389595
************************************************************
Error in <CbmBaseParSet::init()>: CbmBaseParSet not initialized
Error in <PndGeoPassivePar::init()>: PndGeoPassivePar not initialized
Error in <PndTpcGeoPar::init()>: PndTpcGeoPar not initialized
Error in <PndGeoTofPar::init()>: PndGeoTofPar not initialized
Error in <PndGeoDrcPar::init()>: PndGeoDrcPar not initialized
Error in <CbmRuntimeDb::initContainers()>: Error occured during initialization
 -I- CbmMCApplication ->  simulation RunID:  1838389595

*********************************************
    GEANT4 Geometry statistics:
          2178 logical volumes
         75663 physical volumes
            22 materials
```

```
          21 user limits
        1262 sensitive detectors
*******************************************

 -I- CbmMCApplication:: Monte carlo Engine Initialisation  with TGeant4
create PndFieldPar container PndMultiFieldPar
create PndFieldPar container PndTransPar
create PndFieldPar container PndDipolePar
create PndFieldPar container PndSolenoidPar

 *** Break *** segmentation violation
Using host libthread_db library "/lib/libthread_db.so.1".
Attaching to program: /proc/6622/exe, process 6622
[Thread debugging using libthread_db enabled]
[New Thread -1227893040 (LWP 6622)]
0xb7f7b410 in __kernel_vsyscall ()
#1  0xb6dbd5c3 in __waitpid_nocancel () from /lib/libc.so.6
#2  0xb6d67d3b in do_system () from /lib/libc.so.6
#3  0xb6e6d51d in system () from /lib/libpthread.so.0
#4  0xb7a3c24d in TUnixSystem::Exec ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#5  0xb7a41717 in TUnixSystem::StackTrace ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#6  0xb7a4071e in TUnixSystem::DispatchSignals ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#7  0xb7a407ed in SigHandler ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#8  0xb7a39734 in sighandler ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#9  <signal handler called>
#10 0xb6d9cd8b in strlen () from /lib/libc.so.6
#11 0xb79769ac in TDirectory::cd1 ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#12 0xb7976a44 in TDirectory::cd ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#13 0xb6b12bd9 in TDirectoryFile::cd ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#14 0xb6b20afc in TFile::GetStreamerInfoList ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#15 0xb6b1ef62 in TFile::ReadStreamerInfo ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#16 0xb6b227bd in TFile::Init ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#17 0xb6b23b61 in TFile::TFile ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRIO.so
#18 0xb4322c52 in CbmParRootFile (this=0xd40dc48, fname=0xd405004 "testparams.root",
    option=0xb4362a4f "UPDATE", ftitle=0xb43635cc "", compress=1)
    at /home/mertens/pandaroot/pandaroot/trunk/parbase/CbmParRootFileIo.cxx:46
#19 0xb4322dad in CbmParRootFileIo::open (this=0xd40d860, fname=0xd405004
"testparams.root",
    option=0xb4362a4f "UPDATE", ftitle=0xb43635cc "", compress=1)
    at  /home/mertens/pandaroot/pandaroot/trunk/parbase/CbmParRootFileIo.cxx:114
```

#20 0xb4354174 in G__ParBaseDict_153_0_3 (result7=0xbfa71cf0, funcname=0xd4050f8 "\001",
    libp=0xbfa6b884, hash=0) at /home/mertens/pandaroot/cbuild/parbase/ParBaseDict.cxx:5167
#21 0xb717b74a in Cint::G__ExceptionWrapper ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#22 0xb7237cf8 in G__execute_call ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#23 0xb7238d4d in G__call_cppfunc ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#24 0xb7210de7 in G__interpret_func ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#25 0xb71ffdd3 in G__getfunction ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#26 0xb72ecc22 in G__getstructmem ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#27 0xb72e2a80 in G__getvariable ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#28 0xb71d2751 in G__getitem ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#29 0xb71d9df2 in G__getexpr ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#30 0xb726ae9d in G__exec_statement ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#31 0xb7212d9c in G__interpret_func ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#32 0xb71ffe36 in G__getfunction ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#33 0xb71d2841 in G__getitem ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#34 0xb71d9df2 in G__getexpr ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#35 0xb71e6600 in G__calc_internal ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#36 0xb7273f8a in G__process_cmd ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#37 0xb7a2ed65 in TCint::ProcessLine ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#38 0xb7a2ea1f in TCint::ProcessLineSynch ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#39 0xb79638e8 in TApplication::ExecuteFile ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#40 0xb7963c24 in TApplication::ProcessFile ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#41 0xb7960d6b in TApplication::ProcessLine ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#42 0xb6fc92b9 in TRint::Run ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRint.so.5. 20
#43 0x08048e23 in main ()
Root > Function Mrun_sim1_PndFlatGen() busy flag cleared

However, as it got worse in the meantime and now crashes even earlier than before (without any changes I'm aware of), I'll also try the standard geo once again after a clean boot and see what this gives.

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by StefanoSpataro on Wed, 04 Feb 2009 14:16:45 GMT
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Error in <TUnixSystem::DynamicPathName>: libG4OpenGL[.so | .sl | .dl | .a | .dll] does not exist

Probably there something screwed up in your environment. Try from a new terminal.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 14:20:04 GMT
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Hi Stefano,

the file is a modified MVD geometry with 2 additional strip discs in forward direction. Tobias made them with his CAD converter and I also used it for some simulations before.

Currently, even the standard geometry crashes I'll let you know if at least this works again after a reboot.

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 14:44:43 GMT
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Hi Stefano,

this particular error persists even after reboot. Now I'm a bit puzzled where this suddenly came from and especially what I can do to fix this.

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Wed, 04 Feb 2009 17:27:28 GMT
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Hi all,

I managed to get a step further now:

The second (new, immediate) crash which occured later during testing was fixed by deleting the file testparams.root. It might have been corrupted from a previous crash.

The first (initial, appearing after a few 100 events) error which is the actual reason for my post, still persists when running with the parameters below. In the meantime, I also updated Pandaroot to Revision 4500.

Mrun_sim1_PndFlatGen.C
Toggle Spoiler

```
// Macro for running Cbm  with Geant3  or Geant4 (M. Al-Turany , D. Bertini)
// Modified 22/06/2005 D.Bertini

Mrun_sim1_PndFlatGen(Int_t numevents, TString basefile)
{
  TStopwatch timer;
  timer.Start();
  gDebug=0;
  // Load basic libraries
  gROOT->LoadMacro("$VMCWORKDIR/gconfig/rootlogon.C");
  rootlogon();

  CbmRunSim *fRun = new CbmRunSim();

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

  fRun->SetName("TGeant4");
  // Choose the Geant Navigation System
  // fRun->SetGeoModel("G3Native");

  //fRun->SetOutputFile("testsimu10.root");
  fRun->SetOutputFile(basefile);


  // Set Material file Name
  //-----------------------

  fRun->SetMaterials("media_pnd.geo");

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

  CbmModule *Cave= new PndCave("CAVE");
  Cave->SetGeometryFileName("pndcave.geo");
```

```
  fRun->AddModule(Cave);

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

  CbmModule *Dipole= new PndMagnet("MAGNET");
  Dipole->SetGeometryFileName("dipole.geo");
  fRun->AddModule(Dipole);


  CbmModule *Pipe= new PndPipe("PIPE");
  //Pipe->SetGeometryFileName("pipebeamtarget.geo");
  fRun->AddModule(Pipe);

  /*
    CbmDetector *Stt = new CbmStt("STT",kTRUE);
    Stt->SetGeometryFileName("stt24.geo"); // 14 = 1 solo 2layer pablo01.geo 3 layers stt24
    fRun->AddModule(Stt);
  */
  /*
    CbmDetector *Stt= new CbmStt("STT", kTRUE);
    Stt->SetGeometryFileName("straws_axial.geo");
    fRun->AddModule(Stt);
  */
/*
  CbmDetector *Stt= new PndStt("STT", kTRUE);
  Stt->SetGeometryFileName("straws_skewed_blocks_35cm.geo");
  fRun->AddModule(Stt);
*/

  CbmDetector *Tpc = new PndTpcDetector("TPC", kTRUE);
  Tpc->SetGeometryFileName("tpc.geo");
  fRun->AddModule(Tpc);


  CbmDetector *Mvd = new PndMvdDetector("MVD", kTRUE);
  Mvd->SetGeometryFileName("MVD_v1.0_woPassiveTraps.root");
  //Mvd->SetGeometryFileName("MVD_v1_2addDisks.root");
  fRun->AddModule(Mvd);



  PndEmc *Emc = new PndEmc("EMC",kTRUE);
  Emc->SetGeometryFileNameDouble("emc_module1245.dat","emc_module3new.root "); // if
you want to use new geometry for FwEndCap
  fRun->AddModule(Emc);


  CbmDetector *Tof = new PndTof("TOF",kTRUE);
  Tof->SetGeometryFileName("tofbarrel.geo");
  fRun->AddModule(Tof);
```

```
  CbmDetector *Drc = new PndDrc("DIRC", kTRUE);
  Drc->SetGeometryFileName("dirc.geo");
  fRun->AddModule(Drc);

/*
 CbmDetector *Muo = new PndMdt("MDT",kTRUE);
  Muo->SetGeometryFileName("muopars.root");
  fRun->AddModule(Muo);
*/

  CbmDetector *Dch = new PndDchDetector("DCH", kTRUE);
  Dch->SetGeometryFileName("dch.root");
  fRun->AddModule(Dch);

  // Create and Set Event Generator
  //-------------------------------

  CbmPrimaryGenerator* primGen = new CbmPrimaryGenerator();
  fRun->SetGenerator(primGen);

  PndFlatParticleGenerator pndFlatGen;
pndFlatGen.SetPDGType(211);
//pndFlatGen.SetMultiplicity(10);
pndFlatGen.SetPRange(1, 1, 1);
pndFlatGen.SetPhiRange(0, 359.8, 0.1);
pndFlatGen.SetThetaRange(20, 20, 1);

primGen->AddGenerator(&pndFlatGen);


/*
    //EvtGen Generator
    CbmEvtGenGenerator* evtGen = new
    //CbmEvtGenGenerator("/home/ralfk/Pandaroot/pandaroot/macro/mvd/output.evt ");
    //CbmEvtGenGenerator("
/private/mertens/fairsoft/cbmsoft/pandaroot/pgenerators/EvtGen/lambdalam
bdabar_15gev_100k.evt ");
    CbmEvtGenGenerator(eventfile);
    primGen->AddGenerator(evtGen);
*/

  /*  // Box Generator
      CbmBoxGenerator* boxGen = new CbmBoxGenerator(13, 200); // 13 = muon; 1 = multipl.
      //  boxGen->SetPRange(1.,1.1); // GeV/c
      boxGen->SetPtRange(1.,1.); // GeV/c
      boxGen->SetPhiRange(0., 360.); // Azimuth angle range [degree]
      boxGen->SetThetaRange(0., 90.); // Polar angle in lab system range [degree]
      boxGen->SetXYZ(0., 0., 0.); // mm o cm ??
      primGen->AddGenerator(boxGen);
  */
  /*
```

```
      // proton 2212 pi+ 211 pi- -211
      Double_t randx, randy;
      for (Int_t n =0; n<10; n++){
        randx= gRandom->Gaus(0,1);
        randy= gRandom->Gaus(0,1);
        CbmParticleGenerator* partGen = new CbmParticleGenerator(2212, 1, 0.3*randx,
0.3*randy, 0.3);
        primGen->AddGenerator(partGen);
      }
  */


  // Ion Generator
  //CbmIonGenerator *fIongen= new CbmIonGenerator(79, 197,79,1, 0.,0., 25, 0.,0.,-1.);
  //  primGen->AddGenerator(fIongen);


  //
  fRun->SetStoreTraj(kFALSE);

  PndMultiField *fField= new PndMultiField();

  PndTransMap *map= new PndTransMap("TransMap", "R");
  PndDipoleMap *map1= new PndDipoleMap("DipoleMap", "R");
  PndSolenoidMap *map2= new PndSolenoidMap("SolenoidMap", "R");
  fField->AddField(map);
  fField->AddField(map1);
  fField->AddField(map2);

/**
 // New field oct.2008
  PndTransMap  *tmap= new PndTransMap("Trans1", "R");
  PndDipoleMap *dmap1= new PndDipoleMap("Dipole1", "R");
  PndDipoleMap *dmap2= new PndDipoleMap("Dipole2", "R");

  PndSolenoidMap *smap1= new PndSolenoidMap("Solenoid1", "R");
  PndSolenoidMap *smap2= new PndSolenoidMap("Solenoid2", "R");
  PndSolenoidMap *smap3= new PndSolenoidMap("Solenoid3", "R");
  PndSolenoidMap *smap4= new PndSolenoidMap("Solenoid4", "R");

  fField->AddField(tmap);
  fField->AddField(dmap1);
  fField->AddField(dmap2);

  fField->AddField(smap1);
  fField->AddField(smap2);
  fField->AddField(smap3);
  fField->AddField(smap4);
*/
```

```
  //magnetic field
  /*  PndConstField *fMagField=new PndConstField();
      fMagField->SetField(0.,0.,20.); // values are in kG
      fMagField->SetFieldRegion(-50, 50,-50, 50, -100, 100);// values are in cm
(xmin,xmax,ymin,ymax,zmin,zmax)
      fField->AddField(fMagField);
  */
  fRun->SetField(fField);



  fRun->Init();
/*
  // -Trajectories Visualization
  // --------------------------
  CbmTrajFilter* trajFilter = CbmTrajFilter::Instance();
  // Set cuts for storing the trajectpries
  trajFilter->SetStepSizeCut(0.01); // 1 cm
  //     trajFilter->SetVertexCut(-2000., -2000., 4., 2000., 2000., 100.);
  //     trajFilter->SetMomentumCutP(10e-3); // p_lab > 10 MeV
  //     trajFilter->SetEnergyCut(0., 1.02); // 0 < Etot < 1.04 GeV
  trajFilter->SetStorePrimaries(kTRUE);
  trajFilter->SetStoreSecondaries(kTRUE);
*/
  //
  //   // Fill the Parameter containers for this run
  //   //-----------------------------------------
  //
  CbmRuntimeDb *rtdb=fRun->GetRuntimeDb();
  Bool_t kParameterMerged=kTRUE;



  //if a field is used save the parameters in the RTDB
  /*
 PndSolenoidPar* Par1 = (PndSolenoidPar*) rtdb->getContainer("PndSolenoidPar");
 if ( map2 ) {  Par1->SetParameters(map2); }
 Par1->setChanged();
 Par1->setInputVersion(fRun->GetRunId(),1);

 PndDipolePar* Par2 = (PndDipolePar*) rtdb->getContainer("PndDipolePar");
 if (map1 ) {  Par2->SetParameters(map1); }
 Par2->setInputVersion(fRun->GetRunId(),1);
 Par2->setChanged();

 PndTransPar* Par3 = (PndTransPar*) rtdb->getContainer("PndTransPar");
 if (map ) {  Par3->SetParameters(map); }
 Par3->setInputVersion(fRun->GetRunId(),1);
```

```
 Par3->setChanged();
  */

  PndMultiFieldPar* Par = (PndMultiFieldPar*) rtdb->getContainer("PndMultiFieldPar");
  if (fField) {  Par->SetParameters(fField); }
  Par->setInputVersion(fRun->GetRunId(),1);
  Par->setChanged();

  CbmParRootFileIo* output=new CbmParRootFileIo(kParameterMerged);
  output->open("testparams.root");
  rtdb->setOutput(output);
  rtdb->saveOutput();
  rtdb->print();
  // Transport nEvents
  // ----------------1

  Int_t nEvents = numevents;
  fRun->Run(nEvents);

  timer.Stop();

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

  cout << " Test passed" << endl;
  cout << " All ok " << endl;
  exit(0);

}
```

First lines of output
Toggle Spoiler

```
Processing Mrun_sim1_PndFlatGen.C(3600, "
/home/mertens/pandaroot/myoutput/20090204_flatgen_g4_crashtest_newinstal l5.root ")...
- RTDB container factory CbmBaseContFact
- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact

PSaid instance created...  access via gSaid->f()

- RTDB container factory PndEmcContFact
- RTDB container factory PndTpcContFact
- RTDB container factory PndSttContFact
- RTDB container factory PndMvdContFact
- RTDB container factory PndTofContFact
- RTDB container factory PndDrcContFact
- RTDB container factory PndMdtContFact
- RTDB container factory PndDchContFact
- RTDB container factory PndLheContFact
-I- CbmRun::SetMaterials() Media file used:
```

```
/home/mertens/pandaroot/pandaroot/trunk/geometry/media_pnd.geo

==============  CbmRunSim: Initialising simulation run  ==============
Info in <TGeoManager::TGeoManager>: Geometry CBMGeom, CBM geometry created
-I- CbmGeoMedia  Read media
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/TransMap.root
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/DipoleMap.root
-I- PndFieldMap: Reading field map from ROOT file
/home/mertens/pandaroot/pandaroot/trunk/input/SolenoidMap.root
Loading Geant4 granular libraries ...
Error in <TUnixSystem::DynamicPathName>: libG4OpenGL[.so | .sl | .dl | .a | .dll] does not
exist in  .:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib::/usr/local
/panda/fairroot/fairsoft/tools/root_v5.20.00/lib:/usr/lib:/usr/X11R6/lib
:/home/mertens/pandaroot/cbuild/lib:/home/mertens/pandaroot/cbuild/lib:/
home/mertens/pandaroot/tools/root/lib:/home/mertens/pandaroot/generators
/lib:/home/mertens/pandaroot/generators/lib:/home/mertens/pandaroot/tran
sport/geant3/lib/tgt_linux:/home/mertens/pandaroot/transport/geant4/lib/
Linux-g++:/home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux:/ho
me/mertens/pandaroot/transport/vgm/lib:/home/mertens/pandaroot/cern/clhe
p/lib:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/cint/cint/s tl
Loading VGM libraries ...
Loading libraries ... finished
Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave
Material aluminium is not defined
Create Medium aluminium
Material iron is not defined
Create Medium iron
 --- Building TPC Geometry ---
Material silicon is not defined
Create Medium silicon
Material carbon is not defined
Create Medium carbon

 ====== EMC::  ConstructASCIIGeometry() ======
 ============================================
PndEmcReader: EMC geometry file ==
/home/mertens/pandaroot/pandaroot/trunk/geometry/emc_module1245.dat
Emc module = 1
********
Emc module = 2
********
Emc module = 3
********
Emc module = 4
********
Emc module = 5
********

 ====== EMC::  ConstructRootGeometry() ======
 ============================================
```

```
File name = /home/mertens/pandaroot/pandaroot/trunk/geometry/emc_module3new.root

 =======  DRC::  ConstructGeometry()  ========
 ===============================================
Info in <TGeoManager::CheckGeometry>: Fixing runtime shapes...
Info in <TGeoManager::CheckGeometry>: ...Nothing to fix
Info in <TGeoManager::CloseGeometry>: Counting nodes...
Info in <TGeoManager::Voxelize>: Voxelizing...
Info in <TGeoManager::CloseGeometry>: Building cache...
Info in <TGeoNavigator::BuildCache>: --- Maximum geometry depth set to 100
Info in <TGeoManager::CloseGeometry>: 464316 nodes/ 1251 volume UID's in CBM geometry
Info in <TGeoManager::CloseGeometry>: ----------------modeler ready----------------
Material DCHmixture is not defined
Create Medium DCHmixture
Material DCHmixturePassive is not defined
Create Medium DCHmixturePassive
CbmMCApplication::ConstructGeometry() : Now closing the geometry
Warning in <TGeoManager::CloseGeometry>: geometry already closed
Info in <TG4RootNavMgr::SetNavigator>: TG4RootNavigator created and registered to
G4TransportationManager
Running TVirtualMCApplication::ConstructGeometry
************************************************************
 Geant4 version Name: geant4-09-01-patch-02    (9-May-2008)
                      Copyright : Geant4 Collaboration
                      Reference : NIM A 506 (2003), 250-303
                            WWW : http://cern.ch/geant4
************************************************************

Info in <TG4RootNavMgr::Initialize>: Creating G4 hierarchy ...
Info in <TGeoManager::ConvertReflections>: Converting reflections in: CBMGeom - CBM
geometry ...
Info in <TGeoManager::ConvertReflections>: Done
===> GEANT4 materials created and mapped to TGeo ones...
===> GEANT4 physical volumes created and mapped to TGeo hierarchy...
### INFO: TG4RootDetectorConstruction::Construct() finished
TG4PostDetConstruction::Initialize
G4 Stat: instantiated 2178 logical volumes
                      75663 physical volumes
The tables for UV photon tracking set for FusedSil
The tables for UV photon tracking set for NLAK33A
The tables for UV photon tracking set for Mirror
The tables for UV photon tracking set for Marcol82
The tables for UV photon tracking set for DIRCair
The tables for UV photon tracking set for DIRCairNoSens
Info in <TG4RootNavMgr::ConnectToG4>: ROOT detector construction class connected to
G4RunManager
Adding HadronPhysicsList QGSP_BERT_EMV

<<< Geant4 Physics List engine packaging library: PACK 5.4
<<< Geant4 Physics List simulation engine: QGSP_BERT_EMV 1.0

Adding SpecialPhysicsList stepLimiter+specialCuts+specialControls
```

```
Debug mode is switched on.
Visualization Manager instantiating...
Visualization Manager initialising...
Registering graphics systems...

You have successfully registered the following graphics systems.
Current available graphics systems are:
  ASCIITree (ATree)
  DAWNFILE (DAWNFILE)
  G4HepRepFile (HepRepFile)
  G4HepRep (HepRepXML)
  RayTracer (RayTracer)
  VRML1FILE (VRML1FILE)
  VRML2FILE (VRML2FILE)

Registering model factories...

You have successfully registered the following model factories.
Registered model factories:
  drawByCharge
  drawByParticleID

Registered filter factories:
  None

Geant4 has been created.
 -I g4Config() using g4conf  macro:
/home/mertens/pandaroot/pandaroot/trunk/gconfig/g4config.in
Physics cuts with script
 /home/mertens/pandaroot/pandaroot/trunk/gconfig/SetCuts.C
SetCuts Macro: Setting Processes..
SetCuts Macro: Setting cuts..
SetCuts Macro: Setting Processes..
SetCuts Macro: Setting cuts..
### Adding Neutron tracking cut for neutron
###  cut value is 10 microseconds
### Hadron physics constructed.
### Processes mapped to VMC controls ok.
### Step limiter physics constructed.
### Special Cuts constructed.
### Special Controls constructed.
### User particles physics constructed.
### Processes mapped to VMC codes ok.
 -I- Initializing PndMvdDetector()
 -I- PndDrc: Intialization successfull

************************************************************
     initialisation for run id 90243391
************************************************************
Error in <CbmBaseParSet::init()>: CbmBaseParSet not initialized
Error in <PndGeoPassivePar::init()>: PndGeoPassivePar not initialized
Error in <PndTpcGeoPar::init()>: PndTpcGeoPar not initialized
```

```
Error in <PndGeoTofPar::init()>: PndGeoTofPar not initialized
Error in <PndGeoDrcPar::init()>: PndGeoDrcPar not initialized
Error in <CbmRuntimeDb::initContainers()>: Error occured during initialization
 -I- CbmMCApplication ->  simulation RunID:  90243391

*********************************************
   GEANT4 Geometry statistics:
         2178 logical volumes
        75663 physical volumes
           22 materials
           21 user limits
         1262 sensitive detectors
*********************************************

 -I- CbmMCApplication:: Monte carlo Engine Initialisation  with TGeant4
create PndFieldPar container PndMultiFieldPar
create PndFieldPar container PndTransPar
create PndFieldPar container PndDipolePar
create PndFieldPar container PndSolenoidPar
RuntimeDb: write container CbmBaseParSet
Warning in <TClass::TClass>: no dictionary for class RangeValues is available
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer
or dictionary, data member "fPt" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer
or dictionary, data member "fPhi" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer
or dictionary, data member "fEta" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer
or dictionary, data member "fRapidity" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer
or dictionary, data member "fP" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer
or dictionary, data member "fTheta" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer
or dictionary, data member "fCosTheta" will not be saved
***  CbmBaseParSet written to ROOT file   version: 1
RuntimeDb: write container PndGeoPassivePar
***  PndGeoPassivePar written to ROOT file   version: 1
RuntimeDb: write container PndTpcGeoPar
***  PndTpcGeoPar written to ROOT file   version: 1
RuntimeDb: write container PndGeoTofPar
***  PndGeoTofPar written to ROOT file   version: 1
RuntimeDb: write container PndGeoDrcPar
RuntimeDb: write container PndMultiFieldPar
***  PndMultiFieldPar written to ROOT file   version: 1
RuntimeDb: write container PndTransPar
RuntimeDb: write container PndDipolePar
RuntimeDb: write container PndSolenoidPar
 ------------------------------------------------------------------------ --------
----------  actual containers in runtime database  ------------------------
CbmBaseParSet                          Test class for parameter io
PndGeoPassivePar                        Passive Geometry Parameters
```

```
PndTpcGeoPar                        PndTpc Geometry Parameters
PndGeoTofPar                       tof Geometry Parameters
PndGeoDrcPar                        Drc Geometry Parameters
PndMultiFieldPar                   Multiple Field parameter container
PndTransPar                        Trans. Field parameter container
PndDipolePar                       Dipole Field parameter container
PndSolenoidPar                      Solenoid Field parameter container
--------------  runs, versions  ----------------------------------------------
run id
  container                        1st-inp    2nd-inp    output
run: 90243391
  CbmBaseParSet                      90243391        -1         1
  PndGeoPassivePar                    90243391        -1         1
  PndTpcGeoPar                       90243391        -1         1
  PndGeoTofPar                       90243391        -1         1
  PndGeoDrcPar                          -1        -1         0
  PndMultiFieldPar                   90243391        -1         1
  PndTransPar                        90243391        -1         0
  PndDipolePar                       90243391        -1         0
  PndSolenoidPar                      90243391        -1         0
--------------  input/output  ------------------------------------------------
first input: none
second input: none
output:
OBJ: CbmParRootFile     testparams.root  : 0 at: 0xd40e0f8
Root file I/O testparams.root is open
detector I/Os:  CbmGenericParIo

phot:  Total cross sections from Sandia parametrisation.
     Sampling according PhotoElectric model

compt:  Total cross sections has a good parametrisation from 10 KeV to (100/Z) GeV
     Sampling according Klein-Nishina model
     tables are built for  gamma
     Lambda tables from 100 eV  to 100 GeV in 90 bins.

conv:  Total cross sections has a good parametrisation from 1.5 MeV to 100 GeV for all Z;
     sampling secondary e+e- according Bethe-Heitler model
     tables are built for  gamma
     Lambda tables from 1.022 MeV to 100 GeV in 100 bins.

msc:  Model variant of multiple scattering for e-
     Lambda tables from 100 eV  to 100 TeV in 120 bins.
     LateralDisplacementFlag=  1   Skin= 0
     Boundary/stepping algorithm is active with RangeFactor= 0.2  Step limit type 0

eIoni:   tables are built for  e-
     dE/dx and range tables from 100 eV  to 100 TeV in 120 bins.
     Lambda tables from threshold to 100 TeV in 120 bins.
     Delta cross sections and sampling from MollerBhabha model
     Good description from 1 KeV to 100 GeV.
     Step function: finalRange(mm)= 1, dRoverRange= 0.8, integral: 1, fluct: 1
```

eBrem: tables are built for e-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Total cross sections and sampling from StandBrem model (based on the EEDL data library)
Good description from 1 KeV to 100 GeV, log scale extrapolation above 100 GeV. LPM flag 1

eIoni: tables are built for e+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Delta cross sections and sampling from MollerBhabha model
Good description from 1 KeV to 100 GeV.
Step function: finalRange(mm)= 1, dRoverRange= 0.8, integral: 1, fluct: 1

eBrem: tables are built for e+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Total cross sections and sampling from StandBrem model (based on the EEDL data library)
Good description from 1 KeV to 100 GeV, log scale extrapolation above 100 GeV. LPM flag 1

annihil: Sampling according eplus2gg model
tables are built for e+
Lambda tables from 100 eV to 100 TeV in 120 bins.

msc: Model variant of multiple scattering for proton
Lambda tables from 100 eV to 100 TeV in 120 bins.
LateralDisplacementFlag= 1 Skin= 0
Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 0

hIoni: tables are built for proton
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 2 MeV
Parametrisation from Bragg for protons below. NuclearStopping= 1
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

msc: Model variant of multiple scattering for GenericIon
LateralDisplacementFlag= 0 Skin= 0
Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 1

ionIoni: tables are built for GenericIon
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 2 MeV
Parametrisation from BraggIon for protons below. NuclearStopping= 1

Stopping Power data for 8 ion/material pairs are used.
Step function: finalRange(mm)= 0.1, dRoverRange= 0.1, integral: 1, fluct: 1

hIoni: tables are built for anti_proton
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 2 MeV
Parametrisation from Bragg for protons below. NuclearStopping= 1
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

msc: Model variant of multiple scattering for mu+
Lambda tables from 100 eV to 100 TeV in 120 bins.
LateralDisplacementFlag= 1 Skin= 0
Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 0

muIoni: tables are built for mu+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Bether-Bloch model for E > 0.2 MeV, parametrisation of Bragg peak below,
radiative corrections for E > 1 GeV
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

muBrems: tables are built for mu+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

muPairProd: tables are built for mu+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

muIoni: tables are built for mu-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Bether-Bloch model for E > 0.2 MeV, parametrisation of Bragg peak below,
radiative corrections for E > 1 GeV
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

muBrems: tables are built for mu-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

muPairProd: tables are built for mu-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

G4UHadronElasticProcess for neutron PDGcode= 2112 Elow(MeV)= 19 Elowest(eV)= 0

hIoni: tables are built for pi+
    dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
    Lambda tables from threshold to 100 TeV in 120 bins.
    Scaling relation is used from proton dE/dx and range.
    Delta cross sections and sampling from BetheBloch model for scaled energy > 0.297504 MeV
    Parametrisation from Bragg for protons below. NuclearStopping= 1
    Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

msc: Model variant of multiple scattering for pi-
    Lambda tables from 100 eV to 100 TeV in 120 bins.
    LateralDisplacementFlag= 1   Skin= 0
    Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 0

hIoni: tables are built for pi-
    dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
    Lambda tables from threshold to 100 TeV in 120 bins.
    Scaling relation is used from proton dE/dx and range.
    Delta cross sections and sampling from BetheBloch model for scaled energy > 0.297504 MeV
    Parametrisation from Bragg for protons below. NuclearStopping= 1
    Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

========= Table of registered couples ==============================

Index : 0   used in the geometry : Yes   recalculation needed : No
 Material : air
 Range cuts   : gamma 1 mm   e- 1 mm   e+ 1 mm
 Energy thresholds : gamma 990 eV   e- 990 eV   e+ 990 eV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 1   used in the geometry : Yes   recalculation needed : No
 Material : aluminium
 Range cuts   : gamma 1 mm   e- 1 mm   e+ 1 mm
 Energy thresholds : gamma 6.88731 keV   e- 596.68 keV   e+ 568.011 keV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 2   used in the geometry : Yes   recalculation needed : No
 Material : iron
 Range cuts   : gamma 1 mm   e- 1 mm   e+ 1 mm
 Energy thresholds : gamma 20.8323 keV   e- 1.28002 MeV   e+ 1.21851 MeV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 3   used in the geometry : Yes   recalculation needed : No
 Material : copper
 Range cuts   : gamma 1 mm   e- 1 mm   e+ 1 mm
 Energy thresholds : gamma 24.6072 keV   e- 1.39521 MeV   e+ 1.31192 MeV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 4 used in the geometry : Yes recalculation needed : No
Material : steel
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 20.8323 keV e- 1.31192 MeV e+ 1.23361 MeV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 5 used in the geometry : Yes recalculation needed : No
Material : vacuum
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 990 eV e- 990 eV e+ 990 eV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 6 used in the geometry : Yes recalculation needed : No
Material : Al+Be
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 4.45676 keV e- 496.074 keV e+ 478.087 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 7 used in the geometry : Yes recalculation needed : No
Material : TPCmixture
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 990 eV e- 990 eV e+ 990 eV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 8 used in the geometry : Yes recalculation needed : No
Material : silicon
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 6.88731 keV e- 540.718 keV e+ 521.113 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 9 used in the geometry : Yes recalculation needed : No
Material : carbon
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 3.29462 keV e- 568.011 keV e+ 554.196 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 10 used in the geometry : Yes recalculation needed : No
Material : PWO
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 84.7768 keV e- 1.13176 MeV e+ 1.06419 MeV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 11 used in the geometry : Yes recalculation needed : No
Material : lead

Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 100.511 keV e- 1.37814 MeV e+ 1.28002 MeV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 12 used in the geometry : Yes recalculation needed : No
Material : FscScint
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 2.36895 keV e- 355.791 keV e+ 347.138 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 13 used in the geometry : Yes recalculation needed : No
Material : polyvinyltoluene
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 2.36895 keV e- 355.791 keV e+ 347.138 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 14 used in the geometry : Yes recalculation needed : No
Material : DIRCairNoSens
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 990 eV e- 990 eV e+ 990 eV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 15 used in the geometry : Yes recalculation needed : No
Material : FusedSil
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 5.51637 keV e- 534.102 keV e+ 514.737 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 16 used in the geometry : Yes recalculation needed : No
Material : NLAK33A
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 7.44009 keV e- 884.76 keV e+ 842.248 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 17 used in the geometry : Yes recalculation needed : No
Material : Mirror
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 5.51637 keV e- 534.102 keV e+ 514.737 keV
Region(s) which use this couple :
DefaultRegionForTheWorld

Index : 18 used in the geometry : Yes recalculation needed : No
Material : Marcol82
Range cuts : gamma 1 mm e- 1 mm e+ 1 mm
Energy thresholds : gamma 2.1641 keV e- 326.415 keV e+ 318.477 keV
Region(s) which use this couple :

```
   DefaultRegionForTheWorld

Index : 19     used in the geometry : Yes     recalculation needed : No
 Material : DCHmixturePassive
 Range cuts        :  gamma 1 mm     e- 1 mm     e+ 1 mm
 Energy thresholds :  gamma 990 eV     e- 990 eV     e+ 990 eV
 Region(s) which use this couple :
   DefaultRegionForTheWorld

Index : 20     used in the geometry : Yes     recalculation needed : No
 Material : DCHmixture
 Range cuts        :  gamma 1 mm     e- 1 mm     e+ 1 mm
 Energy thresholds :  gamma 990 eV     e- 990 eV     e+ 990 eV
 Region(s) which use this couple :
   DefaultRegionForTheWorld

========================================================================

### Run 0 start.
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 0.1 20 1
phi, cosTheta, p: 0.1 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 0
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 0.2 20 1
phi, cosTheta, p: 0.2 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 1
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 0.3 20 1
phi, cosTheta, p: 0.3 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 2
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 0.4 20 1
phi, cosTheta, p: 0.4 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)


Last lines of output
Toggle Spoiler
>>> Event 311
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 31.3 20 1
phi, cosTheta, p: 31.3 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 312
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 31.4 20 1
phi, cosTheta, p: 31.4 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
```

```
>>> Event 313
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 31.5 20 1
phi, cosTheta, p: 31.5 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
>>> Event 314

 *** Break *** segmentation violation
Using host libthread_db library "/lib/libthread_db.so.1".
Attaching to program: /proc/7969/exe, process 7969
[Thread debugging using libthread_db enabled]
[New Thread -1228290352 (LWP 7969)]
0xb7f1a410 in __kernel_vsyscall ()
#1  0xb6d5c5c3 in __waitpid_nocancel () from /lib/libc.so.6
#2  0xb6d06d3b in do_system () from /lib/libc.so.6
#3  0xb6e0c51d in system () from /lib/libpthread.so.0
#4  0xb79db24d in TUnixSystem::Exec () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#5  0xb79e0717 in TUnixSystem::StackTrace () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#6  0xb79df71e in TUnixSystem::DispatchSignals ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#7  0xb79df7ed in SigHandler () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#8  0xb79d8734 in sighandler () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#9  <signal handler called>
#10 0xb682ab3f in TGeoNavigator::CdDown () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#11 0xb682cccb in TGeoNavigator::SearchNode () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#12 0xb682da1e in TGeoNavigator::CrossBoundaryAndLocate ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#13 0xb68108f2 in TGeoManager::CrossBoundaryAndLocate ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#14 0xaf8f41ad in TG4RootNavigator::LocateGlobalPointAndSetup ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libG4root.so
#15 0xb1c97e18 in G4Navigator::LocateGlobalPointAndUpdateTouchableHandle
(this=0xb070340, position=@0xe40d70c,
    direction=@0xdc262d0, oldTouchableToUpdate=@0xd0cfccc, RelativeSearch=true)
    at  /usr/local/panda/fairroot/fairsoft/transport/geant4/source/geometry/navi
gation/include/G4Navigator.icc:321
#16 0xb1c94cf2 in G4Transportation::PostStepDoIt (this=0xd0cfb68, track=@0xe40d708) at
src/G4Transportation.cc:623
#17 0xb054e622 in G4SteppingManager::InvokePSDIP (this=0xb078db8, np=0) at
src/G4SteppingManager2.cc:503
#18 0xb054e909 in G4SteppingManager::InvokePostStepDoItProcs (this=0xb078db8) at
src/G4SteppingManager2.cc:479
#19 0xb054a566 in G4SteppingManager::Stepping (this=0xb078db8) at
src/G4SteppingManager.cc:210
#20 0xb0558c96 in G4TrackingManager::ProcessOneTrack (this=0xb078d90,
apValueG4Track=0xe40d708) at src/G4TrackingManager.cc:126
```

#21 0xb040e341 in G4EventManager::DoProcessing (this=0xb078d48, anEvent=0xb084f90) at src/G4EventManager.cc:185
#22 0xb040eade in G4EventManager::ProcessOneEvent (this=0xb078d48, anEvent=0xb084f90) at src/G4EventManager.cc:335
#23 0xb03a74db in G4RunManager::DoEventLoop (this=0xb078c98, n_event=3600, macroFile=0x0, n_select=-1)
    at src/G4RunManager.cc:235
#24 0xb03a5e4e in G4RunManager::BeamOn (this=0xb078c98, n_event=3600, macroFile=0x0, n_select=-1) at src/G4RunManager.cc:140
#25 0xaf894fb7 in TG4RunManager::ProcessRun () from /home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux/libgeant4vmc. so
#26 0xaf8992e7 in TGeant4::ProcessRun () from /home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux/libgeant4vmc. so
#27 0xb41e4639 in CbmMCApplication::RunMC (this=0x8745db0, nofEvents=3600)
    at /home/mertens/pandaroot/pandaroot/trunk/base/CbmMCApplication.cxx:228
#28 0xb41f87c1 in CbmRunSim::Run (this=0x86b9218, NStart=3600, NStop=0)
    at /home/mertens/pandaroot/pandaroot/trunk/base/CbmRunSim.cxx:286
#29 0xb423ab50 in G__CbmDict_531_0_5 (result7=0xbfa01460, funcname=0x86b69f0 "\001", libp=0xbf9faff4, hash=0)
    at /home/mertens/pandaroot/cbuild/base/CbmDict.cxx:9272
#30 0xb711a74a in Cint::G__ExceptionWrapper () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#31 0xb71d6cf8 in G__execute_call () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#32 0xb71d7d4d in G__call_cppfunc () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#33 0xb71afde7 in G__interpret_func () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#34 0xb719edd3 in G__getfunction () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#35 0xb728bc22 in G__getstructmem () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#36 0xb7281a80 in G__getvariable () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#37 0xb7171751 in G__getitem () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#38 0xb7178df2 in G__getexpr () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#39 0xb7209e9d in G__exec_statement () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#40 0xb71b1d9c in G__interpret_func () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#41 0xb719ee36 in G__getfunction () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#42 0xb7171841 in G__getitem () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#43 0xb7178df2 in G__getexpr () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#44 0xb7185600 in G__calc_internal () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#45 0xb7212f8a in G__process_cmd () from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20

#46 0xb79cdd65 in TCint::ProcessLine () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#47 0xb79cda1f in TCint::ProcessLineSynch () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#48 0xb79028e8 in TApplication::ExecuteFile () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#49 0xb7902c24 in TApplication::ProcessFile () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#50 0xb78ffd6b in TApplication::ProcessLine () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#51 0xb6f682b9 in TRint::Run () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRint.so.5. 20
#52 0x08048e23 in main ()
Root > Function Mrun_sim1_PndFlatGen() busy flag cleared

Thanks for your input,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by StefanoSpataro on Thu, 05 Feb 2009 08:59:00 GMT
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First suspect point:

Quote:Loading Geant4 granular libraries ...
Error in <TUnixSystem::DynamicPathName>: libG4OpenGL[.so | .sl | .dl | .a | .dll] does not exist in .:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib::/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib:/usr/lib:/usr/X11R6/lib:/home/mertens/pandaroot/cbuild/lib:/home/mertens/pandaroot/cbuild/lib:/home/mertens/pandaroot/tools/root/lib:/home/mertens/pandaroot/generators/lib:/home/mertens/pandaroot/generators/lib:/home/mertens/pandaroot/transport/geant3/lib/tgt_linux:/home/mertens/pandaroot/transport/geant4/lib/Linux-g++:/home/mertens/pandaroot/transport/geant4_vmc/lib/tgt_linux:/home/mertens/pandaroot/transport/vgm/lib:/home/mertens/pandaroot/cern/clhep/lib:/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/cint/cint/s tl

In your system you do not have openGL and/or motiv libraries. Then your geant4 was not compiled with them and it has not created libG4OpenGL. I think (and hope) this should not affect the analysis.
To solve this, you should install opengl/motif in your computer, than rebuild (first you have to clean it) geant4 and g4vmc.

Second suspect point:

Quote:
Warning in <TClass::TClass>: no dictionary for class RangeValues is available
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer or dictionary, data member "fPt" will not be saved

Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer or dictionary, data member "fPhi" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer or dictionary, data member "fEta" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer or dictionary, data member "fRapidity" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer or dictionary, data member "fP" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer or dictionary, data member "fTheta" will not be saved
Warning in <TStreamerInfo::Build:>: PndFlatParticleGenerator: RangeValues has no streamer or dictionary, data member "fCosTheta" will not be saved

This has to be investigated. I think this is not safe.

Third suspect point:

Quote:Info in <TG4RootNavMgr::ConnectToG4>: ROOT detector construction class connected to G4RunManager
Adding HadronPhysicsList QGSP_BERT_EMV

<<< Geant4 Physics List engine packaging library: PACK 5.4
<<< Geant4 Physics List simulation engine: QGSP_BERT_EMV 1.0

Adding SpecialPhysicsList stepLimiter+specialCuts+specialControls
Debug mode is switched on.

You have "particular" geant4 configurations, "QGSP_BERT_EMV" physics lists and options "stepLimiter+specialCuts+specialControls". Do you really need them? They could be sources of errors.
You could try the standard and tested one in your gconfig/g4Config.C, "QGSP" (or "emStandard" to not use hadronic processes) as physics list, and no options after (no step limiter and so on).

Another test could be done by using geant3, to understand if it is related only to g4 code or even to g3.

In each case, maybe the error could be related to vmc options that were never tested (at least they were never tested by us with our code). Let's try

---

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by asanchez on Thu, 05 Feb 2009 09:48:00 GMT

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Hi i'm using geant4 configurations
with gsi installation and i have up to now any problems.

Another way to check what is really going wrong
is maybe to come back to the version which has been
working before doing update, and then compare.

good luck
alicia.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Thu, 05 Feb 2009 15:37:26 GMT
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Hi Stefano, thanks a lot for your input, I did some more tests throughout the day...

Stefano Spataro wrote on Thu, 05 February 2009 09:59First suspect point:
...
In your system you do not have openGL and/or motiv libraries. Then your geant4 was not compiled with them and it has not created libG4OpenGL. I think (and hope) this should not affect the analysis.
To solve this, you should install opengl/motif in your computer, than rebuild (first you have to clean it) geant4 and g4vmc.

Unfortunately, I cannot do this independently on my PC. I brought up this issue with our administrator, so he will have to help us there.

Stefano Spataro wrote on Thu, 05 February 2009 09:59Second suspect point:
...
This has to be investigated. I think this is not safe.

I (think that I) have fixed this locally now. Unfortunately, the symptoms are still the same

Stefano Spataro wrote on Thu, 05 February 2009 09:59Third suspect point:
...
You have "particular" geant4 configurations, "QGSP_BERT_EMV" physics lists and options "stepLimiter+specialCuts+specialControls". Do you really need them? They could be sources of errors.
You could try the standard and tested one in your gconfig/g4Config.C, "QGSP" (or "emStandard" to not use hadronic processes) as physics list, and no options after (no step limiter and so on).

This one puzzles me a bit. I'm not aware of having set anything special. How can I make sure that only the configuration you mentioned applies and nothing else will interfere with it?

Stefano Spataro wrote on Thu, 05 February 2009 09:59Another test could be done by using geant3, to understand if it is related only to g4 code or even to g3.

Unfortunately, even with removing the testparams.root before each run, also a Geant3 based simulation crashes after some 100 events.

Toggle Spoiler

```
 **** GTRIGI: IEVENT=    140 IDEVT=    140 Random Seeds =       4357          0
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 14 20 1
phi, cosTheta, p: 14 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
 **** GTRIGI: IEVENT=    141 IDEVT=    141 Random Seeds =       4357          0
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 14.1 20 1
phi, cosTheta, p: 14.1 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)
 **** GTRIGI: IEVENT=    142 IDEVT=    142 Random Seeds =       4357          0
CbmMCApplication::GeneratePrimaries()
outerVal, midVal, innerVal: 14.2 20 1
phi, cosTheta, p: 14.2 0 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)

 *** Break *** segmentation violation
Using host libthread_db library "/lib/libthread_db.so.1".
Attaching to program: /proc/22305/exe, process 22305
[Thread debugging using libthread_db enabled]
[New Thread -1227610416 (LWP 22305)]
0xb7fc0410 in __kernel_vsyscall ()
#1  0xb6e025c3 in __waitpid_nocancel () from /lib/libc.so.6
#2  0xb6dacd3b in do_system () from /lib/libc.so.6
#3  0xb6eb251d in system () from /lib/libpthread.so.0
#4  0xb7a8124d in TUnixSystem::Exec () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#5  0xb7a86717 in TUnixSystem::StackTrace ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#6  0xb7a8571e in TUnixSystem::DispatchSignals ()
   from  /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#7  0xb7a857ed in SigHandler () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#8  0xb7a7e734 in sighandler () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#9  <signal handler called>
#10 0xb68d0b3f in TGeoNavigator::CdDown () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#11 0xb68d2ccb in TGeoNavigator::SearchNode ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#12 0xb68d28ec in TGeoNavigator::SearchNode ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#13 0xb68d2f6c in TGeoNavigator::FindNode () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#14 0xb68b6778 in TGeoManager::FindNode () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libGeom.so
#15 0xb0fb5c8f in gtmediTGeo () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#16 0xb0fa7a67 in gtmedi_ () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#17 0xb0e22da9 in g3track_ () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
```

#18 0xb0fb9377 in gutrak_ () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#19 0xb0e23bd8 in gtreveroot_ () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#20 0xb0fb9347 in gutrev_ () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#21 0xb0f9e13b in jumpt0_ () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#22 0xb0cf2dd0 in g3trig_ () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#23 0xb0fab457 in TGeant3::Gtrig () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#24 0xb0fa79fb in TGeant3::ProcessEvent () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#25 0xb0fac74c in TGeant3::ProcessRun () from
/home/mertens/pandaroot/transport/geant3/lib/tgt_linux/libgeant321.so
#26 0xb428a639 in CbmMCApplication::RunMC (this=0x8746590, nofEvents=3600)
    at /home/mertens/pandaroot/pandaroot/trunk/base/CbmMCApplication.cxx:228
#27 0xb429e7c1 in CbmRunSim::Run (this=0x86b9a18, NStart=3600, NStop=0)
    at /home/mertens/pandaroot/pandaroot/trunk/base/CbmRunSim.cxx:286
#28 0xb42e0b50 in G__CbmDict_531_0_5 (result7=0xbfcde740, funcname=0x86b7260 "\001",
libp=0xbfcd82d4, hash=0)
    at /home/mertens/pandaroot/cbuild/base/CbmDict.cxx:9272
#29 0xb71c074a in Cint::G__ExceptionWrapper ()
   from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#30 0xb727ccf8 in G__execute_call () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#31 0xb727dd4d in G__call_cppfunc () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#32 0xb7255de7 in G__interpret_func () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#33 0xb7244dd3 in G__getfunction () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#34 0xb7331c22 in G__getstructmem () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#35 0xb7327a80 in G__getvariable () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#36 0xb7217751 in G__getitem () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#37 0xb721edf2 in G__getexpr () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#38 0xb72afe9d in G__exec_statement () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#39 0xb7257d9c in G__interpret_func () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#40 0xb7244e36 in G__getfunction () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#41 0xb7217841 in G__getitem () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#42 0xb721edf2 in G__getexpr () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#43 0xb722b600 in G__calc_internal () from

/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#44 0xb72b8f8a in G__process_cmd () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCint.so.5. 20
#45 0xb7a73d65 in TCint::ProcessLine () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#46 0xb7a73a1f in TCint::ProcessLineSynch ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#47 0xb79a88e8 in TApplication::ExecuteFile ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#48 0xb79a8c24 in TApplication::ProcessFile ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#49 0xb79a5d6b in TApplication::ProcessLine ()
  from /usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libCore.so.5. 20
#50 0xb700e2b9 in TRint::Run () from
/usr/local/panda/fairroot/fairsoft/tools/root_v5.20.00/lib/libRint.so.5. 20
#51 0x08048e23 in main ()

Stefano Spataro wrote on Thu, 05 February 2009 09:59
In each case, maybe the error could be related to vmc options that were never tested (at least they were never tested by us with our code). Let's try

Alright, I won't be on site until Monday, but then I'll be ready for running some more tests

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Thu, 05 Feb 2009 15:39:39 GMT
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Hi Alicia, yes, reverting to the old revision will probably be something like a last resort solution. Hopefully we'll find the reason for the segmentation violation before going that far

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Mon, 09 Feb 2009 16:16:40 GMT
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Hi all,

I finally narrowed down the reason for the segmentation violation on my machine:
Whenever the PndDchDetector is enabled, I get aforementioned error, regardless of any other settings I have tried.

When I comment out the lines which include the PndDchDetector, the script runs fine without errors.

@Stefano: I have now set my Geant4 options as you have suggested, however in my gconfig/g4Config.C as I got it from SVN the "particular" options were already set that way.

Best regards and thanks for your input,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by StefanoSpataro on Mon, 09 Feb 2009 16:22:39 GMT
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Hi,
I have seen that the default g4 options were changed (before they were no options).

Were there special reasons for this? (of course the question is not to Marius).

About the dch, are you using in parallel mdt and dch? Because they are overlapping somehow, and this could introduce the famous error.

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Mon, 09 Feb 2009 16:30:33 GMT
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Hi Stefano,

Stefano Spataro wrote on Mon, 09 February 2009 17:22
About the dch, are you using in parallel mdt and dch? Because they are overlapping somehow, and this could introduce the famous error.

No, DCH has always been commented out since I got the script from SVN. I don't even remember whether I ever enabled it at any time. But maybe there is another overlap somewhere else? I'll start a run with only the PndDchDetector enabled and see what happens...

When just these detectors are enabled, everything runs fine:
PndTpcDetector
PndMvdDetector
PndEmc
PndTof
PndDrc

As soon as I add PndDchDetector, I get the segmentation violation.

Best regards,

Marius

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by StefanoSpataro on Mon, 09 Feb 2009 16:33:34 GMT
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It can be that the dch are overlapping with the solenoid.
I supose you are using the "old" FullSolenoid, maybe PandaSolenoidV833 would help (I am not sure).

Subject: Re: Segmentation Violation when simulating events with run_sim1.C
Posted by Marius Mertens on Mon, 09 Feb 2009 16:44:00 GMT
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Stefano Spataro wrote on Mon, 09 February 2009 17:33It can be that the dch are overlapping with the solenoid.
I supose you are using the "old" FullSolenoid, maybe PandaSolenoidV833 would help (I am not sure).

Indeed, FullSolenoid.root is the version I am using. However, PndDchDetector "alone" (i.e. with only Cave, Magnet, Dipole and Pipe) runs fine.
Together with PndDrc it gives me the segmentation violation again.
After some more testing, these two detectors seem to be the critical combination: Everything else with either PndDrc or PndDchDetector runs without errors, both of them together result in the known crash.

Best regards,

Marius