Subject: crash in recotasks/demo/runDemo.C
Posted by Jens Sören Lange on Sat, 14 Jun 2008 09:39:34 GMT
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Hi all, I need help with geane.

recotasks/demo/runMC.C was running fine.
(generates 100 muons with p=0.5 GeV/c)

but recotasks/demo/runDemo.C
(which was running in Groningen)
crashes (see error output below)
immediately in the first event.

I tried the following 3 solutions to decrease the stepsize, but neither worked.

a.) in gconfig/Geane.C
```
void Config()
{
   TGeoMedium *m=gGeoManager->GetMedium("TPCmixture");
    m->SetParam(4, 0.0001); // stemax=0.0001 cm
```

b.) in geometry/media_pnd.geo
```
TPCmixture    3  20.1797 12.01 15.9994 10. 6. 8. 0.001 0.9 0.033 0.067
       1 1   20. 0.0001 <- HERE!
```

c.) I tried both gMC3->SetAUTO(0) and gMC3->SetAUTO(1)

Nothing helps. See error output below (is the same in either case). Any idea?

This is stable pre-release, rev. 2961.

thanks in advance, -- Soeren

(from here: error output)

[...]

```
PndFieldCreator::SetParm()
create PndFieldPar container PndFieldPar
create PndFieldPar container PndSolenoidPar
create PndFieldPar container PndDipolePar
create PndFieldPar container PndTransPar
create PndFieldPar container PndConstPar
create PndFieldPar container PndMultiFieldPar

************************************************************
    initialisation for run id 1097253067
************************************************************
Container CbmBaseParSet initialized from ROOT file.
Error in <PndFieldPar::init()>: PndFieldPar not initialized
```

```
Error in <PndSolenoidPar::init()>: PndSolenoidPar not initialized
Error in <PndDipolePar::init()>: PndDipolePar not initialized
Error in <PndTransPar::init()>: PndTransPar not initialized
Container PndConstPar initialized from ROOT file.
Error in <PndMultiFieldPar::init()>: PndMultiFieldPar not initialized
Error in <CbmRuntimeDb::initContainers()>: Error occured during initialization
PndFieldCreator::createCbmField()
 ------------------------------------------------------------------------ --------
--------------  actual containers in runtime database  ------------------------
CbmBaseParSet                          Test class for parameter io
PndFieldPar                           Field parameter container
PndSolenoidPar                         Solenoid Field parameter container
PndDipolePar                          Dipole Field parameter container
PndTransPar                           Trans. Field parameter container
PndConstPar                           Const Field parameter container
PndMultiFieldPar                       Multiple Field parameter container
--------------  runs, versions  ----------------------------------------------
run id
  container                           1st-inp    2nd-inp    output
run: 1097253067
  CbmBaseParSet                            -1         -1          0
  PndFieldPar                             -1         -1          0
  PndSolenoidPar                           -1         -1          0
  PndDipolePar                            -1         -1          0
  PndTransPar                             -1         -1          0
  PndConstPar                             -1         -1          0
  PndMultiFieldPar                         -1         -1          0
--------------  input/output  ------------------------------------------------
first Input:
OBJ: CbmParRootFile     demo.param.root  : 0 at: 0x9bc0cf0
Root file I/O demo.param.root is open
detector I/Os:  CbmGenericParIo
second input: none
output: none
-I- Geane:  Magnetic Field is Set and will be used
==================================================
----  CBM Magnetic Field :
----
----  Field type    : constant
----
----  Field regions :
----       x = -500 to  500 cm
----       y = -500 to  500 cm
----       z = -200 to  200 cm
----  B = ( 0, 0, 20 ) kG
==================================================
DemoPatternRecoTask::Exec
Creating new track candidate with id=0
TVector3 A 3D physics vector (x,y,z)=(0.315168,0.089619,0.393012)
(rho,theta,phi)=(0.511684,39.818713,15.873216)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
AbsTrackRep::Parameters at reference plane DetPlane: O(0.001,0.001,0.001) u(1,0,0) v(0,1,0)
```

n(0,0,1)
AbsTrackRep::State

5x1 matrix is as follows

```
    |      0    |
------------------
   0 |     -1.954
   1 |     0.8019
   2 |      0.228
   3 |          0
   4 |          0
```

AbsTrackRep::Covariances

5x5 matrix is as follows

```
    |      0    |      1    |      2    |      3    |      4    |
-----------------------------------------------------------------
   0 |     0.6253    -0.05766    -0.05342           0           0
   1 |    -0.05766      0.4427     0.05621           0           0
   2 |    -0.05342     0.05621      0.1202           0           0
   3 |          0           0           0           1           0
   4 |          0           0           0           0           1
```

AbsTrackRep::chi^2
0
++
1 tracks created
DemoKalmanTask::Exec Event 0
85 hits in track 0
Position : (0.0011, 0.0011, 0.001)
Slopes : dx/dz = 0.8, dy/dz = 0.23
q/p = -2
 Propagate in flight direction
 CbmGeanePro::Propagate ---------------------------- 0.0011 0.0011 0.001

 *** Break *** segmentation violation
Using host libthread_db library "/lib/libthread_db.so.1".
Attaching to program: /proc/5274/exe, process 5274
[Thread debugging using libthread_db enabled]
[New Thread 0xb71196d0 (LWP 5274)]
0xffffe410 in __kernel_vsyscall ()
#1 0xb71db123 in waitpid () from /lib/libc.so.6
#2 0xb7183b5b in ?? () from /lib/libc.so.6
#3 0xb728d50d in system () from /lib/libpthread.so.0
#4 0xb7a063bd in TUnixSystem::Exec () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#5 0xb7a0b421 in TUnixSystem::StackTrace () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#6 0xb7a0a3d6 in TUnixSystem::DispatchSignals () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18

#7 0xb7a0a4bd in SigHandler () from /home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#8 0xb7a0391d in sighandler () from /home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#9 <signal handler called>
#10 0xb4a5de59 in CbmTrajFilter::AddTrack (this=0x0, p=0xa194ba0) at
/home/soeren/pandaroot/base/CbmTrajFilter.cxx:310
#11 0xb4a45c25 in CbmMCApplication::GeanePreTrack (this=0x84fce70, x=0xa0b9ad8,
p=0xa0b9ae4, PDG=13)
    at /home/soeren/pandaroot/base/CbmMCApplication.cxx:313
#12 0xb20d6b11 in CbmGeanePro::Propagate (this=0xa0b99c8, PDG=13) at
/home/soeren/pandaroot/geane/CbmGeanePro.cxx:252
#13 0xb20d7661 in CbmGeanePro::Propagate (this=0xa0b99c8, TStart=0xbfb03594,
TEnd=0xbfb03168, PDG=13)
    at /home/soeren/pandaroot/geane/CbmGeanePro.cxx:218
#14 0xb407f6b6 in GeaneTrackRep::extrapolateToPoca (this=0xa18ca48, pos=@0xa18d5fc,
statePred=@0xbfb03e6c, covPred=@0xbfb03d70,
    pl=@0xbfb040a8) at /home/soeren/pandaroot/trackrep/GeaneTrackRep.cxx:291
#15 0xb408113b in GeaneTrackRep::getVirtualDetPlane (this=0xa18ca48, hit=@0xa18d5fc)
    at /home/soeren/pandaroot/trackrep/GeaneTrackRep.cxx:96
#16 0xb4395b19 in SpacepointHitPolicy::detPlane (this=0xa18d5f8, hit=0xa18d2f8,
rep=0xa18ca48)
    at /home/soeren/pandaroot/genfit/SpacepointHitPolicy.cxx:95
#17 0xb4380bb9 in RecoHitIfc<SpacepointHitPolicy>::getDetPlane (this=0xa18d2f8,
rep=0xa18ca48)
    at /home/soeren/pandaroot/genfit/RecoHitIfc.h:39
#18 0xb43828e3 in Kalman::processHit (this=0xbfb05af7, hit=0xa18d2f8, rep=0xa18ca48,
hitIndex=0)
    at /home/soeren/pandaroot/genfit/Kalman.cxx:160
#19 0xb4384d45 in Kalman::continueTrack (this=0xbfb05af7, trk=0x9fc1a88) at
/home/soeren/pandaroot/genfit/Kalman.cxx:70
#20 0xb4384e4f in Kalman::processTrack (this=0xbfb05af7, trk=0x9fc1a88) at
/home/soeren/pandaroot/genfit/Kalman.cxx:45
#21 0xb3fd2b19 in DemoKalmanTask::Exec (this=0x9bd2520, opt=0xb4acfc28 "") at
/home/soeren/pandaroot/recotasks/demo/DemoKalmanTask.cxx:159
#22 0xb79a37e6 in TTask::ExecuteTasks () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#23 0xb79a3a91 in TTask::ExecuteTask () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#24 0xb4a57223 in CbmRunAna::Run (this=0x8584e00, Ev_start=0, Ev_end=20) at
/home/soeren/pandaroot/base/CbmRunAna.cxx:183
#25 0xb4a94022 in G__CbmDict_532_0_5 (result7=0xbfb13784, funcname=0x8583260
"\001", libp=0xbfb0fcbc, hash=0)
    at /home/soeren/cbuild/base/CbmDict.cxx:9233
#26 0xb74411c5 in Cint::G__ExceptionWrapper () from
/home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#27 0xb7529420 in G__call_cppfunc () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#28 0xb75014df in G__interpret_func () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#29 0xb74f0af5 in G__getfunction () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#30 0xb75c1e5a in G__getstructmem () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#31 0xb75b86cc in G__getvariable () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#32 0xb74c658f in G__getitem () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#33 0xb74cd514 in G__getexpr () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#34 0xb75562d4 in G__exec_statement () from

/home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#35 0xb74b20d5 in G__exec_tempfile_core () from
/home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#36 0xb74b2366 in G__exec_tempfile () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#37 0xb7563284 in G__process_cmd () from /home/soeren/fairsoft/tools/root/lib/libCint.so.5.18
#38 0xb79dcbe8 in TCint::ProcessLine () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#39 0xb79d771c in TCint::ProcessLineSynch () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#40 0xb793b9b1 in TApplication::ExecuteFile () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#41 0xb793be24 in TApplication::ProcessFile () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#42 0xb7939274 in TApplication::ProcessLine () from
/home/soeren/fairsoft/tools/root/lib/libCore.so.5.18
#43 0xb73dbeba in TRint::Run () from /home/soeren/fairsoft/tools/root/lib/libRint.so.5.18
#44 0x08048ef5 in main ()
The program is running. Quit anyway (and detach it)? (y or n) [answered Y; input not from terminal]
Detaching from program: /proc/5274/exe, process 5274
Root > soeren@pchad23:~/pandaroot/recotasks/demo>