
Subject: Reco error at Geant4 simulation
Posted by [donghee](#) on Thu, 31 Oct 2013 10:07:49 GMT
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Dear all,

I am trying to do a simulation with Geant4 using trunk(today morning version...)
Upto sim->dig should be fine.

At reconstruction, probably I have a trouble to load G4 library.
During the initialization of FairGeane::Init(), I have seen the message
"Loading Geant3 libraries ...", but I have used Geant4 for this simulation, why such messages
are appeared?

And the end of reco process the simulation is crashed with following error.

Quote:

```
terminate called after throwing an instance of 'std::out_of_range'  
  what(): vector::_M_range_check
```

What is this?

Here is the full output from reco session during simulation.

Quote:

```
root [0]  
Processing run_offline3_rec.C("test_geant4", 5, 15, 5, "dell")...  
Error in <TClonesArray::SetClass>: called with a null pointer  
FairRootManager::OpenOutFile("/home/kang/GSI/macro_online/data/test_geant4/data_5_rec.root")  
Info in (PndGeoHandling::Instance): Making a new instance using the framework.  
[INFO ] The input consists out of the following trees and files:  
[INFO ] - cbmsim  
[INFO ]   - /home/kang/GSI/macro_online/data/test_geant4/data_5_dig.root  
[INFO ] - FriendTree_1  
[INFO ]   - /home/kang/GSI/macro_online/data/test_geant4/data_5_sim.root  
[INFO ] Parameter and input file are available, Assure that basic info is there for the run!  
[INFO ] The number of entries in chain is 5
```

```
*****
```

```
  initialisation for run id 1383213357
```

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*****
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*****
```

```
  initialisation for run id 1383213357
```

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*****
```

```
*****
```

```
  initialisation for run id 1383213357
```

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*****
```

```
.....
```

```
-----FairGeane::Init ()-----
```

Loading Geant3 libraries ...
Loading Geant3 libraries ... finished

MZSTOR. ZEBRA table base TAB(0) in /MZCC/ at adr 1055673399 3EEC4C37 HEX

MZSTOR. Initialize Store 0 in /GCBANK/
with Store/Table at absolute adrs 1055782645 1055673399
HEX 3EEDF6F5 3EEC4C37
HEX 1AB22 0
relative adrs 109346 0
with 1 Str. in 2 Links in 5300 Low words in 4999970 words.
This store has a fence of 16 words.

MZLOGL. Set Log Level 0 for store 0
1***** GEANT Version 3.21/11 Released on 100298
0***** Correction Cradle Version 0.1100

MZDIV. Initialize Division Constant in Store 0
NW/NWMAX= 20004000000, MODE/KIND= 1 2
Division 20 initialized.

MZLINK. Initialize Link Area /GCLINK/ for Store 0 NL/NS= 20 20

MZLINK. Initialize Link Area /GCSLNK/ for Store 0 NL/NS= 100 100
-I- G3Config: Geant3 with TGeo has been created for Geane.
-I- Geane.C: NOPRNT flag set to 1
-I- Geane.C: IERR flags are not printed. If you want to switch them on, please set
fErtrio1->noprnt = 0 in Geane.C
Energy straggling area parameter from user set to: 0.999

Calculating cross section tables, see gphysi.dat for more information

Cross section calculation concluded successfully
I- FairGeane::FairGeane: Geane is Initialized
-W- PndMvdRiemannTrackFinderTask::Init: No Branch Names given with
AddHitBranch(TString branchName)! Standard BranchNames taken!
-I- PndMvdRiemannTrackFinderTask: Initialisation successfull
-I- PndTrkTracking: Initialization successfull
-I- PndTrkTracking: Initialization successfull
-I- -----
-I- PndSttMvdGemTracking: using branches MVDHitsPixel MVDHitsStrip STTHit GEMHit
-I- to change one or more of these use PndSttMvdGemTracking:SetBranchName(TStrings);
the order of TStrings is mvd pixel name, mvd strip name, stt name, gem name
starting track for extrapolation SttMvdTrack SttMvdTrackCand
-I- -----
-I- PndSttMvdGemTracking: using default PDG -13
-I- PndSttMvdGemTracking: Intialisation successfull
-I- PndMCTrackAssociator::Init
[INFO] Branch: STTHitMix not found in Tree
[INFO] Branch: STTHitMix not found in Tree
-W- PndMCTrackAssociator::Init: Using STTHit array
[INFO] Branch: MVDHitsStripMix not found in Tree

```

[INFO ] Branch: MVDHitsStripMix not found in Tree
-W- PndMCTrackAssociator::Init: Using MVDHitsStrip array
[INFO ] Branch: MVDHitsPixelMix not found in Tree
[INFO ] Branch: MVDHitsPixelMix not found in Tree
-W- PndMCTrackAssociator::Init: Using MVDHitsPixel
-I- PndRecoKalmanTask:Init :: Using GeaneTrackRep
#####Mapper:filltubearray#####
fGeoType=1
*** PndRecoKalmanFit::Init MVDHitsStrip array found
*** PndRecoKalmanFit::Init MVDHitsPixel array found
[INFO ] Branch: SttHelixHit not found in Tree
[INFO ] Branch: SttHelixHit not found in Tree
*** PndRecoKalmanFit::Init SttHit array found
*** PndRecoKalmanFit::Init GEMHit array found
*** PndRecoKalmanFit::Init MdtHit array found
*** PndRecoKalmanFit::Init FtsHit array found
===PndRecoKalmanFit::Init() finished
=====
-I- PndMCTrackAssociator::Init
[INFO ] Branch: STTHitMix not found in Tree
[INFO ] Branch: STTHitMix not found in Tree
-W- PndMCTrackAssociator::Init: Using STTHit array
[INFO ] Branch: MVDHitsStripMix not found in Tree
[INFO ] Branch: MVDHitsStripMix not found in Tree
-W- PndMCTrackAssociator::Init: Using MVDHitsStrip array
[INFO ] Branch: MVDHitsPixelMix not found in Tree
[INFO ] Branch: MVDHitsPixelMix not found in Tree
-W- PndMCTrackAssociator::Init: Using MVDHitsPixel
Warning in <TDatabasePDG::TDatabasePDG>: object already instantiated
#####Mapper:filltubearray#####
fGeoType=1
-I- PndRecoKalmanTask:Init :: Using GeaneTrackRep
#####Mapper:filltubearray#####
fGeoType=1
*** PndRecoKalmanFit::Init MVDHitsStrip array found
*** PndRecoKalmanFit::Init MVDHitsPixel array found
[INFO ] Branch: SttHelixHit not found in Tree
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*** PndRecoKalmanFit::Init MdtHit array found
*** PndRecoKalmanFit::Init FtsHit array found
===PndRecoKalmanFit::Init() finished
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-I- PndMCTrackAssociator::Init
[INFO ] Branch: STTHitMix not found in Tree
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-W- PndMCTrackAssociator::Init: Using STTHit array
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[INFO ] Branch: MVDHitsStripMix not found in Tree
-W- PndMCTrackAssociator::Init: Using MVDHitsStrip array
[INFO ] Branch: MVDHitsPixelMix not found in Tree

```

```
[INFO ] Branch: MVDHitsPixelMix not found in Tree  
-W- PndMCTrackAssociator::Init: Using MVDHitsPixel  
[INFO ] The number of entries in chain is 5  
terminate called after throwing an instance of 'std::out_of_range'  
what(): vector::_M_range_check
```
