
Subject: segmentation violation in reco macro

Posted by [MartinJGaluska](#) on Fri, 15 Jun 2012 11:11:33 GMT

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Dear all,

after having set nmaxMvdPixelHitsInTrack from 30 to 60 in sttmvdtracking/PndSttMvdTracking.h I encountered another problem when running the reco macro from macro/pid in my simulation of X(3872) -> J/\psi \pi^+ \pi^- with the corrected VVpipi decay model on PandaRoot revision 15615 (Scientific Linux CERN SLC release 5.5 (Boron), 64 bit, fairroot: jan12, root session called with "root -q run_reco_sttcombi.C &> logreco2.log" in a screen session).

I have created a separate topic for this problem as I believe that this problem is not directly related to the nmaxMvdPixelHitsInTrack in the other thread.

Toggle Spoiler

Found Tracks: 2 in event no. 752

Track 0

EntryNr: 752

EntryNr: 752

EntryNr: 752

Track 1

EntryNr: 752

EntryNr: 752

EntryNr: 752

EntryNr: 752

*** Break *** segmentation violation

MZSTOR. ZEBRA table base TAB(0) in /MZCC/ at adr 247886191 EC6716F HEX

MZSTOR. Initialize Store 0 in /GCBANK/

with Store/Table at absolute adrs 247909229 247886191

HEX EC6CB6D EC6716F

HEX 560A 0

relative adrs 22026 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

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

Cross section calculation concluded successfully

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

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Precision now set to 0.250E-04

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON -
Precision now set to 0.250E-04

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ERTRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON -
Precision now set to 0.250E-04

*** ETRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON -
Precision now set to 0.250E-04

*** ETRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ETRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ETRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ETRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

*** ETRGO *** Boundary loop: track 1 stack 0 NTMULT 0 MUON +
Precision now set to 0.250E-04

Subject: Re: segmentation violation in reco macro -- GEANT related?
Posted by [StefanoSpataro](#) on Fri, 15 Jun 2012 11:38:22 GMT
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Are you able to reproduce it, starting few events before?

Subject: Re: segmentation violation in reco macro -- GEANT related?
Posted by [MartinJGaluska](#) on Fri, 15 Jun 2012 11:44:04 GMT
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Thank you for your reply, Stefano.

I will try as you suggested. Is it correct to use fRun->Run(700, nEvents); in order to start with event 700?

Subject: Re: segmentation violation in reco macro -- GEANT related?
Posted by [StefanoSpataro](#) on Fri, 15 Jun 2012 12:06:47 GMT
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Yes, try fRun->Run(700, 800) and without storing the log output (>>> xxx.txt), simply catch

what gdb throws.

Subject: Re: segmentation violation in reco macro -- GEANT related?

Posted by [MartinJGaluska](#) on Fri, 15 Jun 2012 16:37:35 GMT

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I have just tried it. It seems that the messages that I posted earlier are unrelated to the segmentation violation.

This time I got:

Toggle Spoiler

Found Tracks: 2 in event no. 52

Track 0

EntryNr: 752

EntryNr: 752

EntryNr: 752

Track 1

EntryNr: 752

EntryNr: 752

EntryNr: 752

EntryNr: 752

*** Break *** segmentation violation

As a remark on the side:

When I put

```
fRun->Run(720, nEvents);
```

fRun loops through events 0 to 719. Is this meant to be that way or a bug?

Best regards,

Martin

Subject: Re: segmentation violation in reco macro -- GEANT related?

Posted by [StefanoSpataro](#) on Fri, 15 Jun 2012 16:52:50 GMT

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What did you put as nEvents? It should be the maximum event i.e. 800

Subject: Re: segmentation violation in reco macro -- GEANT related?

Posted by [MartinJGaluska](#) on Fri, 15 Jun 2012 17:18:01 GMT

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nEvents is set to 0.

I believed that represents "run until you reach the last event" (at least that is what fRun does when I call it with fRun->Run(0, nEvents); with nEvents set to 0).

Subject: Re: segmentation violation in reco macro -- GEANT related?

Posted by [StefanoSpataro](#) on Fri, 15 Jun 2012 18:27:57 GMT

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No, it does (firstEvent, lastEvent).

Please try.

Subject: Re: segmentation violation in reco macro -- GEANT related?

Posted by [MartinJGaluska](#) on Sun, 17 Jun 2012 13:09:17 GMT

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You are right, it works correctly when the second argument is not equal to 0. I was just wondering about the behavior in case it actually is 0, but now that I know the behavior, it is not a problem for me any more.

Coming back to the crash that I encountered, it seems that on Friday I was not patient enough for root to give me the full error message. I have just tried to run the events 750 to 760 again and I get:

Toggle Spoiler

Found Tracks: 2 in event no. 2

Track 0

EntryNr: 752

EntryNr: 752

EntryNr: 752

Track 1

EntryNr: 752

EntryNr: 752

EntryNr: 752

EntryNr: 752

*** Break *** segmentation violation

=====

There was a crash.

This is the entire stack trace of all threads:

=====

```

#0 0x000000300409a115 in waitpid () from /lib64/libc.so.6
#1 0x000000300403c481 in do_system () from /lib64/libc.so.6
#2 0x00002afc957d2902 in TUnixSystem::StackTrace() ()
   from /home/panda/fairsoft/jan12/tools/root/lib/libCore.so.5.32
#3 0x00002afc957cf79a in TUnixSystem::DispatchSignals(ESignals) ()
   from /home/panda/fairsoft/jan12/tools/root/lib/libCore.so.5.32
#4 <signal handler called>
#5 0x00002afca3973aaf in
PndSttMvdTracking::OrderingConformal_Loading_ListTrackCandHit (this=0x51,
keepit=0x7fff4741e880, ncand=32767, info=0x3004353a48,
   Ox=0x2afc9edd2417, Oy=0x7fff4741e8a0, Rr=0x402e07d135d458f5,
   Trajectory_Start=0x4048e6e70f1a5f72, CHARGE=0x4030ebe298250c02,
   SchosenSkew=0x1e002600250029)
   at /home/panda/pandaroot_sep12/trunk/sttmvdtracking/PndSttMvdTracking.cxx:1 2908
#6 0x404e45e780654442 in ?? ()
#7 0x402e07d135d458f5 in ?? ()
#8 0x4048e6e70f1a5f72 in ?? ()
#9 0x4030ebe298250c02 in ?? ()
#10 0x001e002600250029 in ?? ()
#11 0x00210020001c001f in ?? ()
#12 0x0009002300220027 in ?? ()
#13 0x0000000000000000 in ?? ()
=====

```

The lines below might hint at the cause of the crash.

If they do not help you then please submit a bug report at
<http://root.cern.ch/bugs>. Please post the ENTIRE stack trace
from above as an attachment in addition to anything else
that might help us fixing this issue.

```

=====
#5 0x00002afca3973aaf in
PndSttMvdTracking::OrderingConformal_Loading_ListTrackCandHit (this=0x51,
keepit=0x7fff4741e880, ncand=32767, info=0x3004353a48,
   Ox=0x2afc9edd2417, Oy=0x7fff4741e8a0, Rr=0x402e07d135d458f5,
   Trajectory_Start=0x4048e6e70f1a5f72, CHARGE=0x4030ebe298250c02,
   SchosenSkew=0x1e002600250029)
   at /home/panda/pandaroot_sep12/trunk/sttmvdtracking/PndSttMvdTracking.cxx:1 2908
#6 0x404e45e780654442 in ?? ()
#7 0x402e07d135d458f5 in ?? ()
#8 0x4048e6e70f1a5f72 in ?? ()
#9 0x4030ebe298250c02 in ?? ()
#10 0x001e002600250029 in ?? ()
#11 0x00210020001c001f in ?? ()
#12 0x0009002300220027 in ?? ()
#13 0x0000000000000000 in ?? ()
=====

```

Maybe it would be interesting to investigate this crash, but it seems to be caused by me setting
nmaxMvdPixelHitsInTrack from 30 to 60 in sttmvdtracking/PndSttMvdTracking.h. When I
change this constant back to 30, there is no crash in event 752. (However, unfortunately I get a

different crash in event 490.)
