
Subject: Re: Crash in reco-macro, PndSttMvdTracking.cxx produces segfault
Posted by [Gianluigi Boca](#) on Tue, 24 Jul 2012 13:16:09 GMT

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hello Andre', it looks like
you are requesting a simulation with the pileup included [namely
the addition of extra hits in the STT and Mvd system caused
by previous/subsequent events] but I imagine that you did not
set the filename in your macro where the previously generated
pileup events should exist.

If my hypothesis is right then either you disable the pileup
event machinery or you provide the files.

To be certain, first of all please show me the exact Macro you are using, thanks

Gianluigi

André Goerres wrote on Tue, 24 July 2012 14:05 During the computing week in Torino I
encountered a problem with running macros. We should run the macros in 'macro/pid', but
unfortunately I wasn't able to do so.

Running the macros 'run_sim_sttcombi_pgun.C' and 'run_digi_sttcombi.C' went through just
fine, but with 'run_reco_sttcombi.C' a segmentation violation crashed the program:

```
Quote:-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  
[INFO ] The number of entries in chain is 10  
Found Tracks: 21 in event no. 0
```

```
-----  
Track 0  
EntryNr: 0  
EntryNr: 0  
EntryNr: 0  
EntryNr: 0  
EntryNr: 0  
EntryNr: 0  
Track 1  
EntryNr: 0  
EntryNr: 0  
EntryNr: 0
```

[same for tracks 2-19]

```
Track 20  
EntryNr: 0
```

EntryNr: 0
EntryNr: 0
EntryNr: 0

*** Break *** segmentation violation

=====
There was a crash.
This is the entire stack trace of all threads:
=====

Thread 1 (process 34695):
#0 0x00007fff82fc1168 in wait4 ()
#1 0x00007fff8c4255f5 in system ()
#2 0x00000001000d6ca8 in TUnixSystem::StackTrace ()
#3 0x00000001000d4ada in TUnixSystem::DispatchSignals ()
#4 <signal handler called>
#5 PndSttMvdTracking::EliminateSpuriousSZ (this=0x109e00000,
nPixelHitsinTrack=0x400735e5736ac382, ListPixelHitsinTrack=0x402211df773b3962,
nStripHitsinTrack=0x109e00d4a, ListStripHitsinTrack=0x109e06cd4,
nSkewHitsinTrack=0x109e00a2a, ListSkewHitsinTrack=0x4021880a31394ea5,
S=0x7fff5fba0308, ZED=0x7fff5fb9fc68, DriftRadius=0x7fff5fb9f5c8,
ErrorDriftRadius=0x7fff5fb9ef28, SchosenPixel=0x7fff5fad9c8, SchosenStrip=0x7fff5fa194c8,
SchosenSkew=0x7fff5f880378, ZchosenPixel=0x7fff5f7bb7a8, ZchosenStrip=0x7fff5f6f82a8,
ZchosenSkew=0x7fff5f55f158, ErrorchosenPixel=0x7fff5f55c0e8,
ErrorchosenStrip=0x7fff5f55b148, ErrorchosenSkew=0x7fff5f559078,
KAPPA=3.2378592100206092e-319, FIO=1.2598673968951787e-321, R=0,
MaxTurnofTracks=0) at PndSttMvdTracking.cxx:11845
#6 0x000000010822175d in PndSttMvdTracking::Exec (this=0x7fff5fbe1a50, opt=0x0) at
PndSttMvdTracking.cxx:2525
#7 0x000000010006d1b5 in TTask::ExecuteTasks ()
#8 0x000000010006cf04 in TTask::ExecuteTask ()
#9 0x00000001062fa45b in FairRunAna::Run (this=0x109e00000, Ev_start=0, Ev_end=0) at
FairRunAna.cxx:544
#10 0x000000010635ec65 in G__G__BaseDict_986_0_6 (result7=0x7fff5fbee150,
funcname=0x1063ac330 "", libp=0x400735e5736ac382, hash=2000370018) at
G__BaseDict.cxx:14831
#11 0x000000010083540f in Cint::G__ExceptionWrapper ()
#12 0x00000001008e7a8b in G__execute_call ()
#13 0x00000001008e8066 in G__call_cppfunc ()
#14 0x00000001008bb33f in G__interpret_func ()
#15 0x00000001008a469f in G__getfunction ()
#16 0x00000001009a9004 in G__getstructmem ()
#17 0x000000010099fd07 in G__getvariable ()
#18 0x00000001008996fe in G__getitem ()
#19 0x0000000100898753 in G__getexpr ()
#20 0x000000010091a0c6 in G__exec_statement ()
#21 0x00000001008797cd in G__exec_tempfile_core ()
#22 0x0000000100879a23 in G__exec_tempfile ()
#23 0x00000001009257e5 in G__process_cmd ()

```
#24 0x000000010009d882 in TCint::ProcessLine ()
#25 0x000000010009dd09 in TCint::ProcessLineSynch ()
#26 0x000000010000a70a in TApplication::ExecuteFile ()
#27 0x0000000100009dd1 in TApplication::ProcessLine ()
#28 0x0000000100f4a853 in TRint::Run ()
#29 0x0000000100000a3f in main ()
```

=====

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 PndSttMvdTracking::EliminateSpuriousSZ (this=0x109e00000,
nPixelHitsinTrack=0x400735e5736ac382, ListPixelHitsinTrack=0x402211df773b3962,
nStripHitsinTrack=0x109e00d4a, ListStripHitsinTrack=0x109e06cd4,
nSkewHitsinTrack=0x109e00a2a, ListSkewHitsinTrack=0x4021880a31394ea5,
S=0x7fff5fba0308, ZED=0x7fff5fb9fc68, DriftRadius=0x7fff5fb9f5c8,
ErrorDriftRadius=0x7fff5fb9ef28, SchosenPixel=0x7fff5fadc9c8, SchosenStrip=0x7fff5fa194c8,
SchosenSkew=0x7fff5f880378, ZchosenPixel=0x7fff5f7bb7a8, ZchosenStrip=0x7fff5f6f82a8,
ZchosenSkew=0x7fff5f55f158, ErrorchosenPixel=0x7fff5f55c0e8,
ErrorchosenStrip=0x7fff5f55b148, ErrorchosenSkew=0x7fff5f559078,
KAPPA=3.2378592100206092e-319, F10=1.2598673968951787e-321, R=0,
MaxTurnofTracks=0) at PndSttMvdTracking.cxx:11845
#6 0x000000010822175d in PndSttMvdTracking::Exec (this=0x7fff5fbe1a50, opt=0x0) at
PndSttMvdTracking.cxx:2525
#7 0x000000010006d1b5 in TTask::ExecuteTasks ()
#8 0x000000010006cf04 in TTask::ExecuteTask ()
#9 0x00000001062fa45b in FairRunAna::Run (this=0x109e00000, Ev_start=0, Ev_end=0) at
FairRunAna.cxx:544
```

=====

The full copy of my macro output can be found here: <http://pastebin.com/0Py919MH>
At first I thought it is somehow related to this problem (Crash in reco macro:
"PndSttMvdTracking, nMvdPixelHitsinTrack[4] is 58 and it is > nmaxMvdPix), but the error
message is slightly different and applying the suggested change didn't change anything in the
result.

I have a fresh installation of PandaRoot with the july12 release:
andre@andre-macbook:~/Development/fairsoft/jan12/pandaroot_july12\$ svn info
Path: .
Working Copy Root Path: /Users/andre/Development/fairsoft/jan12/pandaroot_july12
URL: <https://agoerres@subversion.gsi.de/fairroot/pandaroot/release/july12>
Repository Root: <https://agoerres@subversion.gsi.de/fairroot>
Repository UUID: 0381ead4-6506-0410-b988-94b70fbc4730
Revision: 16248
Node Kind: directory
Schedule: normal
Last Changed Author: johan
Last Changed Rev: 16176

Last Changed Date: 2012-07-23 17:43:25 +0200 (Mo, 23 Jul 2012)

My compiler versions are:

```
andre@andre-macbook:~/Development/fairsoft/jan12/pandaroot_july12$ gcc --version  
i686-apple-darwin11-llvm-gcc-4.2 (GCC) 4.2.1 (Based on Apple Inc. build 5658) (LLVM build  
2336.1.00)
```

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```
andre@andre-macbook:~/Development/fairsoft/jan12/pandaroot_july12$ gfortran --version  
GNU Fortran (GCC) 4.6.2 20111019 (prerelease)
```

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Does anyone has a clue, why it is not working? I'm a bit lost (especially since I'm quite fresh to the whole PandaRoot stuff).

Edit: Ah, sorry, I forgot. My OS is Mac OS X Lion, 10.7.4.