
Subject: Geant4 crash for a particular EvtGen event

Posted by [Jens Sören Lange](#) on Sat, 13 Mar 2010 13:28:18 GMT

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Hi all,

the following event crashes G4 in macro/pid/run_sim_tpccombi.c or /tutorials/charmonium/run_sim_tpccombi.C. For G3 it is fine, and G4 for the 4000 events before it is also fine. any idea?

thanks in advance, Soeren

```
4001  6
  N  Id Ist  M1  M2  DF  DL   px   py   pz   E   t   x   y   z
  0 30443 2  -1  -1   1   3 0.00000000 -0.00000000 6.98847420 7.98944878 0.00000000
0.00000000 0.00000000 0.0000\
0000
  1  443 2   0   0   4   5 -0.06108232 -0.05603496 4.70240108 5.63115871 0.00000000
0.00000000 -0.00000000 0.00\
000000
  2  211 1   0   0  -1  -1 0.06477563 0.27141958 1.47232221 1.50501725 0.00000000
0.00000000 -0.00000000 0.000\
0000
  3 -211 1   0   0  -1  -1 -0.00369332 -0.21538463 0.81375091 0.85327282 0.00000000
0.00000000 -0.00000000 0.00\
000000
  4  -11 1   1   1  -1  -1 -0.62686759 0.28514665 4.89480825 4.94301726 0.00000000
0.00000000 0.00000000 0.000\
0000
  5   11 1   1   1  -1  -1 0.56578527 -0.34118161 -0.19240717 0.68814144 0.00000000
0.00000000 0.00000000 0.000\
00000
```

>>> Event 4001

*** Break *** segmentation violation

```
=====
There was a crash (#7 0xb7a073ed in SigHandler () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26).
This is the entire stack trace of all threads:
=====
#0 0xffffe410 in __kernel_vsyscall ()
#1 0xb6de3123 in waitpid () from /lib/libc.so.6
#2 0xb6d8bb5b in ?? () from /lib/libc.so.6
#3 0xb6e9550d in system () from /lib/libpthread.so.0
#4 0xb7a02fad in TUnixSystem::Exec () from
```

```

/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#5 0xb7a0a0b4 in TUnixSystem::StackTrace () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#6 0xb7a07306 in TUnixSystem::DispatchSignals () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#7 0xb7a073ed in SigHandler () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#8 0xb7a0085d in sighandler () from /home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#9 <signal handler called>
#10 0xae0b47f9 in G4ProcessManager::StartTracking (this=0xd42b320, aTrack=0x110996d0)
at src/G4ProcessManager.cc:1039
#11 0xadd07e87 in G4TrackingManager::ProcessOneTrack (this=0xb48b050,
apValueG4Track=0x110996d0)
at src/G4TrackingManager.cc:117
#12 0xadc5d135 in G4EventManager::DoProcessing (this=0xb48b008, anEvent=0xb498128)
at src/G4EventManager.cc:185
#13 0xadc5d8cc in G4EventManager::ProcessOneEvent (this=0xb48b008,
anEvent=0xb498128) at src/G4EventManager.cc:335
#14 0xac6b9a19 in G4RunManager::DoEventLoop (this=0xb48af48, n_event=5000,
macroFile=0x0, n_select=-1)
at src/G4RunManager.cc:235
#15 0xac6b8398 in G4RunManager::BeamOn (this=0xb48af48, n_event=5000,
macroFile=0x0, n_select=-1) at src/G4RunManager.cc:140
#16 0xab76fd87 in TG4RunManager::ProcessRun ()
from /home/soeren/panda/fairsoft/transport/geant4_vmc/lib/tgt_linux/libgeant4_vmc.so
#17 0xab774ac7 in TGeant4::ProcessRun () from
/home/soeren/panda/fairsoft/transport/geant4_vmc/lib/tgt_linux/libgeant4_vmc.so
#18 0xb4507223 in FairMCApplication::RunMC (this=0x8b15c10, nofEvents=5000)
at /home/soeren/panda/pandaroot/trunk/base/FairMCApplication.cxx:234
#19 0xb451d26f in FairRunSim::Run (this=0x880c090, NEvents=5000, NotUsed=0)
at /home/soeren/panda/pandaroot/trunk/base/FairRunSim.cxx:368
#20 0xb45586a8 in G__FairDict_669_0_5 (result7=0xbfc77718, funcname=0x8807bd0 "\001",
libp=0xbfc6d0d4, hash=0)
at /home/soeren/panda/cbuild/base/FairDict.cxx:9097
#21 0xb72277b5 in Cint::G__ExceptionWrapper () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#22 0xb72df9c6 in G__execute_call () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#23 0xb72e1e30 in G__call_cppfunc () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#24 0xb72b76c8 in G__interpret_func () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#25 0xb72a408a in G__getfunction () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#26 0xb73a2c20 in G__getstructmem () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#27 0xb7398f16 in G__getvariable () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#28 0xb72790cf in G__getitem () from /home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#29 0xb727ded5 in G__getexpr () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#30 0xb7316074 in G__exec_statement () from

```

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/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#31 0xb72b965e in G__interpret_func () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#32 0xb72a41ff in G__getfunction () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#33 0xb72796ce in G__getitem () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#34 0xb727ded5 in G__getexpr () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#35 0xb728ae62 in G__calc_internal () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#36 0xb731fe4f in G__process_cmd () from
/home/soeren/panda/fairsoft/tools/root/lib/libCint.so.5.26
#37 0xb79f0900 in TCint::ProcessLine () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#38 0xb79f05bf in TCint::ProcessLineSynch () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#39 0xb7912cfa in TApplication::ExecuteFile () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#40 0xb79132dc in TApplication::ProcessFile () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#41 0xb791066e in TApplication::ProcessLine () from
/home/soeren/panda/fairsoft/tools/root/lib/libCore.so.5.26
#42 0xb6fe5676 in TRint::Run () from /home/soeren/panda/fairsoft/tools/root/lib/libRint.so.5.26
#43 0x08048f05 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.

```

=====
#10 0xae0b47f9 in G4ProcessManager::StartTracking (this=0xd42b320, aTrack=0x110996d0)
at src/G4ProcessManager.cc:1039
#11 0xadd07e87 in G4TrackingManager::ProcessOneTrack (this=0xb48b050,
apValueG4Track=0x110996d0)
at src/G4TrackingManager.cc:117
#12 0xadc5d135 in G4EventManager::DoProcessing (this=0xb48b008, anEvent=0xb498128)
at src/G4EventManager.cc:185
#13 0xadc5d8cc in G4EventManager::ProcessOneEvent (this=0xb48b008,
anEvent=0xb498128) at src/G4EventManager.cc:335
#14 0xac6b9a19 in G4RunManager::DoEventLoop (this=0xb48af48, n_event=5000,
macroFile=0x0, n_select=-1)
at src/G4RunManager.cc:235
#15 0xac6b8398 in G4RunManager::BeamOn (this=0xb48af48, n_event=5000,
macroFile=0x0, n_select=-1) at src/G4RunManager.cc:140
#16 0xab76fd87 in TG4RunManager::ProcessRun ()
from /home/soeren/panda/fairsoft/transport/geant4_vmc/lib/tgt_linux/libgeant4_vmc.so
#17 0xab774ac7 in TGeant4::ProcessRun () from
/home/soeren/panda/fairsoft/transport/geant4_vmc/lib/tgt_linux/libgeant4_vmc.so

```

```
#18 0xb4507223 in FairMCApplication::RunMC (this=0x8b15c10, nofEvents=5000)
  at /home/soeren/panda/pandaroot/trunk/base/FairMCApplication.cxx:234
#19 0xb451d26f in FairRunSim::Run (this=0x880c090, NEvents=5000, NotUsed=0)
  at /home/soeren/panda/pandaroot/trunk/base/FairRunSim.cxx:368
=====
```

Root > Function run_sim_tpccombi() busy flag cleared

root [1]

Subject: Re: Geant4 crash for a particular EvtGen event
Posted by [Stefano Spataro](#) on Mon, 15 Mar 2010 14:08:39 GMT
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Hi Soeren,
I have tried your guilty event in my computer, with both G3 and G4, but I had no crash, I was not able to reproduce your error.
I have used macro/pid macros because the ones in tutorial/charmonium gave me a crash in the init (old emc geoemtry, no emc mapper, no coils, and so on).

Subject: Re: Geant4 crash for a particular EvtGen event
Posted by [Johan Messchendorp](#) on Mon, 15 Mar 2010 15:18:26 GMT
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ditto in my case.... no crash for your event. Could you post us the complete evtgen input file?

Greetings,

Johan

Subject: Re: Geant4 crash for a particular EvtGen event
Posted by [Jens Sören Lange](#) on Mon, 15 Mar 2010 21:42:33 GMT
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Hi Stefano, thanks for testing.

Quote:(old emc geoemtry, no emc mapper, no coils, and so on).

yes exactly, and these are just the changes of the last ~3 weeks or so but we are using the slightly changed macro/pid macros /trunk from a few days ago (I am on travel, so I can't check now which revision exactly, as I have right now about 6-7 different versions to try out things), but if I check these macros into tutorials/charmonium, they don't run anymore in the /feb10 release (I tried). it is a compromise to have a running tutorial for the Wiki. anyway, we'll check

more after DPG.

Soeren
