
Subject: Geant4 library problem

Posted by [Dmitry Morozov](#) on Wed, 09 Jun 2010 08:15:22 GMT

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Hello,

i have a problem with running PandaRoot with Geant4.

The system is Ubuntu 10.04 64 bit.

An attempt to run any macro with geant4 leads to this crash:

freez@freez-fs:~/fairsoft/pandaroot/trunk/macro/run\$ root sim_complete_stt.C

```
*
*
*   W E L C O M E to R O O T   *
*
* Version  5.26/00 14 December 2009 *
*
* You are welcome to visit our Web site *
*   http://root.cern.ch               *
*
*
*****
```

ROOT 5.26/00 (tags/v5-26-00@31878, Feb 15 2010, 13:25:00 on linuxx8664gcc)

CINT/ROOT C/C++ Interpreter version 5.17.00, Dec 21, 2008

Type ? for help. Commands must be C++ statements.

Enclose multiple statements between { }.

root [0]

Processing sim_complete_stt.C...

- RTDB container factory FairBaseContFact
- RTDB container factory PndSensorNameContFact
- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact

PSaid instance created... access via gSaid->f()

- RTDB container factory PndEmcContFact
- RTDB container factory PndTpcContFact
- RTDB container factory PndSttContFact
- RTDB container factory PndMvdContFact
- RTDB container factory PndGemContFact
- RTDB container factory PndTofContFact
- RTDB container factory PndDrcContFact
- RTDB container factory PndMdtContFact
- RTDB container factory PndDchContFact
- RTDB container factory PndLheContFact
- RTDB container factory PndRpcContFact
- RTDB container factory PndLumiContFact
- RTDB container factory PndPidContFact
- l- FairRun::SetMaterials() Media file used:

```
/home/freez/fairsoft/pandaroot/trunk/geometry/media_pnd.geo
Info in (PndGeoHandling::Instance): No Instance created, yet. Making a new one using the
framework.
fgeoName3 /home/freez/fairsoft/pandaroot/trunk/geometry/emc_module4_StraightGeo24.
4.root
-I container name PndEmcGeoPar
-I FairEvtGenGenerator: Opening input file
/home/freez/fairsoft/pandaroot/trunk/input/psi2s_jpsi2pi_1k.evt
```

```
===== FairRunSim: Initialising simulation run =====
Info in <TGeoManager::TGeoManager>: Geometry FAIRGeom, FAIR geometry created
-I- FairGeoMedia Read media
-I container name PndEmcDigiPar
-I container name PndEmcDigiNonuniformityPar
```

```
*****
```

```
initialisation for run id 842652626
```

```
*****
```

```
Error in <PndEmcGeoPar::init()>: PndEmcGeoPar not initialized
Error in <PndSensorNamePar::init()>: PndSensorNamePar not initialized
PndEmcDigiPar initialized from Ascii file
Error in <PndEmcDigiNonuniformityPar::init()>: PndEmcDigiNonuniformityPar not initialized
Error in <FairRuntimeDb::initContainers()>: Error occurred during initialization
-I- PndFieldMap: Reading field map from ROOT file
/home/freez/fairsoft/pandaroot/trunk/input/TransMap.1500.root
-I- PndFieldMap: Reading field map from ROOT file
/home/freez/fairsoft/pandaroot/trunk/input/DipoleMap1.1500.root
-I- PndFieldMap: Reading field map from ROOT file
/home/freez/fairsoft/pandaroot/trunk/input/DipoleMap2.1500.root
-I- PndFieldMap: Reading field map from ROOT file
/home/freez/fairsoft/pandaroot/trunk/input/SolenoidMap1.root
-I- PndFieldMap: Reading field map from ROOT file
/home/freez/fairsoft/pandaroot/trunk/input/SolenoidMap2.root
-I- PndFieldMap: Reading field map from ROOT file
/home/freez/fairsoft/pandaroot/trunk/input/SolenoidMap3.root
-I- PndFieldMap: Reading field map from ROOT file
/home/freez/fairsoft/pandaroot/trunk/input/SolenoidMap4.root
create PndFieldPar container PndMultiFieldPar
create PndFieldPar container PndTransPar
create PndFieldPar container PndDipole1Par
create PndFieldPar container PndDipole2Par
create PndFieldPar container PndSolenoid1Par
create PndFieldPar container PndSolenoid2Par
create PndFieldPar container PndSolenoid3Par
create PndFieldPar container PndSolenoid4Par
Loading Geant4 libraries ...
dlopen error: /home/freez/fairsoft/transport/geant4/lib/Linux-g++/libG4UIGAG.so: undefined
symbol: _ZTI13G4VBasicShell
Load Error: Failed to load Dynamic link library
/home/freez/fairsoft/transport/geant4/lib/Linux-g++/libG4UIGAG.so
*** Interpreter error recovered ***
Error: Symbol TG4RunConfiguration is not defined in current scope
```

```
/home/freez/fairsoft/pandaroot/trunk/gconfig/g4Config.C:29:
Error: Symbol TG4RunConfiguration is not defined in current scope
/home/freez/fairsoft/pandaroot/trunk/gconfig/g4Config.C:29:
Error: type TG4RunConfiguration not defined
FILE:/home/freez/fairsoft/pandaroot/trunk/gconfig/g4Config.C LINE:29
Warning: Automatic variable TG4RunConfiguration* runConfiguration is allocated
/home/freez/fairsoft/pandaroot/trunk/gconfig/g4Config.C:29:
Error: Undeclared variable TG4RunConfiguration* runConfiguration
/home/freez/fairsoft/pandaroot/trunk/gconfig/g4Config.C:29:
*** Interpreter error recovered ***
SetCuts Macro: Setting Processes..
Error: illegal pointer to class object gMC 0x0 1132
/home/freez/fairsoft/pandaroot/trunk/gconfig/SetCuts.C:23:
*** Interpreter error recovered ***
```

*** Break *** segmentation violation

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

```
#0 0x00007fbb43a81f3e in waitpid () from /lib/libc.so.6
#1 0x00007fbb43a197e9 in ?? () from /lib/libc.so.6
#2 0x00007fbb45d1e71a in TUnixSystem::Exec (this=0x21c0800, shellcmd=0x6d47e18
"/home/freez/fairsoft/tools/root/etc/gdb-backtrace.sh 5125 1>&2")
    at core/unix/src/TUnixSystem.cxx:1978
#3 0x00007fbb45d1f012 in TUnixSystem::StackTrace (this=0x21c0800) at
core/unix/src/TUnixSystem.cxx:2188
#4 0x00007fbb45d1c864 in TUnixSystem::DispatchSignals (this=0x21c0800,
sig=kSigSegmentationViolation) at core/unix/src/TUnixSystem.cxx:1106
#5 0x00007fbb45d1a539 in SigHandler (sig=kSigSegmentationViolation) at
core/unix/src/TUnixSystem.cxx:350
#6 0x00007fbb45d2249e in sighandler (sig=11) at core/unix/src/TUnixSystem.cxx:3428
#7 <signal handler called>
#8 0x00007fbb3a8e9997 in FairMCApplication::InitMC (this=0x2f8ac10, setup=0x3de9a28
"/home/freez/fairsoft/pandaroot/trunk/gconfig/g4Config.C",
    cuts=0x3de9a88 "/home/freez/fairsoft/pandaroot/trunk/gconfig/SetCuts.C") at
/home/freez/fairsoft/pandaroot/trunk/base/FairMCApplication.cxx:217
#9 0x00007fbb3a905d12 in FairRunSim::SetMCConfig (this=0x22463c0) at
/home/freez/fairsoft/pandaroot/trunk/base/FairRunSim.cxx:359
#10 0x00007fbb3a903e75 in FairRunSim::Init (this=0x22463c0) at
/home/freez/fairsoft/pandaroot/trunk/base/FairRunSim.cxx:164
#11 0x00007fbb3a94b5e6 in G__FairDict_681_0_4 (result7=0x7ffc9da00e0,
funcname=0x2de9750 "\001", libp=0x7ffc9d956d0, hash=0)
    at /home/freez/PndShashlyk/build/base/FairDict.cxx:10880
#12 0x00007fbb450584e4 in Cint::G__ExceptionWrapper (funcp=0x7fbb3a94b5b8
<G__FairDict_681_0_4>, result7=0x7ffc9da00e0, funcname=0x2de9750 "\001",
libp=0x7ffc9d956d0, hash=0)
    at cint/cint/src/Api.cxx:385
#13 0x00007fbb4512db46 in G__execute_call (result7=0x7ffc9da00e0, libp=0x7ffc9d956d0,
```

ifunc=0x2de9750, ifn=0) at cint/cint/src/newlink.cxx:2332
 #14 0x00007fbb4512e479 in G__call_cppfunc (result7=0x7ffc9da00e0, libp=0x7ffc9d956d0, ifunc=0x2de9750, ifn=0) at cint/cint/src/newlink.cxx:2518
 #15 0x00007fbb45107abc in G__interpret_func (result7=0x7ffc9da00e0, funcname=0x222edd0 "Init", libp=0x7ffc9d956d0, hash=404, p_ifunc=0x2de9750, funcmatch=1, memfunc_flag=1) at cint/cint/src/ifunc.cxx:5240
 #16 0x00007fbb450e20bc in G__getfunction (item=0x222d986 "Init()", known3=0x7ffc9da39b8, memfunc_flag=1) at cint/cint/src/func.cxx:2423
 #17 0x00007fbb452172e9 in G__getstructmem (store_var_type=112, varname=0x222e5b0 "emcHitProd", membername=0x222d986 "Init()", tagname=0x222e1a0 "fRun", known2=0x7ffc9da39b8, varglobal=0x7fbb454f1540, objptr=2) at cint/cint/src/var.cxx:6591
 #18 0x00007fbb45206cf9 in G__getvariable (item=0x222d980 "fRun->Init()", known=0x7ffc9da39b8, varglobal=0x7fbb454f1540, varlocal=0x7ffc9da6790) at cint/cint/src/var.cxx:5222
 #19 0x00007fbb450d12a9 in G__getitem (item=0x222d980 "fRun->Init()") at cint/cint/src/expr.cxx:1882
 #20 0x00007fbb450ceb2f in G__getexpr (expression=0x20b59f0 "fRun->Init()") at cint/cint/src/expr.cxx:1464
 #21 0x00007fbb4515fe4c in G__exec_function (statement=..., pc=0x7ffc9da642c, piout=0x7ffc9da6428, plargestep=0x7ffc9da6418, presult=0x7ffc9da62c0) at cint/cint/src/parse.cxx:643
 #22 0x00007fbb451703f3 in G__exec_statement (mparen=0x7ffc9da6ce4) at cint/cint/src/parse.cxx:7083
 #23 0x00007fbb4510b0fa in G__interpret_func (result7=0x7ffc9db1ca0, funcname=0x21c6840 "sim_complete_stt", libp=0x7ffc9da7290, hash=1723, p_ifunc=0x25e2310, funcmatch=1, memfunc_flag=0) at cint/cint/src/ifunc.cxx:6079
 #24 0x00007fbb450e2dcf in G__getfunction (item=0x20bfc30 "sim_complete_stt()", known3=0x7ffc9db1f38, memfunc_flag=0) at cint/cint/src/func.cxx:2639
 #25 0x00007fbb450d13c9 in G__getitem (item=0x20bfc30 "sim_complete_stt()") at cint/cint/src/expr.cxx:1894
 #26 0x00007fbb450ceb2f in G__getexpr (expression=0x25fee10 "sim_complete_stt()") at cint/cint/src/expr.cxx:1464
 #27 0x00007fbb450bc9a8 in G__calc_internal (exprwithspace=0x20b1700 "sim_complete_stt()") at cint/cint/src/expr.cxx:1066
 #28 0x00007fbb4517aa2c in G__process_cmd (line=0x22144f8 ".X /home/freez/fairsoft/tools/root/etc/plugins/TVirtualStreamerInfo/P010_TS treamerInfo.C ", prompt=0x21c66c8 "", more=0x21c66c0, err=0x7ffc9db5c08, rslt=0x7ffc9db5ba0) at cint/cint/src/pause.cxx:2277
 #29 0x00007fbb45d04cf6 in TCint::ProcessLine (this=0x21c6690, line=0x22144f8 ".X /home/freez/fairsoft/tools/root/etc/plugins/TVirtualStreamerInfo/P010_TS treamerInfo.C ", error=0x7ffc9db68e8) at core/meta/src/TCint.cxx:419
 #30 0x00007fbb45d051f8 in TCint::ProcessLineSynch (this=0x21c6690, line=0x22144f8 ".X /home/freez/fairsoft/tools/root/etc/plugins/TVirtualStreamerInfo/P010_TS treamerInfo.C ", error=0x7ffc9db68e8) at core/meta/src/TCint.cxx:486
 #31 0x00007fbb45bfc1ff in TApplication::ExecuteFile (file=0x7ffc9db68f3 "sim_complete_stt.C", error=0x7ffc9db68e8, keep=false) at core/base/src/TApplication.cxx:977
 #32 0x00007fbb45bfb910 in TApplication::ProcessFile (this=0x220ae80, file=0x7ffc9db68f3 "sim_complete_stt.C", error=0x7ffc9db68e8, keep=false)

```
at core/base/src/TApplication.cxx:853
#33 0x00007fbb45bfb82e in TApplication::ProcessLine (this=0x220ae80, line=0x7ffc9db68f0
".x sim_complete_stt.C", sync=false, err=0x7ffc9db68e8)
at core/base/src/TApplication.cxx:826
#34 0x00007fbb4493d549 in TRint::Run (this=0x220ae80, retn=false) at
core/rint/src/TRint.cxx:407
#35 0x0000000000401234 in main (argc=1, argv=0x7ffc9db8a98) at main/src/rmain.cxx:29
=====
```

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.

```
=====
#8 0x00007fbb3a8e9997 in FairMCApplication::InitMC (this=0x2f8ac10, setup=0x3de9a28
"/home/freez/fairsoft/pandaroot/trunk/gconfig/g4Config.C",
cuts=0x3de9a88 "/home/freez/fairsoft/pandaroot/trunk/gconfig/SetCuts.C") at
/home/freez/fairsoft/pandaroot/trunk/base/FairMCApplication.cxx:217
#9 0x00007fbb3a905d12 in FairRunSim::SetMCConfig (this=0x22463c0) at
/home/freez/fairsoft/pandaroot/trunk/base/FairRunSim.cxx:359
#10 0x00007fbb3a903e75 in FairRunSim::Init (this=0x22463c0) at
/home/freez/fairsoft/pandaroot/trunk/base/FairRunSim.cxx:164
=====
```

Root > Function sim_complete_stt() busy flag cleared

Does anybody know how to solve this?
Thanks.
Dmitry.

Subject: Re: Geant4 library problem
Posted by [Mohammad Al-Turany](#) on Tue, 15 Jun 2010 12:20:51 GMT
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Hi Dmitry,

It seems that the Geant4 installation went wrong in your case, can you please cd to:

\$SIMPATH/transport/geant4/source

and call make there. This will show you which shared libraries of Geant4 did not compile and what is missing in your system.

Mohammad

Subject: Re: Geant4 library problem
Posted by [Dmitry Morozov](#) on Wed, 16 Jun 2010 06:57:16 GMT
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Hi Mohammad!

Thanks a lot, you solved my problem!

The guilty libraries were libXmu and LibXi. Geant4 needs development headers of this libs. They were missing in my system.

Thanks again, it works now.

Dmitry
