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Subject: [FIXED] Error while digi\_complete.C with Geant4  
Posted by [Maria Patsyuk](#) on Tue, 19 Nov 2013 14:37:42 GMT  
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Dear all,

I've run the macro/run/sim\_complete.C (with some changes with respect to the default version, see attached) and then I'm trying to run the digi\_complete.C (with some changes, see attached) using the created output sim\_complete.root, but getting the following error:

```
root -l digi_complete.C
root [0]
Processing digi_complete.C...
FairRootManager::OpenOutFile("digi_complete.root")
Info in <PndSdsHybridHitProducer::PndSdsHybridHitProducer>: MVD Hybrid Hit Producer
created, Parameters will be taken from RTDB
[INFO ] The input consists out of the following trees and files:
[INFO ] - cbmsim
[INFO ] - sim_complete.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 10
[INFO ] Branch: EventHeader. not found in Tree
[INFO ] Branch: EventHeader. not found in Tree
[INFO ] No event Header was found!!!
[INFO ] Branch: EventHeader. not found in Tree
[INFO ] Branch: EventHeader. not found in Tree
```

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initialisation for run id 1384870824

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```
-l- FairRunTimeDB::InitContainer() FairBaseParSet
Info in (PndGeoHandling::Instance): Making a new instance using the framework.
Info in <TGeoManager::CloseGeometry>: Geometry loaded from file...
Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave
Info in <TGeoNavigator::BuildCache>: --- Maximum geometry depth set to 100
Info in <TGeoManager::Voxelize>: Voxelizing...
Info in <TGeoManager::CountLevels>: max level = 12, max placements = 4550
Info in <TGeoManager::CloseGeometry>: 125339 nodes/ 4348 volume UID's in FAIR geometry
Info in <TGeoManager::CloseGeometry>: -----modeler ready-----
Container FairBaseParSet initialized from ROOT file.
-l container name PndGeoSttPar
Info in <PndMvdStripHitProducer::SetParContainers(>): The container names list contains 10
entries
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDPixelDigiPar
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDStripDigiParRect
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDStripDigiParTrap
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDStripDigiParTD
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDStripDigiParTS
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDPixelTotDigiPar
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDStripTotDigiParRect
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDStripTotDigiParTrap
Info in <PndMvdStripHitProducer::SetParContainers(>): MVDStripTotDigiParTD
```

```

Info in <PndMvdStripHitProducer::SetParContainers(>: MVDStripTotDigiParTS
Info in <PndMvdStripClusterTask::SetParContainers(>: The container names list contains 10
entries
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDPixelDigiPar
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripDigiParRect
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripDigiParTrap
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripDigiParTD
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripDigiParTS
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDPixelTotDigiPar
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripTotDigiParRect
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripTotDigiParTrap
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripTotDigiParTD
Info in <PndMvdStripClusterTask::SetParContainers(>: MVDStripTotDigiParTS

```

```
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```

```
initialisation for run id 1384870824
```

```
*****
```

```

-l- FairRunTimeDB::InitContainer() FairBaseParSet
-l- FairRunTimeDB::InitContainer() PndGeoSttPar
Container PndGeoSttPar initialized from ROOT file.
-l- FairRunTimeDB::InitContainer() MVDPixelDigiPar
MVDPixelDigiPar initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDPixelTotDigiPar
MVDPixelTotDigiPar initialized from Ascii file
-l- FairRunTimeDB::InitContainer() PndSensorNamePar
Container PndSensorNamePar initialized from ROOT file.
-l- FairRunTimeDB::InitContainer() MVDStripDigiParRect
MVDStripDigiParRect initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripDigiParTrap
MVDStripDigiParTrap initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripDigiParTD
MVDStripDigiParTD initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripDigiParTS
MVDStripDigiParTS initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParRect
MVDStripTotDigiParRect initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParTrap
MVDStripTotDigiParTrap initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParTD
MVDStripTotDigiParTD initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParTS
MVDStripTotDigiParTS initialized from Ascii file
-l- FairRunTimeDB::InitContainer() PndGemDetectors
Gem_Disk1_Gem1_Sensor_GEMmixture type 0 has 786 front and 4250 back channels
Gem_Disk1_Gem6_Sensor_GEMmixture type 2 has 4750 front and 9000 back channels
Gem_Disk2_Gem1_Sensor_GEMmixture type 0 has 786 front and 5350 back channels
Gem_Disk2_Gem6_Sensor_GEMmixture type 2 has 5850 front and 11200 back channels
Gem_Disk3_Gem1_Sensor_GEMmixture type 0 has 786 front and 7150 back channels
Gem_Disk3_Gem6_Sensor_GEMmixture type 2 has 7650 front and 14800 back channels
PndGemDetectors initialized from Ascii file
PndFieldCreator::SetParm() 0x645eeb0

```

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initialisation for run id 1384870824

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```
-l- FairRunTimeDB::InitContainer() FairBaseParSet
-l- FairRunTimeDB::InitContainer() PndGeoSttPar
-l- FairRunTimeDB::InitContainer() MVDPixelDigiPar
MVDPixelDigiPar initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDPixelTotDigiPar
MVDPixelTotDigiPar initialized from Ascii file
-l- FairRunTimeDB::InitContainer() PndSensorNamePar
-l- FairRunTimeDB::InitContainer() MVDStripDigiParRect
MVDStripDigiParRect initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripDigiParTrap
MVDStripDigiParTrap initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripDigiParTD
MVDStripDigiParTD initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripDigiParTS
MVDStripDigiParTS initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParRect
MVDStripTotDigiParRect initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParTrap
MVDStripTotDigiParTrap initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParTD
MVDStripTotDigiParTD initialized from Ascii file
-l- FairRunTimeDB::InitContainer() MVDStripTotDigiParTS
MVDStripTotDigiParTS initialized from Ascii file
-l- FairRunTimeDB::InitContainer() PndGemDetectors
PndGemDetectors initialized from Ascii file
-l- FairRunTimeDB::InitContainer() PndMultiFieldPar
Container PndMultiFieldPar initialized from ROOT file.
OBJ: PndTransPar      PndTransPar  Trans. Field parameter container
OBJ: PndDipole1Par    PndDipole1Par  Dipole Field parameter container
OBJ: PndDipole2Par    PndDipole2Par  Dipole Field parameter container
OBJ: PndSolenoid1Par  PndSolenoid1Par Solenoid 1st region parameter container
OBJ: PndSolenoid2Par  PndSolenoid2Par Solenoid 2nd region parameter container
OBJ: PndSolenoid3Par  PndSolenoid3Par Solenoid 3rd region parameter container
OBJ: PndSolenoid4Par  PndSolenoid4Par Solenoid 4th region parameter container
[INFO ] PndFieldMap: Reading field map from ROOT file
/u/mpatsyuk/PANDA/new_trunk/input/TransMap.1500.root
[INFO ] PndFieldMap: Reading field map from ROOT file
/u/mpatsyuk/PANDA/new_trunk/input/DipoleMap1.1500.root
[INFO ] PndFieldMap: Reading field map from ROOT file
/u/mpatsyuk/PANDA/new_trunk/input/DipoleMap2.1500.root
[INFO ] PndFieldMap: Reading field map from ROOT file
/u/mpatsyuk/PANDA/new_trunk/input/SolenoidMap1.root
[INFO ] PndFieldMap: Reading field map from ROOT file
/u/mpatsyuk/PANDA/new_trunk/input/SolenoidMap2.root
[INFO ] PndFieldMap: Reading field map from ROOT file
/u/mpatsyuk/PANDA/new_trunk/input/SolenoidMap3.root
[INFO ] PndFieldMap: Reading field map from ROOT file
/u/mpatsyuk/PANDA/new_trunk/input/SolenoidMap4.root
InBranchId: 2 for Branch: MVDPPoint
```

OutBranchId: -1 for Branch: MVDPixelDigis  
InBranchId: 2 for Branch: MVDPPoint  
OutBranchId: -1 for Branch: MVDStripDigis  
[WARNING] Branch MVDStripDigis is already registered in WriteoutBufferMap  
[WARNING] Branch MVDPixelDigis is already registered in WriteoutBufferMap  
-I- PndMvdNoiseProducer: Intialisation successfull  
InBranchId: 11 for Branch: MVDPixelDigis  
fClusterType: 13 for Branch: MVDPixelClusterCand  
-I- PndSdsPixelClusterTask: Initialisation successfull  
InBranchId: 12 for Branch: MVDStripDigis  
fClusterType: 15 for Branch: MVDStripClusterCand  
Info in <PndMvdStripClusterTask::SetCalculators>: mvd  
Info in <PndMvdStripClusterTask::Init>: Initialisation successfull  
----- INITIALIZATION -----  
-I- PndDrcHitProducerReal: Intialization successfull  
-I- GEM Digitizer::Init(). There are 3 GEM stations.  
-I- GEM Digitizer::Init(). Initialization succesfull.  
-I- GEM Hit Finder::Init(). There are 3 GEM stations.  
-I- GEM Hit Finder::Init(). Initialization succesfull.  
sensor out rad is 45  
Info in (PndGemMonitor::Instance): Making a new instance using the framework.  
[INFO ] The number of entries in chain is 10

\*\*\* Break \*\*\* segmentation violation

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

```
#0 0x00007faa29fc983e in __libc_waitpid (pid=<optimized out>, stat_loc=0x7fffd130c9dc,
options=<optimized out>) at ../sysdeps/unix/sysv/linux/waitpid.c:32
#1 0x00007faa29f672c9 in do_system (line=<optimized out>) at
../sysdeps/posix/system.c:149
#2 0x00007faa2af5cf06 in TUnixSystem::Exec (this=0x2246430, shellcmd=0xac0e390
"/d/panda01/mpatsyuk/apr13/apr13/etc/gdb-backtrace.sh 7235 1>&2") at
/d/panda01/mpatsyuk/apr13/tools/root/core/unix/src/TUnixSystem.cxx:2088
#3 0x00007faa2af5d7d4 in TUnixSystem::StackTrace (this=0x2246430) at
/d/panda01/mpatsyuk/apr13/tools/root/core/unix/src/TUnixSystem.cxx:2336
#4 0x00007faa2af5b125 in TUnixSystem::DispatchSignals (this=0x2246430,
sig=kSigSegmentationViolation) at
/d/panda01/mpatsyuk/apr13/tools/root/core/unix/src/TUnixSystem.cxx:1212
#5 0x00007faa2af590ad in SigHandler (sig=kSigSegmentationViolation) at
/d/panda01/mpatsyuk/apr13/tools/root/core/unix/src/TUnixSystem.cxx:368
#6 0x00007faa2af6104e in sighandler (sig=11) at
/d/panda01/mpatsyuk/apr13/tools/root/core/unix/src/TUnixSystem.cxx:3650
#7 0x00007faa2af96604 in textinput::TerminalConfigUnix::HandleSignal
(this=0x7faa2b751f00, signum=11) at
/d/panda01/mpatsyuk/apr13/tools/root/core/textinput/src/textinput/Termin alConfigUnix.cpp:96
#8 0x00007faa2af9614d in (anonymous namespace)::TerminalConfigUnix__handleSignal
(signum=11) at /d/panda01/mpatsyuk/apr13/tools/root/core/textinput/src/textinput/Termin
```

```

alConfigUnix.cpp:36
#9 <signal handler called>
#10 0x00007faa2ae65d2e in TObject::TObject (this=0x7fffd130ff20, obj=...) at
/d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TObject.cxx:85
#11 0x00007faa25cd303f in TVector3::TVector3 (this=0x7fffd130ff20, p=...) at
/d/panda01/mpatsyuk/apr13/tools/root/math/physics/src/TVector3.cxx:172
#12 0x00007faa1e308a92 in PndSttTube::GetPosition (this=0x0) at
/u/mpatsyuk/PANDA/new_trunk/stt/PndSttTube.cxx:87
#13 0x00007faa1e2f2dff in PndSttHitProducerRealFast::Exec (this=0x3220890,
opt=0x7faa1fffd540 "") at
/u/mpatsyuk/PANDA/new_trunk/stt/PndSttHitProducerRealFast.cxx:220
#14 0x00007faa2aebdb44 in TTask::ExecuteTasks (this=0x2dbecf0, option=0x7faa1fffd540 "")
at /d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TTask.cxx:312
#15 0x00007faa2aebd922 in TTask::ExecuteTask (this=0x2dbecf0, option=0x7faa1fffd540 "")
at /d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TTask.cxx:275
#16 0x00007faa1feeb194 in FairRunAna::Run (this=0x2dbeaf0, Ev_start=0, Ev_end=10) at
/u/mpatsyuk/PANDA/new_trunk/base/steer/FairRunAna.cxx:461
#17 0x00007faa1ff545e3 in G__G__BaseDict_618_0_6 (result7=0x7fffd131bc70,
funcname=0x2db7b60 "", libp=0x7fffd1311260, hash=0) at
/u/mpatsyuk/PANDA/build_Squeeze64_Apr2013/base/G__BaseDict.cxx:8427
#18 0x00007faa2935cecc in Cint::G__ExceptionWrapper (funcp=0x7faa1ff5442d
<G__G__BaseDict_618_0_6(G__value*, char const*, G__param*, int)>,
result7=0x7fffd131bc70, funcname=0x2db7b60 "", libp=0x7fffd1311260, hash=0) at
cint/cint/src/Api.cxx:393
#19 0x00007faa294396e5 in G__execute_call (result7=0x7fffd131bc70, libp=0x7fffd1311260,
ifunc=0x2db7b60, ifn=0) at cint/cint/src/newlink.cxx:2408
#20 0x00007faa2943a098 in G__call_cppfunc (result7=0x7fffd131bc70, libp=0x7fffd1311260,
ifunc=0x2db7b60, ifn=0) at cint/cint/src/newlink.cxx:2612
#21 0x00007faa29412a6b in G__interpret_func (result7=0x7fffd131bc70,
funcname=0x29910e0 "Run", libp=0x7fffd1311260, hash=309, p_ifunc=0x2db7b60,
funcmatch=1, memfunc_flag=1) at cint/cint/src/ifunc.cxx:5791
#22 0x00007faa293eba79 in G__getfunction (item=0x2266ac6 "Run()",
known3=0x7fffd131cf18, memfunc_flag=1) at cint/cint/src/func.cxx:2660
#23 0x00007faa2952a8fd in G__getstructmem (store_var_type=112, varname=...,
membername=0x2266ac6 "Run()", memnamesize=2147483647, tagname=0x29904b0 "fRun",
known2=0x7fffd131cf18, varglobal=0x7faa297f5160, objptr=2) at cint/cint/src/var.cxx:6818
#24 0x00007faa2951a1db in G__getvariable (item=0x2266ac0 "fRun->Run()",
known=0x7fffd131cf18, varglobal=0x7faa297f5160, varlocal=0x7fffd13201b0) at
cint/cint/src/var.cxx:5404
#25 0x00007faa293da788 in G__getitem (item=0x2266ac0 "fRun->Run()") at
cint/cint/src/expr.cxx:1906
#26 0x00007faa293d7f37 in G__getexpr (expression=0x22819f0 "fRun->Run()") at
cint/cint/src/expr.cxx:1488
#27 0x00007faa2946d2ab in G__exec_function (statement=..., pc=0x7fffd131f88c,
piout=0x7fffd131f888, plargestep=0x7fffd131f880, presult=0x7fffd131f7b0) at
cint/cint/src/parse.cxx:645
#28 0x00007faa2947e28c in G__exec_statement (mparen=0x7fffd13204bc) at
cint/cint/src/parse.cxx:7371
#29 0x00007faa2941611d in G__interpret_func (result7=0x7fffd132b2a0,
funcname=0x2259050 "digi_complete", libp=0x7fffd1320890, hash=1365, p_ifunc=0x2963fe0,
funcmatch=1, memfunc_flag=0) at cint/cint/src/ifunc.cxx:6710
#30 0x00007faa293ec83d in G__getfunction (item=0x2258830 "digi_complete()",

```

```

known3=0x7ffd132b568, memfunc_flag=0) at cint/cint/src/func.cxx:2901
#31 0x00007faa293da8a8 in G__getitem (item=0x2258830 "digi_complete()") at
cint/cint/src/expr.cxx:1918
#32 0x00007faa293d7f37 in G__getexpr (expression=0x2a4a330 "digi_complete()") at
cint/cint/src/expr.cxx:1488
#33 0x00007faa293c473b in G__calc_internal (exprwithspace=0x225a8a0 "digi_complete()")
at cint/cint/src/expr.cxx:1071
#34 0x00007faa294892a9 in G__process_cmd (line=0x2a49950 ".X
/u/mpatsyuk/PANDA/new_trunk/macro/run/./digi_complete.C", prompt=0x224a0e8 "",
more=0x224a0e0, err=0x7ffd132ef7c, rslt=0x7ffd132ef10) at cint/cint/src/pause.cxx:2333
#35 0x00007faa2af043f2 in TCint::ProcessLine (this=0x224a0a0, line=0x2a49950 ".X
/u/mpatsyuk/PANDA/new_trunk/macro/run/./digi_complete.C", error=0x7ffd1331da4) at
/d/panda01/mpatsyuk/apr13/tools/root/core/meta/src/TCint.cxx:545
#36 0x00007faa2af04a84 in TCint::ProcessLineSynch (this=0x224a0a0, line=0x2a49950 ".X
/u/mpatsyuk/PANDA/new_trunk/macro/run/./digi_complete.C", error=0x7ffd1331da4) at
/d/panda01/mpatsyuk/apr13/tools/root/core/meta/src/TCint.cxx:624
#37 0x00007faa2ae28fe1 in TApplication::ExecuteFile (file=0x7ffd132fd43 "digi_complete.C",
error=0x7ffd1331da4, keep=false) at
/d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TApplication.cxx:1028
#38 0x00007faa2ae28856 in TApplication::ProcessFile (this=0x2392550, file=0x7ffd132fd43
"digi_complete.C", error=0x7ffd1331da4, keep=false) at
/d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TApplication.cxx:904
#39 0x00007faa2ae28773 in TApplication::ProcessLine (this=0x2392550, line=0x7ffd132fd40
".x digi_complete.C", sync=false, err=0x7ffd1331da4) at
/d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TApplication.cxx:877
#40 0x00007faa2a9e648c in TRint::Run (this=0x2392550, retrn=false) at
/d/panda01/mpatsyuk/apr13/tools/root/core/rint/src/TRint.cxx:418
#41 0x0000000000401322 in main (argc=1, argv=0x7ffd1331f58) at
/d/panda01/mpatsyuk/apr13/tools/root/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.

```

=====
#10 0x00007faa2ae65d2e in TObject::TObject (this=0x7ffd130ff20, obj=...) at
/d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TObject.cxx:85
#11 0x00007faa25cd303f in TVector3::TVector3 (this=0x7ffd130ff20, p=...) at
/d/panda01/mpatsyuk/apr13/tools/root/math/physics/src/TVector3.cxx:172
#12 0x00007faa1e308a92 in PndSttTube::GetPosition (this=0x0) at
/u/mpatsyuk/PANDA/new_trunk/stt/PndSttTube.cxx:87
#13 0x00007faa1e2f2dff in PndSttHitProducerRealFast::Exec (this=0x3220890,
opt=0x7faa1ffd540 "") at
/u/mpatsyuk/PANDA/new_trunk/stt/PndSttHitProducerRealFast.cxx:220
#14 0x00007faa2aebdb44 in TTask::ExecuteTasks (this=0x2dbecf0, option=0x7faa1ffd540 "")
at /d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TTask.cxx:312
#15 0x00007faa2aebd922 in TTask::ExecuteTask (this=0x2dbecf0, option=0x7faa1ffd540 "")
at /d/panda01/mpatsyuk/apr13/tools/root/core/base/src/TTask.cxx:275
#16 0x00007faa1feeb194 in FairRunAna::Run (this=0x2dbeaf0, Ev_start=0, Ev_end=10) at

```

/u/mpatsyuk/PANDA/new\_trunk/base/steer/FairRunAna.cxx:461

=====

Root > Function digi\_complete() busy flag cleared

This might be related to the warning appearing during the simulation:

```
++++ TG4Warning: +++++
  TG4MCGeometry::GetTransformation:
    Daughter volume &stt01assembly in
/cave_1/&stt01assembly_0%stt01tube_4160/stt01gas_1 does not exist.
+++++
```

```
++++ TG4Warning: +++++
  TG4MCGeometry::GetTransformation:
    Daughter volume &stt01assembly in
/cave_1/&stt01assembly_0%stt01tube_4323/stt01gas_1 does not exist.
+++++
```

How do I properly run the macros from macro/run directory?  
Is it possible to run these macros using Geant4?

Best regards,  
Maria Patsyuk

## File Attachments

---

- 1) [sim\\_complete.C](#), downloaded 253 times
  - 2) [digi\\_complete.C](#), downloaded 270 times
-