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Subject: [FIXED] crash in run/sim\_complete.C with Geant4  
Posted by [Maria Patsyuk](#) on Tue, 14 Jan 2014 08:37:11 GMT  
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Dear all,

with the updated svn (23427) I'm getting the following crash in run/sim\_complete.C, when using it with Geant4. I've looked on my previous topics about errors in these macros - now my errors look differently from the previous ones that's why I'm posting them (again). The simulation macro is attached. The error looks like the following:

```
root -l sim_completeG.C
root [0]
Processing sim_completeG.C...
FairRootManager::OpenOutFile("sim_complete_small.root")
[INFO ] Media file used : /u/mpatsyuk/PANDA/new_trunk/geometry/media_pnd.geo
Info in (PndGeoHandling::Instance): Making a new instance using the framework.
[INFO ] ===== FairRunSim: Initialising simulation run =====
Info in <TGeoManager::TGeoManager>: Geometry FAIRGeom, FAIR geometry created
-l- FairGeoMedia Read media
-l- container name PndEmcGeoPar
-l- container name PndEmcDigiPar
-l- container name PndEmcDigiNonuniformityPar
```

```
*****
```

```
initialisation for run id 1389687983
```

```
*****
```

```
-l- FairRunTimeDB::InitContainer() PndSensorNamePar
[ERROR ] init() PndSensorNamePar not initialized
-l- FairRunTimeDB::InitContainer() PndEmcGeoPar
[ERROR ] init() PndEmcGeoPar not initialized
-l- FairRunTimeDB::InitContainer() PndEmcDigiPar
PndEmcDigiPar initialized from Ascii file
-l- FairRunTimeDB::InitContainer() PndEmcDigiNonuniformityPar
[ERROR ] init() PndEmcDigiNonuniformityPar not initialized
Error in <FairRuntimeDb::initContainers(>: Error occured during initialization
[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
Loading Geant4 global libraries ...Our Macro
Loading Library libG4Tree
```

Loading Library libG4FR  
Loading Library libG4GMocren  
Loading Library libG4visHepRep  
Loading Library libG4RayTracer  
Loading Library libG4VRML  
Loading Library libG4vis\_management  
Loading Library libG4modeling  
Loading Library libG3toG4  
Loading Library libG4interfaces  
Loading Library libG4persistence  
Loading Library libG4analysis  
Loading Library libG4error\_propagation  
Loading Library libG4readout  
Loading Library libG4physicslists  
Loading Library libG4run  
Loading Library libG4event  
Loading Library libG4tracking  
Loading Library libG4parmodels  
Loading Library libG4processes  
Loading Library libG4digits\_hits  
Loading Library libG4track  
Loading Library libG4particles  
Loading Library libG4geometry  
Loading Library libG4materials  
Loading Library libG4graphics\_reps  
Loading Library libG4intercoms  
Loading Library libG4global  
Loading Library libG4clhep  
Loading VGM libraries ...  
Loading g4root library ...  
Loading libraries ... finished

```
*****  
Geant4 version Name: geant4-09-06-patch-01 (1-February-2013)  
Copyright : Geant4 Collaboration  
Reference : NIM A 506 (2003), 250-303  
WWW : http://cern.ch/geant4  
*****
```

```
Adding HadronPhysicsList QGSP_BERT_EMV  
G4PhysListFactory::GetReferencePhysList <QGSP_BERT_EMV> EMOption= 1  
<<< Geant4 Physics List simulation engine: QGSP_BERT 4.0
```

```
<<< Reference Physics List QGSP_BERT_EMV is built
```

```
Adding ExtraPhysicsList optical  
Adding SpecialPhysicsList stepLimiter+specialCuts+  
Available UI session types: [ GAG, tcsh, csh ]  
Visualization Manager instantiating with verbosity "warnings (3)"...  
Geant4 has been created.  
-I g4Config() using g4conf macro: /u/mpatsyuk/PANDA/new_trunk/gconfig/g4config.in  
Seed for HepJamesRandom must be non-negative
```

Seed value supplied was -482490914  
Using its absolute value instead  
SetCuts Macro: Setting Processes..  
SetCuts Macro: Setting cuts..  
++++ TG4Warning: ++++  
TG4G3CutVector::CheckCutValue:  
PPCUTM cut value 1 MeV is lower than 2\*e\_mass.  
The cut will be ignored.  
+++++

Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave  
Info in <TGeoNavigator::BuildCache>: --- Maximum geometry depth set to 100  
<l> PndPipe - Using geometry  
/u/mpatsyuk/PANDA/new\_trunk/geometry/beampipe\_201309.root  
-l container name PndGeoSttPar  
-l- STT total number of tubes: 4542

===== DRC:: ConstructGeometry() =====  
=====

Focusing = 0  
=====

Info in <TGeoManager::CheckGeometry>: Fixing runtime shapes...  
Info in <TGeoManager::CheckGeometry>: ...Nothing to fix  
Info in <TGeoManager::CloseGeometry>: Counting nodes...  
Info in <TGeoManager::Voxelize>: Voxelizing...  
Info in <TGeoManager::CloseGeometry>: Building cache...  
Info in <TGeoManager::CountLevels>: max level = 12, max placements = 4550  
Info in <TGeoManager::CloseGeometry>: 125103 nodes/ 4112 volume UID's in FAIR geometry  
Info in <TGeoManager::CloseGeometry>: -----modeler ready-----  
Converting Root geometry to Geant4 via VGM ...

----- EEEE ----- G4Exception-START ----- EEEE -----  
\*\*\* G4Exception : GeomSolids0002  
issued by : G4Polycone::G4Polycone()  
Cannot create a Polycone with no contiguous segments.  
Segments are not contiguous !  
rMin[3] = 45 -- rMax[4] = 31  
rMin[4] = 30 -- rMax[3] = 46  
\*\*\* Fatal Error In Argument \*\*\* core dump \*\*\*  
----- EEEE ----- G4Exception-END ----- EEEE -----

\*\*\* G4Exception: Aborting execution \*\*\*

Could you please help me with it?

Best regards,  
Maria

File Attachments

1) [sim\\_completeG.C](#), downloaded 261 times

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Subject: Re: crash in run/sim\_complete.C with Geant4  
Posted by [Mohammad Al-Turany](#) on Tue, 14 Jan 2014 09:56:05 GMT  
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Hi Maria,

I run your macro with Dec13 fairsoft and latest trunk in PANDA and all went smoothly! I try it on MAC OS and GSI linux and it woked with out any problem.

On the GSI cluster Dec13 is already installed, you just need to set your SIMPATH to

`/cvmfs/fairroot.gsi.de/fairsoft/dec13`

cheers,

Mohammad

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Subject: Re: crash in run/sim\_complete.C with Geant4  
Posted by [StefanoSpataro](#) on Tue, 14 Jan 2014 13:58:08 GMT  
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Are you sure you did not change your g4Config.C?

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Subject: Re: crash in run/sim\_complete.C with Geant4  
Posted by [Maria Patsyuk](#) on Tue, 14 Jan 2014 14:25:20 GMT  
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You are right, Stefano,

for our detector we usually set

`TrackSecondariesFirst false`

and

```
TG4RunConfiguration* runConfiguration
= new TG4RunConfiguration("geomRootToGeant4",
"QGSP_BERT_EMV+optical", "stepLimiter+specialCuts+specialControls");
```

if I set `trackSecondariesFirst = true` and use option "geomRoot", than it runs...

Thank you!

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Subject: Re: crash in run/sim\_complete.C with Geant4  
Posted by [Stefano Spataro](#) on Tue, 14 Jan 2014 14:28:30 GMT  
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I believe the geomRootToGeant4 option is the faulty one:

```
----- EEEE ----- G4Exception-START ----- EEEE -----  
*** G4Exception : GeomSolids0002  
issued by : G4Polycone::G4Polycone()  
Cannot create a Polycone with no contiguous segments.  
Segments are not contiguous !  
rMin[3] = 45 -- rMax[4] = 31  
rMin[4] = 30 -- rMax[3] = 46  
*** Fatal Error In Argument *** core dump ***  
----- EEEE ----- G4Exception-END ----- EEEE -----
```

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