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Subject: running problem in rev. 3247  
Posted by [Ralf Kliemt](#) on Tue, 22 Jul 2008 09:31:46 GMT  
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Well hello everybody.

I found the svn trunk to be not running the macro/run/run\_sim1.C  
It is probably since the changes were done. I used rev. 3247.

```
output before(gdb) run
Starting program: /data_hilbert/Software/fairroot/fairsoft_140308/tools/root_v5.18.00/bin/
root.exe run_sim1.C
Failed to read a valid object file image from memory.
[Thread debugging using libthread_db enabled]
[New Thread -1224066272 (LWP 22867)]
```

```
*****
*                                     *
*   W E L C O M E to R O O T   *
*                                     *
*   Version  5.18/00  16 January 2008  *
*                                     *
*   You are welcome to visit our Web site *
*   http://root.cern.ch                 *
*                                     *
*****
```

ROOT 5.18/00 (trunk@21744, Apr 08 2008, 16:39:00 on linux)

CINT/ROOT C/C++ Interpreter version 5.16.29, Jan 08, 2008  
Type ? for help. Commands must be C++ statements.

Enclose multiple statements between { }.  
using .rootlogon.C from the home of the ralfk  
using .rootlogon.C from the home of the ralfk  
root [0]

Processing run\_sim1.C...  
- RTDB container factory CbmBaseContFact

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

- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact
- RTDB container factory PndSttContFact
- RTDB container factory PndMdtContFact
- RTDB container factory PndEmcContFact
- RTDB container factory PndTofContFact
- RTDB container factory PndDrcContFact
- RTDB container factory PndTpcContFact
- RTDB container factory PndDchContFact
- RTDB container factory PndMvdContFact

-I- CbmRun::SetMaterials() Media file used:  
/home/ralfk/Pandaroot/pandaroot/geometry/media\_pnd.geo

```
===== CbmRunSim: Initialising simulation run =====
Info in <TGeoManager::TGeoManager>: Geometry CBMGeom, CBM geometry created
-I- CbmGeoMedia Read media
CbmRunSim::Init() create visualisation manager
-I- PndFieldMap: Reading field map from ROOT file
/home/ralfk/Pandaroot/pandaroot/input/TransMap.root
-I- PndFieldMap: Reading field map from ROOT file
/home/ralfk/Pandaroot/pandaroot/input/DipoleMap.root
-I- PndFieldMap: Reading field map from ROOT file
/home/ralfk/Pandaroot/pandaroot/input/SolenoidMap.root
Loading Geant3 libraries ...
Loading Geant3 libraries ... finished
```

```
MZSTOR. ZEBRA table base TAB(0) in /MZCC/ at adr 747075383 2C877737 HEX
```

```
MZSTOR. Initialize Store 0 in /GCBANK/
      with Store/Table at absolute adrs 747184725 747075383
                HEX 2C892255 2C877737
                HEX 1A72A 0
      relative adrs 108330 0
with 1 Str. in 2 Links in 5300 Low words in 4999970 words.
This store has a fence of 16 words.
```

```
MZLOGL. Set Log Level 0 for store 0
1***** GEANT Version 3.21/11 Released on 100298
0***** Correction Cradle Version 0.1100
```

```
MZDIV. Initialize Division Constant in Store 0
      NW/NWMAX= 20004000000, MODE/KIND= 1 2
      Division 20 initialized.
```

```
MZLINK. Initialize Link Area /GCLINK/ for Store 0 NL/NS= 20 20
```

```
MZLINK. Initialize Link Area /GCSLNK/ for Store 0 NL/NS= 100 100
-I- G3Config: Geant3 with TGeo has been created.
Physics cuts with script
/home/ralfk/Pandaroot/pandaroot/gconfig/SetCuts.C
SetCuts Macro: Setting Processes..
SetCuts Macro: Setting cuts..
Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave
Material aluminium is not defined
Create Medium aluminium
Material iron is not defined
Create Medium iron
--- Building TPC Geometry ---
Material silicon is not defined
Create Medium silicon
Material carbon is not defined
Create Medium carbon
```

```
===== EMC:: ConstructASCIIGeometry() =====
=====
```

```

PndEmcReader: EMC geometry file ==
/home/ralfk/Pandaroot/pandaroot/geometry/emc_module1245.dat
Emc module = 1
*****
Emc module = 2
*****
Emc module = 3
*****
Emc module = 4
*****
Emc module = 5
*****

```

```

===== EMC:: ConstructRootGeometry() =====
=====
File name = /home/ralfk/Pandaroot/pandaroot/geometry/emc_module3new.root

```

```

===== DRC:: ConstructGeometry() =====
=====
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 <TGeoNavigator::BuildCache>: --- Maximum geometry depth set to 100
Info in <TGeoManager::CloseGeometry>: 465314 nodes/ 1251 volume UID's in CBM geometry
Info in <TGeoManager::CloseGeometry>: -----modeler ready-----
Material DCHmixture is not defined
Create Medium DCHmixture
Material DCHmixturePassive is not defined
Create Medium DCHmixturePassive
CbmMCApplication::ConstructGeometry() : Now closing the geometry
Warning in <TGeoManager::CloseGeometry>: geometry already closed
-l- Initializing PndMvdDetector()
-l- container name PndGeoEmcPar
-l- CbmMCApplication -> simulation RunID: 755748126

```

Calculating cross section tables, see gphysi.dat for more information

```

Cross section calculation concluded successfully
-l- CbmMCApplication:: Monte carlo Engine Initialisation with TGeant3TGeo
create PndFieldPar container PndMultiFieldPar
create PndFieldPar container PndTransPar
create PndFieldPar container PndDipolePar
create PndFieldPar container PndSolenoidPar
Warning in <TStreamerInfo::BuildCheck>:
  The StreamerInfo of class PndTpcDetector read from file testparams.root
  has the same version (=1) as the active class but a different checksum.
  You should update the version to ClassDef(PndTpcDetector,2).
  Do not try to write objects with the current class definition,
  the files will not be readable.

```

Warning in <TClass::TClass>: no dictionary for class PndMuo is available  
Warning in <TClass::TClass>: no dictionary for class PndGeoMuoPar is available  
Warning in <TStreamerInfo::BuildCheck>:  
The StreamerInfo of class PndDrc read from file testparams.root  
has the same version (=2) as the active class but a different checksum.  
You should update the version to ClassDef(PndDrc,3).  
Do not try to write objects with the current class definition,  
the files will not be readable.

Warning in <TStreamerInfo::BuildCheck>:  
The StreamerInfo of class PndDchDetector read from file testparams.root  
has the same version (=1) as the active class but a different checksum.  
You should update the version to ClassDef(PndDchDetector,2).  
Do not try to write objects with the current class definition,  
the files will not be readable.

suspicious messages

RuntimeDb: write container CbmBaseParSet

Error in <TStreamerInfo::WriteBuffer>: The element PndDrc::fcharge type 108 (Double\_t) is not supported yet

Error in <TStreamerInfo::WriteBuffer>: The element PndDrc::fmass type 108 (Double\_t) is not supported yet

Error in <TStreamerInfo::WriteBuffer>: The element PndDrc::fflag type 118 (Bool\_t) is not supported yet

Error in <TStreamerInfo::WriteBuffer>: The element PndDrc::fpdgCode type 103 (Int\_t) is not supported yet

Error in <TStreamerInfo::WriteBuffer>: The element PndDrc::fTheta type 108 (Double\_t) is not supported yet

Error in <TStreamerInfo::WriteBuffer>: The element PndDrc::fPhi type 108 (Double\_t) is not supported yet

further text

\*\*\* CbmBaseParSet written to ROOT file version: 3

RuntimeDb: write container PndGeoPassivePar

\*\*\* PndGeoPassivePar written to ROOT file version: 3

RuntimeDb: write container PndTpcGeoPar

\*\*\* PndTpcGeoPar written to ROOT file version: 3

RuntimeDb: write container PndGeoTofPar

\*\*\* PndGeoTofPar written to ROOT file version: 3

RuntimeDb: write container PndGeoEmcPar

RuntimeDb: write container PndGeoDrcPar

RuntimeDb: write container PndGeoMdtPar

RuntimeDb: write container PndMultiFieldPar

\*\*\* PndMultiFieldPar written to ROOT file version: 3

RuntimeDb: write container PndTransPar

RuntimeDb: write container PndDipolePar

RuntimeDb: write container PndSolenoidPar

```

-----
----- actual containers in runtime database -----
CbmBaseParSet          Test class for parameter io
PndGeoPassivePar       Passive Geometry Parameters
PndTpcGeoPar           PndTpc Geometry Parameters
PndGeoTofPar           tof Geometry Parameters
PndGeoEmcPar           Emc Geometry Parameters
PndGeoDrcPar           Drc Geometry Parameters
PndGeoMdtPar           MDT Geometry Parameters
PndMultiFieldPar       Multiple Field parameter container
PndTransPar            Trans. Field parameter container
PndDipolePar           Dipole Field parameter container
PndSolenoidPar         Solenoid Field parameter container

```

```

----- runs, versions -----

```

```

run id
  container          1st-inp  2nd-inp  output
run: 755748126
  CbmBaseParSet      755748126  -1      3
  PndGeoPassivePar   755748126  -1      3
  PndTpcGeoPar       755748126  -1      3
  PndGeoTofPar       755748126  -1      3
  PndGeoEmcPar       -1        -1      0
  PndGeoDrcPar       -1        -1      0
  PndGeoMdtPar       -1        -1      0
  PndMultiFieldPar   755748126  -1      3
  PndTransPar        755748126  -1      0
  PndDipolePar       755748126  -1      0
  PndSolenoidPar     755748126  -1      0

```

```

----- input/output -----

```

first input: none

second input: none

output:

OBJ: CbmParRootFile testparams.root : 0 at: 0xbc56a00

Root file I/O testparams.root is open

detector I/Os: CbmGenericParlo

\*\*\*\* GTRIGI: IEVENT= 1 IDEVT= 1 Random Seeds = 4357 0

CbmMCApplication::GeneratePrimaries()

gdb backtrace output

-l CbmPrimaryGenerator: 10 primary tracks from vertex (0, 0, 0)Event Time = 0(ns)

Program received signal SIGFPE, Arithmetic exception.

[Switching to Thread -1224066272 (LWP 22867)]

0xb722fe5e in \_\_ieee754\_acos () from /lib/libm.so.6

(gdb) bt

#0 0xb722fe5e in \_\_ieee754\_acos () from /lib/libm.so.6

#1 0xb72338e0 in acos () from /lib/libm.so.6

#2 0xb4434a59 in PndDrc::ProcessHits (this=0x8567fc0, vol=0xbc45950) at /home/ralfk/Pandaroot/pandaroot/drc/PndDrc.cxx:332

#3 0xb4bad369 in CbmMCApplication::Stepping (this=0x85b8f58) at /home/ralfk/Pandaroot/pandaroot/base/CbmMCApplication.cxx:338

#4 0xb1f19a67 in gustep\_ () at TGeant3/TGeant3gu.cxx:700

```

#5 0xb1dba3db in g3track_ () at gtrak/gtrack.F:222
#6 0xb1f19ab7 in gutrak_ () at TGeant3/TGeant3gu.cxx:555
#7 0xb1dbb4b0 in gtreveroot_ () at gtrak/gtreveroot.F:168
#8 0xb1f19a87 in gutrev_ () at TGeant3/TGeant3gu.cxx:575
#9 0xb1ca97c8 in g3trig_ () at gbase/gtrig.F:62
#10 0xb1f0ec67 in TGeant3::Gtrig (this=0x86d4a48) at TGeant3/TGeant3.cxx:3153
#11 0xb1f0b20b in TGeant3::ProcessEvent (this=0x86d4a48) at TGeant3/TGeant3.cxx:6256
#12 0xb1f0ff5c in TGeant3::ProcessRun (this=0x86d4a48, nevent=<value optimized out>) at
TGeant3/TGeant3.cxx:6226
#13 0xb4badb93 in CbmMCApplication::RunMC (this=0x85b8f58, nofEvents=10) at
/home/ralfk/Pandaroot/pandaroot/base/CbmMCApplication.cxx:216
#14 0xb4bc16a1 in CbmRunSim::Run (this=0x851b050, NStart=10, NStop=0) at
/home/ralfk/Pandaroot/pandaroot/base/CbmRunSim.cxx:177
#15 0xb4c016b7 in G__CbmDict_532_0_5 (result7=0xbff76b3c, funcname=0x8519840 "\001",
libp=0xbff73098, hash=0) at /home/ralfk/Pandaroot/build/base/CbmDict.cxx:9237
#16 0xb74005fb in Cint::G__ExceptionWrapper (funcp=0xb4c01556 <G__CbmDict_532_0_5>,
result7=0xbff76b3c, funcname=0x8519840 "\001", libp=0xbff73098, hash=0) at
cint/src/Api.cxx:364
#17 0xb751087a in G__call_cppfunc (result7=0xbff76b3c, libp=0xbff73098, ifunc=0x8519840,
ifn=0) at cint/src/v6_newlink.cxx:512
#18 0xb74d7855 in G__interpret_func (result7=0xbff76b3c, funcname=0xbff7663c "Run",
libp=0xbff73098, hash=309, p_ifunc=0x8519840, funcmatch=1, memfunc_flag=1)
    at cint/src/v6_ifunc.cxx:5133
#19 0xb74c6e9e in G__getfunction (item=0xbff7a616 "Run(nEvents)", known3=0xbff78bdc,
memfunc_flag=1) at cint/src/v6_func.cxx:2517
#20 0xb759e6d8 in G__getstructmem (store_var_type=112, varname=0xbff78020
    known2=0xbff78bdc,
    varglobal=0xb76443a0, objptr=2) at cint/src/v6_var.cxx:6606
#21 0xb758f496 in G__getvariable (item=0xbff7a610 "fRun->Run(nEvents)",
known=0xbff78bdc, varglobal=0xb76443a0, varlocal=0x0) at cint/src/v6_var.cxx:5237
#22 0xb7494bde in G__getitem (item=0xbff7a610 "fRun->Run(nEvents)") at
cint/src/v6_expr.cxx:1884
#23 0xb74a7d7f in G__getexpr (expression=0xbff7ac48 "fRun->Run(nEvents)") at
cint/src/v6_expr.cxx:1470
#24 0xb7522d09 in G__exec_function (statement=0xbff7ac48 "fRun->Run(nEvents)",
pc=0xbff7b22c, piout=0xbff7b228, plargestep=0xbff7b220, presult=0xbff7b1dc)
    at cint/src/v6_parse.cxx:600
#25 0xb7529f84 in G__exec_statement (mparen=0xbff820e8) at cint/src/v6_parse.cxx:6995
#26 0xb747d8d0 in G__exec_tempfile_core (file=0xbff841dc
"/home/ralfk/Pandaroot/pandaroot/macro/run/./run_sim1.C", fp=0x0) at
cint/src/v6_debug.cxx:251
#27 0xb747dc0d in G__exec_tempfile (file=0xbff841dc
"/home/ralfk/Pandaroot/pandaroot/macro/run/./run_sim1.C") at cint/src/v6_debug.cxx:798
#28 0xb753c64e in G__process_cmd (line=0xb7f2a72e "int_]", prompt=0x80cd52c "",
more=0x80cd524, err=0xbff84e98, rslt=0xbff84e68) at cint/src/v6_pause.cxx:3070
#29 0xb79ebc93 in TCint::ProcessLine (this=0x80cd508, line=0xb7f2a72e "int_]",
error=0xbff876a8) at meta/src/TCint.cxx:300
#30 0xb79e60dc in TCint::ProcessLineSynch (this=0x80cd508, line=0xb7f2a72e "int_]",
error=0xbff876a8) at meta/src/TCint.cxx:365
#31 0xb792d326 in TApplication::ExecuteFile (file=0xbff855d1 "run_sim1.C",
error=0xbff876a8) at base/src/TApplication.cxx:921

```

#32 0xb792d4f8 in TApplication::ProcessFile (this=0x80e8258, file=0xbff855d1 "run\_sim1.C", error=0xbff876a8) at base/src/TApplication.cxx:810  
#33 0xb792faff in TApplication::ProcessLine (this=0x80e8258, line=0xbff855ce ".x run\_sim1.C", sync=false, err=0xbff876a8) at base/src/TApplication.cxx:783  
#34 0xb7370d59 in TRint::Run (this=0x80e8258, retrn=false) at rint/src/TRint.cxx:354  
#35 0x08048e49 in main (argc=1, argv=0xbff877c4) at main/src/rmain.cxx:29  
(gdb)

Cheers for bugfixes,  
Ralf.

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Subject: Re: running problem in rev. 3247  
Posted by [Stefano Spataro](#) on Tue, 22 Jul 2008 12:50:55 GMT  
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It seems at line 332 there are two divisions not protected against "division by zero" error.

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Subject: Re: running problem in rev. 3247  
Posted by [Ralf Kliemt](#) on Tue, 22 Jul 2008 12:57:13 GMT  
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You mean this one?:  
2 0xb4434a59 in PndDrc::ProcessHits (this=0x8567fc0, vol=0xbc45950)  
at /home/ralfk/Pandaroot/pandaroot/drc/PndDrc.cxx:332

Looks like fMom could be really small when a particle is atually close to be stopped in the volume...

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Subject: Re: running problem in rev. 3247  
Posted by [Annalisa Cecchi](#) on Wed, 23 Jul 2008 10:46:23 GMT  
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Hi Ralf,  
try now, it should work. Sorry for this bug!

Annalisa

Ralf Kliemt wrote on Tue, 22 July 2008 14:57 You mean this one?:  
2 0xb4434a59 in PndDrc::ProcessHits (this=0x8567fc0, vol=0xbc45950)  
at /home/ralfk/Pandaroot/pandaroot/drc/PndDrc.cxx:332

Looks like fMom could be really small when a particle is atually close to be stopped in the volume...

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