Subject: Re: New External packages
Posted by asanchez on Tue, 18 Mar 2008 12:07:00 GMT
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Dear all,
again by running my macro hyp
with geant4,
with the new packages march_8
i get the error message

*** Break *** floating point exception

(the same occurs by running
the demo in recotask)

i thought that was already fixed at geant4.8

ALicia S.

lxi004:hyp>root sim_hyp.C -l
root [0]
Processing sim_hyp.C...

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

- RTDB container factory CbmBaseContFact
- RTDB container factory PndFieldContFact
- RTDB container factory PndPassiveContFact
- RTDB container factory PndHypContFact
-I- CbmRun::SetMaterials() Media file used:
/d/panda02/asanchez/fairsoft_marc08/pandaroot/geometry/media_pnd.geo
-I CbmAsciiGenerator: Opening input file /d/panda01/asanchez/PANDA/ximinAscii.dat

============== CbmRunSim: Initialising simulation run ==============
Info in <TGeoManager::TGeoManager>: Geometry CBMGeom, CBM geometry created
-I- CbmGeoMedia Read media
Loading Geant4 granular libraries ...
Loading VGM libraries ...
Loading libraries ... finished
Info in <TGeoManager::SetTopVolume>: Top volume is cave. Master volume is cave
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>: 247 nodes/ 247 volume UID's in CBM geometry
Info in <TGeoManager::CloseGeometry>: ----------modeler ready----------
Info in <TG4RootNavMgr::SetNavigator>: TG4RootNavigator created and registered to
G4TransportationManager
Running TVirtualMCApplication::ConstructGeometry
****

```
 Geant4 version Name: geant4-09-01    (14-December-2007)
                      Copyright : Geant4 Collaboration
                      Reference : NIM A 506 (2003), 250-303
                            WWW : http://cern.ch/geant4
************************************************************

Info in <TG4RootNavMgr::Initialize>: Creating G4 hierarchy ...
Info in <TGeoManager::ConvertReflections>: Converting reflections in: CBMGeom - CBM
geometry ...
Info in <TGeoManager::ConvertReflections>: Done
===> GEANT4 materials created and mapped to TGeo ones...
===> GEANT4 physical volumes created and mapped to TGeo hierarchy...
### INFO: TG4RootDetectorConstruction::Construct() finished
TG4PostDetConstruction::Initialize
G4 Stat: instantiated 247 logical volumes
                      246 physical volumes
Info in <TG4RootNavMgr::ConnectToG4>: ROOT detector construction class connected to
G4RunManager
Adding HadronPhysicsList QGSP_BERT_EMV

<<< Geant4 Physics List engine packaging library: PACK 5.4
<<< Geant4 Physics List simulation engine: QGSP_BERT_EMV 1.0

Adding OpticalPhysicsList
Adding SpecialPhysicsList
Debug mode is switched on.
Visualization Manager instantiating...
Visualization Manager initialising...
Registering graphics systems...

You have successfully registered the following graphics systems.
Current available graphics systems are:
  ASCIITree (ATree)
  DAWNFILE (DAWNFILE)
  G4HepRepFile (HepRepFile)
  G4HepRep (HepRepXML)
  RayTracer (RayTracer)
  VRML1FILE (VRML1FILE)
  VRML2FILE (VRML2FILE)

Registering model factories...

You have successfully registered the following model factories.
Registered model factories:
  drawByCharge
  drawByParticleID

Registered filter factories:
  None

Geant4 has been created.
 -I g4Config() using g4conf  macro:
```

```
/d/panda02/asanchez/fairsoft_marc08/pandaroot/gconfig/g4config.in
Physics cuts with script
 /d/panda02/asanchez/fairsoft_marc08/pandaroot/gconfig/SetCuts.C
### Adding Neutron tracking cut for neutron
###  cut value is 10 microseconds
### Hadron physics constructed.
G4Cerenkov::G4Cerenkov constructor
NOTE: this is now a G4VDiscreteProcess!
Required change in UserPhysicsList:
change: pmanager->AddContinuousProcess(theCerenkovProcess);
to:     pmanager->AddProcess(theCerenkovProcess);
        pmanager->SetProcessOrdering(theCerenkovProcess,idxPostStep);
### Optical physics constructed.
### Processes mapped to VMC controls ok.
### Step limiter physics constructed.
### User particles physics constructed.
### Processes mapped to VMC codes ok.
 -I- CbmMCApplication ->  simulation RunID:  142029661

**********************************************
   GEANT4 Geometry statistics:
          247 logical volumes
          246 physical volumes
            5 materials
            5 user limits
          247 sensitive detectors
**********************************************

 -I- CbmMCApplication:: Monte carlo Engine Initialisation  with TGeant4
RuntimeDb: write container CbmBaseParSet
***  CbmBaseParSet written to ROOT file   version: 1
RuntimeDb: write container PndGeoPassivePar
***  PndGeoPassivePar written to ROOT file   version: 1
RuntimeDb: write container PndGeoHypPar
***  PndGeoHypPar written to ROOT file   version: 1
 ------------------------------------------------------------------------ --------
--------------  actual containers in runtime database  -------------------------
CbmBaseParSet                              Test class for parameter io
PndGeoPassivePar                            Passive Geometry Parameters
PndGeoHypPar                               Hyp Geometry Parameters
--------------  runs, versions  ------------------------------------------------
run id
  container                                1st-inp    2nd-inp    output
run: 142029661
  CbmBaseParSet                             142029661        -1         1
  PndGeoPassivePar                           142029661        -1         1
  PndGeoHypPar                              142029661        -1         1
--------------  input/output  --------------------------------------------------
first input: none
second input: none
output:
OBJ: CbmParRootFile     simparams.root   : 0 at: 0x8502578
```

Root file I/O simparams.root is open
detector I/Os: CbmGenericParIo

phot: Total cross sections from Sandia parametrisation.
    Sampling according PhotoElectric model

compt: Total cross sections has a good parametrisation from 10 KeV to (100/Z) GeV
    Sampling according Klein-Nishina model
    tables are built for gamma
    Lambda tables from 100 eV to 100 GeV in 90 bins.

conv: Total cross sections has a good parametrisation from 1.5 MeV to 100 GeV for all Z;
    sampling secondary e+e- according Bethe-Heitler model
    tables are built for gamma
    Lambda tables from 1.022 MeV to 100 GeV in 100 bins.

msc: Model variant of multiple scattering for e-
    Lambda tables from 100 eV to 100 TeV in 120 bins.
    LateralDisplacementFlag= 1   Skin= 0
    Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 0

eIoni: tables are built for e-
    dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
    Lambda tables from threshold to 100 TeV in 120 bins.
    Delta cross sections and sampling from MollerBhabha model
    Good description from 1 KeV to 100 GeV.
    Step function: finalRange(mm)= 1, dRoverRange= 0.8, integral: 1, fluct: 1

eBrem: tables are built for e-
    dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
    Lambda tables from threshold to 100 TeV in 120 bins.
    Total cross sections and sampling from StandBrem model (based on the EEDL data library)
    Good description from 1 KeV to 100 GeV, log scale extrapolation above 100 GeV. LPM flag 1

eIoni: tables are built for e+
    dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
    Lambda tables from threshold to 100 TeV in 120 bins.
    Delta cross sections and sampling from MollerBhabha model
    Good description from 1 KeV to 100 GeV.
    Step function: finalRange(mm)= 1, dRoverRange= 0.8, integral: 1, fluct: 1

eBrem: tables are built for e+
    dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
    Lambda tables from threshold to 100 TeV in 120 bins.
    Total cross sections and sampling from StandBrem model (based on the EEDL data library)
    Good description from 1 KeV to 100 GeV, log scale extrapolation above 100 GeV. LPM flag 1

annihil: Sampling according eplus2gg model

tables are built for e+
Lambda tables from 100 eV to 100 TeV in 120 bins.

msc: Model variant of multiple scattering for proton
Lambda tables from 100 eV to 100 TeV in 120 bins.
LateralDisplacementFlag= 1   Skin= 0
Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 0

hIoni: tables are built for proton
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 2 MeV
Parametrisation from Bragg for protons below.
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

msc: Model variant of multiple scattering for GenericIon
LateralDisplacementFlag= 0   Skin= 0
Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 1

ionIoni: tables are built for GenericIon
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 2 MeV
Parametrisation from BraggIon for protons below. NuclearStopping 1

Stopping Power data for 8 ion/material pairs are used.
Step function: finalRange(mm)= 0.1, dRoverRange= 0.1, integral: 1, fluct: 1

hIoni: tables are built for anti_proton
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 2 MeV
Parametrisation from Bragg for protons below.
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

msc: Model variant of multiple scattering for mu+
Lambda tables from 100 eV to 100 TeV in 120 bins.
LateralDisplacementFlag= 1   Skin= 0
Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 0

muIoni: tables are built for mu+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Bether-Bloch model for E > 0.2 MeV, parametrisation of Bragg peak below,
radiative corrections for E > 1 GeV
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

muBrems: tables are built for mu+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.

Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

muPairProd: tables are built for mu+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

muIoni: tables are built for mu-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Bether-Bloch model for E > 0.2 MeV, parametrisation of Bragg peak below,
radiative corrections for E > 1 GeV
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

muBrems: tables are built for mu-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

muPairProd: tables are built for mu-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Parametrised model

G4UHadronElasticProcess for neutron PDGcode= 2112 Elow(MeV)= 19 Elowest(eV)= 0

hIoni: tables are built for pi+
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 0.297504 MeV
Parametrisation from Bragg for protons below.
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

msc: Model variant of multiple scattering for pi-
Lambda tables from 100 eV to 100 TeV in 120 bins.
LateralDisplacementFlag= 1 Skin= 0
Boundary/stepping algorithm is active with RangeFactor= 0.2 Step limit type 0

hIoni: tables are built for pi-
dE/dx and range tables from 100 eV to 100 TeV in 120 bins.
Lambda tables from threshold to 100 TeV in 120 bins.
Scaling relation is used from proton dE/dx and range.
Delta cross sections and sampling from BetheBloch model for scaled energy > 0.297504 MeV
Parametrisation from Bragg for protons below.
Step function: finalRange(mm)= 1, dRoverRange= 0.2, integral: 1, fluct: 1

========= Table of registered couples ==============================

```
Index : 0     used in the geometry : Yes     recalculation needed : No
 Material : air
 Range cuts        :  gamma 1 mm     e- 1 mm     e+ 1 mm
 Energy thresholds :  gamma 990 eV     e- 990 eV     e+ 990 eV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 1     used in the geometry : Yes     recalculation needed : No
 Material : vacuum
 Range cuts        :  gamma 1 mm     e- 1 mm     e+ 1 mm
 Energy thresholds :  gamma 990 eV     e- 990 eV     e+ 990 eV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 2     used in the geometry : Yes     recalculation needed : No
 Material : HYPdiamond
 Range cuts        :  gamma 1 mm     e- 1 mm     e+ 1 mm
 Energy thresholds :  gamma 3.86474 keV    e- 791.969 keV    e+ 763.254 keV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 3     used in the geometry : Yes     recalculation needed : No
 Material : HYPsilicon
 Range cuts        :  gamma 1 mm     e- 1 mm     e+ 1 mm
 Energy thresholds :  gamma 6.88731 keV    e- 540.718 keV    e+ 521.113 keV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

Index : 4     used in the geometry : Yes     recalculation needed : No
 Material : HYPcarbon
 Range cuts        :  gamma 1 mm     e- 1 mm     e+ 1 mm
 Energy thresholds :  gamma 3.29462 keV    e- 568.011 keV    e+ 554.196 keV
 Region(s) which use this couple :
    DefaultRegionForTheWorld

========================================================================

### Run 0 start.
-I CbmAsciiGenerator: Event 1,  vertex = (0,0,-76.5) cm,  multiplicity 1
-I CbmPrimaryGenerator: 1 primary tracks from vertex (0, 0, 0)
>>> Event 0

 *** Break *** floating point exception
Using host libthread_db library "/lib/libthread_db.so.1".
Attaching to program: /proc/22483/exe, process 22483
`system-supplied DSO at 0xffffe000' has disappeared; keeping its symbols.
done.
done.
[Thread debugging using libthread_db enabled]
[New Thread 16384 (LWP 22483)]
done.
done.
```

done.
done.
done.
done.
done.
done.
done.
0x40ca7788 in waitpid () from /lib/libc.so.6
#1 0x40d2f8c0 in __DTOR_END__ () from /lib/libc.so.6
#2 0x40c40442 in do_system () from /lib/libc.so.6
#3 0x40bbac5f in system () from /lib/libpthread.so.0
#4 0x401f979f in TUnixSystem::Exec () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#5 0x401f9c63 in TUnixSystem::StackTrace ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#6 0x401f75cc in TUnixSystem::DispatchSignals ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#7 0x401f53a8 in SigHandler () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#8 0x401fcefe in sighandler () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#9 0x40bb9825 in __pthread_sighandler () from /lib/libpthread.so.0
#10 <signal handler called>
#11 0x46a9a61c in G4VProcess::AtRestGPIL (this=0x9c86748, track=@0xa7ae350,
condition=0x99f53b8)
    at G4VProcess.hh:434
#12 0x46a99001 in G4SteppingManager::InvokeAtRestDoItProcs (this=0x99f52b0) at
src/G4SteppingManager2.cc:284
#13 0x46a9d4ce in G4SteppingManager::Stepping (this=0x99f52b0) at
src/G4SteppingManager.cc:160
#14 0x46aa6b99 in G4TrackingManager::ProcessOneTrack (this=0x99f5288,
apValueG4Track=0xa7ae350)
    at src/G4TrackingManager.cc:126
#15 0x46b93f24 in G4EventManager::DoProcessing (this=0x99f5240, anEvent=0x9a01ee8) at
src/G4EventManager.cc:185
#16 0x46b9473e in G4EventManager::ProcessOneEvent (this=0x99f5240,
anEvent=0x9a01ee8)
    at src/G4EventManager.cc:335
#17 0x46c3402c in G4RunManager::DoEventLoop (this=0x99f5180, n_event=500,
macroFile=0x0, n_select=-1)
    at src/G4RunManager.cc:235
#18 0x46c33974 in G4RunManager::BeamOn (this=0x99f5180, n_event=500, macroFile=0x0,
n_select=-1)
    at src/G4RunManager.cc:140
#19 0x4749c51b in TG4RunManager::ProcessRun (this=0x9c86748, nofEvents=164128584)
    at run/src/TG4RunManager.cxx:384
#20 0x474a3049 in TGeant4::ProcessRun (this=0x9c86748, nofEvents=164128584) at
run/src/TGeant4.cxx:1140
#21 0x4494f9c1 in CbmMCApplication::RunMC (this=0x85257a8, nofEvents=164128584)
    at /d/panda02/asanchez/fairsoft_marc08/pandaroot/base/CbmMCApplication.cxx: 182
#22 0x44960f79 in CbmRunSim::Run (this=0x9c86748, NStart=164128584, NStop=0)
    at /d/panda02/asanchez/fairsoft_marc08/pandaroot/base/CbmRunSim.cxx:148

#23 0x44995dd9 in G__CbmDict_530_0_5 (result7=0xbf873a90, funcname=0x84c23a0 "\001", libp=0x1f4, hash=0)
    at /d/panda02/asanchez/fairsoft_marc08/build/base/CbmDict.cxx:9342
#24 0x40778856 in Cint::G__ExceptionWrapper ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#25 0x4084fddf in G__call_cppfunc () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#26 0x4083b969 in G__interpret_func () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#27 0x4081ab8c in G__getfunction () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#28 0x408e5469 in G__getstructmem () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#29 0x408e4792 in G__getvariable () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#30 0x4080fac0 in G__getitem () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#31 0x407fed80 in G__getexpr () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#32 0x4086faa8 in G__exec_function () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#33 0x4087f325 in G__exec_statement () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#34 0x407ea88a in G__exec_tempfile_core ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#35 0x407ebe41 in G__exec_tempfile () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#36 0x4088a8b4 in G__process_cmd () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCint.so.5.18
#37 0x401c5e45 in TCint::ProcessLine ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#38 0x401c6006 in TCint::ProcessLineSynch ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#39 0x4011fed0 in TApplication::ExecuteFile ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#40 0x4011f816 in TApplication::ProcessFile ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#41 0x4011f5a4 in TApplication::ProcessLine ()
   from /misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libCore.so.5.18
#42 0x40b47582 in TRint::Run () from
/misc/cbmsoft/Debian3.1/mar08/fairsoft/tools/root/lib/libRint.so.5.18
#43 0x08048e2e in main ()
Root >