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Subject: Running Pythia input on Geant4 not working

Posted by [Raghav Kunnawalkam](#) on Mon, 09 Jul 2012 20:21:16 GMT

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Hi All

I can successfully run a pythia6 output file into my detector using Geant3 but the same when it try to do Geant4 does not work.

I do have Geant4 working and it all works if i just create a particle using fairboxgenerator and shoot it. But the problem only arises when i try to use pythia output as the input to my detector.

Here is the error message that root tells me (after telling me a lot about geant4)

### Run 0 start.

[INFO ] [09.07.2012 16:04:58] [FairPrimaryGenerator.cxx::GenerateEvent:170]

FairPrimaryGenerator: (Event 1) 27 primary tracks from vertex (0.000000, 0.000000, 0.000000)  
) Event Time = 0.000000 (ns)

TG4PrimaryGeneratorAction::TransformPrimaries:

G4ParticleTable::FindParticle() failed for string pdgEncoding=92.

\*\*\* TG4Exception: Aborting execution \*\*\*

WARNING - Attempt to delete the physical volume store while geometry closed !

WARNING - Attempt to delete the logical volume store while geometry closed !

WARNING - Attempt to delete the solid store while geometry closed !

WARNING - Attempt to delete the region store while geometry closed !

Warning in <TStreamerInfo::Build>: TStreamerBase: base class TStreamerElement has no streamer or dictionary it will not be saved

raghav:macros raghav\$

I also dont know why those warnings are always appearing. So far i am just ignoring them and it seems that there is no problem.

Thanks for your help

Cheers

Raghav

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Subject: Re: Running Pythia input on Geant4 not working

Posted by [Mohammad Al-Turany](#) on Mon, 16 Jul 2012 10:27:05 GMT

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Hallo Raghav,

In your Pythia reader you have to select only stable particles to be transported i.e.:

```
ncols = fscanf(fInputFile,"%d %d %d %d %d %f %f %f %f %f %f %f", &nLev, &pdgID,
&nM1, &nDF, &nDL, &fPx, &fPy, &fPz, &fE, &fVx, &fVy, &fVz);
```

```
if(nLev==1) primGen->AddTrack(pdgID, fPx, fPy, fPz, fVx, fVy, fVz);
```

otherwise you can have the case that Geant4 does not know your intermediate particle and thus cannot transport it. In case you need to have the intermediate particles in your stack without transporting them, this is possible but this is another topic now. (In Panda they use this option)

regards,

Mohammad

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Subject: Re: Running Pythia input on Geant4 not working  
Posted by [Raghav Kunnawalkam](#) on Mon, 16 Jul 2012 13:53:03 GMT  
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Hi Mohammad

Thanks for your reply. I get it now. I actually had that line and commented it out thinking that i needed all the tracks.

Cheers  
Raghav

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