Subject: G4MagIntegratorDriver error
Posted by Tobias Stockmanns on Wed, 21 Jan 2009 14:35:00 GMT
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Dear PandaRooters,

since my last update of pandaRoot from SVN I am getting the following error-message when I run runMvdSim.C before my root system stops working:

G4MagIntegratorDriver::OneGoodStep: Stepsize underflow in Stepper
  Step's start x=7.74619 and end x= 7.74619 are equal !!
  Due to step-size= 2.28754e-16 . Note that input step was 0.228754

This happens for various event generators and sub-detectors.

With GEANT3 everything seems to run smoothly.

Has anyone an idea what is going wrong?

Thanks

Tobias

P.S.: At a different run I got the following more complete error message:
G4MagIntegratorDriver::OneGoodStep: Stepsize underflow in Stepper
  Step's start x=1.05216 and end x= 1.05216 are equal !!
  Due to step-size= 2.10975e-17 . Note that input step was 0.0210975
  G4ParticleChange::CheckIt : the Momentum Change is not unit vector !!
  Difference: 1
 G4ParticleChange::CheckIt

       G4ParticleChange Information

       # of 2ndaries   :   0

       Energy Deposit (MeV):   0
       Non-ionizing Energy Deposit (MeV):   0
       Track Status   :   Alive
       True Path Length (mm) :   1.07
       Stepping Control   :   0
       Mass (GeV)   :   0
       Charge (eplus)   :   0
       MagneticMoment   :   0
              : =   0*[e hbar]/[2 m]
       Position - x (mm)   :   658
       Position - y (mm)   :   740
       Position - z (mm)   :   3.4e+03
       Time (ns)   :   13.4
       Proper Time (ns)   :   0.0617
       Momentum Direct - x :   0
       Momentum Direct - y :   0
       Momentum Direct - z :   0

```
        Kinetic Energy (MeV):              22.7
        Polarization - x    :              0
        Polarization - y    :              0
        Polarization - z    :              0
        Touchable (pointer) :          0xdfd1cd8

*** G4Exception : 200
      issued by : G4ParticleChange::CheckIt
momentum, energy, and/or time was illegal
*** Event Must Be Aborted
```

Subject: Re: G4MagIntegratorDriver error
Posted by Mohammad Al-Turany on Fri, 23 Jan 2009 08:26:54 GMT
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Hallo Tobias,

Is there anything special to do to reproduce this! with the trunk on 64 bit linux and MAC it is not reproducible! but I think this bug is related to the new field map classes! can you please tell me on which system you have this problem and maybe you can try to use a constant field and see if the problem still there or if it is not much work for you to use the old maps!

regards

Mohammad

Subject: Re: G4MagIntegratorDriver error
Posted by asanchez on Sun, 25 Jan 2009 09:56:33 GMT
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Hi I'm using the gsi installation sarge32 linux

and i'm using the following field configuration
as usual(old filed maps) and i get the same error
as Tobias.
For me it has been working before.
So what is going on wrong?

```
 PndMultiField *fField= new PndMultiField();
      PndTransMap *map= new PndTransMap("TransMap", "R");
      PndDipoleMap *map1= new PndDipoleMap("DipoleMap", "R");
      PndSolenoidMap *map2= new PndSolenoidMap("SolenoidMap", "R");
      fField->AddField(map);
      fField->AddField(map1);
      fField->AddField(map2);
      fRun->SetField(fField);
```

Cheers
alicia.

Subject: Re: G4MagIntegratorDriver error
Posted by Mohammad Al-Turany on Mon, 26 Jan 2009 10:37:42 GMT
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Hi,

I managed to reproduce this only on Debian Sarge (gcc 3.3.5), it has to do with some initialization problems! any way I corrected some stuf in base and field and for me it is working now on Sarge, please test it and let me know!

Mohammad

Subject: Re: G4MagIntegratorDriver error
Posted by asanchez on Tue, 27 Jan 2009 08:27:39 GMT
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Hi Mohammad now it seems to work.
thanks
ALicia.
