Subject: [FIXED] Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Thu, 19 Nov 2015 14:54:11 GMT
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Dear all,

I am not sure if this topic should be posted in the General Forum, but I am not sure where else could it go... Sorry if this is not the right place.

I am trying to bring to run a modified version of PandaRoot, which was developed based on -r11867 of PandaRoot.

I am experiencing funny behavior in the simulations, and most of the times, the code I have doesn't run.
After many tests, this is what I found out, i'll try to explain it in the best way possible.

I have a modified version of the panda detector, which in principle should be capable of measuring dvcs events (p+e -> p+e+\gamma).
I have an event generator (GenDVCS1.0) which gives me as an output an ascii file with events. According to the input of the event generator, I can generate DVCS-events only, BH-events (Bethe-heitler) only, or both at the same time. That makes 3 different kinds of ascii files. For each case I have generated 100 ascii files, with 1000 events each.

I pass the ascii files to PandaRoot using Pythia:

```
// Create and Set Event Generator
  //-------------------------------

  FairPrimaryGenerator* primGen = new FairPrimaryGenerator();
  fRun->SetGenerator(primGen);

  PndPythia6Generator* pygen=new PndPythia6Generator(inFile.Data());
  primGen->AddGenerator(pygen);

  primGen->SetTarget(30., 0); //The target position is shifted by 30 cm in this modified version of PandaRoot
```

For some of the ascii files the whole simulation runs smoothly, in this particular modified version of PandaRoot it would follow the next sequence:

SIM-> DIG-> REC-> PID-> DCH (modified tracking software for the drift chamber)-> LOC (modified tracking software) -> GLO (It combines the output from DCH and LOC) -> HIS (analysis)

If the simulation runs properly I get a root file with nice histograms containing 1000 events processed.

But for most of the ascii files the simulation doesn't run, and stops during the DIG macro.
The most repeated error is:

Fatal in <PndMvdHybridHitProducer::Init()>: charge conversion method not defined!

For some cases I get the error:

*** Interpreter error recovered ***

But the most thrilling thing is that for the SAME ascii file (picking up one randomly of the ones that don't run completely), If I run de simulation for let's say 10 or 20 events (which I do for testing), the whole simulation runs, but if I run it for the whole 1000 events data set, it doesn't run. Some times it runs for 2 events, but it stops running for 10 events.

The only difference between the ascii files in the same group (BH, DVCS or BOTH) is the seed with which the event generator ran.

I also tried to run the simulations running a memory debugger:

valgrind -v root Macros.C

but this debugger shows me that everything runs without errors, even when the macros crash.

I have two questions:

1.- What does the error Fatal in <PndMvdHybridHitProducer::Init()> mean and where does it come from?
2.- Do you know another debugger which I could use with PandaRoot, and can you explain to me how to use it?

Thank you so much in advance.
Best regards!

Mamen.

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Ralf Kliemt on Thu, 19 Nov 2015 15:02:05 GMT
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Hi Mamen,

Pleas attach your simulation/digi/reco macros that we get an impression what is going on. Is your modified Pandaroot somewhere online available?

The error message appears when the MVD has some invalid parameters. Did you provide the standard ascii file parameters?

Cheers!
Ralf

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Fri, 20 Nov 2015 15:53:26 GMT
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Dear Ralf,

sorry for my late answer, I have been today kind of busy.
Unfortunately, the software is not available online with the modifications.

I can send the macros, as soon as I have them copied from the cluster machine to my local computer.
I will post again the the forum when I have time to do it. Up to now it was impossible for me today, maybe later in the evening.
I just wanted to say I didn't forget about it

Thanks in advance.
Mamen

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Mon, 23 Nov 2015 15:53:49 GMT
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Dear Ralf,

here you can find the macros I have used, using the modify version of PandaRoot based on -r 11867.
At that time the changes were done by Donghee Kang, and I am using a copy of what he did.
Unfortunately, this modified version is not available online.

The script do_now.sh shows the sequence in which the macros should run.
The script do_bh_15-100jobs.sh is the one I use to send several simulations to the HIMSTER cluster in Mainz.

I also include 9 ascii files with the events from the event generator GenDVCS1.0.
File 7 worked fine for me, all the others didn't.

Hopefully somebody can give me a hand...

File Attachments
1) files.tar.gz, downloaded 424 times

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>

Posted by Ralf Kliemt on Tue, 24 Nov 2015 09:15:28 GMT
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Hi Mamen,

It looks like your MVD is using a modified Geometry. This, in turn, will affect which of the parameters are loaded. I strongly suggest you upload the changes into the development branch (or somewhere else) that I can have a look at it and tell you what is missing. The structure is "flexible" but needs some attention to do it right.

I'll be the whole week in Vienna. We may as well just meet there and work things out.

Cheers!
Ralf

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Tue, 24 Nov 2015 09:32:56 GMT
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Dear Ralf,

Yes, the MVD uses a modified geometry.
I will be in Vienna too, so if things don't work out until then, I think I will find some slot to sit together. Thanks a lot in advance.

Meanwhile, I will try to upload the modified files to the development branch, ... I might need a bit of help here too, since I have never done this myself before.
Is there some guide to find out what steps do I have to follow for that??? (I didn't check the Wiki, but I will do right now).

Again, thanks a lot in advance.

Cheers!
Mamen

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Ralf Kliemt on Tue, 24 Nov 2015 14:32:06 GMT
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Hi Mamen,

to create your own development space just do:
svn mkdir https://subversion.gsi.de/fairroot/pandaroot/development/mamen
You may want to substructure that place, too. Just create more folders.

For completely new code:
Check that folder out to some location and place your own code inside. Use svn add to mark files&folders for upload and use svn ci -m "<message>" to actually upload.

To use svn correctly you may use the feature to branch out from the original trunk (at the revision you started developing). Then copy your changes into a checked out working copy and upload those changes.
I suggest to read this piece in an svn manual:
http://svnbook.red-bean.com/en/1.7/svn.branchmerge.using.html

You should be able to monitor the uploads and code via the trac browser.

Cheers!
Ralf

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Wed, 25 Nov 2015 14:16:04 GMT
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Dear Ralf,

I have found out (with the help of Alicia), that I already have a development space (probably created during the last Computing Workshop in Turin). However, I have forgotten my password, and I can not commit the changes in the newly created directories...

I have sent an e-mail to the IT department at GSI, to ask them to reset my password, I think it should be the same as for the development branch (but I am also not 100% sure).
Apart of waiting, I am not sure weather I can do much more right now...

Let's hope for a fast answer from the GSI IT-people.

See you in Vienna!

Mamen

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Radoslaw Karabowicz on Wed, 25 Nov 2015 14:51:56 GMT
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I think that Mohammad was taking care of the user's access to pandaroot svn.
I will ask him to have the password reset.

ciao
radek

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Wed, 25 Nov 2015 15:29:01 GMT
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Thank you Radek!

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Radoslaw Karabowicz on Wed, 25 Nov 2015 21:07:24 GMT
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Please follow the instructions summarized here:
https://fairroot.gsi.de/?q=node/36

and send email to either Mohammad or Florian.

yours
radek

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Thu, 26 Nov 2015 14:09:18 GMT
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Hi again!

It turns out that either I forgot my password at GSI or I don't know how to login...
Without login to the GSI machines, I cannot generate the file I have to send to Florian or Mohammed...

I phoned to the IT-Department at GSI, and they told me that somebody who is sitting there, should go and reset my password for me...
Radek, could you do it for me? (Your name appears in the GSI address book) I have to write an e-mail to the IT-people to tell who is gonna go and do it in my name.

But first, the way I login to GSI machines is the following?:

> ssh -Y moraespi@lx-pool.gsi.de

Maybe, I am doing this wrong and the password I remember is of course not accepted...

Thanks again in advance, and sorry for all the troubles!

Cheers,
Mamen

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mohammad Al-Turany on Thu, 26 Nov 2015 14:28:35 GMT
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Hi,

To generate the files you can use any Linux/MAC PC or laptop.
Just follow the instruction on https://fairroot.gsi.de/?q=node/36

Mohammad

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Florian Uhlig on Thu, 26 Nov 2015 14:31:07 GMT
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Hi,

could you please try to login to the following machine

migrate.gsi.de

If this is possible please change your password. Detailed descriptions can be found at

https://wiki.gsi.de/foswiki/bin/view/Linux/Kerberos

Ciao

Florian

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Thu, 26 Nov 2015 14:38:23 GMT
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Dear Mohammed,

I might have done something wrong before, because I tried this morning from mi MAC and it didn't work. So I thought I needed to use a GSI machine.
Now I tried again and it worked. I'll sent you the generated file per e-mail.

Again, thank you so much!
Cheers,
Mamen.

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>
Posted by Mamen on Thu, 26 Nov 2015 14:47:03 GMT
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It seems not to be possible for me to login in this machine...
I am asked for my password, and I used different ones... none works...

Subject: Re: Fatal in <PndMvdHybridHitProducer::Init()>

Posted by Mamen on Tue, 01 Dec 2015 08:43:41 GMT
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Dear Ralf,

I think that I finally manages to upload the modified code developed by Donghee a few years ago to my development directory.
My username in the development branch is moraespi.

I am not sure if everything uploaded properly. Maybe I still need to do bit more fine tunning...

Thanks for your help.
See u around this week!

Mamen.