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Subject: Genfit problems with new code - STT (r5323)

Posted by [StefanoSpataro](#) on Tue, 21 Apr 2009 16:09:54 GMT

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Dear all,

Susanna has found a strange error using genfit with lhetrack.

I have run all the standard macros of tutorials/lhetrack, and I was able to reproduce the same error. Considering that the lhetrack code was substantially not touched, and considering that before the last collaboration meeting everything was properly working, I think the error comes from the new changes in genfit package.

In order to reproduce the error, you have to use the last svn release (r5327), and then try to run, from tutorials/lhetrack:

```
root -l run_sim_sttcombi_pgun.C"(10,13,1)"
root -l run_digi_sttcombi.C
root -l run_reco_sttcombi.C
root -l run_kalman_stt.C
```

You will not see any crashes at all. But when you open the output file fit\_sttcombi.root, if you try to plot the momentum:

```
cbmsim.Draw("LheGenTrack.getMom().Mag()")
```

you will have the following error:

```
root [0]
Attaching file fit_sttcombi.root as _file0...
root [1] cbmsim.Draw("LheGenTrack.getMom().Mag()")
Error in <TBufferFile::CheckByteCount>: object of class vector<map<int,int>*> read too few
bytes: 6 instead of 31
<TCanvas::MakeDefCanvas>: created default TCanvas with name c1
Error in <TBufferFile::CheckByteCount>: object of class vector<map<int,int>*> read too few
bytes: 6 instead of 31
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Error in <TBufferFile::CheckByteCount>: object of class vector<map<int,int>*> read too few
bytes: 6 instead of 31
Error: Symbol G__exception is not defined in current scope (tmpfile):1:
Error: type G__exception not defined FILE:(tmpfile) LINE:1
(void)0
*** Interpreter error recovered ***
```

root [2] .q

Considering how the error looks like, I think it could be related to some error trying to read the Track object, or something similar.

Maybe it is related to a hidden genfit bug, or maybe the last changes require a modification of the recohit/kalman part inside the lhetrack stt chain. For TPC the error does not occur, and one month ago everything was working properly.

A help from experts is requested, considering that we both are not able to read the data structure of a Track coming from genfit kalman, therefore we cannot use serious track fitting.

Waiting for news, thanks in advance...

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Felix Boehmer](#) on Tue, 21 Apr 2009 19:25:21 GMT  
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Hi Stefano,

I can't check it right now, but it looks like this has to do with the book-keeping Christian & me implemented for the "covariance = 0" error in GEANE.

I can look into this tomorrow ...

Cheers

Felix

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Felix Boehmer](#) on Thu, 23 Apr 2009 10:47:49 GMT  
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Hello again Stefano,

sorry for the late answer.

i just tried to reproduce the problem, and indeed I get the same error as you did.

```
root [1] cbmsim->StartViewer()
File name : fit_sttcombi.root
root [2] <TCanvas::MakeDefCanvas>: created default TCanvas with name c1
Warning in <TSelectorDraw::ProcessFillObject>: Not implemented for TObjArray
<TCanvas::MakeDefCanvas>: created default TCanvas with name c1
<TCanvas::MakeDefCanvas>: created default TCanvas with name c1
tv__tree->Draw("LheGenTrack.getMom().Mag()", "", "", 10, 0);
Error in <TBufferFile::CheckByteCount>: object of class vector<map<int,int>*> read too few
bytes: 6 instead of 31
<TCanvas::MakeDefCanvas>: created default TCanvas with name c1
```

Error in <TBufferFile::CheckByteCount>: object of class vector<map<int,int>\*> read too few bytes: 6 instead of 31  
Error in <TBufferFile::CheckByteCount>: object of class vector<map<int,int>\*> read too few bytes: 6 instead of 31  
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Error in <TBufferFile::CheckByteCount>: object of class vector<map<int,int>\*> read too few bytes: 6 instead of 31  
root [3]

However, plotting works for me:

Why there is this error I don't know yet, but in principle everything seems to work. There must be something else wrong in your setup.  
I will keep you updated.

Cheers

Felix

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Lia Lavezzi](#) on Thu, 23 Apr 2009 12:10:54 GMT  
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Hi Felix,

maybe this is helpful (or maybe not ): I got this error too and as far as I understand it is connected with writing the `std::vector< std::map<int,int>* > failedHits` to file, since I could avoid this error just by adding the `///  
std::vector< std::map<int,int>* > failedHits; ///  
Obviously if we need the failedHits in the file this is not a solution`

Ciao,  
Lia.

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Felix Boehmer](#) on Thu, 23 Apr 2009 14:59:04 GMT  
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Hi Lia & Stefano,

we're working on it, more news tomorrow. For now, Lia's method is perfectly fine.

Cheers and thanks for all the feedback!

Felix

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Anonymous Poster](#) on Fri, 24 Apr 2009 17:17:33 GMT  
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Hi,

Felix and me fixed some things in genfit in the Track class. At our system your problems do not occur anymore. Please test it now...

Cheers, Christian

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Anonymous Poster](#) on Wed, 29 Apr 2009 10:47:54 GMT  
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Hi,

is the problem which was discussed in this thread solved for you guys?

Cheers, Christian

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Lia Lavezzi](#) on Wed, 29 Apr 2009 11:54:32 GMT  
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I just tested it and for me it is ok  
Thank you and ciao,  
Lia.

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Subject: Re: Genfit problems with new code - STT (r5323)  
Posted by [Stefano Spataro](#) on Wed, 29 Apr 2009 12:17:24 GMT  
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Hi,  
I have tried with 10 events and now it is ok. I have tried also with 1000 events, but it is still running...  
However, it seems now it works.

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