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Subject: new release on the Grid

Posted by [Gianluigi Boca](#) on Fri, 17 Jun 2011 13:39:19 GMT

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hallo especially to all the analyzers for the next week meeting;  
Stefano is waiting for me for the 'final' version of the cleanup code of the Stt Pattern Recognition.

I promised to be ready by last night, but I am finishing the debug this afternoon.

Please be patient, it should not take much longer, I will notify the OK with another message

Gianluigi

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Subject: release of the Cleanup code

Posted by [Gianluigi Boca](#) on Fri, 17 Jun 2011 18:47:27 GMT

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Hallo everybody,

I put in svn the code for the cleanup of the events.

I plan in the next future to improve it but for the time being this is enough.

This code is effective also on 'non-background-mixed' data since it cleans some of the spurious tracks that sometimes the PR of the STT (+Mvd) produces when there are high multiplicity.

I invite the analysers, IF THEY CAN AND THERE IS TIME, to try this new version : just update the directory

/sttmvdtracking

and

/stt

In case they found problems, please report to me ASAP, I'll be in the office this weekend.

Sorry for the fact that I finished only now, and thank you very much in advance to all the analysers and Stefano and for their collaboration.

Cheers Gianluigi

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Subject: Re: new release on the Grid

Posted by [Dima Melnychuk](#) on Sat, 18 Jun 2011 11:34:06 GMT

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Hi Gianluigi,

Running reconstruction for eta\_c channel with latest version of STT code in 2 from 11 runs by 1000 events I have the following crash.

=====  
The lines below might hint at the cause of the crash.  
If they do not help you then please submit a bug report at  
<http://root.cern.ch/bugs>. Please post the ENTIRE stack trace  
from above as an attachment in addition to anything else  
that might help us fixing this issue.  
=====

```
#5 0x00002ba910db1264 in PndSttMvdTracking::AssociateFoundTrackstoMCquater (
    this=0x2ba91572d010, keepit=0x7fffb9f2c390, info=0x7fffb9ea9290,
    Ox=0x7fffb9f2b430, Oy=0x7fffb9f2b2f0, R=0x7fffb9f2b1b0,
    X1=0x7fffb9f2a7b0, Y1=0x7fffb9f2a670, X2=0x7fffb9f2a530,
    Y2=0x7fffb9f2a3f0, X3=0x7fffb9f297b0, Y3=0x7fffb9f29bf0,
    nTracksFoundSoFar=44, nHitsinTrack=0x2ba91572d5a0,
    ListHitsinTrack=0x2ba915759920, nSkewHitsinTrack=0x2ba91572d5f0,
    ListSkewHitsinTrack=0x2ba915771020, nPixelHitsinTrack=0x2ba91572d640,
    ListPixelHitsinTrack=0x2ba91572d6e0, FromPixeltoMCTrack=0x7fffb9be9030,
    nStripHitsinTrack=0x2ba91572d690, ListStripHitsinTrack=0x2ba915737320,
    FromStripToMCTrack=0x7fffb9be8e10, daTrackFoundaTrackMC=0x7fffb9f2c150)
    at /d/panda02/dmelnych/pandaroot/pandaroot/sttmvdtracking/PndSttMvdTracking.cxx:6372
#6 0x00002ba910dd9862 in PndSttMvdTracking::Exec (this=0x2ba91572d010,
    opt=0x2ba90a8caf00 "")
    at /d/panda02/dmelnych/pandaroot/pandaroot/sttmvdtracking/PndSttMvdTracking.cxx:2573
#7 0x00002ba900bd6bb0 in TTask::ExecuteTasks ()
    from /misc/cbmsoft/Lenny64/may11/fairsoft/tools/root/lib/libCore.so.5.29
#8 0x00002ba900bd5ecb in TTask::ExecuteTask ()
    from /misc/cbmsoft/Lenny64/may11/fairsoft/tools/root/lib/libCore.so.5.29
#9 0x00002ba90a81654b in FairRunAna::Run (this=0x8fb3d0, Ev_start=0,
    Ev_end=1000)
    at /d/panda02/dmelnych/pandaroot/pandaroot/base/FairRunAna.cxx:272
=====
```

Dima

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Subject: Re: new release on the Grid  
Posted by [Gianluigi Boca](#) on Sat, 18 Jun 2011 15:12:38 GMT  
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Hi Dima, thanks for your message. I am looking into it.  
Preliminary question : when you call the stt-mvd task you should use the  
following constructor :

```
PndSttMvdTracking * SttMvdTracking = new PndSttMvdTracking();
```

or you can use also :

```
PndSttMvdTracking * SttMvdTracking = new PndSttMvdTracking(0);
```

or you can use also

```
PndSttMvdTracking *SttMvdTracking=new PndSttMvdTracking(0,false,false);
```

Is that what you do?

Gianluigi

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Subject: Re: new release on the Grid

Posted by [Stefano Spataro](#) on Sat, 18 Jun 2011 18:12:21 GMT

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Just check the macros in macro/run/tdrct/eta\_c. Those are the ones Dima is using.

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Subject: Re: new release on the Grid

Posted by [Dima Melnychuk](#) on Sat, 18 Jun 2011 19:48:45 GMT

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Hi Gianluigi,

Indeed the constructor

```
PndSttMvdTracking * SttMvdTracking = new PndSttMvdTracking(0, false, true);
```

was used.

And it was used all the time before and before the recent update it didn't cause any problem.

As I understood the data produced with the last flag set true are valid. Only in addition track association with MC tracks is performed. But I suppose that macro which produce data on GRID have the same constructor and similar problem is possible.

Dima

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Subject: Re: new release on the Grid

Posted by [Johan Messchendorp](#) on Sat, 18 Jun 2011 20:03:18 GMT

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Hi,

Indeed, the data that are now produced on the Grid faces the same problems. There are a large number of jobs (30-40%) that do not pass the validation, e.g. crashed during reconstruction. In any case, we have now about 100k of signal events per physics channel

produced on the Grid that didn't crash (only STT).

Greets,

Johan.

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Subject: Re: new release on the Grid  
Posted by [Gianluigi Boca](#) on Sat, 18 Jun 2011 20:07:33 GMT  
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Dima Melnychuk wrote on Sat, 18 June 2011 21:48Hi Gianluigi,

Indeed the constructor

```
PndSttMvdTracking * SttMvdTracking = new PndSttMvdTracking(0, false, true);
```

was used.

And it was used all the time before and before the recent update it didn't cause any problem.

As I understood the data produced with the last flag set true are valid. Only in addition track association with MC tracks is performed. But I suppose that macro which produce data on GRID have the same constructor and similar problem is possible.

Dima

Indeed, the last value in the constructor is set true when one wants the comparison with MC.

Of course there is a bug somewhere in the code (that I cannot reproduce for the moment) but also from the backtrace I noticed it is in the non-essential part of the class (the comparison with MC, indeed).

So given the lack of time for now please set 0, false, false in the constructor, later on I will fix the problem.

Thanks a lot  
Gianluigi

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Subject: Re: new release on the Grid  
Posted by [Gianluigi Boca](#) on Sat, 18 Jun 2011 20:12:13 GMT  
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Johan Messchendorp wrote on Sat, 18 June 2011 22:03Hi,

Indeed, the data that are now produced on the Grid faces the same problems. There are a large number of jobs (30-40%) that do not pass the validation, e.g. crashed during

reconstruction. In any case, we have now about 100k of signal events per physics channel produced on the Grid that didn't crash (only STT).

Greetings,

Johan.

Yes, as I said to Dima, the error is in a part of the code which is not relevant. I don't think any of the results would be affected by this.

By setting 0,false,false  
in the constructor the crash should go away.

So please let's try to do this for the moment. Later in a less frantic period I will fix it  
thanks Gianluigi

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Subject: Re: new release on the Grid  
Posted by [Felix Boehmer](#) on Sat, 18 Jun 2011 20:16:45 GMT  
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Hi all,

since the update track fitting fails in or reconstruction. Up to the PR everything runs fine.

We are trying to find the bug.

Cheers

Felix

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Subject: Re: new release on the Grid  
Posted by [Johan Messchendorp](#) on Sat, 18 Jun 2011 20:50:00 GMT  
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I changed the reconstruction macros on the Grid accordingly....

Johan.