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Subject: PndMicroWriter???

Posted by [Dima Melnychuk](#) on Wed, 22 Sep 2010 14:59:11 GMT

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Dear colleagues,

On one of the previous pandaroot EVO meetings it was a discussion on analysis in pandaroot and, if I understood it correctly, it was a statement that PndMicroWriter class is obsolete and can be removed.

At the moment I am doing modification related to error matrices for EMC and there are some changes in interface, which can require modification in PndMicroWriter or, if it is really obsolete, to remove this class.

So, can this question be clarified? I suppose that this question is mainly addressed to Klaus Goetzen.

Best regards,

Dima

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Subject: Re: PndMicroWriter???

Posted by [Ralf Kliemt](#) on Wed, 22 Sep 2010 15:19:34 GMT

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Hi Dima.

Let me make a clarification:

There are two concepts of how to proceed to the analysis level.

One is Microwriter & Eventreader, decoupling the data from the framework structure and having (like Klaus claims) a much faster access while analyzing.

The other way is PndAnalysis, using the framework file structure. This way I am following in my studies for now.

Both ways coexist at the moment.

Now to your changes: What do you intend to change?

In principle it should affect more the Pid package where all information is collected and passed to the MicroCandidate data format.

I hope that helps.

Ralf

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Subject: Re: PndMicroWriter???

Posted by [Stefano Spataro](#) on Wed, 22 Sep 2010 15:43:14 GMT

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Hi,  
the candidates (PndPidCandidate inheriting from VAbsMicroCandidate) are filled by the PndPidCorrelator task (under pid/PidCorr). You should check there the GetEmcInfo and AddNeutralCandidate functions.  
Hope it helps.

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**Subject: Re: PndMicroWriter???**  
Posted by [Jens Sören Lange](#) on Wed, 22 Sep 2010 17:38:19 GMT  
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Hi Stefano, yes that works fine, but I think it is  
a.) just hard to "guess" that the candidates are (only) filled by a PID correlator task (instead of something such as "fill candidates"), and  
b.) I think so far `_all_` neutral candidates are filled (and not only the neutral cluster matched to a track, which is what is probably needed for the PID correlator).  
So I would vote to keep the PndEventReader (which is tested and works fine) and maybe to do it the other way around: fill the candidates by something intuitive (e.g. "PndWriteAnalysisCandidates") and this might just be a wrapper to PndPIDCorrelator.

Soeren

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**Subject: Re: PndMicroWriter???**  
Posted by [Stefano Spataro](#) on Wed, 22 Sep 2010 18:37:35 GMT  
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Hi,  
about b),  
the PidCorrelator is creating charged track candidates from tracks, attaching all the pid detector informations within correlation window, and it is creating neutral candidates from EmcCluster, selecting all the clusters uncorrelated to tracks (but if you use a large correlation window, you fill the neutral candidates with all the clusters).

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**Subject: Re: PndMicroWriter???**  
Posted by [Klaus Götzen](#) on Thu, 23 Sep 2010 07:18:17 GMT  
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Hi,

to Ralf: I compared PndEventReader and PndAnalysis, and actually both have the same performance when used in a macro. I think running in a task seemed to be much slower, but I'd have to check that again.

Concerning the class PndMicroWriter, this is not used anymore at the moment and doesn't need to be updated. It will be adapted to PndPidCorrelator when reactivated.

In principle I would agree with Soeren in the way, that a specific task with the only purpose to pick up all relevant information to bundle them to the AOD or whatever data stage would be the appropriate thing in the long run. There is no principle connection to PID for that process. Of course this is another topic.

Best,  
Klaus

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Subject: Re: PndMicroWriter???  
Posted by [Dima Melnychuk](#) on Thu, 23 Sep 2010 08:37:52 GMT  
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Hi Klaus,

Since, as you have written, "PndMicroWriter is not used anymore at the moment and doesn't need to be updated", could you remove it from trunk or at least from CMakeList.txt. Otherwise it produces compilation error with my modifications in emc code.

Dima

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Subject: Re: PndMicroWriter???  
Posted by [Klaus Götzen](#) on Thu, 23 Sep 2010 09:32:58 GMT  
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Hi Dima,

ok, I've commented out PndMicroWriter in CMakeLists.txt

Cheers,  
Klaus

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Subject: Re: PndMicroWriter???  
Posted by [Stefano Spataro](#) on Thu, 23 Sep 2010 10:57:05 GMT  
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```
[ 91%] Generating AnalysisToolsDict.cxx, AnalysisToolsDict.h
Error: link requested for unknown class PndMicroWriter
/d/panda02/spataro/pandaroot/PndTools/AnalysisTools/AnalysisToolsLinkDef .h:21:
Warning: Error occurred during reading source files
Warning: Error occurred during dictionary source generation
!!!Removing /d/panda02/spataro/lenny64/PndTools/AnalysisTools/AnalysisToolsDict.cxx
/d/panda02/spataro/lenny64/PndTools/AnalysisTools/AnalysisToolsDict.h !!!
Error: /misc/cbmsoft/Lenny64/jan10/fairsoft/tools/root/bin/rootcint: error loading headers...
```

make[2]: \*\*\* [PndTools/AnalysisTools/AnalysisToolsDict.cxx] Error 1  
make[1]: \*\*\* [PndTools/AnalysisTools/CMakeFiles/AnalysisTools.dir/all] Error 2

...

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Subject: Re: PndMicroWriter???

Posted by [Klaus Götzen](#) on Thu, 23 Sep 2010 11:02:30 GMT

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Sorry, my mistake. I forgot to modify the Linkdef file. Now it should (hopefully) work!

Best,  
Klaus

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