Subject: Adding Reconstruction and Fast Sim to Fairroot from Pandaroot
Posted by Raghav Kunnawalkam on Thu, 21 Jun 2012 05:05:26 GMT
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Hi All

I finished building my project in fairroot (the EIC detector) and now i would like to get some reco data to look at the detector response.

I tried to look at the example given in pandaroot for reco and tried to create something very simple. But i soon learnt that there are tons of required classes for it to work and i set about getting them from pandaroot and copying to my fairroot (obviously with changed names and a few other things in MCStack regarding the detector information) . I am still not done with this approach and i feel that i everytime that i have enough of them and try to compile fairroot, it tells me that there are more classes that i dont have and need to copy from pandaroot.

Can you guys tell me if this approach is correct or i am doing something completely wrong and forbidden.

I also started doing the same stuff for fsim and similarly i am going nowhere.

I have an error here that cmake tells me, which i really have no idea how to correct it. It is a result of combining classes into fairroot/fairtools/ and trying to build them there.

```
[  0%] Building CXX object fairtools/CMakeFiles/FairTools.dir/FairAnalysis.cxx.o
/Users/raghav/fairroot/fairtools/FairAnalysis.cxx: In member function ‘void
FairAnalysis::BuildMcCands()’:
/Users/raghav/fairroot/fairtools/FairAnalysis.cxx:326: error: ‘class FairMCTrack’ has no
member named ‘GetMotherID’
/Users/raghav/fairroot/fairtools/FairAnalysis.cxx:328: error: no matching function for call to
‘FairMCTrack::Get4Momentum()’
/Users/raghav/fairroot/example/mcstack/FairMCTrack.h:152: note: candidates are: void
FairMCTrack::Get4Momentum(TLorentzVector&)
/Users/raghav/fairroot/fairtools/FairAnalysis.cxx:329: error: no matching function for call to
‘FairMCTrack::GetStartVertex()’
/Users/raghav/fairroot/example/mcstack/FairMCTrack.h:159: note: candidates are: void
FairMCTrack::GetStartVertex(TVector3&)
make[2]: *** [fairtools/CMakeFiles/FairTools.dir/FairAnalysis.cxx.o] Error 1
make[1]: *** [fairtools/CMakeFiles/FairTools.dir/all] Error 2
make: *** [all] Error 2
Kunnawalkam-Raghavs-MacBook-Pro:build raghav$
```

If you look at a short piece of my MCTrack class then you will notice that i do have them correctly defined.

```
/**  Accessors  **/
Int_t    GetPdgCode()  const { return fPdgCode; }
Int_t    GetMotherId() const { return fMotherId; }
void GetMomentum(TVector3& momentum);
void Get4Momentum(TLorentzVector& momentum);
```

void GetStartVertex(TVector3& vertex);

I also have included my fairmctrack class properly in my fairanalysis.cxx and i also checked if i included that directory in my CMakelists.txt file.

This is probably something very very simple that i am missing here.

Thanks a lot guys
Cheers
Raghav

Subject: Re: Adding Reconstruction and Fast Sim to Fairroot from Pandaroot
Posted by StefanoSpataro on Thu, 21 Jun 2012 08:26:26 GMT
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/Users/raghav/fairroot/example/mcstack/FairMCTrack.h:152

How many FairMCTrack classes do you have? It is already in base. I think you are screwing with makefile and header files.

Subject: Re: Adding Reconstruction and Fast Sim to Fairroot from Pandaroot
Posted by Raghav Kunnawalkam on Thu, 21 Jun 2012 12:53:57 GMT
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Hi Stefano

I tried my best to make sure that there is only class when i create the makefiles.

Anyway i dont have a FairMCTrack in base, i have it only in fairroot/example/mcstack.
So i dont see the problem in referring to its variables and methods.

Cheers
Raghav

Subject: Re: Adding Reconstruction and Fast Sim to Fairroot from Pandaroot
Posted by StefanoSpataro on Thu, 21 Jun 2012 13:08:32 GMT
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Coud, you please port your FairMCTrack files (.h and .cxx)

Subject: Re: Adding Reconstruction and Fast Sim to Fairroot from Pandaroot
Posted by Raghav Kunnawalkam on Thu, 21 Jun 2012 13:16:52 GMT
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Hi Stefano

Here are my files, including MCTrack.cxx and MCTrack.h and fairAnalysis.cxx where i use them.

Cheers
Raghav

File Attachments

1) FairMCTrack.cxx, downloaded 501 times
2) FairMCTrack.h, downloaded 489 times
3) FairAnalysis.cxx, downloaded 442 times

Subject: Re: Adding Reconstruction and Fast Sim to Fairroot from Pandaroot
Posted by StefanoSpataro on Thu, 21 Jun 2012 13:20:55 GMT
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GetMotherID is wrong, it should be GetMotherId.
Get4Momentum is defined in the .h but it is not present in the .cxx. The same for GetStartVertex.

Subject: Re: Adding Reconstruction and Fast Sim to Fairroot from Pandaroot
Posted by Raghav Kunnawalkam on Thu, 21 Jun 2012 13:24:52 GMT
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Hi Stefano

Wow, i cant believe that i missed that. Thanks a lot for pointing it out. I make sure that next time i will be more thorough.

Anyway is the idea correct, to just get things from panda and add them to fairroot, since they are built using the same fundamentals i assume.

Cheers
Raghav
