Subject: Access to clusters properties (bis)
Posted by Ronald Kunne on Tue, 06 Sep 2011 10:27:02 GMT
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How do I get access to Zernicke moments different from Z20, Z53 and LatMom ?

The "obvious" way to do it, using code copied from PndEmcMakeCluster.cxx, seemed to be to add to my macro:

```
lhe->AddFriend("cbmsim", "digi_emc.root");
TClonesArray* digi_array=new TClonesArray("PndEmcDigi");
lhe->SetBranchAddress("EmcDigi",&digi_array);

...

for (Int_t i=0; i<cluster_array->GetEntriesFast(); i++)
 {
   PndEmcCluster *cl=(PndEmcCluster*)cluster_array->At(i);
   PndEmcXClMoments *xClMoments = new PndEmcXClMoments(*cl, digi_array);
   Double_t Z42=xClMoments->AbsZernikeMoment(4, 2, 15);
   ...
 }
```

This works perfectly well for accessing for instance

```
PndEmcClusterEnergySums esum(*cl, digi_array);
```

But the call to PndEmcXClMoments leads to the error:
gGeoManager does not exist

Thanks in advance for your help.

Ronald Kunne

Subject: Re: Access to clusters properties (bis)
Posted by StefanoSpataro on Tue, 06 Sep 2011 10:43:14 GMT
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Probably you need something like:

```
TString parFile = "simparams.root";
FairRuntimeDb* rtdb = fRun->GetRuntimeDb();
FairParRootFileIo* parInput1 = new FairParRootFileIo();
parInput1->open(parFile.Data());
rtdb->setFirstInput(parInput1);
```

in your macro.

Subject: Re: Access to clusters properties (bis)
Posted by Ronald Kunne on Tue, 06 Sep 2011 11:18:46 GMT
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Well, I do have something similar already in the macro which looks like your code, using "params_tpccombi.root" instead of "simparams.root". So there must be more to it.

```
TString sysFile = gSystem->Getenv("VMCWORKDIR");
TString allDigiFile = sysFile+"/macro/params/all.par";
TString parFile = Directory+"params_tpccombi.root";

FairRunAna *fRun= new FairRunAna();
FairRuntimeDb* rtdb = fRun->GetRuntimeDb();
FairParRootFileIo* parInput1 = new FairParRootFileIo();
parInput1->open(parFile.Data());
rtdb->setFirstInput(parInput1);

FairParAsciiFileIo* parIo1 = new FairParAsciiFileIo();
parIo1->open(allDigiFile.Data(),"in");

PndGeoHandling* geoH = PndGeoHandling::Instance();
```

Subject: Re: Access to clusters properties (bis)
Posted by StefanoSpataro on Tue, 06 Sep 2011 11:25:15 GMT
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Do you have also:

PndEmcMapper::Init(6);

?

Subject: Re: Access to clusters properties (bis)
Posted by Ronald Kunne on Tue, 06 Sep 2011 11:46:52 GMT
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Yes. But actually having it in or not doesn't change anything.

There seems to be a fundamental difference between the class

PndEmcXClMoments xClMoments(*cl, digi_array);

and others in the same directory, like

PndEmcClusterEnergySums esum(*cl, digi_array);

Subject: Re: Access to clusters properties (bis)
Posted by StefanoSpataro on Tue, 06 Sep 2011 11:56:29 GMT
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I surrender,
probably Dima can answer you.

Subject: Re: Access to clusters properties (bis)
Posted by Dima Melnychuk on Tue, 06 Sep 2011 14:44:09 GMT
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Hi Ronald,

It works if you add :

```
TFile* file = new TFile("simparams.root");
file->Get("FairBaseParSet");
```

The whole macro is attached for calculation AbsZernikeMoment(4, 2, 15).

Dima

File Attachments

1) reco_analys.C, downloaded 514 times

Subject: Re: Access to clusters properties (bis)
Posted by Ronald Kunne on Tue, 06 Sep 2011 15:11:27 GMT
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Yes!! This "magic recipe" seems to work.

With the only difference that "simparams.root" is called "params_tpccombi.root" in the reconstruction sequence I use. Which is the one from: trunk/macro/pid

Thanks very much, Dima!

Friendly greetings,
Ronald Kunne
