Subject: CbmRootManager
Posted by Klaus Götzen on Tue, 27 Nov 2007 15:13:41 GMT
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Hi!

Within my CbmFastSim task I try to dump out two TClonesArrays of type TParticle like this

```
fCandidates = new TClonesArray("TParticle");
CbmRootManager::Instance()->Register("PndCandidates","FastSim", fCandidates, kTRUE);

fMcCandidates = new TClonesArray("TParticle");
CbmRootManager::Instance()->Register("PndMcCandidates","FastSim", fMcCandidates, kTRUE);
```

one with the smeared candidates and one with the original copy of the MCStack basically.

My task runs and in principle everything is fine, but in the root-file later there is a folder structure:

cbmroot/FastSim/PndCandidates
cbmroot/FastSim/PndMcCandidates

(in fact in the TBrowser you see 2 FastSim folders, either containing one subfolder!), where both folders are empty, and twice

cbmsim/PndCandidates

with exactly the same contents (apparently from that TClonesArray which was registered first...)

Anybody an idea, what I'm doing wrong?

Thanks and regards,
Klaus

Subject: Re: CbmRootManager
Posted by asanchez on Tue, 27 Nov 2007 15:26:48 GMT
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hi klaus
maybe it is a stupid question,
but are you filling them inside the task?
Alicia S.

Subject: Re: CbmRootManager
Posted by Klaus Götzen on Tue, 27 Nov 2007 15:31:12 GMT
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I fill them in the Exec method with

```
  TClonesArray &tracks = *fCandidates;
...
  Int_t size = tracks.GetEntriesFast();
....
  TParticle *p=new (tracks[size])
TParticle(ft->pdt(),0,0,0,0,0,ft->p4(),TLorentzVector(ft->startVtx(),t- >T()));
```

I think I copied this structure from some other module. Is there a better way?

Klaus

Subject: Re: CbmRootManager
Posted by Mohammad Al-Turany on Tue, 27 Nov 2007 15:49:36 GMT

Hi,

The folder structure in the file is meant for internal use of the framework so it is ok that it is empty. The question is: In your output tree do you have two branches, namely PndCandidates and PndMcCandidates or not?

regards

Mohammad

Subject: Re: CbmRootManager
Posted by asanchez on Tue, 27 Nov 2007 15:54:24 GMT

What is your input file?

you should have something like that inside of
 the Init method -----
like

```
InitStatus PndTofHitProducerIdeal::Init()
{

// Get input array
fPointarray = (TClonesArray*) ioman->GetObject("TofPoint");

//TofPoint is the branchname you want to read from
//input file

  if ( ! fPointArray )
```

```
  {
    std::cout << "-W- PndTofHitProducerIdeal::Init: "
  << "No TofPoint array!" << std::endl;
    return kERROR;
  }
```

and then, you define where you want to save the output

```
//Create and register output array
  fHitArray = new TClonesArray("PndTofHit");
  ioman->Register("TofHit", "Tof", fHitArray, kTRUE);

return kSUCCESS;
}
```

In Exec to get fPointarray information,

```
// Loop over TofPoints
  Int_t nPoints = fPointArray->GetEntriesFast();

  for (Int_t iPoint = 0; iPoint < nPoints; iPoint++)
   {
     point = (PndTofPoint*) fPointArray->At(iPoint);

   // Create new hit
     new ((*fHitArray)[iPoint]) PndTofHit(trackID, detID,
     point->GetDetName(),time, t1,        position,dpos,iPoint, point->GetEnergyLoss(),1);

 }
```

i hope it can help you

cheers
alicia.

Subject: Re: CbmRootManager
Posted by Klaus Götzen   on Tue, 27 Nov 2007 15:56:44 GMT
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Hi Mohammad!

No, this is the problem! For some reason in the output file, there are two branches both named 'PndCandidates' which contain exactly the same.
But I found something in the console output, which might be of interest, namely the messages:

Warning in <TTree::Bronch>: Using split mode on a class: TParticle with a custom Streamer

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Warning in <TTree::Bronch>: Using split mode on a class: TParticle with a custom Streamer

Probably it's somehow related to the problem, but I don't know how ...

Thanks,
Klaus

Subject: Re: CbmRootManager
Posted by Mohammad Al-Turany on Tue, 27 Nov 2007 16:22:53 GMT
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Hi klaus,

May be you can send me this code! or its in SVN? I do not think it is a good idea to copy the Stack again, because you can connect it at any time as a friend but it should also be possible to have two branches with deferent names and the same type of objects. So are you sure that when you add the entries to the TClonesArray that the pointers are not mixed somehow?

regards

Mohammad

Subject: Re: CbmRootManager
Posted by Klaus Götzen   on Tue, 27 Nov 2007 16:30:23 GMT
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Hi Mohammad!

Thanks for your effort! The code is now in SVN:

Transmitting file data ..
Committed revision 1897.

So you can check out macro/fsim and fsim and run the macro 'macro/fsim/simfast.C'
The resulting output file then is fastsim.root. Hope it runs...

Klaus

Subject: Re: CbmRootManager
Posted by Mohammad Al-Turany on Tue, 27 Nov 2007 18:54:14 GMT
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Hallo Klaus,

it was a bug in CbmRootManager, no body notice this because of the special case (Tasks in simulation and TClonesArray with same class type) any way it is corrected now in SVN, just

update the base and it should work.

regards

Mohammad

Subject: Re: CbmRootManager
Posted by Klaus Götzen   on Wed, 28 Nov 2007 07:30:07 GMT
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Thanks, I just updated. There was still a little bug in base/CbmVPoint.cxx, line 100 or so - an unmatched comment sign */
Could you update that, since I'm not able to check in base ...

Klaus

Subject: Re: CbmRootManager
Posted by Mohammad Al-Turany on Wed, 28 Nov 2007 07:47:39 GMT
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Hi,

It is corrected in SVN now, Sorry for that it was a very long day with many problems!

regards

Mohammad