Subject: Re: Fieldmaps for the half current solenoid
Posted by Simone Esch on Thu, 22 Aug 2013 07:47:20 GMT
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Hello Prometeusz, Hello Pandas,

thank you for organizing the files for the half current solenoid maps.
I have just a question about there usage and implementation in my PandaRoot version. I saw that you just replaced them, but I would like to have automaticly the right files in the classe (otherwise I will screw it up for sure). And I would like to understand which one I really need.

I was told, that the Dipol- and Transitionmaps for a beammomenta of e.g. 1.6 Gev/c are an interpolation of the maps of 1.5 GeV/c and 4.06 GeV/c. So I would expect that I have to deliver maps of two momenta for the transition field for each moemtasetting of the solenoid.
You have uploaded all these files which matched with my expectation.

But if I have a look in the classes (PndTransMap and PndDipolMap), I see that the classes just load one and not two maps, what I would expect if they do an interpolation.
(the following code is out if PndTransMap)

```
 fType = 4;
  TString Suffix="";
  FairRunSim *fRun= FairRunSim::Instance();
  if(fRun) fBeamMom= fRun->GetBeamMom();

  if(fBeamMom< 3)Suffix=".0150" ;
  else if (fBeamMom< 6.0 && fBeamMom >= 3.0)Suffix=".0406";
  else if (fBeamMom< 10.0 && fBeamMom >= 6.0 )Suffix=".0890" ;
  else if (fBeamMom< 13.0 && fBeamMom >= 10.0)Suffix=".1191";
  else if (fBeamMom> 13.0) Suffix=".1500";


  TString NewName=mapName;
  NewName=mapName+Suffix;
  SetName(NewName.Data());
  TString dir = getenv("VMCWORKDIR");
  fFileName = dir + "/input/" + NewName;
  if ( fileType[0] == 'R' ) fFileName += ".root";
  else                      fFileName += ".dat";
```

Whith this code I would expect to just need a transition map for 1.5 GeV/c, and not 4.06 GeV/c.

So I am not sure what to do now. Which fils do I have to change for 1.6 and 1.9 GeV/c beammomenta?

Best regards

Simone