Subject: "Direct EvtGen" & "binning particle gun"
Posted by Ralf Kliemt on Fri, 10 Oct 2008 13:29:34 GMT

Hello everyone,

1)
I would like to see EvtGen implemented in PandaRoot in a different way.
The current situation is that we compile EvtGen separately, run it separately and then load the generated ASCII file with our CbmEvtGengenerator class.
When you produce many events (e.g. for mass background studies using fsim) you will get large ASCII files and EvtGen is mostly busy with saving the data.

I would like to have a generator class which needs the input parameters from EvtGen (decay file, momentum, initial system...) and gives the generated events directly into the further processing chain of PandaRoot.
The problems here are definately that EvtGen must compile with PandaRoot and how to call the EvtGen production function efficiantly (i.e. without loading all EvtGen each event).

2)
Secondly I ask for a particle gun which can shoot in intervals.
The motivation for this is that one needs e.g. for the material budget studies only one geantino per bin in the final distribution. So the total number of particles to be generated (and the ammount of data) can be reduced to the needed minimum.
When using the common random particle gun you need to simulate much more events than bins which you finally have.

As far as I recall Mohammed said there is something like this already written but not in the repository.

Well... have a nice weekend.
Greetings from Dresden, Ralf.