Subject: Re: TPC MVD and GEM correlators
Posted by StefanoSpataro on Thu, 16 Jun 2011 11:15:10 GMT
View Forum Message <> Reply to Message

Hi,
I have just run the new macro/run/tdrct/run_tpc_reco.C macro.
First I have run 50 evtgen events, after digitization, and after reco:

root -l run_sim_tpc_evt.C"(50)"
root -l run_digi_tpc_evt.C
root -l run_reco_tpc.C

(of course I have edited the input file names in the reco).

At the end of the first event I have the following crash:

GFAbsTrackRep::chi^2
1543.
++
starting track3
GFException thrown with excString:
GFRecoHitFactory: no hitProducer for this detID available
in line: 61 in file: /home/spataro/may11/may11/genfit/GFRecoHitFactory.cxx
with fatal flag 0

GFException Info Output
===========================
Numbers Label String:
detID

Numbers:
24.00
===========================
Error: Symbol #include is not defined in current scope run_reco_tpc.C:141:
Error: Symbol exception is not defined in current scope run_reco_tpc.C:141:
Syntax Error: #include <exception> run_reco_tpc.C:141:
Error: Symbol G__exception is not defined in current scope run_reco_tpc.C:141:
Error: type G__exception not defined
FILE:/home/spataro/may11/may11/macro/run/tdrct/./run_reco_tpc.C LINE:141
*** Interpreter error recovered ***
root [1]

If I comment out the last kalmantask I have no crash anymore (at least with 50 events).
Could you please check? I suppose there is some not caught exception in the KalmanTask.

I have several comments about the new reco macro:

 Ca we move the tpc clusterization to the digi macro, or remove it in the digi? At present we are
running the same code, even if with different parameters, twice
 I suppose you do not need the mvdriemann code for the tpc+mvd tracking, unlike the stt case.
Isn't it? (just to be sure)

You are running tpc tracking, and after kalman, then tpc+mvd, and kalman, tpc+mvd+gem, and kalman. Would it be much faster to run tpc tpc+mvd and tpc+mvd+gem only with the prefit values, and to run only a final kalman at the end? This would save a lot of time, a lot of crashes and memory usage, and I suppose in the prefit phase we do not need to "kalmanize" the tracks but only at the end for the fina parameters
Which particle hypothesis are you using for the kalman?
Is there a way to reduce all those messages? They make the log output file large
I would strongly suggest to use the GenfitTools/recotask/PndRecoKalmanTask-Fit (as I have already told to Sebastian when he came back into the business, almost one month ago), because it is in the standard way and return directly a PndTrack object from another PndTrack object. Probably KalmanTask and PndRecoKalmanTask/Fit should just be compared, they are doing the same things but with different output. The main problem is that, if we run the KalmanTask, we have also to write a new task converting the GFTrack into PndTrack, while this job is already done in the PndRecoKalmanFit code. The PndTrack object is the starting point of the correlator to produce our TCandidate, without PndTrack users cannot run analysis

Of course I will help for the coding, at least for the common parts.