Subject: Re: track finder
Posted by Lia Lavezzi on Fri, 08 Feb 2008 10:37:38 GMT
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Hi Alicia,
after the Kalman fit you have the track in the SD frame representation, so the 5 parameters are: q/p, v', w', v and w. You can access them with the functions in CbmTrackParP and CbmTrackPar (from which it inherits): GetQp(), GetV(), and so on. You can also access the x, y, z coordinates and the px, py, pz momentum components in the master reference system (you find the functions in the same classes).

Since you talk about the dip angle, and maybe you need it, I explain you how to get it: you need to change your representation, from the SD system (CbmTrackParP) to the SC one (CbmTrackParH), where the accessible parameters are q/p, lambda, phi, yperp, zperp. To do this you should use the transformation functions in CbmGeaneUtil. Consider as an example in the kalstt tutorial, in kalstt/GeaneEx/CbmGeaneTrKalStt.cxx, the lines from 298 to 327: they actually perform the reverse transformation, from SD to SC.

One more remark: the Kalman filter procedure does not divide the fit problem into two planes (x-y and z-track length), it is performed on a virtual detector plane; the separation of the problem in the two planes is used only during the prefit (that we perform with an helix in PndSttHelixTrackFitter).

Hope this helps, but if you need more info please ask
Ciao,
Lia.