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Subject: Secondary tracks in the PSD

Posted by [Selim Seddiki](#) on Mon, 22 Sep 2014 15:47:13 GMT

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Dear CBMROOT experts,

I am performing large statistics simulations with UrQMD+G4 (5M events), including STS and PSD. The size of files produced is very large (about 2.5MB/evt), secondary tracks created in the PSD accounting for about 60% of the memory.

To reduce the size of output files, and since we don't use secondary track information in the PSD in most simulations (except when one wants to look at the hadronic shower in detail), I made the following change in CbmStack (line 425):

```
for (Int_t iDet=kMVD; iDet<=kPSD; iDet++) {  
=>  
for (Int_t iDet=kSTS; iDet<=kSTS; iDet++) {  
(while keeping fMinPoints to 1)
```

So instead of asking secondary tracks to be saved if they deposit a hit anywhere in the detector, I ask explicitly only those which deposit a hit in the STS (to keep trace of MC information for the tracking software). This suppress most of secondary tracks in the PSD, and reduces the file size down to 1MB/evt.

It was temporary, I then had a discussion with Volker and Florian, and we agreed that it should be made flexible, ex.:

gStack->SetMinPoint(n, detID) -> we can ask for secondary tracks with hits in a specific detector

gStack->SetMinPoint(n, -1) -> we can ask for secondary tracks with hits in any detectors used in simulation, as it is implemented right now

Best regards, Selim

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