
Subject: Remove hits from removed tracks

Posted by [MG](#) on Mon, 27 Apr 2020 12:41:03 GMT

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I've implemented custom Stack based on the example in FairRoot repository, along with a simple filter on track momentum. What I've found is that the tracks are indeed removed, but hits from these tracks registered in detector are not, they just have their trackID set to -2. I would like to remove these hits as well.

I've tried updating the loop in FairStack::UpdateTrackIndex method, adding

```
if(-2 == point->GetTrackID())  
    hitArray->RemoveAt(iPoint);
```

at the end, after the indices are set properly and also modified the loop to go backwards, so I don't break the indexing by removing items:

```
for (Int_t iPoint = nPoints - 1; iPoint >= 0; --iPoint)
```

This produces interesting results, which I've found after printing the size of hitArray before and after the call to RemoveAt. Basically, it works correctly up to some point and then stops removing items, even though the index is smaller than the size of the array.

Example:

Quote:

```
index 13 trackID -2  
size before 14  
size after 13  
index 12 trackID -2  
size before 13  
size after 12  
index 11 trackID -2  
size before 12  
size after 11  
index 10 trackID 7  
index 9 trackID -2  
size before 11  
size after 11  
index 8 trackID -2  
size before 11  
size after 11
```

This behavior continues through many events and then it crashes with segmentation violation at some point (like 800 events in). It seems to always appear after the first case of trackID not being -2, as if only removing items from the end of CloneArray worked. My guess is that I'm breaking something with memory, because the branch is already registered and filled.

Is there a better way to do this?

Thanks!
