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Subject: Recent updates about EMC packages (A)  
Posted by [Jifeng Hu](#) on Fri, 17 Jan 2014 14:31:59 GMT  
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(A) MC generation

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Class(source): PndEmc (EmcMC/PndEmc.cxx), producing MC points in EMC

line : 684 PndEmc.cxx

Changes : fTime = gMC->TrackTime(); //OLD  
fTime = gMC->TrackTime()\*1.e9; //NEW

Purpose : in unit of nano second, keep uniform style with other sub-detectors.

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Class(source): PndEmcHit (EmcData/PndEmcHit.cxx), modeling a hit in one EMC crystal.

line : 67 PndEmcHit.h,

Changes : Double32\_t fTime;  
//Double32\_t fTime;

Purpose : comment off this data member. PndEmcHit is derived from FairHit (derived from FairTimeStamp), so this data member is repeated.

line : 47, 51 PndEmcHit.h,

Changes : virtual void SetTime(Double32\_t time) { fTime = time; }  
virtual void SetTime(Double32\_t time) { SetTimeStamp(time); }

Purpose : keep the old interface, and pass the time to base class data members.

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Class(source): PndEmcHitProducer (EmcDigi/PndEmcHitProducer.cxx), producing emc hits for each fired crystal.

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line : 302, PndEmcHitProducer.cxx

Changes : [add] myHit->SetTimeStampError(diffTime);

Purpose : Assign an error to time stamp of one hit, this error is the difference time between the first MC point and the last MC point. all points inside one crystal will sum up one hit.

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line : 358, PndEmcHitProducer.cxx

Changes : [modify] point\_time = point->GetTime()\*1.e9 ==> point\_time = point->GetTime();

Purpose : This unit convert is moved in PndEmc.cxx

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