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CalorimeterSD.hh
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//
#ifndef CalorimeterSD_h
#define CalorimeterSD h 1
#include "G4VSensitiveDetector.hh"
#include "CaloHit.hh"
#include "CalorimeterSDMessenger.hh"
class G4Step;
class G4HCofThisEvent;
class G4TouchableHistory;
class CalorimeterSD : public G4VSensitiveDetector
 CalorimeterSD(G4String name);
 ~CalorimeterSD();
 void Initialize(G4HCofThisEvent*HCE);
 G4int GetDetID(G4Step*aStep);
 G4bool ProcessHits(G4Step*aStep,G4TouchableHistory*ROhist);
 void EndOfEvent(G4HCofThisEvent*HCE);
 void clear();
 void DrawAll();
 void PrintAll();
 inline void SetUseBirksLaw(G4bool aVal){useBirks=aVal;}
private:
 G4double BirksAttenuation(const G4Step*);
 CalorimeterSDMessenger* fMessenger;
 CaloHitsCollection* CaloCollection;
 G4int verboseLevel;
 std::map<int,int> LayerID;
 G4bool useBirks;
 G4double birk1scint;
 G4double birk2scint;
 G4double birk3scint;
 G4double birk1crystal;
 G4double birk2crystal;
```

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 G4double birk3crystal;
#endif
```