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Subject: PndTrack array available

Posted by [Gianluigi Boca](#) on Wed, 24 Nov 2010 00:24:11 GMT

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hallo,

I just updated the svn repository.

Now the PndTrack's are available out of the pattern recognition with the STT alone and with the STT+MVD.

Just update the stt and the sttmvdtracking directories.

Cheers Gianluigi

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Subject: Re: PndTrack array available

Posted by [Gianluigi Boca](#) on Wed, 24 Nov 2010 14:30:12 GMT

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Gianluigi Boca wrote on Wed, 24 November 2010 01:24hallo,

I just updated the svn repository.

Now the PndTrack's are available out of the pattern recognition with the STT alone and with the STT+MVD.

Just update the stt and the sttmvdtracking directories.

Cheers Gianluigi

I forgot to mention that in order to use the Stt or Stt+Mvd real Pattern Recognition code you could have a Macro more or less like the following :

```
{
// Verbosity level (0=quiet, 1=event level, 2=track level, 3=debug)
Int_t iVerbose = 0;
TString MCFFile = "Mvd_Test.root";
TString parFile = "Mvd_Params.root";
Int_t nEvents = 0;
// ---- Load libraries -----
gROOT->Macro("$VMCWORKDIR/gconfig/rootlogon.C");

// gSystem->("libSttMvdTracking");

// -----
// Output file
PndFileNameCreator creator(MCFFile.Data());
TString DigiFile = creator.GetDigiFileName(false).c_str();
TString outFile = creator.GetRecoFileName(false).c_str();

std::cout << "MCFFile : " << MCFFile.Data()<< std::endl;
std::cout << "DigiFile: " << DigiFile.Data()<< std::endl;
```

```

std::cout << "RecoFile: " << outFile.Data()<< std::endl;

// ----- Timer -----
TStopwatch timer;
timer.Start();

// ----- Reconstruction run -----
FairRunAna *fRun= new FairRunAna();
fRun->SetInputFile(MCFile);
fRun->AddFriend(DigiFile);
fRun->SetOutputFile(outFile);

// ----- Parameter database -----
FairRuntimeDb* rtdb = fRun->GetRuntimeDb();
FairParRootFileIo* parInput1 = new FairParRootFileIo(kTRUE);
parInput1->open(parFile.Data(),"UPDATE");
rtdb->setFirstInput(parInput1);

Bool_t kParameterMerged=kTRUE;

// ----- Default MVD hit producer -----

PndMvdClusterTask* mvdmccs = new PndMvdClusterTask();
mvdmccs->SetVerbose(iVerbose);
fRun->AddTask(mvdmccs);

//=====
// ===== Riemann finder MVD =====
// =====

// ----- MVD hit producer
PndMvdRiemannTrackFinderTask* mvdTrackFinder = new
PndMvdRiemannTrackFinderTask();
mvdTrackFinder->SetVerbose(iVerbose);
mvdTrackFinder->SetMaxDist(0.05);
fRun->AddTask(mvdTrackFinder);

// ----- end MVD Rieman finder

// TRACK FINDING =====
// OUTPUT: PndTrackCand          -> STTTrackCand
// trackfinding ....

PndSttTrackFinderReal* sttTrackFinder = new PndSttTrackFinderReal(iVerbose);
PndSttFindTracks* sttFindTracks = new PndSttFindTracks("Track Finder", "FairTask",
sttTrackFinder, iVerbose);
sttFindTracks->AddHitCollectionName("STTHit", "STTPoint");
fRun->AddTask(sttFindTracks);

// =====
//----- stt-mvd task -----

```

```

PndSttMvdTracking * SttMvdTracking = new PndSttMvdTracking(iVerbose);
fRun->AddTask(SttMvdTracking);

rtdb->setOutput(parInput1);
// ===== End of HitProducers =====
// =====

// ----- Intialise and run -----
fRun->Init();

fRun->Run(0,nEvents);
// -----

// SttMvdTracking->WriteHistograms();

rtdb->saveOutput();
rtdb->print();
// ----- Finish -----
timer.Stop();
Double_t rtime = timer.RealTime();
Double_t ctime = timer.CpuTime();
cout << endl << endl;
cout << "Macro finished successfully." << endl;
cout << "Output file is " << outFile << endl;
cout << "Parameter file is " << parFile << endl;
cout << "Real time " << rtime << " s, CPU time " << ctime << " s" << endl;
cout << endl;
// -----

}

```

Also, the name of TClonesArray containing the PndTrack's is :

PndSttMvdPndTrackArray for the array of PndTrack from the Stt+Mvd PR

Also a PndTrackCand array is available from the Stt+Mvd PR with name :

PndSttMvdPndTrackCandArray

Gianluigi

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