Mimosa Telescope DSF Tree

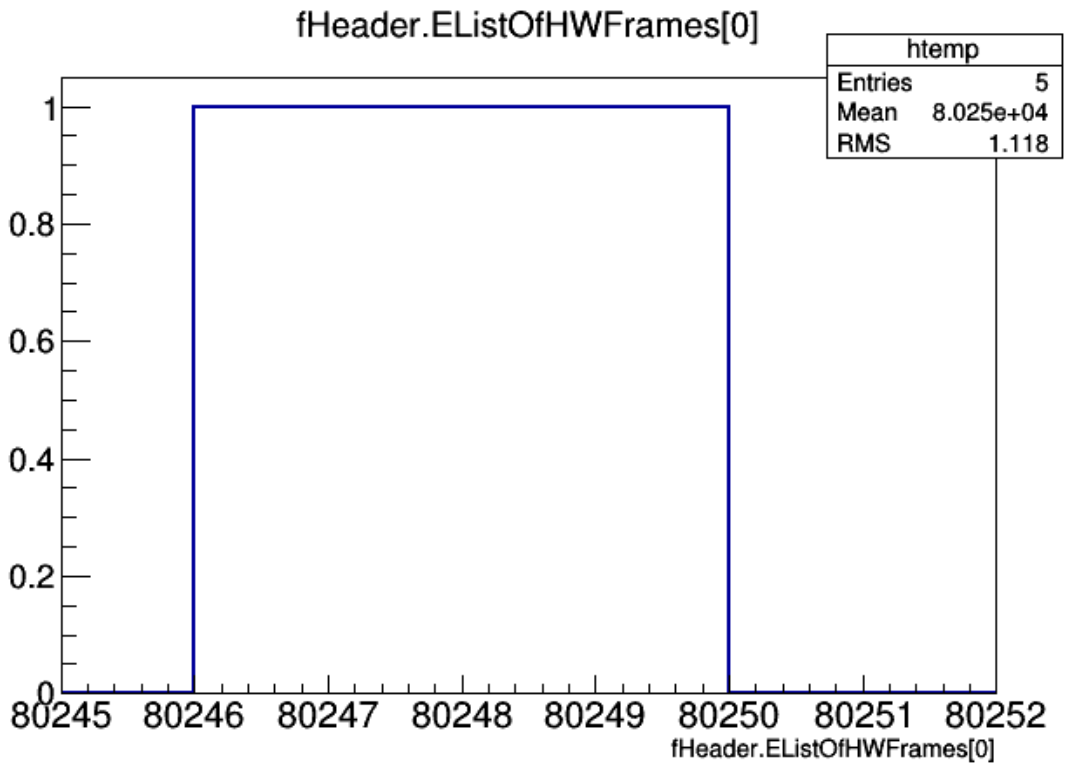
```
  PXIeBoardReader board 0::GetNextDaqEvent() current frame 0 over 400 in current acquisition -1 over 2798
  PXIeBoardReader board 0: Got frame 0 (absolute nb = 80246) in acquisition 0.
** board  0 : count 00000000 : AcqId = 0000 - FrameId = 0245 - #triggers = 0001 (or 0001)
    trigger[0, in frame 0] at line 0033 (0033/0033 & frame 80245 & invalid 0), time = 141733
  PXIeBoardReader board 0::GetNextDaqEvent() current frame 0 over 400 in current acquisition 0 over 2798
  PXIeBoardReader board 0: Got frame 1 (absolute nb = 80247) in acquisition 0.
** board  0 : count 00000001 : AcqId = 0000 - FrameId = 0246 - #triggers = 0000 (or 0000)
  PXIeBoardReader board 0::GetNextDaqEvent() current frame 1 over 400 in current acquisition 0 over 2798
  PXIeBoardReader board 0: Got frame 2 (absolute nb = 80248) in acquisition 0.
** board  0 : count 00000002 : AcqId = 0000 - FrameId = 0247 - #triggers = 0000 (or 0000)
  PXIeBoardReader board 0::GetNextDaqEvent() current frame 2 over 400 in current acquisition 0 over 2798
  PXIeBoardReader board 0: Got frame 3 (absolute nb = 80249) in acquisition 0.
** board  0 : count 00000003 : AcqId = 0000 - FrameId = 0248 - #triggers = 0000 (or 0000)
........
```

Example how to access hardware frame number in DSF tree

```
{
  TFile *ff = TFile::Open("./datDSF/run43.root", "READ");
//  T->Draw("fHeader.EListOfFrames[2]", "", "", 1, 0);
  T->Draw("fHeader.EListOfHWFrames[0]", "", "", 5, 0);
}
```

TAF commands to produce DSF tree:

```
  MimosaAnalysis *gTAF = new MimosaAnalysis();
  gTAF->InitSession(runid);
  gTAF->DSFProduction(evn, 0);  // 0 - mode
maximum info is saved
```



Reconstruction of Telescope Data

The archive file with tracking software from telescope people:
http://alzt.tau.ac.il/~aborysov/mi_telescope/TrackingFCAL.tar.gz

Command:

```
make hitanalyser
```

Should produce the executable for track reconstruction

It exepects many parameter and this is how Tobias advised to call it:

```
./hitanal .../datDSF/run43.root   output_file_neme.root pxiE_headers_dump_run43.root  5.0 0 1 1 4 1
```

pxiE_headers_dump_run43.root is produced by pxie_reader_test.C which
can be found in http://alzt.tau.ac.il/~aborysov/mi_telescope/

For alignment:

```
make alignmatrix
```

and call it

```
./alignmatrix    ..../run43_02.root test.root 1 1
```

It prints out the matrices which can be directly substituted in hitanalyserrevision.cc
They are exactly with the same name in the code.