Here's an example how to check muon ID histograms produced by MuonPIDChecker, that runs in Brunel:

login to `lxplus`

```
SetupProject online

cd /afs/cern.ch/lhcb/group/dataquality/ROOT/Collision10/
```

Select a ROOT file, for example

```
root -l
Beam3500GeV-VeloClosed-MagDown/70733/Real_Data_RecoStripping-03/90000000/BrunelDaVinci_FULL_70733
```

On afs, the root files are quickly deleted, but a backup is kept on CASTOR, use:

```
root -l
/castor/cern.ch/grid/lhcb/dataquality/Collision10/Beam3500GeV-VeloClosed-MagDown/70733/Real_Data_
```

(here use the `nsls` command to find ROOT files, e.g. `nsls -l /castor/cern.ch/grid/lhcb/dataquality/Collision10/`)

Open a TBrowser: by typing `TBrowser b`

Double click on the `ROOT Files` folder

Double click on the only item in the right window

Double click on the `Muon` folder

Double click on the `MuonPID` folder

Double click on the `MonitorLong` folder

Double click on any of the 46 histograms available:

hNtracks	Track multiplicity
hPSNtracks	PreSelection Track multiplicity
hNIMLtracks	IsMuonLoose Track multiplicity
hNIMtracks	IsMuonLoose Track multiplicity

hNIMLtracksRatio	#IsMuonLoose/#Tracks
hNIMLPStracksRatio	#IsMuonLoose/#PSTracks
hNIMtracksRatio	#IsMuon/#Tracks
hNIMPStracksRatio	#IsMuon/#PSTracks

hIML_PS	IsMuonLoose for PS Tracks
hIM_PS	IsMuon for PS Tracks

hPSMomentum	PreSelected Track Momentum (GeV/c^2)
hPSPT	PreSelected Track p_T (GeV/c^2)
hPSRegion	MS Region for PS tracks
hIMLMomentum	IsMuonLoose Candidate Momentum (GeV/c^2)
hIMLPT	IsMuonLoose Candidate p_T (GeV/c^2)
hIMLRegion	MS Region for IML tracks

hIMMomentum	IsMuon candidate Momentum (GeV/c^2)
hIMPT	IsMuon candidate p_T (GeV/c^2)
hIMRegion	MS Region for IM tracks

hNShared_IML	NShared for PS Tracks
hNShared_IM	NShared for PS Tracks

hNIMLvsXM2	MS X position at M2 for IML tracks
hNIMLvsYM2	MS Y position at M2 for IML tracks
hNIMvsXM2	MS X position at M2 for IM tracks
hNIMvsYM2	MS Y position at M2 for IM tracks

hDist2_IML	Muon Dist for IML candidates
hDist2_IML_R1	Muon Dist for IML candidates at R1
hDist2_IML_R2	Muon Dist for IML candidates at R2
hDist2_IML_R3	Muon Dist for IML candidates at R3
hDist2_IML_R4	Muon Dist for IML candidates at R4
hDist2_IM	Muon Dist for IM candidates
hDist2_IM_R1	Muon Dist for IM candidates at R1
hDist2_IM_R2	Muon Dist for IM candidates at R2
hDist2_IM_R3	Muon Dist for IM candidates at R3
hDist2_IM_R4	Muon Dist for IM candidates at R4

hProbMu_IML	Muon Probability for IML candidates
hProbNMu_IML	Non-Muon Probability for IML candidates
hProbMu_IML_R1	Muon Probability for IML candidates at R1
hProbMu_IML_R2	Muon Probability for IML candidates at R2
hProbMu_IML_R3	Muon Probability for IML candidates at R3
hProbMu_IML_R4	Muon Probability for IML candidates at R4
hProbMu_IM	Muon Probability for IM candidates
hProbNMu_IM	Non-Muon Probability for IM candidates
hProbMu_IM_R1	Muon Probability for IM candidates at R1
hProbMu_IM_R2	Muon Probability for IM candidates at R2
hProbMu_IM_R3	Muon Probability for IM candidates at R3
hProbMu_IM_R4	Muon Probability for IM candidates at R4

If the ROOT file has been merged from several original files, three trend histograms are produced for every original histogram:

- The trend of the number of entries (with _Entries)
- The trend of the mean (with _Mean)
- The trend of the RMS (with _Rms)

-- RudolfOldeman - 05-May-2010

This topic: LHCb > CheckMuonIDWithROOT
Topic revision: r6 - 2010-05-25 - unknown