

Data quality

Nikola Đikić

DQ Code

The DQ code can be found here:

<https://gitlab.cern.ch/ndikic/athena/tree/master-AFP-DQM-Nikola/ForwardDetectors/AFP/Run3AFPMonitoring>

The general instruction for DQ can be found here:

<https://twiki.cern.ch/twiki/bin/view/Atlas/DQHackathonJan2019>

Pseudo tutorial

The code consists of two classes:

AFPSiLayerAlgorithm

AFPToFAlgorithm

They are responsible for creating histograms (and defining their properties).

Pseudo tutorial (cxx)

1. Create ReadHandleKey (in our case afpHitContainerKey) - environment needs to know what StoreGate objects are we going to use, at start.
2. Define quantities what we are going to use (in our case: lb, nsihits, pixelRowIDChip, pixelColIDChip).
3. Declare and initialize ReadHandle object for reading data (in our case: afpHitContainer)
4. Filling histograms using fill() method.

Pseudo tutorial (py)

1. Adding algorithm for each algorithm we are going to use (in our case: AFPSiLayerAlgorithm and AFPToFAlgorithm)
2. Adding group for every algorithm.
3. Assigning (defining) histograms to groups (SiT histograms to SitGroup, etc...) and defining their properties (title, x, y axis, **path**, xbins, xmax, ...)
4. Defining file (input data)
5. Defining number of runs