Stable Beam Report via OMS

Stable Beam Report

- When the CMS detector is running - a stable beam report needs to be filled after a few minutes from the start of the stable beams data-taking by the DOC shifter.

- The report itself includes filling a template that includes data from different sources such as DCS/DAQ/DQM as well as a relatively long list of plots to be included in the report (for a full list - visit https://twiki.cern.ch/twiki/bin/view/CMS/PixelStandardOperations#Stable_Beams_Checklist).

Example of Template

```
------------------------------------------------------------------
Stable Beam Report - Fill XXXX
------------------------------------------------------------------
fill      :
filling scheme :
run       :
time      :
reporter  :
------------------------------------------------------------------
DCS:
* tree owner          :
* BPix/FPix status    :
* BPix/FPix recipe status:
* BPix majority panel
   * Control          : /36
   * LV               : /128
   * HV               : /128
* FPix majority panel
   * Control          : /16
   * LV               : /96
   * HV               : /96
* alarm screen dcs:
   *

------------------------------------------------------------------
DAQ:
* DAQ Physics bit:
* DAQ Pixel HV bit:
* Pixel status  :
* FEDs          : /108
* deadtimes
  * ICI1        :
  * ICI2        :
  * ICI3        :
  * ICI4        :
* automasked channels
   *

------------------------------------------------------------------
```

```
DQM:
* run number:
* LS number:
* WBM Physics bit:
* WBM BPix bit:
* WBM FPix bit:
* on-track cluster charge peak position
    * L1        :
    * L2        :
    * L3        :
    * L4        :
    * D1(-/+)  : /
    * D2(-/+)  : /
    * D3(-/+)  : /
* on-track BPix smiley plots     :
* on-track FPix cluster size >2.3 :
* cluster position:
    * BPix      :
    * FPix      :
------------------------------------------------------
```

Using OMS to generate report

- The task involves generating the report and the plots using OMS (which is the new online monitoring system).

- The biggest challenge is to find an access to all the different observables plotting them and create the relevant report.

- There might be changes needed to the way OMS operates such as being able to use a generic query rather than a view which will be decided on as we work on this.