

DQM Open Tasks

<https://twiki.cern.ch/twiki/bin/view/CMS/DQMOpenTasks>

List of open tasks in the DQM project ordered by system areas. No order of priority is implied. During the ongoing commissioning we deem it useful to combine development and operations efforts in the same area as much as possible.

Online DQM:

1. Development of online DQM code: refinement of technical infrastructure, esp. run control function manager, playback test system, DQM applications.
2. Operation of DQM applications in P5: integration and testing of histogramming code updates, adaptation of Online DQM system to software and hardware upgrades, maintenance of configurations and reference histograms, includes expert on call service for 24/7 support.

Offline DQM:

1. Operation of DQM harvesting applications during Tier-1 and Tier-2 (re-)processing (physicist): For the time being "manual" retrieval of DQM histograms (using standard crab user jobs) is required for data processing at Tier-1 and Tier-2 centers.
2. Development of core DQM and database code: Reference histogram maintenance framework software.
3. Development of core DQM code: By-luminosity-section-storage of DQM results.
4. Development of core DQM code: Re-implement merge code, reduce memory consumption.

Data Certification:

1. Operation of Run Registry GUI and DB, includes expert on call service for 24/7 support.
2. Development of DQM specific database code (Orcon/Orcoff) required for the storage of data certification results in Orcon/Orcoff.

DQM for Release Validation:

1. Development of DQM for release validation (communication/coordination role): Integration, testing, expansion and standardization of workflow and histogramming code for RelVal production and MC test productions, release coordination for code in CMSSW package: Validation.

Shift Operation:

1. Organization of central DQM shifts (administrative): drafting, assignment, tutorials for central DQM shift persons (does not require deep physics knowledge).
2. Supervision of central DQM shifts (physicist): day-to-day supervision and support of shift activities, online and offline. Maintenance of instructions, communications channels, identification of remaining problems in DQM and certification end-to-end chain.