

# DQM/Validation Status and Plans

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# New L1T DQM development workflow

- Fork of CMSSW was made into my private github repository:

<https://github.com/joaopela/cmssw>

- New code to be included/test on L1T DQM should be submitted to branch:

CMSSW\_7\_0\_X\_L1TDQM

- An email should be sent to me (and L1 DPG contacts) requesting testing and merge into main CMSSW repository.

# Current and future work

## Underway:

- Offline Rates monitoring
- Offline Synchronization monitoring
- 2012 Historical rates study
- New release validation tools

## Future:

- New data formats to access relevant variables offline.
- Data versus MC comparison
- Move to CMSSW\_7\_X\_Y (central and subsystem tools)
- Upgrade trigger system monitoring
- Current vs upgrade trigger systems monitoring

# Current status

- Offline rates monitoring
  - Development finished (without DB interface)
  - Effort moving to data formats for offline DB access
- Offline synchronization monitoring
  - Development underway
- 2012 Historical rates studies
  - Target end of 2013 work well underway
  - Will bridge will WbM and offline tools
- New release validation tools
  - First set of tools being prepared for test deployment

# Future Work I

- New data formats to access relevant variables offline.
  - Necessary to have access to relevant variables from DB offline
- Move to CMSSW\_7\_X\_Y (central and subsystem tools)
  - Porting to multi-thread environment
  - All systems need to review their code
  - Call for DQM contacts for each L1 subsystem.
- Upgrade trigger system monitoring
  - New dedicated tools for new system
  - Different tools than current system necessary?
    - If yes, which variables/objects to monitor?

# Future Work II

- Data versus MC comparison
  - New system being developed for release validation, some ideas over how to use this for L1T being looked at.
- Current vs upgrade trigger systems monitoring:
  - Will both systems information be available in the event payload?
  - If yes, what tests would we like to perform on online and offline DQM?
    - Object Matching?
    - Resolution comparison?
    - <Put your idea here!>
  - What amount of work vs parallel system working time is reasonable versus utility of developed monitoring?

# Conclusion

- Current tasks progressing and soon making transition to develop new tools for upgrade system
  - Need some more details about how DQM will run to make some decisions
- Need to prepare current tools to run in new multi-threaded environment.
  - Requires effort from all subsystems.