



# TOF QA status

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- QA code status
  - AliTOFQADataMakerRec
  - AliTOFQADataMakerSim
- DQM status
- QA checker
- Reference data

# *AliTOFQADataMakerRec: history log (1)*

02/03/2010 - Changes exported to **AliRoot-v4-18-Rev-09**

- Fixed raw data decoding methods (use AliTOFRawStream::LoadRawDataBuffer())
- Added filter for noisy channels and read map from OCDB
- Added GetCalibData(), CheckVolumeID(), CheckEquipID() methods
- [Updated Raw QA histograms](#)

30/03/2010 - Changes exported to **AliRoot-v4-18-Rev-12**

- Changed raws time histos range to 610ns after TOF Matching Window change
- Added FilterLTMDData() and FilterSpare() methods
- Added check on enabled channels for raw data
- [Updated RecPoints QA](#)

23/04/2010 - Changes exported to **AliRoot-v4-18-Rev-13**

- Added EnableDqmShifterOpt()
- Modified EndOfDetectorCycle() with [options for DQM](#)
- [Updated ESDs QA](#)
- Added filter on physics data (especially exclusion of calibration events)
- Reduced histograms memory allocation

# *AliTOFQADataMakerRec: history log (2)*

10/05/2010 - Changes exported to **AliRoot-v4-18-Rev-16**

- Fixed bug in EndOfDetectorCycle(): reset of histograms and related graphical objects used to cause the DQM agent to crash.

14/06/2010 – Changes exported to **AliRoot-v4-18-Rev-21**

- Updated DQM plots
- Improved version of TOF decoder (AliTOFDecoderV2) implemented

## **Imminent changes:**

- Savannah bug **#69289**: QA in simulation crashes if raw data are not produced, due to call to a missing histogram in EndOfDetectorCycle()
  - Fixed by adding check on existing histos
  - **Committed in trunk version #42057**: to be ported to release

**A lot of work was done on classes for real data QA!**

Now we feel confident to give higher priority to other QA issues...

# *AliTOFQADataMakerSim: history log*

23/04/2010 - Changes exported to **AliRoot-v4-18-Rev-13**

- Changed all (hits, Digits, SDigits) time histos range to 610ns
- Changed all time histos binning to 24.4 ps
- Changed all (hits, Digits, SDigits) ToT histos range to 48.8 ns
- Changed all ToT histos binning to 48.8 ps

according to AliTOFQADataMakerRec ranges and binning to allow comparison between real data and MC time spectra.

We do not implement here the raw data electronics-oriented TH2, which are used to identify problematic equipment during data taking, as they would not provide useful information in case of MC QA.

No further changes are foreseen, for the moment.

# *DQM status*

Latest plot update in AliRoot-v4-18-Rev-21

Twiki pages for TOF last updated on 30/06/2010 → check it out at

<https://twiki.cern.ch/twiki/bin/viewauth/AliceEVE/EVETOF>

3 AMORE Agents at P2:

- **AmoreAgentTOF99**
  - AMORE Custom module
  - 8 histograms real-time monitoring & consistency check with QA plots
- **AmoreAgentTOFQAshifter** and **AmoreAgentTOFQA**
  - based on AliRoot QA classes
  - 6/19 histos for shifters/experts

## **TO DO LIST**

- Prepare **macro for setting thresholds** and drawing options in DQM GUI (from DQM meeting on 02/07/10)
- Implement **“wise” QA checker** and set the quality flags (see next slide)

# QA checker

Now AliTOFQAChecker used only to check if QA histograms are filled or not.

New **raw data** checker will implement:

1. comparison with reference data
  - Check mean values, sigmas, ...
  - TOF hit multiplicity / Time spectrum / ToT spectrum
2. internal check on data distribution
  - Check uniformity of distributions, ...
  - LTM OR signals / TRMs hit per active channel

No check on RecPoints and ESD beyond basic check on filled/empty plots. For that

**TOF would like to participate into PWG1 QA train  
with a “AliAnalysisTaskTOFQA” to be implemented.**

→ Francesca (et al.?) will work on it...

# Reference data

**Pp @ 900 GeV**  
Dec. 2009 data  
May 2010 data

We did not use reference from Dec. runs because of residual noise.  
We can use May data from runs 118501-118557 → **work in progress**

**Pp @ 7 TeV**  
LHC10\* data

Early run **115401** used: very low residual noise + good electronics status → **OCDB object ready for trunk!**

**Cosmics**

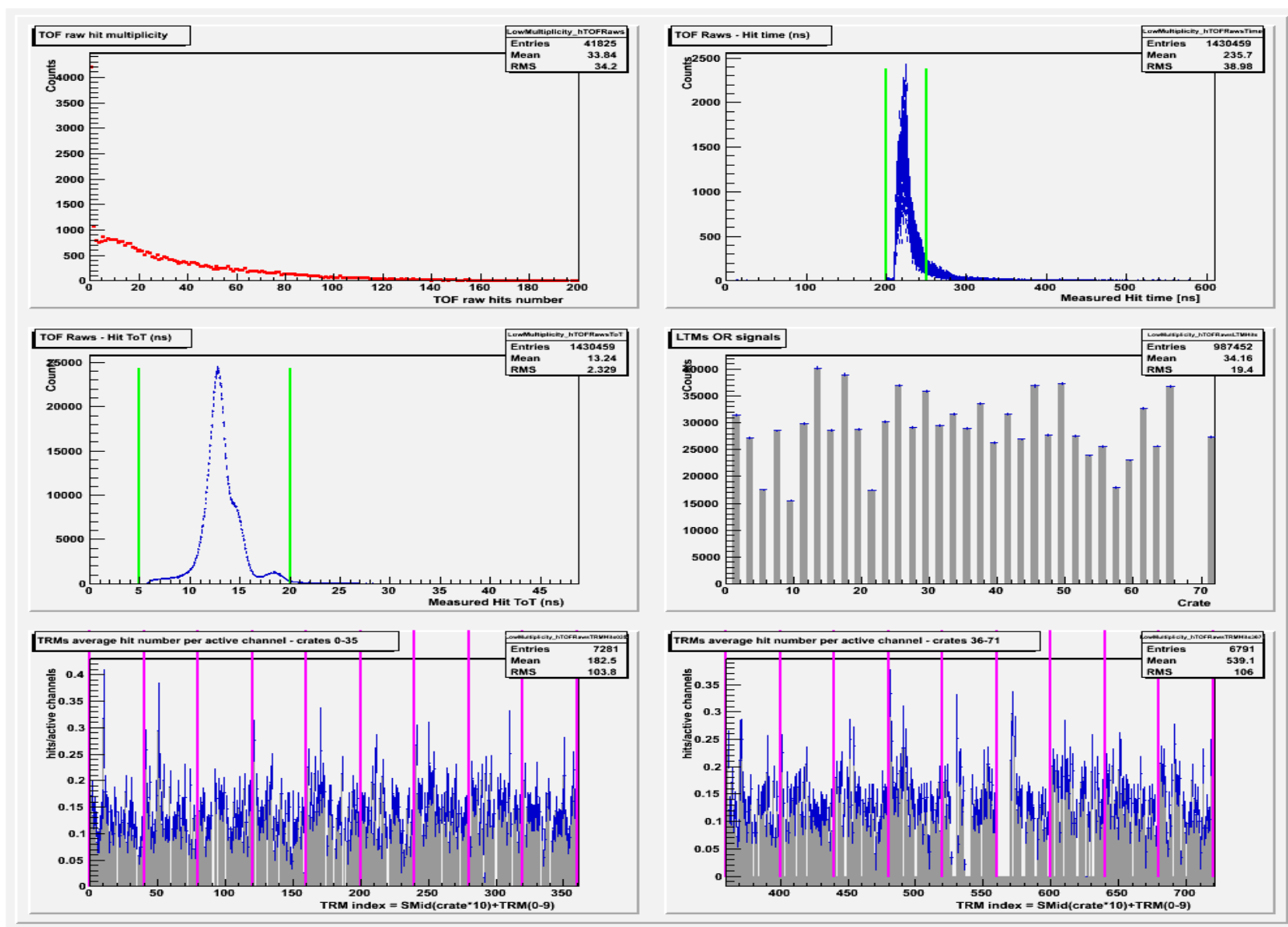
Dummy reference data added by Yves for all detectors.

**Heavy Ions**

Wait for first collisions...



# Present TOF DQM screenshot



...as it is now - pp @7TeV run 124702 of the 30/06/10 (Source: ALICE logbook)