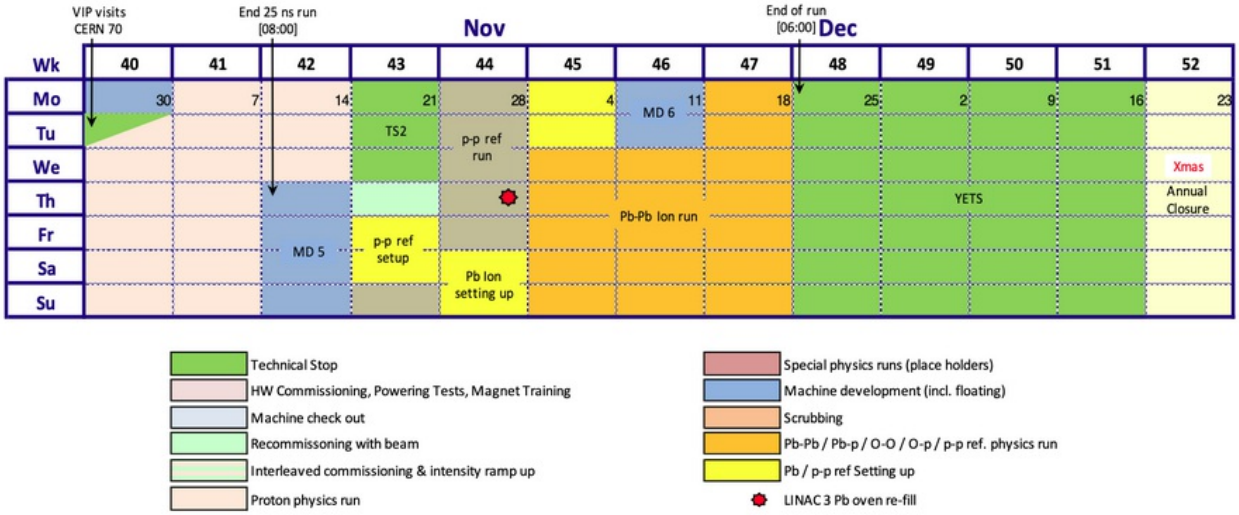
TOF QC Coordination meeting 7/10/2024

General news

- 2024 pp ref and PbPb data taking (as for Sept. 18 LHC Schedule):

  - pp ref: Oct. 27- Nov. 1 (6 days)
  - PbPb: Nov. 6-24 (17 days)
  - during these periods only cpass0 will be run, no apass1 production, maybe apass1_skimmed
  - daily A-QC meetings (virtual and/or in person) with reports on runs processed in the previous 24 hours (see daily QA reports at 9:00 a.m.)
  - each detector QC crew should provide man power to follow closely new processed runs (checks, flags, reports at A-QC and on jira) and eventual apass1_skimmed or MC productions

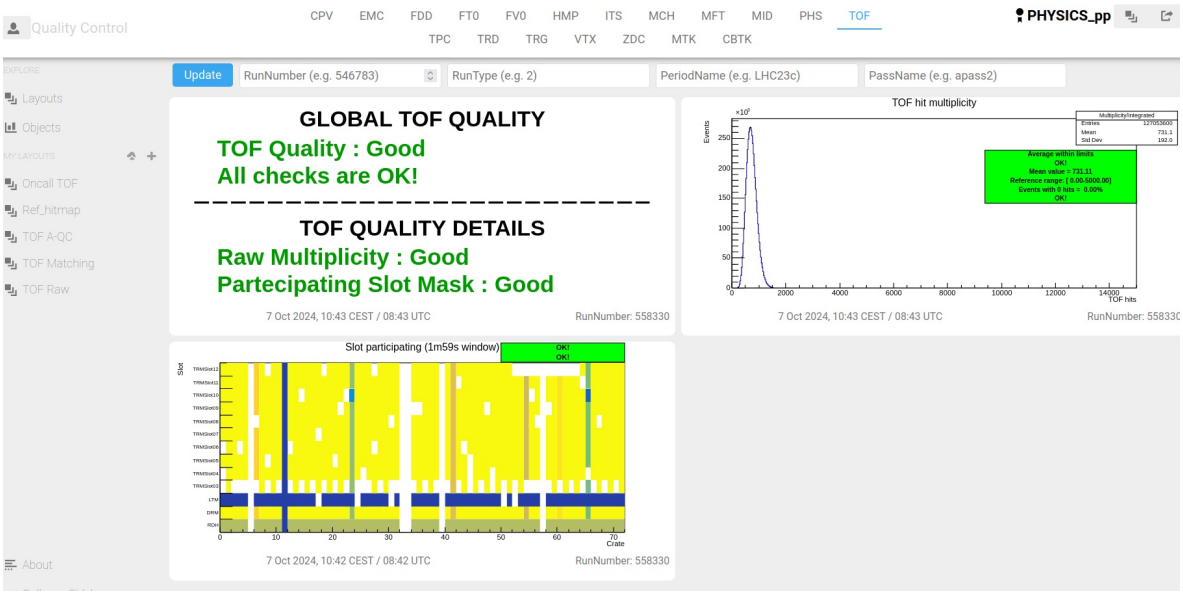


QC sincrono

- Checker sulla Slot Part Mask:
  PR by Sofia is in the new QC version v1.160:
  https://github.com/AliceO2Group/QualityControl/pull/2431
  In production for the moving window plot:

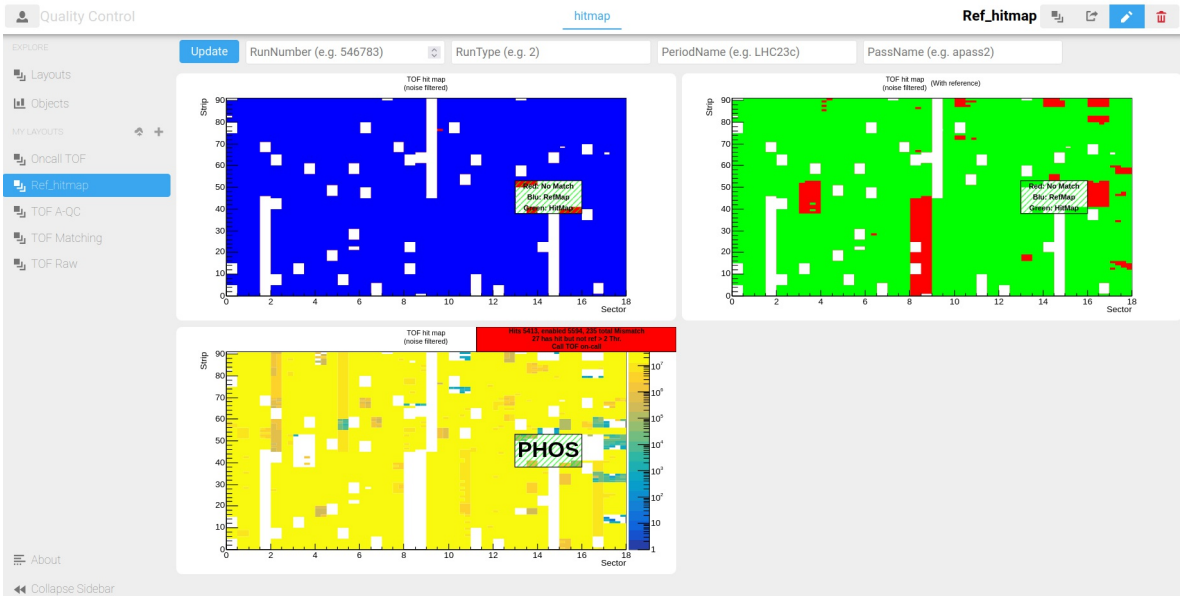
- Changed shifter layout to use this version

- Presented at the TOF ops meeting blessed by Manuel and Sofia



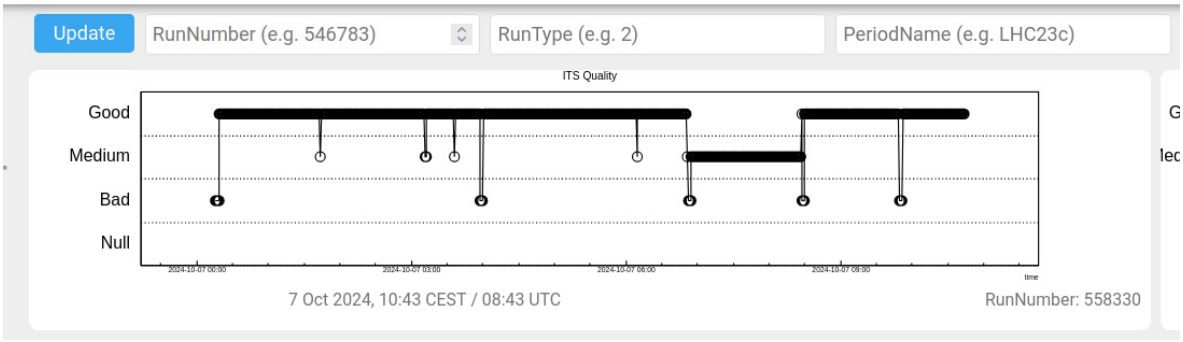
- QC-based « assistant » for the release validation
  Replied to Andrea with the plots we discussed last week --> Hit multiplicity (digits) e SlotPartMask (raw)

- Ref hit map to be followed up with Pietro. Still no changes observed in PHYSICS runs:



- Check calib task for Diagnostics
  - test it staging with also LHC Phase

- New developements:
  Trending of Quality object? Like



QC asincrono

Our sheet:
https://docs.google.com/spreadsheets/d/1z0no8X0s9R5mOGfR3BeNnx4RgYlBkyf9aVxJElQFIjE/edit?gid=0#gid=0

- QC Moving Window (MW) feature
  Table filled and PR opened, waiting for approval
  PR: https://github.com/AliceO2Group/O2DPG/pull/1759
  Table: https://docs.google.com/spreadsheets/d/1_vCjDXfL7-oiEaUYSUTe2fpsxbb89ds-DDDql4KeIxU/edit?gid=0#gid=0

TOF	Digits	DecodingErrors	TH2I	13 x 72	300	1 month	
	Digits	HitMap	TH2F	72 x 92	300	1 month	
	Digits	OrbitVsCrate	TProfile2D	72 x 768	300	1 month	
	MatchTrAll	mEffPt_ITSTPC-ITST	TEfficiency	100	300	1 month	
	PID	EvTimeTOF	TH1F	1000	300	1 month	
	PID	DeltaEvTimeTOFVsF	TH1F	200	300	1 month	

- MC mismatch with data, reported no news yet from tracking

1. Data

- LHC24ao_cpass0 (O2-5391): runs in the Daily QA reports until October 8th: check and put RCT flags
- LHC24an_cpass0 (O2-5279): runs in the Daily QA reports until October 8th: check and put RCT flags
- LHC24an_apass1 (O2-5367): runs in the Daily QA reports until October 8th: check and put RCT flags
- LHC24aa, LHC24ab_apass1 (O2-5200): complete checks, put RCT flags and upload final reports on JIRA if not yet done
- apass4 of 2023 PbPb periods (see O2-5211 for link to specific period tickets): runs in the Daily QA reports until October 8th: check, put RCT flags and report on JIRA

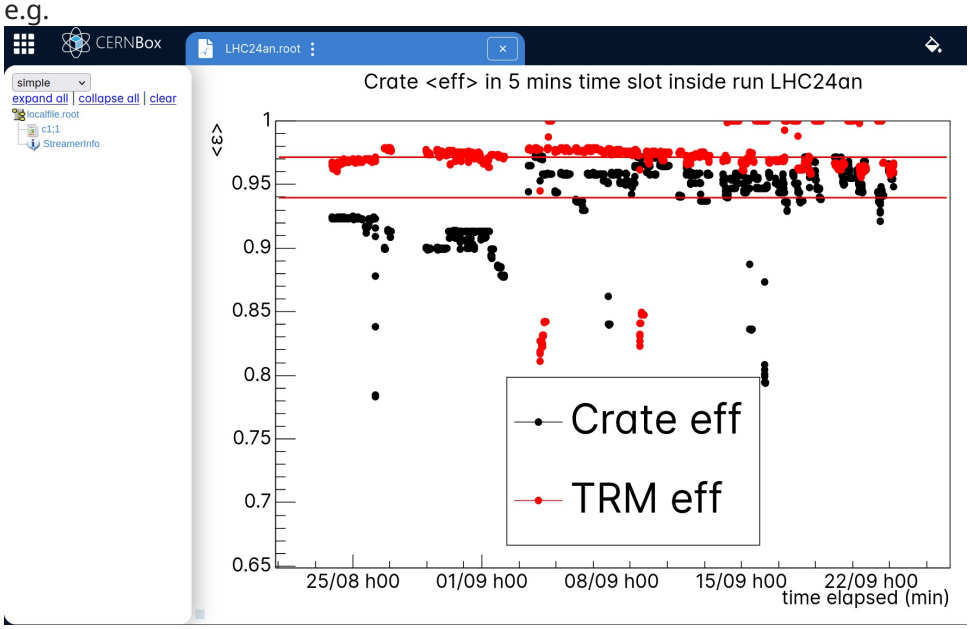
2. MC

- **LHC24g3** (O2-5272) GP MC anchored to 2023 PbPb@5.36 TeV apass4
- **LHC24f4b** (O2-5122) GP MC anchored to 2024 pp @13.6 TeV periods apass1
- **LHC24f3b** (O2-5266) GP MC anchored to 2022 pp@13.6 TeV periods apass7

Calibration

Check on calibrations (pp 2024)

- few recent runs (LHC24an) with 100% TRM efficiency (a bit suspicious) from sync calib.
    - Is it confirmed in cpass0?
    - Let's check ME in apass1 QC
    - List of runs:
        - 557251
        - 557271
        - 557336
        - 557339
        - 557350
    - Summary of the statust per period available here https://cernbox.cern.ch/files/spaces/eos/user/f/fnoferin/QC/Calib/Summary
        - e.g.



        - table per run here (https://docs.google.com/spreadsheets/d/1DS6oyScBMJdtKqZpeD8x64LZoKZ gid=1309404451#gid=1309404451), column AF
        - all cases with TRM efficiency equal to 100% have to be investigated
        - SOLVED: from LHC24ao
- Runs PbPb apass4 miscalibrated --> fix using AO2D in production for some runs
  Calibrate all runs and cross check with QC

TOF AO2D

WP4 discusso di includere nuove info TOF negli AO2D

- if track is matched to a cluster with more than 1 hit (OK accepted)
- TOF channels, use case mismatch, still under discussion, + 0.33% data size in pp

FT0 realignment in the MC

- rewrite the information about the FT0 in the MC starting from the MC event time (realign the FT0 time to the true one + a gaussian smearing)