

A Large Ion Collider Experiment



ALICE Status Report

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Update of the Computing Models

Thank you very much for detailed corrections and comments!

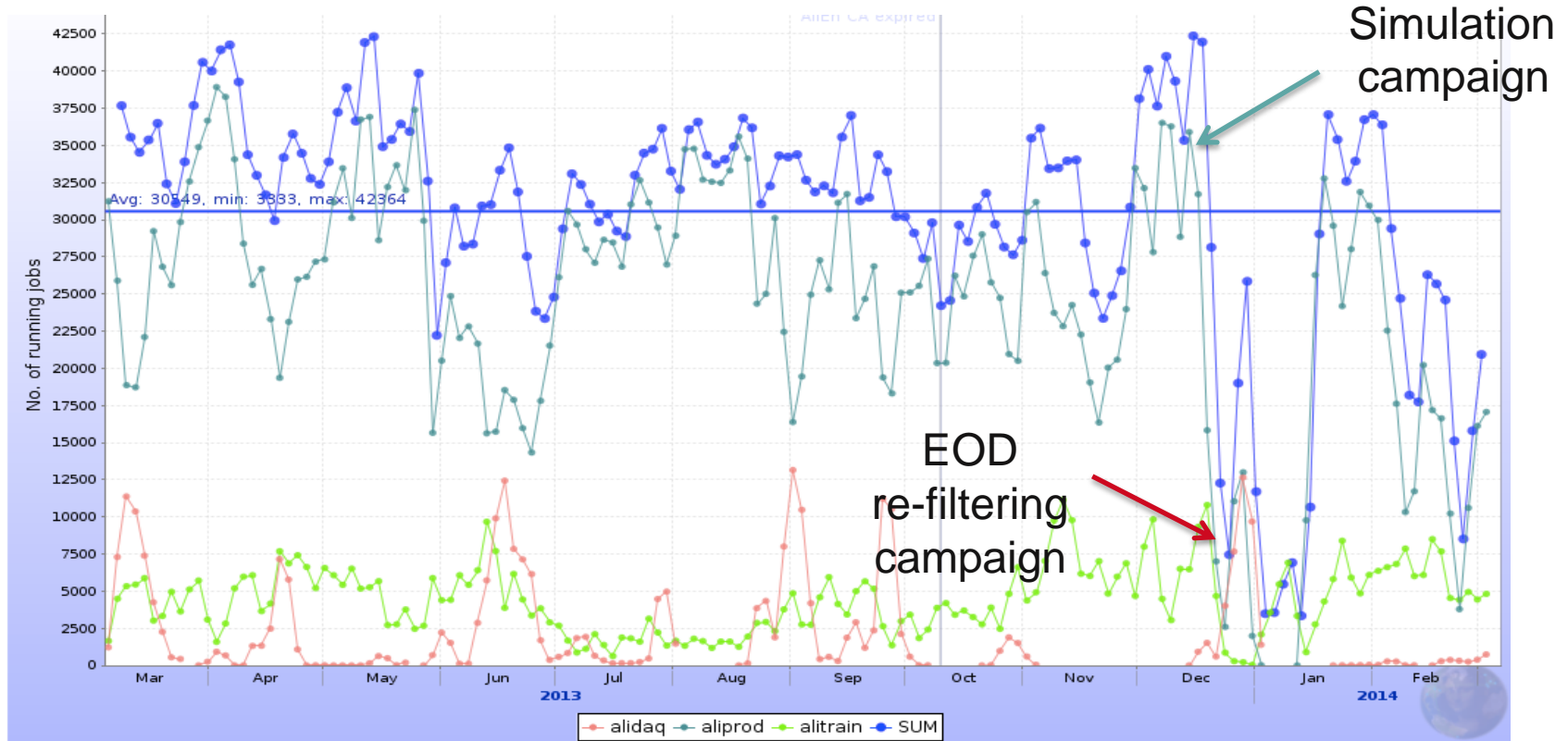
Hz	ALICE	ATLAS	CMS	LHCb
2012	400 Hz 330 MB/s (p-p) 540 MB/s (p-Pb)	550 Hz 440 MB/s	460+360 Hz 328 MB/S	5000 Hz 300MB/s
2015	500 Hz 525 MB/s (p-p) 810 MB/s (p-Pb) 3750 MB/s (Pb-Pb)	1000 Hz 800-1000 MB	1000 Hz	10000 Hz

	ALICE	ATLAS	CMS	LHCb
RAW	1050 (p-p) 1625 (p-Pb) 7500 (Pb-Pb)	1000	500	60
ESD	15-30% RAW	2700	1000	110 (full.dst)
AOD	10-15% RAW	350	300	120 (dst)
Analysis level	AOD	« varies »	« varies »	10 (mdst)

- All corrections accepted and comments addressed in document sent to Ian
- Most of them were minor but there was a mistake in Tables 13& 14

- Instead of the average event rates and throughput, we had the maximum instantaneous rates that DAQ/HLT could handle

ALICE jobs running on the grid in past 12 months



- Better than expected simulation production campaign in the run-up to Christmas
- Planned raw data re-processing postponed put on hold to further improve software release



XXIV QUARK MATTER DARMSTADT 2014

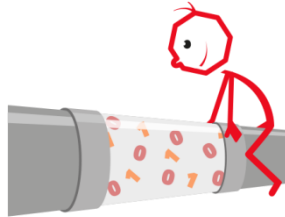


- Expect to see peek of last minute requests for various kind of productions
- At the same time, analysis activities will probably reach all time high levels
- Using this tome to iron out remaining inefficiencies in computing infrastructure

Upgrade activities



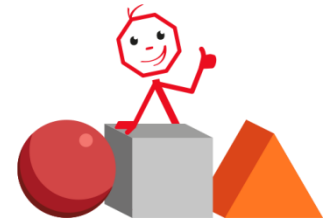
Architecture



Data flow



Data model



Computing platforms



Tools



Simulation



Calibration



Reconstruction



DQM



Control Configuration Monitoring



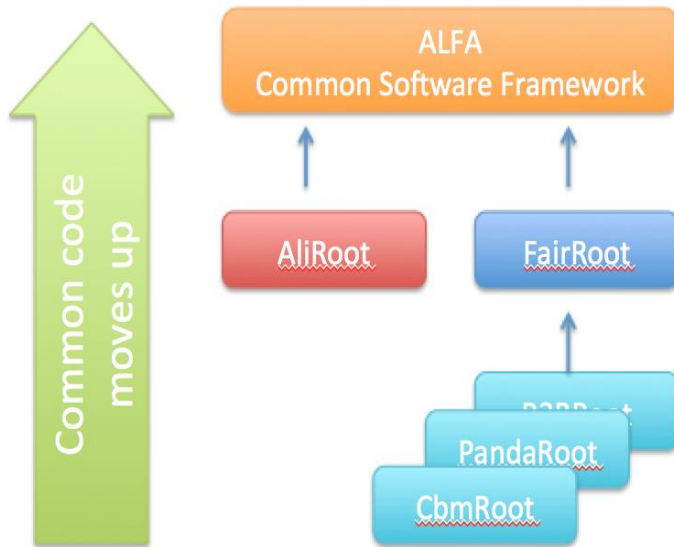
Software Lifecycle



Software Framework

O²
Technical Design Report

Run3 Software Framework



Alice + Fair = α (ALFa)
the basis of AliRoot 6.0

Work on ALFA already started

- GSI group works on factoring out common components from FairRoot and puts them to Github
- ALICE group works on importing ITS simulation for ALICE Upgrade in FairRoot environment
- Aim is to have ITS and TPC simulation in new framework ready by September

Summary

- Run1 operations
 - Gearing up for increased analysis activity for QM2014 followed by already delayed data re-processing with improved software chain
- Run2 preparations
 - Focusing on improving calibration procedures and software performance
- Run3 activities
 - Work on AliRoot 6 has started, collaboration between ALICE and FAIR
- **All available manpower is heavily overcommitted**
 - We are mobilizing the collaboration to provide extra manpower to carry out various computing related tasks
 - Following very similar approach as one taken by LHCb