



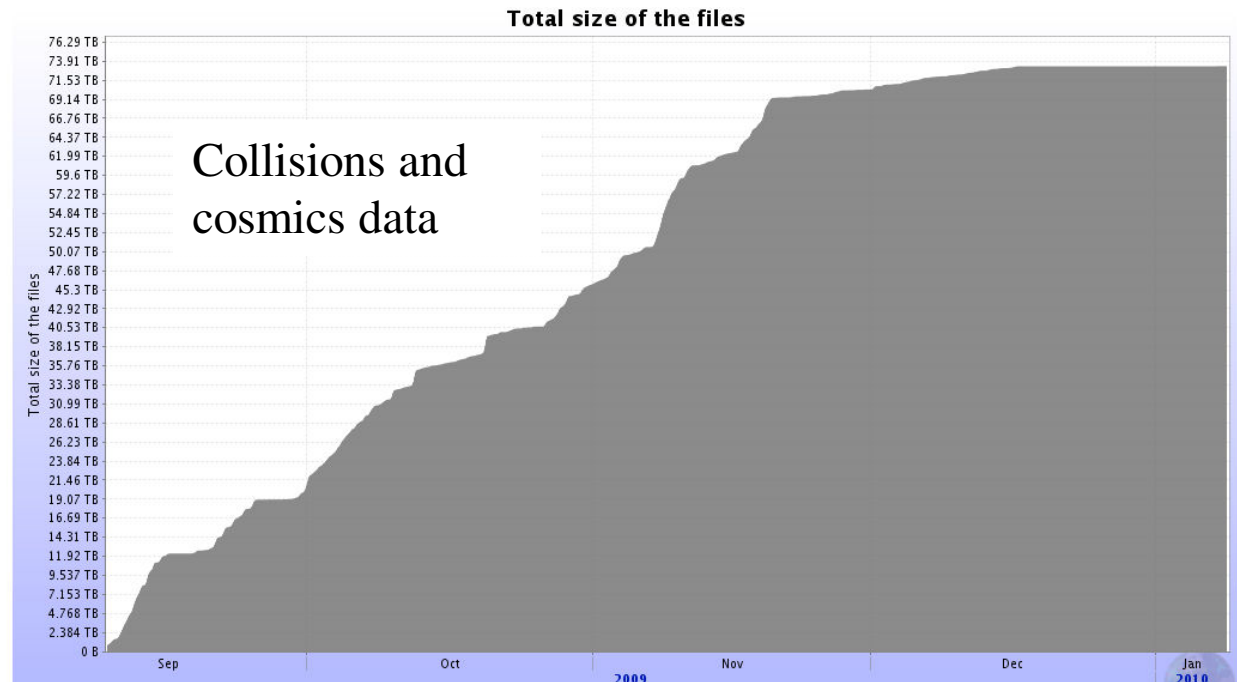
ALICE QUARTERLY REPORT 2009Q4

Summary

- Data Taking
 - pp@900 and 2360 GeV data registered at T0 and replicated 2 times in T1s
- Data Processing
 - Raw data processed, Pass 1 at T0 and Pass 2 at T1
- MC Data Production
 - Productions using RAW data conditions database
- Software
 - AliRoot release in production, fast patches to account for bugs in RAW reconstruction
- Services
 - Full transition to SL5 at all sites (3 T2s are still being updates – these are blocked)
 - CREAM deployment still ongoing, the pace is stable but slow
- Analysis
 - CAF (fast), analysis train (organized) and end user analysis (chaotic) running routinely and now on real data
- Milestones


Data taking


- Data taking with all installed detectors from the first collision on
 - 1Mio collision events
 - 365 GB RAW
 - Replicated 2 times in external T1s only after end of data taking



Data taking

- Data migration strategy
 - During data taking data are migrated from the DAQ disk buffer to the ALICE CASTOR diskpool (alicedisk) for temporary storage
 - The data are then optionally migrated to the CASTOR permanent data storage (t0alice)
- CASTOR v.2.1.8 extremely stable throughout the data taking

Network traffic IN				
Farm	Last value	Min	Avg	Max
1.  alicedisk	816.9 KB/s	0 B/s	5.201 MB/s	936.3 MB/s
Total	816.9 KB/s		5.201 MB/s	

Network traffic OUT				
Farm	Last value	Min	Avg	Max
1.  alicedisk	60.99 KB/s	0 B/s	9.799 MB/s	1.091 GB/s
Total	60.99 KB/s		9.799 MB/s	

Data processing

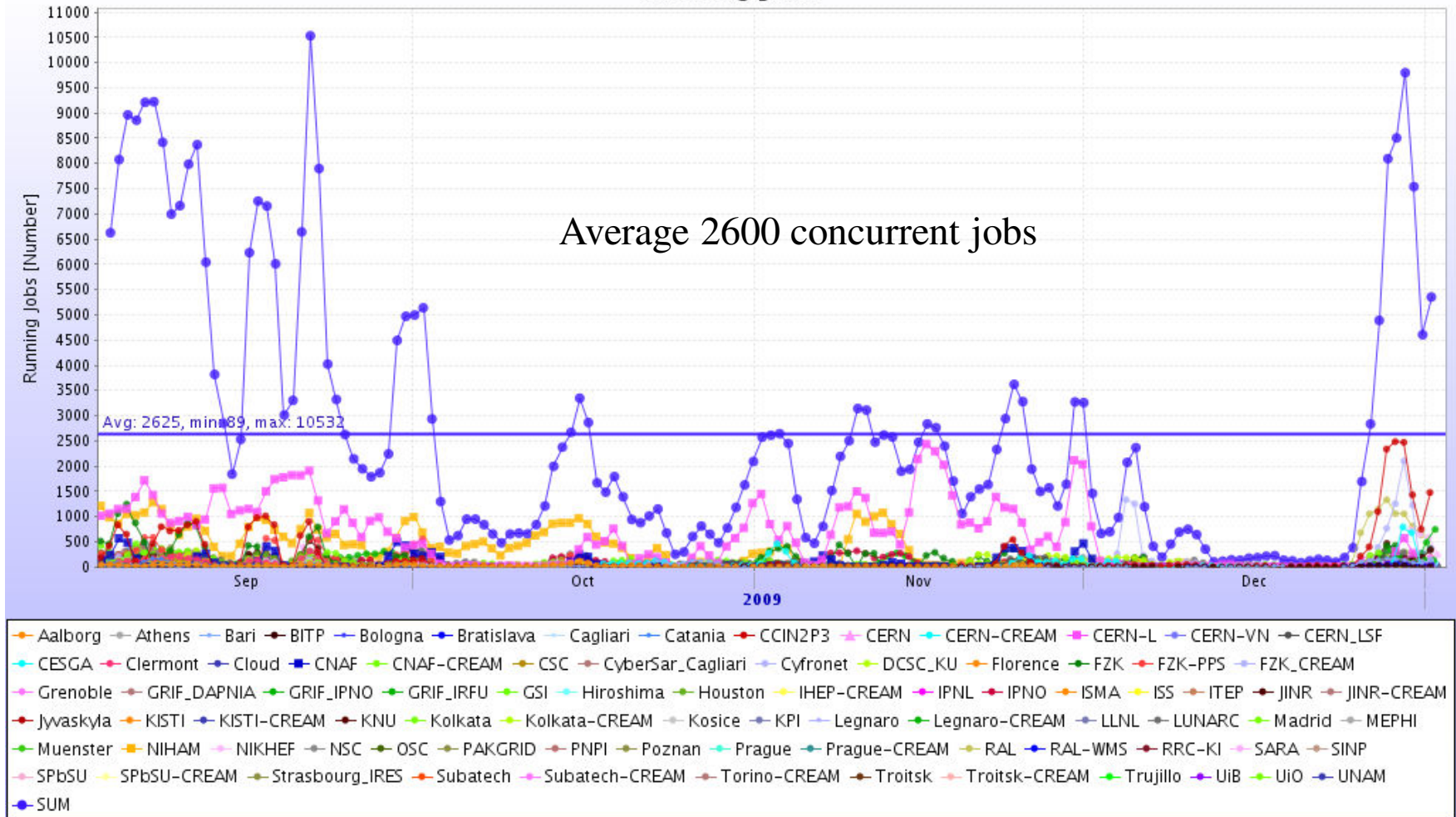
- Pilot reconstruction + analysis is performed for a fraction of the run (typically a few thousands events) on the CAF as soon as data are transferred to CASTOR and registered in the AliEn file catalogue
 - Provides quick feedback to run coordination on data quality
- Data reconstruction is automatically launched (first pass) at T0 at the end of the run and ESDs are available for analysis a few hours later in 3 SE
 - First pass reconstruction success rate $\sim 96\%$

Data processing

- Second pass reconstruction has been run during Christmas break at T0+T1s
 - Second pass reconstruction success rate ~98%
- Analysis trains have run several times over the entire set of reconstructed data of pass1 and pass2
- MC production in all sites
 - Several 'Early physics' production with RAW conditions data

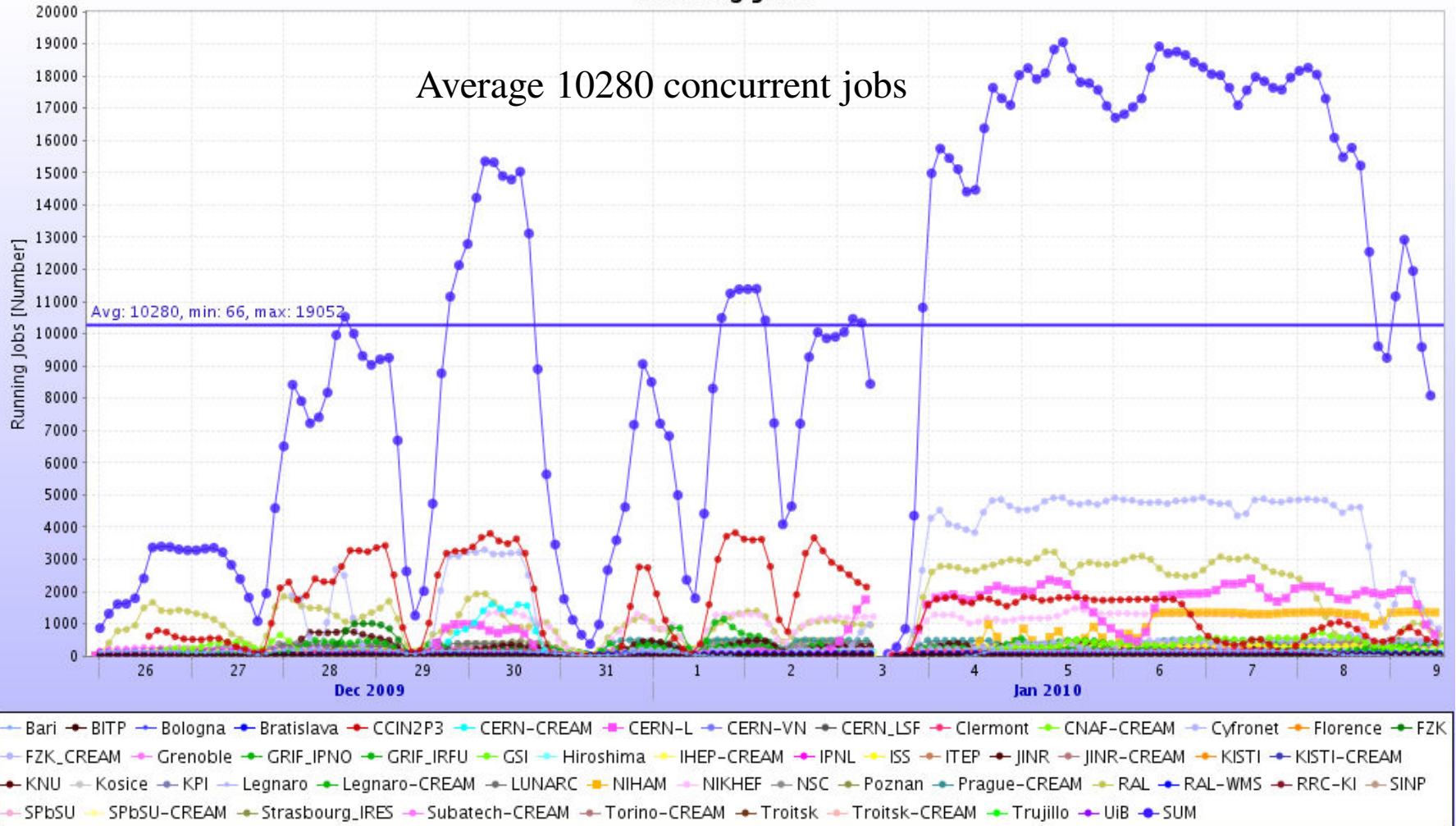
Processing profile (reco + ana)

Running Jobs



Processing profile – Christmas break

Running Jobs



Software: AliRoot

- Number of fixes to the algorithms confronted for the first time with real collision data
- Issues
 - High memory usage ~ 4 GB for RAW reconstruction
 - Understandable – all track matching is ‘relaxed’, increased combinatorics
 - Main effort concentrated to reduce the memory usage (we aim at < 2 GB) , after calibrating the detectors with the collected data sample
- New release January 15

Services: CREAM & SL5

- Priority was given to SL5 migration:
 - All T1s and most of the T2s have migrated
 - Today , 4 T2s are still blocked (Athens, PNPI, UNAM, Madrid)
 - All is expected to be done by the end of this month ... after half a year of push and pull
- CREAM CE deployment
 - in 50% of the ALICE sites
 - dual submission CREAM/WMS still the norm, not what we want
 - Continue to work with the sites on deployment

Milestones

- Updated milestones
 - MS-130 15 Feb 10: CREAM CE deployed at all sites
 - MS-131 15 Jan 10: AliRoot release ready for data taking

Conclusions

- The first data taking period has been a full success for ALICE in general and for ALICE computing in particular
 - Data flow and data processing went as planned in the Computing Model
 - The Grid operation has been smooth
 - The sites delivered in general what they have pledged

Conclusions

- Two main concerns
 - Excessive usage of memory prevents us to run efficiently at all T1 sites
 - Reducing the memory usage is our top priority
 - Achieve uniformity of the submission system (i.e. CREAM) before start of data taking