



ATLAS and Combined Data Management Tests

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CSC, FDR and Data Taking (1)

- CSC (Computing System Commissioning) tests started in early 2006
 - Set of independent component tests, followed (in 2007) by integration tests
 - All test suites are kept active and used for each major software release
 - Tier-0 internal tests and Data Distribution tests exercised periodically with increased software integration levels
 - The final integration test (Full Dress Rehearsal) has been in the meantime split into a number of phases of increasing complexity
- Cosmic Ray data taking runs:
 - M4 run: now in progress (till tomorrow)
 - M5 run: 2 weeks, late October 2007
 - M6 run: probably mid-January 2008
 - After that: continuous operation with detector commissioning activities



CSC, FDR and Data Taking (2)

- FDR (Full Dress Rehearsal) tests started in Spring 2007 and will run through late Spring 2008:
 - Sept/Oct 07: Data preparation for round 1 (round 0 was the CSC streaming test). Data from release 12 simulation, data preparation using release 13 (currently in validation phase).
 - End of October 2007: Tier-0 operations test (shifts) and reconstruction runs using release 13.
 - Nov 07 - Feb 08: Reprocess at Tier-1s, make group DPDs (Derived Physics Data).
 - Dec 07 - Jan 08: Data production for final round using release 13 (assumes simulation has stabilised).
 - Feb 08: Data preparation for final round using release 13.
 - Mar 08: Reconstruction final round using release 14. Tier-0/Tier-1 shifts.
 - Apr 08: DPD production at Tier-1s, user testing using release 14. Ideally same release as for first data.
 - April/May 08: More simulated data production in preparation for first data.



Timescales and contents of common tests

- We just heard that SRM 2.2 should be deployed by the end of February 2008
- We need in any case at least 2 months to test it on a large scale and tune our DDM system to use the new functionalities
- So we propose for May 2008 to run for the ATLAS side of this operation:
 - Data transfer from online
 - Full Tier-0 operation including calibration loop
 - Data export to Tier-1s (all) and Tier-2s (possibly all)
 - Retrieval from tape and reprocessing at Tier-1s of pre-placed data
 - Distribution of reprocessed data
 - Simulation production at Tier-2s and data distribution
 - Submission of "group analysis" jobs at Tier-1s and "user analysis" jobs at Tier-2s
- Target rate would be the ATLAS nominal rate (200 Hz), which we know is doable already now for most of the (independent) activities above