

Releases and Validation Status

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Trigger Open Meeting (Core SW and Slices) 10 December 2008

Active Releases

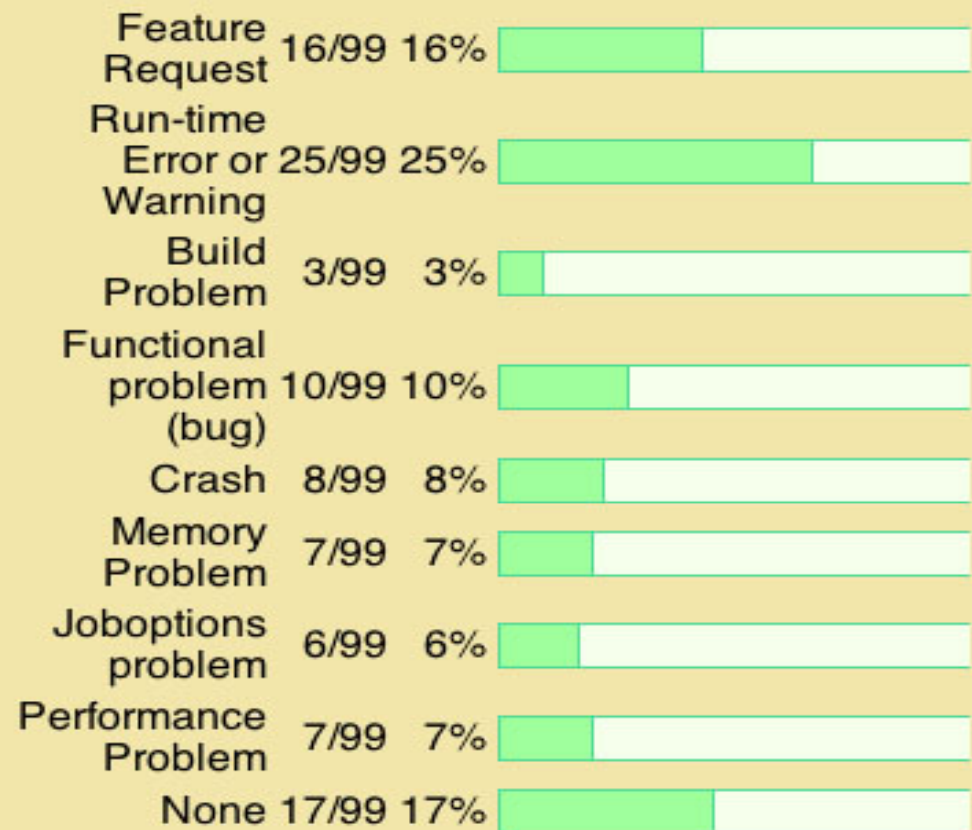
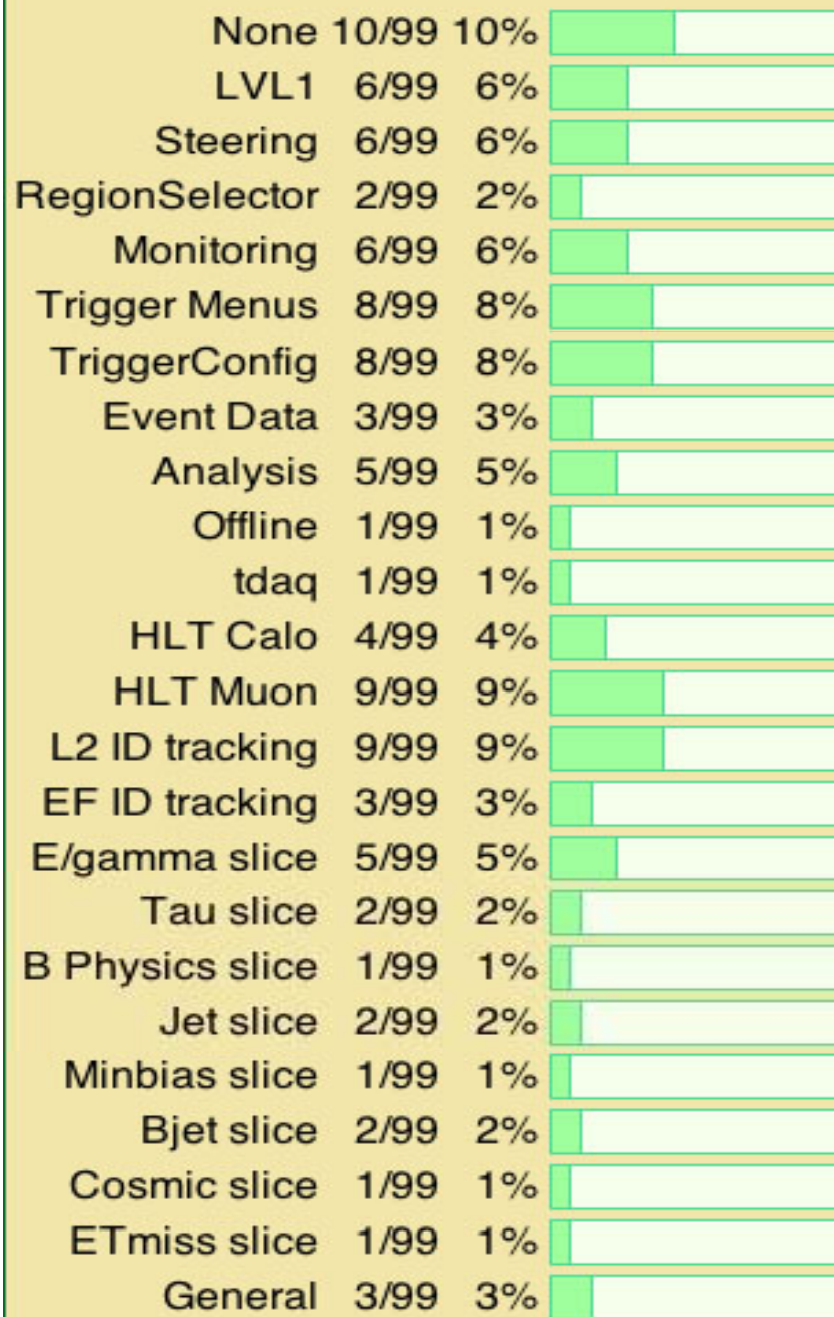
- 15.X.0 aka dev, devval -- development release for next year's data
- 14.5.0.X – reprocessing release
 - 14.5.0.1 – came out today: interim release
 - 14.5.0.2 – end of this week: for trigger/offline reprocessing
 - Separate trigger/offline reprocessing: trigger needs BS->BS
 - See talk by Sylvie
- 14.2.25.2 -- Monte Carlo production for Beatenberg

Validation Status

- Open Bugs
- Memory Leaks
- Floating Point Exceptions
- Daily feedback on rates
- Physics Validation

Relevant bugs in current releases

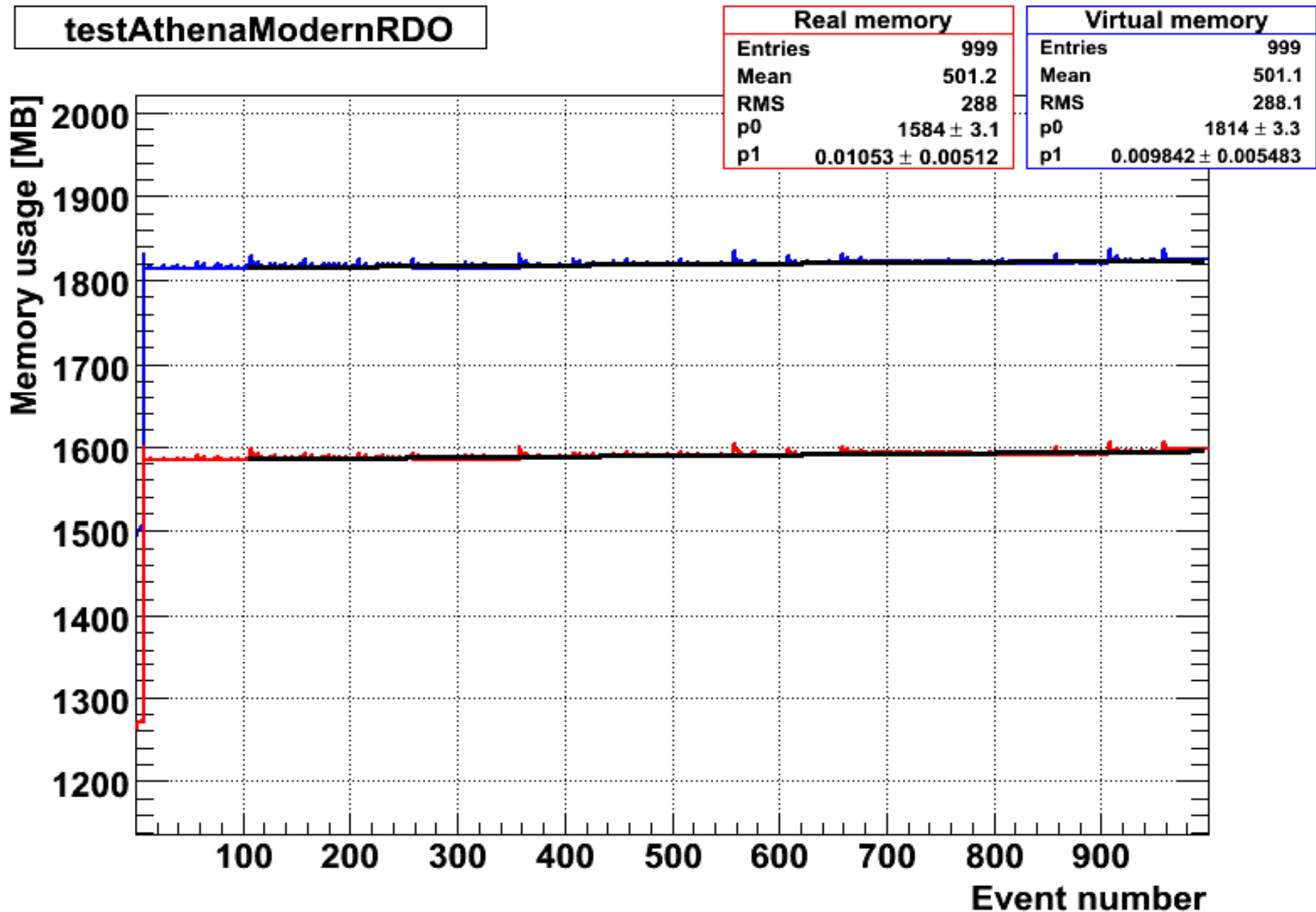
- 14.2.25.1: basically ok for trigger with 2 exceptions
 - Fixes for missing e/gamma triggers (missing since 14.2.22.X)
 - Robust Inner Detector L2 tracking (SiTrack and IDScan)
 - L1 muon thresholds OK (bug fixed in 14.2.23.3)
 - EF missing ET bug: being fixed in 14.2.25.2
 - Re-running of trigger hypos: being worked on
- 14.5.0.1: basically the same?
- Both very important! (data for Beatenberg; reprocessing)



- 99 open bugs

- Your help in clearing old bugs is appreciated.

Currently no flagged memory leaks on top events
(remaining slope maybe due to memory leak checker)



Memory leaks

- One repeated leak in blackhole events (savannah 45078)
- Many one-time leaks still to be closed
- Please check:
 - AthenaModernRDO/LeakCheck.txt and
 - AthenaModernRDO_blackholes/LeakCheck.txt

Floating Point Exceptions

- Enable once per week in rel_0, RTT
- To converge, we need a turnaround of less than a week
- Please clear all FPE with in one week
- FPE are often symptomatic of other more serious problems

Enhanced bias results

A reminder that up to 40,000 enhanced bias events are processed in each nightly by RTT. This can be used to check that changes have not had a large effect on rates (10**31 menu with no prescales or B physics)

- <http://atlas-project-trigger-release-validation.web.cern.ch/atlas-project-trigger-release-validation/references/RTT/devval/comparison/TrigP1Test/>
- <http://atlas-project-trigger-release-validation.web.cern.ch/atlas-project-trigger-release-validation/references/RTT/dev/comparison/TrigP1Test/>

- Due to RTT instabilities only a small fraction of the total have run in recent nightlies
- We expect new hardware and a special priority system to make these results available with two hours of a completed nightly in 2009
- This is not a substitute of the careful work of the Trigger Rates Group

Physics Validation

- Validation of Monte Carlo Sample A production is done within the physics validation group:
- <https://hypernews.cern.ch/HyperNews/Atlas/get/physics-software-validation>
- Only regular contributions come from the muonslice
- The validation work should be coordinated with combined performance working group, but often these groups do not make any checks on the trigger
- Slices other than muons maybe surprised when large productions are made
- Next week's meeting to validate 14.2.25.2: Feedback very important from every slice

Pileup sample-A available

- 75 ns pileup -- valid*d145_r588
(Lumi010PileupConfig_75ns.py, 6.9 collisions)
- 450 ns pileup -- valid*d144_r584
(Lumi001PileupConfig_450ns.py, 4.0 collisions)

These samples are likely to be a good check of trigger robustness