

# Validation of Trigger software



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Initiating trigger validation group :  
aims and list of actions



During validation of 12.0.4 - 12.0.5 release we have gained a lot of experience in trigger software validation. But the job was very manual - a lot of effort from the developers.

For release 13 we would like to have as much automated as possible.

- ANT test - allows to run on about 10 events - produces a log file - check of REGTEST messages from each algorithm
- RTT - allows to run on about 1000 RDO events - produces histograms - compare against a reference
- RTT - read AOD created in previous test and create similar histograms but from StoreGate.

Not particularly new idea - some slices already have ANT or RTT in place.

We would like to start validating release BEFORE the release is out



- logs : REGTEST (ANT)
- histograms : variables used to cut on by HYPOs (RTT)
  - filled within HYPO/FEX algos
  - filled by independent module from StoreGate objects
  - extracted from jobs with different settings (one/many slices, python/XML configuration)
- histograms - TriggerDecision contents (all trigger lines) (RTT)
  - extracted from jobs with different settings (RDO, AOD, doHypo=True)
- Timing of algorithms - only to see if someone starts to take too much time
- memory leaks
- job configuration, algos properties

The list is compiled at

<https://twiki.cern.ch/twiki/bin/view/Atlas/TriggerValidationTests>

- please look and comment

# People involved (from TriggerValidation twiki):



Muon	Giovanni Siragusa (Lecce as institute)
Electron/photon	Valeria Perez-Reale
Tau	Olga Igonkina (Oregon as institute)
Jet	Cibran Santamarina
ETmiss	Rashid Djilkibaev
Calo	Denis Damazio (LVL2), Cibran Santamarina (EF)
IDet	Dmitry Emeliyanov (LVL2) and Iwona Grabowska-Bold (EF)
B-physics	Julie Kirk (primary contact); Sergey Sivoklokov (dimuon), Natalia Panikashvili (j/psi)
B-jet tagging	Andrea Cocco
Overall	Olga Igonkina and Ricardo Goncalo
Technical help	Tomasz Bold, Frank Winklmeier, John Baines, Simon George

Do not be surprised to see your name here..



Prepare for release 13.0.0 to be built on March 21

We will try to set up one (few) executable and set of different jobO to run.

- Tomasz is preparing an interface for histograms to be filled - 1 week from now
- Some of us (at least Ricardo and Olya) will learn how to use RTT - 2 weeks from now
- Everybody will be asked to write an implementation (hopefully only very few lines) - in 2 weeks but the time scale would be rather short...
- put RTT tests in place by March 7 - start training 2 weeks before release is out

Hopefully, some organization here will reduce the work we have to do..