

Trigger Validation News

TAPM Open meeting
4 September 2007

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Current status

- Reasonably quiet week
 - Much of the activity concentrating on M4
- A few hickups :
 - AthenaCommon tag affected TopAlg list
 - ...
- In validation:
 - Migration of ATN tests in TriggerTest to configuration by xml file
 - All slices being tested in “OldConfig” and “Modern” python configuration
 - Hopefully we’ll be able to **finish migration to Modern config this week**. Tests look ok now: Calo, muons and ID (thanks to Paul!) made to work yesterday
- Next big step is 13.0.30:

13.0.30

- Deadline for new tags **this Friday** (8th September)
- Release to be built on **18th September**
- 13.0.30 to be used for Trigger Performance section of Detector Paper, and Final Dress Rehearsal -- **needs to be well validated!**
- We're asking all slice representatives to check test results **EVERY DAY** (exception for cosmics which don't run in production)
 - All remaining problems must be found fast
 - **No new bugs introduced!!!**
 - List of **ERRORs** and **WARNINGs** to ignore needs to be compiled this week and sent to Software Validation coordinator

- tapm_val tests belong to trigger: notice new test names
- Most still look like they failed, but are mostly ok (see next slide)
- Notice Modern vs OldConfig

Test Name	Test Type	Result	Count	Link	Name
TriggerTest_TestConfiguration#MuonSliceAthenaStandaloneOldConfigBStmp	tapm_val	✗	2	link	alessand
TriggerTest_TestConfiguration#TauSliceAthenaStandaloneOldConfigBStmp	tapm_val	✗	2	link	strom at
TriggerTest_TestConfiguration#JetSliceAthenaStandaloneOldConfigBStmp	tapm_val	✗	2	link	cpotter a
TriggerTest_TestConfiguration#METSliceAthenaStandaloneOldConfigBStmp	tapm_val	✗	2	link	Allen.Mir
TriggerTest_TestConfiguration#BphysicsSliceAthenaStandaloneOldConfigBStmp	tapm_val	✗	2	link	j.kirk at
TriggerTest_TestConfiguration#BjetSliceAthenaStandaloneOldConfigBStmp	tapm_val	✗	2	link	Andrea.C
TriggerTest_TestConfiguration#AthenaAllAlgsTrueModernRDO_memTrack	tapm_val	✗	224	link	N/A
TriggerTest_TestConfiguration#AthenaAllAlgsTrueOldConfigRDO_memTrack	tapm_val	✗	224	link	N/A
TriggerTest_TestConfiguration#AthenaModernRDO_memTrack	tapm_val	✗	96	link	N/A
TriggerTest_TestConfiguration#AthenaOldConfigRDO_memTrack	tapm_val	✗	64	link	N/A
TriggerTest_TestConfiguration#ElectronSliceAthenaModernRDO_memTrack	tapm_val	✗	104	link	N/A
TriggerTest_TestConfiguration#ElectronSliceAthenaOldConfigRDO_memTrack	tapm_val	✗	64	link	N/A
RecExTrigTest_TestConfiguration#RecExTrigTest_aaaempty	reintegration	✓	0	link	rousseau
RecExTrigTest_TestConfiguration#RecExTrigTest_esdtocbnt	reintegration	✓	0	link	rousseau
RecExTrigTest_TestConfiguration#RecExTrigTest_esdtoesdtocbnt	reintegration	✓	0	link	rousseau
RecExTrigTest_TestConfiguration#RecExTrigTest_rdotordo	reintegration	✓	0	link	rousseau
TriggerTest_TestConfiguration#pureNewSteering	tapm_steering	✓	0	link	N/A
TriggerTest_TestConfiguration#METSliceAthenaOldConfigRDO	tapm_val	✓	0	link	Allen.Mir
TriggerTest_TestConfiguration#CosmicsSliceAthenaOldConfigRDO	tapm_val	✓	0	link	jamie.bc
TriggerTest_TestConfiguration#atn_xml_summary_table	tapm_index	✓	0	link	N/A

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Summary table

- Simon implemented summary table created by last test:extremely useful (saves ~1 hour of checking every day!...)
- rootComp.cxx from Frank added to compare expert-monitoring.root with reeferences

Trigger ATN test results summary

Nightly test: VAL32BS4TrgOpt <= rel_0 >

Test name	Test script	Athena exit	Error Msgs	link			
AthenaAllAlgsTrueModernRDO	OK	OK	FAIL	FAIL	MISMATCH [ps]	100	dir
AthenaAllAlgsTrueModernRDO_memTrack	OK	TIMEOUT	FAIL	FAIL	N/A	224	dir
AthenaAllAlgsTrueOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
AthenaAllAlgsTrueOldConfigRDO_memTrack	OK	TIMEOUT	FAIL	FAIL	N/A	224	dir
AthenaModernRDO	OK	TIMEOUT	FAIL	FAIL	MATCH	224	dir
AthenaModernRDO_memTrack	OK	OK	FAIL	FAIL	N/A	64	dir
AthenaModernRDOtoBS	OK	OK	FAIL	FAIL	N/A	64	dir
AthenaOldConfigRDO	OK	TIMEOUT	FAIL	FAIL	N/A	64	dir
AthenaOldConfigRDO_memTrack	OK	OK	OK	FAIL	N/A	64	dir
AthenaOldConfigRDOtoBS	OK	OK	OK	FAIL	N/A	64	dir
AthenaStandaloneModernBS	OK	FAIL	FAIL	FAIL	N/A	104	dir
AthenaStandaloneModernBStmp	OK	FAIL	FAIL	FAIL	N/A	104	dir
AthenaStandaloneModernRDO	OK	FAIL	FAIL	FAIL	N/A	104	dir
AthenaStandaloneOldConfigBS	OK	FAIL	FAIL	FAIL	N/A	104	dir
AthenaStandaloneOldConfigBStmp	OK	FAIL	FAIL	FAIL	N/A	104	dir
AthenaStandaloneOldConfigRDO	OK	FAIL	FAIL	FAIL	N/A	104	dir
BjetSliceAthenaModernRDO	OK	OK	FAIL	FAIL	MISMATCH [ps]	100	dir
BjetSliceAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
BphysicsSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
BphysicsSliceAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir

Athena exit code: OK, Timeout, Fail

Standalone tests

Trigger ATN test results summary - Mozilla Firefox

http://atlas-computing.web.cern.ch/atlas-computing/links/buildDirectory/nightlies/val/AtlasTrigger/rel_L1NICOS_anc/NICOS_anc...

BphysicsSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
BphysicsSliceAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A		
CaloAthenaModernRDO	OK	FAIL	FAIL	FAIL	N/A		
CaloAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A		
CosmicsSliceAthenaModernRDO	OK	FAIL	FAIL	FAIL	MATCH		
CosmicsSliceAthenaOldConfigRDO	OK	OK	OK	OK	N/A	0	dir
ElectronSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
ElectronSliceAthenaModernRDO_memTrack	OK	FAIL	FAIL	FAIL	N/A	104	dir
ElectronSliceAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
ElectronSliceAthenaOldConfigRDO_memTrack	OK	OK	OK	FAIL	N/A	64	dir
IDAthenaModernRDO	OK	FAIL	FAIL	FAIL	N/A	104	dir
IDAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
JetSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
JetSliceAthenaOldConfigRDO	OK	OK	OK	OK	MISMATCH [ps]	4	dir
METSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
METSliceAthenaOldConfigRDO	OK	OK	OK	OK	N/A	0	dir
MuonAthenaModernRDO	OK	FAIL	FAIL	FAIL	N/A	104	dir
MuonAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
MuonSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
MuonSliceAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
PhotonSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
PhotonSliceAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
TauSliceAthenaModernRDO	OK	OK	OK	FAIL	MISMATCH [ps]	68	dir
TauSliceAthenaOldConfigRDO	OK	OK	OK	FAIL	N/A	64	dir
pureNewSteering	OK	OK	OK	OK	N/A	0	dir

Done

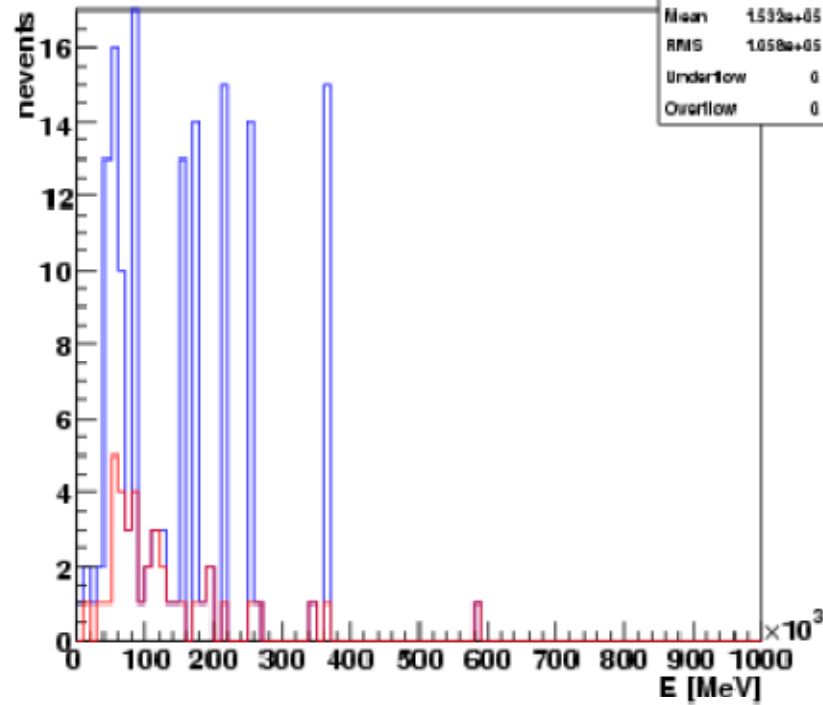
Firefox (2) Terminal emacs@pcc Tue Sep 4 12:01 AM

Annotations:

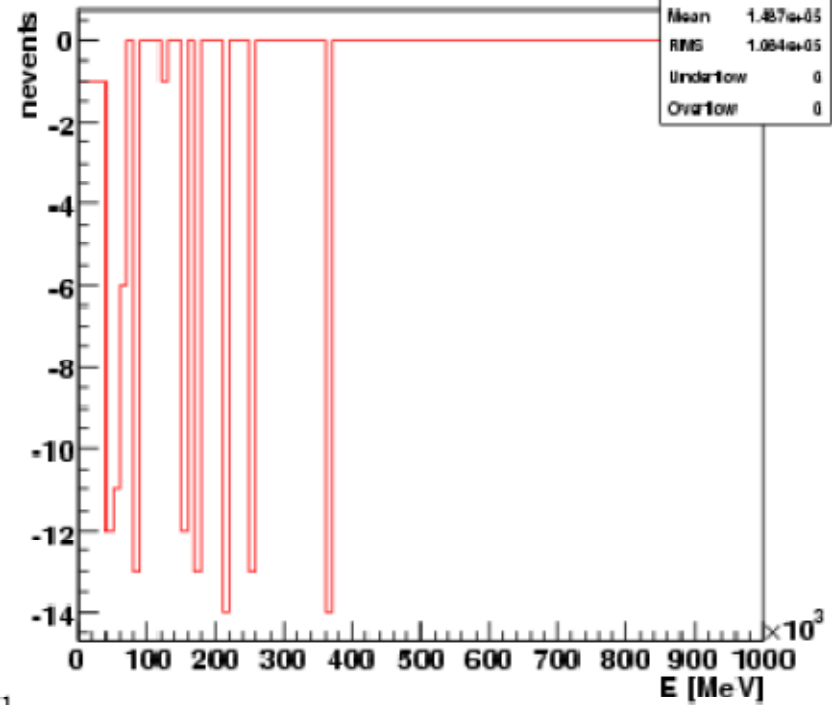
- Link to collected ERROR messages
- Link to REGTEST differences
- rootComp results
- Directories with log files, expert-monitoring.root, etc

T2CaloJet_Jet/E

L2CaloJet FEX E

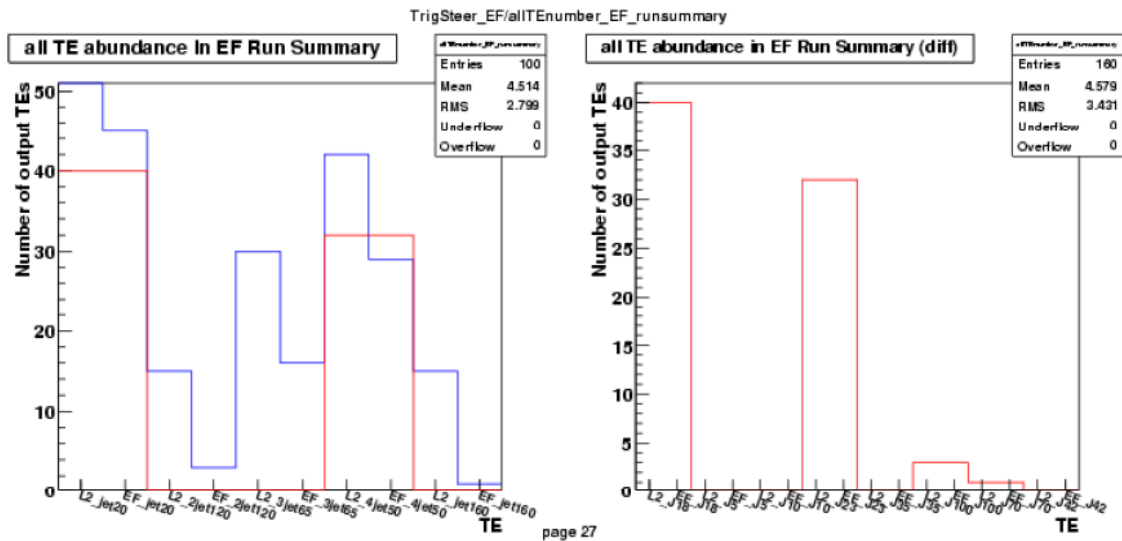
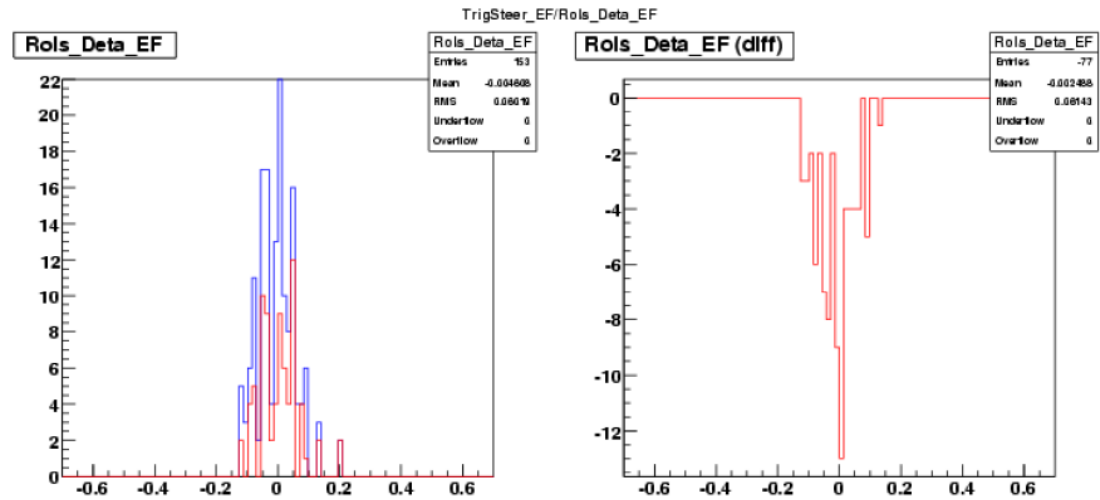


L2CaloJet FEX E (diff)



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- Example histograms from yesterday's VAL made by ATN and with rootComp
- References in [/afs/cern.ch/atlas/project/trigger/pesa-sw/validation/references/ATN/latest](http://afs.cern.ch/atlas/project/trigger/pesa-sw/validation/references/ATN/latest)



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Memory leaks

Frank's summary page at: <http://atlas-project-trigger-release-validation.web.cern.ch/atlas-project-trigger-release-validation/www/perfmonrtt>

Numbers from yesterday :
~40 kB/ev for combined test (AthenaModernRDO)
~200 kB/ev for Modern RDO→BS
~5-30 kB/ev for slice tests

New RTT tests running 20 times on same 50 events to separate mem.leaks from caching

Summary of Trigger PerfMon RTT results

The tuple in each cell is the result of a linear fit to the vmem/event graph, i.e. the first number is the initial virtual memory consumption (in MB) and the second number the memory increase per event (in kB). Click on the links for more options.

Platform: i686-slc4-gcc34-opt

Test		rel_0	rel_1	rel_2	rel_3	rel_4	rel_5	rel_6
testAthenaModemRDO	bugfix	?	1137M.45.2k	?	?	?	?	?
	val	1137M.39.5k	x	?	?	?	?	1133M.40.7k
	dev	x	x	?	?	?	?	x
testAthenaModemRDO_memTrack	bugfix	?	x	?	?	?	?	?
	val	x	x	?	?	?	?	x
	dev	x	x	?	?	?	?	x
testAthenaModemRDOtoBS	bugfix	1023M.200.3k	x	?	1041M.330.6k	x	1022M.182.8k	1022M.192.3k
	val	1023M.188.8k	x	x	1022M.179.7k	x	x	1019M.187.6k
	dev	x	x	x	x	?	x	x
testAthenaOldConfigRDO	bugfix	x	x	?	x	x	x	1087M.61.6k
	val	1086M.62.5k	x	x	1083M.61.2k	x	895M.1.7k	1085M.60.9k
	dev	x	x	x	x	?	x	x
testAthenaRDO	bugfix	?	?	x	?	?	?	?
	val	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	dev	?	?	?	?	x	?	?
testAthenaRDOtoBS	bugfix	?	?	928M.48.7k	?	?	?	?
	val	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	dev	?	?	?	?	x	?	?
testBjetSliceAthenaModemRDO	bugfix	x	x	?	x	x	x	x
	val	x	x	x	x	x	x	x
	dev	x	x	x	x	?	x	x
testBjetSliceAthenaRDO	bugfix	?	?	810M.23.7k	?	?	?	?
	val	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	dev	?	?	?	?	x	?	?
	bugfix	x	981M.22.3k	?	x	x	x	x

To-do list...

- Tests in `TrigAnalysisTest` to run from ESD, write ESD/AOD, etc
 - Migrate to xml test configuration
 - Migrate to Modern config
- Tests running from `xml` trigger configuration
- Be **VERY careful** with checks until 13.0.30 is out and then clean up test infrastructure
- Add `rootComp` to all slice tests (old & new config)
- Tests with `AthenaMT/PT` (Frank)
- Find solution for producing big files in RTT

Validation Workshop

- Half-day Trigger Validation Workshop
 - Room 513-1-23; 12:30 to 17:30; phone conf.available
 - Will have a validation tools tutorial
 - Do we need more time? Can be arranged.
- Several issues come to mind:
 - After ~6-7 months we're in a reasonably stable working mode. Check where we are and where we want to go in the next few months
 - How can validation be made easier?
 - Need more people spending less time on day-to-day validation: test check rota?
 - How does this activity become a stable ATLAS structure?
 - OTSMOU estimates and service tasks
 - Online integration validation essential before data taking

And last but not least...

- Olya is now convenor of the tau slice
- She'll continue to work on validation until 13.0.30 is out
- Many thanks for the huge work she's done for validation!!!