

DA Testing for Tier3

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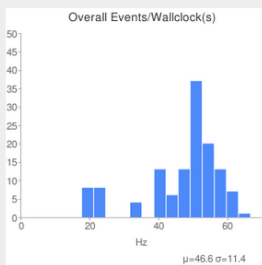
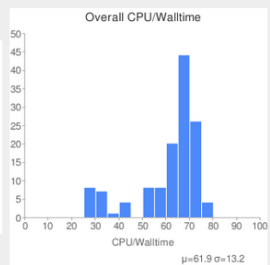
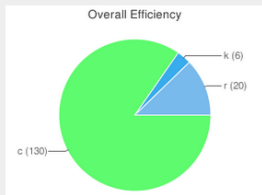
ATLAS Software and Computing Week

- Background: Tier 1&2 sites are frequently tested with regular analysis tests using HammerCloud
- Two main use cases:
 - Stress tests are useful to *get first-hand experience* with high loads of user jobs
 - E.g. during site commissioning or to evaluate different site storage/network configurations
 - Functional tests are useful to *continually validate* the functionality of the site

running 1307 voatl49.cern.ch ES_PANDA_US 2010-04-20 15:26:00 2010-04-21 18:45:00 156

Input type: PANDA
 Output DS: user09.JohannesElmsheuser.ganga.T0.muon1566.20100415.1.[sitename]
 Input DS Patterns: /data/gangarobot/hammercloud/inputfiles/tier3pfns/
 Ganga Job Template: /data/gangarobot/hammercloud/inputfiles/muon1566/muon1566_panda_tier3.tpl
 Athena User Area: /data/gangarobot/hammercloud/inputfiles/muon1566/MuonTriggerAnalysis_1566.tar.gz
 Athena Option file: /data/gangarobot/hammercloud/inputfiles/muon1566/MuonTriggerAnalysis_1566.py

View Test Directory (for debugging)



Sites										
Site	Submitted jobs	Running jobs	Completed jobs	Failed jobs	Num datasets per bulk	Min queue depth	Max running jobs	Resubmit enabled	Resubmit force	View jobs
ANALY_ANLASC	0	0	0	0	50	10	10	no	no	--
ANALY_IFIC	0	20	130	0	50	15	10	yes	no	--
Total	0	20	130	0						--

```
[atlldm07] /data/gangarobot/hammercloud/inputfiles/tier3pfns > ls
ANALY_ANLASC ANALY_IFIC
[atlldm07] /data/gangarobot/hammercloud/inputfiles/tier3pfns > ls -l
total 88
-rw-r--r-- 1 gangarbt cg 846 Apr 20 15:20 ANALY_ANLASC
-rw-r--r-- 1 gangarbt cg 78000 Apr 16 14:12 ANALY_IFIC
[atlldm07] /data/gangarobot/hammercloud/inputfiles/tier3pfns > cat ANALY_ANLASC
root://ascvnxrdr.hep.anl.gov//xrootd/mc08.105597.Pythia_Zprime_tt3000.recon.AOD.
e435_s462_s520_r808_tid091860/AOD.091860.000003.pool.root.1
root://ascvnxrdr.hep.anl.gov//xrootd/mc08.105597.Pythia_Zprime_tt3000.recon.AOD.
e435_s462_s520_r808_tid091860/AOD.091860.000120.pool.root.1
root://ascvnxrdr.hep.anl.gov//xrootd/mc08.105597.Pythia_Zprime_tt3000.recon.AOD.
e435_s462_s520_r808_tid091860/AOD.091860.000159.pool.root.1
root://ascvnxrdr.hep.anl.gov//xrootd/mc08.105597.Pythia_Zprime_tt3000.recon.AOD.
e435_s462_s520_r808_tid091860/AOD.091860.000045.pool.root.1
root://ascvnxrdr.hep.anl.gov//xrootd/mc08.105597.Pythia_Zprime_tt3000.recon.AOD.
e435_s462_s520_r808_tid091860/AOD.091860.000025.pool.root.1
root://ascvnxrdr.hep.anl.gov//xrootd/mc08.105597.Pythia_Zprime_tt3000.recon.AOD.
e435_s462_s520_r808_tid091860/AOD.091860.000146.pool.root.1
[atlldm07] /data/gangarobot/hammercloud/inputfiles/tier3pfns >
```

To run these tests, your site needs to be remotely accessible via:

- a T3 Panda queue (ANALY_yoursite)
- a grid CE (CREAM or Glite)

- HammerCloud can determine the performance of your Tier 3 under stress
- To run a test you need to:
 - Download some (10's of GB's) data to your site which is useful to our test analysis
 - Send us a list of physical-file-names for this data
- Then arrange a test time and HC will submit the jobs.

- HC has a set of tests that use UserAnalysis, MuonAnalysis, and D3PDMaker

Id ▲	Category	Active	Description	Period	Lifetime	Inputtype
68	functional	⊖	UA 16.0.2 LCG DQ2 Local	6	1	DQ2_LOCAL
67	functional	✔	UA 16.0.2 Panda	6	1	PANDA
66	stress	✔	Muon 16.0.2.3 PANDA default data-access	0	0	PANDA
65	stress	✔	AODToPhysicsD3PD 15.9.0 Panda	0	0	PANDA
64	stress	⊖	lcg-utils test	0	0	PANDA
63	functional	✔	UA 16.0.1 Panda rc_test --accessmode=direct	6	1	DIRECT
62	functional	✔	UA 16.0.1 Panda rc_test	6	1	PANDA
61	functional	✔	UA 15.6.9 Panda rc_test	6	1	PANDA
60	stress	✔	AODToPhysicsD3PD 15.9.0 LCG FILE_STAGER	0	0	FILE_STAGER
59	stress	✔	AODToEgammaD3PD 15.9.0 LCG FILE_STAGER	0	0	FILE_STAGER
58	stress	✔	AODToEgammaD3PD-TreeCache 15.9.0 LCG FILE_STAGER	0	0	FILE_STAGER

Functional Testing

- HammerCloud currently runs ~10 functional tests on all Tier 1/2 sites for continuous validation.
- Some of these tests are used to automatically exclude (set to brokeroff) the sites from Panda DA

state	id	host	template	start time (CET)	end time (CET)	clouds	sites	subm jobs	run jobs	comp jobs	fail jobs	j
running	10002039	voatlas73	D3PDMaker 15.6.12 Panda Frontier/Squid test - sample dataset	2010-11-30 21:32:00	2010-12-01 21:32:00	US, DE_PANDA, FR_PANDA, 9 more...	ANALY_AGLT2, ANALY_ALBERTA-WG1, ANALY_ANLASC, 84 more...	15	43	785	110	9
running	10002038	voatlas73	UA 15.6.9 LCG DQ2 Filestager	2010-11-30 21:25:00	2010-12-01 21:25:00	IT, DE, UK, 7 more...	AUSTRALIA-ATLAS_MCDISK, BEIJING-LCG2_MCDISK, CA-ALBERTA-WESTGRID-T2_MCDISK, 72 more...	34	39	1028	148	1
running	10002037	voatlas73	D3PDMaker 15.6.12 LCG Frontier/Squid test - sample dataset	2010-11-30 20:50:00	2010-12-01 20:50:00	ES, DE, NL, 7 more...	AUSTRALIA-ATLAS_DATADISK, BEIJING-LCG2_DATADISK, CA-ALBERTA-WESTGRID-T2_DATADISK, 79 more...	13	13	282	289	5
running	10002036	voatlas73	UA 15.6.9 LCG DQ2 Local	2010-11-30 19:51:00	2010-12-01 19:51:00	IT, DE, UK, 7 more...	AUSTRALIA-ATLAS_MCDISK, BEIJING-LCG2_MCDISK, CA-ALBERTA-WESTGRID-T2_MCDISK, 75 more...	30	41	1108	205	1
running	10002034	voatlas49	UA 16.0.2 Panda	2010-11-30 16:02:00	2010-12-01 16:02:00	US, DE_PANDA, FR_PANDA, 9 more...	ANALY_AGLT2, ANALY_ALBERTA-WG1, ANALY_ANLASC, 85 more...	11	43	1629	71	1
running	10002033	voatlas49	UA 15.6.9 Panda	2010-11-30 13:06:00	2010-12-01 13:06:00	US, DE_PANDA, FR_PANDA, 9 more...	ANALY_AGLT2, ANALY_ALBERTA-WG1, ANALY_ANLASC, 85 more...	9	41	2038	194	2
running	10002032	voatlas73	UA 15.6.9 Panda Filestager	2010-11-30 13:02:00	2010-12-01 13:02:00	US, DE_PANDA, FR_PANDA, 9 more...	ANALY_ALBERTA-WG1, ANALY_ANLASC, ANALY_ARC, 78 more...	22	49	2349	66	2
running	10002031	voatlas49	UA 16.0.1 Panda rc_test -- accessmode=direct	2010-11-30 12:53:00	2010-12-01 12:53:00	US, DE_PANDA, FR_PANDA, 9 more...	ANALY_AGLT2, ANALY_ALBERTA-WG1, ANALY_ANLASC, 85 more...	71	16	370	182	6
running	10002030	voatlas49	UA 15.6.9 Panda rc_test	2010-11-30 12:02:00	2010-12-01 12:02:00	US, DE_PANDA, FR_PANDA, 9 more...	ANALY_AGLT2, ANALY_ALBERTA-WG1, ANALY_ANLASC, 85 more...	59	13	497	4	5
running	10002029	voatlas49	UA 16.0.1 Panda rc_test	2010-11-30 11:37:00	2010-12-01 11:37:00	US, DE_PANDA, FR_PANDA, 9 more...	ANALY_AGLT2, ANALY_ALBERTA-WG1, ANALY_ANLASC, 85 more...	45	12	427	29	5

- **We could start a continuous test of a few Tier 3 sites if there is interest.**

- HC auto-exclusion can be disabled on a site-by-site basis. Panda Tier 3's are currently disabled.

ANALY_AGLT2	ANALY_INFN-T1
ANALY_ANLASC	ANALY_MWT2_X
ANALY_ARC	ANALY_NIKHEF-ELPROD
ANALY_BNL_ATLAS_1	ANALY_RAL_XROOTD
ANALY_BNL_GLEXEC	ANALY_SARA
ANALY_BRANDEIS	ANALY_SLAC
ANALY_DUKE	ANALY_SLAC_LMEM
ANALY_FZK	ANALY_TRIUMF
ANALY_FZK_CP	ANALY_Tufts_ATLAS_Tier3
ANALY_GLASGOW_GLEXEC	ANALY_UTA_T3
ANALY_HU_ATLAS_Tier2	

- Panda Tier 3's are normally brokeroff, so auto-exclusion should not apply.

- HammerCloud is available for Tier 3 testing
 - The Tier3 plugin is used actively in DE for NFS4.1 testing
- We could create a Tier 3 Functional Test that would run continuously against interested sites.