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Shift Merging

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Pre-Merged Situation

- Software Validation shifts - monitor Tier0 bug tracker, monitor Tier0ChainTests, monitor FullChainTests
- Reconstruction expert shifts - monitored many RTT reconstruction tests, monitored compilation in nightly builds, monitored ATN tests, monitored reconstruction bug reports
- Same reco bug should appear in TCT, FCT and RTT - hence would be independently investigated by two shifters.
- One merged shift thus reduces duplication and overall effort - overall now we use less OTP credits.

Merged Shifts

- Started with two shifts - A and B
- A: 16.0.X.Y(-VAL) + Tier0 Bug Reports
- B: 16.X.0(-VAL)
- Both monitor compilation, ATN tests, RTT Reco Tests, TCT, Reco step of FCT, bug reports.
- Recently added Shift C to monitor problems restricted to debug and 64 bit builds.

Further Synergies

- Other sub-detector specific shifts also exist - problems with nightly builds important for them and central shifters
- Setup two new mailing lists to be used to report any major problem with a nightly spotted by any software shifter to inform all other software shifters. Also any developer interested can subscribe/contribute to these
- atlas-sw-prodcache-nightly-validation@cern.ch,
- atlas-sw-dev-nightly-validation@cern.ch
- Detailed discussion of the cause is not supposed to happen on these lists - we have savannah for that.
- e.g. muon detector shifter finds some specialised muon RTT fails (software shifters only check full reco RTT) and can flag this - then the other shifters know if reco fails in the same muon algorithm they do not need to duplicate the effort, but concentrate on their other shift tasks.

JiveXML	✓ 13 ✗ 2	✓ 15	✓ 15	✓ 15	✓ 14 ⚠ 1	✓ 15	✓ 15
LArG4Validation	✓ 3	✓ 3	✓ 3	✓ 3	✓ 3	✓ 3	✓ 3
MboyPerformance	✗ 7	✗ 7	✓ 5 ✗ 2	✓ 1 ✗ 2 ⚡ 4	✓ 5 ✗ 1 ⚠ 1	✓ 6 ⚠ 1	✓ 6 ⚠ 1
MooPerformance	✗ 1 ⚡ 9	✗ 1 ⚡ 9	✓ 8 ✗ 2	✓ 7 ✗ 2 ⚡ 1	✓ 8 ✗ 1 ⚠ 1	✓ 9 ✗ 1	✓ 9 ✗ 1
MuGirPerformance	✗ 5	✗ 5	✓ 5	✓ 4 ⚡ 1	✓ 5	✓ 5	✓ 5
MuonAlignExample	✗ 1	✗ 1	✗ 1	✗ 1	✗ 1	✗ 1	✗ 1
MuonGeomRTT	✓ 4 ✗ 1 ⚡ 1	✓ 4 ✗ 1 ⚡ 1	✓ 4 ✗ 2	✓ 4 ✗ 2	✓ 5 ✗ 1	✓ 5 ✗ 1	✓ 5 ✗ 1
MuonRecConfigTests	✗ 13 ⚡ 11	✓ 12 ⚡ 12	✓ 24	✓ 24	✓ 24	✓ 24	✓ 24
MuonRecRTT	✓ 5 ⚡ 13	✓ 4 ⚡ 14	✓ 9 ✗ 9 ⚠ 1	✓ 9 ✗ 9 ⚡ 1	✓ 10 ✗ 9	✓ 10 ✗ 9	✓ 10 ✗ 9
OverlayMonitoringRTT	✗ 5 ⚡ 4	✗ 5 ⚡ 4	✗ 5 ⚡ 4	✗ 5 ⚡ 4	✗ 5 ⚡ 4	✗ 5 ⚡ 4	✗ 5 ⚡ 4
PileupRTT	✓ 3 ✗ 1 ⚡ 7	✓ 2 ⚡ 7	✓ 5 ✗ 6 ⚠ 3	✓ 6 ✗ 5 ⚡ 3	✓ 6 ✗ 8	✓ 6 ✗ 8	✓ 6 ✗ 8
PrimaryDPDMaker	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1
RecExAnaTest	✗ 1 ⚡ 13	✗ 14	✓ 10 ✗ 4 ⚠ 20	✓ 9 ✗ 7 ⚡ 8	✓ 24 ✗ 10	✓ 24 ✗ 8 ⚡ 2	✓ 24 ✗ 9 ⚡ 1
RecExRecoTest	✓ 10 ⚡ 8	✓ 8 ⚡ 10	✓ 18	✓ 17 ✗ 1	✓ 18	✓ 18	✓ 18
RecExTrigTest	✗ 2 ⚡ 3	✓ 1 ⚡ 2	✓ 3	✓ 2 ⚡ 1	✓ 4 ✗ 1	✓ 4 ✗ 1	✓ 4 ✗ 1
RecJobTransformTests	✓ 1 ✗ 9 ⚡ 26	✓ 1 ✗ 5 ⚡ 30	✓ 24 ✗ 11 ⚠ 1	✓ 20 ✗ 11 ⚡ 5	✓ 11 ✗ 25	✓ 11 ✗ 25	✓ 11 ✗ 25
RecPerfTests	✓ 7 ⚡ 51	✓ 7 ⚡ 51	✓ 51 ✗ 5 ⚠ 2	✓ 48 ⚡ 10	✓ 39 ✗ 19	✓ 40 ✗ 18	✓ 40 ✗ 18
SCT_DigitizationRTT	✓ 1	✓ 1	✗ 1	✗ 1	✓ 1	✓ 1	✓ 1
SUSYValidation	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1
SimuJobTransforms	✓ 13	✓ 13	✓ 13	✓ 13	✓ 13	✓ 13	✓ 13
TauValidation	✗ 4 ⚡ 3	✗ 7	✓ 2 ✗ 4 ⚠ 4	✗ 4 ⚡ 4	✓ 5 ✗ 1 ⚠ 4	✓ 6 ✗ 4	✓ 7 ✗ 3
TestAtIfast	—	—	✓ 2 ✗ 154 ⚠ 12	✓ 2 ✗ 154 ⚡ 6	—	—	—
TileRecEx	✓ 3 ⚡ 4	✓ 7	✓ 7	✓ 7	✓ 7	✓ 7	✓ 7
TopInputsD3DPDMaker	✗ 2	✗ 2	✗ 2	✗ 2	✗ 2	✗ 2	✗ 2
TrigAnalysisTest	✓ 7 ✗ 1 ⚡ 2	✓ 5 ✗ 1 ⚡ 4	✓ 8 ✗ 1 ⚡ 1	✓ 8 ✗ 1 ⚡ 1	✓ 8 ✗ 1 ⚡ 1	✓ 9 ✗ 1	✓ 9 ✗ 1
TrigBjetValidation	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1
TrigInDetValidation	✓ 2 ✗ 3 ⚡ 9	✓ 2 ✗ 3 ⚡ 9	✓ 4 ✗ 9 ⚠ 1	✓ 3 ✗ 8 ⚡ 3	✓ 11 ✗ 3	✓ 11 ✗ 3	✓ 10 ✗ 4
TrigMenuValidation	✗ 1 ⚡ 1	✗ 1 ⚡ 1	✗ 2	✗ 1 ⚡ 1	✗ 2	✗ 2	✗ 2
TriggerTest	✓ 1 ✗ 8 ⚡ 18	✗ 4 ⚡ 23	✓ 13 ✗ 10 ⚡ 1 ⚠ 3	✓ 11 ✗ 10 ⚡ 6	✓ 19 ✗ 7 ⚡ 1	✓ 19 ✗ 7 ⚡ 1	✓ 19 ✗ 7 ⚡ 1
ValgrindRTTJobs	✓ 3 ⚡ 33 ⚠ 1	✓ 4 ⚡ 33	✓ 35 ⚠ 2	✓ 31 ⚡ 6	✓ 35 ⚠ 2	✓ 33 ⚠ 4	✓ 27 ⚠ 10
egammaPerformance	✗ 7	✗ 7	✗ 7	✗ 7	✗ 7	✗ 7	✗ 7
egammaValidation	✓ 2	✓ 2	✓ 2	✓ 2	✓ 2	✓ 2	✓ 2
pyAMI	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1	✓ 1

Bug Reports

- Had comments that developers find it hard to know how to reproduce bugs, especially run on grid.
- Turns out we already have twiki explaining exactly how to do this!
- So shifters asked to always reference this twiki in bug reports.

Conclusions

- New merged shift structure has been setup
- Have run this successfully for several months now - shift instructions greatly improved thanks to lots of feedback from shifters, experts etc (ongoing process of course)
- Investigating adding of adding fourth shifter to ensure new bugs can be reproduced easily - needs to be more experienced than average shifter.