

EM package mods

Working draft of CCB action -

EngineeringModel changes

1) AnalysisNtuple v2r2p4: one line of code changed

JIRA url: <http://jira.slac.stanford.edu/browse/GRINF-21>

Incorrect initialization of highest triggered layer. I forgot to change this when the layer numbering got turned around, leading to a failure to properly fill GltTower and GltLayer in the ntuple. These quantities are correctly set in the new tag.

2) TkrUtil v3r3p3: one line of code added

Private communication with A. Borgland; this item got fixed before the JIRA was issued.

Bug in calculation of m_towerType. Was set to -1 for all towers.

Now is correctly set to 0-4 depending on the number of exposed faces of the tower. The relevant line of code was inadvertently dropped during a cleanup a few months ago. The only effect currently is that GltType is now correctly set in the ntuple.

3.) Rootlo v14r9

JIRA url: <http://jira.slac.stanford.edu/browse/CAL-7>

Modification to reading and writing reconstruction data, so that 4 range ALLRANGE) mode may have less than 4 readouts

Private communication with Zach. Fewtrell - the latest version of CalRecon reconstructs at most one energy range, but retains the ability to handle up to four.

Have tested this on an example 4-Range LDF file, and processing continued without crashing.

4.) CalXtalResponse v0r2p7

Communication in CALSOFT mailing list:

<http://www-glast.stanford.edu/protected/mail/calsoft/0510.html>

<http://www-glast.stanford.edu/protected/mail/calsoft/0516.html>

<http://www-glast.stanford.edu/protected/mail/calsoft/0520.html>

Separate flight and muon idealMode.xml calibration files are now provided.

Default jobOptions to flight gain with muon. defaultOptions.txt is prettier & has lots of commenting describing different jobOptions.

superseded by CalXtalResponse v0r2p8

Identical to v0r2p7 except that verbose jobOptions descriptions have been moved to customOptions.txt. This reduces logfile verbosity.

5.) CalRecon v5r22p5em1

JIRA url: <http://jira.slac.stanford.edu/browse/CAL-7>

Fixes problem running MC in TKR-only mode - required modifying CalRecAlg. CalRecon algorithms now exit gracefully if there is no CalDigi data.

The modifications basically involved checking for CalDigis on the TDS and if they are not found, making sure to gracefully exit CAL recon processing on this event, rather than causing the Gaudi job to terminate.

doxygen comments for anything CalResponse related should now be acceptable

6.) calibGenCAL v3r4p4

Replace use of xml package to the new xmlBase package - a minor change primarily for clean up.

p3 - added outlier removal in histograms for ciFit. this gets rid of possible muon coincidence hits during charge injection which can make nasty calibration points.

p4 - xml -> xmlBase update. some documentation updates

7.) Added a use of FRED v0r098p1 IExternal

Private email between Richard Dubois, Navid Golpayegani, Anders Borgland, Joanne Bogart and Heather Kelly

IExternal/Fred was not being included in the source code tarball resulting in many CMT warnings - not fatal, but troublesome. Navid pointed out that the EngineeringModel requirements file needs to specify the version of IExternal/Fred so that it would be checked out of CVS properly and included in the tarball.

8) LdfReader v1r11

Completely generalizes reading the RunId from the FITS header - checks all keywords in the primary header for the string 'RunId', and retrieves its value.

This addresses JIRA ROOT-10: <http://jira.slac.stanford.edu/browse/ROOT-10>

svac changes

1. change EngineeringModelRoot from v1r3p7 to v1r3p11.
Main change is to fix bugs in GltWord

<http://jira.slac.stanford.edu/browse/SVAC-2>

and TriggerDiagnostic info <http://jira.slac.stanford.edu/browse/SVAC-1>

For GltWord, Toby changed definition to include GEM word, the EngineeringModelRoot code went out of sync. For triggerDiagnostic info, meaning of diagnostic flag in event summary word was misunderstood.

2. change TestReport from v3r2p4 to v3r2p6 Main change is also to fix the bug in GltWord

<http://jira.slac.stanford.edu/browse/SVAC-2>

pipeline changes

setup:

new code tag v3r1p2

many changes to svacPISetup.cshrc to enable pipeline changes below change to dbSetup.cshrc, I suspect this has to do with PIT-1

digitization:

new task version v3r1p2

change LSF queue to address SVAC-3

new code tag v3r1p1

change LSF queue to address SVAC-3 <http://jira.slac.stanford.edu/browse/SVAC-3>

digiReport:

new task version v3r1p2

change to TestReport v3r2p6 to address SVAC-2 and SVAC-11

<http://jira.slac.stanford.edu/browse/SVAC-11>

recon:

new task version v3r1p2

address SVAC-7

new code tag v3r1p1

address SVAC-7

<http://jira.slac.stanford.edu/browse/SVAC-7>

reconReport:

new task version v3r1p2

change to TestReport v3r2p6 to address SVAC-2 and SVAC-11

new code tag v3r1p1 <http://jira.slac.stanford.edu/browse/SVAC-12>

svacTuple:

new task version v3r1p2

change LSF queue to address SVAC-4

change to EngineeringModelRoot v1r3p11 to address SVAC-1 and SVAC-2 new code tag v3r1p1

change LSF queue to address SVAC-4

<http://jira.slac.stanford.edu/browse/SVAC-4>

apps:

TestReport:

new tag v3r2p6

address SVAC-2 and SVAC-11

EngineeringModelRoot:

new tag v1r3p11

address SVAC-1 and SVAC-2

Code Versions

Engineering Model (sim/recon) [v4r060302p8](#) *** changed ***

System Tests for this [version](#)

System Tests [Result](#)

FRED version

[0.98](#)

Pipeline tag

v1r0p2

GRITS tag (web browsing and task configuration)

glast-ground v0r3p4
grits-gino-web version 0.55 (v0r5p5)
grits-gino version 0.95 (v0r9p5)
grits-gino-xml version 1.42 (v1r4p2)
grits-common version 0.32 (v0r3p2)

online/svac (task defs, scripts):

pipeline tasks:

online: v2r0
updateELogDB: v3r1p1
configReport: v3r1p1
digitization: v3r1p2 ****changed****
digiReport: v3r1p2 ****changed****
recon: v3r1p2 ****changed****
reconReport: v3r1p2 ****changed****
svacTuple: v3r1p2 ****changed****

pipeline code:

updateELogDB v3r1p0
configReport v3r1p0
digitization v3r1p1 ****changed****
digiReport v3r1p0
recon v3r1p1 ****changed****
reconReport v3r1p1 ****changed****
svacTuple v3r1p1 ****changed****
setup v3r1p2 ****changed****
lib v3r1p1 ****changed****
svaconline v3r1p0

Apps that run in pipeline:

eLog: v2r2
ConfigTables: v3r1p3
TestReport: v3r2p6 (digi & recon reports) ****changed****
EngineeringModelRoot: v1r3p11 (SVAC tuple) ****changed****

Approved: 1 April - Eduardo, Steve, Richard (Bill not available to respond)