M5/M6 re-processing at Tier-1s

L. March

IFIC – Valencia

M5 re-processing

AtlasPoint1 – 13.0.35.1

DB Tag = COMCOND-002-00

Det Drescr Tag = ATLAS-CommNF-04-00-00

DBRelease = NONE (default DBRelease installed in 13.0.35)

Detector list = LAr, Tile, Muons, LVL1C

comcond.000002.lar_conditions.recon.pool.v0000

RecCommJobTransforms-00-00-11

Output: ESD, ESDFilt, NTUP, HIST

M5 re-processing steps at Tier-1s (I)

Install AtlasPoint1 – 13.0.35.1 at Tier-1s after testing (installed by an ATLAS grid software manager system)

Tier-1 re-processing working group (and contact list):
https://twiki.cern.ch/twiki/bin/view/Atlas/T1Reprocessing

Cretate PoolFileCatalog.xml (PFC) with LAr cond. data: comcond.000002.lar_conditions.recon.pool.v0000

This PFC is different for each Tier-1, since you need to specify local data access protocol and “path”

ATHENA error categories: modify atlas_error_ignore.db file

```
# Ignore all ERRORs (emergency hack)
ALL,\S+, ERROR .*
ALL,\S+, FATAL .*
```

M5 re-processing steps at Tier-1s (II)

ATHENA error categories:

Py:Athena INFO leaving with code 0: "successful run"

INFO: read 111 error categories from file /afs/cern.ch/atlas/software/releases/13.0.35/AtlasOffline/13.0.35/InstallArea/share/atlas_error_categories.db

INFO: read 57 error patterns from file /afs/cern.ch/atlas/software/releases/13.0.35/AtlasOffline/13.0.35/InstallArea/share/atlas_error_patterns.db

INFO: read 102 ignore patterns from file /afs/cern.ch/atlas/software/releases/13.0.35/AtlasOffline/13.0.35/InstallArea/share/atlas_error_ignore.db

Py:csc_cosmics INFO Scanning athena logfile csc_cosmics.log assuming ATLAS release ALL,13.0.35 ...

Py:csc_cosmics INFO Athena initialise()...

Py:csc_cosmics INFO Athena execute()...

Py:csc_cosmics INFO Athena finalise()...

Py:csc_cosmics INFO Done scanning 6292 lines of file csc_cosmics.log. Summary:

Py:csc_cosmics INFO Ignored : 2

Py:csc_cosmics INFO Warnings: 1166

Py:csc_cosmics INFO Errors : 8 Py:csc_cosmics INFO Fatals : 1

Py:csc_cosmics INFO JobTransform completed with error code 69999 (exit code 99)

M5 re-processing production at Tier-1s

BNL suffered large errors due to LAr cond. data access.

I have created a web page with M5 re-processed data. It's under construction (I have defined these tasks to be re-processed):

https://twiki.cern.ch/twiki/bin/view/Atlas/M5Tier1ReprocessingData

Tasks assigned to BNL and TRIUMF has finished. Other tasks assigned to other Tier-1s are in running status. They are taking too much time. I need to have a look at it.

Complaints about the M5 File Name Convention at Tier-1s.

Tier-0 convention is preferred. Example:

NTUP.020980._00026.root.3 → M5 at Tier-1s

M5.0029566.Default.L1TT-b11100001.CBNT.v13003013.part0002.lumi0000._0001.1

M6 re-processing

AtlasPoint1 – 13.2.0.19

DB Tag = COMCOND-004-01

Det Drescr Tag = ATLAS-CommNF-05-00-00

DBRelease = DBRelease-4.9.1.tar.gz

Detector list = InDet, LAr, Tile, Muons, LVL1C, HLT

comcond.00000[1,2,4].lar_conditions.recon.pool.v0000

RecCommJobTransforms-00-00-17

Output: ESD, ESDFilt, NTUP, HIST
+ PerfMonNtup, CalibNtup, TAG

M6 re-processing – new JobTransforms features

RecCommJobTransforms-00-00-17

Output: ESD, ESDFilt, NTUP, HIST

+ PerfMonNtup, CalibNtup, TAG

Skeleton_Commission.py as similar as possible to RecExCommission_Tier0.py

ntuple.pmon.gz can be switch on/off

Rename CalibrationNtuple.root when job is finished OK

TAG ouput file

get_files –jo strawstatus_M6.txt → adpated into csc_cosmics_trf.py

M6 re-processing steps at Tier-1s

Install AtlasPoint1 – 13.2.0.19 at Tier-1s after testing
(installed by an ATLAS grid software manager system)

First install release 13.2.0, then AtlasPoint1-13.2.0.19 patched
Currently, most of Tier-1s has 13.2.0, but not all.

Create PoolFileCatalog.xml (PFC) with LAr cond. data:
comcond.00000[1,2,4].lar_conditions.recon.pool.v0000

PFC is different for each Tier-1 and number of LAr cond. data has increased.

M6 re-processing tests

A first test has been performed at PIC: only 23 events re-processed (low statistics). Unfortunately, PIC is shutdown and I couldn't repeat the test with larger statistics. Working (in progress) on other tests at other Tier-1s. This first test analyzed by Maria Moreno.

Now, after M5 problem experiences with LAr cond. data access, it's under testing a big zip file with cond. data copied to WN (Worker Node). An automatic way to create the PFC is under testing also.

ATHENA error categories. Let's see if there is another way to avoid these errors. Look at JobTransforms?

Conclusions

The first M5 re-processed data are coming

Problem experience to perform M5 at Tier-1s:

1) LAr cond. data access
2) modify athena release to avoid output errors
3) Tier-1 contacts – need faster actions

Release and JobTransforms ready for M6 re-processing.
Most of Tier-1s have this release already installed

First tests at Tier-1s coming soon (small test done: 23 evts.)

Testing other ways to avoid the problems with M5

Active manpower – Rod Walker and myself