

After learning to build Athena in Shell 1 Building Athena

I built ROOT with my changes in Shell 2,

going back to Shell 1, I have my modified athena selected using

```
source ../build/x86_64-centos7-gcc11-opt/setup.sh
```

Again, in shell 1, running each of the following export commands I have a version of my own ROOT and my own Athena

```
[akraus@aiaatlasbm004 build]$ cd ..
[akraus@aiaatlasbm004 athenaWork]$ ls -l
total 16
drwxr-xr-x. 38 akraus zp 4096 Jul  4 21:48 athena
drwxr-xr-x.  6 akraus zp 4096 Jul 22 22:18 build
drwxr-xr-x.  2 akraus zp   6 Jul  6 20:00 install
-rw-r--r--.  1 akraus zp 1115 Jul 22 22:09 package_filters.txt
drwxr-xr-x.  2 akraus zp 4096 Jul 22 22:04 run
[akraus@aiaatlasbm004 athenaWork]$ export ROOTSYS=/data/akraus/projectS/install/
[akraus@aiaatlasbm004 athenaWork]$ export LD_LIBRARY_PATH=$ROOTSYS/lib:$LD_LIBRARY_PATH
[akraus@aiaatlasbm004 athenaWork]$ export PYTHONPATH=$ROOTSYS/lib:$PYTHONPATH
[akraus@aiaatlasbm004 athenaWork]$ export PATH=$ROOTSYS/bin:$PATH
[akraus@aiaatlasbm004 athenaWork]$ which root
/data/akraus/projectS/install/bin/root
[akraus@aiaatlasbm004 athenaWork]$ which athena
/cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/2023-07-21T2101/Athena/24.0.8/InstallArea/x86_64-centos7-gcc11-opt/bin/athena
[akraus@aiaatlasbm004 athenaWork]$ |
```

next is to see if I can run the derivation job Phase 5 - Running a derivation job on modified Athena

5:04 PM: It's running

```
drwxr-xr-x. 6 akraus zp 4096 Jul 22 22:18 build
drwxr-xr-x. 2 akraus zp 6 Jul 6 20:00 install
-rw-r--r--. 1 akraus zp 1115 Jul 22 22:09 package_filters.txt
drwxr-xr-x. 2 akraus zp 4096 Jul 22 22:04 run
[kraus@aiatlasbm004 athenaWork]$ export ROOTSYS=/data/akraus/project5/install/
[kraus@aiatlasbm004 athenaWork]$ export LD_LIBRARY_PATH=$ROOTSYS/Lib:$LD_LIBRARY_PATH
[kraus@aiatlasbm004 athenaWork]$ export PYTHONPATH=$ROOTSYS/Lib:$PYTHONPATH
[kraus@aiatlasbm004 athenaWork]$ export PATH=$ROOTSYS/bin:$PATH
[kraus@aiatlasbm004 athenaWork]$ cd /data/akraus/project5/install/bin/root
[kraus@aiatlasbm004 athenaWork]$ which athena
/cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/2023-07-21T2101/Athena/24.0.8/InstallArea/x86_64-centos7-gcc11-opt/bin/athena
[kraus@aiatlasbm004 athenaWork]$ Derivation_tf.py \
> --CA 'True' \
> --maxEvents '10' \
> --inputAODFile '/eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAOD/data22/myAOD.pool.root' \
> --outputDAODFile '/pool.root' \
> --formats 'PHYS'
PyJobTransforms.<module> 2023-07-22 23:02:26,183 INFO logging set in /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/2023-07-21T2101/Athena/24.0.8/InstallArea/x
86_64-centos7-gcc11-opt/share/Derivation_tf.py
Py:PyJobTransforms INFO logging set in /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/2023-07-21T2101/Athena/24.0.8/InstallArea/x86_64-cento
7-gcc11-opt/share/Derivation_tf.py
Py:PyJobTransforms INFO This is /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/2023-07-21T2101/Athena/24.0.8/InstallArea/x86_64-centos7-gcc11-opt/sha
re/Derivation_tf.py
PyJobTransforms.transform.parseCmdLineArgs 2023-07-22 23:02:26,190 INFO Transform command line was: '/cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/2023-07-21T
2101/Athena/24.0.8/InstallArea/x86_64-centos7-gcc11-opt/share/Derivation_tf.py' '--CA' 'True' '--maxEvents' '10' '--inputAODFile' '/eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/A
ODtoDAOD/data22/myAOD.pool.root' '--outputDAODFile' '/pool.root' '--formats' 'PHYS'
Py:PyJobTransforms.transform INFO Transform command line was: '/cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/2023-07-21T2101/Athena/24.0.8/InstallArea/x86_
64-centos7-gcc11-opt/share/Derivation_tf.py' '--CA' 'True' '--maxEvents' '10' '--inputAODFile' '/eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAOD/data22/myAOD.pool.root' '--
outputDAODFile' '/pool.root' '--formats' 'PHYS'
PyJobTransforms.transform.execute 2023-07-22 23:02:26,435 INFO Resolving execution graph
Py:PyJobTransforms.transform INFO Resolving execution graph
PyJobTransforms.trfGraph.__init__ 2023-07-22 23:02:26,436 INFO Transform graph input data: ['AOD']; output data ['DAOD']
Py:PyJobTransforms.trfGraph INFO Transform graph input data: ['AOD']; output data ['DAOD']
PyJobTransforms.transform.execute 2023-07-22 23:02:26,437 INFO Starting to trace execution path
Py:PyJobTransforms.transform INFO Starting to trace execution path
PyJobTransforms.transform.execute 2023-07-22 23:02:26,437 INFO Execution path found with 1 step(s): Derivation
Py:PyJobTransforms.transform INFO Execution path found with 1 step(s): Derivation
PyJobTransforms.transform.validateInFiles 2023-07-22 23:02:26,437 INFO Validating input files
Py:PyJobTransforms.transform INFO Validating input files
PyJobTransforms.trfValidation.performStandardFileValidation 2023-07-22 23:02:26,437 INFO Starting legacy (serial) file validation
Py:PyJobTransforms.trfValidation INFO Starting legacy (serial) file validation
PyJobTransforms.trfValidation.performStandardFileValidation 2023-07-22 23:02:26,437 INFO Validating data type AOD...
Py:PyJobTransforms.trfValidation INFO Validating data type AOD...
PyJobTransforms.trfValidation.performStandardFileValidation 2023-07-22 23:02:26,437 INFO Validating file /eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAOD/data22/myAOD.pool
.root...
Py:PyJobTransforms.trfValidation INFO Validating file /eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAOD/data22/myAOD.pool.root...
PyJobTransforms.trfValidation.performStandardFileValidation 2023-07-22 23:02:26,437 INFO /eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAOD/data22/myAOD.pool.root: Testing e
vent count...
Py:PyJobTransforms.trfValidation INFO /eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAOD/data22/myAOD.pool.root: Testing event count...
PyJobTransforms.trfArgClasses._readMetadata 2023-07-22 23:02:26,437 INFO Metadata generator called to obtain nentries for ('/eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAO
D/data22/myAOD.pool.root')
Py:PyJobTransforms.trfArgClasses INFO Metadata generator called to obtain nentries for ('/eos/atlas/atlasccrnergroudisk/proj-spot/spot-job-inputs/AODtoDAOD/data22/myAOD.pool.root',)
```

5:08PM

```
#36 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpy [Frame 158: 2 fps]
ect_Call_Prepend+0xe0} [0x7f7bb17649f0]
#37 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x11d
79a) [0x7f7bb17c979a]
#38 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x115
c9a) [0x7f7bb17c1c9a]
#39 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyObject
ect_MakeTpCall+0x88) [0x7f7bb17645a8]
#40 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x60bc) [0x7f7bb1718bf0]
#41 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x19b
78e) [0x7f7bb184778e]
#42 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyFun
ction_Vectorcall+0xa1) [0x7f7bb1764331]
#43 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x5661) [0x7f7bb17181a1]
#44 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x19b
78e) [0x7f7bb184778e]
#45 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyFun
ction_Vectorcall+0xa1) [0x7f7bb1764331]
#46 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0xbb1
28) [0x7f7bb1767128]
#47 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x5661) [0x7f7bb17181a1]
#48 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x65b
ab) [0x7f7bb1711bab]
#49 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0xbb1
28) [0x7f7bb1767128]
#50 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x56d3) [0x7f7bb1718213]
#51 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x65b
ab) [0x7f7bb1711bab]
#52 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x6c30) [0x7f7bb17197f0]
#53 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x19b
78e) [0x7f7bb184778e]
#54 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyFun
ction_Vectorcall+0xa1) [0x7f7bb1764331]
#55 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0xbb1
28) [0x7f7bb1767128]
#56 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x5661) [0x7f7bb17181a1]
#57 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x19b
78e) [0x7f7bb184778e]
#58 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyFun
ction_Vectorcall+0xa1) [0x7f7bb1764331]
#59 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x6c30) [0x7f7bb17197f0]
#60 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(+0x19b
78e) [0x7f7bb184778e]
#61 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyFun
ction_Vectorcall+0xa1) [0x7f7bb1764331]
#62 /cvmfs/atlas-nightlies.cern.ch/repo/sw/main_Athena_x86_64-centos7-gcc11-opt/sw/lcg/releases/Python/3.9.12-9a1bc/x86_64-centos7-gcc11-opt/bin/./lib/libpython3.9.so.1.0(_PyEva
l_EvalFrameDefault+0x5661) [0x7f7bb17181a1]
*** Break *** abort
[4] 0:akraus@aiatlasbm004:/data/akraus/modified_athena_build/athenaWork* 1:akraus@aiatlasbm004:/data/akraus/project5/install- "aiatlasbm004.cern.ch" 23:07 22-Jul-23
```

and it crashed

this time, running

lsetup "asetup Athena,main,latest"

and rerunning the derivation job

5:15PM showing much more progress

Some differences

```
16:20:55 AthenaPoolCnvSvc INFO PerfStats -----
16:20:55 AthenaPoolCnvSvc INFO PerfStats Timing Measurements for AthenaPoolCnvSvc
16:20:55 AthenaPoolCnvSvc INFO PerfStats -----
16:20:55 AthenaPoolCnvSvc INFO PerfStats | fRep_ALL | 94 ms |
16:20:55 AthenaPoolCnvSvc INFO PerfStats | commitOutput | 80 ms |
16:20:55 AthenaPoolCnvSvc INFO PerfStats | cObjR_ALL | 2311 ms |
16:20:55 AthenaPoolCnvSvc INFO PerfStats | cRep_ALL | 118 ms |
16:20:55 AthenaPoolCnvSvc INFO PerfStats | cObj_ALL | 2839 ms |
16:20:55 AthenaPoolCnvSvc INFO PerfStats | cRepR_ALL | 39 ms |
16:20:55 AthenaPoolCnvSvc INFO PerfStats -----
```

```
16:20:55 AthenaPoolCnvSvc INFO PerfStats -----
16:20:55 *****Chrono***** INFO *****
16:20:55 *****Chrono***** INFO The Final CPU consumption ( Chrono ) Table (ordered)
16:20:55 *****Chrono***** INFO *****
16:20:55 InDetCommonKern... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
16:20:55 DFCommonMuonsKe... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
16:20:55 BadBatmanAugmen... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
16:20:55 JetCommon_TauAu... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
16:20:55 DistanceInTrain... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
16:20:55 InDetCommonKern... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
16:20:55 TauJets_MuonRM_... INFO Time User : Tot= 10 [ms] Ave/Min/Max= 1(+ 3)/ 0/ 10 [ms] #= 10
16:20:55 DFCommonMuonsKe... INFO Time User : Tot= 10 [ms] Ave/Min/Max= 1(+ 3)/ 0/ 10 [ms] #= 10
16:20:55 TauJets_TauIDDe... INFO Time User : Tot= 50 [ms] Ave/Min/Max= 5(+ 12)/ 0/ 40 [ms] #= 10
16:20:55 DFCommonHSDcor... INFO Time User : Tot= 50 [ms] Ave/Min/Max= 5(+ 15)/ 0/ 50 [ms] #= 10
16:20:55 InDetCommonKern... INFO Time User : Tot= 70 [ms] Ave/Min/Max= 7(+ 9)/ 0/ 30 [ms] #= 10
16:20:55 EGammaCommonKernel INFO Time User : Tot= 80 [ms] Ave/Min/Max= 8(+ 14.7)/ 0/ 50 [ms] #= 10
16:20:55 PHYKernel INFO Time User : Tot= 1.22 [s] Ave/Min/Max= 0.122(+ 0.359)/ 0/ 1.2 [s] #= 10
16:20:55 ChronoStatSvc INFO Time User : Tot= 27.7 [s] #= 1
16:20:55 *****Chrono***** INFO *****
16:20:55 ChronoStatSvc.f... INFO Service finalized successfully
16:20:55 FPEAuditor INFO FPE summary for this job
16:20:55 FPEAuditor INFO FPE OVERFLOws : 0
16:20:55 FPEAuditor INFO FPE INVALIDs : 0
16:20:55 FPEAuditor INFO FPE DIVBYZER0s : 0
16:20:55 PerfMonHTSvc INFO PerfMonHTSvc
```

```

16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO PerfMonMTSvc Report
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO IMPORTANT : PLEASE NOTE THAT THIS SERVICE IS CURRENTLY IN R&D PHASE.
16:20:56 PerfMonMTSvc INFO FOR FURTHER INFORMATION/QUERIES PLEASE GET IN TOUCH WITH THE SPOT TEAM.
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO *** Full set of information can also be found in: perfmonmt_Derivation.json
16:20:56 PerfMonMTSvc INFO *** In order to make plots using the results run the following commands:
16:20:56 PerfMonMTSvc INFO *** $ perfmonmt-plotter.py -i perfmonmt_Derivation.json
16:20:56 PerfMonMTSvc INFO *** In order to print tables using the results run the following commands:
16:20:56 PerfMonMTSvc INFO *** $ perfmonmt-printer.py -i perfmonmt_Derivation.json
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO Event Level Monitoring
16:20:56 PerfMonMTSvc INFO (Only the first 10 and the last measurements are explicitly printed)
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO Event CPU [s] Wall [s] Vmem [kB] Rss [kB] Pss [kB] Swap [kB]
16:20:56 PerfMonMTSvc INFO -----
16:20:56 PerfMonMTSvc INFO 1 45.90 54.21 3008220 2100764 2097563 0
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO Snapshots Summary
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO Step dCPU [s] dWall [s] <CPU> dVmem [kB] dRss [kB] dPss [kB] dSwap [kB]
16:20:56 PerfMonMTSvc INFO -----
16:20:56 PerfMonMTSvc INFO Configure 27.18 30.196 0.90 1586532 1182532 1179475 0
16:20:56 PerfMonMTSvc INFO Initialize 17.54 20.591 0.85 1249472 838932 838789 0
16:20:56 PerfMonMTSvc INFO FirstEvent 11.65 14.338 0.81 1070300 946152 946147 0
16:20:56 PerfMonMTSvc INFO Execute 4.26 4.268 1.00 776 26268 26268 0
16:20:56 PerfMonMTSvc INFO Finalize 0.41 0.417 0.98 0 308 308 0
16:20:56 PerfMonMTSvc INFO *****
16:20:56 PerfMonMTSvc INFO Number of events processed: 10
16:20:56 PerfMonMTSvc INFO CPU usage per event [ms]: 1591
16:20:56 PerfMonMTSvc INFO Events per second: 0.537
16:20:56 PerfMonMTSvc INFO CPU utilization efficiency [%]: 87
16:20:56 PerfMonMTSvc INFO *****
16:20:56 PerfMonMTSvc INFO Max Vmem: 2.87 GB
16:20:56 PerfMonMTSvc INFO Max Rss: 2.00 GB
16:20:56 PerfMonMTSvc INFO Max Pss: 2.00 GB
16:20:56 PerfMonMTSvc INFO Max Swap: 0.00 KB
16:20:56 PerfMonMTSvc INFO *****
16:20:56 PerfMonMTSvc INFO Leak estimate per event Vmem: 0.00 KB
16:20:56 PerfMonMTSvc INFO Leak estimate per event Pss: 0.00 KB
16:20:56 PerfMonMTSvc INFO >> Estimated using the last 0 measurements from the Event Level Monitoring
16:20:56 PerfMonMTSvc INFO >> Events prior to the first 25 are omitted...
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO System Information
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO CPU Model: AMD EPYC 7302 16-Core Processor 512 KB
16:20:56 PerfMonMTSvc INFO Number of Available Cores: 64
16:20:56 PerfMonMTSvc INFO Total Memory: 251.67 GB
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO Environment Information
16:20:56 PerfMonMTSvc INFO =====
16:20:56 PerfMonMTSvc INFO Malloc Library: libtcmalloc_minimal.so
16:20:56 PerfMonMTSvc INFO Math Library: libimf.so
16:20:56 PerfMonMTSvc INFO =====
16:20:56 ApplicationMgr INFO Application Manager Finalized successfully
16:20:56 ApplicationMgr INFO Application Manager Terminated successfully
16:20:58 leaving with code 0: "successful run"

```

After modification

```

23:16:37 AthnDictLoaderSvc INFO in finalize...
23:16:37 AthenaPoolCnvSvc INFO PerfStats -----
23:16:37 AthenaPoolCnvSvc INFO PerfStats Timing Measurements for AthenaPoolCnvSvc
23:16:37 AthenaPoolCnvSvc INFO PerfStats -----
23:16:37 AthenaPoolCnvSvc INFO PerfStats | fRep_ALL | 123 ms |
23:16:37 AthenaPoolCnvSvc INFO PerfStats | commitOutput | 81 ms |
23:16:37 AthenaPoolCnvSvc INFO PerfStats | cObjR_ALL | 2129 ms |
23:16:37 AthenaPoolCnvSvc INFO PerfStats | cRep_ALL | 83 ms |
23:16:37 AthenaPoolCnvSvc INFO PerfStats | cObj_ALL | 2511 ms |
23:16:37 AthenaPoolCnvSvc INFO PerfStats | cRepR_ALL | 40 ms |
23:16:37 AthenaPoolCnvSvc INFO PerfStats -----

```



```

23:16:37 *****Chrono***** INFO *****
23:16:37 *****Chrono***** INFO The Final CPU consumption ( Chrono ) Table (ordered)
23:16:37 *****Chrono***** INFO *****
23:16:37 InDetCommonKern... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
23:16:37 DFCommonMuonsKe... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
23:16:37 JetCommon_TauAu... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
23:16:37 BadBatmanAugmen... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
23:16:37 DistanceInTrain... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
23:16:37 InDetCommonKern... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
23:16:37 TauJets_MuonRM_... INFO Time User : Tot= 0 [us] Ave/Min/Max= 0(+ 0)/ 0/ 0 [us] #= 10
23:16:37 DFCommonMuonsKe... INFO Time User : Tot= 20 [ms] Ave/Min/Max= 2(+ 6)/ 0/ 20 [ms] #= 10
23:16:37 TauJets_TauDDDe... INFO Time User : Tot= 40 [ms] Ave/Min/Max= 4(+ 9.17)/ 0/ 30 [ms] #= 10
23:16:37 DFCommonHSDDecor... INFO Time User : Tot= 50 [ms] Ave/Min/Max= 5(+ 15)/ 0/ 50 [ms] #= 10
23:16:37 InDetCommonKern... INFO Time User : Tot= 70 [ms] Ave/Min/Max= 7(+ 6.4)/ 0/ 20 [ms] #= 10
23:16:37 EGammaCommonKernel INFO Time User : Tot= 100 [ms] Ave/Min/Max= 10(+ 17.3)/ 0/ 60 [ms] #= 10
23:16:37 PHYKernel INFO Time User : Tot= 1.26 [s] Ave/Min/Max= 0.126(+ 0.378)/ 0/ 1.26 [s] #= 10
23:16:37 ChronoStatSvc INFO Time User : Tot= 28.4 [s] #= 1
23:16:37 *****Chrono***** INFO *****
23:16:37 ChronoStatSvc.f... INFO Service finalized successfully
23:16:37 FPEAuditor INFO FPE summary for this job
23:16:37 FPEAuditor INFO FPE OVERFLOWS : 0
23:16:37 FPEAuditor INFO FPE INVALIDS : 0
23:16:37 FPEAuditor INFO FPE DTVBX7590c : 0

```

```

23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO PerfMonMTSvc Report
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO IMPORTANT : PLEASE NOTE THAT THIS SERVICE IS CURRENTLY IN R&D PHASE.
23:16:37 PerfMonMTSvc INFO FOR FURTHER INFORMATION/QUERIES PLEASE GET IN TOUCH WITH THE SPOT TEAM.
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO *** Full set of information can also be found in: perfmonmt_Derivation.json
23:16:37 PerfMonMTSvc INFO *** In order to make plots using the results run the following commands:
23:16:37 PerfMonMTSvc INFO *** $ perfmonmt-plotter.py -i perfmonmt_Derivation.json
23:16:37 PerfMonMTSvc INFO *** In order to print tables using the results run the following commands:
23:16:37 PerfMonMTSvc INFO *** $ perfmonmt-printer.py -i perfmonmt_Derivation.json
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Event Level Monitoring
23:16:37 PerfMonMTSvc INFO (Only the first 10 and the last measurements are explicitly printed)
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Event CPU [s] Wall [s] Vmem [kB] Rss [kB] Pss [kB] Swap [kB]
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO 1 46.01 52.57 3007960 2089992 2086813 0
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Snapshots Summary
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Step dCPU [s] dWall [s] <CPU> dVmem [kB] dRss [kB] dPss [kB] dSwap [kB]
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Configure 27.39 30.399 0.90 1587652 1183484 1180449 0
23:16:37 PerfMonMTSvc INFO Initialize 17.44 18.766 0.93 1252108 831168 831024 0
23:16:37 PerfMonMTSvc INFO FirstEvent 11.84 14.534 0.81 1061492 936872 936872 0
23:16:37 PerfMonMTSvc INFO Execute 4.29 4.293 1.00 784 25244 25244 0
23:16:37 PerfMonMTSvc INFO Finalize 0.39 0.394 0.99 0 1720 1720 0
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Number of events processed: 10
23:16:37 PerfMonMTSvc INFO CPU usage per event [ms]: 1613
23:16:37 PerfMonMTSvc INFO Events per second: 0.531
23:16:37 PerfMonMTSvc INFO CPU utilization efficiency [%]: 89
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Max Vmem: 2.87 GB
23:16:37 PerfMonMTSvc INFO Max Rss: 1.99 GB
23:16:37 PerfMonMTSvc INFO Max Pss: 1.99 GB
23:16:37 PerfMonMTSvc INFO Max Swap: 0.00 KB
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Leak estimate per event Vmem: 0.00 KB
23:16:37 PerfMonMTSvc INFO Leak estimate per event Pss: 0.00 KB
23:16:37 PerfMonMTSvc INFO >> Estimated using the last 0 measurements from the Event Level Monitoring
23:16:37 PerfMonMTSvc INFO >> Events prior to the first 25 are omitted...
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO System Information
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO CPU Model: AMD EPYC 7302 16-Core Processor 512 KB
23:16:37 PerfMonMTSvc INFO Number of Available Cores: 64
23:16:37 PerfMonMTSvc INFO Total Memory: 251.67 GB
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Environment Information
23:16:37 PerfMonMTSvc INFO =====
23:16:37 PerfMonMTSvc INFO Malloc Library: libtcmalloc_minimal.so
23:16:37 PerfMonMTSvc INFO Math Library: libimf.so
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23:16:37 ApplicationMgr INFO Application Manager Finalized successfully
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```