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EmilysHowTo

Commissioning

Shift work

MDT DAQ

View JTAG pc's:

```
> rdesktop -a 16 -g 1280x1024 pcatlmdtmdm6 &
```

MDT Control Panel:

```
> /det/muon/MDT/MDTControlPanel/runmdtcp
```

PVSS

```
> /scratch/pvss/bin/viewmdtfsm &
```

To set up a run, there should already be an alias in shell for

```
> standalone
```

or do something like:

```
> source /det/muon/standalone/setup-02-00-03.sh  
> setup_daq -p part_MDT_Ec -d /det/muon/standalone/databases/tdaq-02-00-03/muon/partitions/part
```

Login to pc-mu-eb-01(02,03) to compile code

```
> export $CMTCONFIG=i686slc4-gcc34-dbg  
> standalone
```

To check out code:

```
> svn co $SVNROOT/packageName/trunk packageName
```

Scheme editor:

```
> oks_scheme_editor <file.xml>
```

Changing thresholds (from Alberto):

- in DCS, go into any of the JTAG panels
- click on tabular view, and get the list of BEEs (for example, you can write BEE* in the search window, and then filter chambers matching string)
- double-click or right-click on the name of any BEE chamber
- in the window that opens up, select the CSM-JTAG label, in the bottom list
- right-click in (almost any) position of the panel that will appear (that panel will look strikingly similar to the usual chamber JTAG panel), you should get a small panel where you can enable the calibration initialization and the AMT threshold
- click on the box to enable the threshold change, write in the new threshold, close the panel
- REINITIALIZE all the damn BEEs. The change in any of them will affect all chambers connected to the same pcatlmdtmdm machine
- change the threshold back to its initial value (= 0, and unchecked box) and REINITIALIZE all the

damn BEEs.

To see MROD log files:

- `ssh sbc-mdt-rcc-eca-01` (or ba, bc, ecc)
- `cd /logs/mrod` (listed by run)

If MDTs go busy:

- check that the busy is not from a ROD before attempting this
- ask DAQ shifter not to remove the MDT crate (press "no")
- hold the trigger (if not already in hold)
- Log on the sbc on the crate which triggered the busy
- `source /det/muon/standalone/setup-02_00_03.sh`
- `test_tim_qpll_reset -b d000000`
- tell daq shifter the hold trigger can be removed

Distributed Analysis/Batch jobs

Castor

List datasets (or use nsls):

- `rfdirc /castor/cern.ch/grid/atlas/tzero/prod1/perm/data09_900GeV/[stream]/[run number]`

To work off of castor, this must be set up first:

- `export STAGE_SVCLASS=atlcal`

If it still says "Permission Denied", try this:

- `xrdcp root://castoratlas//castor/cern.ch/....`

Grid

To submit a grid job:

```
> source setup.sh -tag=AtlasProduction,15.3.0.2
> export PATHENA_GRID_SETUP_SH=/afs/cern.ch/project/gd/LCG-share/current/etc/profile.d/grid_env
> source /afs/cern.ch/atlas/offline/external/GRID/DA/panda-client/latest/etc/panda/panda_setup.
> pathena jobO_1.py jobO_2.py jobO_3.py [--inDS inputDataset] --outDS outputDataset
```

To check jobs:

```
> pbook
>>> show()
>>> retry(5)
>>> kill(5)
```

dq2

To setup:

```
> source /afs/cern.ch/atlas/offline/external/GRID/ddm/DQ2Clients/setup.sh
> voms-proxy-init -voms atlas
```

- `dq2-ls -f` list all files in data set
- `dq2-ls -r` list replicas of files
- `dq2-get -f FILENAME1,!FILENAME2,...!FILENAME_N DATASETNAME` get those files in data set

Create PoolFileCatalog:

- `dq2-ls -L CERN-PROD_TZERO -P -R "srm://srm-atlas.cern.ch^rfio:" [dataset]`

Batch jobs

On tier2:

```
> qsub -q analysis queScript_DYmumu_Atlfast.sh
```

To check jobs:

```
> qstat -u ethompso
```

Other useful stuff:

```
> nohup athena.py -s -c 'EvtMax=10' jobOptios.py >& test.log &
```

ROOT stuff

To create macros with class MyClass from an ntuple:

```
> root -l file.ntuple.root  
[0] CollectionTree->MakeSelector("MyClass")
```

To run macros from MakeSelector:

```
> root -l file.ntuple.root  
[0] CollectionTree->Process("MyClass.C+")
```

or to link together many ntuples:

```
> root -l  
[0] TChain *a_tree = new TChain("CollectionTree")  
[1] a_tree->Add("ntuples/*.root")  
[2] a_tree->Process("MyClass.C+")
```

Software

Set up new work area

- `mkdir [release]`
- `cp a requirements file to the release`
- `source /afs/cern.ch/sw/contrib/CMT/v1r20p20090520/mgr/setup.sh`
- `cmt config`

For a list of all tags to be used in the requirements file see AtlasLogin

SVN

Creating a new package in my own SVN area:

- `svn import . $SVNUSR/ethompso/JetCommonAnalysis/trunk -m "initial import"`
- **Delete the current directory**
- `svn co $SVNUSR/ethompso/JetCommonAnalysis/trunk JetCommonAnalysis`
- `svn mkdir $SVNUSR/ethompso/JetCommonAnalysis/tags`
- `svn cp $SVNUSR/ethompso/JetCommonAnalysis/trunk $SVNUSR/ethompso/JetCommonAnalysis/tags/JetCommonAnalysis-00-00-01 -m "first import"`

Checking out code from an institute:

- `svn co $SVNGRP/Institutes/UMass/EWAnalysis/trunk EWAnalysis`

The last parameter is the local name of the directory with the package. Similarly, to get a tag, you use:

- `svn co $SVNGRP/Institutes/UMass/EWAnalysis/tags/EWAnalysis-00-00-02 EWAnalysis`

TWiki: SVN: Modifying and checking in code

To check in a new version of a package, go to the package directory

- `cd MuonSpectrometer/MuonReconstruction/MuonRecTools/MuonTrackSummaryHelperTool`
- edit the ChangeLog and add your change + the version tag

`pico ChangeLog`

- perform a final check of your changes by looking at the diff (important!! you WILL find problems from time to time like remaining cout's)

`svn diff`

- now check in the package

`svn ci -m "MESSAGE HERE"`

- if it says this:

```
[ethompso@lxatlasumass2]% svn ci -m "implement MuonTrackSummary dump methods"
Sending          ChangeLog
Sending          src/MuonTrackSummaryHelperTool.cxx
Transmitting file data ..svn: Commit failed (details follow):
```


svn: Commit blocked by pre-commit hook (exit code 1) with output:

```
ATLAS POLICY: Unable to modify /MuonSpectrometer/MuonReconstruction/MuonRecTools/  
                MuonTrackSummaryHelperTool/tags/MuonTrackSummaryHelperTool-00-12-01 pat
```

It is within a '/tags' directory and tags are read-only.

Possible reasons:

- [1] Maybe you forget to switch the context (svn switch) after check out of a tag?
- [2] This tag already exists in repository and you have tried to create it once again?

Contact Atlas librarian ('atlas-svn-managers@cern.ch') for details.

- then do this:

```
svn switch  
$SVNROOT/MuonSpectrometer/MuonReconstruction/MuonRecTools/MuonTrackSummaryHelperTool/trunk
```

- and tag it (replace the path with the absolute path of your package)

```
svn cp .  
$SVNROOT/MuonSpectrometer/MuonReconstruction/MuonRecTools/MuonTrackSummaryHelperTool/tags/MuonTra  
-m "MESSAGE HERE"
```

Transformations

- `trf_ls` lists transforms

Detailed track summary dump

```
athena.py -s -c 'EvtMax=-1; PoolESDInput=["/afs/cern.ch/user/e/emoyses/public/ReferenceESD/ESD_15.  
PoolESDOutput="copy_ESD.15.0.1.pool.root" ;DumpFileName="ReadOut150001" '../share/readTopOptions.p
```

```
dev_area/15.5.3/Tracking/TrkEventCnv/TrkEventTPCnv/src/TrkTrackSummary/
```

VP1

To run, add at bottom of job options:

```
from AthenaCommon.AlgSequence import AlgSequence  
topSequence = AlgSequence()  
  
from VP1Algs.VP1AlgsConf import VP1Alg  
topSequence += VP1Alg()
```

Instructions for selecting events and viewing in vp1 (from Niels):

setup athena with `source setup.sh -tag=15.5.3.3,AtlasTier0,slc4,gcc34,32,opt,runtime`

then run:

```
athena ESDAnalysis_combined.py >&! out_filter_541MinBias.txt &
```

add your events to:

```
events541_MinBias.list
```

Other

Atlas Run Query:

<http://atlas-runquery.cern.ch/query.py?q=find+run+141000%2B+and+events+1000%2B+%2F+show+t+and+lhc+and+>

Check disk usage:

```
du -h --max-depth 1 /home
```

-- EmilyThompson - 2009-08-28

This topic: [Main](#) > [EmilysHowTo](#)

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