

**Analysis Update**

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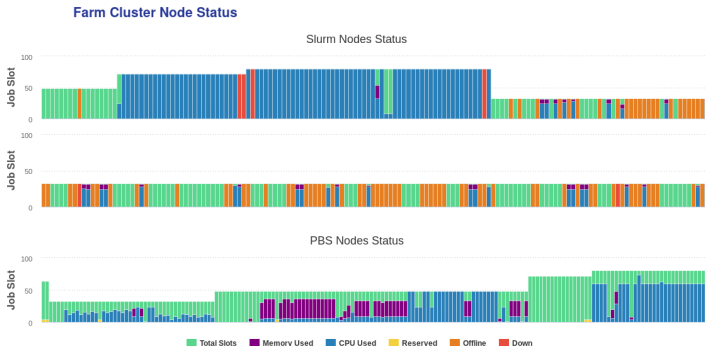
# Full Replays - Pass 0

- All production runs (LH2 and Aluminium Dummy) replayed and on the farm
- /cache/hallc/kaonlt/Full\_Replays/Pass0
- Split into various sub directories due to minor issues when replaying
- File size for some CODA files an issue, well over 50 GB raw data
- Resolved with a tweak to the code

# Farm Running Improvements/Thoughts

- Resolved file size issue for full replays by checking size of .dat file from MSS stub and requesting  $2\times$  this amount
- Likely overkill for most files, but prevents issues. Doesn't seem to impact queue time much?
- Switch to SWIF in future? Apparently this is an improvement on PBS, also potentially opens up more farm nodes for use

# Farm Nodes



Note - I think there's a way to request SLURM nodes even with PBS, I'm going to look into this a little next time I have a large job to run.

# Calibrations

Following discussions with Dave Mack -

- Hodoscopes need to be calibrated prior to other detector systems due to usage in timing for an event
- Carlos is also working on calibrations and has put together a brief slide on the process
- Slide will be added to Redmine
- Discusses tweaks to reference times - already done online for our runs?

# Calibrations

Writing a script to do calibration for many runs quickly via a farm job. Can likely use similar script for drift chambers too next

- Replay initially with flags set as needed
- Run TimeWalkHistos.C script, creates a .root file - **Problem**
- Root file not named differently for each run, modified script so it makes a new root file per run (and subsequently reads this one)
- Run the next macro on the resulting root file, produces a new TWCelib.param file, named by run number
- Need to then replay again using this parameter file,
- After this, execute a final root macro

# Calibrations

- Process is similar for different detector calibrations (replay, do something, replay)
- Can be modified for SHMS easily (I hope)
- Current version is on my github -  
`https://github.com/sjdkay/UTIL\_KAONLT/blob/offline/HMS\_HodoCalib\_Batch.sh`
- Still a work in progress currently
- Testing still, hope to run for a bunch of files either later today or tomorrow