

APEX online replay

- Git repo
<https://github.com/JeffersonLab/HallA-APEX-Online/tree/apex/replay>
- Local copy at /adaqfs/home/a-onl/apex/HallA-APEX-Online/replay
- Quick access with alias goapex – also this will set up variables for replay
- [Logbook post of a recently cosmic run](#)

APEX online replay

Proper Use

- Fork:
- Make a local copy in
/adaqfs/home/aonl/apex_work/user/
- Set up your git configurations and remote paths, since this is a shared user system
 - Git config –local user.name “name”
 - Git config –local user.email “email@email.com”
 - Git remote add upstream
<https://github.com/JeffersonLab/HallA-APEX-Online.git>

Setting up your repo

- Work is currently being done in the apex branch
- Bring the remote branches to the local repo
 - Git fetch upstream
- Make a new local branch from the remote branch
 - git checkout -b apex remotes/origin/apex
- Need to compile libraries, online gui, and replaycore
 - In libraries dir. run sh libs.sh
 - In onlineGUI64 dir, run make
 - In replay, analyzer then .L ReplayCore64.C++
- **Important!!!**
 - **Commit often and push those commits**
 - **Merge the the upstream repo often, to prevent merge conflicts!!!!**
 - Do not save personal root files on home
 - Save them on /chafs1/work1/apex --this is the location of the official replayed root files
 - Or /chafs2/work1/APEX – great place for personal root/data files

Online scripts

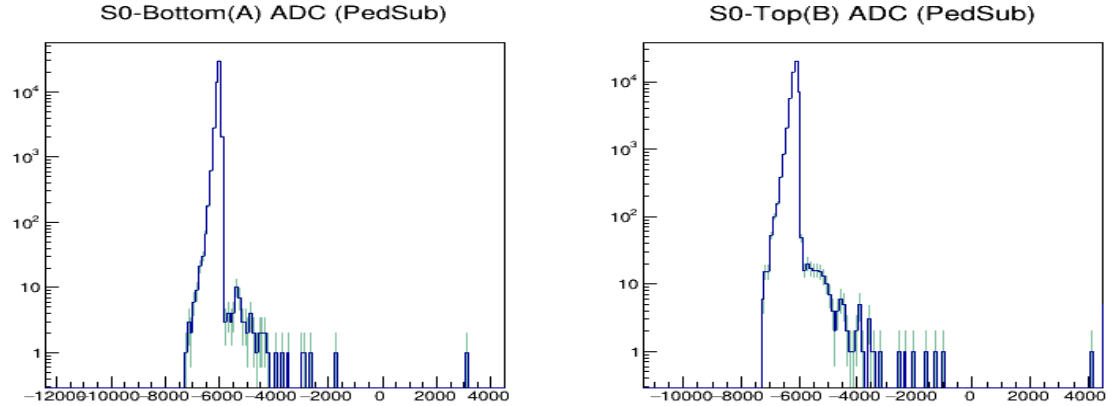
- OnlineReplay run# -s R/L
 - Will run the replay script will not make the pdfs
 - Add p at the end to make pdfs
- OnlinePlots run#
 - Will open up online gui for comparing the run# to the “golden run”
 - WIP still updating from the tritium run group.
- haonline_tool, many arguments you can run without any to get a help statement
 - Used for run period online replays, to post to logbook
 - Can use myAnalysis to run haonline_tool for pre-selected arguments
- Golden_run run#
 - Will update the golden run link for comparison plots.

Rs2la_p6 not found

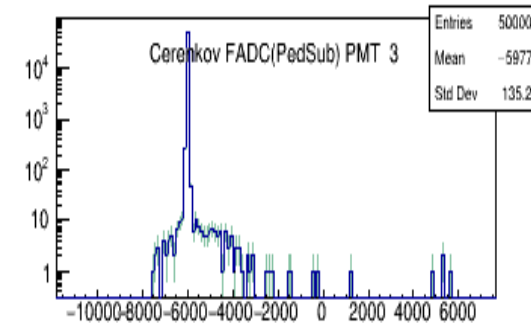
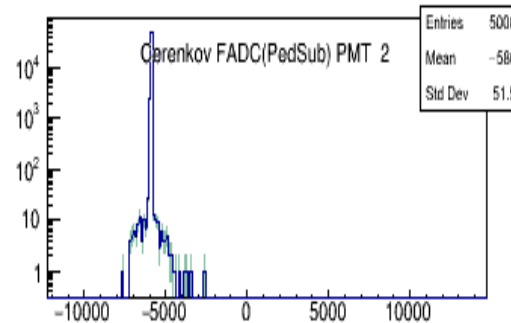
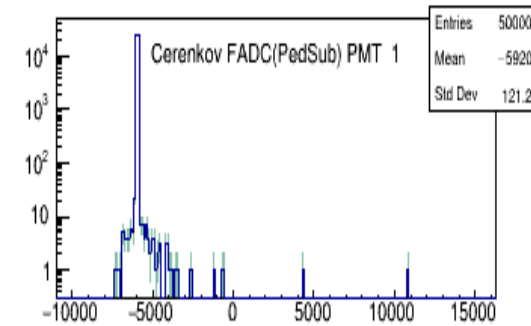
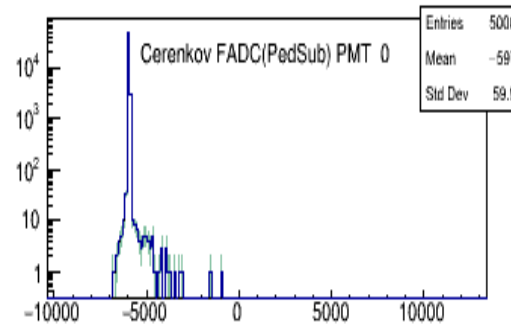
ADC Signals

- S2 signal from pmt 6 on the left side, is being worked on.
- FADC pedestal sampling bins is not set properly.
 - Once FADC work is at a stable state, a proper DB pedestal value can be calculated.

Run #111934

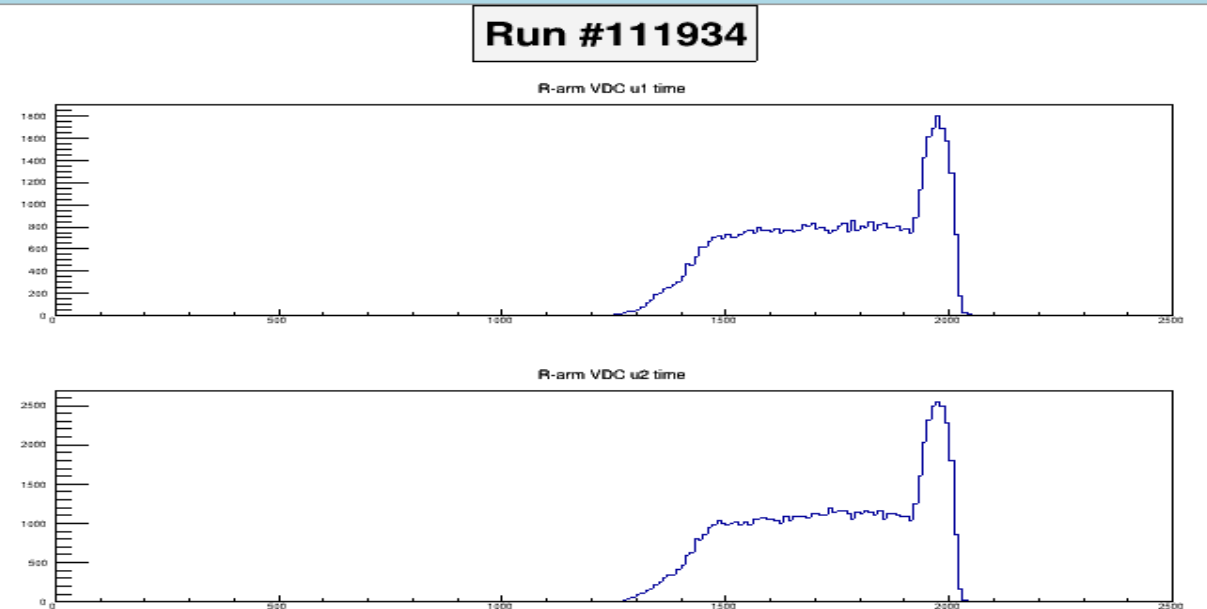
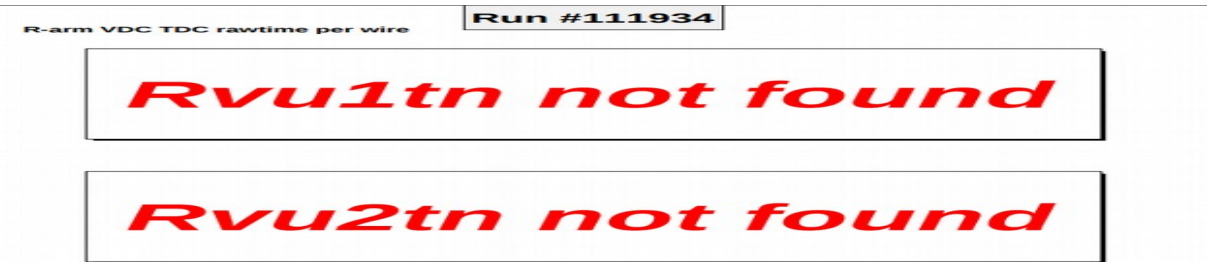
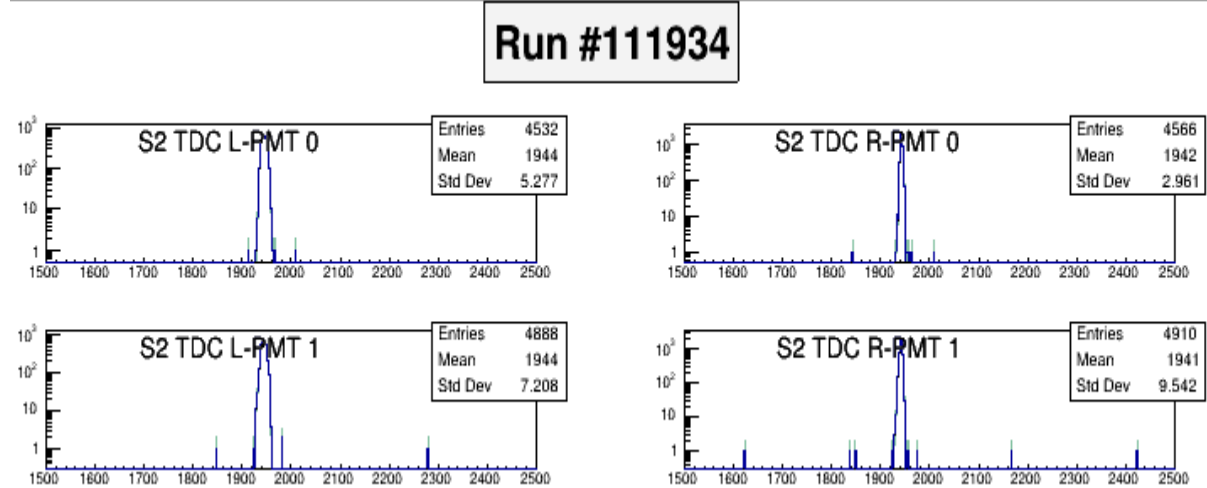


Run #111934



TDC signals

- Cosmic with T4 alone produce could S2 & s0peaks
- Incorrect histogram label caused for VDC rawtime per wire to be missing
- Replacing correct label in configuration file fixes this issue.



Still to Work on

- Get APEX user using the git repo, includes using their own fork to contribute person updates.
 - Could use branches depending on the number contributes
- Updating physics plots for APEX related info
- Updating limits for adc plots, once new FADC pedestals are calculated.
- Updating some script to be compatible with APEX replays
 - Example: Onlineplots, odef files
- Clean up apex branch, and entire repository
 - Example: Does Apex need anything that is only in the marathon branch
- Update the repo structure and nomenclature for easy of transition in the future.