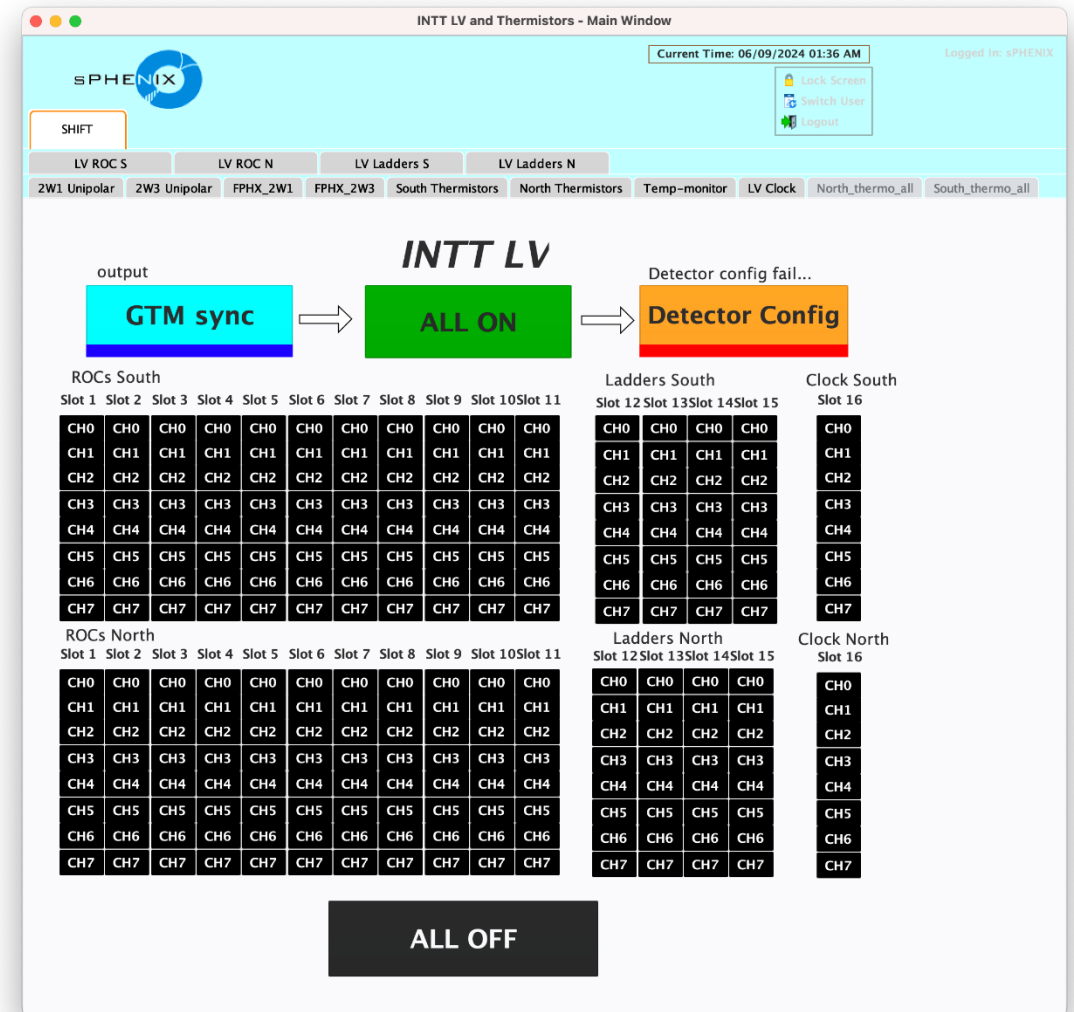


INTT initialization for DO shift screw

Akitomo Enokizono

INTT initialization for shift crew

- INTT LV GUI (shift tab) has two additional buttons
 - GTM sync
 - Detector Config
- **GTM sync:**
 - Establish GTM-FELIX clock synchronization
 - This has to be performed BEFORE turning on the LV
- **Detector Config:**
 - FPHX chip configuration
 - This has to be performed AFTER the LV on (off course)
- Detailed information of the buttons is in the next slide and also in the sPHEIX wiki page: https://wiki.sphenix.bnl.gov/index.php?title=INTT_Initialization



What are the buttons doing

- GTM sync python script:
 - Run an external shell script
/home/\$USER/INTT/INTT_reset_fidalign_at_control1.sh
 - Log in phnxrc@opc0.sphenix.bnl.gov, and run
/home/phnxrc/INTT/sphenix_inttpy/reset_intt_clock.sh
(Loop to log in intt[0:7] machines and run felix_readout_clk_init.py)
 - Log in phnxrc@control1.sphenix.bnl.gov, and run
/home/phnxrc/INTT/sphenix_inttpy/reset_fidalign.sh
(Load /home/phnxrc/operations/INTT/intt_reset_clks.scheduler, then run the GTM for 2 seconds)
 - Echo “GodJobINTT” at the end of the shell script, putting the button in the successful status
- Detector Config python script:
 - Run an external shell script
/home/\$USER/INTT/INTT_setup_all_at_control1.sh
 - Log in phnxrc@opc0.sphenix.bnl.gov, and run
/home/phnxrc/INTT/rcdaq/setup_intt_detector.sh
(Loop to log in intt[0:7] machines and run top_pedestal.sh)
 - Echo “GodJobINTT” at the end of the shell script, putting the button in the successful status

Things to do for a better operation

- Just in case, setup the same external scripts at Control-2 which is the second Ignition client machine
 - Currently the buttons work at Control-1 and inttdev (INTT mini-PC at 1008) machines
 - At Control-1 machine, \$USER = "slow-control", but this account is local and independent of "slow-control" on phnxnfs2 server
- In the Detector config button, read the FPHX configuration status (True/False) and reflect it in the result status (other than "GoodJobINTT")
 - Need to modify a little bit setup_intt_detector.sh and top_pedestal.sh (Just "echo" thing, so it wouldn't break anything)
- Perform the processes in parallel
 - Now "reset_intt_clock.sh" and "top_pedestal.sh" is performed from intt0 to intt7 one-by-one, but doing them in parallel process make the total process time faster (~1 min. -> less than 10 sec.)
- Put FPHX configuration parameters in the database every time when those are set
 - What parameters should be in the database?
 - Currently configuration log file are written in /home/phnxrc/INTT/log/top_pedestal/top_pedestal_YYYY_MM_DD.log