

Cleaning suggestion Genki Nukazuka (RIKEN)

Cleaning and Organizing files...

- Since we have worked so hard, a lot of files are
 - inttdaq
 - ~/INTT
 - sPHENIX common directory
 - ~/INTT
 - ~/operation/INTT
 - SDCC working directory
 - /sphenix/tg/tg01/commissioning/INTT
- It's better to clean and organize them before RUN24.

inttdaq



```
[inttdev@inttdaq 18:04:45 calibration_monitor] $ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            61G   0    61G   0% /dev
tmpfs           13G   24M   13G   1% /run
/dev/nvme0n1p2  937G  731G  158G  83% /
tmpfs           63G   16K   63G   1% /dev/shm
tmpfs           5.0M   0    5.0M   0% /run/lock
/dev/nvme0n1p1  511M  3.5M  508M   1% /boot/efi
tmpfs           13G   64K   13G   1% /run/user/115
tmpfs           13G   60K   13G   1% /run/user/1003
```

- Disk quota:

Data taken by this server (calibration and beam in the beginning of RUN23 and in the silicon lab) take large disk space (~/INTT/data)

- How do we make back-up?
- Suggestion to save disc space:
 - pkl files (output from RaulDAQ) and ntp files (intermediate file, pkl → ntp → root) can be compressed about 70—80% by zip. ~260 GB can be saved.
 - ~/operation/INTT
- SDCC working directory
 - /sphenix/tg/t0/commissioning/INTT

- Data directory:

Data taken in 2023 (and 2022 in the silicon lab) should be moved to a subdirectory.

- For example, ~/INTT/data/2023

```
[inttdev@inttdaq 18:11:36 data] $ du -h -d 2
26G    ./IR/commissioning
867M   ./IR/folder_cali_ana
68K    ./IR/auto_eelog_gen
145G   ./IR
1.1G   ./commissioning/hit_files
1.1G   ./commissioning
202M   ./commissioning_6_2/hit_files
202M   ./commissioning_6_2
1.6G   ./commissioning_5_23/hit_files
4.0K   ./commissioning_5_23/evt_files
4.0K   ./commissioning_5_23/bco_files
10G    ./commissioning_5_23
21M    ./commissioning_5_30/hit_files
21M    ./commissioning_5_30
146M   ./commissioning_6_4/hit_files
146M   ./commissioning_6_4
50G    ./commissioning_6_6/hit_files
50G    ./commissioning_6_6
7.7M   ./calib_packv3_221117
7.7M   ./12_01_22/zip
145M   ./12_01_22
158G   ./IR_DAQ_server/INTT_study_run
278G   ./IR_DAQ_server
614G   .
```


sPHENIX common directory

- sPHENIX common directory among servers at 1008, e.g., opc0.
- ~/INTT
 - map files (directories under map_dac0, map_ladder, map_mask, map_server)
 - should be under a subdirectory to save them.
 - Information will be copied to the sPHENIX PostgreSQL database eventually.
 - Python scripts and configuration files in rcdaq and sphenix_inttpty directories
 - messy
 - Raul's help is needed to clean them up.
 - README is needed for these directories.

```
phnxcrc@opc0:~/INTT$ ls sphenix_inttpty/
'\
bitstream_loader
dam.py
daq_lst
data
disable_FELIX_channels.py
disable_FELIX_channels.py~
enable_FELIX_channels.py
enable_FELIX_channels.py~
felix_readout_calib_packv5.py
felix_readout_check_register.py
felix_readout_clk_init.py
felix_readout_cold_start.py
felix_readout_flush.py
felix_readout_lv11_testing.py
felix_readout_pedestal_cw_temp.py
felix_readout_pedestal_cw_temp.py~
felix_readout_pedestal.py
felix_readout_sandbox.py
felix_readout_sanity_check.py
felix_readout_unpacker_v5.py
felix_readout_unpacker_v6.py
Flush_intt.sh
fphx_command_check.py
gtm_setup_calibration.py
gtm_setup_example.py
gtm_setup_example.py~
gtm_setup_idle.py
gtm_setup_pedestal.py
gtm_setup_trigger.py
inttdev@inttdaq
intt_ext.py
intt.py
intt_setup.sh
mask_slowcontrol.py
__pycache__
pygtm_client
raul_decoder
README.md
reprogram_intt_fw.sh
reset_intt_clocks.sh
reverse_pol.py
run_20230523_standalone.py
run_20230523_standalone.py~
run_20230724.py
run_20230724.py~
run.py
run.py~
run_scripts
sandbox
testbench_intt_clocks.sh
test.py
venv
vivado_40613.backup.jou
vivado_40613.backup.log
vivado_66722.backup.jou
vivado_66722.backup.log
vivado.jou
vivado.log
```

- ~/operations/INTT

- It's messy too.

```
phnxcrc@opc0:~/operations/INTT$ ls
bkp
hostlist_intt.dat
intt0_setup.sh
intt1_setup.sh
intt2_setup.sh
intt3_setup.sh
intt4_setup.sh
intt5_setup.sh
intt6_setup.sh
intt7_setup.sh
intt_cosmics_streamed_15KHz_scheduler
intt_cosmics_streamed_18_KHz_scheduler
intt_cosmics_streamed_25_KHz_scheduler
intt_cosmics_streamed_37KHz_scheduler
intt_cosmics_streamed_75KHz_scheduler
intt_FA_scheduler
intt_gtm_setup_local.sh
intt_gtm_setup.sh
intt_noise_500Hz_scheduler
intt_noise_5KHz_scheduler
intt_raul_scheduler
intt_reset_clks_scheduler
intt_scheduler
intt_scheduler.backup
intt_setup.sh
intt_take_data.sh
l1delay.log
l1delay.sh
L1FineDelay.log
L1FineDelay.sh
modebits.log
modebits.sh
rc.log
rc_setup_local_cosmics.sh
rc_setup_local_cosmics.sh~
rc_setup_local.sh
rc_setup.sh
README.md
README.md~
setup_all_rcdaqs.sh
stop_run.sh
test.sh
vivado.jou
vivado.log
```

Raul's and DAQ group(?)'s help is needed.

- README is needed.
- Another suggestion is about prefix of evt files
 - beam, cosmics, calib runs are OK.
 - Other run types, junk, calibration, pedestal, generate evt files with the same prefix *intt*. It's better to change them.

```
rcdaq_client daq_define_runtype junk $STEM/junk/intt_{$H}-%08d-%04d.evt
rcdaq_client daq_define_runtype calibration $STEM/calibration/intt_{$H}-%08d-%04d.evt
rcdaq_client daq_define_runtype calib $STEM/calib/calib_{$H}-%08d-%04d.evt
rcdaq_client daq_define_runtype pedestal $STEM/pedestal/intt_{$H}-%08d-%04d.evt
rcdaq_client daq_define_runtype beam $STEM/beam/beam_{$H}-%08d-%04d.evt
rcdaq_client daq_define_runtype cosmics $STEM/cosmics/cosmics_{$H}-%08d-%04d.evt
```

```
phnxcrc@opc0:~/INTT$ ls -l map_ladder | grep
intt0_map.txt
intt1_map.txt
intt2_map.txt
intt3_map.txt
intt4_map.txt
intt5_map.txt
intt6_map.txt
intt7_map.txt
IR
RC-0N_1N_DF_032623.txt
RC-0S_1S.txt
RC-0S_map.txt
RC-0S_swap_2023_03_22.txt
RC-1N_DF_032623.txt
RC-1S_map.txt
RC-1S_swap_2023_03_22.txt
RC-2N_3N_DF_032623.txt
RC-2N_DF_032623.txt
RC-2S_3Smap.txt
RC-2S_map.txt
RC-2S_map-v2.txt
RC-3N_DF_032623.txt
RC-3S_7S_map.txt
RC-3S_map.txt
RC-4N_5N_DF_032623.txt
RC-4N.txt
RC-4S_5S_map_default.txt
RC-4S_5S_map.txt
RC-4S_map.txt
RC-5N_DF_032623.txt
RC-5S_3S_map.txt
RC-5S_map.txt
RC-5N_7N.txt
RC-6N.txt
RC-6S_7S_map_default.txt
RC-6S_7S_map.txt
RC-6S_map.txt
RC-7N.txt
RC-7S_map.txt
silicon_lab
test.txt
```

SDCC working directory

- /sphenix/tg/tg01/commissioning/INTT
 - ROOT files are under root_files and merged_root_files directory. Should we move them to a subdirectory 2023?
 - It must be better to organize data file like:

```
[nukazuka@sphnx05 18:54:58 temp] $ tre data
data
├── dst_files
│   ├── 2023
│   ├── 2024
│   └── 2025
├── root_files
│   ├── 2023
│   ├── 2024
│   └── 2025
└── merged_root_file
    ├── 2023
    ├── 2024
    └── 2025
```

```
[nukazuka@sphnx05 18:49:25 INTT] $ ls -l
commissioning_production
dst_files
evt_files
map_ladder
merged_root_files
QA
README.md
README.md~
repositories
root_files
show_README.sh
show_README.sh~
subsystems
work
```