Additional monitoring tools for INTT
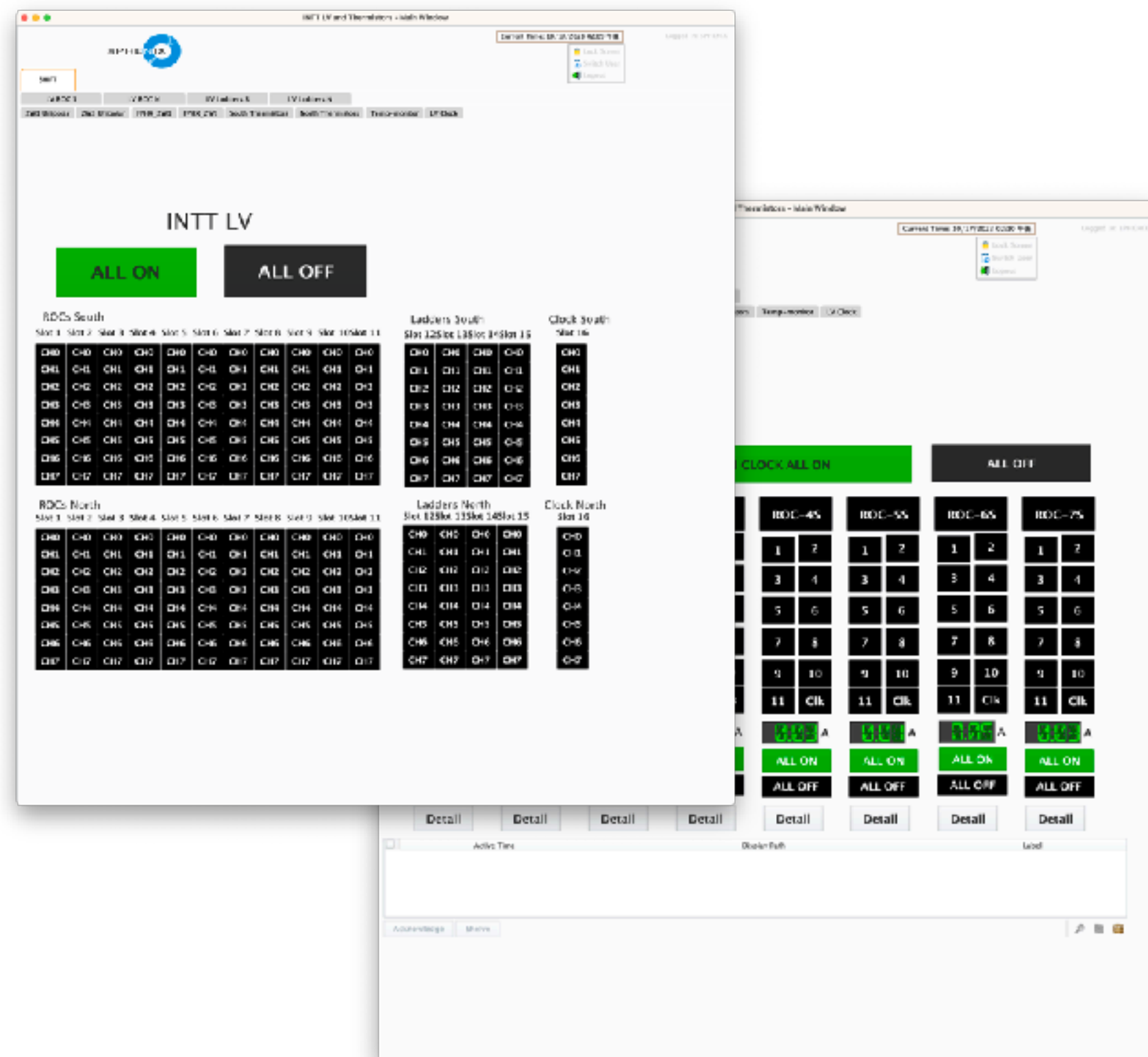
G. Nukazuka (RIKEN/RBRC)
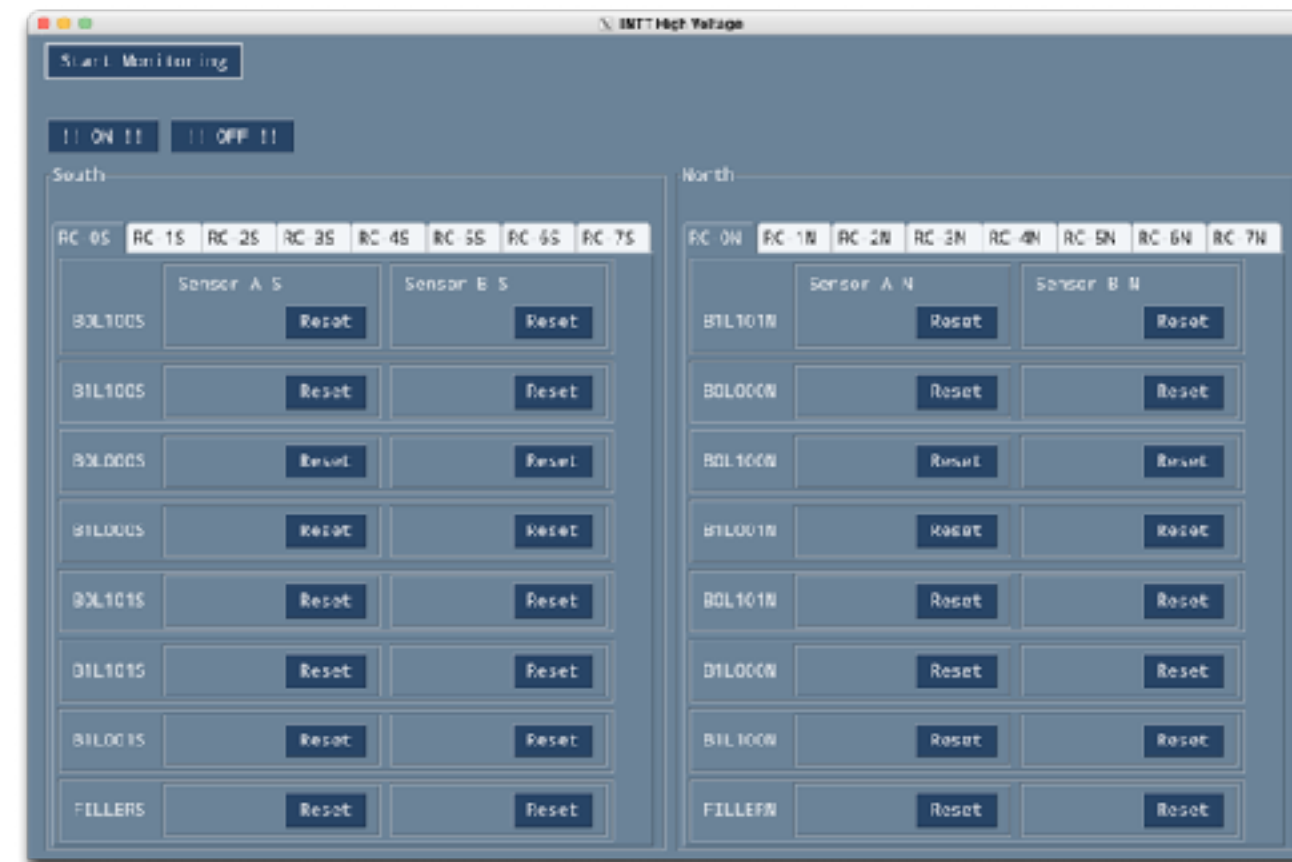
Current Status

**LV monitoring/operation GUI
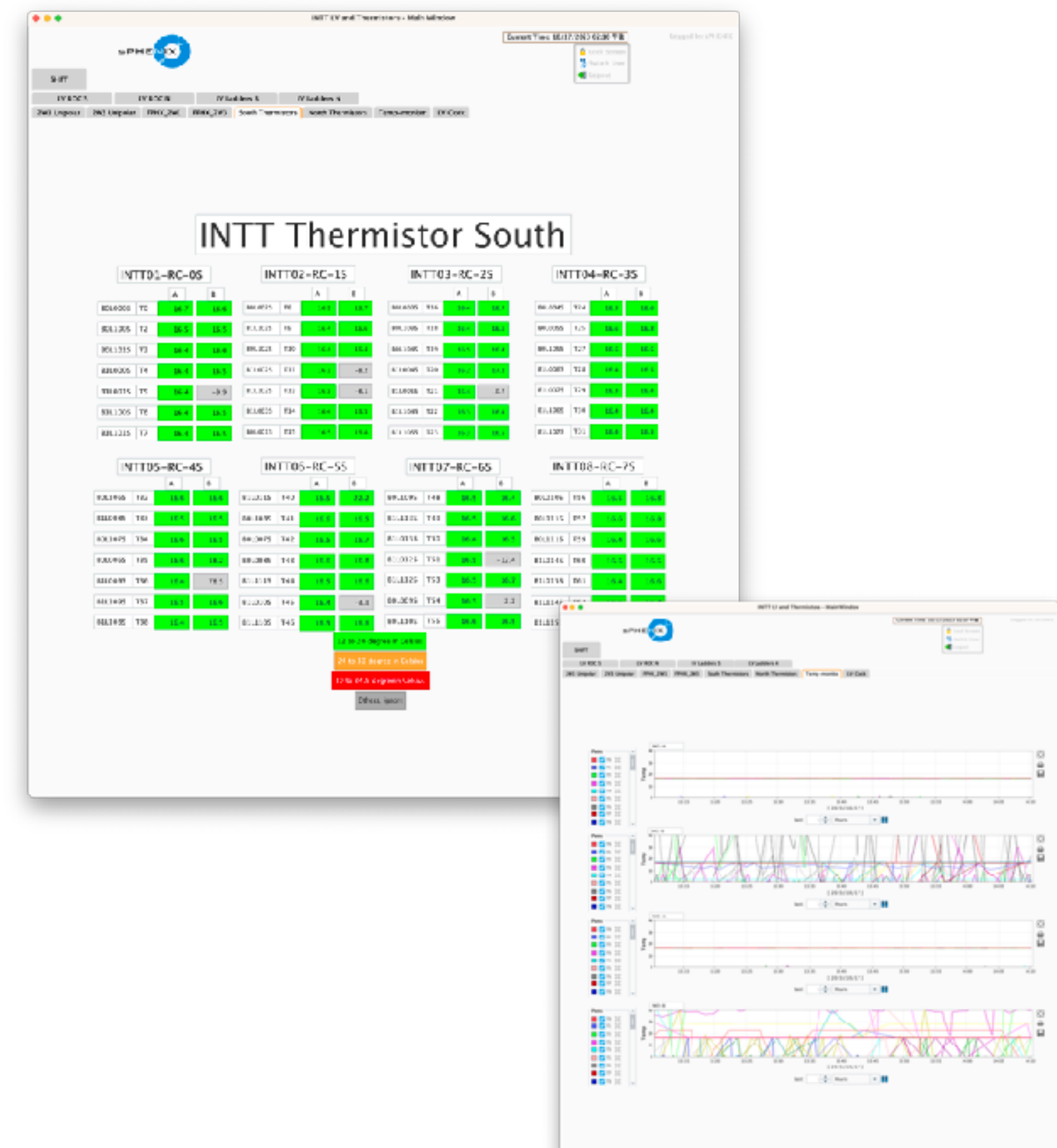（Mai W., Maya）**

**HV monitoring/operation GUI
（Joseph）**

**Ladder temperature
monitoring GUI
（Cheng-Wei）**

The operation can be done well.
Operation history (voltage, current)
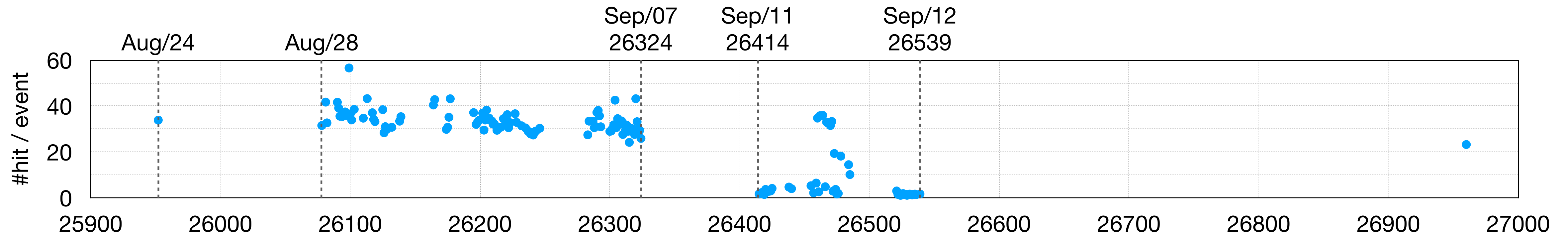is stored in the Ignition database.

The operation can be done well.
Operation history is not stored.

Monitoring works well.

What we learned from the cosmic ray measurements

Aug/24   Aug/28   Sep/07 26324   Sep/11 26414   Sep/12 26539

Probably, INTT did not work properly. （※ The bug in the LV GUI must be fixed, of course).

↑ We cannot check the operation history because of the lack of software (also no logging for HV).

Additional software implementation towards Run24

Some more monitoring/viewing software is necessary.

1. **LV viewer**: to check the LV operation history

   It's critical.

   The Ignition framework seems to fit this viewer.

2. **HV viewer**: to check the HV operation history

   We have to save the history. The viewer is critical.

   Maybe, the Ignition framework is not a good choice. Python3 + (Postgre) SQL?

3. **Grafana monitor**: to monitor the status of DAQ (HV/LV may be possible)

   It's not mandatory.

   Monitoring DAQ-related parameters, for example, n_collisions, the slow control parameters, is useful.

   I guess we will be required to make it by sPHENIX eventually since other subsystems (MVTX, TPC, TPOT, MBD, ZDC, and sEPD) have already made it.

   We can get the sample code from TPC. The implementation is relatively easy.
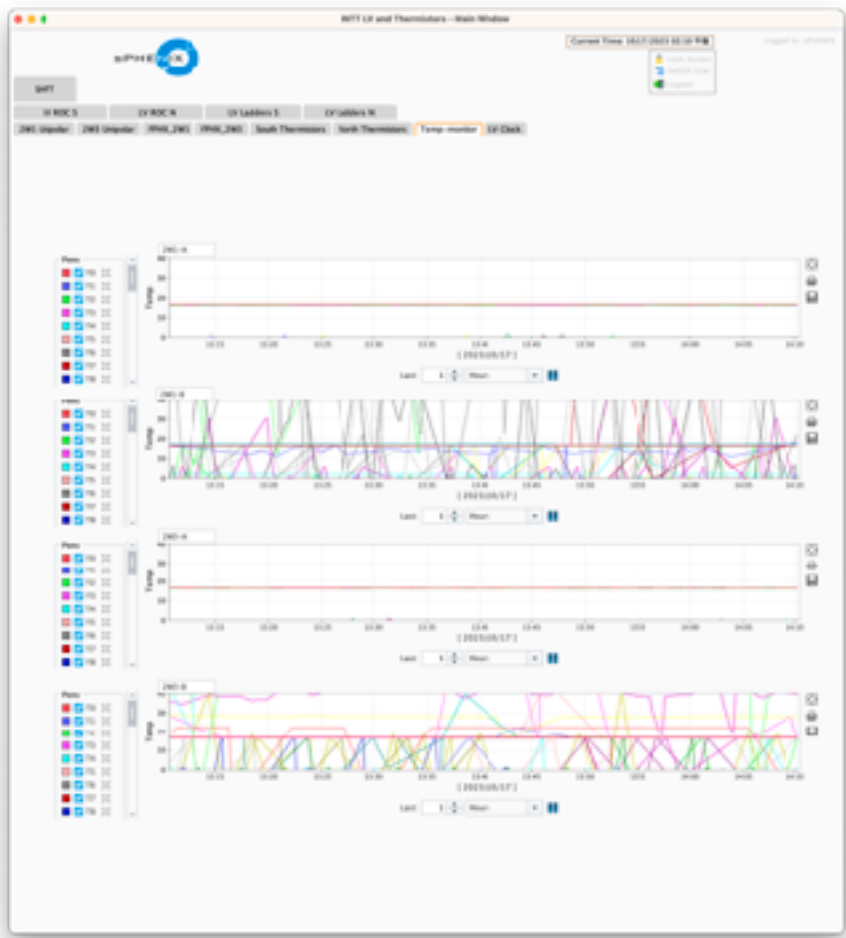
The ladder temperature viewer using the Ignition framework.