Weekly_MT_20250709

- E80-TC : Transmission speed
- E80-CDC : HV commissioning (about the procedure)
- ASAGI : –
- ToDo

“TC” = “Test Chamber”

Yuto Kimura (Tohoku, D1)

E80-TC

- Work until Obon
  - Transmission velocity
  - Gain by QDC: Next week
    - Linear fan in out (NIM) and Amp(NIM) → from J-PARC by Sakuma-san
    - raw
    - analog out
  - Efficiency, ToT, Multiplicity with TDC: After QDC
    - 90Sr, at first

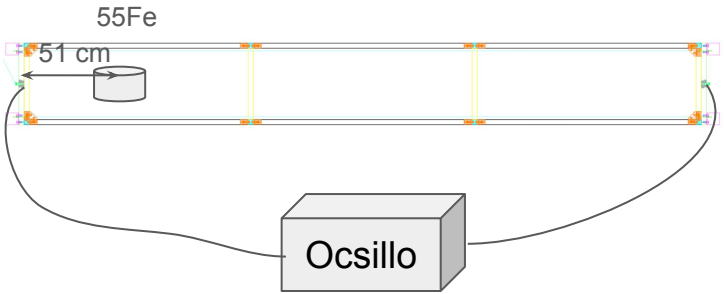
E80-TC

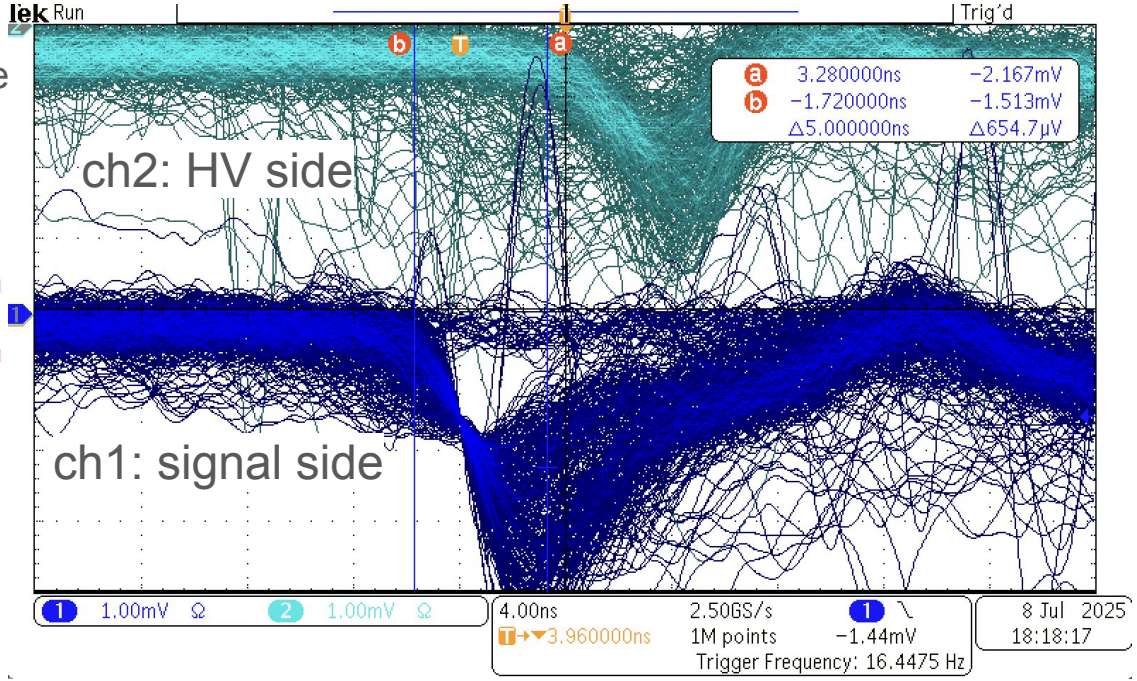
RIBF room308 was organized.

E80-TC: Transmission velocity

- Read the wave forms from both signal and HV side with oscillo

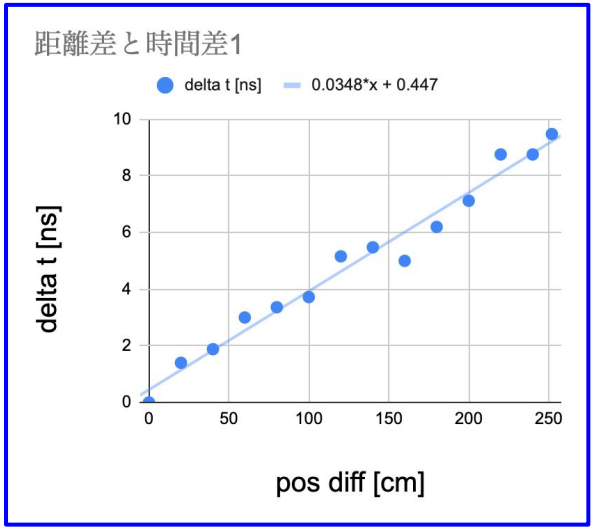
Typical one:
pos = 51 cm from the edge of signal side

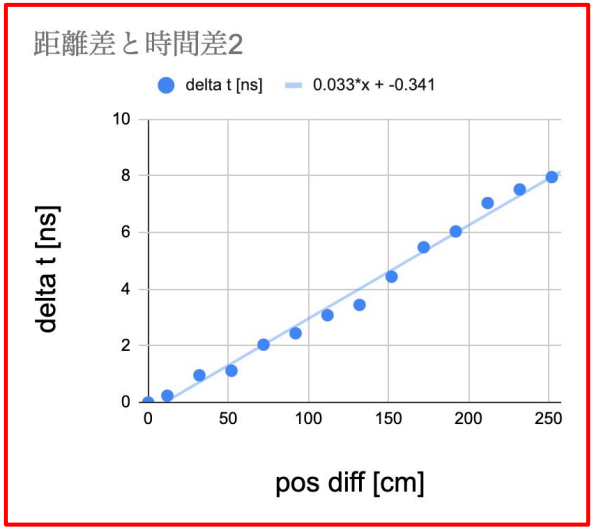




E80-TC: Transmission velocity

pos [cm]	pos diff [cm]	delta t [ns]
5	252	9.48
11	240	8.76
21	220	8.76
31	200	7.12
41	180	6.2
51	160	5
61	140	5.48
71	120	5.16
81	100	3.72
91	80	3.36
101	60	3
111	40	1.88
121	20	1.4
131	0	0
137	12	0.24
147	32	0.96
157	52	1.12
167	72	2.04
177	92	2.44
187	112	3.08
197	132	3.44
207	152	4.44
217	172	5.48
227	192	6.04
237	212	7.04
247	232	7.52
257	252	7.96

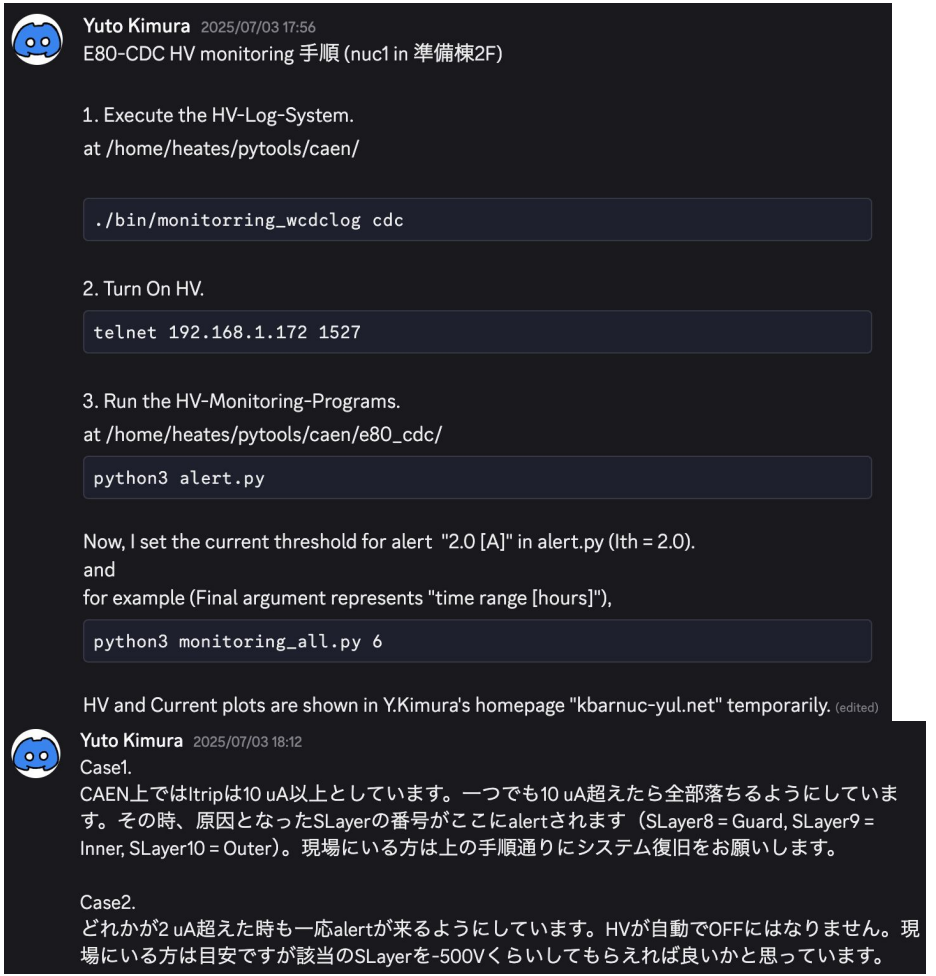




Result: ~ 0.034 ns / cm = ~3.4 ns / m

E80-CDC

- Plan
  - HV conditioning
    - Please recover the system and restart it from - 1000 V
  - Obon Ake~?
    - Try to observe the raw signals and the pre-amp output signals.



Yuto Kimura 2025/07/03 17:56
E80-CDC HV monitoring 手順 (nuc1 in 準備棟2F)

1. Execute the HV-Log-System.
at /home/heates/pytools/caen/

```
./bin/monitorring_wcdclog cdc
```

2. Turn On HV.

```
telnet 192.168.1.172 1527
```

3. Run the HV-Monitoring-Programs.
at /home/heates/pytools/caen/e80_cdc/

```
python3 alert.py
```

Now, I set the current threshold for alert "2.0 [A]" in alert.py (Ith = 2.0).
and
for example (Final argument represents "time range [hours]"),

```
python3 monitoring_all.py 6
```

HV and Current plots are shown in Y.Kimura's homepage "kbarnuc-yul.net" temporarily. (edited)

Yuto Kimura 2025/07/03 18:12
Case1.
CAEN上ではItripは10 uA以上としています。一つでも10 uA超えたら全部落ちるようにしています。その時、原因となったSLayerの番号がここにalertされます（SLayer8 = Guard, SLayer9 = Inner, SLayer10 = Outer）。現場にいる方は上の手順通りにシステム復旧をお願いします。

Case2.
どれかが2 uA超えた時も一応alertが来るようにしています。HVが自動でOFFにはなりません。現場にいる方は目安ですが該当のSLayerを-500Vくらいしてもらえれば良いかと思っています。

E80-CDC HV Monitoring Procedure
(nuc1 in J-PARC Hadron Preparation Building 2F)

1. **Execute the HV-Log-System.**

   At /home/heates/pytools/caen/,

   ```
   ./bin/monitorring_wcdclog cdc
   ```

本体はここ。E80/CDC commissioning/HVmoni-Procedure
https://docs.google.com/presentation/d/1HJ1hYuNi9FtDKISZuioD9FRdbySZ3J6QmA8Q4rZlUTs/edit?slide=id.p#slide=id.p

2. **Turn On HV. (usr, pw = admin, admin)**

   ```
   telnet 192.168.1.172 1527
   ```

3. **Run the HV-Monitoring-Programs.**

   At /home/heates/pytools/e80_cdc/,

   ```
   python3 alert.py
   ```

   Now, I set the current threshold for alert "2.0 [A]" in alert.py (Ith = 2.0).
   And for example (Final argument represents "time range [hours]"),

   ```
   python3 monitoring_all.py 6
   ```

   HV and Current plots are shown in Y.Kimura's homepage "kbarnuc-yul.net" temporarily.

ASAGI

- Updated the manual
- Understanding previous investigations
  - Have checked the chats on mattermost and Shirotori-slide
  - Will summarize it by tommorow

ToDo

- Investigation of the high current in E15-TC
- JPS abst(detector session), ~ Aug. 12
- Summary of the gas study
  - ver. 0 → shared in Discord