How to use EN DAQ
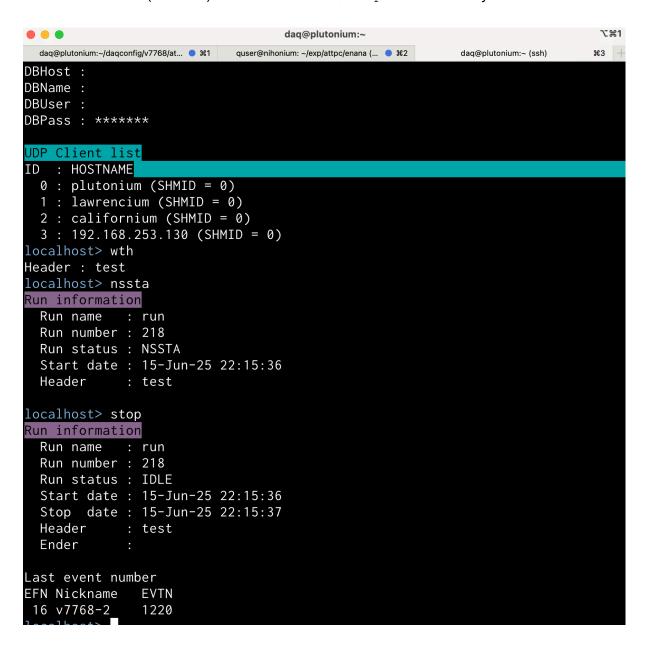
2025.06.15 T. Furuno (furuno@u-fukui.ac.jp)
Tel: 090-9710-1899 (Japan phone number)

For the routine start / stop

1. login to plutonium PC:
   `ssh -Y daq@plutonium` (PW: rcnpdaq1)
2. type "`babicon`" to launch the DAQ program.
3. In the babicon program, type "`wth`" to make a title of the run.
4. Then, type "`start`" to start the run. You can stop the run by "`stop`"
   You can test the DAQ without saving data by "`nssta`" command (no save start).
5. The raw data (.ridf files) are stored in the `~/attpcdata` directory.

```
daq@plutonium:~

daq@plutonium:~/daqconfig/v7768/at...  ⌘1    quser@nihonium: ~/exp/attpc/enana (...  ⌘2    daq@plutonium:~ (ssh)    ⌘3

DBHost :
DBName :
DBUser :
DBPass : *******

UDP Client list
ID  : HOSTNAME
 0 : plutonium (SHMID = 0)
 1 : lawrencium (SHMID = 0)
 2 : californium (SHMID = 0)
 3 : 192.168.253.130 (SHMID = 0)
localhost> wth
Header : test
localhost> nssta
Run information
  Run name    : run
  Run number : 218
  Run status : NSSTA
  Start date : 15-Jun-25 22:15:36
  Header      : test

localhost> stop
Run information
  Run name    : run
  Run number : 218
  Run status : IDLE
  Start date : 15-Jun-25 22:15:36
  Stop  date : 15-Jun-25 22:15:37
  Header      : test
  Ender       :

Last event number
EFN Nickname    EVTN
 16 v7768-2      1220
localhost>
```

How to change the trigger logic

1. Access to this page: http://plutonium/~daq/webutil/GWTSDGTO/
   (From RCNP network only)
2. Press the "unlock" button and then choose the trigger inputs in the left column.
3. Press the "save" button.
4. Press the "unlock" button.
5. Note that only "busy1" should be selected in the right column.
   Never change this!!!

SDGTO11 (gto)

DAQ stop

| Auto refresh |

| Unlock | | | Test LED |

AT-TPC mesh	1	9	Busy 1
F2-Si F3-Si	2	10	Busy 2
F2 UD PPAC	3	11	Busy 3
F3 UD PPAC	4	12	Busy 4
F2PL	5	13	Bury 5
F3PL	6	14	Busy 6
	7	15	Busy 7
1kHz clock	8	16	Busy 8
		17	Busy 9
Check Busy		18	Busy 10
Monitor		19	Busy 11
Veto OR ⌄		20	Busy 12
Veto OR ⌄		21	Busy 13
		22	Busy 14
		23	Busy 15
Save		24	Busy 16named
Reset			

Initialization of the V1190 TDC module

When you reboot the VME crate, you must initialize the TDC module by following procedure:
1. From the plutonium PC, login to the VME controller by
   `ssh root@v7768-2` (PW: rtlinux)
2. `cd /home/daq/daqconfig/v7768/attpc/init/`
3. `./v1190ini.sh`

Troubleshooting

In case the DAQ seems to not working, please restart the DAQ processes:
1. Open the DAQ process manager page: http://plutonium/~daq/webutil/babipm.php
   (From RCNP network only)
2. Kill all of the processes on DAQ and V7768-2
3. On the DAQ column, start the processes "babinfo" → "babild" → "babissm" → "babian"
4. On the V7768-2 column, start the process "babies"
5. In the babicon prompt, type "`esconnect 16`"
6. Then you should be able to run the DAQ.

babirl DAQ Process Manager

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☐ all ☑ daq ☑ v7768-2

[Refresh] Timeout [5 ˅] s

Server = daq   **Server = v7768-2**

Process	PID	Command	Option	EFN	Process	PID	Command	Option	EFN
babinfo	3520	KILL			babinfo	-----	RUN		
babild	3526	KILL			babild	-----		-l ˅	16
babies	-----	RUN	-l ˅	1	babies	898	KILL		
babissm	3533	KILL			babissm	-----	RUN		
babian	6334	KILL			babian	-----	RUN		
babiau	-----		-lt ˅	1	babiau	-----	RUN	-lt ˅	16
REBOOT	HALT	INIT			REBOOT	HALT	INIT		

[Refresh]

If you still have a problem, don't hesitate to call me.