Beam trip cut
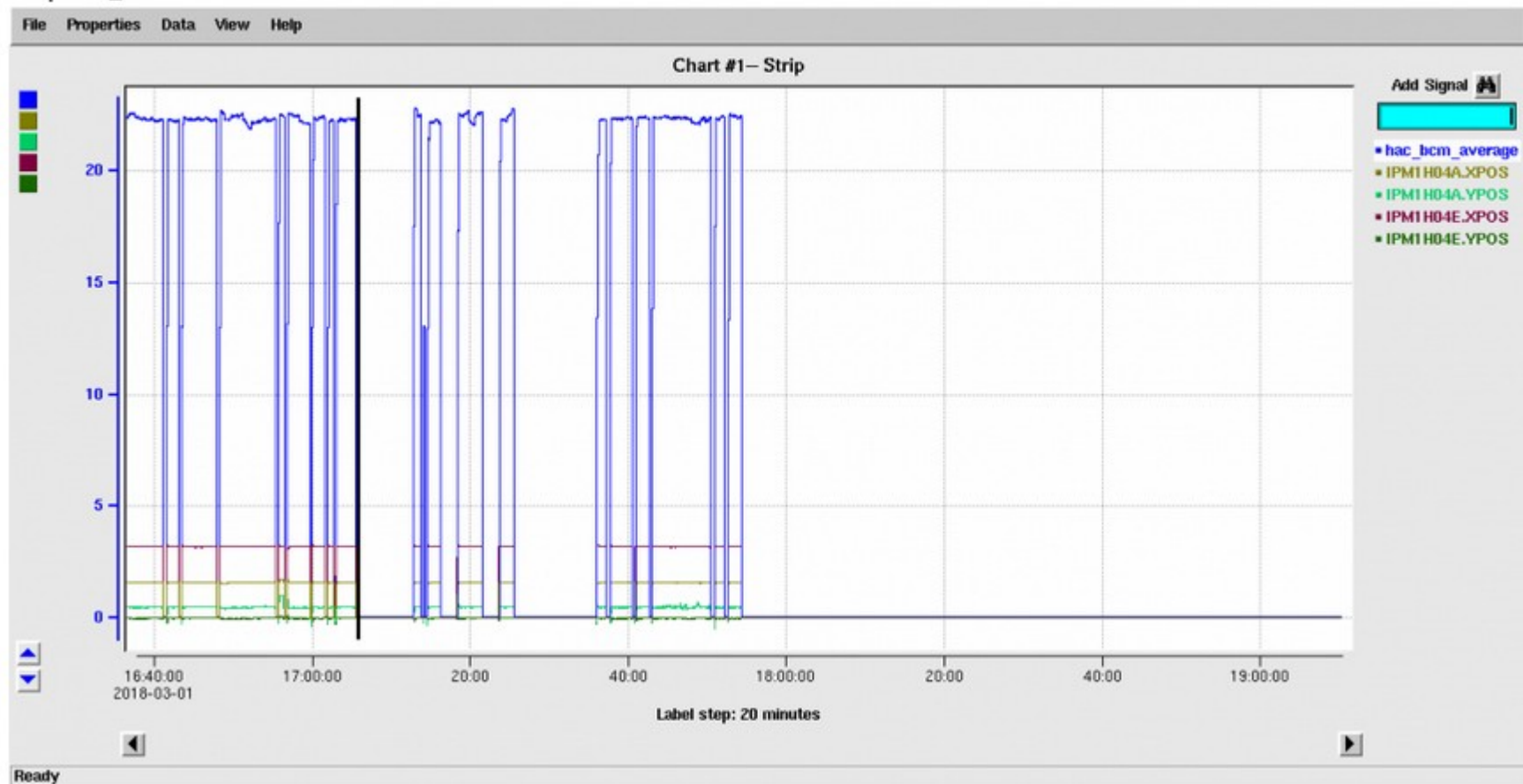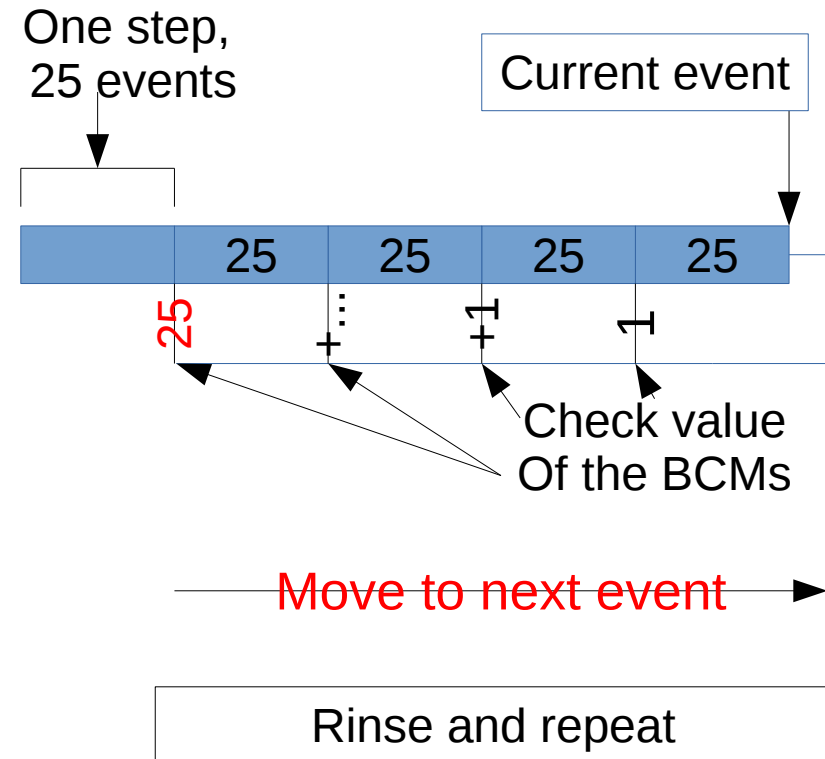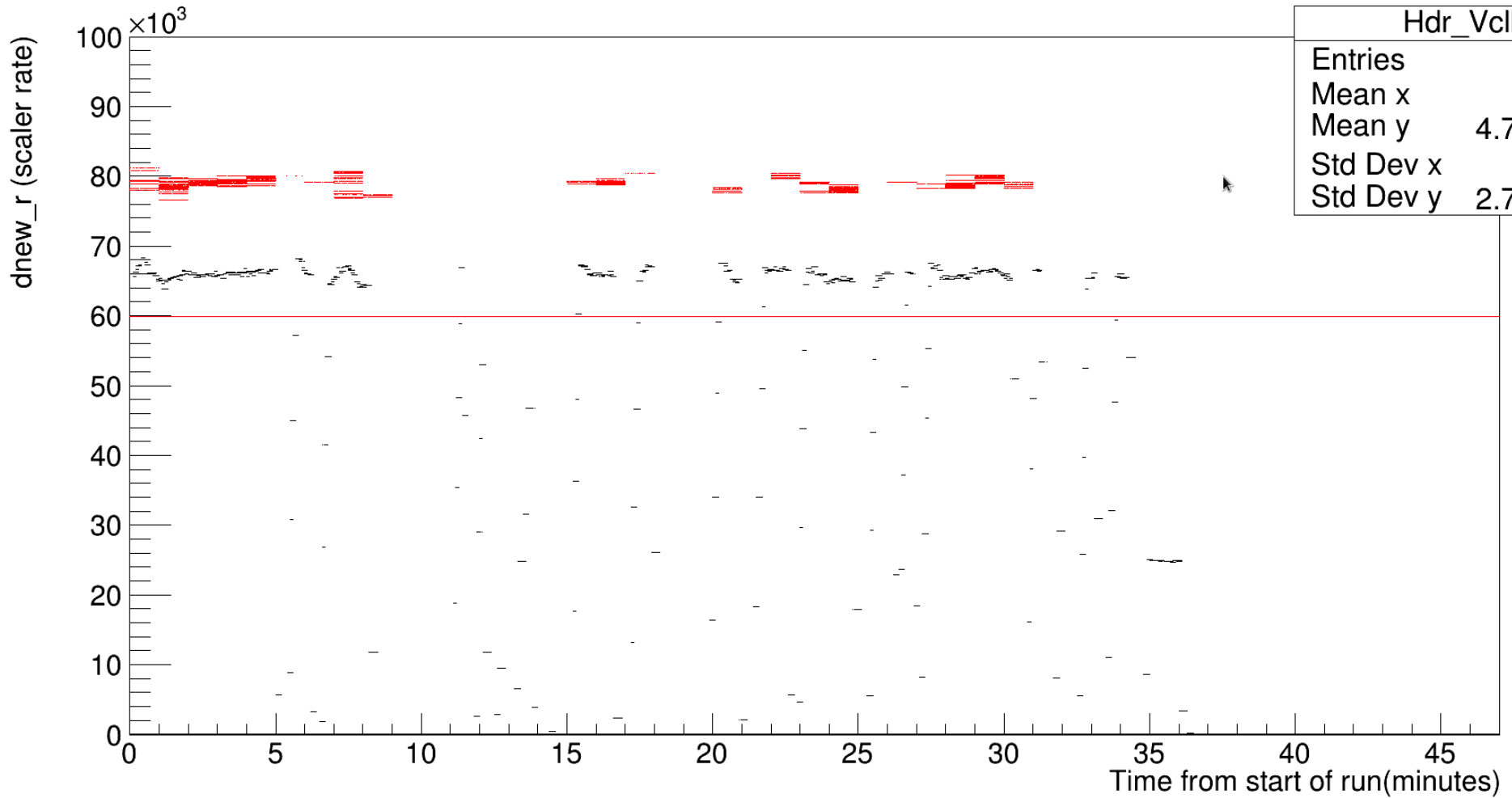
Quality of the beam for an event

- Select an event that has some amount of current

  - Dnew_r above some value

- Take steps back in time and check

  - Dnew_r above some value

  - Assign the original event some Quality based on the amount of steps taken.

  - Assign the event a quantity for the amount of time beam has been up

One step,
25 events

Current event

| 25 | 25 | 25 | 25 |

25

Check value
Of the BCMs

Move to next event

Rinse and repeat

Run 1841

dnew rate:V clock count

Hdr_Vclk	
Entries	48647
Mean x	17.8
Mean y	4.718e+04
Std Dev x	10.93
Std Dev y	2.701e+04

Run 1841 He3 Kin 15

Target = He3 at Kin15 (x=0.778) on HRS-L

Total Good Electrons = 0.077K (Total 4.0K T2 Events)

Run-List =

Target = He3 at Kin15 (x=0.778) on HRS-L

Total Good Electrons = 0.037K (Total 2.0K T2 Events)

Run-List =
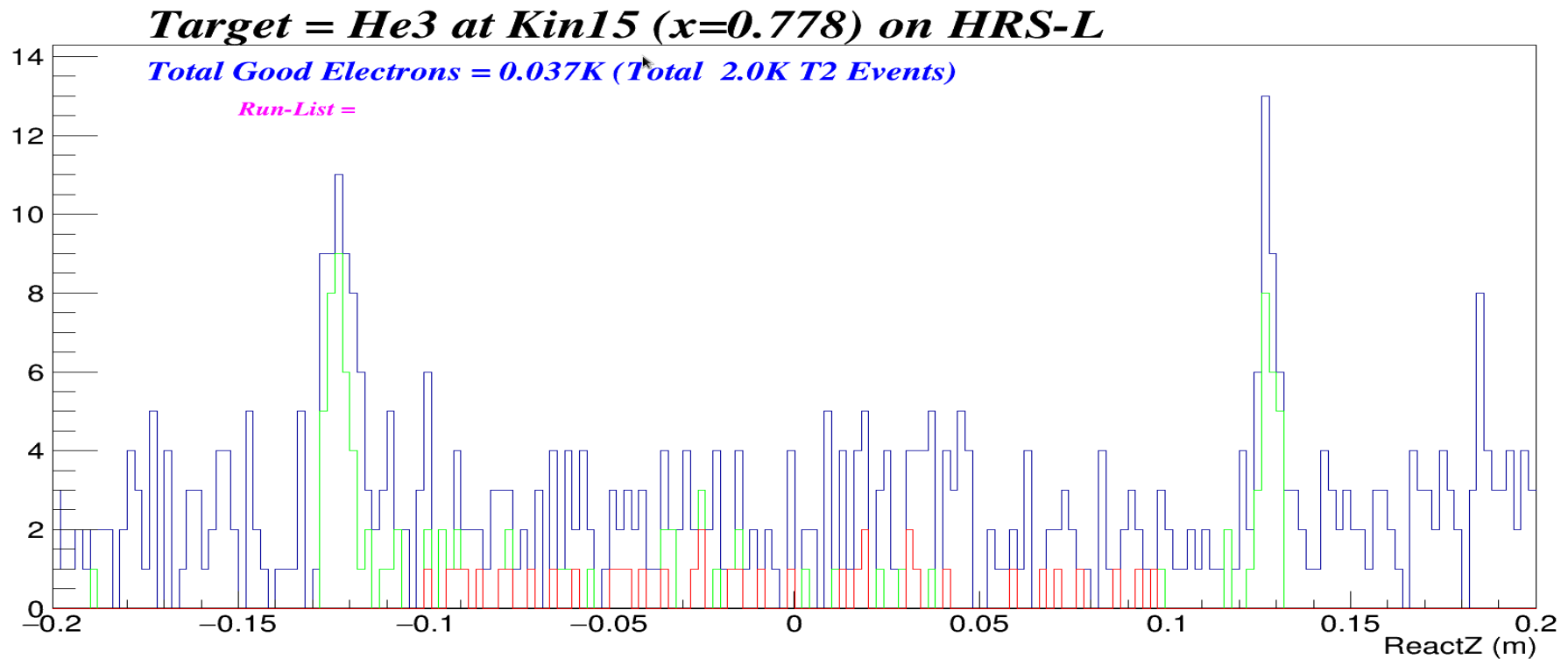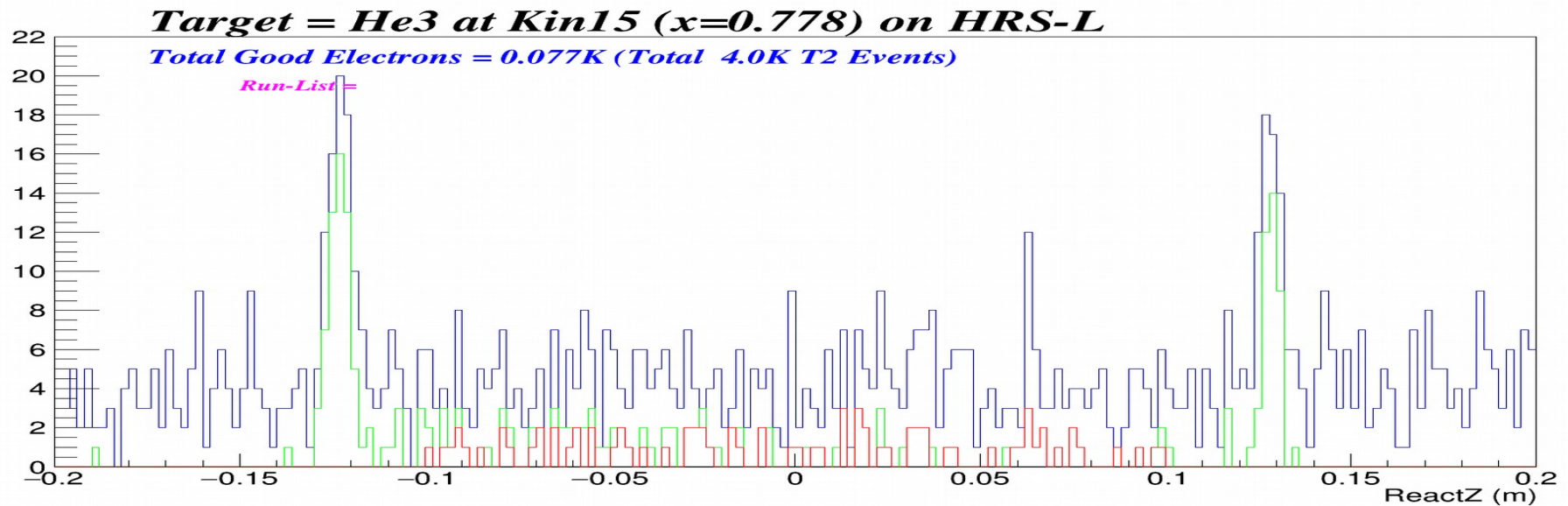
Run 2128 D2 Kin 15

dnew rate:V clock count

Hdr_Vclk	
Entries	120182
Mean x	30.26
Mean y	6.21e+04
Std Dev x	17.79
Std Dev y	1.106e+04

Time from start of run(minutes)

dnew_r (scaler rate)
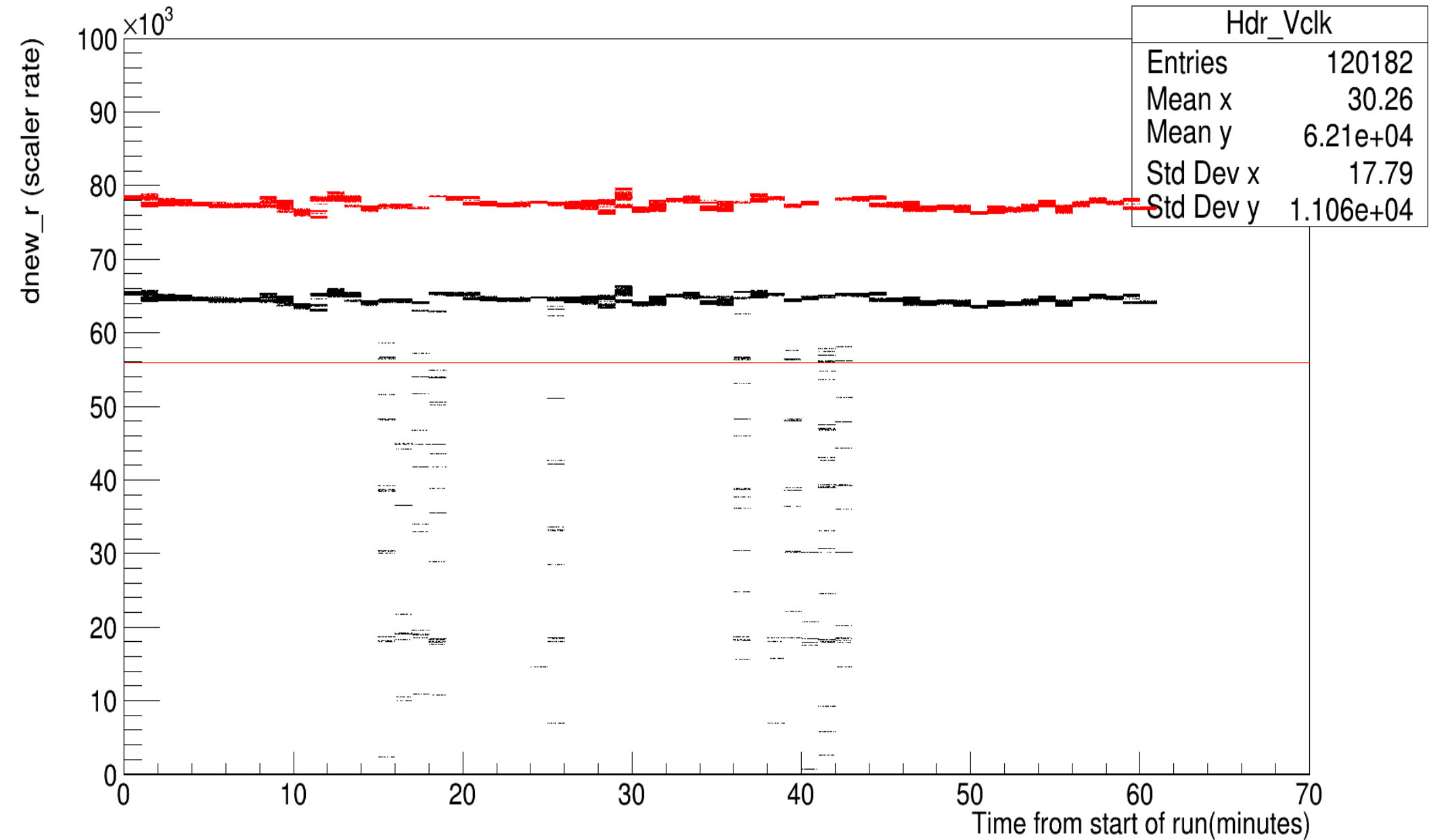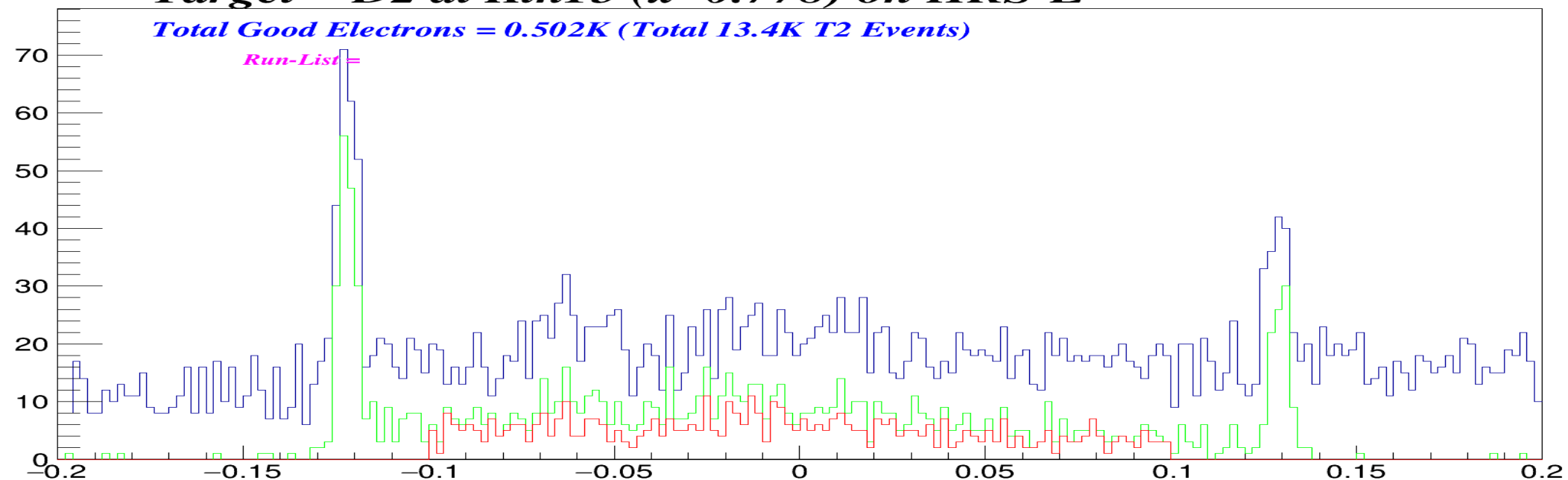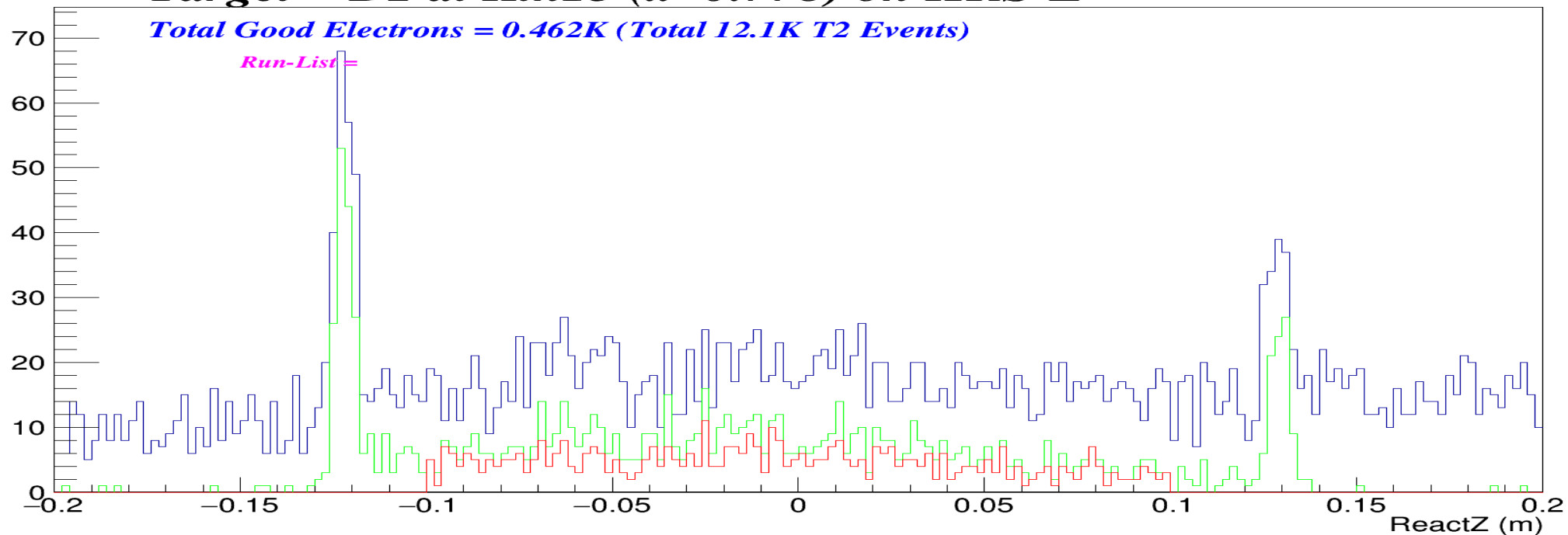
Run 2128 D2 Kin 15

Target = D2 at Kin15 (x=0.778) on HRS-L

Total Good Electrons = 0.502K (Total 13.4K T2 Events)

Run-List =

Target = D2 at Kin15 (x=0.778) on HRS-L

Total Good Electrons = 0.462K (Total 12.1K T2 Events)

Run-List =

ReactZ (m)

Results so far

Kin	# runs	Good E's	Good E's w/ new cut	Ratio cut/not
D2_kin15	48	17743	14976	0.844
H3_kin15	41	8952	7236	0.808
He3_kin15	52	8505	6849	0.805

Notes:
- Runs that have a change in current see a larger drop in Good Electrons, due to the process of determining the beam on conditions.
- Some runs that have very steady current, the beam on level gets set to high. This can cause slightly lower "beamUp" lengths then expect.