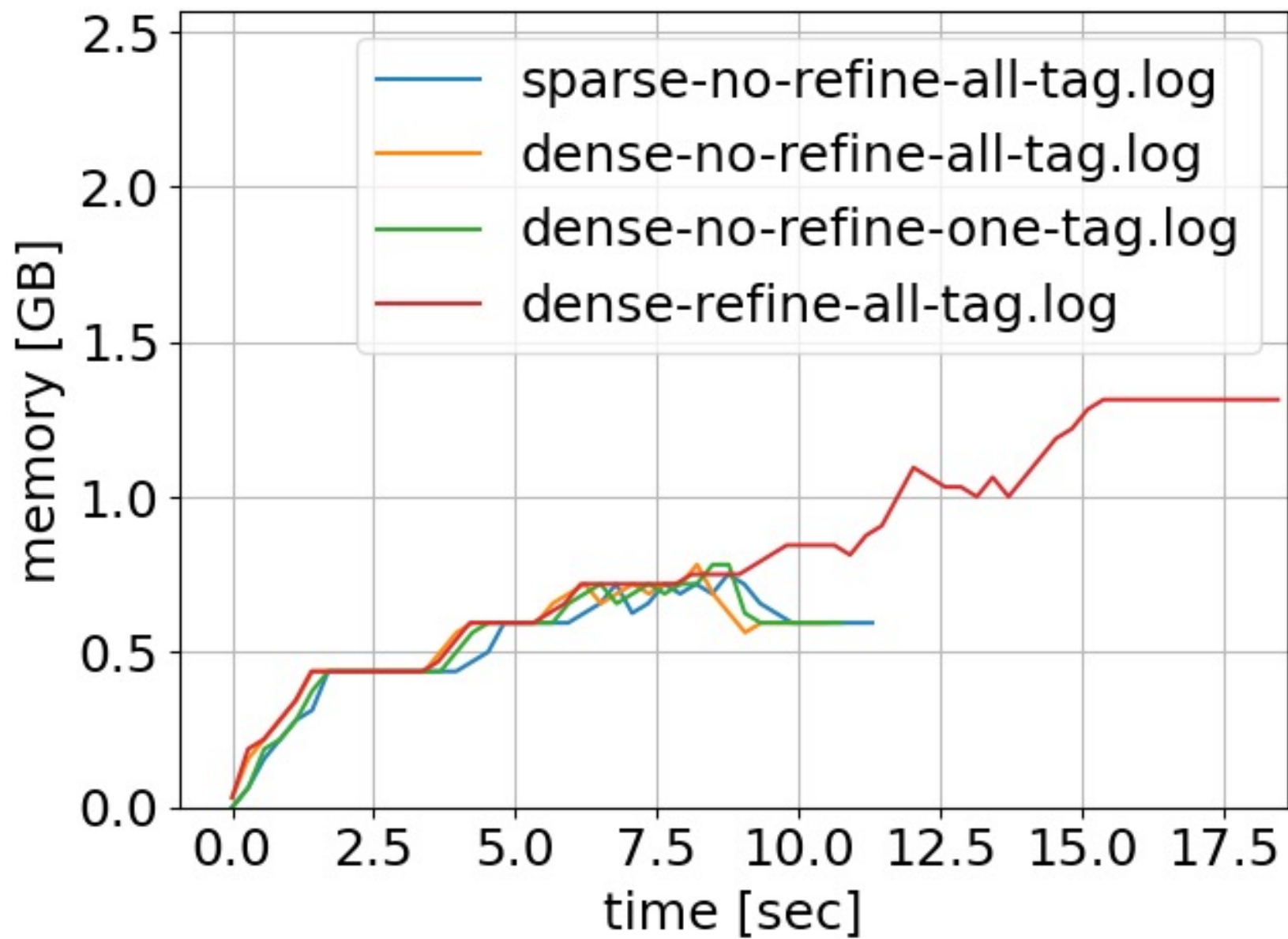


Code **Blame** 76 lines (61 loc) · 2.75 KB

Older                 Newer

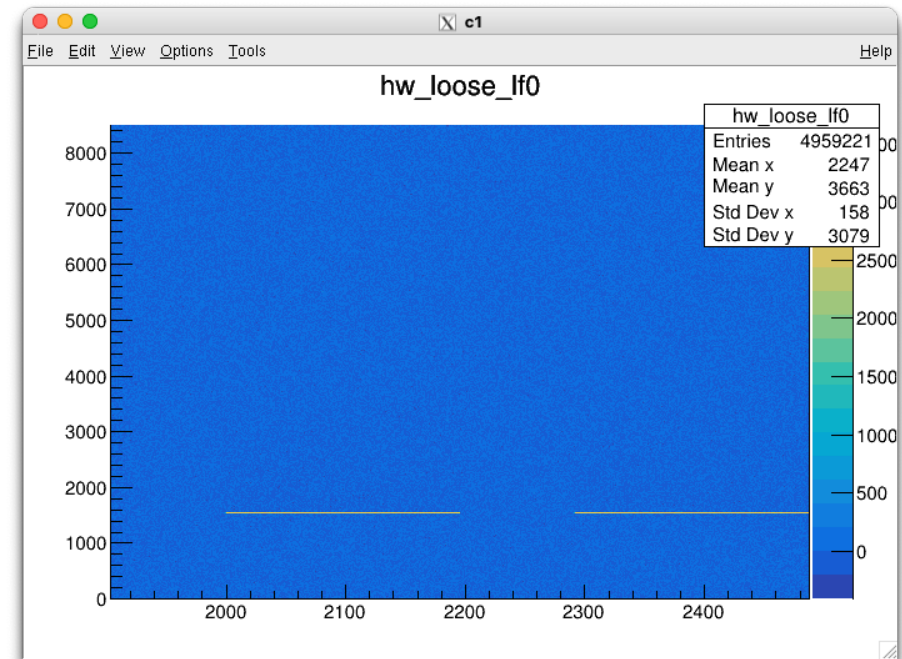
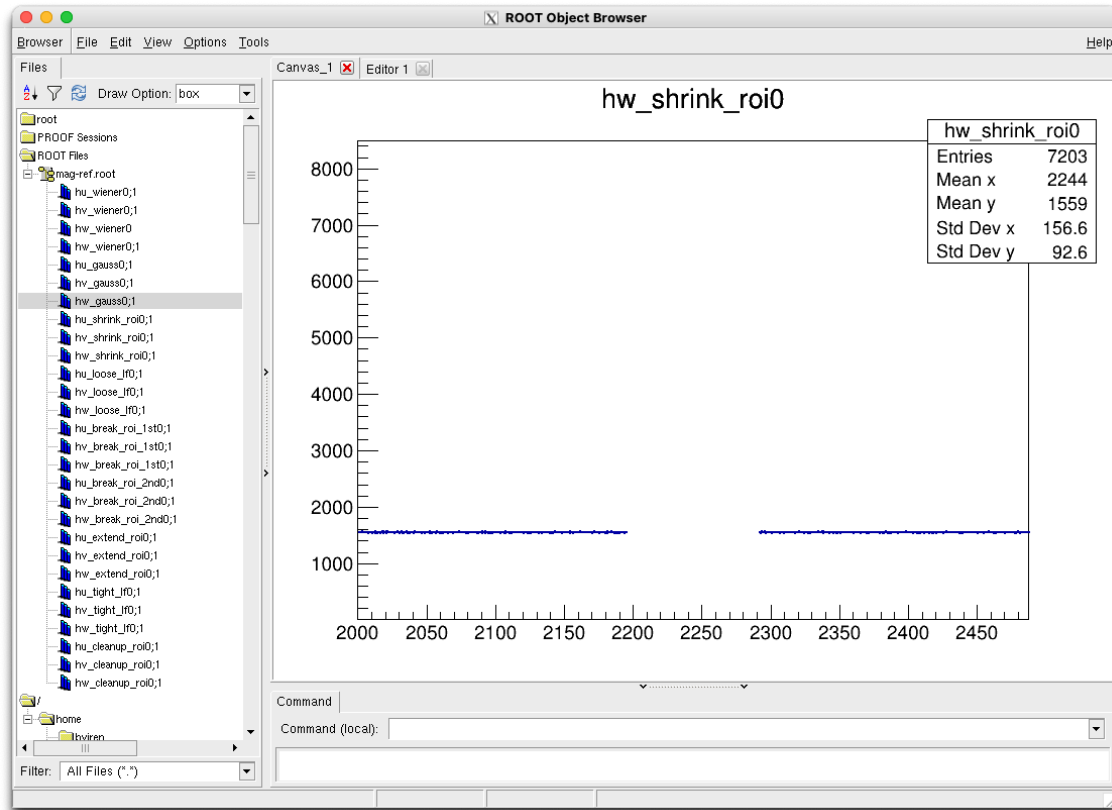
4 years ago	 move experiment specific wirec...	33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54	<pre>troi_col_th_factor: 5.0, // default 5 troi_ind_th_factor: 3.0, // default 3 lroi_rebin: 6, // default 6 lroi_th_factor: 3.5, // default 3.5 lroi_th_factor1: 0.7, // default 0.7 lroi_jump_one_bin: 1, // default 0  r_th_factor: 3.0, // default 3 r_fake_signal_low_th: 375, // default 500 r_fake_signal_high_th: 750, // default 1000 r_fake_signal_low_th_ind_factor: 1.0, // default 1 r_fake_signal_high_th_ind_factor: 1.0, // default 1 r_th_peak: 3.0, // default 3.0 r_sep_peak: 6.0, // default 6.0 r_low_peak_sep_threshold_pre: 1200, // default 1200  wiener_tag: 'wiener%d' % anode.data.ident, wiener_threshold_tag: 'threshold%d' % anode.data.ident, gauss_tag: 'gauss%d' % anode.data.ident,  use_roi_debug_mode: false,</pre>
3 months ago	 Including the "decon" output (... <input type="checkbox"/>	55	<pre>use_roi_refinement: true, //false, // default: true</pre>
4 years ago	 move experiment specific wirec...	56 57 58 59 60 61 62 63	<pre>tight_lf_tag: 'tight_lf%d' % anode.data.ident, loose_lf_tag: 'loose_lf%d' % anode.data.ident, cleanup_roi_tag: 'cleanup_roi%d' % anode.data.ident, break_roi_loop1_tag: 'break_roi_1st%d' % anode.data.ident, break_roi_loop2_tag: 'break_roi_2nd%d' % anode.data.ident, shrink_roi_tag: 'shrink_roi%d' % anode.data.ident, extend_roi_tag: 'extend_roi%d' % anode.data.ident,</pre>
3 months ago	 Including the "decon" output (... <input type="checkbox"/>	64 65	<pre>decon_charge_tag: 'decon%d' % anode.data.ident,</pre>
4 years ago	 move experiment specific wirec...	66 67 68	<pre>use_multi_plane_protection: false, mp3_roi_tag: 'mp3_roi%d' % anode.data.ident, mp2_roi_tag: 'mp2_roi%d' % anode.data.ident,</pre>



```

TFile**      mag.root
TFile*       mag.root
KEY: TH2F    hu_loose_lf0;1  hu_loose_lf0
KEY: TH2F    hv_loose_lf0;1  hv_loose_lf0
KEY: TH2F    hw_loose_lf0;1  hw_loose_lf0
root [2] hw_loose_lf0->Draw("colz")
Info in <TCanvas::MakeDefCanvas>:  created default T
root [3] .q
/home/yuhw/wc/icarus/sp-mem
$ll *.root
-rw-r--r--  1 yuhw yuhw 95M Feb  9 01:30 mag-ref.root
-rw-r--r--  1 yuhw yuhw 47M Feb  9 01:43 mag.root
/home/yuhw/wc/icarus/sp-mem
$

```



wire-cell-toolkit / cfg / pgrapher / experiment / icarus / sp.jsonnet

Code Blame 74 lines (60 loc) · 2.69 KB

```
33     lroi_rebin: 6, // default 6
34     troi_ind_th_factor: 3.0, // default 3
35     lroi_rebin: 6, // default 6
36     lroi_th_factor: 3.5, // default 3.5
37     lroi_th_factor1: 0.7, // default 0.7
38     lroi_jump_one_bin: 1, // default 0
39
40     r_th_factor: 3.0, // default 3
41     r_fake_signal_low_th: 375, // default 500
42     r_fake_signal_high_th: 750, // default 1000
43     r_fake_signal_low_th_ind_factor: 1.0, // default 1
44     r_fake_signal_high_th_ind_factor: 1.0, // default 1
45     r_th_peak: 3.0, // default 3.0
46     r_sep_peak: 6.0, // default 6.0
47     r_low_peak_sep_threshold_pre: 1200, // default 1200
48
49
50     wiener_tag: 'wiener%d' % anode.data.ident,
51     wiener_threshold_tag: 'threshold%d' % anode.data.ident,
52     gauss_tag: 'gauss%d' % anode.data.ident,
53
54     use_roi_debug_mode: false,
55     use_roi_refinement: false, // default: true
56     tight_lf_tag: 'tight_lf%d' % anode.data.ident,
57     loose_lf_tag: 'loose_lf%d' % anode.data.ident,
58     cleanup_roi_tag: 'cleanup_roi%d' % anode.data.ident,
59     break_roi_loop1_tag: 'break_roi_1st%d' % anode.data.ident,
60     break_roi_loop2_tag: 'break_roi_2nd%d' % anode.data.ident,
61     shrink_roi_tag: 'shrink_roi%d' % anode.data.ident,
62     extend_roi_tag: 'extend_roi%d' % anode.data.ident,
```

icaruscode / icaruscode / TPC / ICARUSWireCell / icarus / sp.jsonnet

Code Blame 76 lines (61 loc) · 2.75 KB

```
35     lroi_rebin: 6, // default 6
36     lroi_th_factor: 3.5, // default 3.5
37     lroi_th_factor1: 0.7, // default 0.7
38     lroi_jump_one_bin: 1, // default 0
39
40     r_th_factor: 3.0, // default 3
41     r_fake_signal_low_th: 375, // default 500
42     r_fake_signal_high_th: 750, // default 1000
43     r_fake_signal_low_th_ind_factor: 1.0, // default 1
44     r_fake_signal_high_th_ind_factor: 1.0, // default 1
45     r_th_peak: 3.0, // default 3.0
46     r_sep_peak: 6.0, // default 6.0
47     r_low_peak_sep_threshold_pre: 1200, // default 1200
48
49
50     wiener_tag: 'wiener%d' % anode.data.ident,
51     wiener_threshold_tag: 'threshold%d' % anode.data.ident,
52     gauss_tag: 'gauss%d' % anode.data.ident,
53
54     use_roi_debug_mode: false,
55     use_roi_refinement: true, //false, // default: true
56     tight_lf_tag: 'tight_lf%d' % anode.data.ident,
57     loose_lf_tag: 'loose_lf%d' % anode.data.ident,
58     cleanup_roi_tag: 'cleanup_roi%d' % anode.data.ident,
59     break_roi_loop1_tag: 'break_roi_1st%d' % anode.data.ident,
60     break_roi_loop2_tag: 'break_roi_2nd%d' % anode.data.ident,
61     shrink_roi_tag: 'shrink_roi%d' % anode.data.ident,
62     extend_roi_tag: 'extend_roi%d' % anode.data.ident,
63
64     decon_charge_tag: 'decon%d' % anode.data.ident,
```

```

1660 ..... files_fields: "icarus_fnal_fit_ks.json.bz2"
1661 ..... raw_input_label: "daqTPC"
1662 ..... reality: "data"
1663 ..... signal_output_form: "dense"
1664 ..... tpc_volume_label: 0
1665 ..... }
1666 ..... plugins: [
1667 .....   "WireCellGen",
1668 .....   "WireCellSigProc",
1669 .....   "WireCellRoot",
1670 .....   "WireCellPgraph",
1671 .....   "WireCellLarsoft"
1672 ..... ]
1673 ..... tool_type: "WCLS"
1674 ..... }
1675 ..... }
1676 ..... decon2droiEE: {
1677 .....   module_type: "WireCellToolkit"
1678 .....   wcls_main: {
1679 .....     apps: [
1680 .....       "Pgrapher"
1681 .....     ]
1682 .....     configs: [
1683 .....       "pgrapher/experiment/icarus/wcls-decode-to-sig.jsonnet"
1684 .....     ]
1685 .....     inputers: [
1686 .....       "wclsRawFrameSource:rfsrc0"
1687 .....     ]
1688 .....     outputers: [
1689 .....       "wclsFrameSaver:spsaver0"
1690 .....     ]
1691 .....     params: {
1692 .....       epoch: "after"
1693 .....       file_rcresp: "icarus_fnal_rc_tail.json"
1694 .....       files_fields: "icarus_fnal_fit_ks.json.bz2"
1695 .....       raw_input_label: "daqTPCROI:PHYSCRATEDATATPCEE"
1696 .....       reality: "data"
1697 .....       signal_output_form: "dense"
1698 .....       tpc_volume_label: 0
1699 .....     }
1700 .....   plugins: [
1701 .....     "WireCellGen",

```

sbm Search sbm

cerati, Joseph Zennamo, 3 others

+ Add a bookmark

Sorry, got disconnected. It might be that we would want both. So... why do we want full waveform? Because the ROI finding in the toolkit doesn't seem to work well with the levels of noise we have in ICARUS. So we use the 1D deconvolution coupled with a 2D ROI finding algorithm and then `loose_lf` regions to the 2D decon waveform. But it might be that in the future we could apply or 2D ROI finding algorithm on the `loose_lf` output and then apply that to the decon waveform. But for immediate purposes we only need the full decon waveforms. (edited)

Also, there was recently developed a "ChannelROI" output object to replace "Wire"... the difference being that the ChannelROI objects are simply short ints vs the floats of Wire. So we save a factor of 2 in size and we get better compressibility. I don't know if this could be made an option?

**cerati** 11:06 AM  
turning that parameter to false heavily reduces the memory usage (and timing as well):

```
Peak resident set size usage (VmHWM): 7307.62 MB
```

1

**Haiwang Yu** 11:07 AM  
`@cerati` Thanks! I will implement the "individual output" option then

**SFBayLaser** 11:08 AM  
As I typed above, we ultimately will want both I believe...

**Haiwang Yu** 11:09 AM  
`@SFBayLaser`, sure, that would be do-able with the "individual output" option.

Just keep in-mind that many of the waveforms are "dense", the memory will go up with additional sets of waveforms.

Meaning adding more could be NOT free

**cerati** 11:10 AM  
Thanks `@Haiwang Yu`, glad we tracked it down. Hopefully there is a way to get what ICARUS needs without this memory explosion. Does the individual output with both waveform returned bring us back to the previous memory usage?

**SFBayLaser** 11:10 AM  
And running the 1D deconvolution has a cost too... so we have to evaluate all of this to know how to get the best result

**Haiwang Yu** 11:13 AM  
`@cerati` right now, `use_roi_refinement: true` makes about 9 sets of waveforms, some are dense some are sparse. My estimation is that with the individual output option, output `loose_lf` and `decon`, both dense, will be about 1/3 to 1/2 of the 9-set situation. So still not free for sure.

**cerati** 11:15 AM  
ok, but still much better than what we have now

**Haiwang Yu** 11:15 AM  
Yes

B I

Message cerati, Joseph Zennamo, Mike Mooney, Sergey Martynenko, SFBayLaser

+

SFBayLaser is typing

$$52000 * 4096 * 4 / 1024 / 1024 / 1024 = 0.8 \text{GB}$$

# switches in OmnibusSigProc

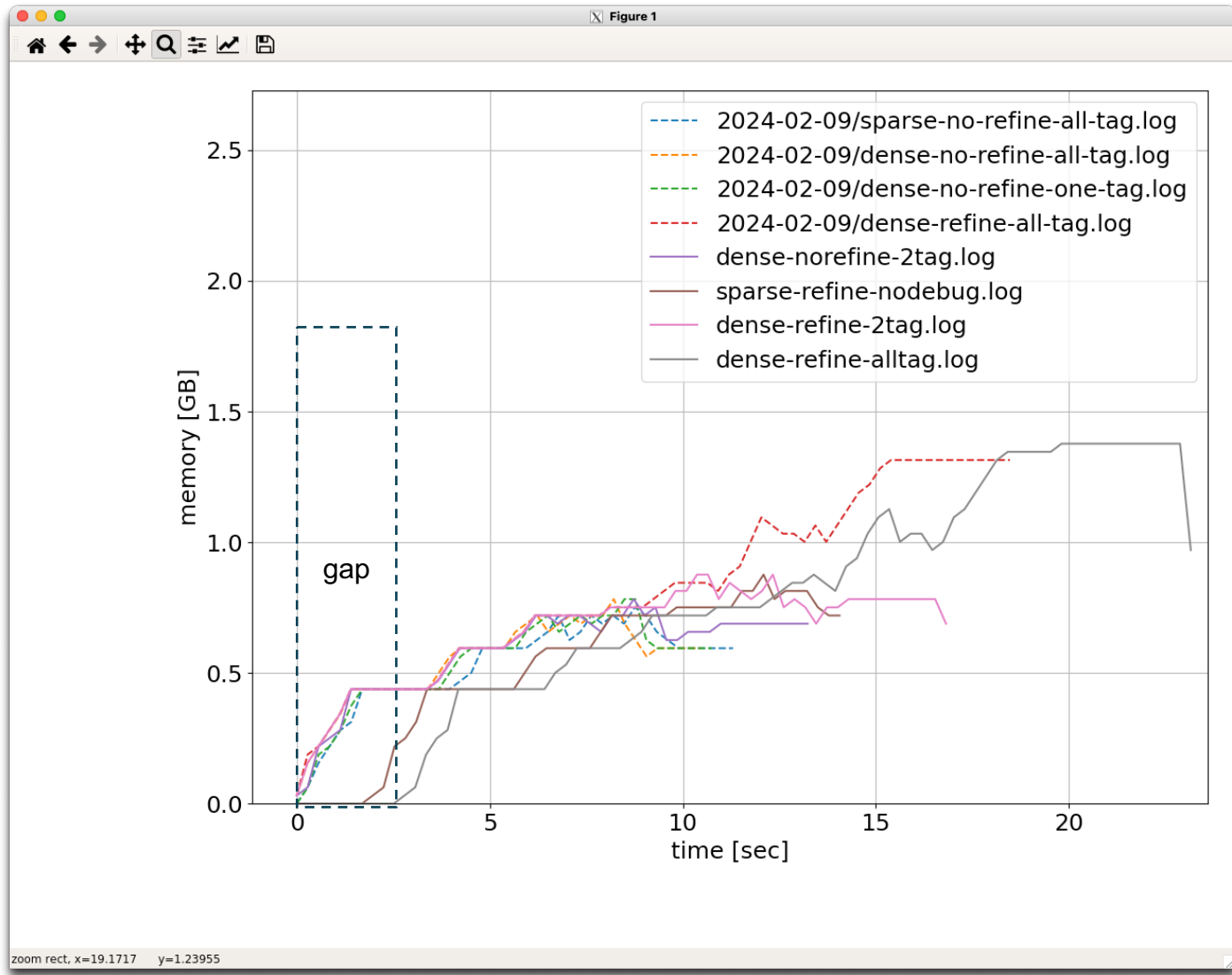
m\_use\_roi\_refinement

m\*\_tag

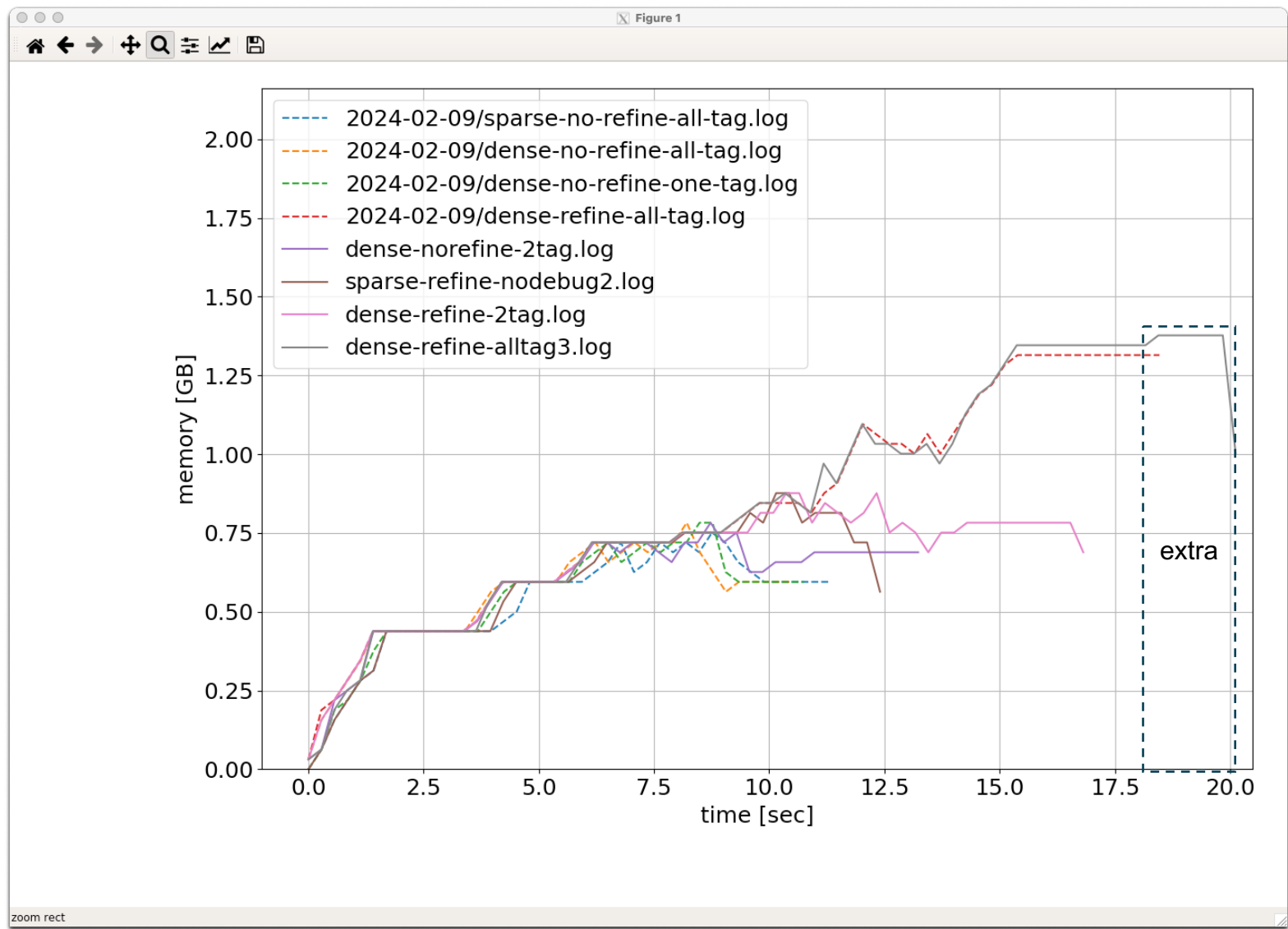
use\_roi\_debug\_mode

use\_multi\_plane\_protection

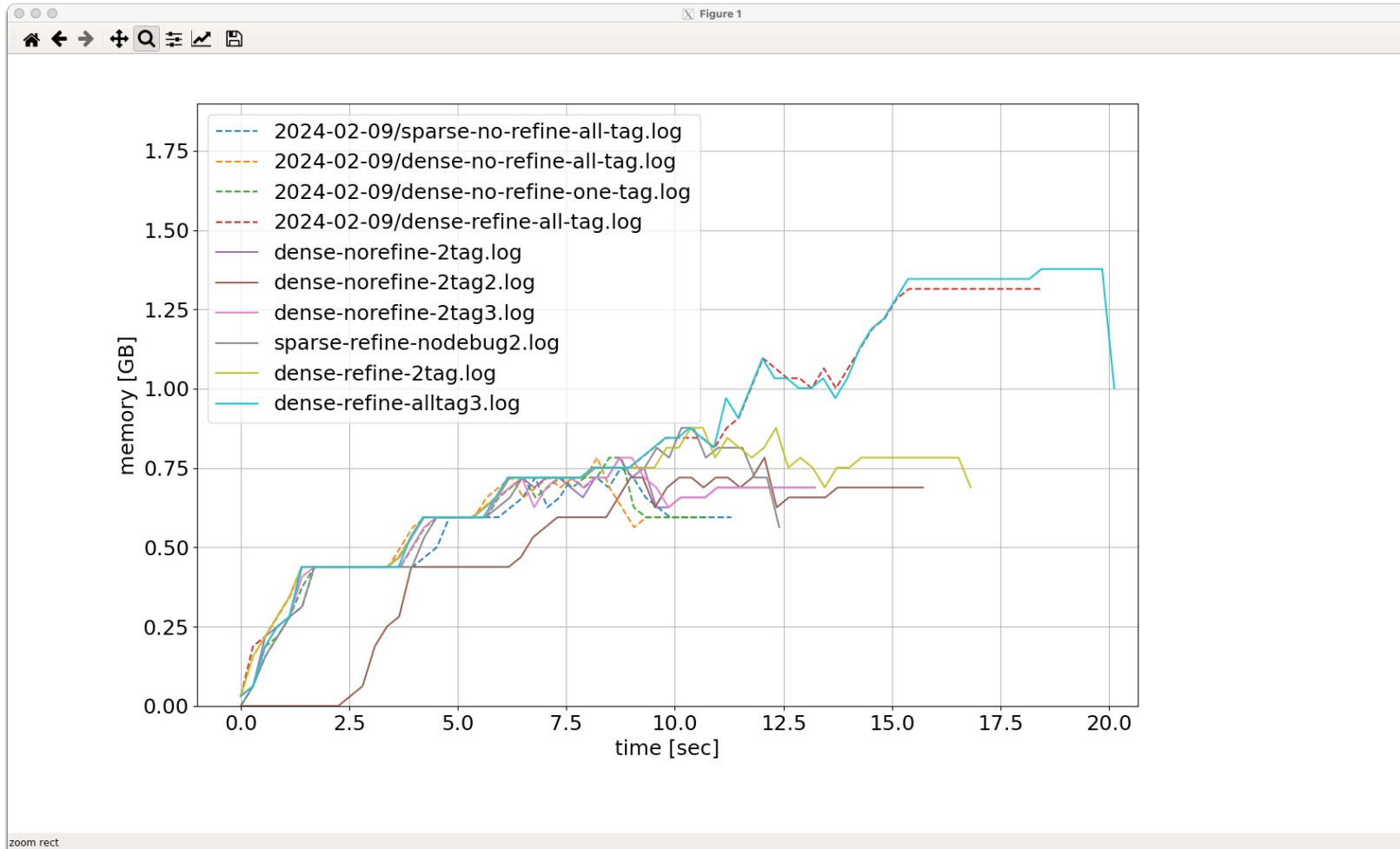




gap:  
 caused by this?  
 use\_multi\_plane\_protection: false,  
 mp\_tick\_resolution: 10,



extra is caused by dumping decon?



dense-norefine-2tag  
dense-norefine-2tag2  
dense-norefine-2tag3

were run under same cfg

2, 3 were run consecutively