

Sensor design Update

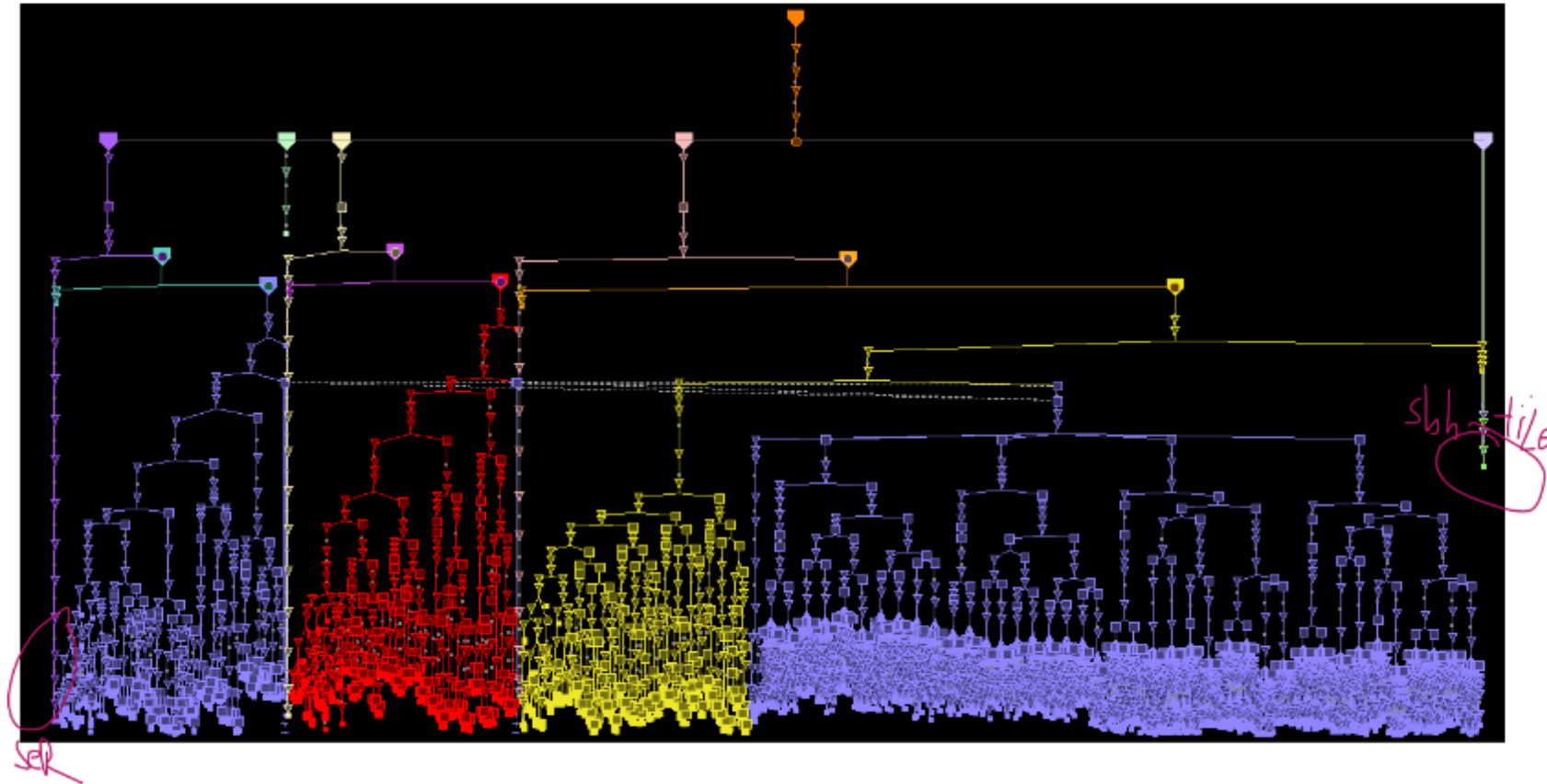
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Timing issue in the periphery



main



https://gitlab.cern.ch/mosaix/mosaix_rtl/-/merge_requests/691

Setup and hold violations



```
#####
Path 1: VIOLATED (-3.330 ns) Setup Check with Pin sbb_tile_wrapper_inst/sbb_tile_inst/sbb_clk_i->ser_data_a_i
View: av_normal_max_rcworst_setup
Group: clk_ser
Startpoint: (R) serializer_inst/load_rdataA_reg[3]/CK
Clock: (R) clk_160MserA
Endpoint: (F) sbb_tile_wrapper_inst/sbb_tile_inst/ser_data_a_i
Clock: (F) clk_ser

Capture      Launch
Clock Edge:+ 3.000      0.000
Src Latency:+ -6.33 7      -3.635
Net Latency:+ 1.330 (P) 4.097 (P)
Arrival:=    -2.007      0.462

Setup:-      0.349
Uncertainty:- 0.300
Cpnr Adjust:+ 0.093
Required Time:= -2.564
Launch Clock:= 0.462
Data Path:+   0.304
Slack:=      -3.330
Timing Path:
```

```
#####
Path 1: VIOLATED (-3.576 ns) Early Output Delay Assertion
View: av_normal_skew2_rcbest_hold
Group: clk_160MserC
Startpoint: (R) sbb_clk_i
Clock: (R) clk_ser
Endpoint: (F) sbb_tx_data_p_o
Clock: (R) clk_160MserC

Capture      Launch
Clock Edge:+ 0.000      0.000
Src Latency:+ -5.791      -5.791
Net Latency:+ 5.944 (P) 0.000 (I)
Arrival:=    0.153      -5.791

Output Delay:- 0.100
Uncertainty:+ 0.050
Cpnr Adjust:- 0.000
Required Time:= 0.103
Launch Clock:= -5.791
Data Path:+   2.318
Slack:=      -3.576

#-----#
# Timing Point          Flags Arc          Edge Cell          Fanout Trans Delay Arrival
#                          (ns) (ns) (ns)
#-----#
sbb_clk_i                -   sbb_clk_i        R   (arrival)         1 0.750 0.216 -5.575
CTS_ccl_inv_01882/Y      C1C2 A->Y         F   DFCLKINVD8        1 0.750 0.167 -5.408
CTS_ccl_inv_01881/Y      C1C2 A->Y         R   DFCLKINVD8        1 0.093 0.153 -5.256
CTS_ccl_inv_01880/Y      C1C2 A->Y         F   DFCLKINVD8        1 0.077 0.166 -5.089
CTS_ccl_a_inv_01879/Y    C1C2 A->Y         R   DFCLKINVD16A      1 0.094 0.140 -4.950
sbb_tile_wrapper_inst/sbb_tile_inst/sbb_data_p_o -   sbb_clk_i->sbb_data_p_o F   sbb_tile          1 0.149 1.299 -3.651
CTS_ccl_inv_00727/Y      C1C2 A->Y         R   DFCLKINVD4        1 0.130 0.090 -3.561
CTS_ccl_a_inv_00003/Y    C1C2 A->Y         F   DFCLKINVD4        1 0.038 0.088 -3.473
sbb_tx_data_p_o         -   sbb_tx_data_p_o F   -                  1 0.066 0.000 -3.473
#-----#
Other End Path:
```