

AGIPD Offline Correction



Detector group

Based on data sample: `/gpfs/exfel/exp/SPB/202030/p900119/raw`

Release : 2.8.3

April 30, 2020

Extended version

CONTENTS

1	Input of the calibration pipeline	1
2	Summary of the AGIPD offline correction	3
3	Runtime summary	4

INPUT OF THE CALIBRATION PIPELINE

in-folder	“/gpfs/exfel/exp/SPB/202030/-p900119/raw”	the folder to read data from, required
run	80	runs to process, required
out-folder	“/gpfs/exfel/d/proc/SPB/202030/-p900119/r0080”	the folder to output to, required
calfile	“”	path to calibration file. Leave empty if all data should come from DB
sequences	[-1]	sequences to correct, set to -1 for all, range allowed
mem-cells	0	number of memory cells used, set to 0 to automatically infer
interlaced	False	whether data is in interlaced layout
overwrite	True	set to True if existing data should be overwritten
cluster-profile	“noDB”	one
max-pulses	[0, 500, 1]	range list [st, end, step] of maximum pulse indices. 3 allowed maximum list input elements.
local-input	False	one
bias-voltage	300	one
cal-db-interface	“tcp://max-exf016:8015#8045”	the database interface to use
use-dir-creation-date	True	use the creation data of the input dir for database queries
sequences-per-node	1	number of sequence files per cluster node if run as slurm job, set to 0 to not run SLURM parallel
photon-energy	9.2	photon energy in keV
index-v	2	version of RAW index type
nodb	False	if set only file-based constants will be used
b1c-noise-threshold	5000	above this mean signal intensity now baseline correction via noise is attempted
corr-asic-diag	False	if set, diagonal drop offs on ASICs are corrected
melt-snow	“”	if set to "none" snowy pixels are identified and resolved to NaN, if set to "interpolate", the value is interpolated from neighbouring pixels

cal-db-timeout	300000	in milli seconds
max-cells-db-dark	0	set to a value different than 0 to use this value for dark data DB queries
max-cells-db	0	set to a value different than 0 to use this value for DB queries
chunk-size-idim	1	chunking size of imaging dimension, adjust if user software is sensitive to this.
creation-date-offset	“00:00:00”	add an offset to creation date, e.g. to get different constants
instrument	“SPB”	the instrument the detector is installed at, required
force-hg-if-below	1000	set to a value other than 0 to force a pixel into high gain if it's high gain offset subtracted value is below this threshold
force-mg-if-below	1000	set to a value other than 0 to force a pixel into medium gain if it's medium gain offset subtracted value is below this threshold
mask-noisy-adc	0.25	set to a value other than 0 and below 1 to mask entire ADC if fraction of noisy pixels is above the detector acquisition rate, use 0 to try to auto-determine
acq-rate	0.0	the detector acquisition rate, use 0 to try to auto-determine
gain-setting	0.1	the gain setting, use 0.1 to try to auto-determine
h5path-ctrl	“/CONTROL/- SPB_IRU_AGIPD1M1/MDL/- FPGA_COMP_TEST”	path to control information
karabo-da-control only-offset	“AGIPD1MCTRL00” False	karabo DA for control information Apply only Offset correction. if False, Offset is applied by Default. if True, Offset is only applied.
rel-gain	False	do relative gain correction based on PC data
xray-gain	False	do relative gain correction based on xray data
blc-noise	False	if set, baseline correction via noise peak location is attempted
blc-stripes	True	if set, baseline corrected via stripes
blc-hmatch	False	if set, base line correction via histogram matching is attempted
match-asics	False	if set, inner ASIC borders are matched to the same signal level
adjust-mg-baseline	False	adjust medium gain baseline to match highest high gain value
dont-zero-nans	False	do not zero NaN values in corrected data
dont-zero-orange	False	do not zero very negative and very large values
blc-set-min	False	Shift to 0 negative medium gain pixels after offset corr

SUMMARY OF THE AGIPD OFFLINE CORRECTION

```
-----  
IndexError                                Traceback (most recent call last)  
  
<ipython-input-4-14142e4e101c> in <module>  
    27  
    28 for i_key, key in enumerate(['offset', 'slopesPC', 'slopesFF']):  
--> 29     if const_times.shape[2]>i_key+1:  
    30         plot_const_table(key, i_key+1)  
  
IndexError: tuple index out of range
```

RUNTIME SUMMARY

JobID	Elapsed	Suspended
4658752	10:00:33	00:00:00
4658753	10:00:33	00:00:00
4658754	10:00:32	00:00:00
4658755	10:00:34	00:00:00
4658756	10:00:35	00:00:00
4658757	10:00:34	00:00:00
4658758	10:00:35	00:00:00
4658759	10:00:33	00:00:00
4658760	00:00:25	00:00:00