

Smart LAC [H410] Embedded Software Ver.1.2.1

The software of H410 controller is now updated to Ver.1.2.1

The following changes will adapt wider variety of applications for your convenience.

1. Two spot sorting rules are newly available :
Light spots can be sorted by “Peak” or “TotalCount” or the others.
2. “Peak” value of a selected light spot can be displayed in the screen:
In the older version, it displayed only an overall peak value.
3. A new command to readout information of each light spot :
A new command, “R107”, readouts LDPW, Exposure, Peak of, TotalCount of, and Size of each light spot, besides measurement results.
Also, the Stream mode now supports the new R107 data format.
4. The improved Auto Adjustment function :
Two new Auto Adjustment logics are available to the existing logics.
By setting a proper reflectance, the new Auto Adjustment logic can be quicker.

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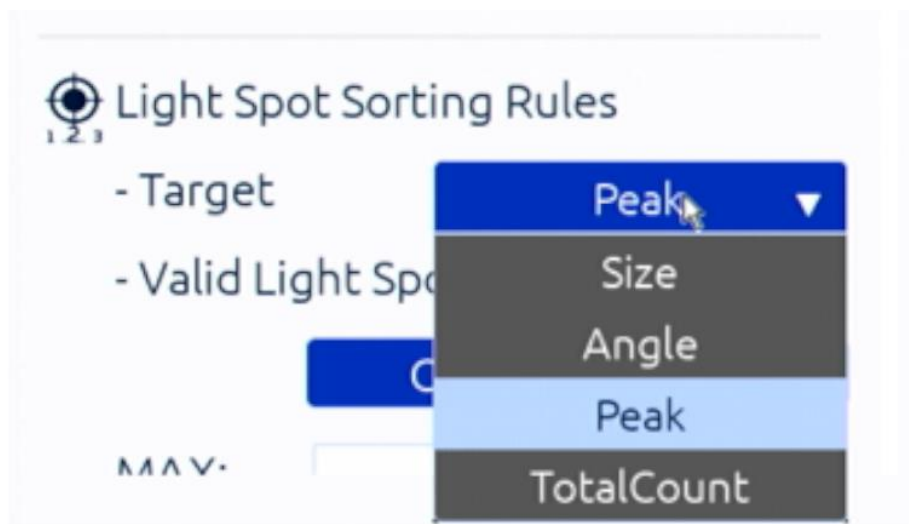
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T4171-01E

1. Two pot sorting rules are newly available

In the pull-down menu at the “Light Spot Sorting Rules” setting, “Peak” and “TotalCount” are added so that there are 4 options in the new version.



Available Options	
Older version	New Ver 1.2.1
<ul style="list-style-type: none"> •Size •Angle 	<ul style="list-style-type: none"> •Size •Angle •Peak (New) •TotalCount (New)

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Definition of Peak, TotalCount and Size.

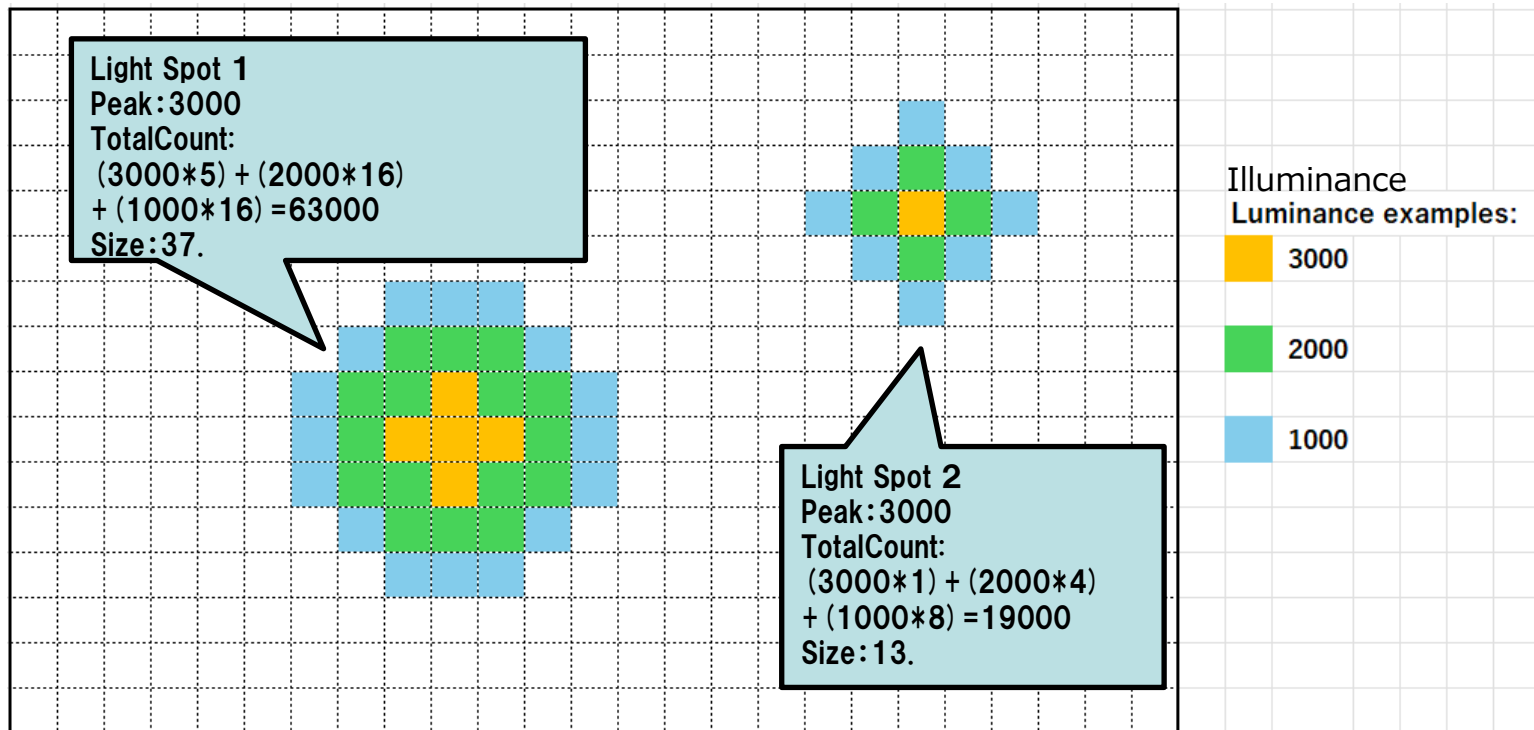
Peak : The highest illuminance of all pixels within the same light spot.

TotalCount : The sum of illuminance values of all pixels within the same light spot.

Size : The number of pixels within the same light spot.

Note: "spot" means: a group of pixels with effective illuminance* where are connected to each other in 8 directions.

[*A/D converted value of the pixel is larger than the user set threshold]

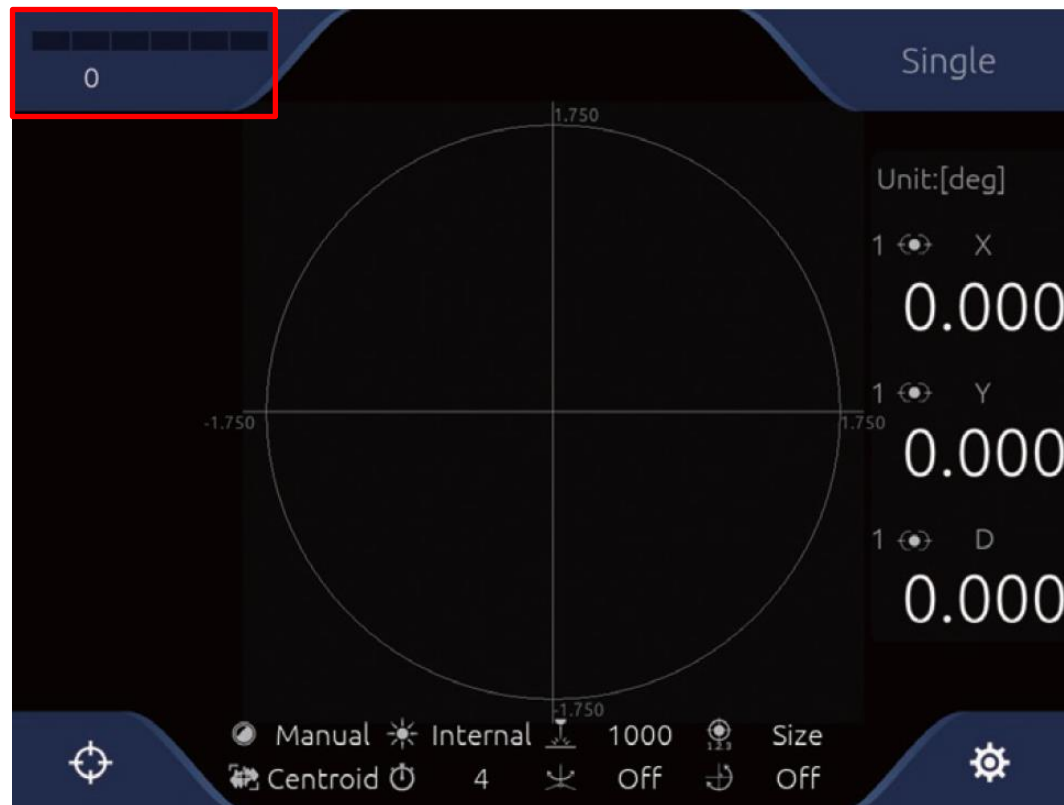


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2. "Peak" value of a selected light spot can be displayed in the screen

- In the older version, the peak value and indicator only display the highest in the area. In the new version, it can display the value according to the selected Target light spot.
- While the "All" is selected to the "Target", the highest peak among spots will be displayed.



3. A new command to readout information of each light spot

- The new command [R107] readouts detailed information of each light spot.
- Besides a measurement result, the outputs are "Overall Peak", "LDPW", "Exposure". It now also obtains "Peak", TotalCount, Size of each light spot, on a single execution.

The Command Example:

● Case: Target = All

Send : R107

Receive:

R107, Overall Peak, LDPW, Exposure, Judgement, X1,Y1,D1, Peak1, Totalcount1, Size1, ··
··, X5,Y5,D5, Peak5, Totalcount5, Size5

● Case: Target = Spot2

Send : R107

Receive:

R107, Overall Peak, LDPW, Exposure, Judgement, X2,Y2,D2, Peak2, Totalcount2, Size2

Terms

Overall Peak : Peak of the whole image

Exposure : Shutter speed (level 1 ~ 8)

Judgement : Result of tilt judgement (OK/NG)

X1、Y1、D1 : Tilt measurement result of light spot No.1

Peak1 : Peak of light spot No.1

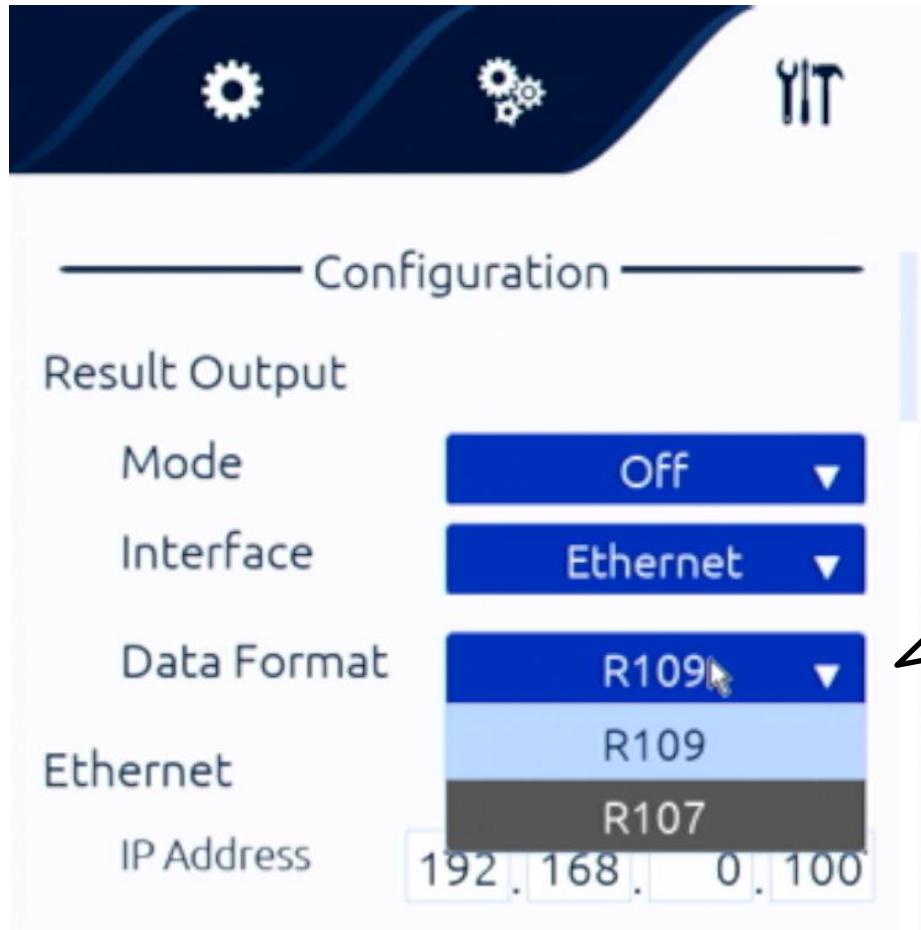
Totalcount1 : TotalCount of light spot No.1

Size1 : Size of light spot No.1

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3. A new command to readout information of each light spot

For “Result Output”, both in “Stream” mode and “I/O” mode, the data can be in either the R107 format or the R109 format.



- Data Format option is added below Interface.
- Pull-down menu.
- Options : [R107], [R109]
- Default : [R109]

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4. Improved “Auto Adjustment” function

- To achieve higher speed in Auto Adjustment, the algorithms behind it is enhanced.
- The logics in the older version can still be chosen from the pull-down menu.

Logic Name	Standard	Reflectance Optimize	Red only	Legacy
Order	1	2	3	4
Used in old version	—	—	Form V1.0.12	From V1.1.9
Cycle time	100ms	100ms	75ms	300ms
Max LDPW	4095	4095	4095	3600
Note	New logic. Revised Legacy version, faster.	New logic. Recommended for objects those reflectance is known.	Only used with red laser	Latest logic so far