

Hamamatsu C4880-81 Horizontal Offset

Abstract

The Hamamatsu C4880-81 camera configuration file has a Horizontal Offset field which can be used to adjust the picture area acquired by the MV-1500 digitizer. It may be necessary to fine-tune this field to prevent black borders or images that appear diagonal.

Symptoms

The Hamamatsu C4880-81 camera offers user-selectable binning. Under some conditions, the image acquired will have either a black border on the left-hand side of the image, or else the image will appear corrupted and “diagonal”. These problems can both be fixed by adjusting the Horizontal Offset parameter. There is a separate Horizontal Offset value for each binning.

Solution

There is a text file called “c4880.cam” that is located in C:\mm\vinput\mv1500\camera\. Substitute the location you installed Meta Imaging Series for “C:\mm” if necessary. This file can be edited with Notepad. This file can be edited while MetaMorph is running.

The end of the file appears like this:

```
[HOffset]
1=63 65
2=77 77
4=104 103
8=157 155
16=570 575
32=1500
```

This section of the file describes the offsets that are to be used for each binning factor, ranging from a binning of 1 (no binning) up to a binning of 32. Only the number immediately after the “=” sign is used – anything after the space is simply a comment and is ignored. So for example the Horizontal Offset for binning of 1 in the above example is “63”, the offset for a binning of 2 is “77”, and so on.

Here is an example of an image of a door, acquired with a macro lens, that illustrates a binning of 4 and the effect of different offset values:

HOffset where 4=93

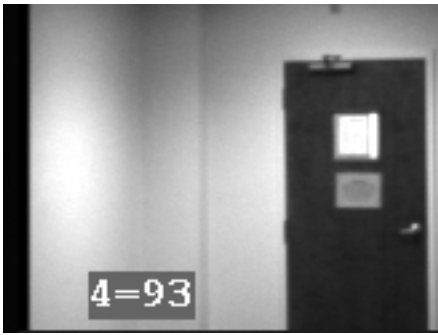
Notice the black border at the left of the image. This means the HOffset is too small.

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PRODUCTS
MetaMorph®
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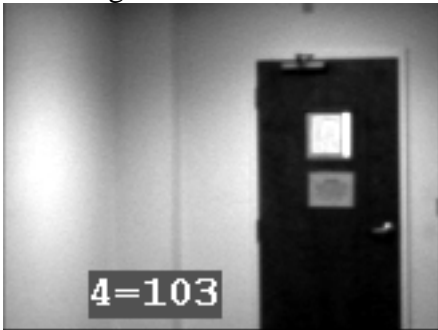
CREATED
17-July-2002

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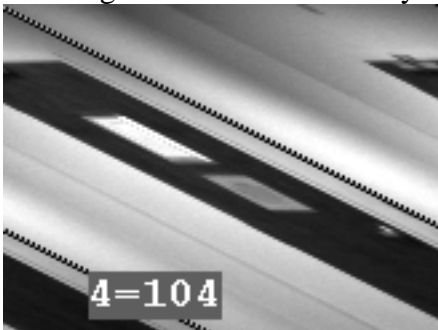
HOffset where 4=103

The image looks normal. The HOffset is correct.



HOffset where 4=104

The diagonal effect is caused by an HOffset that is too large.



Each camera may have a different value. Edit the value in Notepad, then save the file. Then in MetaMorph change the binning to something other than what you just edited, then change the binning back to the binning of what you just edited. Then acquire an image to see the results of the change you made.

Continue adjusting the offset value until the image appears correct..