**Subject:** Re: question from user on FLI lens coupled CCD camera
**From:** Mark Tate <mwt5@cornell.edu>
**Date:** Thu, 29 Jan 2009 10:15:01 -0500
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**CC:** Sol Michael Gruner <smg26@cornell.edu>, "Arthur R. Woll" <aw30@cornell.edu>, Darol Chamberlain <dc35@cornell.edu>
**X-Account-Key:** account4
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**Received:** from postoffice9.mail.cornell.edu ([unix socket]) by postoffice9.mail.cornell.edu (Cyrus v2.1.11) with LMTP; Thu, 29 Jan 2009 10:10:00 -0500
**Received:** from hermes31.mail.cornell.edu (hermes31.mail.cornell.edu [132.236.56.56]) by postoffice9.mail.cornell.edu (8.12.10/8.12.6) with ESMTP id n0TF9vF9006880; Thu, 29 Jan 2009 10:09:58 -0500 (EST)
**Received:** from orchid.mail.cornell.edu (orchid.mail.cornell.edu [132.236.56.61]) by hermes31.mail.cornell.edu (8.13.6/8.13.6) with ESMTP id n0TF9vx1010961; Thu, 29 Jan 2009 10:09:57 -0500 (EST)
**Received:** (from daemon@localhost) by orchid.mail.cornell.edu (8.13.6/8.12.6) id n0TF9t8F010011; Thu, 29 Jan 2009 10:09:55 -0500 (EST)
**Received:** from bigbro.biophys.cornell.edu (router4_tc [10.236.56.17]) by orchid.mail.cornell.edu (8.13.6/8.12.6) with SMTP id n0TF90aB009235; Thu, 29 Jan 2009 10:09:55 -0500 (EST)
**Received:** from bigbro.biophys.cornell.edu (bigbro.biophys.cornell.edu [128.253.36.10]) by 132.236.56.17; Thu, 29 Jan 2009 10:09:55 -0500
**Received:** from [192.168.2.102] (pool-71-182-126-225.syrcny.east.verizon.net [71.182.126.225]) by bigbro.biophys.cornell.edu (Postfix) with ESMTP id 96EFC10B9; Thu, 29 Jan 2009 10:09:53 -0500 (EST)
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**MIME-Version:** 1.0
**References:** <498096E4.7030008@cornell.edu>
**In-Reply-To:** <498096E4.7030008@cornell.edu>
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**Content-Transfer-Encoding:** 7bit
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**X-Original-Hostname:** bigbro.biophys.cornell.edu
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**X-PMX-CORNELL-SPAM-CHECKED:** poppy

```
Ken,
It should not take any change to the camera code as these functions are built in.

There are several commands which are supposed to change the region of interest of the
detector, although I have not tried them on the lens-coupled version.

flicommand imgarray xstart ystart xend yend

I'm not sure what the default values are (0 to 1023 or 1 to 1024)

The binning commands are
flicommand hbin nn
flicommand vbin mm

One  would also need to extract the proper regions from the correction files (intensity,
x_distortion and y_distortion). You could do this in TVX using the command
```

```
cut image_in image_out xstart ystart xend yend
(numbers within TVX DO go between 0 and 1023)
```
One would then subtract xstart from the extracted x_distortion piece and ystart from the
y_distortion piece so that the distortion correction places the pixels in the proper
place.
```
move x_distortion_1=x_distortion_piece - xstart
move y_distortion_1=y_distortion_piece - ystart
```

These smaller correction images would then be applied to the smaller region of interest.
(This assumes that you are using the latest image correction codes which don't rely on
value -10000 to flag pixels which get placed out of bounds- the new version tests image
boundaries and allows arbitrary transformations to be applied to the image correction
files, just for cases like this. I'm pretty sure Arthur has been using the latest version
of the correction algorithm, although I don't know if his standalone code works with
arbitrary sized images.)

You should really try this out well before the run to see that it works.

Mark


Kenneth Finkelstein wrote:
> Mark, Darol, and others,
>
> My C-line user Richard Jones (U Conn) asked yesterday if he can get copies of
> manuals for this detector because he wants to write code that (in time for their
> April '09 visit) would allow the downloading of only a specified sub-portion
> of the full CCD image.
> They do topography imaging of diamond crystals by performing rocking scans, at
> each step they record a CCD image. They want to speed up data collection hoping
> not to have to collect the full sizedl CCD image area.
> Richard is a master at computing, so if there is a way to do what he wants, I would
> like
> to  provide the info well ahead of the visit.
>
>                                      Thanks,
>                                              Ken