Appion - Bug #6530

Particle picks off center with K3

01/11/2019 10:03 AM - Scott Stagg

Status: New
Priority: Normal
Assignee: % Done: 
Category: Estimated time: 0.00 hour
Target version: Spent time: 0.00 hour
Affected Version: Appion/Leginon 3.4

Description

I'm having an instance of that old error where particle picks are systematically offset in one direction. I remember we had this issue a couple of years ago, but I thought it was fixed. Does anybody remember how we fixed this?

Related issues:

- Related to Appion - Bug #2930: zero degree particles are not centered
- Related to Appion - Bug #4904: FindEM produces artifacts when image dimension... 
- Related to Appion - Bug #5133: picks not centered

Associated revisions

Revision 81d48ecc - 10/03/2019 07:59 PM - Scott Stagg

Forgot to put in reference in last commit about pick centering refs #6530

History

#1 - 01/11/2019 10:15 AM - Anchi Cheng

I don't remember the fix, but K3/K2 has specific problem with binning that need to be considered.

The picking program generally bin the images by 4 to reduce processing time, but K3/K2 image dimension can not be properly divided by 4 in its physical pixel mode. It may impact the location it come out with.

#2 - 01/11/2019 11:19 AM - Neil Voss

- Related to Bug #2930: zero degree particles are not centered added

#3 - 01/11/2019 11:20 AM - Neil Voss

- Related to Bug #4904: FindEM produces artifacts when image dimensions have a large prime factor added

#4 - 01/11/2019 11:22 AM - Neil Voss

Hi Scott, it is in the python created images, the web image viewer, or both.

If it is both and you are using FindEM, then could be related to bug #4904 with weird image dimensions, I have to trim edges and have not done proper testing.

#5 - 01/11/2019 11:23 AM - Neil Voss

- Related to Bug #5133: picks not centered added

#6 - 01/11/2019 02:14 PM - Scott Stagg

It's both. The particles are off center when I make a stack

#7 - 10/03/2019 08:09 PM - Scott Stagg

I figured it out. The images were being trimmed both for binning and for picking. The picks were located on the trimmed images and applied to the untrimmed image without accounting for the trimmed pixels. It works now. Let me know if it works on your system.

#8 - 10/03/2019 08:13 PM - Anchi Cheng

Thanks for the fix. We don't have k3, yet.
FYI, it was probably an issue for the K2 as well, but you were just living with it.