Simple Manual for the GPU-based Registration for Split Dual-view Application

How to install the program

1, copy the folder "splitDualViewReg" to ImageJ or Fiji's main folder.

2, install the UI macro: ImageJ (or Fiji) Plugins--> Macros-->Install..., Choose the macro file "splitDualViewReg_UI.ijm" (within the "splitDualViewReg" folder). Then there will be a splitDualViewReg option listed on the Plugins--> Macros menu.

How to use the program

1. run the program:

ImageJ (or Fiji) Plugins--> Macros--> splitDualViewReg.

or

Directly open the "splitDualViewReg_UI.ijm" within imageJ (or Fiji) and run it;

2, Following the pop-up dialogs, sequentially select folders:

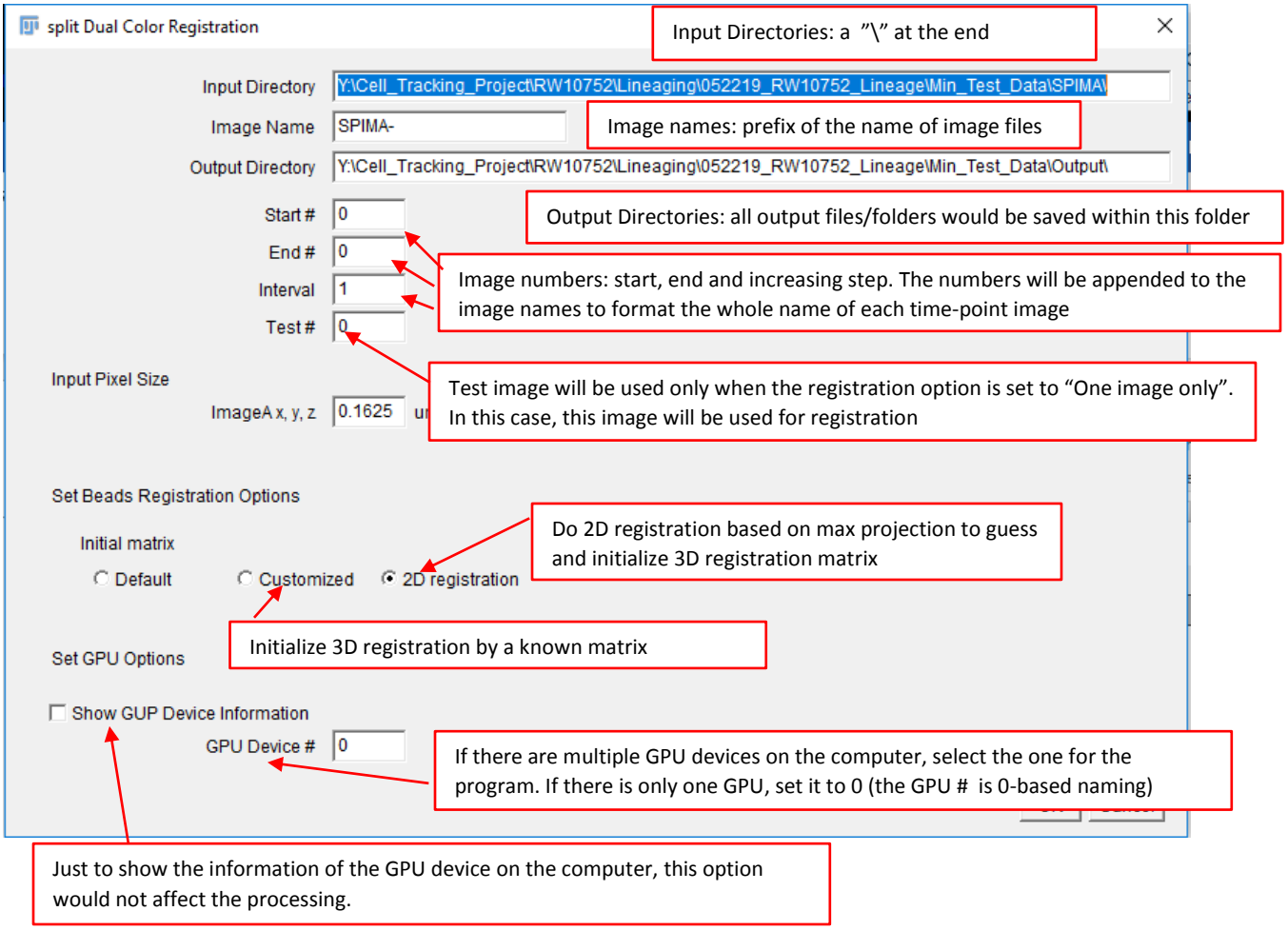
For single color: Input folder→Beads Image →Output folder;

3, Select Region of Interest:

The program pop-up 2 image windows (maximum projections of images), draw rectangles to contain the samples. The images will be cropped automatically based on the rectangles. The cropping will also be implied to the bead images. During the cropping a subtraction of 100 will also be applied to the images.

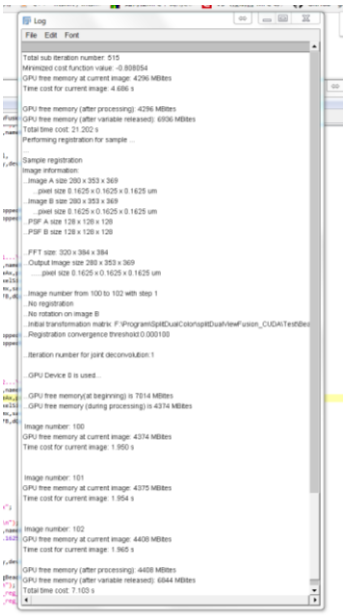
Users can adjust the contrast of each image if needed, but the size of the rectangles should be same.

4. Confirm and modify the parameters in the next pop-up panel.

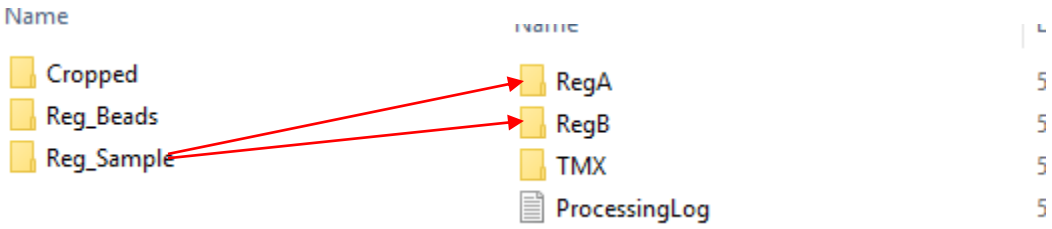


5. If “Customized” is selected for initial matrix, then users would be guided to choose a matrix file.

6. Then the macro calls GUP-based applications. And once the running is completed, all messages will show up in the imageJ log window.



7. The final outputs are within the folder “Reg_Sample”



Please note: if it’s the first time for the GPU device to run on the computer, it may take some time (up to minutes) to initialize the device. But once the device is initialized, it won’t need initialization next time.