

ImageJ mules

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mules

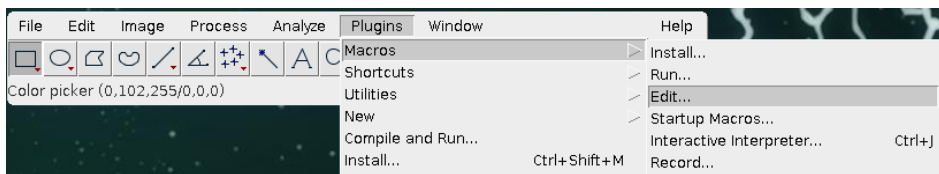
Multiple LEaf Separation

Quick and easy ImageJ macro for distinguishing multiple leaves in one image and finding the LAR of each leaf.

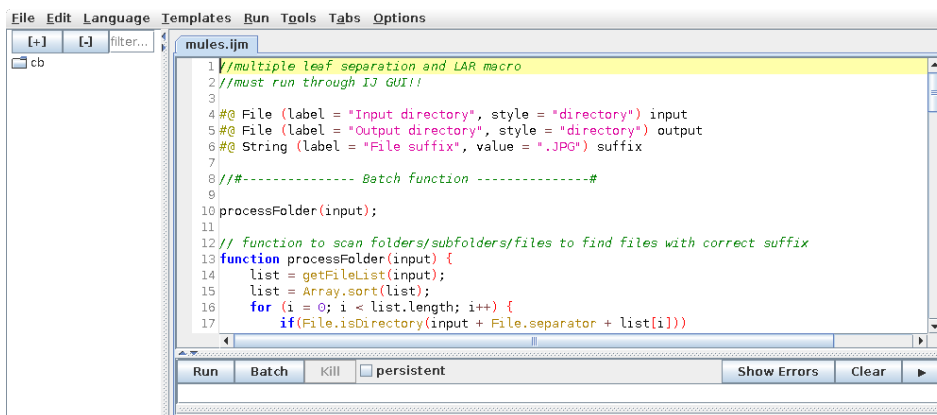
As with all image analysis projects, be sure to have a backup of your original images before starting!!

Workflow:

1. Download mules.ijm
2. Open ImageJ/ FIJI
3. Navigate to Plugins > Macros > Edit...

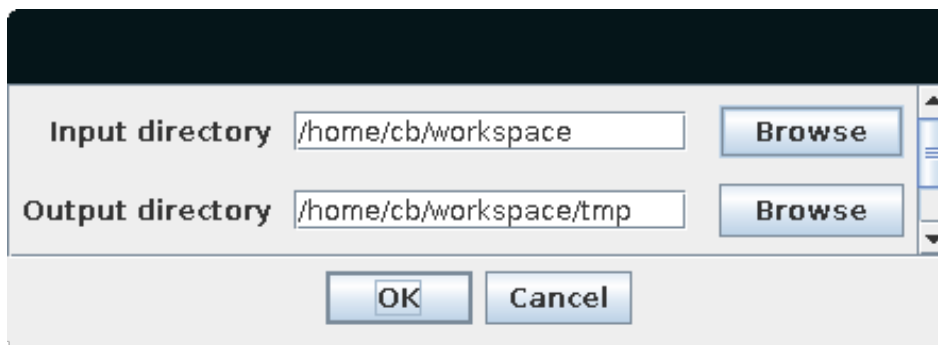
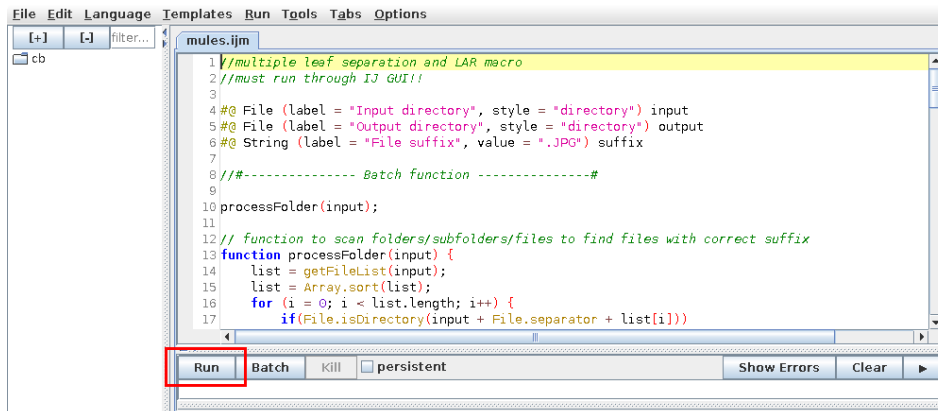


4. Open the mules.ijm file (most likely in your /Downloads folder) and a box containing the macro will appear

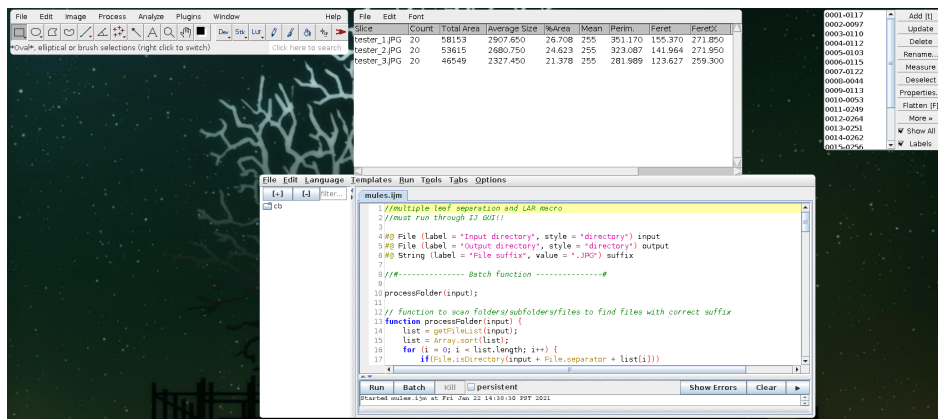


5. Do NOT open any images- this macro works through the given folder and does not need a starting image. You should only have the macro window open at this time.

- Click "Run" on the box with the mules.ijm file and select the folder containing the images you want processed as well as where you would like the outputs to go.



- You should see the screen flash a lot as the images gets processed. Your original image will close and a few output boxes will remain.



8. Check your folder containing the original image. You should see several new files that are split from the original.

```
5 /home/cb/workspace/tmp 1 2 3
tmp 66
tester_1.JPG 25.4 K
tester_2.JPG 29 K
tester_3.JPG 25.8 K
tester_1.csv
tester_1.png
tester_1_no1.png
tester_1_no2.png
tester_1_no3.png
tester_1_no4.png
tester_1_no5.png
tester_1_no6.png
tester_1_no7.png
tester_1_no8.png
tester_1_no9.png
tester_1_no10.png
tester_1_no11.png
tester_1_no12.png
tester_1_no13.png
tester_1_no14.png
tester_1_no15.png
tester_1_no16.png
tester_1_no17.png
tester_1_no18.png
tester_1_no19.png
tester_1_no20.png
tester_2.csv
tester_2.png
tester_2_no1.png
tester_2_no2.png
tester_2_no3.png
tester_2_no4.png
tester_2_no5.png
tester_2_no6.png
tester_2_no7.png
tester_2_no8.png
tester_2_no9.png
tester_2_no10.png
tester_2_no11.png
tester_2_no12.png
tester_2_no13.png
tester_2_no14.png
```

Output:

The ".csv" file will contain the coordinates and length of Feret's diameter (FeretX/Y & Feret) and breadth (BrdthX/Y & Breadth).

The file retaining the {".png"} will have a drawing to illustrate what was detected from the particle analysis, with leaf numbers corresponding to the item number in the ".csv" file.

Files ending with \underline{"_no#.png"} will be individual leaf images. These numbered images will match with whatever leaf number is shown in the drawing image.

NOTE: Individual leaf images are cropped pretty close by the program, but there shouldn't be any loss of total leaf area per image.