Region of Interest Analysis

1. Generate an SNR map following the instructions under the SNR section
2. Generate the map analysis that you want to complete the regional analysis on (ex. Activation, APD, S1S2…)
    a. All .csv files of the maps generated will be automatically saved into “Saved Data Maps" in the designated file name. This can be found in the ‘src’ folder in kairosight.
    b. NOTE: If you are analyzing multiple images in one big file, and wish to save all the map data, make sure to make a copy and either put it into a folder there or move to a separate location once you have completed the ROI analysis of the data. You have to move it because once you generate the next SNR and other analysis maps they will overwrite the ones currently saved there.
3. Select the “Region of Interest Analysis” Button
4. Input how many regions you want to analyze and click ok
    a. NOTE: The SNR image will be generated on a scale of 0 - 70
5. Start selecting the areas you wish to analyze.
    a. Couple of important notes
        i. Make sure to have your first point and last point of a region be are the same spot or close enough to each other to enclose the area
        ii. If you are doing multiple regions in the analysis, make sure to click enter after completing one region or else it will not register.
        iii. Finally to get good results, avoid any noise shown in the SNR and leave a good distance in between the noise and the region areas.
6. When you are finished with the last region and press enter
    a. NOTE: Once all the regions are selected, they will automatically be saved in the ‘Saved Region Maps' under the file name in the src folder in kairosight.
7. When you press enter on the last region, a window will appear with the saved .csv files from the “Saved Data Maps” folder. Select the .csv file of the map you wish to analyze and click open
8. It will open another window where you can input the name of the file if you wish to change it from its original name. If you do not, just select “ok” and it will generate the mean, median, sd, n values of the regions.
    a. NOTE: The results will then be automatically saved into “ROI Analysis” under its file name. The results will be displayed under a folder will the map analysis separated into the regions selected and another .csv folder called “all_results”
        i. For example, if APD 30,50,70 was analyzed then there would be three folders named “apd 30.0, apd 50.0, and apd 70.0” with those specific map results of the regions as well as a .csv file called “all_results” that as all the results together
9. When repeating the ROI when another image from the same file, a window will appear asking if you wish to use the same regions or wish to redo them.
    a. If you select “yes”, it will ask how many regions did you want to use from the saved regions

i. If you are using all the regions saved, just input the numbers of the regions you selected and continue from step 8
    1. If you have four regions saved, type out 1,2,3,4
ii. If you are only wanting one or two of the regions to be analyzed, input the number of the regions (1,3,4) and click okay then continue from step 8.
    1. The regions are numbered in order as they were created (i.e. the first region selected is 1, and the third region selected is 3…).

b. If you select “no”, you will repeat the procedure from step 4.

10. When finished with the data you had wanted to analyze, if you only want to have the mean, median, sd, or n values saved then click “Individual ROI Results”
    a. Enter the name of the result you wish to have and click ok
    b. The results will be saved in an .csv file in its designated file name folder under the ROI Analysis folder in src.
    c. The .csv file will be named “(result selected)_individual_results”
        i. EX) if you only wanted the mean, the .csv file would be named “mean_individual_results”