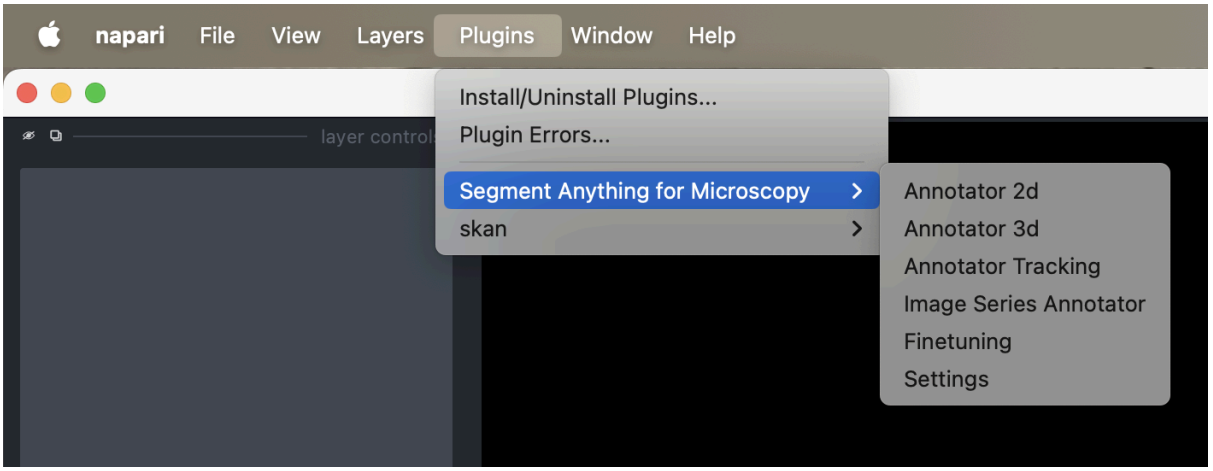
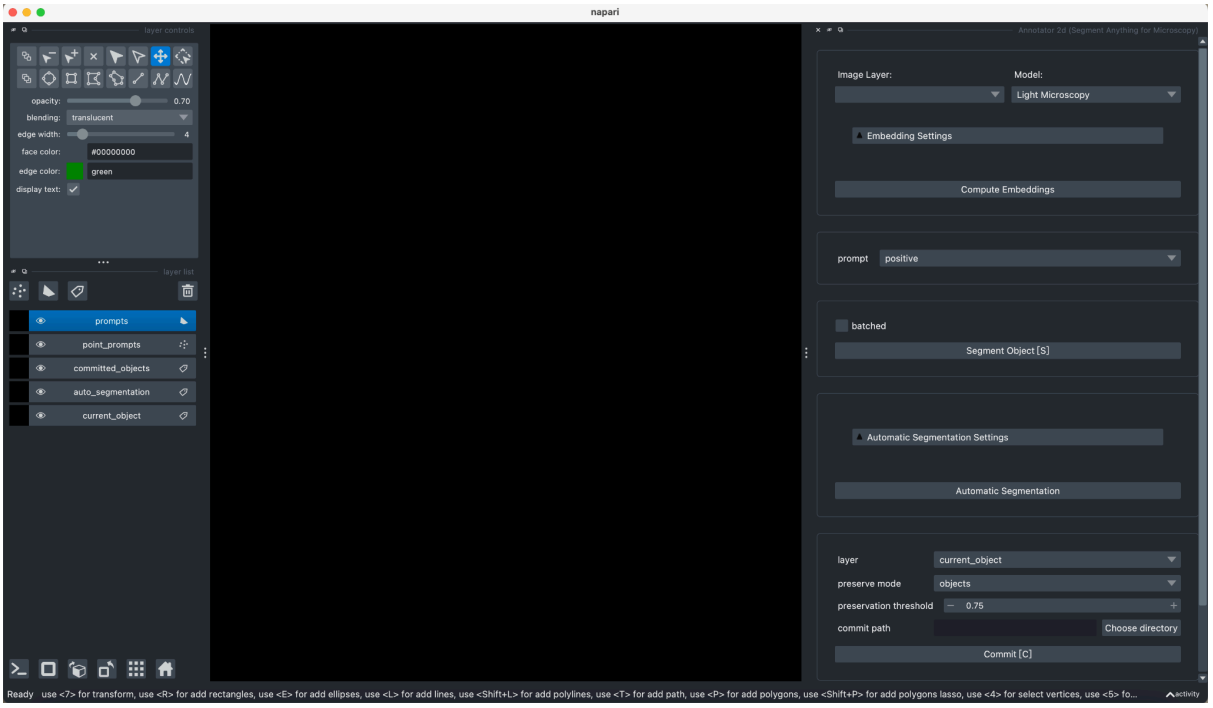
User stories List Based on V1.0 Prototype V2.0

1. A User wants to do some research on cells, so he/she decides to use our Napari plugins to segment the cell images.
2. User opens the terminal in an environment-configured device, and input napari command to open the plugin.
3. The Napari will automatically open and the user clicks on the plugin menu on the top left and then see below drop down menu:

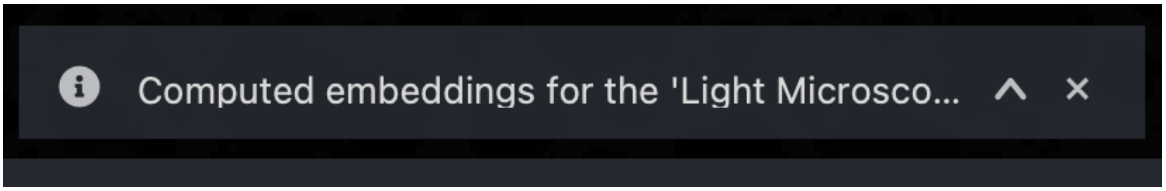


4. Firstly the user clicks on Annotator 2d, and the right side widget will be opened. The user is also able to see few masks in the left widgets. Shown as below.

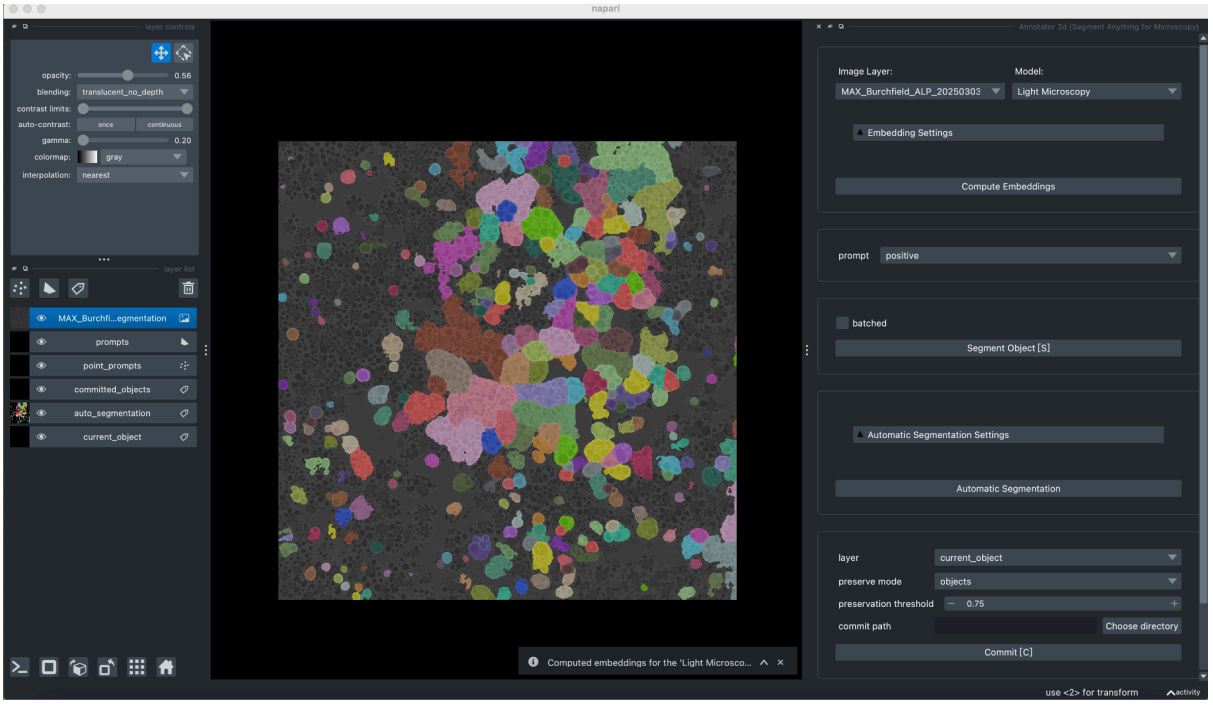


5. The user is able to click on the button ‘File’ on the top left and then ‘open-file’ button so that he can review the device libraries to choose a tiff image. (On the other cases, the user is also able to just drag the tiff image into the napari windows, it’s also acceptable.)
6. The user clicks the ‘open’ button and then the image will be displayed on the screen.

7. The user clicks the ‘Compute Embedding’ button firstly to compute the image. The image is successfully loaded if the user sees this display as below:



8. Then the user clicks on the ‘auto-segmentation’ button on the right, the napari will segment the cell images.
9. The user is able to see the result of auto-segmentation in the auto-segmentation mask on the left widget.
10. The user can adjust the opacity, gamma and contrast limit to let the cell images to be displayed on the screen. The result can be like below:



11. The user finds that the accuracy of auto-segmentation is a bit low. And then he/she uses box-segmentation to choose the cells that have been wrongly segmented.
12. The user clicks on the prompt button in the plugin list of Napari.
13. The user clicks on the Bounding box button on the left widget, and uses the draw box button on the top left of the window to draw the box.
14. After the user draws the box on the image, he/she clicks overwrite on the right widget inside the box-segmentation widget, and then clicks on the segment button, he/she finds that two cells have been segmented into one.
15. The user still does not get what he/she wants, then the user clicks the point_prompts on the left widget.
16. The user clicks the ‘add-point’ button so that the plugin can automatically add new points and segments itself. Then it will separate those two cells with points.
17. The user clicks the different mask and is able to only display specific layers of cells.
18. The user is able to click on the ‘seen/unseen’ button on the left of each mask.
19. The user is able to see only a few masks that what he/she wants.
20. The user selects a different image and auto-segmented the image again.