Elevated Zero Maze Tutorial
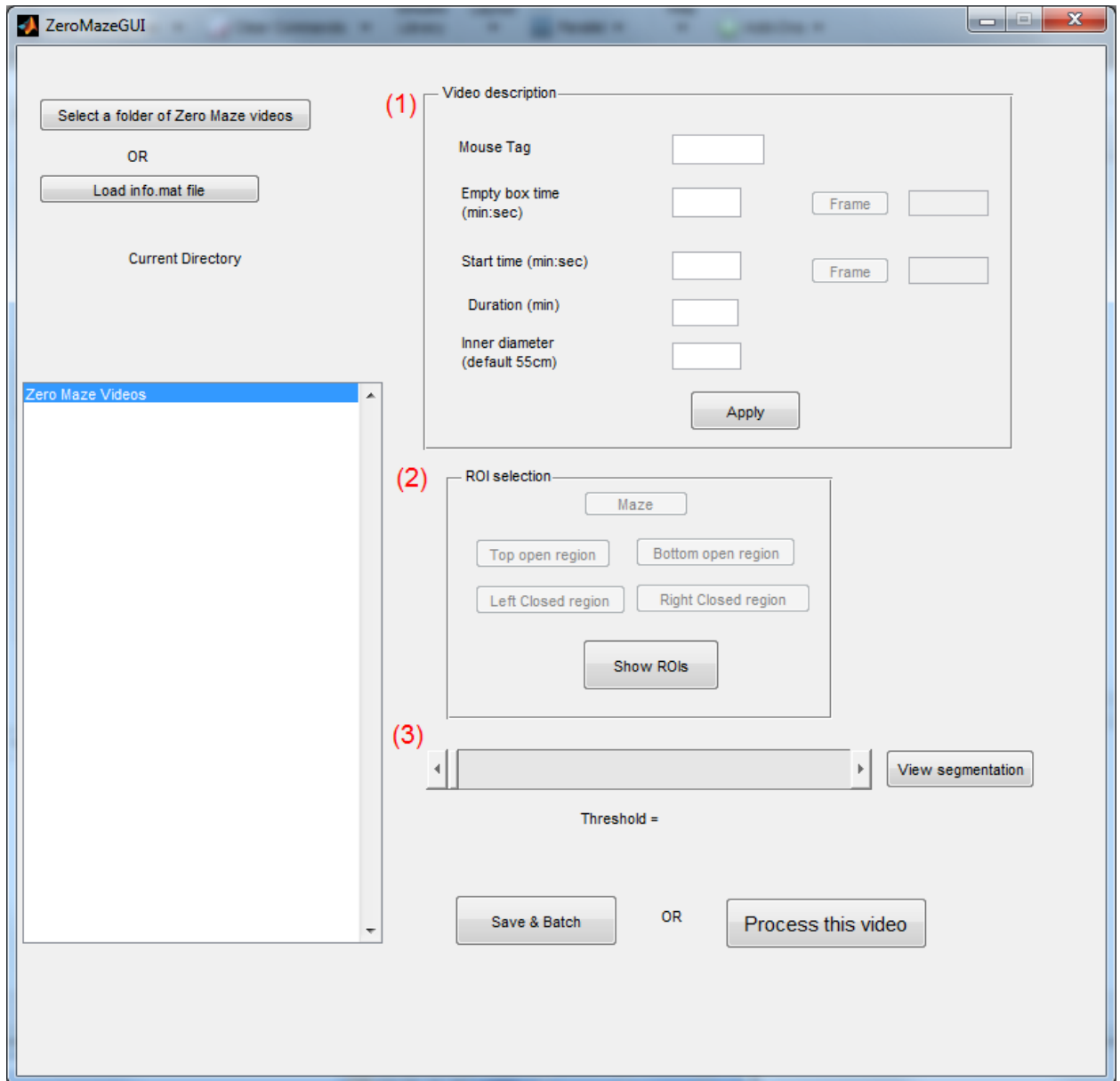
1) Navigate to autotyping/ZeroMaze and enter the command ZeroMazeGUI at the command window in MATLAB. A screen should pop up that looks like the one below.

2) The next step is to load the videos. Click on the button that says "Select a folder of Zero Maze videos". Each video name should appear on the left hand side.

3) Double click on the video names to open the video in order to fill out the rest of the information.

4) "Mouse Tag" is just the mouse number and is usually found written on an index card in the center of the maze. (Here it would be 2806)

5) "Empty box time" is a time before the mouse is loaded into the maze. Any one second increment before the mouse is loaded in should work. Try to pick a time when the camera is steady and not shaking. If empty box time is unavailable, enter 0:0.

6) "Start time" is the time when the mouse is loaded into the maze. Use the time after the mouse has been loaded and after the person's hand has left the frame. Click on the "Frame" button to make sure you are happy with the start frame.

7) Once all the video description information has been entered, hit the "Apply" button.

8) The next step is the ROI (region of interest) selection.
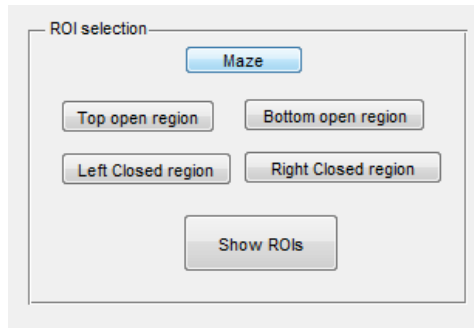
9) For "Maze", draw an ellipse around the inner portion of the maze and double-click. Then draw an ellipse around the outer portion of the maze and double-click.
10) For the other regions just draw around each portion listed. (They will be drawn free hand and should be similar to the blue blobs below) The most important part is the line separating the open and closed regions.
11) It should look something like this when you click Show ROIs:

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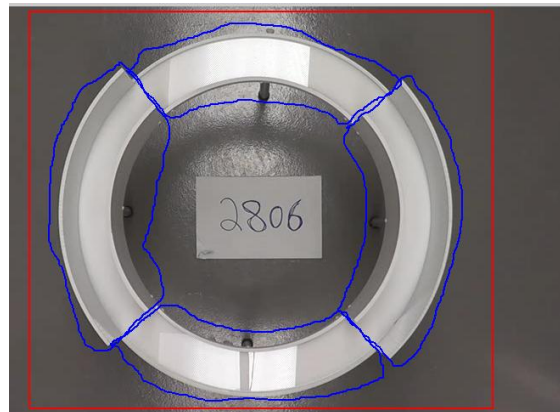
12) Step 3 in the GUI is optional but recommended if you did not select an empty box time. In this case, segmentation is done by threholding on the actual image frame rather than background subtracted frame. Adjust the threshold to make sure you are happy with segmentation.
13) Click Process this video to see tracking and scoring of zero maze. Once satisfied, click Ctrl + C in the command window to stop and return to the GUI.
14) Move onto the next file and repeat.
15) Once finished, click Save & Batch. You may either start processing all the videos in batch and choose to process them later. If you choose later, exit the GUI.
16) Go back to the home screen for MatLab. and "edit Read_Fnames
17) Put in the experiment folder in the Read Fnames screen surrounded by single apostrophes. The file name should be something like 'C:\Users\admin\Desktop\test EZM'
18) Add a backslash (\) to the end of the file name, and apostrophes at the beginning and end of the text. It will turn purple and look something like this: 'C:\Users\nbcore\Desktop\test EZM\' . You may put multiple experiment folders, each on separate line.
19) In the command window type: ZeroMazeBatch

20) It should say "Busy" in the bottom left corner.
21) The videos are now being analyzed and there will be a results folder made within each of the files.