# Step-by-step demonstration on how to use the code

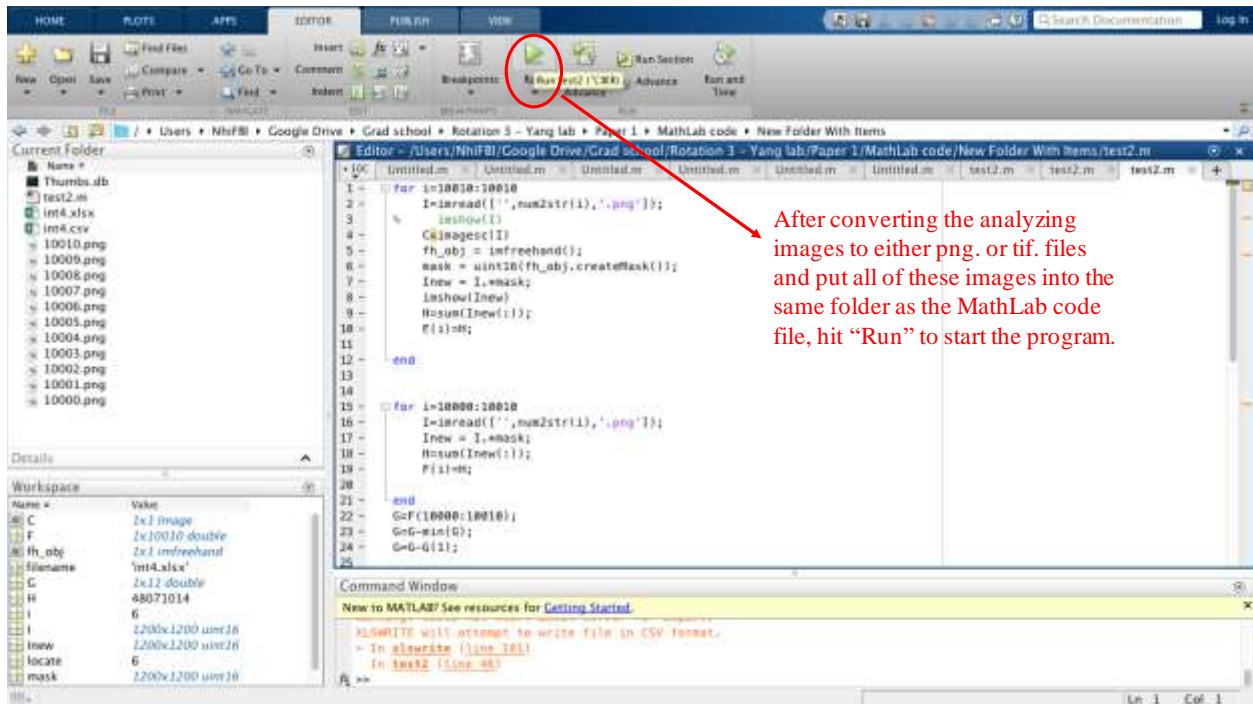

After converting the analyzing images to either png. or tif. files and put all of these images into the same folder as the MathLab code file, hit "Run" to start the program.

*Figure 1: The code that was used to analyze $t_{1/2(Imax)}$.*



After hitting "Run", the program will show 10th image of scrambling activity (AnV-CF594), which is the one that was captured at 10mins. Select the cell that needs to be analyzed by drawing around the boundary of selected cells, and then double click on the selected region to allow the program to calculate $t_{1/2(Imax)}$
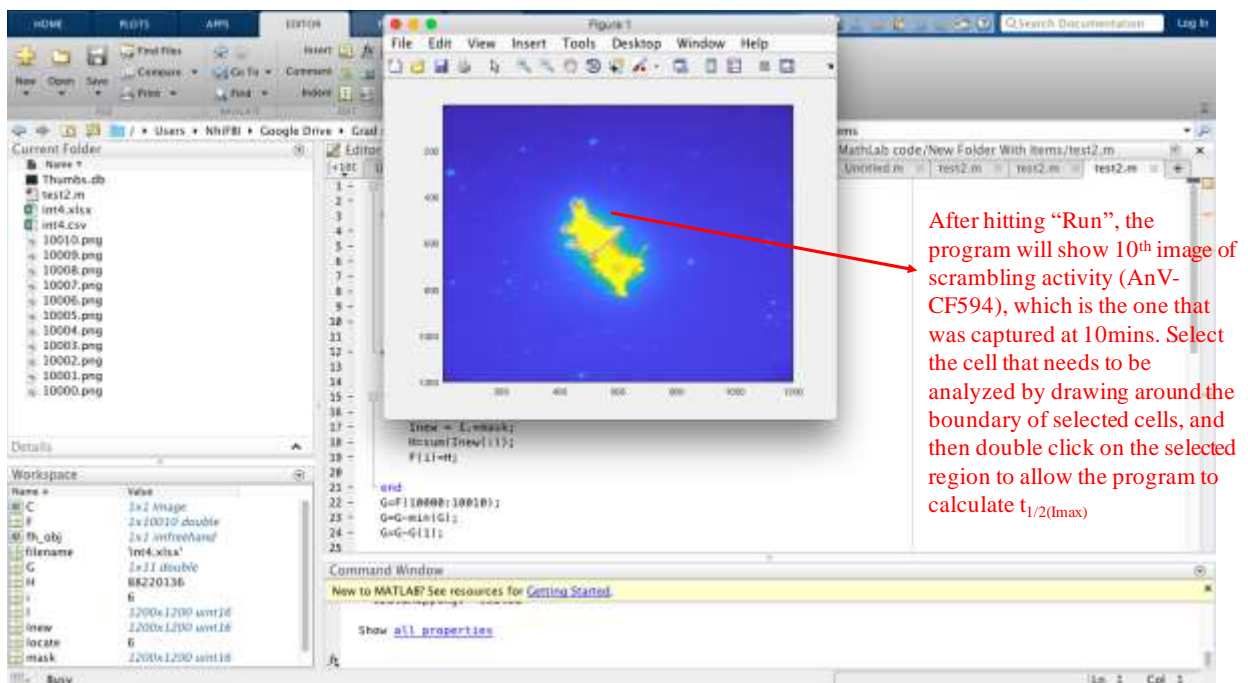
*Figure 2: An example of analyzing $t_{1/2(Imax)}$ of a scrambling cell.*

This is the graph showing change in AnV-CF 594 intensity overtime. Note: the interval between each frame is 60-second.

The program will give final result here. "Locate = 6" means the AnV-CF 594 reaches 50% of its maximum intensity throughout 10mins at frame 6th. This can be converted into time by multiplied to five as there are 60-second intervals between frames. Hence, $t_{1/2(Imax)}$ here is 360 seconds.
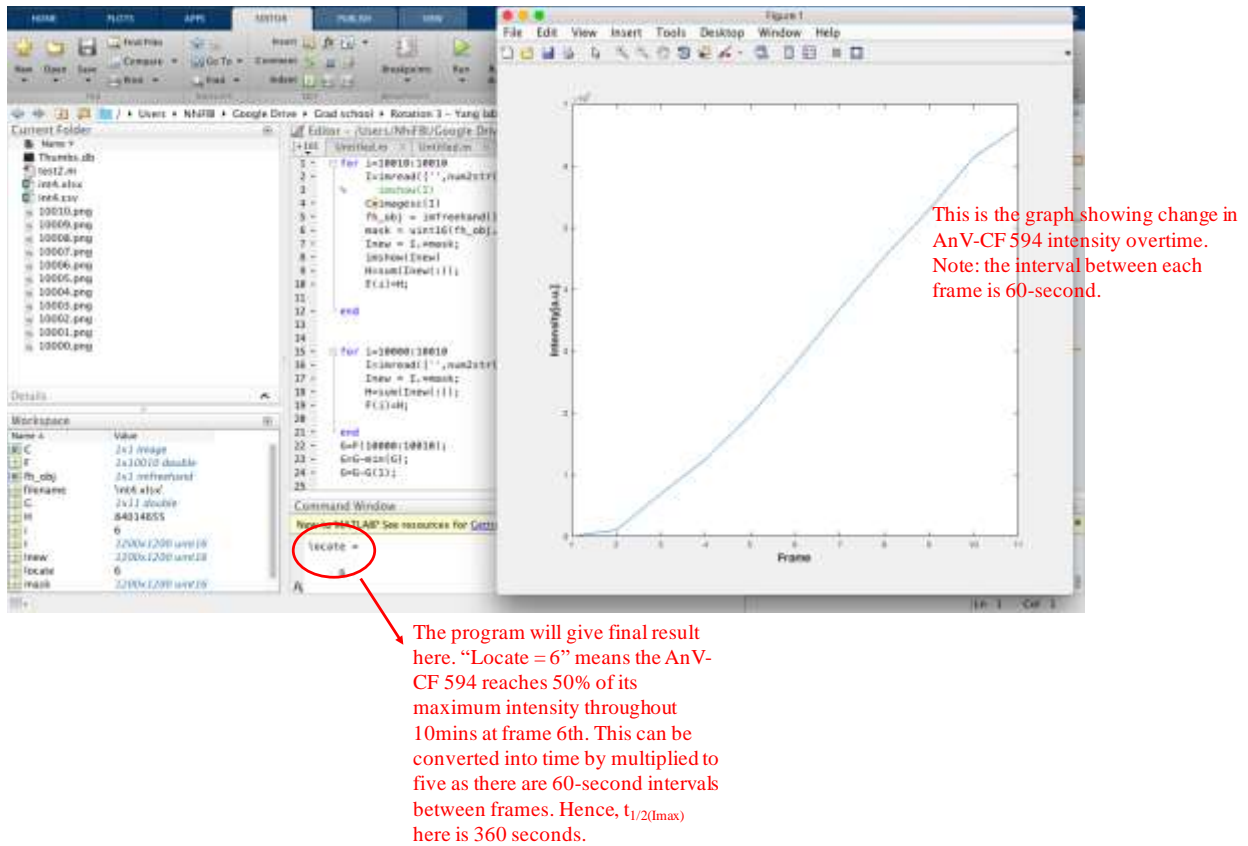
*Figure 3: Result of the scrambling cell analyzed in figure 2.*