

Image Matting

ITCS381 Introduction to Multimedia Systems

Due Date : April 26, 2019

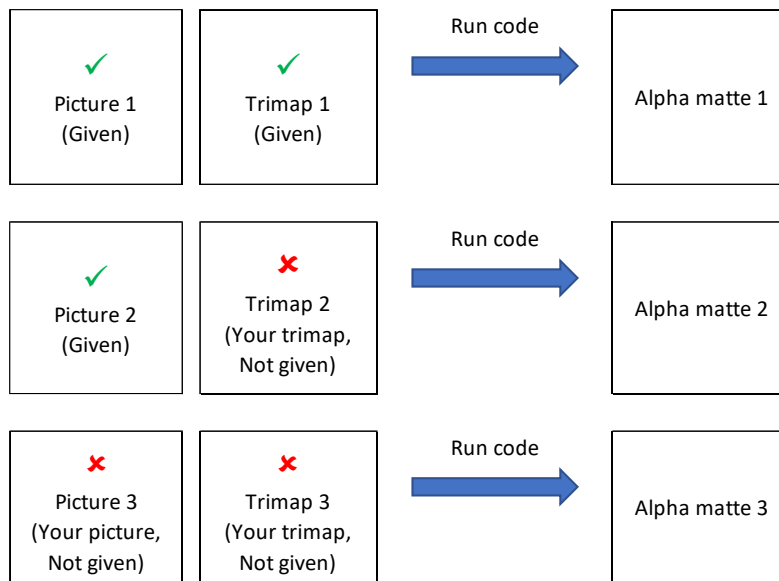
Goal : The goal of exercise is to learn how to extract foreground objects as the high quality foreground alpha matte. This exercise does not require any programming, but to learn how to use the existing research work to help achieve what we want to do.

What you need to do :

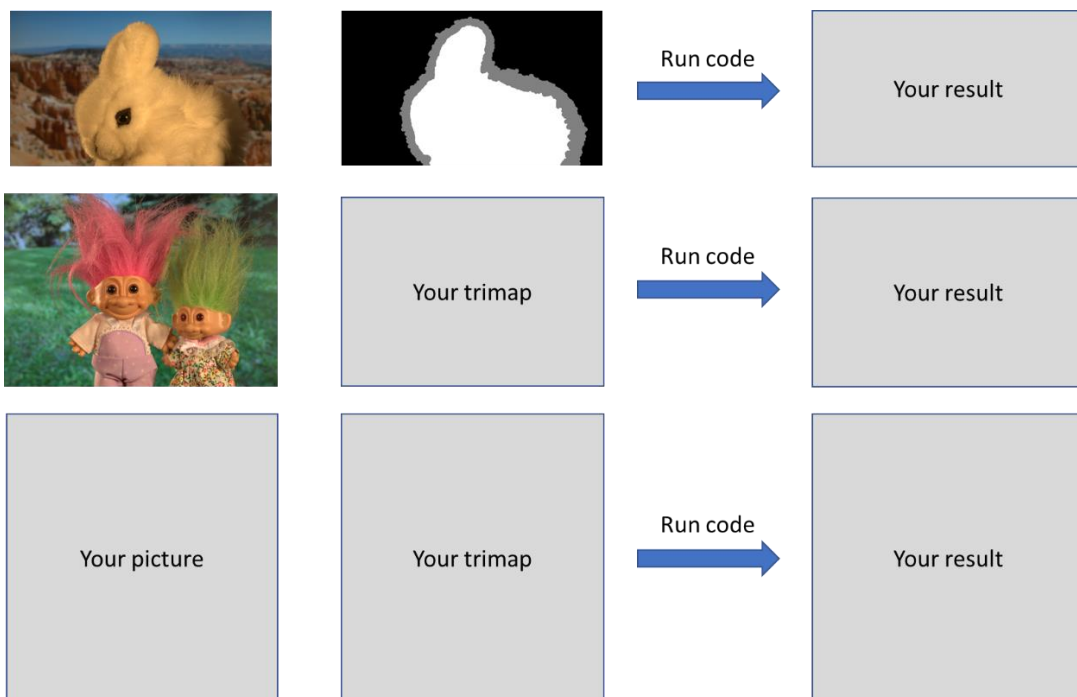
1. You need to use ONE of existing state-of-the-art matting algorithms/codes to produce high quality alpha matte. The links to download those codes are provided below.
 - a. http://www.alphamatting.com/ImprovingMattingComprehensiveSamplingSets_CVPR2013.zip
 - b. <http://people.csail.mit.edu/alevin/matting.tar.gz>
 - c. <http://www.vision.huji.ac.il/SpectralMatting/>
 - d. <http://www.mathworks.com/matlabcentral/fileexchange/31412>
 - e. <http://www.cs.columbia.edu/~dli/projects/knn/index.html>
 - f. http://www.alphamatting.com/WeightedColorTextureMatting_CVPR12.zip
 - g. http://www.alphamatting.com/Three-layerGraphFramework_CVIU2017.zip

These coded are mostly implemented in Matlab. You can download the MATLAB software from the MU IT division website (<https://muit.mahidol.ac.th/>).

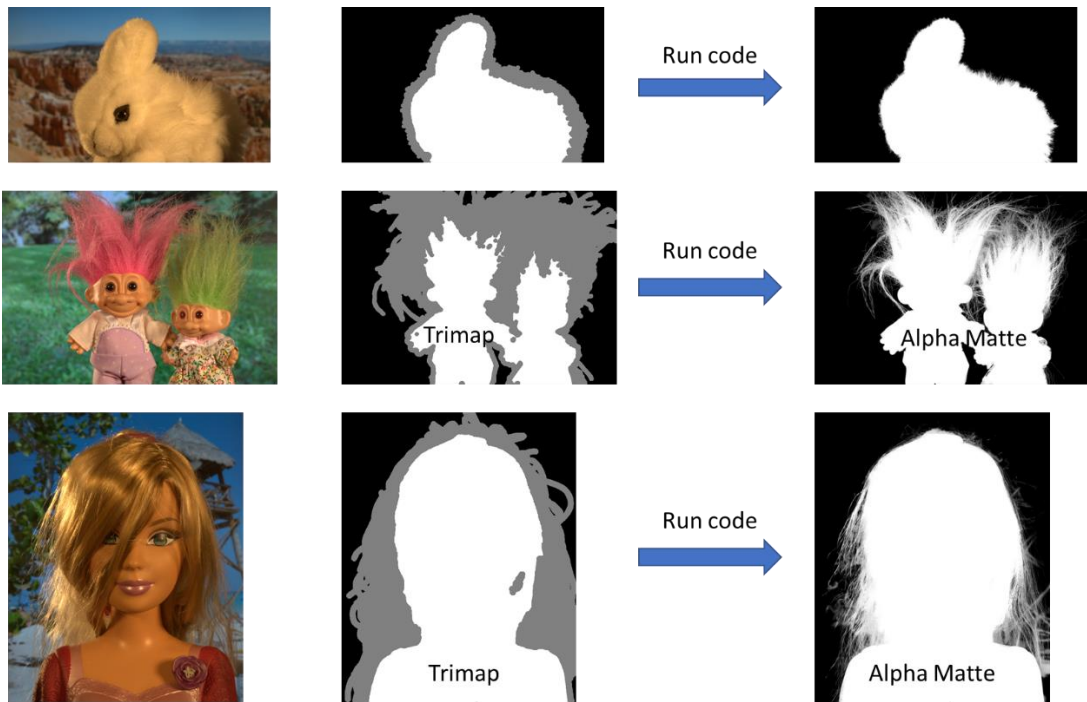
2. You will be given a set of images (normal picture and trimap images) to do this exercise. You also need to take your own photo, generate your own trimap and use it in the exercise too.
3. Trimap can be generated by using programs such as Adobe Photoshop or using a free web-based tool (<https://www.freephototool.com/>)
4. You need to submit your results of matting in the following format.



5. The following are pictures given to you and the required results.



6. Here is my version.



7. You need to submit your work in “mycourse” system in the pdf format as “6088XX.pdf”