

h2: Image Segmentation

This project is to study *Otsu* and minimum error thresholding and/or other image segmentation algorithms introduced in class.

You are asked to write two image segmentation programs based on Otsu simple thresholding, and/or Kittler and Illingworth's minimum error thresholding, and/or iterated condition mode (ICM) methods, respectively. Apply your programs to test the following images and report your segmentation results of binary images (only) on a single page.

ler.raw - 100×100 image

whorl.raw - 512×512 image

rloop.raw - 512×512 image

linsfN.raw - 640×896 image

linsfT.raw - 640×896 image

Frogs.jpg - 3264×2448 color image

The input images can be acquired via the following website:

<http://www.cs.nthu.edu.tw/~cchen/.WWW/Imagedata>

You have to turn in the source codes of your programs in C/C++ or Matlab codes, and your binary segmentation results. You are encouraged to do enhancement such as filtering, histogram equalization, and contrast stretching either before or after image segmentation to improve your results. Feel free to make comments on this study.

You are also encouraged to apply any segmentation algorithms to locating the regions of license plate numbers for the following images.

<http://www.cs.nthu.edu.tw/~cchen/.WWW/ISA5230/isa5230.html/Images>

L2380.jpg - 1200×1600 color image

L2550.jpg - 1200×1600 color image