MLX Code Details

Introduction

According to Dr. Anuja, there are no built-in functions for most of the segmentation algorithms like mean shift segmentation. With that being said, Mathworks site has a few links to a number of implementations shared by others. This folder contains both codes for FIT3081 lecture and code from Mathworks.

Details for each MLX file

Code on Segmentation Methods from FIT3081 Image Processing #1 (CSM3081#1)

This MLX file contains code from Week 7 of Image Processing which covers the following segmentation algorithms:
1. Background subtraction
2. Global Thresholding
3. Adaptive/Local thresholding using the mean and standard deviation as the thresholding criterion.
4. Adaptive thresholding using adaptthresh
5. Iterative Thresholding
6. Otsu's Thresholding
7. K-means clustering algorithm
8. The split-and-merge segmentation
9. Watershed

The codes can be run successfully without obtaining any errors.

Code on Segmentation Methods from FIT3081 Image Processing #2 (CSM3081#2)

This MLX file contains code from the first part of Week 8 of Image Processing which covers the following segmentation algorithms:
1. Different Boundary Extraction algorithms
    a. Chain codes,
    b. Snakes (active contours)

Code on Segmentation Methods from FIT3081 Image Processing #3 (CSM3081#3)

This MLX file contains code from the second part of Week 8 of Image Processing which covers the following segmentation algorithms:
1. More boundary extraction algorithms
    a. Geometric Deformable Models and
    b. Region Growing.
2. One interesting Vanishing Point Detection algorithm

This week's content has not been uploaded into the drive yet as the lesson has not taken place yet due to a public holiday.

Code on Segmentation Methods from FIT3081 Image Processing #4 (CSM3081#4)

This MLX file contains code that looks for line segments and draw the lines so that you can see the possible vanishing points on them. This code is part of the FIT3081 Workshop task and contains code to the following concepts:
1. Edge detection using Canny edge detector
2. Hough Transform
3. Line detection

Code on Segmentation Methods from Google #1 (CSMGOOG#1)

This code is on Mean Shift Clustering. The link to this code was shared by Dr. Anuja during Week 7's lecture. It has two main code segments. The first one is main and the other segment is the MeanShiftCluster function.

Link: Mean Shift Clustering - File Exchange - MATLAB Central

Additional Note

MATWORK Links suggested by Dr Anuja:
Mean Shift Clustering - File Exchange - MATLAB Central
k-means, mean-shift and normalized-cut segmentation (TO BE CONTINUED)