# Morning

## Colour-snap

I have decided on the pre-processes that will be performed on all images to simplify processing:

1. HLS Colour-snap with segment size of 16
2. Median Blur, filter size: 3

Note: Is the median blur actually necessary? Intuitively maybe, in only some of the cases, it looks neater. However according to many things, it may not be.

For now I will remove it, and add it only if necessary.

## Colour Frequencies

I have added weighting to the frequencies so that the our pixels are given less weight than the inner ones. This is because no matter what the subject, due to cropping, a generally acceptable assumption is that the focus of the subject is its centre, or at list that the centre for each angle of the subject will be the same, and the fringes/background will differ.

With that done, I generated frequency graphs (frequencies relative to the maximum frequency for any one colour) showing the order of the most frequent colours. From this I can extract the cases where there is clearly a more prominent colour (the second most frequent is < 50% as frequent as the first) and add the hue value to the ITH Image ID.

The ID results for the above frequency algorithm are saved into the file: results\_frequency0.txt

Fixed a big bug where some colors weren’t snapped, which messed with the frequency graphs.

Commited above stuff. Done for the morning! Worked 10:00 to 14:20

# Afternoon

Started at 16:15

There are existing issues with the colour frequency, and I fear there may be similar issues elsewhere without relative, best-fit ID matches. While relative ID functionality isn’t really in the spirit of the original project, it’s not out of question.

This is a problem for another day, however, and has little to no impact on the current tasks.

## Dimensional-average Analysis

I was to perform analysis on the vertical and horizontal dimension averages for each image. I believe that recording instances/counts of large differentials, for example, may be unique and consistent with an image.

Likewise, this will use the radial weighting mask to reduce the importance of fringe pixels.

**Initial results**: It would seem that, for Hue at least (and I don’t see why It would be different for any other channel), the channel deltas are arbitrary and do not indicate any consistent traits of the image.

Ended at 18:15