# Better Dimension Analysis

Looking at the hori/vert averages, it would seem prudent to colour snap the segments for easier processing.

After this is done, I received mixed results. Issues arose once again from being too specific: the exact number of colours rather than a rough approximation.

I keep coming into this problem: How to differentiate something with 4 colours from something with 5? I can’t simply wrap them into a group consisting of images with 0-10 colours. What if one version has 10, and another has 11?

This is where relative distancing would be nice. I might look into that.

# Refactoring the way ID’s work

I’ve changed ID’s to be structs rather than strings. These will hold labelled values which may or may not exist. The ID is the collection of labelled values, each label value containing a tolerance level when compared to another ID. Two ID’s are considered practically “equal” if all labelled values are within their tolerance range of each other.

## Group Average ID

* Any image is part of a group if it is like any group’s group ID.
* The group ID is the average of all IDs of the images in that group.
* Therefore when a new image is added, the group ID is recalculated to be the new average.

I’ve created a custom ID member for color frequencies. Through this I can expressly define how two frequency graphs relate and their various similarity thresholds.

Idea: Min dimension amount – this will be indicative of the aspect ratio of the subject

Worked for most of the afternoon on adjusting this group ID, and determining a fair comparison algorithm that will show if two are similar enough to be considered a match. I’ve added a lot more leeway than if they were simply strings, for example.

## Colour-frequency Similarity

I have some issues with the similarity algorithm for colour frequencies. For one, the frequency of one colour might be the same, but as I am currently making all relative to the most frequent one, this breaks the similarity algorithm. I want **absolute** frequency comparison.