

19

24

6

1

1. Cut patches from original (uncalibrated) image and save as 1.tiff, 2.tiff etc to 24.tiff

\*\*\*This only needs to be done once for your whole image set if you’ve got standardized camera settings!

-In Graphic converter, select a square patch from the first color square (ensure no black border is sampled– so take a relatively small patch from centre to be sure to avoid any blurring between black border and colour patch.

-Use ⌘C to copy the selection, and ⌘J to open a new file with the selected area

-You can drag the square from one color patch to the next by using the 4-sided arrow when you hover over the border of your selected area (this ensures each patch is the same size)

2. Make sure ALL Matlab scripts from Facelab/How\_Tos/Skin\_Color/Matlab\_Scripts are copied into the directory you’re working from

3. Compute average RGB values of each of these patches using the most recent ‘averageColourd65.m’ script **(very important to use most recent script as this is where the problems were).**

-Make a list file of your patch images

-In matlab command window, type:

averageColourd65(‘image\_list.txt’,’output\_file\_name.csv’)

-Script requires the following matlab files:

-lms2lumchro.m

-csvwrite\_cell.m

-Should auto run calculation for your patches and save it as whatever file name you chose

4. Edit script “makeRave.m”, the top set of figures is the *observed* values of the original patches that you just measured (in **RGB space**), the bottom set is the *target* values **in L\*a\*b\*,** under d65\* as measured by the spectro.

-The target values from the facelab color charts can be found in the script folder or in Facelab/How\_Tos/Skin\_Color/Color\_Calibration/Facelab\_Color\_Chart\_Lab\_Values.xlsx (NOTE: for matlab calibration the values are organised #1-24, columns = l,a,b as shown in the image above. This is the order in which they were scanned in the excel file, so you can copy 1-24 directly. The order is different in Psychomorph!)

-Copy the chart’s target L\*a\*b\* values from this text file into the bottom array in makeRave.m (within the [] brackets).

spectrod65= []

-With the observed and target values inserted, save makeRave.m

5. Then run makeRave.m in Matlab

-In matlab command window, type: makeRave and hit enter

-You should see the following output:

>> makeRave

meanDeltaE =

3.5024

maxDeltaE =

11.8104

-This script requires the following matlab files:

-rgb2rgbpoly

6. Then you are ready to calibrate any image (\*.tif) that you want (according to the colour transformation between ‘observed’ and target values) by typing the following command

RGB2sRGB\_Image(‘imagename.tif’,R,’lab’)