

色彩科學導論與應用

色彩轉移擷取資訊練習

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Assignment 4

Purpose: Modifying the python code to produce a text file containing the side information.

Please modify the code you have submitted in Assignment 3 to produce decimal side information. The decimal side information is a text file entitled “**sideinfodeci.txt**.” This text file has 12 lines and each line represent a decimal value with four decimal places (小數 4 位)。Contents of this text file are as blow

Line 1: mean of the **source** image in the **Red** channel or l channel

Line 2: mean of the **source** image in the **Green** channel or a channel

Line 3: mean of the **source** image in the **Blue** channel or b channel

Line 4: standard deviation of the **source** image in the **Red** channel or l channel

Line 5: standard deviation of the **source** image in the **Green** channel or a channel

Line 6: standard deviation of the **source** image in the **Blue** channel or b channel

Line 7: mean of the **target** image in the **Red** channel or l channel

Line 8: mean of the **target** image in the **Green** channel or a channel

Line 9: mean of the **target** image in the **Blue** channel or b channel

Line 10: standard deviation of the **target** image in the **Red** channel or l channel

Line 11: standard deviation of the **target** image in the **Green** channel or a channel

Line 12: standard deviation of the **target** image in the **Blue** channel or b channel

For example, the contents of **sideinfodeci.txt** include the following 12 lines.

85.2569

25.1254

78.4532

21.5678

79.4517

13.2457

45.1278

10.2356

54.8952

19.5789

125.4578

26.5471

Input:

1. A source image (preferred bmp format or png format)
2. A target image (preferred bmp format or png format)

Output:

1. A resultant color transfer image (preferred with the same format of the source image).
Please use one of six cases you have submitted in Assignment 3.
1. A text file entitle “**sideinfodeci.txt**.”

Submission:

Please submit the four following **FIVE** files.

1. Modified python program, **學號-04-color-transfer-info.py**.
2. The source file, sou1.bmp or sou1.png
3. The target file, tar1.bmp or tar1.png
4. The color transfer file, ult1.bmp or ult1.png
5. The text file sideinfodeci.txt