

Digital Image Processing (1072) Homework #1 評分標準

Note:

- ① 上傳一個zip檔，命名格式為：學號_姓名_HW1.zip
- ② 請將要執行的程式命名為hw1.py
- ③ 沒寫註解一律扣10分
- ④ image開啟請以相對路徑
- ⑤ 請註明額外使用的套件及安裝方法
- ⑥ 請注意執行環境為Linux及python3.5以上

1. A simple graphic user interface.	25分
2. Open/save/display 256-gray-level images in the format of JPG/TIF.	Open 5分 Save 5分 Display 5分
3. Adjust contrast/brightness of images by the changing the values of “a” and “b” in 3 different methods: (A) linearly ($Y = aX + b$); (B) exponentially ($Y = \exp(aX + b)$); (C) logarithmically ($Y = \ln(aX + b)$, $b > 1$).	(A) 6分 (B) 7分 (C) 7分
4. Zoom in and shrink with respect to original size of images by using bilinear interpolation.	20分
5. Display the histogram of images. An “auto-level” function by using histogram equalization should be provided.	20分

以下為參考GUI:

