

HW1

☐ Due on 10/19, pm 11:59

☐ Image Read/Write

- Write a program to implement “bmp” format image reading and writing.

☐ Image Rotation

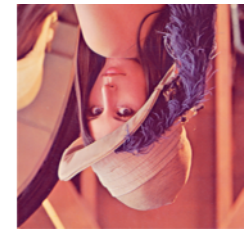
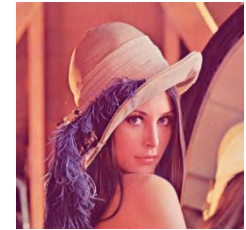
- Do a 180-degree clockwise rotation over the input image to generate the output image.

☐ Image Channel Interchange

- Interchange the channels of the rotated image, i.e., $R \Rightarrow G$, $G \Rightarrow B$, $B \Rightarrow R$.

☐ Bonus

- Read and rotate the image with different size. (lena1024.bmp, lena_cropped.bmp)
 - ☐ Hint: decode the width/height from the header.



HW1

☐ Hint

- You can resize the image to debug your program.
- R/W of non-squared image must adjust the header.

☐ Requirements

- Two Programs
 - ☐ C or C++ source code with .exe file (You are NOT allowed to use any library, such as OpenCV)
 - ☐ source code by using OpenCV
- Report
 - ☐ Describe the employed source code editor and how to execute your program (input/interface/output)
 - ☐ Introduce your work, method, and discussions
 - ☐ With all of the images or results
- Upload to i-school Plus