

Path = File -> open Dialog ("please select an image enlarge");
open(path);

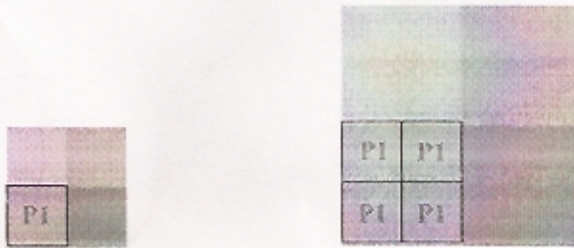
Image Processing 2011-12: Assignment

Write an ImageJ macro (program) that will open any image (you may assume that it is *not* a colour image) and enlarge it by a factor of 2. i.e. if the image is 200 pixels wide x 300 pixels tall then your program must create a new copy of the image which is 400 pixels wide x 600 pixels tall.

Every pixel in the original image now occupies 4 pixels in the enlarged image.

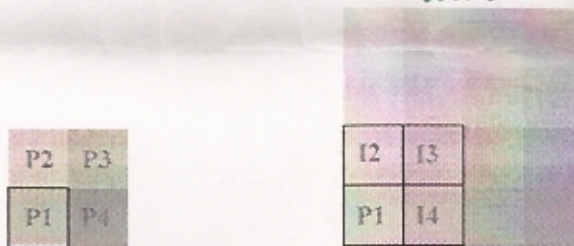
Your program should do *one* of the following:

- A. Fill all 4 pixels with the same value. (this is called enlargement without interpolation)



(if you attempt A then your mark will be capped at 65%)

- B. Fill the 4 pixels with different values chosen to be the average of the two, known, adjoining pixels. (this is called enlargement ~~without~~ ^{with} interpolation).



where $I2 = (P1+P2)/2$
 $I3 = (P1+P3)/2$
 $I4 = (P1+P4)/2$

(if you attempt B then your mark will not be capped)

In either case:

- Your program should use sensible names for variables.
- Your program should be annotated with comments explaining what each part does.
- Your program should display a progress bar whilst running.
- You will earn extra credit if your program uses a function or subroutine.