

Design Document  
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Image Processor

**Data**

Size - calculated 2D array of total amount of pixels from file

Pixels - 2D array of size (int)

Row - pixel 2D array side (int)

Column - pixel 2D array side (int)

Brightness - 2D array of char values (int)

Rotate - int change of row/column for pixels

Pointers - \*pixels, \*row, \*column

Crop - remove pixel row/columns from (int)

Dim - remove int to brightness

Savechoice - char

File name - stored string

Functions:

main()

Data: arrays for functions of size and pixels, rotate, brightness, dim and crop, loop for save choice

Functionality:

Load image from file. display image. Add choices for users to edit. In a loop allow user to save or restart editing their choices for the image

loadimage()

Input parameters:

Int size, int pixels array, int row, int column

Returned output: none

Functionality:

Load image array from file to size array

getpixels()

Input parameters:

Int size, int pixels

Return output: int pixel array

Functionality:

Calculate amount of pixels from size array

Getbrightness()

Input parameters:

Int Pixel array, int row, int column

Return output:

Brightness array

Functionality:

Calculate each from pixel array as a character

getdim()

Input parameters:

Brightness array, int row, int column

Return output:

Dim array

Functionality:

Calculate 1 lower amount of brightness character from brightness array (if value is the lowest brightness change nothing)

getcrop()

Input parameters:

Pixel array, int row, int column, size array

Return output:

Crop array

Functionality:

Remove row and column array values until the user decides.

getrotate()

Input parameters:

Pixel array, int row, int column, size array

Return output:

Pixel array

Functionality:

Given user input calculate values rotated from original pixel array