

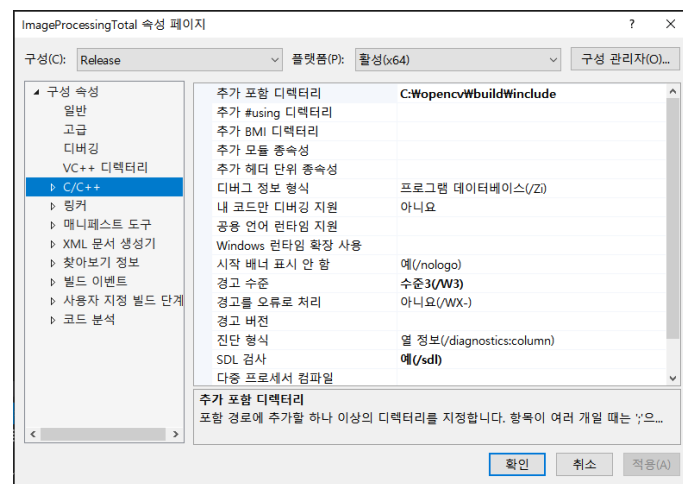
Team 2 Team Assignment 2 Process Manual

Process Manual

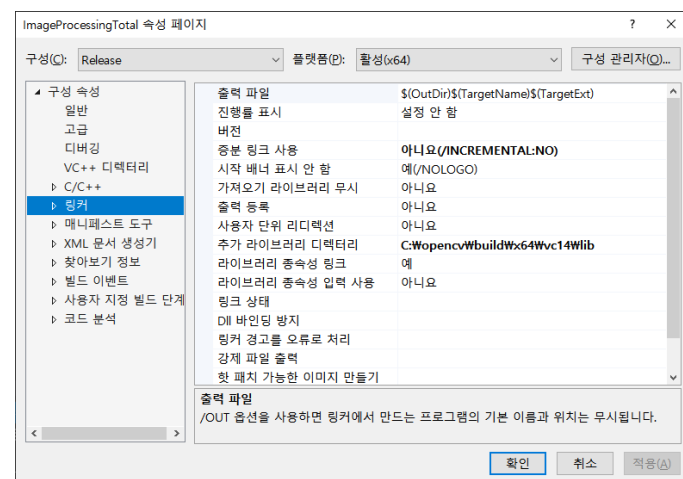
Our program is aim to separate paper and background, so we can scanning paper or book from picture. Also we separate each file`s images from paper, so user can using it easily. Below are our process manual

Environment Setting

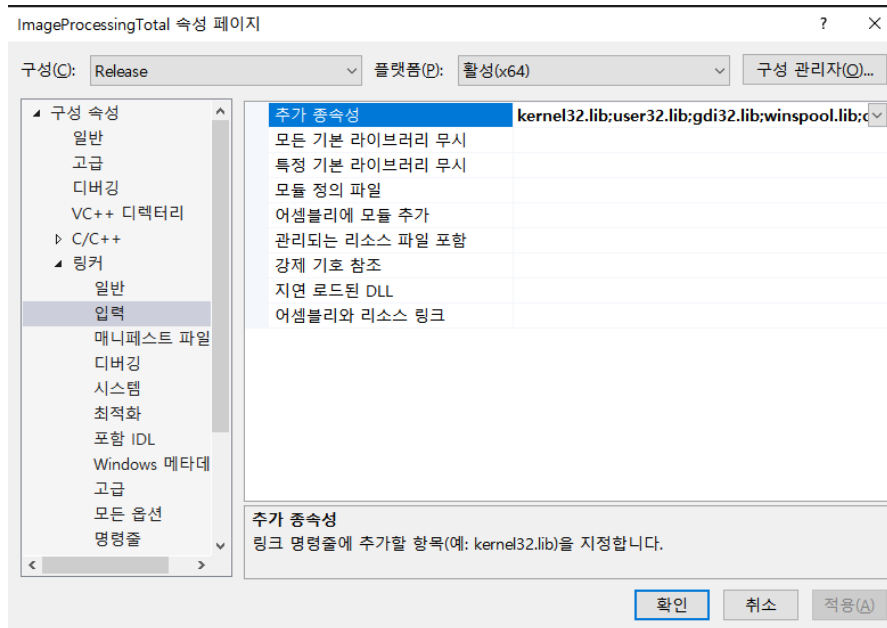
We need open cv cpp library for running this program. We located opencv at C:\W which is base folder of window. (ex : C:\Wopecnv) And we located [oepcv_world450.dll](#) files into our project files. Below are our setting. Our setting is under [Release - X64 version](#).



First, we add [additional include directory](#) "C:\Wopencv\build\wininclude".



Second, We add Linker tab`s [Additional Library Directory](#) "C:\Wopencv\build\Wx64\Wvc14\Wlib".



Third, We add [additional dependency](#) at last "opencv_world450.dll".

help

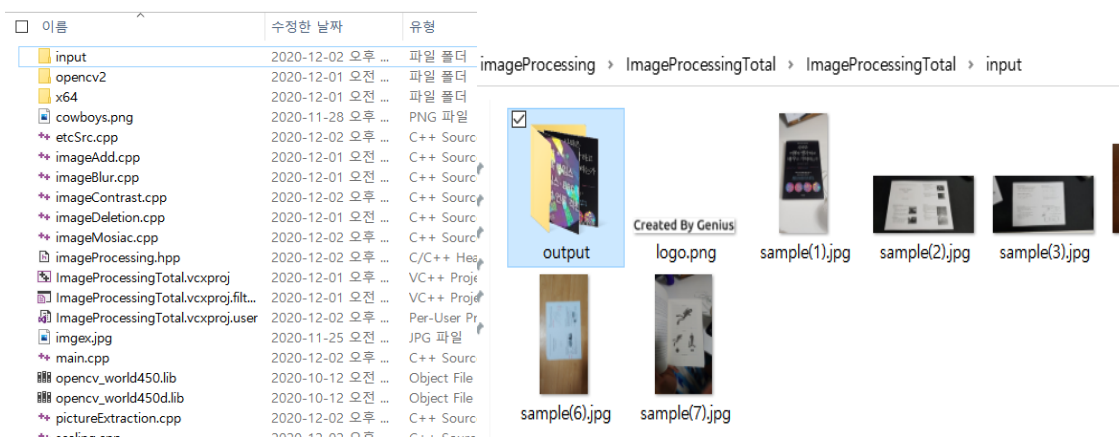
`./ImageProcessingTotal.exe -h`

You can see how our process works.

Basic Usage

`./ImageProcessingTotal.exe ${INPUT_FILE}`

You can located input file at input folder and make output folder in input folder.



You need to locate our logo.png in input folder. We will read INPUT_FILE at input folder, and make output image in input/output folder with name tailed "_output". All output paper image will be added with our logo (like watermark).

Options

We support contrast deletion, mosiac, blurring options for more comfortable using. Belows are options.

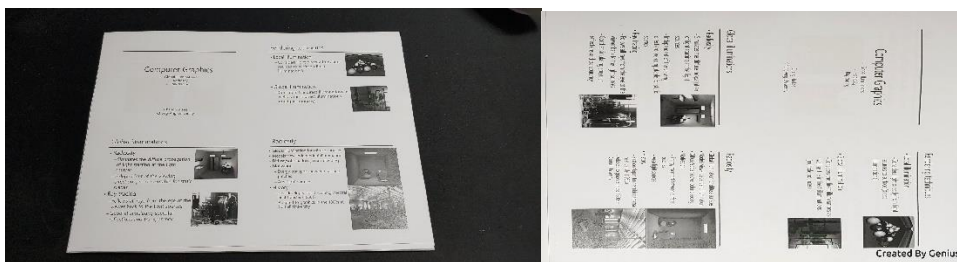
Contrast

```
./ImageProcessingTotal.exe ${INPUT_FILE} -c ${INT_VALUE}
```

We support image contrasting with 1 ~ 100 values.

Below are example

```
./ImageProcessingTotal.exe sample(2).jpg -c 20
```



Left is original, right is contrasted and Segmented one.

Blur

```
./ImageProcessingTotal.exe ${INPUT_FILE} -b ${START_X} ${START_Y} ${END_X} ${END_Y} ${INT_VALUE}
```

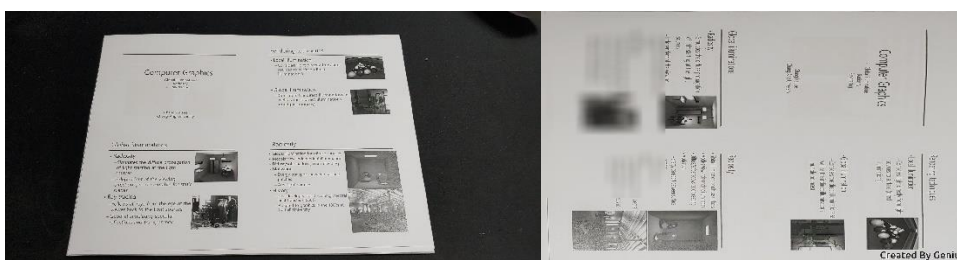
Start X, Start Y : Blurring Starting point x, y.

End X, End Y : Blurring End point x, y.

INT_VALUE : Change sensitivity, 1 ~ 100 value.

Below are example

```
./ImageProcessingTotal.exe sample(2).jpg -b 20 20 800 1200 40
```



Mosaic

```
./ImageProcessingTotal.exe ${INPUT_FILE} -m ${START_X} ${START_Y} ${END_X} ${END_Y} ${INT_VALUE}
```

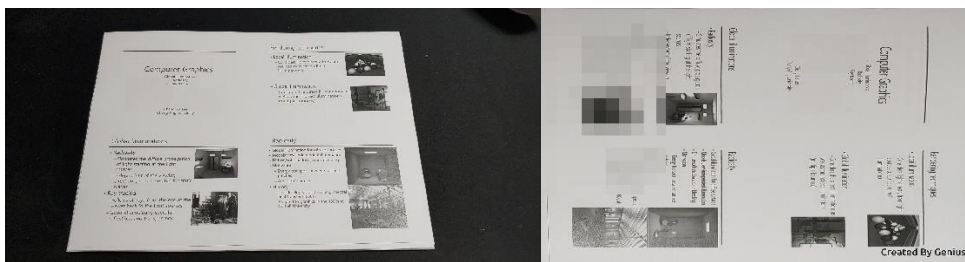
Start X, Start Y : Mosaic Starting point x, y.

End X, End Y : Mosaic End point x, y.

INT_VALUE : Change Window Size, 1 ~ 100 value.

Below are example

```
./ImageProcessingTotal.exe sample(2).jpg -m 20 20 800 1200 40
```



Deletion

```
./ImageProcessingTotal.exe ${INPUT_FILE} -d ${START_X} ${START_Y} ${END_X} ${END_Y} ${BACK_X} ${BACK_Y}
```

Start X, Start Y : Deletion Starting point x, y.

End X, End Y : Deletion End point x, y.

Back X Back Y : Deletion color x, y

Below are example

```
./ImageProcessingTotal.exe sample(2).jpg -d 20 20 800 1200 20 20
```



Also, we can use above option all together.

./ImageProcessingTotal.exe sample(1).jpg -c 60 W

-d 20 20 400 60 20 20 W

-b 20 60 400 100 60 W

-m 20 100 400 140 60 W

