

Fast Image Combine

Given are 2 bitmaps in Argb32 Format, **Layer1.bmp** and **Layer2.bmp**.

Use either C# or C++.

Please prepare your Code and all image operations, to be run in a parallelized/multi-threaded context.
Where possible, use in-memory read/write operations.

For any questions about one of the tasks, don't hesitate to write a mail to

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Given are 2 weeks of working time. Please send us your code as well as all libraries you used to proceed.

Task 1:

Convert these 2 images using the following rules

- Keep all black or white pixels
- Green should become fully transparent
- Blue should become white

Task 2:

Combine both images to one.

Task 3:

Now find all black areas and draw a red line of 1 pixel thickness around them

Task 4:

Store the result into a 8bit Grayscale image. You can freely choose any image format you are comfortable with.

Task 5:

Increase your performance by using multi threads or cores to solve Tasks 1 to 3

Optional Task

Task 6:

Prepare a User Interface where the User can choose one or more of the following:

- Thickness of the red outline from Task 3
- Color of the outline from task 3
- Color conversion rules from task 1
- Output format for task 4

Good luck!