
Subject: joining images into a colored one

Posted by [Helder Marchetto](#) on Thu, 15 Jun 2017 11:18:47 GMT

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Hi,

I couldn't find anything on this in previous posts, but I think (hope) that there's an easy solution to it.

I want to create a colored image out of a subset of images that are "labelled regions", that is:

image[0] has patches with values 1, zero otherwise.

image[1] has patches with values 2, zero otherwise.

...and so on

Typically I'm dealing with n images, where $n < 10$. Fortunately, all images have the same dimensions.

I want to join the images so that the color of each [i,j] pixel is dependent on which and how many images (from the subset) had this value different from zero.

Example:

[i0,j0] is only different from zero in image[0], so it will be, e.g., red.

[i1,j1] is only different from zero in image[1], so it will be, e.g., blue.

[i1,j1] is different from zero only in image[0] and image[1], so it will be, red+blue=magenta.

I know how to handle the pixels, any clue how to programmatically handle the colors?

[I was thinking of using something like number conversion from basis-to-basis. That is if I have n images, I will assign to each pixel the following value:

$[i,j] = \text{image_0}[i,j] \cdot n^0 + \text{image_1}[i,j] \cdot n^1 + \text{image_2}[i,j] \cdot n^2 + \dots$ and then use a long number for indexing colors (24-bit)... but I think/hope that there is a nicer/cleaner way of doing this]

Thanks,
Helder
