
Subject: Re: Image subtraction

Posted by [davidf](#) on Mon, 18 May 1998 07:00:00 GMT

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FRANCOIS LAROSE (aah904@agora.ulaval.ca) writes:

> I need to do some image subtraction. With IDL, if I only do
> Image1 - image2 and I get poor result. Does it have best code to
> do image subtraction?

Poor result how? Can't see it? Doesn't look like what
you expect? Don't believe the results?

Try this:

```
TV, BytScl(image1 - image2, top=!D.N_Colors-1)
```

Does that help?

> PS If you know a good package of image analisys in IDL, just let me know!

How much would you be willing to pay for this? :-)

David

David Fanning, Ph.D.
Fanning Software Consulting
E-Mail: davidf@dfanning.com
Phone: 970-221-0438
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Subject: Re: Image subtraction

Posted by [FRANCOIS LAROSE](#) on Tue, 19 May 1998 07:00:00 GMT

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Ok,

Let me explain, I take two gray scale images and subtract them together.
Then, I display the result on screen with TVSCL command. When I say, I get
poor
result, is because I compare the result of this subtraction with the
result
of a program that make image subtraction (NIH image). The two are very
different. So, I suppose I should do something else to get the same
result.

For the package, I working in research so I can't afford a expensive one.
Maybe, you can point me some web site...

Tanks

Frank

At 09:59 18/05/98 -0600, you wrote:

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Subject: Re: Image subtraction

Posted by [pford](#) on Thu, 21 May 1998 07:00:00 GMT

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Try

tvsc1, image1 - A * image2

where A is a correction factor for intensity. One of the problems here is

how are negative numbers handled, should you change the images to float to allow non integer As, and what value should A be, see? (I could not resist the pun.)

To set values less than 0 to 0, you could use one of those matrix logical something like: `img = img * (img GE 0.0)`
(I don't have the ref material handy and unlike many here, I need to lookup all but the simplest of stuff.)

For A, there are many ways to determine a value, such as the average of the images ratio, max ratio, etc. Or the one I commonly use, trial and error.

You could always write(e-mail) the author of NIH Image to find out what he is doing, whose name escapes me. He usually is fairly responsive, or you could examine the source code that, at least in the past, was available.

BTW, is NIH image still just a Mac program?

Patrick Ford, MD
Baylor College of Medicine
pford@bcm.tmc.edu

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