
Subject: Re: Multi bands mean
Posted by [David Fanning](#) on Fri, 08 Feb 2008 17:05:16 GMT
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jujo@argentina.com writes:

> I have a multi-bands image. I need to calculate the mean value of each
> pixel, considering all the bands. It can be easily done using:
>
> mean_image=total(multi_bands_image, 3) / number of bands
>
> However, I have some nan values, which have to be discarded before the
> calculation. I can do that:
>
> mean_image=total(multi_bands_image, 3, /nan) / number of bands
>
> However, if I do that, the nan values become zeros and the average
> includes them. How can I do to calculate the mean without considering
> nan values?

Seems to me you want this:

```
mean_image=total(multi_bands_image, 3, /nan) / total(finite(a),3)
```

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Multi bands mean
Posted by [David Fanning](#) on Fri, 08 Feb 2008 17:09:34 GMT
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David Fanning writes:

> mean_image=total(multi_bands_image, 3, /nan) / total(finite(a),3)

Whoops! Of course, a is the "universal variable", and in
your case will be equal to multi_bands_image. :-)

Cheers,

David

--

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Subject: Re: Multi bands mean

Posted by [David Fanning](#) on Fri, 08 Feb 2008 17:15:37 GMT

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David Fanning writes:

```
>> mean_image=total(multi_bands_image, 3, /nan) / total(finite(a),3)
```

```
>
```

```
> Whoops! Of course, a is the "universal variable", and in
```

```
> your case will be equal to multi_bands_image. :-)
```

Whoops! Whoops! (I'm trying to get ready for an international trip here...)

I *think* TOTAL will cast the finite array, which is a byte array, into floats, but you better make sure of that. I don't have time to. :-)

Cheers,

David

--

David Fanning, Ph.D.

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Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Multi bands mean

Posted by [jujo](#) on Fri, 08 Feb 2008 17:44:49 GMT

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Hi David,

Your tip worked fine!

Thanks a lot!

Best,

Jurandir

On 8 fev, 15:15, David Fanning <n...@dfanning.com> wrote:

- > David Fanning writes:
- >>> mean_image=total(multi_bands_image, 3, /nan) / total(finite(a),3)
- >
- >> Whoops! Of course, a is the "universal variable", and in
- >> your case will be equal to multi_bands_image. :-)
- >
- > Whoops! Whoops! (I'm trying to get ready for an international
- > trip here...)
- >
- > I *think* TOTAL will cast the finite array, which is
- > a byte array, into floats, but you better make sure of that.
- > I don't have time to. :-)
- >
- > Cheers,
- >
- > David
- > --
- > David Fanning, Ph.D.
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