Subject: IDLgrImage and the channel keyword
Posted by ronn kling[1] on Wed, 04 Feb 2015 21:02:29 GMT
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All,

Has anyone figured out how to use the channel keyword for IDLgrImage?

If you try this

```
file = 'E:\Program Files\Exelis\IDL84\examples\data\rose.jpg'
im = read_image(file)
xobjview, obj_new('IDLgrImage',im, channel='ff0000'x)
```

What I expect to see is a red channel image, but instead I see cyan which is a combination of green and blue. So it is almost acting like a color subtraction. But if you try other hex combinations they don't work like subtractions either.

Any ideas????

Ronn Kling

Subject: Re: IDLgrImage and the channel keyword
Posted by Jim Pendleton on Wed, 04 Feb 2015 23:53:11 GMT
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On Wednesday, February 4, 2015 at 2:02:30 PM UTC-7, ronn kling wrote:
> All,
>
> Has anyone figured out how to use the channel keyword for IDLgrImage?
>
> If you try this
>
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> What I expect to see is a red channel image, but instead I see cyan which is a combination of green and blue. So it is almost acting like a color subtraction. But if you try other hex combinations they don't work like subtractions either.
>
> Any ideas????
>
> Ronn Kling

Good question! It doesn't produce what I would expect from the documentation setting just the red channel in an RGB input image:

IDL> a = bytarr(3, 255, 255)
IDL> a[0, *, *] = 255B
IDL> xobjview, idlgrimage(a, channel = 'ff0000'x)
IDL> xobjview, idlgrimage(a, channel = '00ff00'x)
IDL> xobjview, idlgrimage(a, channel = '0000ff'x)

Compare with

IDL> xobjview, idlgrimage(a, channel = '000101'x)

Is Karl still out here on the internets?

Subject: Re: IDLgrImage and the channel keyword
Posted by Dick Jackson on Thu, 05 Feb 2015 00:29:50 GMT
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On Wednesday, 4 February 2015 15:53:14 UTC-8, Jim P wrote:
> On Wednesday, February 4, 2015 at 2:02:30 PM UTC-7, ronn kling wrote:
>> All,
>>
>> Has anyone figured out how to use the channel keyword for IDLgrImage?
>>
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>> Ronn Kling
>
> Good question! It doesn't produce what I would expect from the documentation setting just the red channel in an RGB input image:
>
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> IDL> a[0, *, *] = 255B
> IDL> xobjview, idlgrimage(a, channel = 'ff0000'x)
> IDL> xobjview, idlgrimage(a, channel = '00ff00'x)
> IDL> xobjview, idlgrimage(a, channel = '0000ff'x)
>
> Compare with

>
> IDL> xobjview, idlgrimage(a, channel = '000101'x)
>
> Is Karl still out here on the internets?

Or perhaps Don J Lindler who, 14 years ago, claimed to have been "able to use IDLgrImage objects with the channel set ('ff0000'x for red, '00ff00'x for green, and '0000ff',x for blue).":

https://groups.google.com/forum/#!searchin/comp.lang.idl-pvw ave/IDLgrImage$20channel/comp.lang.idl-pvwave/j9LozjSkkFQ/9B e5T_DCTzcJ

:-)

FWIW, how it looks to me is indeed "subtractive colour" handling... note that if you pass '000000'X what you get is the white background, not a black image, so perhaps '000001'X means to add a blue subtracting filter only: where B in the RGB image is high, it passes blue (along with full, unfiltered red and green, giving white), and where B is low, only blue is lowered (again, along with full, unfiltered red and green, giving yellow)

Cheers,
-Dick

Dick Jackson Software Consulting Inc.
Victoria, BC, Canada --- http://www.d-jackson.com

Subject: Re: IDLgrImage and the channel keyword
Posted by ronn kling[1] on Wed, 11 Mar 2015 10:16:08 GMT
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Tech support finally figured out what was happening here, and I am adding it to this post for future reference. The reason that it looked like subtractive color handling was due to my view background being white ([255,255,255]). It was this color that was being "OR'd" with the channel. All you have to do to get the correct behavior is to change the background color to black!!
