
Subject: cgimage and color tables

Posted by [A J](#) on Tue, 13 Mar 2012 04:44:25 GMT

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Hello,

I need to display a grid of values, numbered 1-5, each value having a specific color. What I have been trying to do is something like this:

```
> color_code = ['grn6', 'dodger blue', 'royal blue', 'salmon', 'pink']
```

```
> cgimage, grid, /scale, bottom = 0, top = 4
```

I don't want to set a predefined color table because I want to use the colors I have chosen above. I have failed in my attempts to create a color table with just these 5 colors. So how do I get, say, value 3 to use color_code[2] etc?

Thankyou for your patience,

-Lex

Subject: Re: cgimage

Posted by [David Fanning](#) on Wed, 15 Aug 2012 04:37:48 GMT

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Gompie writes:

```
> I have a 2d array that has pixel values. I can plot it using cgplot. However i want to plot it using
cgimage. But when i do it I lose the y axis scaling.
```

```
> Is it possible to get the same y axis scaling that I get using the cgplot.
```

Use the XRANGE and YRANGE keywords to get whatever scaling you like.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

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

Subject: Re: cgimage
Posted by [Gompie](#) on Wed, 15 Aug 2012 11:20:04 GMT
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Thanks David,
When I set yrange=[a,b] in cgplot it plots values between a,b. How is it possible to do the same in cgimage.?

Subject: Re: cgimage
Posted by [wlandsman](#) on Wed, 15 Aug 2012 11:44:52 GMT
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On Wednesday, August 15, 2012 7:20:04 AM UTC-4, Gompie wrote:
> Thanks David,
>
> When I set yrange=[a,b] in cgplot it plots values between a,b. How is it possible to do the same in cgimage.?

Use xrange,yrange with cgimage, but also set the /axes keyword

Subject: Re: cgimage
Posted by [David Fanning](#) on Wed, 15 Aug 2012 12:38:29 GMT
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Gompie writes:

> When I set yrange=[a,b] in cgplot it plots values between a,b. How is it possible to do the same in cgimage.?

Yes, the axes don't do image subsetting. If you want image subsetting, you have to do it directly with the image.

Cheers,

David

--

David Fanning, Ph.D.
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Subject: Re: cgimage

Posted by [DavidF\[1\]](#) on Wed, 15 Aug 2012 19:51:43 GMT

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Gompie writes:

> When I set yrange=[a,b] in cgplot it plots values between a,b. How is it possible to do the same in cgimage.?

Interestingly, I had the occasion this morning to want something very much like this. I have two images, one larger than the other, but both only having image data in part of the rectangular array. The images are in GeoTiff files, so I can find the projected ranges of the image rectangles.

It turns out there is imperfect overlap between the valid data in the two images, so I wish to create a single image that shows only the overlapping data. So, the idea is this, fit a smaller image onto the larger, and do it in such a way that you clip any part of the smaller image's valid data that is not also part of the larger image's valid data.

Essentially, I have to clip the smaller image based on its "axis" values.

My code looked like this. "Zone" is a zonal map and "land" is a LandSat image. The ranges are in projected meter space.

```
zone = 'quer_zones_ext.tif'
land = 'L5224069_06919980623_B50.TIF'

mzone = cggeomap(zone, image=image)
mzone -> Getproperty, XRange=zxr, YRange=zyr
cgdisplay, Aspect=image, xsize=800
cgLoadct, 33, ncolors=6, bottom=1
cgImage, image, XRange=zxr, YRange=zyr, /save

mland = cggeomap(land, image=img)
mland -> GetProperty, XRange=lxr, YRange=lyr
x0 = zxr[0] > lxr[0]
x1 = zxr[1] < lxr[1]
y0 = zyr[0] > lyr[0]
y1 = zyr[1] < lyr[1]
xr = [x0,x1]
yr = [y0,y1]
s = Size(img, /DIMENSIONS)
xvec = Scale_Vector(Findgen(s[0]), lxr[0], lxr[1])
yvec = Scale_Vector(Findgen(s[1]), lyr[0], lyr[1])
xsubs = Value_Locate(xvec, xr)
ysubs = Value_Locate(yvec, yr)
imgsub = img[xsubs[0]:xsubs[1], ysubs[0]:ysubs[1]]
```

To display the clipped, smaller image on the first, I made a slight modification to cgImage, which I will check in later today. Basically, if you set the OVERPLOT keyword *and* you specify both an

XRANGE and YRANGE when you call cgImage, I will adjust the image position in the window to place the image at the proper location in the set of axes that are currently defined for the window.

Cheers,

David
