Subject: Re: Legend creation on an image
Posted by David Fanning on Fri, 02 Jun 2006 22:14:48 GMT
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elsueniero@gmail.com writes:

> I am trying to create a legend similar to the ones shown here:
> http://edcdaac.usgs.gov/modis/myd13a1v4.asp
>
> I already have my two vectors, one with the limits, and the other with
> the colors:
>
> ndvi_color_map_index = [-1.0,0.0,0.028571429,0.057142857,0.085714286, $
> 0.11428571,0.14285714,0.17142857,0.2, $
> 0.25,0.3,0.35,0.40,0.46666667,0.53333333,0.6,0.7,0.8,0.9]
>
> ndvi_color_map_colors = [[0,0,0],[0,24,104],[254,254,254], $
> [205,193,169],[199,186,169],[182,148,111],[170,129,75],[143, 115,65], $
> [128,105,35],[148,183,19],[116,171,5],[102,162,2],[81,150,0] ,$
> [62,129,0],[24,117,3],[1,92,13],[1,71,0],[5,56,5],[0,40,3],[2,16,0]]
>
> * note that n_elements(ndvi_color_map_index) + 1 ==
> n_elements(ndvi_color_map_colors)
> thats because all info bellow -1.0 should be black ([0,0,0]) and the
> same with all the info above 0.9
>
> I have both the floating point image in "NDVIfloat" and the 3-band
> color image in "NDVIcolor"
>
> Now what I need to do is to put on the lower-rigth 600x300 pixels of
> the NDVIcolor image a legend the shown. (the image is 1300x1900 and I
> now that those 600x300 is background)
>
> I know that with some for's I can put the colors bins, but how can I
> put text on an array from IDL?? Is that possible??

A colorbar with similar characteristics is described in this article:

http://www.dfanning.com/map_tips/precipmap.html

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: Legend creation on an image
Posted by elsueniero on Fri, 02 Jun 2006 22:31:36 GMT
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Thank you David,

I downloaded and tried it, and it work great.

But how can I put it inside the array of the image raw data?
After this, what I do is write the array into a geotiff. How can I add
this on a certain location it?

David Fanning wrote:
> elsueniero@gmail.com writes:
>
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>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: Legend creation on an image
Posted by elsueniero on Sat, 03 Jun 2006 02:31:15 GMT
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>> A colorbar with similar characteristics is described in this article:
>>
>> http://www.dfanning.com/map_tips/precipmap.html
>>

I wrote my own code based on yours, now, and I am almost there...
but...

Since I already had a well-known color code for NDVI, I am not using
your function to load colors. And there is where the problem is...
maybe you can help me:

I have:

```
colores = [[0,0,0],[0,24,104],[254,254,254],[205,193,169], $
[199,186,169],[182,148,111],[170,129,75],[143,115,65], $
 [128,105,35],[148,183,19],[116,171,5],[102,162,2],[81,150,0] ,$
 [62,129,0],[24,117,3],[1,92,13],[1,71,0],[5,56,5],[0,40,3],[ 2,16,0]]

set_plot, 'Z'
device, set_resolution=[600, 300], set_colors=256, z_buffering=0

; Change the color formats
R = transpose(colores[0,*])
G = transpose(colores[1,*])
B = transpose(colores[2,*])
; Load the colors (starting at 1 like you recommend)
tvlct,r,g,b,1

(..) Some init code we only need here the following
ncolors = n_elements(R)
bottom=1
(..)
```

```
; Start drawing
bar = BINDGEN(ncolors) # REPLICATE(1B, 20)
; Fixed position
position = [0.1, 0.85, 0.9, 0.92]

bar = BYTSCL(bar, TOP=(ncolors-1 < (255-bottom))) + bottom

xstart = position(0)
ystart = position(1)
xsize = (position(2) - position(0))
ysize = (position(3) - position(1))

bar = CONGRID(bar, CEIL(xsize*!D.X_VSize), CEIL(ysize*!D.Y_VSize),
/INTERP)

TV, bar, xstart, ystart, /Normal

out = tvrd()
device,/close
set_plot, 'win'

tv,out
```

And the result is a grayscale RGB 1,1,1 to 20,20,20 bar. Not the desired result, using the colors I set on the first line.

What could be wrong?

Thank you for your time!!!
Juan

Subject: Re: Legend creation on an image
Posted by David Fanning on Sat, 03 Jun 2006 03:17:34 GMT

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elsueniero@gmail.com writes:

> And the result is a grayscale RGB 1,1,1 to 20,20,20 bar. Not the
> desired result, using the colors I set on the first line.
>
> What could be wrong?

This command:

```
out = TVRD()
```

Now you have the variable out as an 8-bit image. So,

you have to Set_Plot to WIN, re-load your colors,
and set color decomposition OFF to see colors:

```
  Set_Plot, 'WIN"
  Loadct, colors, 1
  Device, Decomposed=0, Get_Decomposed=curState
  TV, out
  Device, Decomposed=curState
```

Of course, you *could* use TVREAD and TVIMAGE and you
wouldn't have to worry about most of this. :-)

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: Legend creation on an image
Posted by elsueniero on Sat, 03 Jun 2006 14:40:41 GMT
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It took me a while to realize that those function are not standar ENVI,
but yours.

Indeed, the solution with them was much more easier!
Thank you a lot

Juan

David Fanning wrote:
> elsueniero@gmail.com writes:
>
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> Cheers,
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> David
> --
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