Subject: Re: From tvscale to cgImage, puzzling feature in the plot
Posted by David Fanning on Tue, 05 Mar 2013 23:59:22 GMT
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Gurdulu' writes:

> I am trying to rewrite a code that was using tvscale to a new one using cgImage and other new functions.
> While using cgImage I run into a problem that was absent into the previous version of my code and I can't figure what is going on. This is what happens:
> I am making "channel maps" for a galaxy (so I read a 'cube' with two spatial dimensions and a frequency dimension, from that I read a spectrum with an emission line, I slice the emission line and make a plot so that each plot shows the distribution of gas with a given velocity. The entire thing goes through a for cycle):
>
> nx = x dimension of the image (spatial)
> ny = y dimension of the image (spatial)
>
> ; Print on the screen:
> erase
> cgIMAGE, rebin(alog10(image),8*(1+nx),8*(1+ny)), POSITION = p, /KEEP_ASPECT_RATIO,
> MINVALUE = -2, /SCALE, /AXES, AXKEYWORDS={TICKLEN:-0.0075}
> cgCONTOUR, image, COLOR = 'black', NLEVELS=4, LABEL=0, /OnImage
> cgColorbar, RANGE = [-2,0], position = [0.9, 0.1, 0.915, 0.9], /VERTICAL, /RIGHT, FORMAT='(F4.1)'
> wait, 0.5
>
> The first plot looks fine. All the other plots show some sort of isocontour of white pixels. This 'isocontour' changes with the keyword MAXVALUE in cgImage. Though all the data in the image are within reasonable values. It doesn't seem that the problem relates to the presence of cgContours or cgColorbar, nor rebinning. It shows up with whatever mage I plot. Still it seems related to the presence of the FOR cycle. Something happens after the first run.
>
> I hope I have been decently clear.
> Any suggestion?

I would do two things. (1) Immediately update your Coyote Library and make sure the new one is the ONLY one on your IDL path. See suggestions here:

http://www.idlcoyote.com/code_tips/fixcoyoteprogram.php

And, (2) bracket all your your image display code with these two commands (one before the graphics code and one after):

SetDecomposedState, 1, Current=thisState
... graphics commands here.

SetDecomposedState, thisState

Normally, this is caused by using cgColor incorrectly when using indexed color mode. That is probably what is happening here. But I can't tell if it is because you are using really old Coyote Graphics routines or you have more code somewhere that you aren't showing us. In any case, getting the heck out of indexed color mode will solve your problems. :-)

Cheers,

David

--
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Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")