Subject: Re: Fanning's LogScl routine + Colorbar??
Posted by pgrigis on Fri, 23 Jul 2010 19:51:35 GMT
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On Jul 23, 3:38 pm, David Fanning <n...@dfanning.com> wrote:
> Joe Daal writes:
>> I am using the logscl to enhance the contrast of an image, something
>> like:
>
>> loadct,39
>> image = alog10(lin_image)
>> imdisp, logscl(image, min=min(image), max=max(image), Exponent=8,
>> Mean=0.65)
>
>> where image values vary from -1.34 to +2.05, with zeroes included.
>> The image looks nice for what I want, but how do I reflect a correct
>> colorbar, either for real values or the scaled ones? What is
>> logarithmic, the ticks or the colors?
>
> If you are going to display a color bar, wouldn't you
> have to transform the color bar values in the same
> way to transform the image?
>
> I am thinking code like this:
>
> ;** **
> image = LoadData(11)
> freqDomainImage = FFT(image, -1)
> power = SHIFT(ALOG(ABS(freqDomainImage)), 124, 124)
> power = power - Min(power)
>
> minmax, power
> ctload, 4, /brewer, /reverse
> tvlct, r, g, b, /get
> rr = scale_vector(float(r), min(power), max(power), $
> MIN=0, MAX=255)
> gg = scale_vector(float(g), min(power), max(power), $
> MIN=0, MAX=255)
> bb = scale_vector(float(b), min(power), max(power), $
> MIN=0, MAX=255)
> rrr = logscl(rr, MEAN=0.45)
> ggg = logscl(gg, MEAN=0.45)
> bbb = logscl(bb, MEAN=0.45)
> tvlct, rrr, ggg, bbb
> cindex
>
> window, xsize=500, ysize=500, Title='Log Display'
> TVImage, LogScl(power, MEAN=0.45), $

> position=[0.1, 0.1, 0.9, 0.75], /erase
> colorbar, range=[min(power), Max(power)], $
> division=4, format='(f0.2)'
>
> ctload, 4, /brewer, /reverse
> window, 1, xsize=500, ysize=500, Title='Normal Display'
> TVImage, BytScl(power), position=[0.1, 0.1, 0.9, 0.75], /erase
> colorbar, range=[min(power), Max(power)], $
> division=4, format='(f0.2)'
> END
> ;** **
>
> Here are the results from running this program:
>
> http://www.dfanning.com/misc/logscl.png

Hi David,
it looks like two different color tables have been used for the two
images:
the one on the left looks more green and the one on the right looks
more blue.
This makes it harder to see what is really going on.

I tried your commands with black and white colors, but the bar looks
then identical in both plots...

Ciao,
Paolo

>
> 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.")