Subject: log scale colorbar in IDL 8.0
Posted by Kim on Tue, 17 May 2011 20:25:09 GMT
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Hello,

I have just started using the new graphics routines in IDL 8.0/8.1 and am trying to incorporate them into an extensive set of customized plotting and image type routines. I am able to use the IMAGE function to display some log-normally distributed data, however I am unable to create a colorbar that reflects the log-transformed data.

Here is a simplified example:
; Read the data array
; Convert the scaled float array (using ALOG10) to a byte array
im = IMAGE(bytedata)
cb =
COLORBAR(target=im,tickvalues=[0.01,0.03,0.1,0.3,1.0,3.0,10. 0,30.0],tickname=['.
01','.03','.1','.3','1','3','10','30'], title='Log Data')

Some specific questions:
1) How do you scale the color bar so that it reflects the scaled data?
2) If tickvalues are supplied, can you also input ticknames? In the above example, the supplied ticknames are not used and instead the ticknames are derived from the tickvalues. The only way I have been able to use the ticknames is to remove the tickvalues keyword.
3) Is it possible to set minimum and maximum color or value ranges? For example, in one of my commonly used rgb_tables, the 0 value is black and above 250 are various shades of gray. How do I set it so that mincolor=1 and maxcolor=250?
4) Is it possible to create a colorbar that is independent of some specified data? It would be very useful to be able to create a colorbar just using a user supplied data range instead of being directly linked to a specfic data field. There are times when I need to create stand alone colorbars and I can't figure out how to do this with the COLORBAR function.

Thank you for your assistance,
Kim