Subject: Re: log scale of data coloring of IDLgrVolume object, not the axes
Posted by tbowers0 on Sat, 09 Feb 2002 02:26:36 GMT
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"1" <j@msn.com> wrote in message news:<a40v84$h4k$1@ra.nrl.navy.mil>...
> David Fanning <david@dfanning.com> wrote in message
>>
>> HColorbar isn't designed for log scales, of course,
>> but I think it is just a matter of passing it a

Ahhh, but it can! (with some foolin' around) After much ballyhooing
with the LOG keyword to the textAxis in Hcolorbar (an IDLgrAxis) and
giving that up, I found a workaround with a lotta help from Martin
Shultz's logLevels fn.

```
oColorBar = Obj_New('HColorBar', $
 Palette=oColorPalette, $
 Range=cbarRange, $
 Title=colorBarTitle, $
 Position=[cbBottomLeft[0], cbBottomLeft[1], $
   cbTopRight[0], cbTopRight[1]], $
 COLOR=axisColor)

if (keyword_set(log)) then begin
 ;//must alter the colorbar's text.
 ;  logLevels() fn. defaults to .1 if I don't set
 ;  it explicitly, too hi for me
 if (cbarRange[0] le 0.0) then minLogVal = 0.01 $
  else minLogVal = cbarRange[0]
 maxLogVal = cbarRange[1]

 ;get my string of log values, and formatted nicely too
 logtext = strtrim(string(logLevels(MIN=minLogVal, MAX=maxLogVal,
/fine), FORMAT='(f10.2)'), 2)

 ;//only show the decades, not the in-betweeners
 idx = where((indgen(n_elements(logtext)) mod 3) eq 0, count)
 if (count gt 0) then begin
  temp = reverse(logtext)
  temp[1:*] = ""  ;keep the last entry, set rest to ''
  temp = reverse(temp)
  temp[idx] = logtext[idx]
  logtext = temp
 endif

 ;//set new properties
 oColorBar->setProperty, MAJOR=n_elements(logtext)
 oColorBar->getProperty, TEXT=oAxisText
```

```
 oAxisText->setProperty, STRINGS=logtext
endif
```

Viola! The only problem is that the scale actually only goes up to maxLogVal, the pretty logged values returned by logLevels(), not my actual max of my data. Eg data ranges [0,65], the axis text will look like

```
 0.01       0.10       1.00       10.00 50.00
```

when it should be something like

```
 0.01       0.10       1.00       10.00  65.00
```

The short-spacing and misalignment at the end is intentional. I can't just replace the 50 at the end with 65, because 65 > 50 so it's spacing from the value to its left (10.00) should be a bit more than for 50.00. The next even spaced entry would, of course, be 100.00. Any takers on a solution?

Maybe Dave will add a LOG keyword and slap this code in so's I won't have to copy it into every program that I'll use it.;)

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