Subject: Colorbar with Color levels different than ticklevels
Posted by newbie16 on Tue, 07 Feb 2006 19:26:24 GMT
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Hi Everyone:

Like the subject heading suggests, I am trying to have a colour bar inserted with a smooth transistion of colours (about 60) from the min to max values. However, I only want the tickmarks to occur evenly spaced on ten levels. I must be missing something simple here, but for the life of me I can't figure it out....

Changing divisions makes a mess.
I can get a colour bar with only ten colours fine, but doesn't show what I need.

Hmmm....

Any help is greatly appreciated.

Cheers,

Tyler

Below is the relevant code I am using:

```
;       Must define the levels used for contours
        nlev = 10  ; Total number of contours
        lev = nlev - 2  ; For the contours which are plotted
                        ; -2 b/c MAX and MIN are not plotted
        cont_lev  = lev + 1  ; For the colour bar "tickmarks"
                  ; cont_lev = the number of INTERVALS

;       Label all values except the max & min using vector of 1's
        label_tmp = replicate(0,lev)    ; change 0 to 1 for labels
        g_labels  = [0, label_tmp, 0]

;       Create vector for levels
        grv_tot = abs(grv_max) + abs(grv_min) ; b/c range (+) to (-)
        grv_int = grv_tot/(cont_lev)
        grv_lev = fltarr(nlev,/no)
        grv_lev = indgen(nlev)*grv_int + grv_min

;       Test that the contour levels are correct
        print, '-----------------------------------------'
        print, 'The minimum gravity value is:', grv_min
        print, 'The maximum gravity value is:', grv_max
        print, ''
```

```
        print,'The contour intervals are:'
        for j = 0L,9L do begin
           print, grv_lev(j), g_labels(j)
        endfor
        print, '-------------------------------------------'


;       Now must define num_colours for the shading between contours
        nc_lev  =  60   ;  The number of gravity contours
        num_colours =  nc_lev - 1   ;  The number of colour intervals
        col_int   =  (abs(grv_max) + abs(grv_min)) / (num_colours)
        col_lev  =  findgen(nc_lev) * col_int + grv_min

        bott      = 35  ; Starting colour value out of 255
        c_colours = findgen(nc_lev) * 220/nc_lev + bott

;       load the colour table (rainbow here)
 loadct, 13

;       Plot the gravity colours using c_colours and col_lev
        contour, NEW_GRAVITY, NEW_X_ARRAY, NEW_Y_ARRAY,$
          levels = col_lev, c_colors=c_colours, $
          /FILL, /OVERPLOT

;       Overplot the ten contours using g_lables and grv_lev
        contour, NEW_GRAVITY, NEW_X_ARRAY, NEW_Y_ARRAY,$
          levels = grv_lev, c_labels=g_labels, c_colors=1,$
          /OVERPLOT

;       Place colourbar below the figure
        colorbar, ncolors=num_colours,title='microgals',$
          position=[0.1, 0.1, 0.9, 0.14], divisions=cont_lev, $
          range=[min(grv),max(grv)], FORMAT='(F6.1)'
```