Subject: Re: Add a colorbar in a filled contour
Posted by ben.bighair on Wed, 25 Jun 2008 12:54:16 GMT
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On Jun 25, 5:01 am, "dux...@gmail.com" <dux...@gmail.com> wrote:
> Dear all,
>
> I am using D Fanning's colorbar routine.
> But I have some questions about the corresponding value for each
> color.
>
> For example,
>
> A=DIS(31,41)
> DEVICE, DECOMPOSED=0
> LOADCT, 5, NCOLORS=100
> CONTOUR, A, POSITION=[0.15, 0.15, 0.95, 0.75], $
> C_COLORS=INDGEN(100), NLEVELS=100, /FILLl
>
> For min(A)=0 and max(A)=25, the color with index '0' should present
> the value '0' and the color with index '99' should present the value
> '25'.
> Therefore, when I use the COLORBAR routine, the keywords RANGE should
> be given.
> COLORBAR, NCOLORS=100, POSITION=[0.15, 0.85, 0.95, 0.90],
> RANGE=[min(A), max(A)]
> Is it right?
>
> If the minimum or maximum of the array has a floating-point value like
> 3.24, is the above command to add the colorbas still right?
>

Hi,

I think you'll be OK, although you should see David's article on specifying the contour levels manually (http://dfanning.com/tips/nlevels.html). Also, you will want to control the tick value format as Colorbar's default is to label the tick values as integers.

I realize that you have posted a simple example, but I wonder about the purpose of a filled contour image with 100 levels. As a display technique will that be much different from simply using David's TVSCALE (or Liam Gumley's IMDISP) to show the array scaled into the color indices 0-100?

Anyway, here is your example modified to scale the data 0-3.24 with a colorbar.

Cheers,
Ben

```
A=DIST(31,41)
minA = MIN(A, MAX = maxA)
A = (A-minA)/(maxA-MinA) * 3.24  ;rescale to the range 0.0 - 3.24
DEVICE, DECOMPOSED=0
LOADCT, 5, NCOLORS=100
CONTOUR, A, POSITION=[0.15, 0.15, 0.95, 0.75],$
  C_COLORS = INDGEN(100), NLEVELS = 100, /FILL
COLORBAR, NCOLORS=100, POSITION=[0.15, 0.85, 0.95, 0.90], $
  RANGE=[min(A), max(A)], FORMAT = '(F0.2)'
```

Subject: Re: Add a colorbar in a filled contour
Posted by duxiyu@gmail.com on Fri, 27 Jun 2008 03:44:57 GMT
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Thanks for your reply.
It is very helpful.

Cheers,
Du Jian

On Jun 25, 8:54 pm, "ben.bighair" <ben.bigh...@gmail.com> wrote:
> On Jun 25, 5:01 am, "dux...@gmail.com" <dux...@gmail.com> wrote:
>
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> Ben
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> minA = MIN(A, MAX = maxA)
> A = (A-minA)/(maxA-MinA) * 3.24 ;rescale to the range 0.0 - 3.24
> DEVICE, DECOMPOSED=0
> LOADCT, 5, NCOLORS=100
> CONTOUR, A, POSITION=[0.15, 0.15, 0.95, 0.75],$
> C_COLORS = INDGEN(100), NLEVELS = 100, /FILLCOLORBAR, NCOLORS=100,
POSITION=[0.15, 0.85, 0.95, 0.90], $
> RANGE=[min(A), max(A)], FORMAT = '(F0.2)'