
Subject: Re: David's TVSCALE

Posted by [David Fanning](#) on Sun, 09 Sep 2007 20:05:31 GMT

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maye writes:

- > David's TVSCALE and TVIMAGE programs nicely calculate the positions
- > required for multiplots (using !p.multi), but I would like to control
- > the output-size per assigned space in the multiplot window.
- > Example:
- > If I set
- > !p.multi=[0,2,2]
- > so that I have 4 subframes to fill, I would like to tell TVSCALE (or
- > TVIMAGE), that it should not use the whole of that quarter window, but
- > only the lower 80% or so of it, so that I have space to put a colorbar
- > on top of each subframes.
- > But the position keyword of TVSCALE seems to be ignored for
- > multiplots?
- > So how could I do it? I basically would like 4 subframes each having
- > their own colorbar on top of the displayed image.

This is called wanting to have your cake and eat it, too.
Generally speaking, it is not allowed in life OR in IDL. :-)

For four frames, you could probably figure out the math you need to draw the plots directly in your head, but if not, I suppose you could modify TVSCALE itself. The way it is made to work with !P.MULTI is that draws an "invisible" plot to get the "position" coordinates where the image is suppose to go. You could certainly change those position coordinates to suit yourself and leave room for a colorbar that you would insert into the code at this location, too.

I'd do it for you, except then I would have to worry about *where* you wanted to put the darn colorbar, etc.

And, as I say, calculating the position coordinates for just four frames seems so simple that it doesn't seem worth the work it would take to do it.

If all the colors are the same, another alternative is one colorbar below all the images. You could use the ![XY].OMARGIN system variables to leave room for this color bar.

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.")

Subject: Re: David's TVSCALE

Posted by [David Fanning](#) on Mon, 10 Sep 2007 01:37:01 GMT

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maye writes:

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> But the position keyword of TVSCALE seems to be ignored for
> multiplots?
> So how could I do it? I basically would like 4 subframes each having
> their own colorbar on top of the displayed image.

Alright, in an ongoing effort to keep TVIMAGE and TVSCALE
as the number one TV replacements in the IDL universe,
I have added the ability to do what you want to do here.

Now, if you use the POSITION keyword with either TVIMAGE
or TVSCALE, and you are displaying images with !P.MULTI,
the POSITION keyword will position the image with respect
to the "window" specified for the image by !P.MULTI. (Since
no one in their right mind would be using the POSITION
keyword and !P.MULTI together, I figure this won't affect
anyone currently using the TVIMAGE command.)

So, to put four images and associated colorbars into a
window with !P.MULTI, you would write code something
like this:

```
*****  
,  
  image = Dist(200)  
  !P.Multi=[0,2,2]  
  p = [0.02, 0.3, 0.98, 0.98]  
  LoadCT, 0
```

```

TVImage, image, Position=p
Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
p = [0.02, 0.3, 0.98, 0.98]
LoadCT, 5
TVImage, image, Position=p
Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
p = [0.02, 0.3, 0.98, 0.98]
LoadCT, 2
TVImage, image, Position=p
Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
p = [0.02, 0.3, 0.98, 0.98]
LoadCT, 3
TVImage, image, Position=p
Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
!P.Multi = 0
*****
,

```

You can find the updated programs here:

<http://www.dfanning.com/programs/tvimage.pro>
<http://www.dfanning.com/programs/tvscale.pro>

Cheers,

David

--

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Subject: Re: David's TVSCALE
 Posted by [mayer](#) on Thu, 04 Oct 2007 22:31:31 GMT
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On Sep 10, 3:37 am, David Fanning <n...@dfanning.com> wrote:

```

> maye writes:
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>> Example:
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>> on top of each subframes.
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> Now, if you use the POSITION keyword with either TVIMAGE
> or TVSCALE, and you are displaying images with !P.MULTI,
> the POSITION keyword will position the image with respect
> to the "window" specified for the image by !P.MULTI. (Since
> no one in their right mind would be using the POSITION
> keyword and !P.MULTI together, I figure this won't affect
> anyone currently using the TVIMAGE command.)

>
> So, to put four images and associated colorbars into a
> window with !P.MULTI, you would write code something
> like this:

>
> *****
> ,
> image = Dist(200)
> !P.Multi=[0,2,2]
> p = [0.02, 0.3, 0.98, 0.98]
> LoadCT, 0
> TVImage, image, Position=p
> Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
> p = [0.02, 0.3, 0.98, 0.98]
> LoadCT, 5
> TVImage, image, Position=p
> Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
> p = [0.02, 0.3, 0.98, 0.98]
> LoadCT, 2
> TVImage, image, Position=p
> Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
> p = [0.02, 0.3, 0.98, 0.98]
> LoadCT, 3
> TVImage, image, Position=p
> Colorbar, Position=[p[0], p[1]-0.1, p[2], p[1]-0.05]
> !P.Multi = 0
> *****
> ,
>

> You can find the updated programs here:

>
> <http://www.dfanning.com/programs/tvimage.pro>
> <http://www.dfanning.com/programs/tvscale.pro>

>
> 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.")

Great! Haven't tried it yet, was busy and on travel with the Dawn Launch, that's why I didn't give feedback, but I'm sure you did the right thing. ;)

As always, many thanks and I will try it the next days.

Michael
