
Subject: Contour labels not aligned with contours

Posted by [Sir Loin Steak](#) on Thu, 08 May 2014 18:58:46 GMT

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Hi all,

Has anyone encountered a problem before where the contour labels are not aligned with the spaces left in the actual contours? It has been happening to me for the past few weeks, but I can't think that anything has changed with my system.

The problem only occurs when outputting to a postscript file which has different x and y lengths. I've put a couple of examples here: http://physics.open.ac.uk/~lsteele/contour_label.png

As can be seen in the top plot, the labels on the vertical line sections aren't centered on the contour as they are in the bottom plot. Does anyone know if this can be amended?

The test code I used for each plot is:

```
x = sin(findgen(50)/49!*pi)*5
y = cos(findgen(50)/49!*pi/2)*5
array = x#y

set_plot, 'ps'
!p.font=0
device, /encap, xsize=10, ysize=4, /inches, filename='test.eps'
pos = cglayout([1,1])

clevels = findgen(13)*2
contour, array, findgen(50), findgen(50), levels=clevels, $
    c_label=intarr(26)+1, c_charsize=0.5, color=cgcolor('black')
device, /close
```

with the xsize being changed from 10 to 4 for the bottom plot.

Cheers,

Liam

Subject: Re: Contour labels not aligned with contours

Posted by [David Fanning](#) on Thu, 08 May 2014 19:23:17 GMT

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ljs15@fsmail.net writes:

> Has anyone encountered a problem before where the contour labels are not aligned with the spaces left in the actual contours? It has been happening to me for the past few weeks, but I can't think that anything has changed with my system.

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> The problem only occurs when outputting to a postscript file which has different x and y lengths.
I've put a couple of examples here: http://physics.open.ac.uk/~lsteel/contour_label.png
>
> As can be seen in the top plot, the labels on the vertical line sections aren't centered on the
contour as they are in the bottom plot. Does anyone know if this can be amended?

I think you had something else going on when you created the top figure.
Try exiting IDL (or doing a .reset), then running the code again.

Let us know. :-)

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Contour labels not aligned with contours
Posted by [Sir Loin Steak](#) on Thu, 08 May 2014 20:19:26 GMT
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On Thursday, 8 May 2014 20:23:17 UTC+1, David Fanning wrote:

> ljs15@fsmail.net writes:
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>
>> Has anyone encountered a problem before where the contour labels are not aligned with the
spaces left in the actual contours? It has been happening to me for the past few weeks, but I can't
think that anything has changed with my system.
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> Let us know. :-)
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> Cheers,
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> David
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> --
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> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
>
> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
>
> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

I thought it might be a problem with something I'd done previously, so I did exit IDL and then plotted the two pictures after logging in again, one after the other (I did each twice, i.e. the 10x4 inch image, then 4x4, then 10x4 then 4x4). Each time, only the labels in the 4x4 image were centred. :-S

Subject: Re: Contour labels not aligned with contours
Posted by [David Fanning](#) on Thu, 08 May 2014 20:51:45 GMT
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ljs15@fsmail.net writes:

> I thought it might be a problem with something I'd done previously, so I did exit IDL and then plotted the two pictures after logging in again, one after the other (I did each twice, i.e. the 10x4 inch image, then 4x4, then 10x4 then 4x4). Each time, only the labels in the 4x4 image were centred.

Humm. Weird. Doesn't happen like that for me. What version of IDL are you using? On what machine?

Cheers,

David

--

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Subject: Re: Contour labels not aligned with contours
Posted by [Sir Loin Steak](#) on Fri, 09 May 2014 09:19:17 GMT
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Right, I've done some more investigating...

The problem seems to be related to the character size used to label the contour labels. I've done two more test plots, using the code below. The results are here:
http://physics.open.ac.uk/~lsteele/contour_test.png

In the first plot I set `c_charsize=0.2`, while in the second plot I set `c_charsize=0.5`. As you can see, the labels look ok in the second plot, but are not aligned with the contours in the first plot.

The problem is, I need to produce the eps plot for a journal article, and it needs to be output in the correct size (in this case 2.5 inches square). As such, I have to use small `c_charsize` values to make the labels legible, and not cover up any shading which is plotted underneath the contours.

Does anyone know of a way around this?

Cheers,

Liam

Test code:

```
x = sin(findgen(50)/49!*pi)*5
y = cos(findgen(50)/49!*pi/2)*5
array = x#y
```

```
set_plot, 'ps'
!p.font=0
device, /encap, xsize=2.5, ysize=2.5, /inches, filename='test.eps'
pos = cglayout([1,1], oxmargin=[3,1], oymargin=[2,1])
```

```
clevels = findgen(13)*2
contour, array, findgen(50), findgen(50), levels=clevels, $
```

```
c_label=intarr(13)+1, charsize=0.6, c_charsize=0.2, $  
color=cgcolor('black'), position=pos[:,0]
```

```
device, /close
```

Subject: Re: Contour labels not aligned with contours
Posted by [Sir Loin Steak](#) on Fri, 09 May 2014 09:21:19 GMT
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On Friday, 9 May 2014 10:19:17 UTC+1, [lj...@fsmail.net](#) wrote:

> Right, I've done some more investigating...

>

>

>

>

> The problem seems to be related to the character size used to label the contour labels. I've done two more test plots, using the code below. The results are here:

http://physics.open.ac.uk/~lsteele/contour_test.png

>

>

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> Does anyone know of a way around this?

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> Cheers,

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> Liam

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> Test code:

>

>

>

```

> x = sin(findgen(50)/49!*pi)*5
>
> y = cos(findgen(50)/49!*pi/2)*5
>
> array = x#y
>
>
>
> set_plot, 'ps'
>
> !p.font=0
>
> device, /encap, xsize=2.5, ysize=2.5, /inches, filename='test.eps'
>
> pos = cglayout([1,1], oxmargin=[3,1], oymargin=[2,1])
>
>
>
> clevels = findgen(13)*2
>
> contour, array, findgen(50), findgen(50), levels=clevels, $
>
>     c_label=intarr(13)+1, charsize=0.6, c_ysize=0.2, $
>
>     color=cgcolor('black'), position=pos[:,0]
>
>
>
> device, /close

```

Oh, and I've tested this using IDL 7.0 and 8.2, and it happens in both versions.

Subject: Re: Contour labels not aligned with contours
 Posted by [David Fanning](#) on Fri, 09 May 2014 13:06:15 GMT
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ljs15@fsmail.net writes:

```

> The problem seems to be related to the character size used to label the contour labels. I've
done two more test plots, using the code below. The results are here:
http://physics.open.ac.uk/~lsteale/contour_test.png
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> In the first plot I set c_ysize=0.2, while in the second plot I set c_ysize=0.5. As you can
see, the labels look ok in the second plot, but are not aligned with the contours in the first plot.
>
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the correct size (in this case 2.5 inches square). As such, I have to use small c_ysize values to

```

make the labels legible, and not cover up any shading which is plotted underneath the contours.
>
> Does anyone know of a way around this?

If it were me, I would produce the graphic in a normal size, using normal values for character size, etc. Then I would tell the idiots at the journal to get their act together and do some reading up on PostScript files. They can make the damn thing any size they want. Why are they making you do all the work, for God's sake! :-)

Cheers,

David

--

David Fanning, Ph.D.

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Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Contour labels not aligned with contours
Posted by [Sir Loin Steak](#) on Fri, 09 May 2014 15:32:21 GMT
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On Friday, 9 May 2014 14:06:15 UTC+1, David Fanning wrote:

> ljs15@fsmail.net writes:

>

>

>

>> The problem seems to be related to the character size used to label the contour labels. I've done two more test plots, using the code below. The results are here:
http://physics.open.ac.uk/~lsteele/contour_test.png

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> Sepore ma de ni thue. ("Perhaps thou speakest truth.")

That is indeed what I have resorted to doing! (I just doubled the page size, character size etc.) It still seems strange that IDL won't align the labels nicely when using a small c_label size. Ah well!
