
Subject: Re: SURFACE layout details

Posted by [David Fanning](#) on Mon, 21 Jan 2008 19:33:24 GMT

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Paula writes:

> i have two doubts concerning layout cosmetics in a SURFACE plot:
>
> 1) can i have axis in black but wire-mesh surface lines in, say, grey?
> if i change the COLOR parameter both axis and surface change
> together...

```
IDL> surface, dist(200), color=fsc_color('black'), /nodata, $  
      background=fsc_color('white')  
IDL> surface, dist(200), color=fsc_color('gray'), xstyle=4, $  
      ystyle=4, zstyle=4, /noerase
```

> 2) can i have the tick labels shown as in a normal 2D plot? i mean,
> the characters not "distorted" to the 3D space? 'cause i think the 3D
> projection compromise the legibility of the axis in a PS file.

Say what!? Are you using PostScript fonts? Better show us
how you are doing this. :-)

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: SURFACE layout details

Posted by [Bob\[3\]](#) on Mon, 21 Jan 2008 20:34:31 GMT

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On Jan 21, 2:33 pm, David Fanning <n...@dfanning.com> wrote:

> Paula writes:
>> i have two doubts concerning layout cosmetics in a SURFACE plot:
>
>> 1) can i have axis in black but wire-mesh surface lines in, say, grey?
>> if i change the COLOR parameter both axis and surface change
>> together...
>
> IDL> surface, dist(200), color=fsc_color('black'), /nodata, \$
> background=fsc_color('white')

```
> IDL> surface, dist(200), color=fsc_color('gray'), xstyle=4, $  
> ystyle=4, zstyle=4, /noerase  
>
```

David,

I tried to address Paula's 1) by using the SHADES keyword (adapting your response):

```
IDL> shades=INTARR(200,200)+fsc_color('gray')  
IDL> surface, dist(200), color=fsc_color('black'), shades=shades,  
background=fsc_color('white')
```

but the wireframe comes out red.

Am I misusing fsc_color or shades?

Subject: Re: SURFACE layout details
Posted by [David Fanning](#) on Mon, 21 Jan 2008 20:47:26 GMT
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Bob Crawford writes:

```
> I tried to address Paula's 1) by using the SHADES keyword (adapting  
> your response):  
>  
> IDL> shades=INTARR(200,200)+fsc_color('gray')  
> IDL> surface, dist(200), color=3Dfsc_color('black'), shades=3Dshades,  
> background=fsc_color('white')  
>  
> but the wireframe comes out red.  
>  
> Am I misusing fsc_color or shades?
```

Well, SHADES is going to force you to have to use INDEXED color, rather than the DECOMPOSED color you are using now. This would work:

```
IDL> Device, DECOMPOSED=0, GET_DECOMPOSED=theState  
IDL> shades=INTARR(200,200)+fsc_color('gray')  
IDL> surface, dist(200),color=fsc_color('black'), $  
shades=shades, background=fsc_color('white')  
IDL> Device, DECOMPOSED=theState
```

Cheers,

David

--

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Subject: Re: SURFACE layout details
Posted by [paulartcoelho](#) on Mon, 21 Jan 2008 21:19:38 GMT
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Thanks David & Bob for such quick answers to my 1).

>> 2) can i have the tick labels shown as in a normal 2D plot? i mean,
>> the characters not "distorted" to the 3D space? 'cause i think the >3D
>> projection compromise the legibility of the axis in a PS file.
>
> Say what!? Are you using PostScript fonts? Better show us
> how you are doing this. :-)

my "mis-explanation". nope, i'm not using PS fonts! i'm using the
hershey fonts, but sending the plot to a PS file (to easily import
things in latex stuff y'know...). the hershey fonts come ok in the
screen, but not legible in the PS output.

cheers,
p.

Subject: Re: SURFACE layout details
Posted by [Bob\[3\]](#) on Mon, 21 Jan 2008 21:21:31 GMT
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On Jan 21, 3:47 pm, David Fanning <n...@dfanning.com> wrote:

> Bob Crawford writes:
>> I tried to address Paula's 1) by using the SHADES keyword (adapting
>> your response):
>
>> IDL> shades=INTARR(200,200)+fsc_color('gray')
>> IDL> surface, dist(200), color=3Dfsc_color('black'), shades=3Dshades,
>> background=fsc_color('white')
>
>> but the wireframe comes out red.
>
>> Am I misusing fsc_color or shades?
>

> Well, SHADES is going to force you to have to use INDEXED
> color, rather than the DECOMPOSED color you are using now.
> This would work:
>
> IDL> Device, DECOMPOSED=0, GET_DECOMPOSED=theState
> IDL> shades=INTARR(200,200)+fsc_color('gray')
> IDL> surface, dist(200),color=fsc_color('black'), \$
> shades=shades, background=fsc_color('white')
> IDL> Device, DECOMPOSED=theState

I should've remembered - when you see red, think decomposed!

Thank you David!

Subject: Re: SURFACE layout details
Posted by [David Fanning](#) on Mon, 21 Jan 2008 22:35:43 GMT
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Paula writes:

> my "mis-explanation". nope, i'm not using PS fonts! i'm using the
> hershey fonts, but sending the plot to a PS file (to easily import
> things in latex stuff y'know...). the hershey fonts come ok in the
> screen, but not legible in the PS output.

Well, I would try it with true-type fonts:

```
Device, Set_Font='Times', /TT_Font
setup = PSConfig(/NoGUI)
thisDevice = !D.Name
Set_Plot, 'PS'
Device, _EXTRA=setup
Surface, dist(64), Font=1, Charsize=2.0
Device, /Close
Set_Plot, thisDevice
```

Cheers,

David

--

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

Subject: Re: SURFACE layout details

Posted by [paulartcoelho](#) on Tue, 22 Jan 2008 10:04:57 GMT

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```
> Device, Set_Font='Times', /TT_Font
> setup = PSConfig(/NoGUI)
> thisDevice = !D.Name
> Set_Plot, 'PS'
> Device, _EXTRA=setup
> Surface, dist(64), Font=1, Charsize=2.0
> Device, /Close
> Set_Plot, thisDevice
```

thank you david!

Subject: Re: SURFACE layout details

Posted by [Paul Van Delst\[1\]](#) on Tue, 22 Jan 2008 17:09:05 GMT

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Paula wrote:

```
>> Device, Set_Font='Times', /TT_Font
>> setup = PSConfig(/NoGUI)
>> thisDevice = !D.Name
>> Set_Plot, 'PS'
>> Device, _EXTRA=setup
>> Surface, dist(64), Font=1, Charsize=2.0
>> Device, /Close
>> Set_Plot, thisDevice
>
> thank you david!
```

I agree using TT fonts (along with a larger charsize value) increases the legibility of the axes labels for a surface plot, but it sure would be nice to be able to make them appear as in a 2D plot (as the OP originally requested) - one could then still use charsize=1.0 and retain more display space for the plot.

cheers,

paul "charsize=3.0" v

Subject: Re: SURFACE layout details

Posted by [David Fanning](#) on Tue, 22 Jan 2008 19:38:24 GMT

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Paul van Delst writes:

- > I agree using TT fonts (along with a larger charsize value) increases the legibility of
- > the axes labels for a surface plot, but it sure would be nice to be able to make them
- > appear as in a 2D plot (as the OP originally requested) - one could then still use
- > charsize=1.0 and retain more display space for the plot.

Well, I always position graphics with the POSITION keyword, so CHARSIZE doesn't affect the location of the plot. Who thought plot margins based on character size was a good idea, though?

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: SURFACE layout details

Posted by [paulartcoelho](#) on Sun, 27 Jan 2008 09:55:24 GMT

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not sure if it's worth the trouble, but i still would like to try a bit more to have the labels without any 3D projection, as in a 2D plot. is there a "smart" way of doing that with the AXIS procedure, or i'd have to do it "manually" labeling each tick with XYOUTS? (argh! :))
