

---

Subject: Re: Colorbar with fixed level and color  
Posted by [David Fanning](#) on Fri, 14 Sep 2012 12:12:48 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Rosie writes:

```
>  
> Hello,  
>  
> I have created contour plot with following color and levels  
>  
> loadct,39  
> nl=21; nl,number of level  
> color=(findgen(nl+1)*10)+50  
> level=findgen(nl)*.5-5  
>  
> Would anyone kindly tell how to plot colorbar with this specification.
```

Well, those specifications don't make too much sense, since there is no "color" at index 260. But, what I *think* you are trying to do is something like this:

```
cgLoadCT, 39, Clip=[50,254], NColors=20, Bottom=1  
cgColorBar, NColors=20, Bottom=1, /Discrete, $  
    Range=[Min(level),Max(level)], Charsize=0.75
```

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: Colorbar with fixed level and color  
Posted by [Rosie](#) on Fri, 14 Sep 2012 12:53:06 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Friday, September 14, 2012 1:13:04 PM UTC+1, David Fanning wrote:

```
> Rosie writes:  
>  
>  
>  
>>  
>  
>> Hello,
```

```
>
>>
>
>> I have created contour plot with following color and levels
>
>>
>
>> loadct,39
>
>> nl=21;  nl,number of level
>
>> color=(findgen(nl+1)*10)+50
>
>> level=findgen(nl)*.5-5
>
>>
>
>> Would anyone kindly tell how to plot colorbar with this specification.
>
>
>
> Well, those specifications don't make too much sense, since
>
> there is no "color" at index 260. But, what I *think* you
>
> are trying to do is something like this:
>
>
>
> cgLoadCT, 39, Clip=[50,254], NColors=20, Bottom=1
>
> cgColorBar, NColors=20, Bottom=1, /Discrete, $
>
>   Range=[Min(level),Max(level)], Charsize=0.75
>
>
>
> Cheers,
>
>
>
> David
>
> --
>
> David Fanning, Ph.D.
>
> Fanning Software Consulting, Inc.
```

>  
> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
>  
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Thanks a lot, David. It worked !  
Regards,

---

---

Subject: Re: Colorbar with fixed level and color  
Posted by [Rosie](#) on Fri, 14 Sep 2012 13:12:26 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Friday, September 14, 2012 1:53:07 PM UTC+1, Rosie wrote:  
> On Friday, September 14, 2012 1:13:04 PM UTC+1, David Fanning wrote:  
>  
>> Rosie writes:  
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>>>  
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>  
>>> Hello,  
>  
>>  
>  
>>>  
>  
>>  
>  
>>> I have created contour plot with following color and levels  
>  
>>  
>  
>>>  
>  
>>  
>  
>>> loadct,39  
>  
>>  
>

```

>>> nl=21;  nl,number of level
>
>>
>
>>> color=(findgen(nl+1)*10)+50
>
>>
>
>>> level=findgen(nl)*.5-5
>
>>
>
>>>
>
>>
>
>>> Would anyone kindly tell how to plot colorbar with this specification.
>
>>
>
>>
>
>>
>
>> Well, those specifications don't make too much sense, since
>
>>
>
>> there is no "color" at index 260. But, what I *think* you
>
>>
>
>> are trying to do is something like this:
>
>>
>
>>
>
>>
>
>> cgLoadCT, 39, Clip=[50,254], NColors=20, Bottom=1
>
>>
>
>> cgColorBar, NColors=20, Bottom=1, /Discrete, $
>
>>
>

```

```

>> Range=[Min(level),Max(level)], Charsize=0.75
>
>>
>
>>
>
>>
>
>> Cheers,
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>>
>
>> David
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>> --
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>
>> David Fanning, Ph.D.
>
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>
>> Fanning Software Consulting, Inc.
>
>>
>
>> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
>
>>
>
>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
>
>
>
> Thanks a lot, David. It worked !
>
> Regards,
Few more questions:

```

- 1)Can I do less than -4 with < sign and more than +4 with > sign ?
- 2)Another problem is with green colour, they can hardly be differentiated.
- 3)I used the command division=10, minor=2. But it did not worked.

Regards,  
Rosie

---

---

Subject: Re: Colorbar with fixed level and color  
Posted by [David Fanning](#) on Fri, 14 Sep 2012 13:45:15 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Rosie writes:

- > Few more questions:
- >
- > 1) Can I do less than -4 with < sign and more than +4 with > sign ?
- > 2) Another problem is with green colour, they can hardly be differentiated.
- > 3) I used the command division=10, minor=2. But it did not work.

That color table is an ugly one. ;-)

I think I might try something like this:

```
nl=19; nl,number of level
level=findgen(nl)*.5-4.5
names = String(level, Format='(f0.1)')
names[[0,18]]=" "
names[Indgen(9)*2+1] = " "
names[0] = '<-4.5'
names[18] = '>4.5'
cgerase
cgLoadCT, 25, Clip=[50,254], NColors=18, Bottom=2, /Brewer
TVLCT, cgColor('red', /Triple), 1
TVLCT, cgColor('blue', /Triple), 20
cgColorBar, NColors=18, Bottom=2, Division=18, $
    Range=[Min(level),Max(level)], TickNames=names, $
    TickLen=1.0, OOB_Low=1, OOB_High=20
```

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

---

Subject: Re: Colorbar with fixed level and color  
Posted by [David Fanning](#) on Fri, 14 Sep 2012 13:49:07 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

David Fanning writes:

```
> cgLoadCT, 25, Clip=[50,254], NColors=18, Bottom=2, /Brewer
```

Whoops, no reason to clip this color table any more,  
if I am using a different color table. I'd change this  
to this:

```
cgLoadCT, 25, NColors=18, Bottom=2, /Brewer
```

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

---

---

Subject: Re: Colorbar with fixed level and color  
Posted by [David Fanning](#) on Fri, 14 Sep 2012 13:57:55 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Rosie,

You may prefer this color bar:

```
nl=19; nl,number of level  
level=findgen(nl)*.5-4.5  
names = String(level, Format='(f0.1)')  
names[[0,18]]=" "  
names[Indgen(9)*2+1] = " "  
names[0] = '<-4.5'  
names[18] = '>4.5'  
cgerase  
cgLoadCT, 25, NColors=20, Bottom=1, /Brewer  
cgColorBar, NColors=18, Bottom=2, Division=18, $  
    Range=[Min(level),Max(level)], TickNames=names, $  
    TickLen=1.0, OOB_Low=1, OOB_High=20
```

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

---

---

Subject: Re: Colorbar with fixed level and color

Posted by [Rosie](#) on Fri, 14 Sep 2012 15:13:12 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Friday, September 14, 2012 2:58:11 PM UTC+1, David Fanning wrote:

```
> Rosie,
>
>
>
> You may prefer this color bar:
>
>
>
> nl=19;  nl,number of level
>
> level=findgen(nl)*.5-4.5
>
> names = String(level, Format='(f0.1)')
>
> names[[0,18]]=" "
>
> names[Indgen(9)*2+1] = " "
>
> names[0] = '<-4.5'
>
> names[18] = '>4.5'
>
> cgerase
>
> cgLoadCT, 25, NColors=20, Bottom=1, /Brewer
>
> cgColorBar, NColors=18, Bottom=2, Division=18, $
>
>   Range=[Min(level),Max(level)], TickNames=names, $
>
>   TickLen=1.0, OOB_Low=1, OOB_High=20
>
```



>  
>  
> Cheers,  
>  
>  
>  
> David  
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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 thui. ("Perhaps thou speakest truth.")

Dear David,

Such a nice colour table !!  
Regards,

---

Subject: Re: Colorbar with fixed level and color  
Posted by [Rosie](#) on Sun, 16 Sep 2012 12:08:43 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Friday, September 14, 2012 4:13:13 PM UTC+1, Rosie wrote:  
> On Friday, September 14, 2012 2:58:11 PM UTC+1, David Fanning wrote:  
>  
>> Rosie,  
>  
>>  
>  
>>  
>  
>>  
>  
>> You may prefer this color bar:  
>  
>>

```

>
>>
>
>>
>
>> nl=19;  nl,number of level
>
>>
>
>> level=findgen(nl)*.5-4.5
>
>>
>
>> names = String(level, Format='(f0.1)')
>
>>
>
>> names[[0,18]]=" "
>
>>
>
>> names[Indgen(9)*2+1] = " "
>
>>
>
>> names[0] = '<-4.5'
>
>>
>
>> names[18] = '>4.5'
>
>>
>
>> cgerase
>
>>
>
>> cgLoadCT, 25, NColors=20, Bottom=1, /Brewer
>
>>
>
>> cgColorBar, NColors=18, Bottom=2, Division=18, $
>
>>
>
>>   Range=[Min(level),Max(level)], TickNames=names, $
>
>>

```

```
>
>> TickLen=1.0, OOB_Low=1, OOB_High=20
>
>>
>
>>
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>>
>
>> Cheers,
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>
>> David
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>> David Fanning, Ph.D.
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>
>> Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
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```

>  
>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")  
>  
>  
>  
> Dear David,  
>  
>  
>  
> Such a nice colour table !!  
>  
> Regards,

Dear David,

1.It is working in unix, though cgerase or other cg command is not working in windows environment. Also Brewer command seems not working in windows.

2.If I want to specify colorbar at bottom of contour plot, then I need to put position command on contour command as well as on colorbar command?

3.I want to draw smooth contouring of z1. Shall I put it as z1=smooth(z1,2) and then contour,z1?

4.I want to thicken the zero line.

5. For showing significant test, I put c\_orient=45. If I only want to see dot instead of hatching, can I do that?

Regards,  
Rosie

---

Subject: Re: Colorbar with fixed level and color  
Posted by [David Fanning](#) on Sun, 16 Sep 2012 22:43:45 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Rosie writes:

> 1.It is working in unix, though cgerase or other cg command  
> is not working in windows environment. Also Brewer command  
> seems not working in windows.

I spend my life working in a Windows environment, so I'm pretty sure the Coyote Graphics routines work there. :-)

It seems more likely to me that the Library hasn't been installed properly. Read the directions carefully:

[http://www.idlcoyote.com/code\\_tips/installcoyote.php](http://www.idlcoyote.com/code_tips/installcoyote.php)

What gives you the impression they don't work?

- > 2.If I want to specify colorbar at bottom of contour plot, then
- > I need to put position command on contour command as well
- > as on colorbar command?

Yes, if you need more space, you must position things accordingly.

- > 3.I want to draw smooth contouring of z1. Shall I put it as
- > z1=smooth(z1,2) and then contour,z1?

Smoothing will help, although the second parameter to Smooth must be at least a 3 to do any good. It should also be an odd number.

- > 4.I want to thicken the zero line.

You may have to draw this thicker after the fact. cgPlotS should work. You can use the usual ![XY].Window or ![XY].CRange system variables to work out where to draw.

- > 5. For showing significant test, I put c\_orient=45. If I only
- > want to see dot instead of hatching, can I do that?

I don't know off-hand. It has been 20 years or so since I have used fill patterns. And I'm off to staff a Poudre Wilderness Volunteers booth at a local fair today. But, I would investigate how to create fill patterns.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

---

Subject: Re: Colorbar with fixed level and color

Posted by [Rosie](#) on Mon, 17 Sep 2012 12:31:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Sunday, September 16, 2012 11:43:47 PM UTC+1, David Fanning wrote:

> Rosie writes:

>

>

>

>> 1.It is working in unix, though cgerase or other cg command

>

>> is not working in windows environment. Also Brewer command

>

>> seems not working in windows.

>

>

>

> I spend my life working in a Windows environment, so I'm

>

> pretty sure the Coyote Graphics routines work there. :-)

>

>

>

> It seems more likely to me that the Library hasn't been

>

> installed properly. Read the directions carefully:

>

>

>

> [http://www.idlcoyote.com/code\\_tips/installcoyote.php](http://www.idlcoyote.com/code_tips/installcoyote.php)

>

>

>

> What gives you the impression they don't work?

>

>

>

>> 2.If I want to specify colorbar at bottom of contour plot, then

>

>> I need to put position command on contour command as well

>

>> as on colorbar command?

>

>

>

> Yes, if you need more space, you must position things accordingly.

>

>

>

>> 3.I want to draw smooth contouring of z1. Shall I put it as

>  
>> z1=smooth(z1,2) and then contour,z1?  
>  
>  
>  
> Smoothing will help, although the second parameter to Smooth  
>  
> must be at least a 3 to do any good. It should also be an  
>  
> odd number.  
>  
>  
>  
>> 4.I want to thicken the zero line.  
>  
>  
>  
> You may have to draw this thicker after the fact. cgPlotS  
>  
> should work. You can use the usual ![XY].Window or ![XY].CRange  
>  
> system variables to work out where to draw.  
>  
>  
>  
>> 5. For showing significant test, I put c\_orient=45. If I only  
>  
>> want to see dot instead of hatching, can I do that?  
>  
>  
>  
> I don' know off-hand. It has been 20 years or so since I  
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> have used fill patterns. And I'm off to staff a Poudre  
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> Wilderness Volunteers booth at a local fair today. But,  
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> I would investigate how to create fill patterns.  
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> Cheers,  
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> David  
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> David Fanning, Ph.D.  
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> Fanning Software Consulting, Inc.  
>  
> Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
>  
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Dear David,

Thank you so much for all the information.

Though it ran perfectly alright in unix, but in windows it shows: 'attempt to call undefined procedure/function cgLoadct'. However, in windows when I put Loadct, it accepts the command. Do you think I should reinstall IDL?

Regards,

---

---

Subject: Re: Colorbar with fixed level and color  
Posted by [David Fanning](#) on Mon, 17 Sep 2012 12:37:33 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Rosie writes:

> Though it ran perfectly alright in unix, but in windows  
> it shows: 'attempt to call undefined procedure/function  
> cgLoadct'. However, in windows when I put Loadct, it  
> accepts the command. Do you think I should reinstall IDL?

No, I think you should download the most recent Coyote Library and somehow get it on your IDL path. :-)

Cheers,

David



--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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

---

---

Subject: Re: Colorbar with fixed level and color

Posted by [Rosie](#) on Mon, 06 May 2013 16:07:33 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Monday, September 17, 2012 1:37:34 PM UTC+1, David Fanning wrote:

> Rosie writes:

>

>

>

>> Though it ran perfectly alright in unix, but in windows

>

>> it shows: 'attempt to call undefined procedure/function

>

>> cgLoadct'. However, in windows when I put Loadct, it

>

>> accepts the command. Do you think I should reinstall IDL?

>

>

>

> No, I think you should download the most recent Coyote

>

> Library and somehow get it on your IDL path. :-)

>

>

>

> Cheers,

>

>

>

> David

>

>

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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 thui. ("Perhaps thou speakest truth.")

Dear David,

It is working perfect now. Here I have few queries:

1. To match color of zero level in contour to that with colour bar, I used following commands for my plot and it is working. But colours shift in blue direction in one step. I tried with 'bottom'=2 or =1 in both cases for colourbar and table, but it is not matching together.

```
nl=13  
level=(findgen(nl)*.5-3)  
colour=(findgen(nl+1))  
cgerase  
cgLoadCT, 24, NColors=14, Bottom=2, /Brewer,/reverse  
cgColorBar,NColors=14, bottom=1, Division=14
```

2. Can I simply make white on both sides of zero contour?

3. The colour you specified are really nice. But can I change those colours a bit, say for both blue or red can they be little lighter? or say can they be purple and orange?

Thanks and regards,

---