
Subject: A newbie question regarding 3D plotting
Posted by [mxfong2012](#) on Tue, 24 Sep 2013 23:24:50 GMT
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I would like to make a 3D plot like the one below:
https://docs.google.com/file/d/0B9P_kUabfW3WeElQVVVHMU9PUIE/edit?usp=sharing

Assuming that I have longitude data (1-D vector, lng(:)), latitude data (1-D vector, lat(:)), and value data over the longitude-latitude grid (2-D vector, value(:, :)), how can I make such a plot? Sample codes would be much more helpful.

Another related question: if not using a contour but filling each longitude-latitude mesh with a discrete color (like POLYFILL in 2-D plotting), how can I do that?

Thank you very much!

-Mike

Subject: Re: A newbie question regarding 3D plotting
Posted by [David Fanning](#) on Tue, 24 Sep 2013 23:30:07 GMT
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mxfong2012@gmail.com writes:

> I would like to make a 3D plot like the one below:
> https://docs.google.com/file/d/0B9P_kUabfW3WeElQVVVHMU9PUIE/edit?usp=sharing

I can't see the plot to know what you are talking about. Sorry.

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: A newbie question regarding 3D plotting
Posted by [David Fanning](#) on Tue, 24 Sep 2013 23:35:04 GMT
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David Fanning writes:

> I can't see the plot to know what you are talking about. Sorry.

Oh, wait. I had to log in. Now I see it. I think the easiest way to do that would be as a filled contour plot on an orthographic map projection.

Heading off to tennis. Maybe I can come up with an example later.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

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Subject: Re: A newbie question regarding 3D plotting
Posted by [mxfong2012](#) on Tue, 24 Sep 2013 23:47:13 GMT
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Sorry for the confusion. I did check the sharing setting with no sign-in required in Google Drive but don't know what happened to prevent you from an easy view. Anyway, glad that you can see the plot now.

It would be helpful if you can also show me in your example how to adjust the viewing angle. That is, it would be great if I can generate a 3-D plot viewed from the North Pole, or from the Sun.

Many thanks!

-Mike

> David Fanning writes:
> Oh, wait. I had to log in. Now I see it. I think the easiest way to do
>
> that would be as a filled contour plot on an orthographic map
>
> projection.
>
>
>
> Heading off to tennis. Maybe I can come up with an example later.
>
>

Subject: Re: A newbie question regarding 3D plotting
Posted by [David Fanning](#) on Wed, 25 Sep 2013 04:05:55 GMT
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mxsfong2012@gmail.com writes:

> It would be helpful if you can also show me in your example how to adjust the viewing angle.
That is, it would be great if I can generate a 3-D plot viewed from the North Pole, or from the Sun.

Well, these don't look like 3D plots to me. They look like 2D map projections. Perhaps you are thinking of a polar stereographic projections of the sort shown here:

<http://www.idlcoyote.com/gallery/index.html#POLARWIND>

Cheers,

David

--

David Fanning, Ph.D.

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